Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • www.asmfc.org

Spud Woodward (GA), Chair *Joe Cimino (NJ), Vice-Chair* *Robert E. Beal, Executive Director*

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEMORANDUM

Revised January 19, 2023

TO: Commissioners; Proxies; American Eel Management Board; American Lobster Management Board; Atlantic Herring Management Board; Atlantic Menhaden Management Board; Atlantic Striped Bass Management Board; Executive Committee; ISFMP Policy Board; Shad and River Herring Management Board; Spiny Dogfish Management Board; Winter Flounder Management Board

FROM: Robert E. Beal REB
Executive Director

RE: ASMFC Winter Meeting: January 31 - February 2, 2023 (TA 23-003)

The Atlantic States Marine Fisheries Commission's Winter Meeting will be January 31-February 2, 2023 at **The Westin Crystal City**, located at 1800 Richmond Highway, Arlington, VA. The room block is now closed; if you need assistance reserving a room, please contact Cindy Robertson at crobertson@asmfc.org. This will be a hybrid meeting to allow for remote participation by Commissioners and interested stakeholders in all meetings.

The final agenda and meeting materials for the Winter Meeting are now available at http://www.asmfc.org/home/2023-winter-meeting; click on the relevant Board/Committee name to access the documents for that Board/Committee. For ease of access, all meeting materials have been combined into one document: 2023 Winter Meeting Materials Combined. Supplemental materials will be available on Wednesday, January 25, 2023.

Webinar Information

Board meeting proceedings will be broadcast daily via webinar beginning Tuesday, January 31 at 9:30 a.m. and continuing daily until the conclusion of the meeting (expected to be 11:30 a.m.) on Thursday, February 2 5. To register for the webinar, please go to:
https://attendee.gotowebinar.com/register/6463339894285834846 (Webinar ID: 905-077-435).

If you are joining the webinar but will not be using voice over Internet protocol (VoIP), you can may also call in at 562.247.8321, access code 941-166-838. A PIN will be provided to you after joining the webinar; see webinar instructions for details on how to receive the PIN. For those who will not be joining the webinar but would like to listen in to the audio portion only, press the # key when asked for a PIN.

Meeting Process

In terms of meeting process, Board chairs will ask both in-person and virtual Board members if they wish to speak. In-person members can simply raise their hands at the meeting without logging on to the webinar, while virtual members will raise their hands on the webinar. The Chair will work with staff to compile the list

of speakers, balancing the flow of questions/comments between in-person and virtual attendees. The same process will be used for the public and interested stakeholders when the Board Chair provides an opportunity for public comment. Depending upon the number of commenters, the Board Chair will decide how to allocate the available time on the agenda (typically 10 minutes) to the number of people who want to speak.

Each day, the webinar will begin 15 minutes prior to the start of the first meeting so that people can troubleshoot any connectivity or audio issues they may encounter. If you are having issues with the webinar (connecting to or audio-related issues), please contact Chris Jacobs at 703.842.0790.

We look forward to seeing you at the Winter Meeting. If the staff or I can can provide any further assistance to you, please call us at 703.842.0740.

Enclosed: Final Agenda, Hotel Directions, TA 23-003, Travel Reimbursement Guidelines, and Webinar Instructions

Atlantic States Marine Fisheries Commission

Winter Meeting

January 31-February 2, 2023

The Westin Crystal City

Arlington, Virginia

Public Comment Guidelines

To provide a fair opportunity for public input, the ISFMP Policy Board has approved the following guidelines for use at management board meetings:

For issues that are not on the agenda, management boards will continue to provide opportunity to the public to bring matters of concern to the board's attention at the start of each board meeting. Board chairs will ask members of the public to raise their hands to let the chair know they would like to speak. Depending upon the number of commenters, the board chair will decide how to allocate the available time on the agenda (typically 10 minutes) to the number of people who want to speak.

For topics that are on the agenda, but have not gone out for public comment, board chairs will provide limited opportunity for comment, taking into account the time allotted on the agenda for the topic. Chairs will have flexibility in deciding how to allocate comment opportunities; this could include hearing one comment in favor and one in opposition until the chair is satisfied further comment will not provide additional insight to the board.

For agenda action items that have already gone out for public comment, it is the Policy Board's intent to end the occasional practice of allowing extensive and lengthy public comments. Currently, board chairs have the discretion to decide what public comment to allow in these circumstances.

In addition, the following timeline has been established for the **submission of written comment for issues for which the Commission has *NOT* established a specific public comment period** (i.e., in response to proposed management action).

1. Comments received three weeks prior to the start of a meeting week (January 10th) have been included in the briefing materials.
2. Comments received by 5:00 PM on Tuesday, January 24th will be included in supplemental materials.
3. Comments received by 10:00 AM on Friday, January 27th will be distributed electronically to Commissioners/Board members prior to the meeting.

The submitted comments must clearly indicate the commenter's expectation from the ASMFC staff regarding distribution. As with other public comment, it will be accepted via mail and email.

Final Agenda

The agenda is subject to change. The agenda reflects the current estimate of time required for scheduled Board meetings. The Commission may adjust this agenda in accordance with the actual duration of Board meetings. Interested parties should anticipate Boards starting earlier or later than indicated herein.

Tuesday, January 31

9:30 – 10:00 a.m. **Atlantic Herring Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey
Other Members: NEFMC, NMFS
Chair: Ware
Other Participants: Zobel, Brown
Staff: Franke

1. Welcome/Call to Order *(M. Ware)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from November 2022
3. Public Comment
4. Set Specifications for the 2023-2025 Fishing Years *(E. Franke)* **Final Action**
5. Other Business/Adjourn

10:15 a.m. – 12:45 p.m. **American Lobster Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia
Other Members: NMFS
Chair: McNamee
Other Participants: Perry, Reardon, Beal, Coogan, Trego
Staff: Starks

1. Welcome/Call to Order *(J. McNamee)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from November 2022
3. Public Comment
4. Review Report from Atlantic Large Whale Take Reduction Team and Progress on Atlantic Large Whale Take Reduciton Plan *(C. Coogan/M. Trego)*
5. Consider Draft Addendum XXVII on Increasing Protection of Spawning Stock Biomass of the Gulf of Maine/Georges Bank Stock for Public Comment *(C. Starks)* **Action**
6. Update from Work Group on Implementation of Addendum XXIX on Electronic Vessel Tracking for Federal Permit Holders *(C. Starks)*
7. Other Business
8. Adjourn

12:45 – 1:45 p.m. **Lunch Break** (on your own)

1:45 – 3:15 p.m. **Winter Flounder Management Board**
Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey
Other Members: NMFS, USFWS
Chair: Hyatt
Other Participants: Balouskus, Williams, Brown, Nitschke, Wood
Staff: Bauer

1. Welcome/Call to Order *(B. Hyatt)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from February 2021
3. Public Comment
4. Review 2022 Management Track Assessments for Gulf of Maine and Southern New England/Mid-Atlantic Stocks of Winter Flounder *(P. Nitschke/T. Wood)*
5. Set Specifications for 2024-2025 Fishing Years **Final Action**
   - Review Technical Committee Recommendations *(R. Balouskus)*
   - Review Advisory Panel Report *(B. Brown)*
6. Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year (*T. Bauer)* **Action**
7. Review and Populate Advisory Panel Membership *(T. Berger)* **Action**
8. Other Business/Adjourn

3:30 – 5:00 p.m. **Atlantic Striped Bass Management Board**
Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina
Other Members: DC, NMFS, PRFC, USFWS
Chair: Gary
Other Participants: Lengyel Costa, Mercer, Bassano
Staff: Franke

1. Welcome/Call to Order *(M. Gary)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from November 2022
3. Public Comment
4. Consider Addendum I on Ocean Commercial Quota Transfers for Final Approval **Final Action**
   - Review Options and Public Comment Summary *(E. Franke)*
   - Review Advisory Panel Report *(E. Franke)*
   - Consider Final Approval of Addendum I
5. Other Business/Adjourn

Wednesday, February 1

8:00 – 9:30 a.m. **Executive Committee**

Breakfast will be served at 7:45 a.m.

(A portion of this meeting may be closed for Committee members and Commissioners only)
Members: Abbott, Bell, Burgess, Cimino, Clark, Davis, Fegley, Geer, Gilmore, Keliher, Kuhn, McKiernan, McNamee, Miller, Patterson, Rawls, Woodward
Chair: Woodward
Staff: Leach

1. Welcome/Call to Order *(S. Woodward)*
2. Committee Consent
   - Approval of Agenda
   - Approval of Meeting Summary from November 2022
3. Public Comment
4. CARES Act Update *(R. Beal/L. Leach)*
5. Discussion on Stipends for Legislative and Governors Appointee Commissioners *(R. Beal)*
6. Other Business/Adjourn

9:45 – 11:15 a.m. **American Eel Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: DC, NMFS, PRFC, USFWS
Chair: Edwards
Other Participants: Tuckey, Beal, Eyler, Flowers
Staff: Starks

1. Welcome/Call to Order *(P. Edwards)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2021
3. Public Comment
4. Review and Consider 2022 Benchmark Stock Assessment and Peer Review Report for Management Use and Respond if Necessary **Possible Action**
   - Presentation of Stock Assessment Report *(S. Eyler)*
   - Presentation of Peer Review Report *(J. Flowers)*
   - Consider Acceptance of Benchmark Stock Assessment and Peer Review Report for Managemen Use
   - Consider Management Response (if necessary)
5. Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year *(C. Starks)* **Action**
6. Elect Vice-Chair **Action**
7. Other Business/Adjourn

11:30 a.m. – 12:30 p.m. **Atlantic Menhaden Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: NMFS, PRFC, USFWS
Chair: Bell
Other Participants: Newhard, Simmons
Staff: Boyle

1. Welcome/Call to Order *(M. Bell)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from November 2022
3. Public Comment
4. Consider Approval of State Implementation Plans for Addendum I to Amendment 3 to the Interstate Fishery Management Plan *(J. Boyle)* **Final Action**
5. Consider Atlantic Menhaden Technical Addendum to Addendum I to Amendment 3 *(J. Boyle)* **Final Action**
6. Other Business/Adjourn

12:30 – 1:30 p.m. **Lunch Break** (provided)

12:30 – 1:30 p.m. **Legislative and Governors Appointee Commissioners Luncheon**

1:30 – 2:15 p.m. **Spiny Dogfish Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut,New York, New Jersey, Delaware, Maryland, Virginia, North Carolina
Other Members: NMFS
Chair: Meserve
Other Participants: Newlin, Baker, Didden
Staff: Starks

1. Welcome/Call to Order *(N. Meserve)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from January 2022
3. Public Comment
4. Set Specifications for 2023/2024 Fishing Year **Final Action**
5. Review Monitoring Committee and Mid-Atlantic and New England Fishery Management Council's Recommendations for the 2023 Fishing Year *(J. Didden)*
6. Elect Vice-Chair **Action**
7. Other Business/Adjourn

2:30 – 5:15 p.m. **Parliamentary Training**

Thursday, February 2

8:30 – 9:30 a.m. **Shad and River Herring Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: DC, NMFS, PRFC, USFWS
Other Participants: Neilan, Burrell
Chair: Fegley
Staff: Boyle

1. Welcome/Call to Order *(L. Fegley)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from November 2022
3. Public Comment
4. Consider North Carolina American Shad Sustainable Fishery Management Plan Update *(B. Neilan)* **Final Action**
5. Update on the 2023 River Herring Benchmark Stock Assessment *(K. Drew)*
6. Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year *(J. Boyle)* **Action**
7. Review and Populate Advisory Panel Membership *(T. Berger)* **Action**
8. Elect Vice-Chair **Action**
9. Other Business/Adjourn

9:45 – 11:15 a.m. **Interstate Fisheries Management Program Policy Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: DC, NMFS, PRFC, USFWS
Chair: Woodward
Staff: Kerns

1. Welcome/Call to Order *(S. Woodward)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from November 2022
3. Public Comment
4. Executive Committee Report *(S. Woodward)*
5. Review and Discuss Commissioner Survey Results *(T. Kerns)*
6. Discuss Atlantic Bonito Management *(D. McKiernan)*
7. Update on Ongoing Stock Assessments **Action**
8. Review Noncompliance Findings (if necessary)
9. Other Business
10. Adjourn

11:15 – 11:30 a.m. **Business Session**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Chair: Woodward
Staff: Beal

1. Welcome/Call to Order *(S. Woodward)*
2. Committee Consent
   - Approval of Agenda
   - Approval of Proceedings from November 2022
3. Public Comment
4. Consider Noncompliance Recommendations (if Necessary) **Final Action**
5. Other Business/Adjourn

Step one, Register!

- **In order to participate in the meeting you must register for the webinar, the same link will work for all 3 days.** Those who call in without registering will not receive an access code or audio pin, meaning there will be no way for us to “unmute” you.
- If you do not register for the webinar, **you will not be able to comment or participate in the meeting.**
- **IMPORTANT: When registering, Commissioners, proxies, Council members and other Board participants, should place a 00 prior to their names (e.g., 00Toni Kerns)**

How to Register

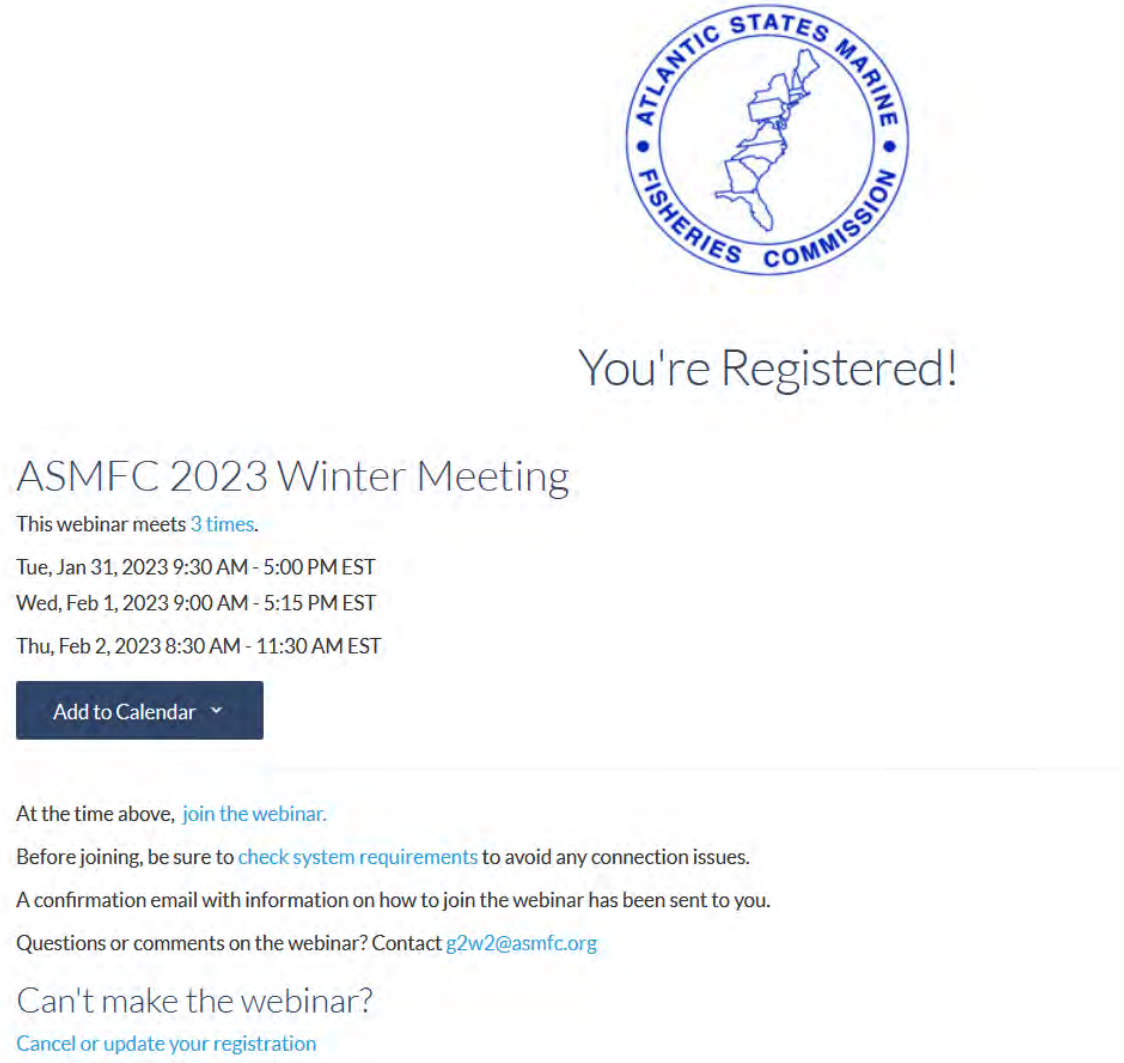
- Register for the Webinar: https://attendee.gotowebinar.com/register/6463339894285834846

(Webinar ID: 905-077-435. After clicking the link, you should see a screen like this.

- Fill in your name (preceded by 00) and email, and click register.

Registration Confirmation

- Webinar Registration
- After you click register, you should see a page saying you are registered (example right).



Joining the Webinar

- Check your email (the one you registered with)
- You should see an email from “Webinar Staff 2”.
- **Be sure to save this email and use it to access the webinar for the duration of the meeting**
- On the day of the meeting, go to the email and Click “Join Webinar”
- **Your registration link is unique to you. Please do not share it with anyone else!**

Thank you for registering for "ASMFC 2023 Winter Meeting ".

This will be a hybrid meeting to allow for remote participation by Commissioners and interested stakeholders in all meetings. Meeting proceedings will be broadcast daily via webinar beginning Tuesday, January 31 at 9:30 a.m. and continuing daily until the conclusion of the meeting (expected to be 11:30 a.m.) on Thursday, February 2. The webinar will allow registrants to listen to board deliberations and view presentations and motions as they occur. Management boards will continue to provide opportunity to the public to bring matters of concern to the board's attention at the start of each board meeting. Board chairs will ask members of the public to raise their hands to let the chair know they would like to speak. Depending upon the number of commenters, the board chair will decide how to allocate the available time on the agenda (typically 10 minutes) to the number of people who want to speak.

Please send your questions, comments and feedback to: g2w2@asmfc.org

How To Join The Webinar

This webinar meets 3 times.

Tue, Jan 31, 2023 9:30 AM - 5:00 PM EST

Wed, Feb 1, 2023 9:00 AM - 5:15 PM EST

Thu, Feb 2, 2023 8:30 AM - 11:30 AM EST

Add to Calendar: Outlook® Calendar | iCal®

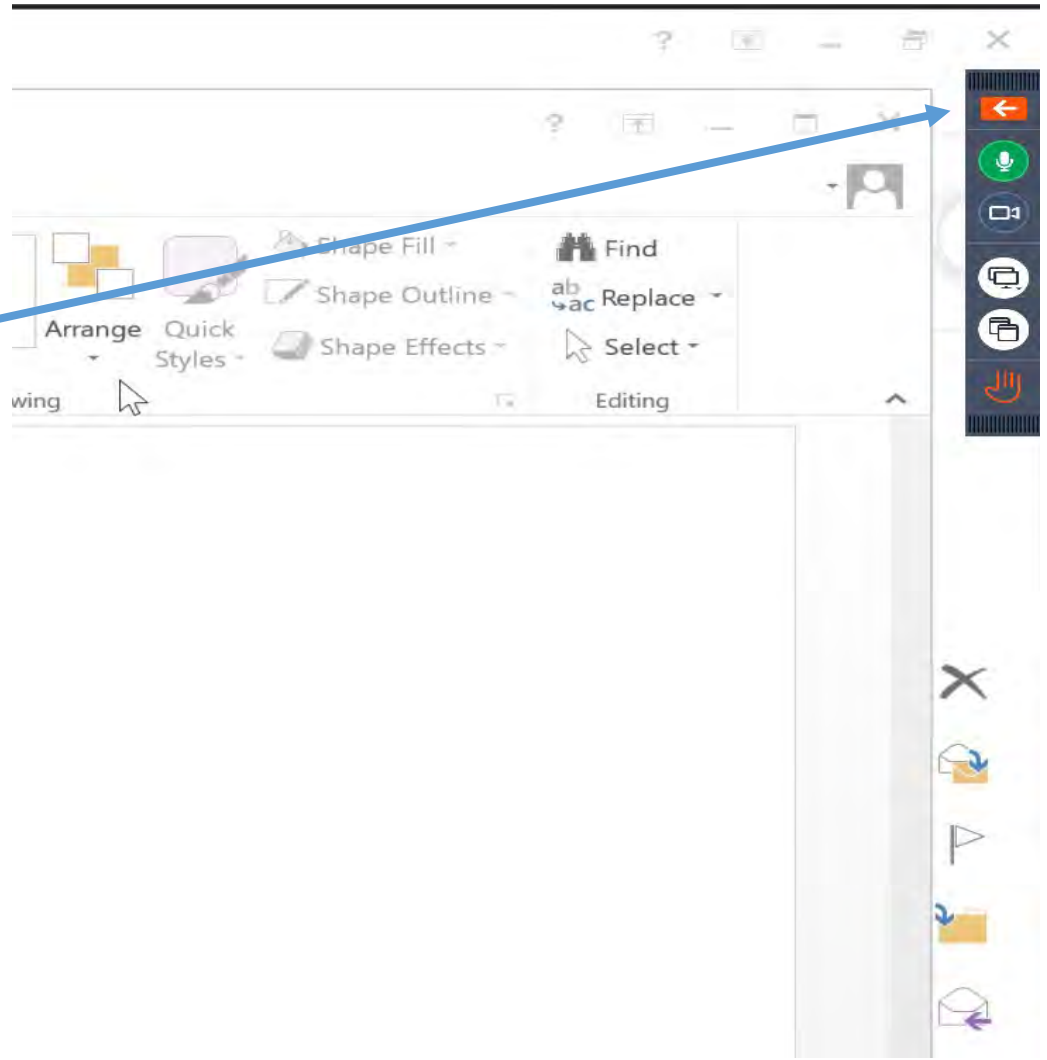
1. Click the link to join the webinar at the specified time and date:

Join Webinar

Accessing Control Panel

- In order to access the control panel that will allow you to raise your hand, speak, and ask questions, you may need to expand the panel by pressing the red arrow.

- The panel shown here is collapsed.



Accessing Control Panel

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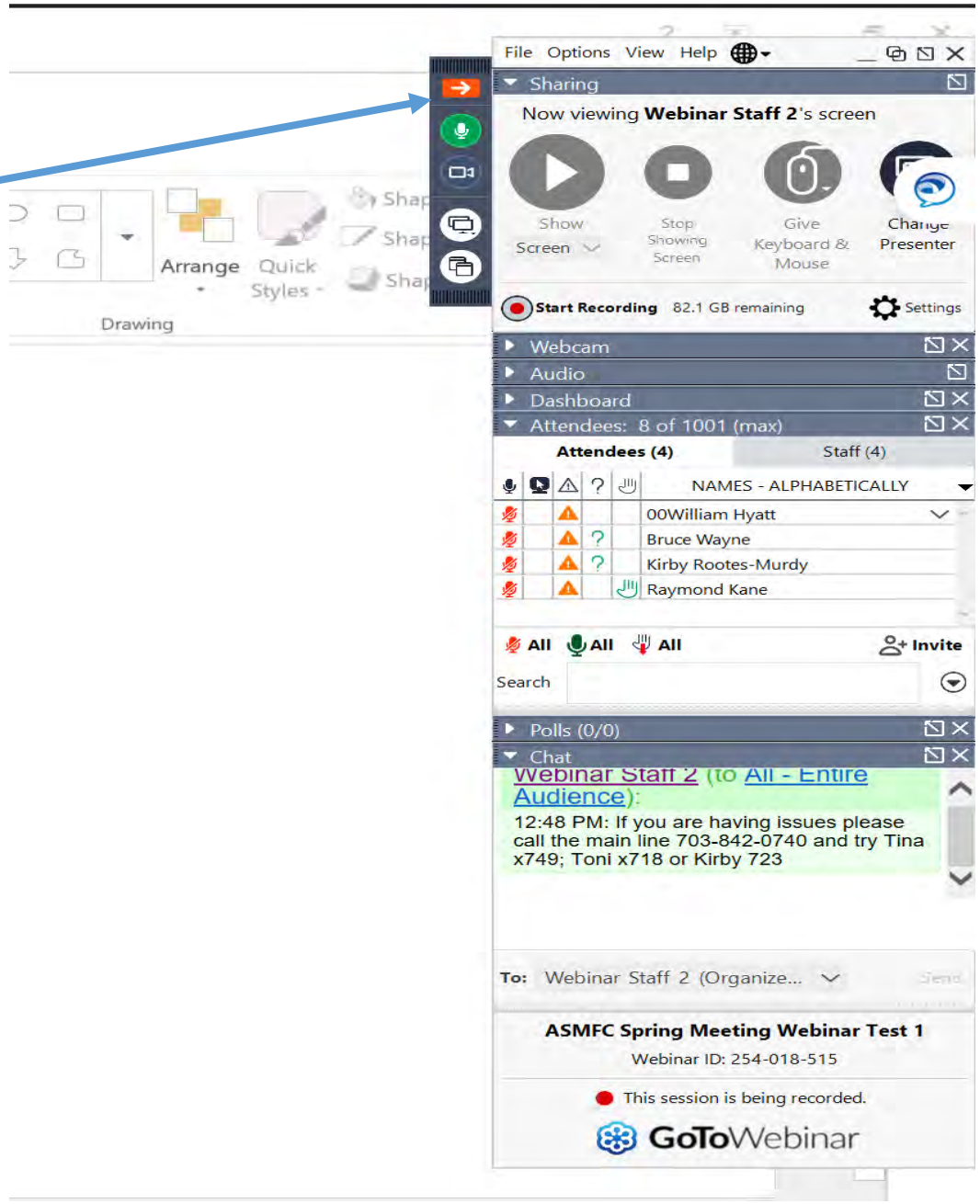


Audio Settings

Once you log in, you will have to choose how you want to listen in and speak at the meeting.

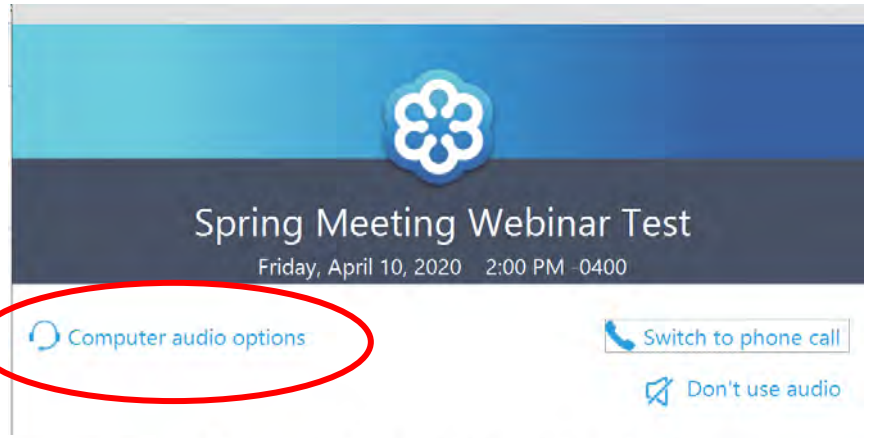
Choices:

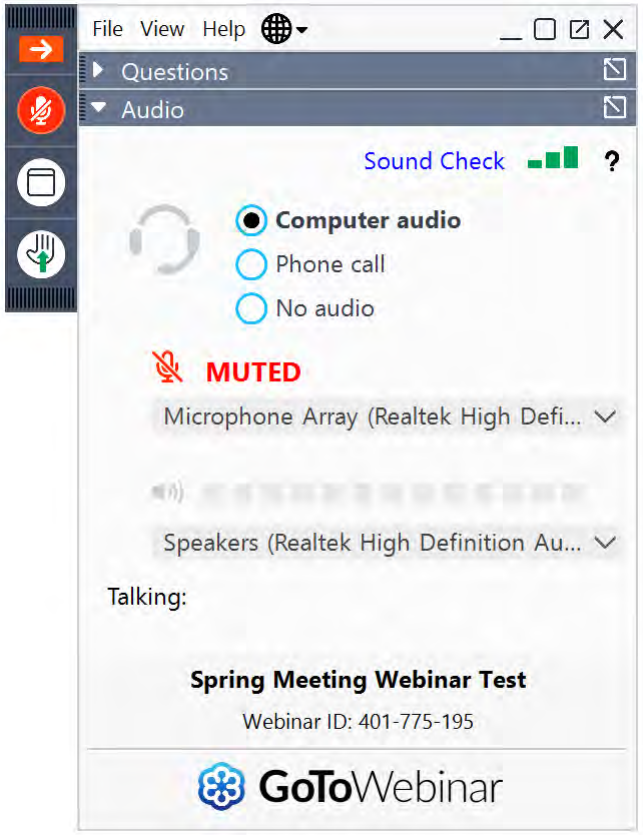
1. Computer Audio (VOIP) - We recommend you use a headset
2. Phone Audio

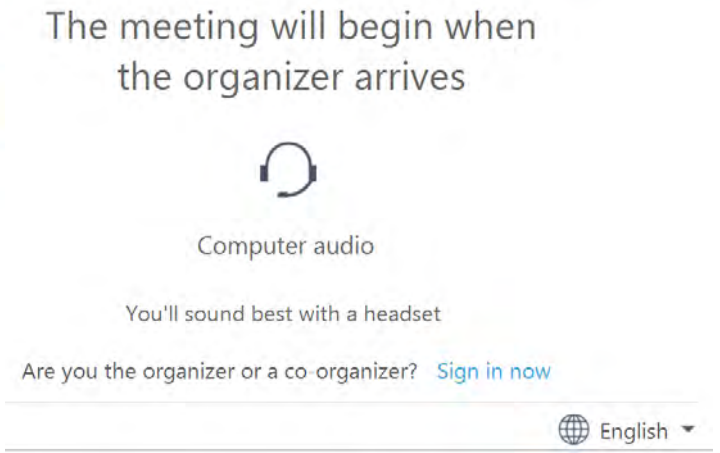
Note: either of these options can be used, but **please do not use both at the same time on different devices.** It will create an echo when speaking.

Screen when you first log in →

We recommend computer so you can use your phone for caucusing



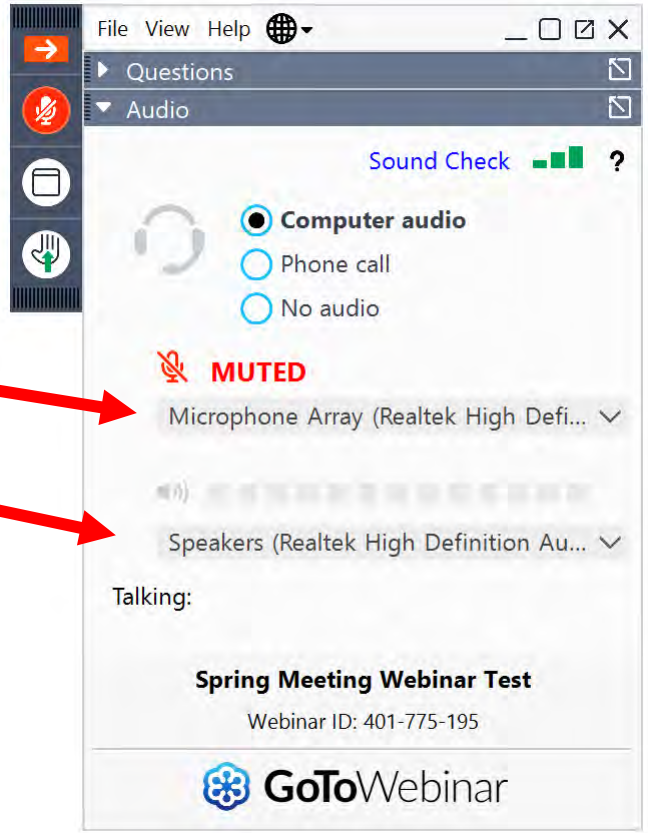




Control panel once you are in the meeting. You can change the audio before or after you log in. ←

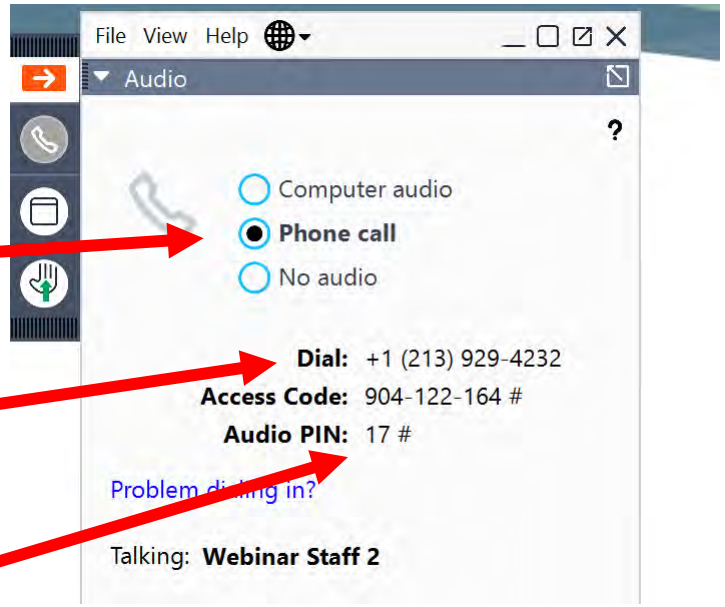
Using Computer Audio: Recommended

- Once you have joined the webinar:
- Select the microphone and speaker options that correspond with your computer
- You can test your audio if you are having trouble



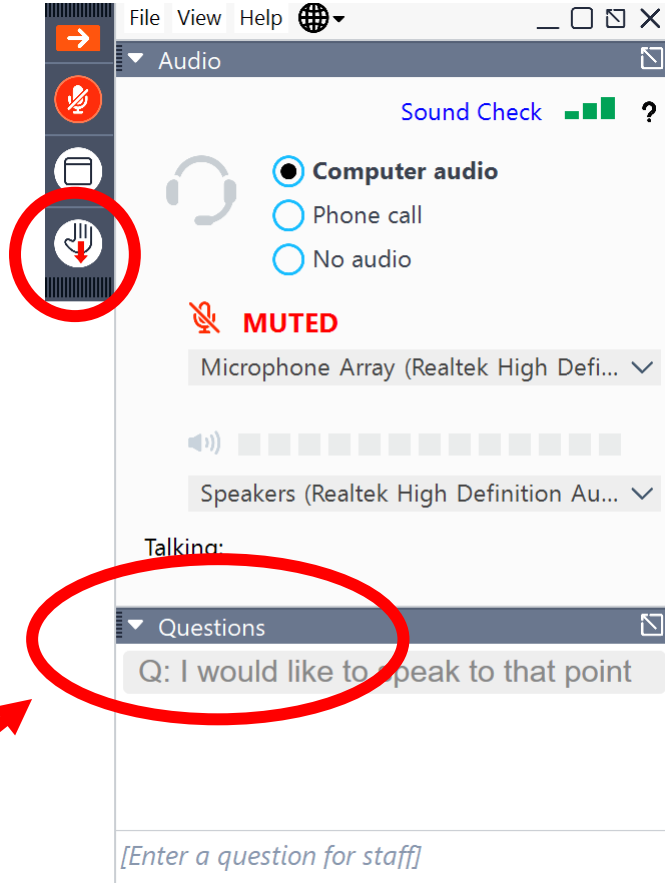
Using Phone Audio

- In Audio Settings box,
- select “Phone call”
- Then, using your phone, call the number provided here
- Enter the Access Code/Audio PIN numbers when prompted into your PHONE
- Your audio pin is unique to you:
  DO NOT SHARE IT WITH OTHERS



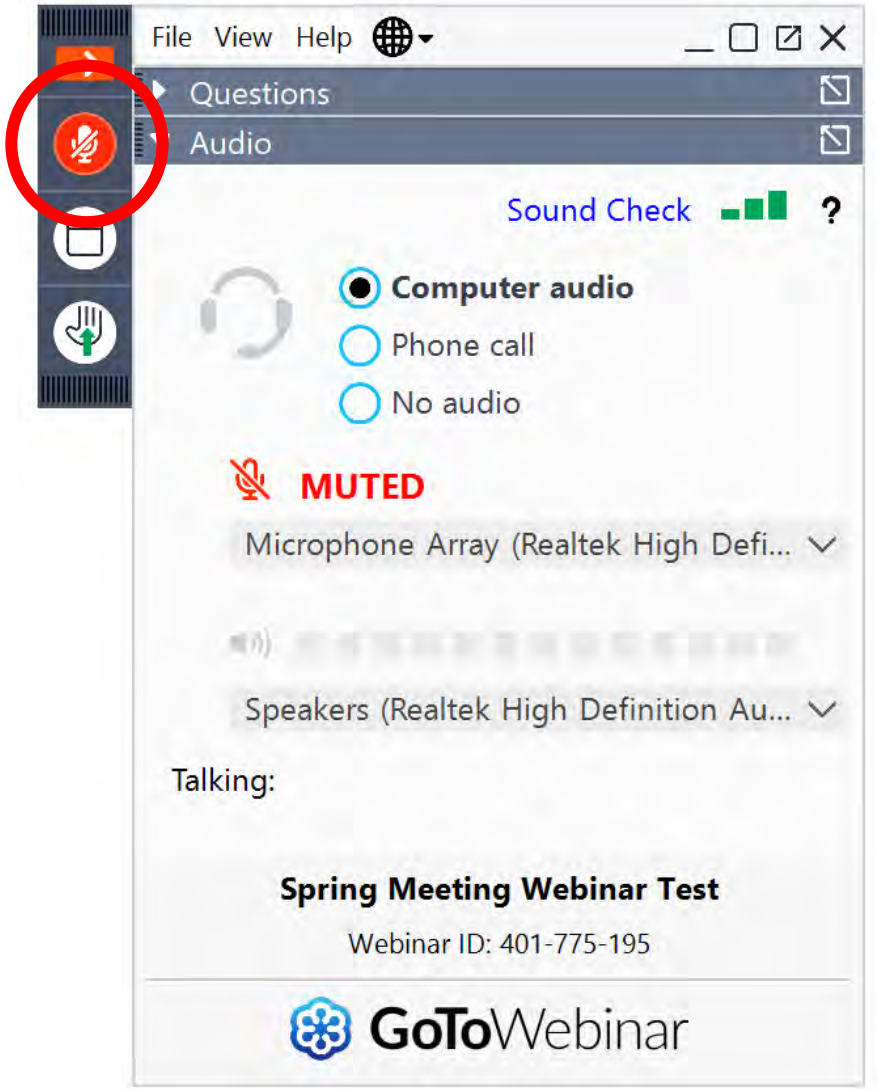
Raising Your Hand

- If you would like to take part in discussion/ask question, click the “Raise hand” button
- Click again when you are done speaking to lower your hand
- Press  to raise your hand
- Press  to lower your hand
- If you are having trouble with raising your hand, you can also let us know if you’d like to speak by stating so in the “Questions” box.
- **Please reserve the Questions box for this purpose only. Questions are visible to everyone on the webinar.**



Muting and Unmuting

- When you are called on to speak, you must unmute yourself by clicking the “microphone” button
- If you are unmuted, the microphone symbol will be **GREEN**
- If you are muted it will be **RED**
- We will tell you when you are clear to speak.
- Please mute yourself when you are done speaking



Accessing the Webinar from Your iPad

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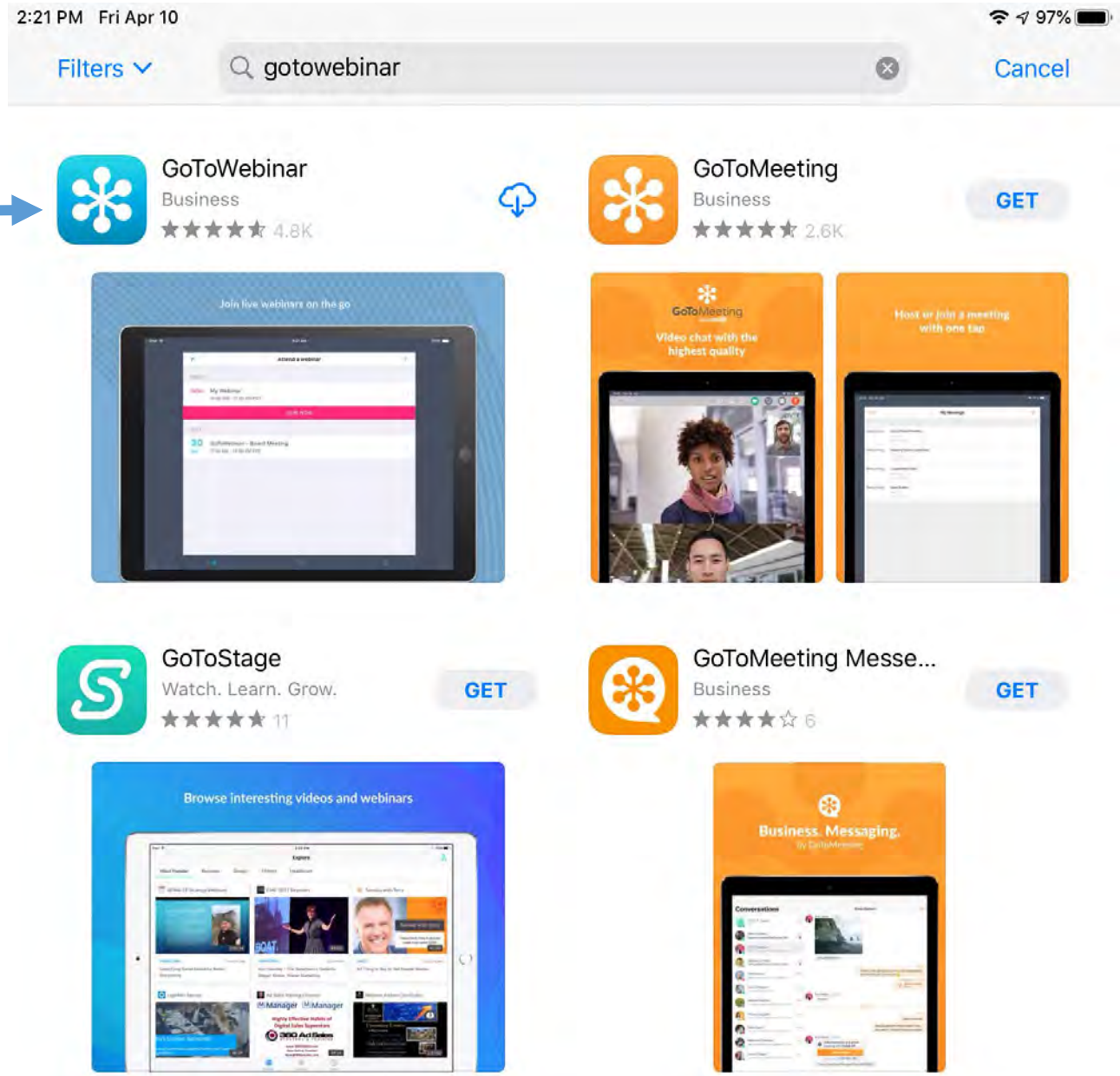
- Click on the webinar link https://attendee.gotowebinar.com/register/6463339894285834846 and register



Help Desk

- If you have technical issues with either webinar (connecting to or audio related issues), please contact Chris Jacobs at 703.842.0790.
- The following slides provide information on how to access the webinar via your iPad.

Join the Webinar

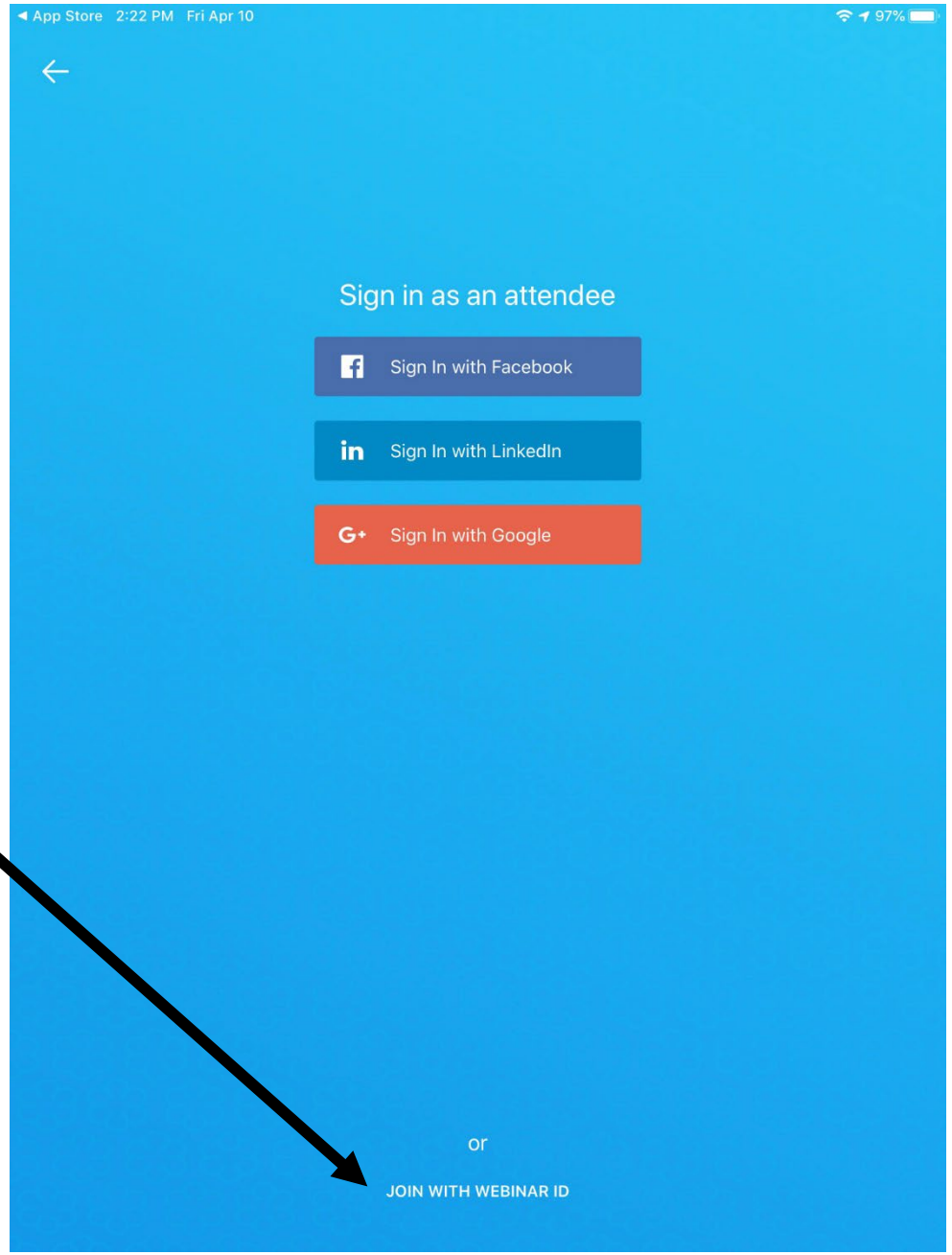
Once you are registered there are 2 ways to join the webinar

1. Click on the link in your email and follow the previous instructions in this document, or
2. Join by entering your webinar ID

The following instructions will step you through joining the webinar via the Webinar ID

Join the Webinar

- Continue to click on Join with Webinar ID



Webinar ID

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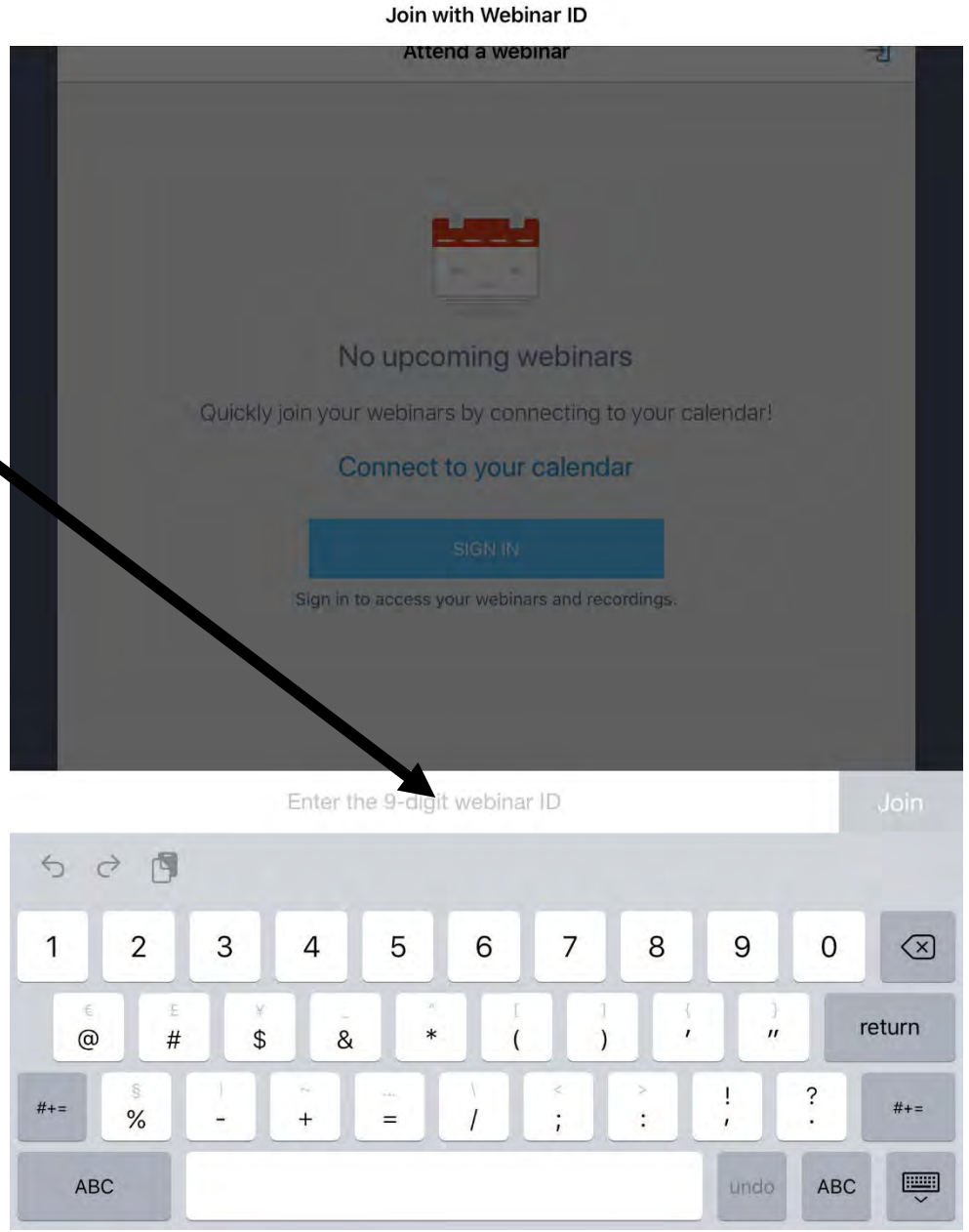
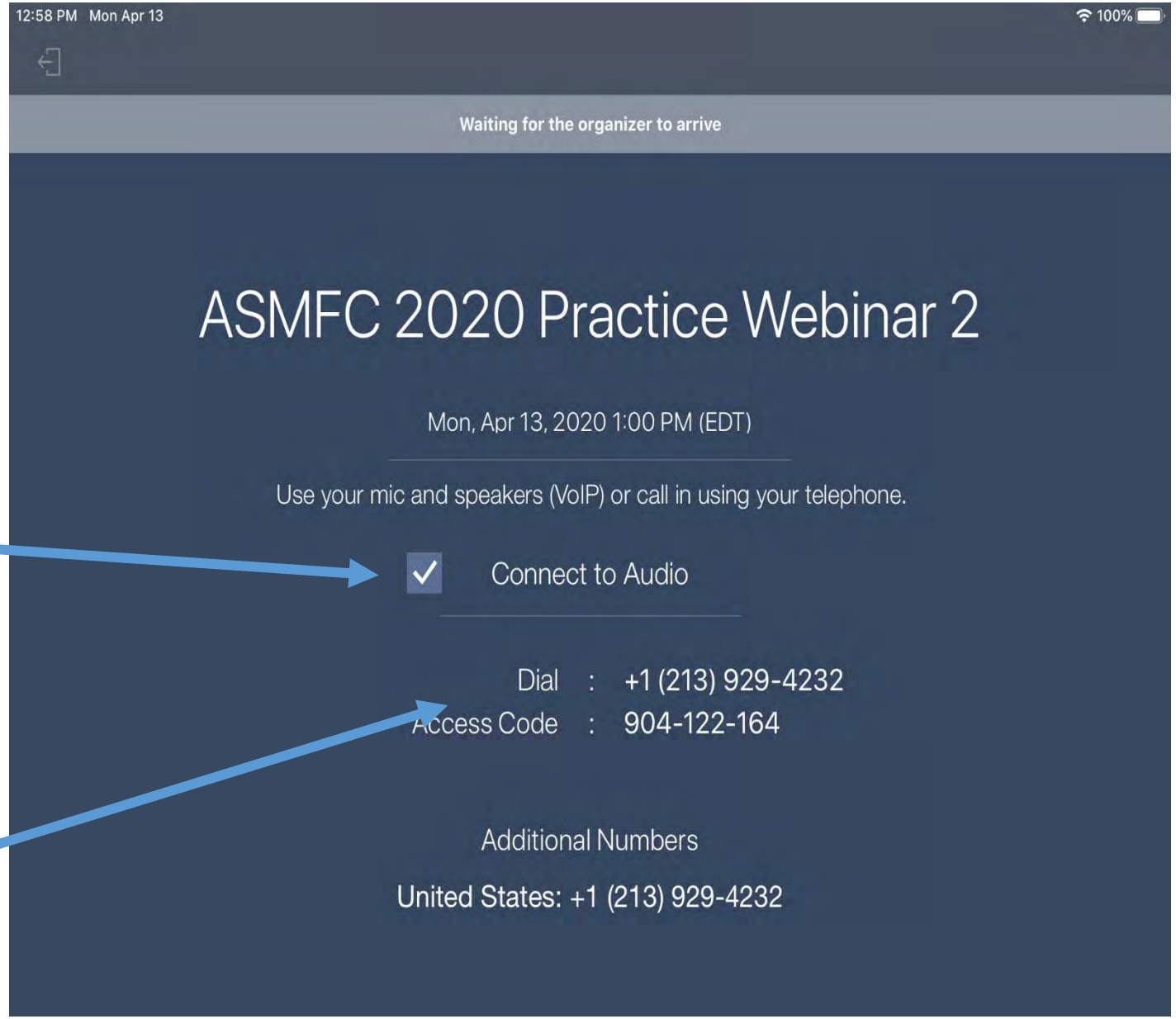


Success!

- You have successful joined the webinar.
- At this point, choose your audio connection:

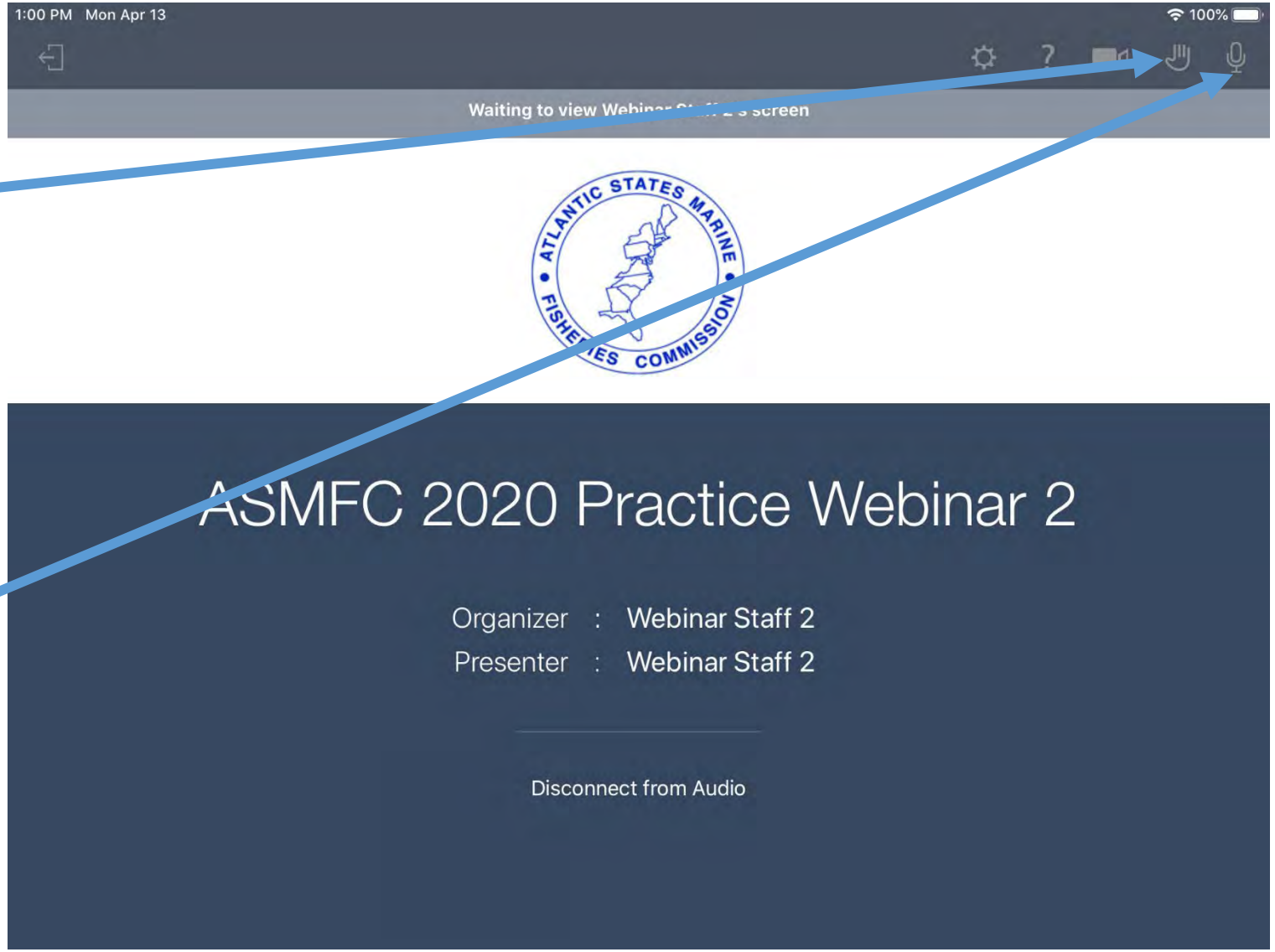
1. Voice-over IP
   Click this box if you will be using your computer microphone and speakers, or
2. Call in with the identified phone number and access code.



While in the Webinar

- You can raise your hand to be recognized by using the hand icon
- Upon being recognized to speak, you can unmute your microphone by pressing on the icon and following the provided instructions to unmute

Note: The microphone is grey when it is muted and blue when it is unmuted.



Atlantic States Marine Fisheries Commission

Atlantic Herring Management Board

January 31, 2023
9:30 – 10:00 a.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(M. Ware)*	9:30 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from November 2022	9:30 a.m.
3.	Public Comment	9:35 a.m.
4.	Set Specifications for the 2023-2025 Fishing Years *(E. Franke)* **Final Action**	9:45 a.m.
5.	Other Business/Adjourn	10:00 a.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

MEETING OVERVIEW

Atlantic Herring Management Board
January 31, 2023
9:30 a.m. – 10:00 a.m.
Hybrid

Chair: Megan Ware Assumed Chairmanship: 08/22	Technical Committee Chair: Renee Zobel (NH)	Law Enforcement Committee Representative: Delayne Brown (NH)
Vice Chair: Vacant	Advisory Panel Chair: Jeff Kaelin (NJ)	Previous Board Meeting: November 7, 2022
Voting Members: ME, NH, MA, RI, CT, NY, NJ, NMFS, USFWS (9 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from November 2022

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Set Specifications for the 2023-2025 Fishing Years (9:45-10:00 a.m.) Final Action

Background

- In September 2022, the New England Fishery Management Council (NEFMC) recommended a 2023-2025 specifications package for Atlantic herring to be submitted to NOAA Fisheries **(Briefing Materials)**.
- NOAA Fisheries is working to publish a final rule by February 2023 (after the Board meeting) implementing the specifications for the 2023-2025 fishing years.
- For the 2023 Area 1A fishery, the Board adopted a seasonal quota approach with 72.8% of the Area 1A sub-annual catch limit available June-September (Season 1) and 27.2% available October-December (Season 2) with Season 1 underages rolled into Season 2.

Presentations

- Overview of 2023-2025 specifications by E. Franke

Board actions for consideration at this meeting

- Set specifications for the 2023-2025 fishing years for Atlantic herring, pending release of a rule by NOAA Fisheries

5. Other Business/Adjourn (10:00 a.m.)

Atlantic Herring Technical Committee Task List

Activity Level: Medium

Committee Overlap Score: Medium

Committee Task List

While there are no Board tasks for the TC at present, there are several annual activities in which TC members participate, both through the Commission and NEFMC

- Participation on ASMFC PRT/PDT
- Participation on NEFMC PDT
- Summer/fall collection of spawning samples per the spawning closure protocol
- Annual state compliance reports are due February 1

TC Members

Renee Zobel (NHFG – Chair), Kurt Gottschall (CT DMF), Dr. Matt Cieri (ME DMR), Micah Dean (MA DMF), JA Macfarlan (RI DEM), Rich Pendleton (NY DEC), Matthew Heyl (NJ DEP), Jamie Cournane (NEFMC), Jonathan Deroba (NOAA NEFSC), Carrie Nordeen (NOAA)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ATLANTIC HERRING MANAGEMENT BOARD

The Ocean Place Resort
Long Branch, New Jersey
Hybrid Meeting

November 7, 2022

These minutes are draft and subject to approval by the Atlantic Herring Management Board.
The Board will review the minutes during its next meeting.

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INDEX OF MOTIONS

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Steve Train, ME (GA)
Cheri Patterson, NH (AA)
Doug Grout, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Melanie Griffin, MA, proxy for D. McKiernan (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Conor McManus, RI, proxy for J. McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
Sen. Craig Miner, CT (LA)
John Maniscalco, NY, proxy for J. Gilmore (AA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, prosy for Sen. Gopal (LA)
Rick Bellavance, proxy for T. Nies, NMFS
Emily Gilbert, NMFS, proxy for A. Murphy

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Renee Zobel, Technical Committee Chair
Jeff Kaelin, Advisory Panel Chair
Delayne Brown, Law Enforcement Representative

Staff

Robert Beal
Toni Kerns
Madeline Musante
Tina Berger
Emilie Franke
Chris Jacobs

Guests

Ashley Asci, NOAA
Robert Atwood, NH F&G
Rob Beal, ME DMR
Mel Bell, SC (AA)
Jesse Bissette, NC DNR
Kurt Blanchard, RI DEM
Sarah Bland, NOAA
Colleen Bouffard, CT DEEP
Cameron Brinton, GA DNR
Michael Brown, ME DMR
Jeff Brust, NJ DEP
Josh Carloni, NH F&G
Nicole Caudell, MD DNR
Matt Cieri, ME DMR
Matt Colson, WVII, Bangor, ME
Heather Corbett, NJ DEP
Cliff Cosgrove, NOAA
Jamie Cournane, NEFMC
Jessica Daher, NJ DEP
Roman Dudus
Wes Eakin, NYS DEC
Maria Fenton, NOAA
Marianne Ferguson, NOAA
Angela Forristall, NEFMC
Jennifer Foss, NOAA
Jeanne Fuller, Bangor, ME
Kurt Gottschall, CT DEEP
Heidi Henninger, AOLA
Jay Hermsen, NOAA
Helen Takade-Heumacher, USFWS
Harry Hornick, MD DNR
Jesse Hornstein, NYS DEC
Dierdre Keliher, ME DMR
Zack Klyver, Bar Harbor, ME
Jared Lamy, NH F&G
Danni Logue
Genine McClair, MD DNR
Lorraine Morris, ME DMR
Brandon Muffley, MAFMC
Daniel Namur, NOAA
Jeff Nichols, ME DMR
Victoria Oriole
Nick Popoff, US FWS
Will Poston, SGA
Chad Power
Craig Pugh, DE
Kathleen Reardon, ME DMR
Ross Self, SC DNR
Nathan Shivers
Melissa Smith, ME DMR
Renee St. Amand, CT DEEP
Kevin Sullivan, NH F&G
Mary Beth Tooley, O'Hara Corp
Jesica Waller, ME DMR
Ben Whalley
Steven Witthuhn, Greenlawn, NY
Chris Wright, NOAA

The Atlantic Herring Management Board of the Atlantic States Marine Fisheries Commission convened in the Monmouth I Room of the Ocean Place Resort, Long Branch, New Jersey via hybrid meeting, in-person and webinar; Monday, November 7, 2022, and was called to order at 9:00 a.m. by Chair Megan Ware.

CALL TO ORDER

CHAIR MEGAN WARE: Good morning, everyone, my name is Megan; I'm the Chair of the Atlantic Herring Management Board, and we're going to call this meeting to order. Since this is our first meeting of the day, I just wanted to reintroduce Doug Grout, who is the new Governor's Appointee for New Hampshire. He is replacing Ritchie White, who has retired. Welcome to Doug Grout, but also a congratulations to Ritchie on all of his efforts over the years.

APPROVAL OF AGENDA

CHAIR WARE: Our next order of business is Approval of the Agenda. We do have one update under Other Business related to funding for the Portside Sampling Program. Are there any other additions or modifications to the agenda? Seeing none; the agenda is approved by consent.

APPROVAL OF PROCEEDINGS

CHAIR WARE: We'll move on to approval of proceedings from August 2022.

Are there any edits to the proceedings from August 2022? Seeing none; the proceedings are approved by consent. All right, so as Toni mentioned, we are having some technical difficulties with the audio on the webinar. I'll see if there are any public commenters in the room in person, and I'm not seeing any.

We will come back to the public comment for herring at a later portion of the meeting, when we have that sorted out. I thank you for your patience if you are here to make a comment via the webinar today.

UPDATE ON THE NEW ENGLAND FISHERY MANAGEMENT COUNCIL'S SPECIFICATIONS FOR 2023 TO 2025

CHAIR WARE: Our next agenda item is an Update on the New England Fishery Management Council's specifications for 2023 to 2025. Emilie is going to provide an update on that process. This is an update only, and I will pass it over to Emilie.

MS. EMILIE FRANKE: Thank you, Chair, and we'll get the presentation up here on the screen in just a moment. At their September meeting the New England Fishery Management Council voted on a Specifications Package for 2023 through 2025. That Specifications Package was based on the most recent stock assessment, which was just completed this year.

Also, based on the Council's Scientific and Statistical Committee's recommendations, consistent with the Atlantic Herring Biomass-Based Control Rule, and also consistent with the Atlantic Herring Rebuilding Plan in Framework Adjustment 9. Overall, the 2023 to 2025 annual catch limits remain pretty low in the grand scheme of things, but they are an increase relative to the most recent fishing years. As far as the timeline, the New England Council voted on this Specifications Package in September, and they will be submitting this package to NOAA Fisheries for review and approval. Then NOAA Fisheries rule to implement these specifications is expected to be published in January or February, and this Atlantic Herring Board can consider action to approve these specifications at the upcoming Winter Meeting in February, 2023.

These next two slides show the specifications selected by the New England Council for 2023 through 2025, all in metric tons here. You can see that the overfishing limit, the acceptable biological catch and the ACL increase over time through those three years, 2023 through 2025. The border transfer specification is still set at 0 metric tons.

As a reminder, for the management uncertainty buffer, if the Canadian New Brunswick weir fishery catches less than its associated trigger, then 1,000 metric tons will be subtracted from that uncertainty buffer, and added to the Area 1A Sub-ACL. This slide now shows the Sub-ACLs for each management area, and also lists what proportion each area receives from the total ACL.

Again, you can see that slight increase from 2023 through 2025. The fixed gear set aside is still set at 30 metric tons, and the research set aside would be set at 0 percent, as it has for the past two years. This slide shows a comparison of the initial 2022 ACLs from this year, as compared to these selected 2023 through 2025 specifications. As you can see, the slight increase relative to 2022, for example this year the Area 1A Sub-ACL was initially just under 1,200 metric tons.

If these specifications are approved, next year that Area 1A Sub-ACL would be just under 3,600 metric tons. Again, for next steps. In January and February, we expect the NOAA Fisheries Rule to be published implementing these specifications, and this Board can consider action to approve those at the Winter Meeting. With that I'm happy to take any questions.

CHAIR WARE: Great, thanks, Emilie, and I'll just note. I believe our next assessment for herring would be 2024, so we'll actually potentially be revisiting the 2025 specifications via that stock assessment. Are there any questions on Emilie's presentation? Yes, Justin Davis.

DR. JUSTIN DAVIS: Something that wasn't in the presentation was the River Herring and Shad Bycatch Caps. My understanding is those were kept status quo, essentially, through this specifications package. When this Board meets to set specifications, is the river herring and shad bycatch cap part of that process, or is that something that is strictly Council only, and we don't have any jurisdiction there?

MS. FRANKE: Thanks for the question. Yes, the River Herring and Shad Catch Caps were kept the same from past years. I looked at the motion approving the specs from last year, and they weren't included in the Commission motion, so I don't think that is something the Commission typically has to approve. But on the Council side, those were kept the same from previous years.

SETTING THE QUOTA PERIODS FOR THE 2023 AREA 1A FISHERY

CHAIR WARE: Any other questions from the Herring Board? All right, seeing none; we will move on to our next agenda item, which is Setting the Quota Periods for the 2023 Area 1A Fishery. Emilie is going to provide an overview of the quota period system as a bit of a refresher for us. Then this is an action item for the Board today, so we will be looking for a motion.

MS. FRANKE: Thank you, Madam Chair. I'll provide an overview of the Atlantic Herring Quota Period System established by Amendment 3. As Chair stated, the Board action for today is to consider setting the quota periods for the 2023 Area 1A fishery. Per Amendment 3, quota periods shall be determined annually for Area 1A, and the Board can consider distributing the Area 1A Sub-ACL using either a bimonthly, a trimester, or a seasonal quota period to meet the needs of the fishery.

The Board can also decide whether quota from January through May will be allocated to later on in the fishing season, and the Board can specify if underages may be rolled from one period to the next within the same year. Here on the screen, this is from the Amendment, are the different quota period options from Amendment 3.

All of these allocation percentages and options are fixed options, and these options can only be changed through an Addendum. Up top are the bimonthly quota period options. In this case quota would be allocated in two-month periods throughout the year, with options for no landings prior to June 1st. The next option on the bottom

left is the trimester quota period option, so there are three quota periods throughout the whole year.

Then finally on the bottom right you have the seasonal quota options, with one option for landings prior to June 1st, and one for no landings before June 1st. For reference, here are the quota periods approved by the Board in recent years. In 2019, the Board allocated the Area 1A Sub-ACL using the bimonthly quota period option, with no landings prior to June 1st.

Then for the most recent three years, 2020, '21 and '22, the Board has allocated the Area 1A Sub-ACL using the seasonal quota period option, with no landings prior to June 1st. About 73 percent has been allocated for June through September in recent years, and about 27 percent to October through December.

Then in all three years, the Board has allowed underages from one quota period to be rolled into the next quota period. Again, just to wrap up, the Board's action for today is to consider setting these quota periods for Area 1A for 2023. Again, as a reminder, the New England Council's proposed Area 1A Sub-ACL is just under 3,600 metric tons. With that I am happy to take any questions.

CHAIR WARE: Great, any questions for Emilie, before we look for a motion? All right, seeing none, we are looking for a motion today, and we'll see if we have any either in-person or from webinar.

MS. FRANKE: I see a hand from Melanie Griffin on the webinar.

CHAIR WARE: Great, thank you, Melanie. I believe Melanie has sent in a motion via e-mail, and since we're having some difficulties, maybe I will pinch hit for her and read the motion, and we'll see if we get a second. **The motion by Ms. Griffin is Move to allocate the 2023 Area 1A Sub-ACL seasonally with 72.8% available from June through September and 27.2% allocated from October through December. The fishery will close when 92% of the seasonal period's quota has been projected to be harvested and underages from June through September shall be rolled into the October through December period.** Motion by Ms. Griffin. Do we have a second? Ray Kane, thank you. All right, Ray, you're actually from the same state as Melanie so we need a different second. Eric Reid, thank you. All right, is there any discussion on the motion today? Yes, Dennis Abbott.

MR. DENNIS ABBOTT: Yes, thank you. I'm not particularly opposed to this motion. But one thing that I've noticed with the low quotas is the fact that every year it seems as though we're getting a thousand tons returned from Canada, which ends up in the October to December period, which really causes a shift in those percentages, so to speak. Where if you look at especially this year with the low numbers, that the October through December catch is greater than in the summer.

I don't know if it's good for the summer bait fish, or whether it's bad. I know we've been depending on menhaden, but I just think that we end up with somewhere, you know maybe 40, 45 percent of the catch actually being caught in the final period. I don't know what the affected states, how they feel about that or whether they think we should be looking at that 72/28 percent looking for comments.

CHAIR WARE: Any reaction to Dennis' comment? I will just remind this Board; we actually had a Draft Addendum III that was looking at different changes. I think some of them were the percentages, others were days out measures in that fall/winter period that you've kind of postponed indefinitely, I believe at this point. We did start to have that discussion, but I don't think we have finished that. Any other comments in reaction to Dennis? Steve Train.

MR. STEPHEN TRAIN: I have similar comments to Dennis, not the exact same thing. But unless I'm

not seeing this fishery for what I think it is. It's the same boats pretty much regardless of the season, it's just when they're allowed to go. They seem to come in and tie up and then go back out when it opens up, maybe just a little bit of geographic difference.

Knowing that we generally get this rolled in, added on, why do we need to close at 92 percent for summer, knowing we have a tremendous amount of quota left, if there is? You know we could go 96, 97, 98 percent. It's the same boats, it's just when they catch it. As long as we don't go over the total by the end.

CHAIR WARE: I'll just point out. I think the difference between the summer and the winter seasons is the gear types that are permitted, so it's purse seines in the summer and then purse seines and midwater trawls in the winter. I think I saw a hand, yes, Ray.

MR. RAYMOND W. KANE: We're never really sure of that thousand metric ton that gets transferred from Canada. Recently, history has shown us yes, we get it every year. That's also a Council FMP plan, and I don't know what jurisdiction we would have in changing percentages. But we never know if we're going to get the thousand metric ton from Canada, so you want to give the fishermen access. I don't know how you go about changing percentages right now.

CHAIR WARE: Any other comments on this topic? I will just point out, we did have that Draft Addendum III, so if Board members are interested, that is something that they can go back to, to refresh themselves on some of the conversations we've had, and we can go from there at a later date. Toni.

MS. TONI KERNS: The Board probably doesn't have access to that Addendum at this point, so it's hard for them to do so. But if it is the will of the Board that you want to change these percentages in some way that is different than the options that you have through the FMP, then we would need to direct staff and the PDT to do so, to bring something back to you that is different. But we would want to know what it is that you want them to explore.

MS. FRANKE: I can send around via e-mail after the meeting that previous Draft Addendum III if folks want to take a look at that, and we can perhaps discuss it at the next Board meeting.

CHAIR WARE: All right, so I think that sounds like a good plan moving forward. We do have a motion on the board. We have a motion by Ms. Griffin, a second by Mr. Reid. Is there any opposition to this motion?

MS. FRANKE: No hands on the webinar.

CHAIR WARE: **Okay, seeing none; this motion is approved by unanimous consent.** All right, we're going to move on to our next agenda item today, which is **Considering the Vacant ASMFC seat on the New England Fishery Management Council's Atlantic Herring Committee**. Just as a bit of an introduction on this.

We, the Commission received a seat on the New England Council's Atlantic Herring Committee in 2018, and the seat is now vacant with the retirement of Ritchie White. We need to select a new ASMFC representative to fill that seat on today's Herring Committee. I will be looing for a motion to nominate someone, and Dennis, I see your hand.

MR. ABBOTT: It's my pleasure to nominate the gentleman from the Commonwealth of Massachusetts, my good friend, Mr. Raymond Kane to be the representative to the New England Council.

CHAIR WARE: Thank you, Dennis. We'll wait for that motion to be put on the board, and then we will look for a second. All right, so we have a motion on the board. We are looking for a second, and I'm hearing Melanie, you have your hand raised

on the webinar, so it will be a second by Ms. Griffin. Great, is there any discussion on the motion today? Yes, Dennis.

MR. ABBOTT: In addition to planning on having Ray Kane. It crosses my mind that sending someone, it's an LGA, it's not going to be a State Director to take this position. It ends up being something that is outside of our normal duties as Commissioners, and I feel that the person that goes there should be renumerated in some way with a stipend for every meeting he goes to.

I don't think that the person that we send to the Council meetings should go there, you know I won't say as a volunteer. But I do think that we should consider some reimbursement for that individual. I think that would only be fair. I bring it up at this point. Maybe I'll have to bring it up at another. But I do think that whosoever it is, deserves to be reimbursed. Because you know there has been more and more discussions amongst our LGAs about volunteering our time, and basically without compensation. I think, especially in this case, where it's beyond the normal duties of being a commissioner going to Council meetings, that it would only be fair, in my opinion. But that is my opinion.

CHAIR WARE: I will pass it over to Bob to see if he has any thoughts on that.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Dennis, thanks for the comments. You used two different words in there. One you said a stipend, then the other you said reimbursement, so I'm not sure if you're talking about reimbursing travel. It sounds like you are actually looking for a stipend above and beyond reimbursement for travel and meals. Okay, so that's what you're looking for?

You're right, the Commission hasn't done that for any positions that attend Council meetings or attend these meetings or anything else, so I think that would be obviously Executive Committee and Policy Board would need to take that up and look at the budget, see what's available. It would be a pretty significant shift to how we do business, starting to reimburse those positions. But it can be talked about at the Executive Committee if someone would want to bring it up.

CHAIR WARE: Great, thank you, Bob. I'll go back to the motion on the floor**. Is there any other discussion on this motion? All right, is there any opposition to the motion? I see no opposition so the motion passes.** Ray, maybe I'll just have you take a moment now to put on the record you are a member of the Advisory Panel, and so you will be changing your positions of the Council.

MR. KANE: Yes, if elected by this Commission to the Atlantic Sea Herring position on the New England Council. Speaking on behalf of the Commission at the Council meetings, the Herring meetings, the Atlantic Sea Herring Committee meetings, I will resign my seat on the Atlantic Sea Herring AP of the New England fishery Management Council.

CHAIR WARE: Great, thank you, Ray. All right, so I think that concludes that agenda item.

OTHER BUSINESS

We are moving on to Other Business, so I'll turn it over to Toni, maybe? I'll turn it over to Emilie to just provide an update on the funding for the Portside Sampling Program.

UPDATE ON THE FUNDING FOR THE PORTSIDE SAMPLING PROGRAM

MS. FRANKE: At the last meeting we had a discussion about the funding for the Atlantic Herring Portside Sampling, ending in at the end of 2023, previously supported by ACCSP funds. I talked with Executive Director Bob Beal. It's likely that ASMFC can provide some funding for the following year, 2024, so just a very short-term solution. We still are looking to the states for some long-term guidance on the Herring Portside Sampling.

CHAIR WARE: Okay, great. It looks like we have a few more years of coverage, still a discussion topic we won't need to have in the future. But I think it's good that we have a little bit of buffer, it looks like.

ADJOURNMENT

Is there any other, Other Business today? Seeing none; I will ask for a motion to adjourn. Cheri Patterson and a second from Ray Kane. Thank you all.

(Whereupon the meeting adjourned at 9:30 a.m. on Monday, November 7, 2022)

New England Fishery Management Council

FOR IMMEDIATE RELEASE
September 30, 2022

PRESS CONTACT: Janice Plante
(607) 592-4817, jplante@nefmc.org

Atlantic Herring: Council Signs Off on 2023-2025 Specifications; Receives Stock Assessment Overview

The New England Fishery Management Council voted on a 2023-2025 specifications package that will determine catch limits for the Atlantic herring fishery for the next three fishing years.

The Council took this step during its September 2022 hybrid meeting in Gloucester and based the decision on:

- The most recent stock assessment information available;
- The Scientific and Statistical Committee's overfishing limit (OFL) and acceptable biological catch (ABC) recommendations for the resource; and
- The herring rebuilding plan in Framework Adjustment 9.

The 2023-2025 annual catch limits (ACLs) are low but represent an increase from recent fishing years. For comparison, here is what the 2022 area-by-area sub-ACLs were:

Atlantic Herring Management Areas	Initial 2022 Sub-ACLs
Area 1A	1,184
Area 1B	176
Area 2	1,139
Area 3	1,598
Total ACL	4,098

The sub-ACLs above are in metric tons (mt).

2023-2025 Atlantic Herring Specifications
(in Metric Tons)

Specification	2023	2024	2025
Overfishing Limit (OFL)	29,138	32,233	40,727
Acceptable Biological Catch (ABC)	16,649	23,409	28,181
Management Uncertainty*	4,220	4,220	4,220
Optimum Yield / Annual Catch Limit (OY/ACL)	12,429	19,189	23,961
Domestic Annual Harvest	12,429	19,189	23,961
Border Transfer	0	0	0
Domestic Annual Processing	12,429	19,189	23,961
U.S. At-Sea Processing	0	0	0
Area 1A Sub-ACL (28.9%)*	3,592	5,546	6,925
Area 1B Sub-ACL (4.3%)	534	825	1,030
Area 2 Sub-ACL (27.8%)	3,455	5,335	6,661
Area 3 Sub-ACL (39%)	4,847	7,484	9,345
Fixed Gear Set-Aside	30	30	30
Research Set-Aside as % of Sub-ACLs	0%	0%	0%

* If the New Brunswick weir fishery landings through October 1 are less than the associated "trigger" of 2,722 mt, then 1,000 mt will be subtracted from the management uncertainty buffer and added to the Area 1A sub-ACL and the ACL.

New England Fishery Management Council

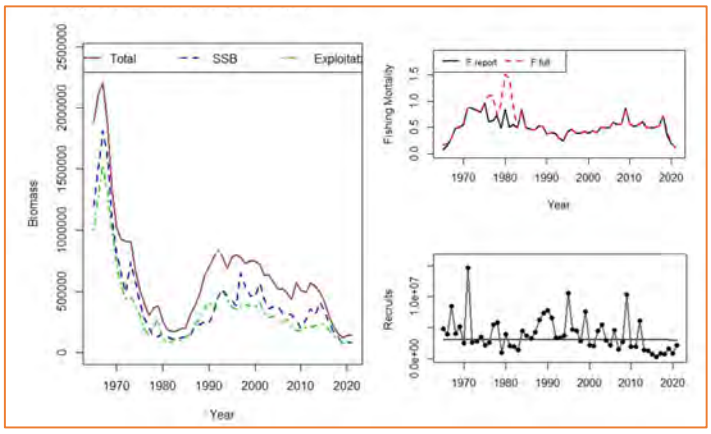
The specifications must be approved and implemented by NOAA Fisheries before going into place. The new herring fishing year will begin on January 1, 2023.

STOCK ASSESMENT: Before considering the specifications package, the Council received a presentation from the Northeast Fisheries Science Center on the peer reviewed results from the June 2022 Atlantic Herring Management Track Stock Assessment.

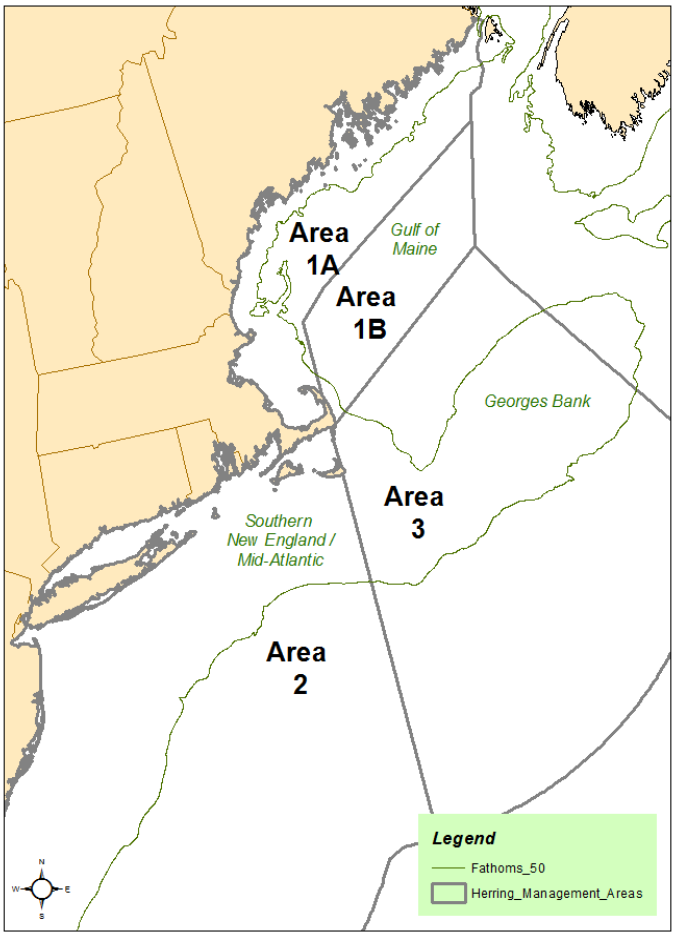
The assessment results indicate:

- Atlantic herring is overfished but overfishing is not occurring.
- Survey data from 2020 was missing because surveys did not occur due to public health restrictions during the COVID-19 pandemic. This issue represents a source of uncertainty in the assessment.
- Spawning stock biomass in 2021 was estimated to be at 21% of the biomass target.
- Fishing mortality in 2021 was very low, estimated at 31% of the overfishing threshold proxy.
- Despite low fishing pressure, recruitment continues to be poor, which is another source of uncertainty. And, among other results,
- The assessment used an updated method to develop projections about future recruitment, which the stock assessment peer reviewers, Scientific and Statistical Committee (SSC), and the Herring Plan Development Team (PDT) consider to be more realistic.

2022 Atlantic Herring Assessment Results: Biomass, Fishing Mortality, and Recruitment Trends from 1965 through 2021



Atlantic Herring Management Areas



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Phone: (978) 465-0492 | Fax: (978) 465-3116 | www.nefmc.org

The SSC considered the assessment results and based its overfishing limit (OFL) and acceptable biological catch (ABC) recommendations on the Council's ABC control rule for herring, which was developed in Amendment 8 to the Atlantic Herring Fishery Management Plan (FMP). The control rule is biomass-based, so when biomass declines, the allowable level of fishing mortality on the resource also declines. The maximum fishing mortality allowed on the herring resource under the ABC control rule is 80% in order to account for herring's role in the ecosystem as a forage species. If biomass declines below a specified low level, fishing mortality is reduced to zero.

The specifications also factor in the Council's rebuilding plan for herring, which was adopted through Framework Adjustment 9 to the Atlantic Herring FMP and implemented on August 18, 2022. Under the framework's rebuilding projections, the herring resource is expected to rebuild in five years – by fishing year 2026 – assuming long-term average recruitment in the fishery, although updated projections indicate rebuilding may take an additional two years.

The 2023-2025 specifications package will be submitted to the Greater Atlantic Regional Fisheries Office (GARFO) for review, approval, and implementation. The package maintains the river herring and shad catch caps that are currently in place for specific gear types as shown in the table below.

FRAMEWORK ADJUSTMENT 7: The Council also discussed Framework Adjustment 7 to the herring plan, which has been under development since 2019. The action proposes measures to protect spawning adult herring on Georges Bank.

The Council considered changing its 2022 herring priorities to discontinue work on the action for several reasons, including: (1) fishing activity for herring on Georges Bank has dropped considerably under the current low catch limits; (2) monitoring and enforcement of offshore spawning areas will be difficult; (3) the Council's herring staff will be focused on completing and submitting the herring specifications package over the next few months; and (4) much more work needs to be conducted to fully develop the details of Framework 7.

However, many Council members preferred to continue developing the framework, recognizing that focused work on this action will resume in early 2023. Therefore, the Council will proceed with developing the details of this action.

QUESTIONS? *Contact Dr. Jamie Cournane at jcournane@nefmc.org.*

River Herring and Shad Catch Caps
Fishing Years 2023-2025
(in metric tons)

Gear and Area	2023	2024	2025
Midwater Trawl Gulf of Maine	76.7	76.7	76.7
Midwater Trawl Cape Cod	32.4	32.4	32.4
Midwater Trawl Southern New England and Mid-Atlantic	129.6	129.6	129.6
Bottom Trawl Southern New England and Mid-Atlantic	122.3	122.3	122.3

Atlantic herring. – Meghan Lapp photo

Atlantic States Marine Fisheries Commission

American Lobster Management Board

January 31, 2023
10:15 a.m. – 12:45 p.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(J. McNamee)*	10:15 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from November 2022	10:15 a.m.
3.	Public Comment	10:20 a.m.
4.	Review Report from Atlantic Large Whale Take Reduction Team and Progress on Atlantic Large Whale Take Reduction Plan *(C. Coogan/M. Trego)*	10:30 a.m.
5.	Consider Draft Addendum XXVII on Increasing Protection of Spawning Stock Biomass of the Gulf of Maine/Georges Bank Stock for Public Comment *(C. Starks)* **Action**	11:00 a.m.
6.	Update from Work Group on Implementation of Addendum XXIX on Electronic Vessel Tracking for Federal Permit Holders *(C. Starks)*	12:15 p.m.
7.	Other Business	12:30 p.m.
8.	Adjourn	12:45 p.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

MEETING OVERVIEW

American Lobster Management Board
November 7, 2022
10:15 a.m. – 12:45 p.m.

Chair: Dr. Jason McNamee (RI) Assumed Chairmanship: 02/22	Technical Committee Chair: Kathleen Reardon (ME)	Law Enforcement Committee Representative: Rob Beal
Vice Chair: Pat Keliher (ME)	Advisory Panel Chair: Grant Moore (MA)	Previous Board Meeting: November 7, 2022
Voting Members: ME, NH, MA, RI, CT, NY, NJ, DE, MD, VA, NMFS, NEFMC (12 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from November 7, 2022

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Review Report from Atlantic Large Whale Take Reduction Team and Progress on Atlantic Large Whale Take Reduction Plan (10:30-11:00 a.m.)

Background

- The Atlantic Large Whale Take Reduction Team (ALWTRT) met virtually over six days in November and December 2022. The goal of this meeting was for the ALWTRT to develop recommendations to NMFS for measures in the pot/trap and gillnet fisheries along the Atlantic coast to reduce mortality and serious injury (M/SI) of right whales in US commercial fisheries to below the Potential Biological Removal (PBR) level required by the Marine Mammal Protection Act. This equates to an 88-93% total risk reduction, or an additional 41-46% reduction beyond that accomplished through the Phase 1 measures implemented in 2021. The team reviewed all available data, analyses of various combinations of measures using the decision support tool, and qualitative information to inform the discussion and recommendations.
- The ALWTRT did not produce a consensus recommendation to NMFS during its December 2022 meeting. Rather, a document including key considerations and input from various stakeholder groups was provided to NOAA Fisheries to consider as it develops measures to meet the required risk reduction.

Presentations

- Report from Atlantic Large Whale Take Reduction Team and Progress on Atlantic Large Whale Take Reduction Plan by C. Coogan and M. Trego

5. Consider Draft Addendum XXVII on Increasing Protection of Spawning Stock Biomass of the Gulf of Maine/Georges Bank Stock for Public Comment (11:00 a.m.-12:15 p.m.) Action

Background

- Draft Addendum XXVII was initially initiated in 2017 to proactively increase protection of the GOM/GBK stock but stalled due to the prioritization of Atlantic right whale issues. After accepting the 2020 Benchmark Stock Assessment for American lobster, the Board reinitiated work on the draft addendum in February 2021, with a focus on developing a trigger mechanism that would automatically implement management measures to improve protection of the GOM/GBK spawning stock if the trigger is reached.
- The Addendum considers modifications to the management program with the goal of increasing protection of the GOM/GBK spawning stock. Two issues are included in the addendum. Issue 1 addresses the standardization of a subset of management measures within LCMAs and across the GOM/GBK stock. Issue 2 considers applying either a trigger mechanism or a predetermined schedule for implementing biological management measures that are expected to provide increased protection to the spawning stock biomass and increase the resiliency of the stock.
- The Board approved Draft Addendum XXVII for public comment in January 2022, but then paused development of the Draft Addendum to allow time to better understand other challenges facing the fishery. At its November 2022 meeting the Board rescinded the motion to approve the document for public comment in order to make additional changes to the Draft Addendum. Specifically, the Board requested the management options be modified such that only one trigger level that would result in implementation of new gauge sizes, rather than two triggers **(Briefing Materials).**

Presentations

- Overview of Draft Addendum XXVII for Board Consideration for Public Comment by C. Starks

Board Actions for Consideration at the Meeting

- Make further changes to proposed management options, if necessary
- Approve Draft Addendum XXVII for Public Comment

6. Update from Work Group on Implementation of Addendum XXIX on Electronic Vessel Tracking for Federal Permit Holders (12:15-12:30 p.m.)

Background

- In March 2022, the Board approved Addendum XXIX to Amendment 3 to the Interstate Fishery Management Plan (FMP) for American Lobster and Addendum IV to the Jonah Crab FMP. The Addenda establish electronic tracking requirements for federally-permitted vessels in the American lobster and Jonah crab fisheries. The addenda address several challenges facing the fishery, including stock assessment limitations, protected species interactions, marine spatial planning efforts, and enforcement in federal waters.

- The Addenda require federally-permitted American lobster and Jonah crab vessels with commercial trap gear area permits for Lobster Conservation Management Areas (LCMAs) 1, 2, 3, 4, 5, and Outer Cape Cod to collect location data via an approved electronic tracking device.
- Since approval of the Addenda, Commission staff formed a Work Group comprised of state and federal partners to develop a request for quotes from vessel tracking device manufacturers. The request for quotes was released in the fall of 2020, and the Work Group received five quotes.
- The Work Group reviewed all five quotes, and has determined that four of them met the criteria required by Addendum XXIX for use in the lobster and Jonah crab fishery and have been sent letters of approval.

Presentations

- Update on Implementation of Addendum XXIX by C. Starks

7. Other Business (12:30-12:45 p.m.)

8. Adjourn

American Lobster and Jonah Crab TC Task List

Activity level: Medium

Committee Overlap Score: Medium

Committee Task List
Lobster TC • August 1, 2023: Annual Compliance Reports Due • Fall 2023: Annual data update of lobster abundance indices *Jonah Crab TC* • Spring-Summer 2023: Development of Jonah crab stock assessment • August 1, 2023: Annual Compliance Reports Due

TC Members
American Lobster: Kathleen Reardon (ME, TC Chair), Joshua Carloni (NH), Jeff Kipp (ASMFC), Catherine Fede (NY), Conor McManus (RI), Chad Power (NJ), Tracy Pugh (MA), Burton Shank (NOAA), Craig Weedon (MD), Somers Smott (VA), Renee St. Amand (CT)
Jonah Crab: Derek Perry (MA, TC Chair), Joshua Carloni (NH), Chad Power (NJ), Jeff Kipp (ASMFC), Conor McManus (RI), Allison Murphy (NOAA), Kathleen Reardon (ME), Chris Scott (NY), Burton Shank (NOAA), Somers Smott (VA), Corinne Truesdale (RI), Craig Weedon (MD)

Jonah Crab Stock Assessment Subcommittee (SAS) Members
Jonah Crab: Derek Perry (MA, TC Chair), Joshua Carloni (NH), Jeff Kipp (ASMFC), Kathleen Reardon (ME), Burton Shank (NOAA), Corinne Truesdale (RI), Jeremy Collie (URI)

Addendum XXVII PDT Members
American Lobster: Kathleen Reardon (ME), Joshua Carloni (NH), Robert Glenn (MA), Corinne Truesdale (RI), Allison Murphy (NOAA)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

AMERICAN LOBSTER MANAGEMENT BOARD

The Ocean Place Resort
Long Branch, New Jersey
Hybrid Meeting

November 7, 2022

These minutes are draft and subject to approval by the American Lobster Management Board.
The Board will review the minutes during its next meeting.

TABLE OF CONTENTS

INDEX OF MOTIONS

1. **Approval of agenda** by consent (Page 1).

2. **Move to approve Proceedings of August 2, 2022** by consent **(**Page 1).

3. **Move to rescind the following two motions passed in August 2022 and January 2022 meetings, respectively** (Page 13)**:**
   - **Move to postpone consideration of public hearings on Draft Addendum XXVII until the Annual Meeting to allow the Plan Development Team (PDT) time to address challenges raised by existing Magnuson-Stevens Act language regarding possession of lobsters smaller than the lowest minimum size limit specified in the American Lobster FMP. This could include language which differentiates harvest vs. possession limits to reduce impacts on dealers and processors. The Law Enforcement Committee should also review new language that may be suggested by the PDT.**
   - **Move to rescind the ability to approve Draft Addendum XXVII for Public Comment, as amended** Motion by Pat Keliher; second by Cheri Patterson. Motion approved by unanimous consent (Page 14).

4. **Main Motion**
   Move that the PDT simplify section 3.2 of Draft Addendum XXVII to the American Lobster FMP, by creating a single trigger level, that shall act as a backstop, protecting the stock from further declines. The PDT shall use the Technical Committee's trigger level recommendation (Sept 10, 2021 Memo to the Board), utilizing a three-year running average of the trigger index when it declines by 45% from the reference period (Page 14). Motion by Pat Keliher; second by Dennis Abbott. Motion amended.

   Motion to Amend
   Move to amend the percentage to a range of 30% to 45% (Page 17). Motion by Cheri Patterson; second by Eric Reid. Motion carried with one abstention (Page 18).

   Main Motion as Amended
   Move that the Plan Development Team simplify Section 3.2 of Draft Addendum XXVII to the American Lobster FMP, by creating a single trigger level, that shall act as a backstop, protecting the stock from further declines. The PDT shall use the Technical Committee's trigger level recommendation (Sept 10, 2021 Memo to the Board), utilizing a three-year running average of the trigger index when it declines by 30-45% from the reference period. Motion approved with one abstention (Page 19).

5. **Move to change the years in Issue 2 Option E to 2025 and 2027** (Page 20). Motion by Pat Keliher; second by Dennis Abbott. Motion approved with one abstention (Page 21).

6. **Move to adjourn** by consent (Page 25).

ATTENDANCE

Board Members

Pat Keliher, ME (AA)
Stephen Train, ME (GA)
Cherie Patterson, NH (AA)
Doug Grout, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Dan McKiernan, MA (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Jason McNamee, RI (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Colleen Bouffard, CT, proxy for J. Davis (AA)
Bill Hyatt, CT (GA)
Sen. Craig Miner, CT (LA)
John Maniscalco, NY, proxy for J. Gilmore (AA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Russell Dize, MD (GA)
Shanna Madsen, VA, proxy for J. Green (AA)
Jay Hermsen proxy for A. Murphy, NOAA

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Kathleen Reardon, Technical Committee Chair
Rob Beal, Law Enforcement Committee Rep.
Derek Perry, Jonah Crab Technical Committee Chair

Staff

Bob Beal
Toni Kerns
Madeline Musante
Tina Berger
Lindsey Aubart
Emilie Franke
Chris Jacobs
Jeff Kipp
Adam Lee
Mike Rinaldi
Adam Lee
Anna-Mai Christmas-Svajdlenka
Caitlin Starks

Guests

Richard Balouskus, RI DEM
Kurt Blanchard, RI DEM
Sarah Bland, NOAA
David Borden, RI (GA)
Colleen Bouffard, CT DEEP
Michael Brown, ME DMR
Josh Carloni, NH F&G
Patrick Cassidy
Heather Corbett, NJ DEP
Nicole Caudell, MD DNR
Jessica Daher, NJ DEP
Wes Eakin, NYS DEC
Aubrey Ellertson, CFR Foundation
Catherine Fede, NYS DEC
Marianne Ferguson, NOAA
Erica Fuller, CLF
Pat Geer, VMRC
Lewis Gillingham, VMRC
Jennifer Goebel, NOAA
Heidi Henninger, AOLA
Helen T. Heumacher, US FWS
Matthew Heyl, NJ DEP
Jesse Hornstein, NYS
Dierdre Keliher, ME DMR
Jared Lamy, NH F&G
Danni Logue
Gregory Mataronas
Genine McClair, MD DNR
Lorraine Morris, ME DMR
Brandon Muffley, MAFMC
Brian Neilan, NJ DEP
Thomas Newman
Jeffrey Nichols, ME DMR
Victoria Oriole, CFARM
Nick Popoff, US FWS
Chad Power, NJ DEP
Tracy Pugh, MA DMF
Daniel Sawyer
Nathan Shivers, CFARM
Ethan Simpson, VMRC
Melissa Smith, ME DMF
Somers Smott, VMRC
Renee St. Amand, CT DEEP
ElizaBeth Streifeneder, NYS DEC
Kevin Sullivan, NH F&G
Pam Thames, NOAA
Jason Surma, Woods Hole Group

Guests (continued)

Mary Beth Tooley
Corinne Truesdale, RI DEM
Jesica Waller, ME DMR
Anna Webb, MA DMF
Craig Weedon, MD DNR
Ritchie White, CCA NH
Angel Willey, MD DNR
John P. Williams
Steven Witthuhn
Greg Wojcik, CT DEEP
Chris Wright, NOAA
Jordan Zimmerman, DE DFW
Renee Zobel, NH F&G

The American Lobster Management Board of the Atlantic States Marine Fisheries Commission convened in The Monmouth I Room of The Ocean Place Resort via hybrid meeting, in-person and webinar; Monday, November 7, 2022, and was called to order at 9:45 a.m. by Chair Jason McNamee.

CALL TO ORDER

CHAIR JASON McNAMEE: All right, I think we are good to get started here. Welcome everybody. Welcome to the American Lobster Management Board. We will call the meeting to order.

APPROVAL OF AGENDA

CHAIR McNAMEE: We were provided an Agenda. Does anybody have any additions, deletions, any comments on the agenda?

Okay, not seeing any hands or anyone moving to their microphones, so we'll consider the agenda approved as submitted. Actually, are there any objections to approving the agenda as submitted? No hands in the room. Anybody raise a hand online? No hands online. The agenda is approved as submitted.

We are still hybrid. There are some folks online, so that is kind of the tact I will take here is I'll check the room first for hands and then ask Caitlin to check the virtual hands for me.

APPROVAL OF PROCEEDINGS

CHAIR McNAMEE: The agenda is approved, next up we've been provided a copy of the proceedings from our August meeting. Any changes, deletions, comments on the minutes from the last meeting?

No hands in the room, anyone on line? No hands online. Are there any objections to approving the proceedings from the last meeting as submitted? No hands in the room, no hands online. We will consider those meeting proceedings approved as submitted.

PUBLIC COMMENT

CHAIR McNAMEE: Next up we have opportunity for public comment for things that are not on the agenda.

Do we have anyone signed up for comments? Okay, no one has signed up. Is there anyone in the room who wishes to make a comment on something that is no on the agenda, please raise your hand? No hands raised in the room, no hands online either, so we'll conclude the public comment section there.

I'll provide other opportunities while we're in the agenda for public comment as well, but that was the opportunity for things that aren't currently on our agenda, so that you can raise them so we can get them on a future agenda.

UPDATE ON THE NORTH ATLANTIC RIGHT WHALE COURT CASES

CHAIR McNAMEE: Moving on to our next agenda item, we have our update on the North Atlantic Right Whale Court Cases, and I have been told that Chip is going to give that update.

MR. CHIP LYNCH: Good to see everybody here. I'll provide an update from where we were when we last met and spoke at the August meeting. Just to orient everyone, at the August meeting we had three cases that were somewhat up in the air. The first was the CBD versus the Agencies, et al. At that time when we met in August, we had just received an Opinion from Judge Boasberg a month earlier in early July, finding both NOAA's Final Rule defective and its Biological Opinion defective.

That is sort of the big case. That is the case that is really the engine that is moving things. But there were also other cases. There was the Maine Lobster Union case. That was the case that challenged the Area 1 closure. We had just

received a First Circuit decision in that case that had found the Agencies science to be reasonable. At that time, again we're talking now about where we were last August.

It was also the MLA case, the Maine Lobstermen's Association case. At that time, that as you all know is the flip side to the CBD, the Judge Boasberg case, where CBD is brought by a certain number of environmental plaintiffs. The MLA case was brought by a number of industry plaintiffs.

Even though we had heard from Judge Boasberg in the CBD case, we had not heard from Judge Boasberg in the MLA case. The issue at that time was how are we going to proceed and discuss the remedy part of the CBD case, when we haven't heard on the underlying merits of the MLA case? That is where we were in August, and a lot has happened since then.

I'll sort of handle them in reverse order, and we'll end up at the CBD case. The MLU case has since been dismissed. The plaintiffs there decided not to proceed forward. In the MLA case, we received a court order from Judge Boasberg in early September. In that case the Judge found that NOAA's science was reasonable.

The court didn't go so far as to say that reasonable minds could differ, there could be differences of opinion as to which is the best course. But the court found that NOAA's position was reasonable. Promptly, MLA appealed that matter and was later joined by MLU, who was also an intervener in that case, and the state of Maine. They are appealing. This matter is now at the District of Colombia Circuit of Appeals, and in fact there was an agreement where all the parties agreed to brief that case in an expedited fashion.

For the same reasons that were discussed in the underlying case, there are issues here. We need to get answers before courts move in a different direction than other cases. The court agrees to move forward, and the DC Circuit agreed to move forward in an expedited fashion, and in fact that MLA plaintiffs, or the Maine Lobstermen's Association, MLU and Maine are going to provide their first brief, I think on Wednesday of this week, followed by NOAA and the environmental members of that lawsuit, will be filing something in mid-December.

Then MLA gets the final word in a reply in early January. Court has then signaled that it will want to hear an oral argument on that matter. We would probably be in a position to hear back from the court with a final decision sometime August or September of 2023. That is spit balling, there is a lot that can happen at any time that could spur a court to come back with an earlier decision. But we're thinking about a late summer, early autumn decision in that case. All of which leaves us with the CBD case. We are completed briefing. As of August, we had yet to file our brief, but as of now we've all completed our briefing. By that I mean, briefing is when the parties, everybody involved gets to write down their arguments, why their position is correct and why their opponent's position is incorrect.

That is all done. We would normally be in a position to be hearing from the court at any time now, but the parties have agreed to NOAA's request that there be an oral argument in this matter. That is going to happen on Thursday of this week. After Thursday, we anticipate that the Court will be in a position to render a decision.

When we were here last, I think I told you all that we could expect a decision in late November, early December. I think that timeframe remains true, even though we're having an additional oral argument. A lot of that will depend on of course what the Court asks. But the positions of the parties have become a little bit more clear than they were when were last here in August.

Specifically, as it relates to the allegedly defective rule, we have the parties seem to, or at least NOAA has said that it can complete a rule that gets to PBR that is the potential biological removal target under

the Marine Mammal Protection Act, by December of 2024. The environmental plaintiffs originally said that was too long of a time, that it could be done in six months.

The industry side said that was too short of a time that it would really take much longer than two years, given the complexity of the matter. But it appears as though the parties have agreed to let that two-year timeframe stand in the briefing documents. Now that doesn't mean that the Court will accept that. But there is no opposition to NOAA's proposed two-year time schedule for the Rule.

The other part is the issuing a biological opinion that corrects the defect that the Court found. Again, we found that the plaintiffs had moved off the position of saying it can be done in six months. They are now agreeing that NOAA can do it, or agreeing to allow it to happen within two years. NOAA has tied its proposal to the development of ropeless on-demand fishing, which it thinks will take about eight years to happen. There is a difference of opinion there. I think a lot of the industry litigants here think that eight years is unduly optimistic.

That's really where the crux of the argument is right now. But again, it's narrowed a bit, so I could see the Court issuing an opinion soon after the oral argument. There are also a few cases involving wind power that also involve right whales. The Board would be interested in hearing the decisions on those when it eventually comes, simply because when the Court opines on the issues involving right whales it of course has reverberations everywhere, including species protected or a managed lobster fishery and Jonah Crab by this Board.

There are five of them, four of them involving the Vineyard Wind Project south of the Cape and the Islands, and then one of them involving South Fork, which is just sort of off of Rhode Island, Rhode Island/Connecticut and New York area. Those five cases are in various stages of briefing, so it's behind where we are in the CBD case. All those cases have been brought in the Federal District Court in Massachusetts, in front of Judge Talwani. It looks as though those cases are lining up for a decision by the Judge sometime next spring, so in the May 2023 timeframe. There is a lot that's going to be happening within the next, well there is probably going to be a lot of things happening in the next few weeks. But there is certainly going to be a lot that is happening in the next few months. With that, Mr. Chair, I've concluded my presentation, and if there are any questions, I'm happy to entertain them.

CHAIR McNAMEE: Excellent, thanks so much, Chip, really appreciate that update. Any questions for Chip from the Board? Go ahead, Pat.

MR. PATRICK C. KELIHER: Not questions, I think, Chip, you nailed all the points. I mean he's living and breathing it, and I don't blame him for having his back to the wall. I think the take home for this Board is the timeframe around what may or may not come from the Courts in the CBD case, as it pertains to remedy.

There is alignment, Maine DMR and NMFS had very similar arguments on the timeframe for remedy, asking for two years basically to reach the potential biological removal. The real key take home here is that the CBD and the ENGOs, while they agreed to the two-year timeframe, they said they also wanted the two-year timeframe to achieve negligible impact determination.

That is closing this fishery, because as you heard from Chip, we are nowhere near having ropeless ready to be implemented, at least eight years. The timeframe here is really critical. On a parallel track the Agency is working on rulemaking to achieve this two-year timeframe that they laid out in their court brief.

The state of Maine and our other state partners, we're all approaching it a little bit differently, have been running utilizing the decision support tool to try to figure out where we're going to end up. I can

tell you, I just want to put this on the table, because it's going to come up again later in the agenda.

The changes to this fishery I think are going to be draconian, especially in federal waters, in order to achieve PBR. Once you achieve PBR, you then have to reach NID, which is 10 percent of PBR, which is an impossible bar to achieve. I'm very concerned about the direction and the timeframe we're going. There is no guarantee that Judge Boasberg will agree to two years.

In fact, Chip and I talked in the hallway this morning. He thinks he will. Our attorney's, who everybody's got an opinion, including attorneys, and they are disagreeing where the Judge may come down on this. We could be in a situation that we're going to be trying to come up with something sooner than two years. A lot of uncertainty. A lot of uncertainty for management, and tremendous uncertainty for the industry. I'll leave it at that.

CHAIR McNAMEE: Thanks, Pat. Chip, there was no question there, I don't think any reaction. Next up I had Dan.

MR. DANIEL McKIERNAN: Great presentation, Chip. Chip, my question has to do with a comment that the Commonwealth put forward to NMFS in the scoping period last month, and it had to do with the timeframe from which the 90 percent reduction in takes needs to be accomplished. In our comments we recommended that we reverse the clock and go back maybe into the middle of the decade. Right now, I believe it's beginning in 2017, 2017 was notorious for a lot of spikes in deaths of right whales, particularly in the Gulf of St. Lawrence.

My question to you is, when will we know NMFS position about whether or not we can get credit for that Mass Bay restricted area closure, and whether or not we could accomplish a 90 percent reduction in takes, but from an earlier timeline?

MR. LYNCH: I am aware of the issue, and it's really not a legal issue, it's a matter of the scientists talking about it with managers. Dan, I guess I don't have an answer as to when, because it's not something I really have control over. But I can say certainly that the GARFO staff, the Science Center, the federal people here are exploring all legally defensible options here.

I know that they are aware of that issue, and I know that they are talking about, again all possibilities that are legal. That is not much of an answer, but other than to say I hear you, and this isn't the first time I've heard that issue.

CHAIR McNAMEE: Anyone else with questions for Chip, before we move on to the next agenda item? Anyone online? Okay, I think you are off the hook, Chip. Thank you very much for that report.

REVIEW OF THE ANNUAL DATA UPDATE OF AMERICAN LOBSTER INDICES

CHAIR McNAMEE: We are going to move on to our next agenda item, and this is a Review of the Annual Data Update of American Lobster Indices. These are the non-model indices that get generated. I believe Chair of the TC, Kathleen Reardon has a presentation for us, so Kathleen, whenever you're ready, please take it away.

MS. KATHLEEN REARDON: Coming out of the 2020's American Lobster Stock Assessment, it was recommended to provide data updates to the Board between assessments to allow for evaluation of potential changing trends and stock abundance. The objective of this process is to present information that could support additional research, or consideration of changes to management between assessments.

The datasets that I will present are those that may indicate the exploitable lobster stock abundance conditions in the future. Those datasets are the trawl survey indicators, including recruit abundance and survey encounter rate, ventless trap surveys, sex-specific indices by statistical area, and young-of-year settlement indicators.

The updated data since the last assessment include 2019 data, 2020, 2021 and this is the second data update provided to the Board since the 2020 assessment. To show the relative status, we use a baseline from the assessment to understand potential changes in condition. For each time series below the 25th percentile is considered negative condition.

Between the 25th and 75th is considered neutral, and above the 75th is a positive condition. The terminal indicator status for each index is a five-year mean, and we compare the five-year mean from the assessment, including 2014 to 2018, to the most recent and updated five-year mean of 2017 to 2021. Some notes to consider. COVID-19 had impacts on sampling efforts in 2020, and will continue to impact our updated five-year mean in this period of 2017 to 2021. Also, the Massachusetts Southern New England Ventless Trap Survey reduced the spatial area sampled in 2021 due to issues with industry participation. The ventless trap indices have been recalculated to only consider the areas that have been sampled over the whole period. The figure shown on the slides only display the annual values of the time series, but the memo in your materials includes tables with the assessment and updated five-year mean values.

The red dots and lines in all of the figures represents the updated data since the last assessment, while the black dots and bold lines are the data time series considered in the assessment and time series, determining the 25th and 75th percentiles. The solid gray line is the 25th, below which is negative, and the dotted gray line is the 75th, above which is positive.

Between the gray horizontal lines represent neutral conditions. I'll start with the Gulf of Maine young of year indices. All updated five-year means were neutral, which is an improvement from the assessment, because both southwest areas were negative during the assessment. But, when we look at individual years, the 2021 young-of-year indices fell below the 25th percentile into negative condition for the three most northeast areas, reversing some of the improvements that we saw in the previous years in those areas.

For the Gulf of Maine Trawl Survey recruit indices, the indicators remained positive, but showed some signs of decline since the assessment. The Maine/New Hampshire Fall Trawl Survey updated five-year mean changed from positive in the assessment to neutral in the update, while the others remained positive since the assessment.

Looking at individual years, the 2021 values for three of the four inshore indicators were neutral, and the only available 2020 value was also neutral. This is notable, because these were the first observed neutral annual values since 2014 or 2015 for these indicators. The offshore indicators from the Science Center Trawl Survey remain positive.

It is important to note that five of the six indicators were not available in 2020, due to COVID sampling restrictions. For encounter rates in the Gulf of Maine, all four updated five-year means for the inshore indicators were neutral, whereas only one was neutral in the assessment, showing declines in index condition.

The updated five-year mean for the two offshore indicators remained positive. Again, five of six indicators did not collect data in 2020. For the Gulf of Maine, Ventless Trap Survey indicators, the surveys have shown declines since the stock assessment. For the updated means, seven of eight updated means were neutral, and one was negative compared to four positive, four neutral, and no negative means during the assessment.

Two additional indices in Statistical Area 512 moved to negative conditions in 2021, while the values in 514 were among the lowest values observed. Switching to Georges Bank recruit abundance from the Science Center Trawl Survey, conditions were similar to the stock assessment, where both means remained neutral since the assessment.

The 2021 annual values were both positive and relatively high. These indicators tend to be noisier than some of the other abundance indicators, with higher interannual variability and lack of discernable trends. For encounter rate in the Georges Bank, we have seen some decline in the fall since the assessment, so that fall mean changed from positive to neutral, but spring remained positive. No indicators were available for Georges Bank in 2020. For Southern New England the updated five-year means for young of year were all negative, while only two of three were negative in the assessment.

There has only been one non-negative annual indicator observed since the assessment, and no young of year have been observed in Massachusetts for the past seven years. For recruit abundance from trawl surveys in Southern New England, conditions were similar to the assessment, with some slight decline offshore.

The spring offshore updated mean changed from neutral to negative, while the other updated means were unchanged, with five recruit abundance indicators remaining negative, and the other two indicators, one inshore and one offshore, remaining neutral. Six of the eight indicators were unavailable in 2020.

For Southern New England encounter rates, the conditions have deteriorated since the assessment, with all updated means and negative conditions, with two changing from neutral to negative since the assessment, and all annual encounter rates indicators negative in 2021. For Southern New England Ventless Trap Survey, all updated five-year means were neutral, which is unchanged from the stock assessment.

It is important to note that the ventless trap survey has only taken place in Southern New England during depleted stock conditions, coinciding with adverse environmental regime. Interannual variability can be misleading without the context of the longer time series encompassing varying stock conditions.

As noted earlier, the Massachusetts Survey reduced its spatial coverage, so the prior years were recalculated to include only the consistent reduced survey area. The female index, calculated with the reduced survey area and Statistical Area 538 was similar to the index from the broader historical survey area reviewed last year. The 2018 and 2019 values for the male index changed from neutral for the historical survey, to negative for the reduced survey area.

In summary, the Gulf of Maine indicators show declines from time-series highs observed during the stock assessment. Georges Bank indicators show conditions similar to the assessment, but there are also no young of year or ventless trap indicators available for this sub-stock area. In Southern New England, indicators show continued unfavorable conditions with some further signs of decline since the assessment. Thank you for your time, and I will take any questions.

CHAIR McNAMEE: Thank you so much, Kathleen. There is no action item here, but this information kind of plays into our next agenda item, so it's important to kind of clarify any questions that you might have on this information. Looking around the table here for any questions for Kathleen on the indices. Go ahead, Steve.

MR. STEPHEN TRAIN: Kathleen, if you don't mind, the Gulf of Maine indices you had up, if you could find them again. You said there were a lot of things that were neutral, because they were between the bars. Is that correct? I know you're supposed to present the facts and science and maybe not voice an opinion. But it seemed like when I was looking at those, those one that you said were neutral, not positive and negative, they were still between the bars, but they were continuing declining the whole time.

You didn't voice a comment on that, and thank you. But as someone who is dependent on this resource,

when you see continuing declines and you say, well it's neutral. Yes, we were at all-time highs seven years ago or six years ago. But obviously, whether neutral or not, it's a pretty bad indication at this point. Am I wrong?

MS. REARDON: It is one of the reasons that this was recommended coming out of the assessment to share this information between assessments, because we can look at trends. It does complicate matters, because we don't have 2020 in a number of the surveys. The only survey that went, I'm pretty sure, is the fall Maine/New Hampshire Trawl Survey in 2020.

For many areas the only number, we have 2019 and we have 2021. There is a difference in those, but when we're looking at the five-year means, it's 2017 to 2021. That is why I noted here that all of the 2021 numbers, except for I think the spring, we have definitely been seeing those declines.

CHAIR McNAMEE: Anyone else with question for Kathleen? Any hands online? All right. With that, why don't we go ahead and more on to our next agenda item. Kathleen, you'll hang out with us in case any questions come up? Great.

CONSIDER NEXT STEPS ON DRAFT ADDENDUM XXVII ON INCREASING PROTECTION OF SPAWNING STOCK BIOMASS OF THE GULF OF MAINE/GEORGES BANK STOCK

CHAIR McNAMEE: Okay, our next agenda item is to Consider Next Steps on Draft Addendum XXVII on Increasing Protection of Spawning Stock Biomass of the Gulf of Maine/Georges Bank Stock.

I think we're going to start off with a brief presentation from Caitlin, and then I think we have a few procedural things we need to take care of from our last meeting, and then we can get on with the possible action on this item from there. Caitlin, whenever you're ready, you can get us oriented to the task here.

MS. CAITLIN STARKS: I'll go over where we currently stand with Draft Addendum XXVII on increasing the protection of spawning stock biomass in the Gulf of Maine and Georges Bank stock. I'll start off with some brief background on the draft addendum, and then very briefly review the proposed management options, considering the Board had seen these a number of times.

Then I'll outline the concerns that have been brought forward related to the proposed gauge size increase, and then lead the Board into discussion on how to move forward today. For a very quick recap on the background. The Board originally initiated this addendum in August, 2017, and the focus at that point was on standardizing management measures across the lobster conservation and management areas within the stock, to increase stock resiliency.

Then Draft Addendum XXVII was put on hold for several years, as the Board had to prioritize work related to right whale risk reduction efforts and then resumed work on this addendum after the 2020 benchmark assessment. Then at that point, the objective of the agenda was changed to focus on using a trigger mechanism that when a trigger is reached it would result in automatic implementation of measures that would increase the overall protection of spawning stock biomass of the Gulf of Maine and Georges Bank Stock. After the re-initiation of work on Draft Addendum XXVII in February of 2021, the Board approved the Draft Addendum for public comment in January of 2022.

However, after that Lobster Board meeting, the Policy Board decided to delay the release of the Draft Addendum for public comment, to allow for additional information to develop that could impact the public comment and the scoping meeting. Then at the August meeting this year, the public comment period was further delayed to give the PDT time to discuss a concern relating to how changing the minimum gauge size would impact trade under the Magnuson-Stevens Act. That is where we left off with Draft Addendum XXVII. Today we're discussing it again.

To quickly refresh everyone's memory, I'm just going to run through the proposed management option. The proposed options are separated into two issues. We have Issue 1, which addresses the standardization of a subset of the management measures within the LCMAs and across the LCMAs in the Gulf of Maine/Georges Bank stock.

Issue 2 considers applying either a trigger mechanism or a predetermined schedule to implement biological management measures that are expected to provide increased protection to the spawning stock biomass. Under Issue 1, the two main options are A, status quo or B, which is to implement some standardized measures upon approval of the Addendum.

Within Option B there are four sub-options that define what those standardized measures include. Sub-Option B1 includes standardizing measures only within areas where there are current discrepancies. E2 includes standardizing the V-notch requirements across the Areas in the stock. E3 is to standardize the V-notch possession definition across the areas in the stock, and B4 is to standardize the regulations for issuing additional trap tags for trap tag losses.

Then Issue 2 again focuses on implementing management measures to increase protection of the spawning stock biomass with options that consider changes to the maximum and minimum gauge sizes, along with corresponding vent sizes. These are the five options under Issue 2. A is status quo, no additional changes to measures.

B is that the gauge size changes would be triggered by a 17 percent decline in the trigger index, and then additional changes triggered by 32 percent decline in the index. Option C is that gauge size changes would be triggered by 20 percent decline, and then additional changes with a 30 percent decline. Option D is for a 17 percent decline in the index to trigger a series of gradual changes in gauge sizes over several years, and then Option E considers changes to the minimum gauge size in Area 1 only, on a predetermined schedule, as opposed to using a trigger index.

These are the proposed measures that would be implemented if each of the two triggers is reached under Option B, and that is an increase in the Area 1 minimum size at each trigger, and a decrease to the maximum size for Area 3 and Outer Cape Cod on the second trigger. This is identical to Option B, except that the trigger levels are different at 20 and 30 percent. Then Option D considers implementing a series of gradual changes in the gauge sizes that would be initiated by one trigger being met, which is set at 17 percent decline in the trigger index. Here we have the Area 1 minimum gauge size increasing to 3 and 3/8 of an inch in increments of 1/16 of an inch, and the maximum gauge size for Area 3 at Outer Cape Cod would decrease to 6 inches in increments of ¼ inch.

Then Option E would establish a schedule for changing the Area 1 minimum gauge size and vent sizes, no change to increase the spawning stock biomass, with no changes occurring for Area 3 and Outer Cape Cod. This is the updated trigger index through 2021. This is the most recently available data that we have for the trigger index, and a combined index is shown in the top left corner, upper left corner, with each of those surveys that go into the trigger index in the other three panels.

Each of the proposed trigger levels that are considered in the Addendum are shown with the horizontal black lines in the graph. Go from top to bottom that is 17 percent, 20 percent, and then 30 percent and 32 percent. On this next figure there are some additional red lines for reference, which are not currently considered for trigger levels in the Addendum. The second line from the bottom represents a 45 percent decline from the reference period, which is one of the options that was previously removed from the Addendum.

That 45 percent decline was meant to approximate the 75th percentile of the moderate abundance

regime. Then the bottom line is a 51 percent decline, and that is not included in the Addendum, based on the Technical Committee recommendation that this would not be a proactive trigger level, because this level approximates the abundance limit reference point from the stock assessment, which is a point below which the stock is considered depleted, because the stocks ability to replenish itself is diminished.

The 2021 value for the trigger index is 0.765, which is a 23 percent decline from the reference value. That means at this point the top two proposed trigger levels have already been surpassed. At the last meeting, the Board discussed this concern regarding the minimum size that is proposed for Area 1 in the Addendum under Issue 2, and the implications that could have for commerce, given the language in the Magnuson-Stevens Act.

Magnuson-Stevens prohibits the import and sale of lobster smaller than the minimum possession size currently in effect under the Commission's FMP. Since the Addendum proposes an increase in the minimum size in LCMA 1, which is currently the smallest minimum size at 3 and ¼ of an inch. The increase would go to 3 and 5/16 of an inch, and that would mean imports would then have to follow the new minimum size of 3 and 5/16 of an inch.

This could have impacts on the market and supply chain. At the last meeting the Board tasked the PDT with discussing this issue and offering some potential paths forward. The PDT met October 6, 2022. Unfortunately, based on this discussion, there is not a clear answer on how to move forward.

The PDT discussed that in Maine dealers do rely on Canadian lobster imports during the spring, when the U.S. fishery can't supply them. If that minimum size does increase, that would affect their supply during that season. The PDT discussed a possible solution, which would be to add language to the Addendum to say that the increased gauge sizes implemented through this Addendum would not apply to imported lobster. However, NOAA has advised that if the Commission were to put that type of language in the Addendum, it would need to demonstrate why it is acting counter to the MSA provision that I discussed, by showing what the economic impacts associated with the increased minimum size would be applying to imports.

Another concern was whether language to that affect would then open up the market such that lobsters of any size could be imported from other countries. In that case, there were concerns that imports of even smaller lobsters coming into the U.S. could have a negative effect on the market here.

All this being said, the PDT does recommend moving forward with the Draft Addendum, given the continued declines in the indices that we're seeing. We also had a meeting with the Law Enforcement Committee to discuss this topic last month. The general feedback provided by the LEC is that if imports were allowed to be smaller than the minimum size that is in effect in the U.S., it would create additional challenges for enforcement.

In particular, it would open up opportunities for the illegal sale of lobster that are caught in the U.S. below the legal minimum size. The LEC said that enforcing the differences in size is easy when the lobsters are coming in through the borders, but it is not as easy once those lobsters get to the dealers in the U.S., because at that point they are usually comingled, and it would be very hard to maintain separation of U.S. and non-U.S. origin lobsters.

In some states that currently have a larger minimum size than Maine's, they've dealt with the issue of different minimum sizes in trade by requiring dealers to have special exception permits, in order to possess lobsters from Maine or Canada that are under the state's minimum size. They have requirements on those dealers to report all shipments of those smaller lobsters, keep records of

all their transactions, and they're not allowed to sell those smaller lobsters within the state.

That could be something to consider if imports were allowed to be smaller than the Area 1 minimum size. The LEC also touched on the topic of standardizing management measures under Issue 1. They reiterated that wherever possible they would use support measures being standardized within and across the LCMAs in the stock.

With that I want to set the Board up for discussion and guidance on how to proceed with Draft Addendum XXVII at this time. I see a few paths forward here, which is one that the Board could take the document out for public comment as is, and use that as an opportunity to get input on the impact of increasing the minimum gauge size, given the way MSA is written.

That would mean that the size increase would apply to imports as well. Second, the Board could direct the PDT to make modifications to the management options in the document, such as the trigger levels, or measures proposed, or some kind of language on the MSA issue, to specify that the gauge size changes under the Addendum would only apply to U.S. lobster harvest.

This is where the guidance from NOAA has been that if we were to go that route, we would need to provide some substantial information on potential economic impact, to justify why the size limit should not apply to imports. Then with this second option, I'll also note that because this Draft Addendum was already approved for public comment, we would need a motion to rescind that motion from before, in order to make changes to the Addendum today. Then lastly, the Board could always choose to postpone action until a time certain or indefinitely.

With that the next steps, just for a quick possible timeline. I think this is the fastest that we could get through this addendum development at this point, given where we are in the year. If the Board were to agree to take the document out for public comment as is, we could get that posted relatively quickly this month, and schedule public hearings.

I'm not sure we could get hearings to actually happen before the holidays though. I put early January as a rough timeline for those, and then the AP would meet in January as well, and the Board could consider the document for final action in February, 2023 at the earliest. This is an example, obviously things would move back a little bit if we were to make changes to the document. With that I am happy to take any questions.

CHAIR McNAMEE: Excellent, thanks so much, Caitlin, and thanks so much for kind of laying out the next steps for us there at the end. Let's start off with questions for Caitlin, before we get into our discussion. Are there any clarification questions? I see Shanna. Go ahead.

MS. SHANNA MADSEN: Caitlin, have the CESS Committee been consulted yet to see if there is enough information to get that economic impact statement off the ground?

MS. STARKS: In short, no. We've talked with the states though, and it seems like it would be pretty hard to dig up the economic information on imports. Toni.

MS. TONI KERNS: Caitlin and I have not had a conversation yet. But I did have a conversation this morning where, I think we might have a different path forward to getting around the Mitchel provision. I'm going to continue to work on it. If this document does move forward with some additional work, I will be able to resolve that prior to the February Board meeting. But I'm not sure we need it.

CHAIR McNAMEE: Follow up, Shanna? Okay, any other questions? Dan, go ahead.

MR. DAN McKIERNAN: Caitlin, in one of your slides it says that the PDT recommends moving forward with the Draft Addendum, given the decline in indices. Did they have a preferred trigger, because I know there was some series of triggers? But are there some triggers that they would embrace, and other triggers that they would not embrace?

MS. STARKS: I would say the PDT has not made a recommendation on what triggers would be most appropriate at this time, given that we just got the updated information to show where we are with the trigger index. I don't have a recommendation from them.

MS. McKIERNAN: But I think that the graph you showed said some in red that were not favored by the PDT.

MS. STARKS: Madeline, if you could put up that slide, which is Slide Number 15. I put them in red, just because they are not currently in the Addendum. They have been discussed previously by the TC and PDT. The 45 percent level was included in the Addendum originally, and removed by the Board to try to focus on those more proactive trigger levels.

That one was recommended as a potential option, it's obviously less conservative than the others. The 51 percent decline level is coming to the point where the TC did not recommend using that, because it is getting to the abundance limit.

MR. McKIERNAN: But did the TC embrace 45?

MS. STARKS: The 51 percent is approaching the abundance limit, and I might have forgotten the second part of your question.

MR. McKIERNAN: The question was, did they assess the usefulness of 45, because 45 is great. But it was the Board that rejected 45.

MS. STARKS: Yes, the Board was the one that removed the 45. The TC did say it was a viable option.

CHAIR McNAMEE: Okay, next up I have David Borden online. Go ahead, David.

MR. DAVID V. D. BORDEN: I've got a question for Caitlin. I'm getting feedback.

CHAIR McNAMEE: We can hear you now, yes it was a little stilted there. But I think you're back.

MR. BORDEN: Okay, so my question, I have a number of questions, but I'm going to try to deal with those at the appropriate time. On the question of timing, and I guess it's a question for staff. There are things in this Addendum that need to be fixed. I support the Addendum going out to public hearings.

I think it is really critical to get industry's feedback, and particularly during the time period of the spring, slowly starting when there is the least amount of activity so we can kind of maximize the input from the industry. My question to the staff is, there are a number of provisions that need to get reworked in this Addendum. If we were to do that in the next month or so, is it possible that we could finalize on a final document, either via a new pot, or the pot (feedback on recording)?

MS. STARKS: I am getting advice from Bob that we could do a virtual Lobster Board meeting separately to address this issue.

MR. BORDEN: Okay, so I would just offer the opinion. I think that would help, and then my second point, last one. This point is, I think it's kind of important to talk through some of these issues separately, instead of comingling the issues, so I'm going to talk about triggers, have an entire session on triggers we might issue. Thank you, Mr. Chair.

CHAIR McNAMEE: I have Steve Train next. Go ahead, Steve.

MR. TRAIN: Caitlin, I had a lot of similar questions to Dan, and there were numbers that are

disconcerting. I mean we haven't done anything yet, and we've already mowed through two triggers that were possible. I was going to ask if the numbers, get it back up there. What is that final number where the star is? Where are we currently? What level are we at now?

MS. STARKS: We're at a 23 percent decline from the reference value.

MR. TRAIN: We're at a 23 percent decline with nothing being done yet.

MS. STARKS: Correct.

MR. TRAIN: This is the most valuable fishery in the northeast. I'm sorry, I can't believe we waited this long.

CHAIR McNAMEE: Go ahead, Ray.

MR. RAYMOND W. KANE: Not to confuse the public, is there any need to have the 17 and 20 percent decline, being how we're already beyond that, or 23 percent, so when you go out to the public and they look at these graphs. They are going to look at 17 and 20, and they are going to reflect, as Steve just did, and say, well why are we even talking about those trigger numbers, we're already beyond that. Maybe that should be removed from the graph.

MS. STARKS: Right, so I think that is part of the guidance I'm looking for today, is if the Board would like to modify the triggers that are included in the Addendum. If the intention is not to take action until a trigger is met, then I would suggest removing 17 percent and 20 percent from the document, since they've already been reached. I think if that is the case that would be easy modification to make, to change the options to only have those later two triggers. But there might be some more Board advice that I could ask for on what those trigger levels should be.

CHAIR McNAMEE: Go ahead, Pat.

MR. KELIHER: I've been struggling with this particular issue for a long time. You know we've kicked the can down the road now twice. It is a situation, as I said earlier, about uncertainty. We didn't know if we would have any decision from Judge Boasberg yet, on what the remedy was going to be and what that timeframe is going to be.

All of the scenarios that we're running from a Decision Support Tool perspective, are going to benefit the lobster stock while we're in the process of trying to protect whales, with severe trap limits and the expansion of closed areas. It's those unknowns, not having that information on the table, that continues to lead me kind of wanting to delay, but at the same time, and as I've talked to others around this table.

We obviously have a mandate to protect this resource. We've got a public trust obligation, and I would urge the Board that we take the approach of working through the whale rules, but also putting a backstop in place now, that would protect us from further declines. Dan actually asked the question that I was going to bring up to Caitlin, regarding the third trigger option that we actually removed from the document, as a potential to utilize as a backstop in the interim, to figure out where we're going to be with whale rules.

I think there are some other tasking of the TC that we'll have to talk about, probably at the winter meeting. But in thinking about this, I think a backstop approach might be the best approach. I have prepared some motions that staff have, to get to that when the time comes.

CHAIR McNAMEE: Thank you, Pat, and I'll just remind the response to David Borden's question was, you know this type of thing could happen and still have a process in time for the spring. David Borden, go ahead, David.

MR. BORDEN: I have a question just going back to 17 percent of the volume . Caitlin, was that originally recommended as the industry target?

MS. STARKS: Yes, so the 17 percent trigger, I think was associated with the industry target. I'm just going to verify that.

MR. BORDEN: My understanding is that was based on a discussion that industry wanted to be proactive, and didn't want the decline in economic viability. Is that correct?

MS. STARKS: That industry target came out of the stock assessment, so it was proposed by the Stock Assessment Subcommittee, not industry.

MR. BORDEN: I thought the industry gave us a recommendation and the TC and Stock Assessment Committee basic relayed it to the Board. It was industry based anyway. (Interference on recording)

MS. STARKS: David, I'm going to defer to Kathleen. I think she will have a clear explanation of where the 17 percent. Well, the 17 percent is related to the trigger index for this Addendum, but the fishery industry target was a reference point that was put forward by the Stock Assessment Subcommittee.

MS. REARDON: The 17 percent is the 25th percentile of the highest regime in the last stock assessment. Within the Stock Assessment Committee, we were talking about the abundance limit, which would be around 51 percent, but we recognized that there would be economic concerns, and more of an industry concern. That is why we introduced that 25th percentile of the highest regime. It just happens to be statistically 17 percent. That was why it was put forward within this Addendum.

MR. BORDEN: Okay, I just voiced an opinion that I think it's appropriate to have a range so we can put into anything that goes to the public. Believe me, I spin a lot. It's been an awful year, with a lot occurring. If you looked at what the lobster industry is concerning right now, it's this really poisonous mix of issues all coming to a head together, not the least of which is the declining lobster industries fuel prices of $6.00. There was a discussion on the Business Channel today talking about $9.00 diesel fuel prices, cost of bait is $300.00 a barrel, where it is normally $100.00 a barrel, and insurance prices have gone through the roof. All of that, in combination with the whale issue and the wind issue is kind of a poisonous mixture for the industry.

Having said that, I think we've got to balance this whole, and go back and reflect on the origin of this. The state of Maine representative basically proposed this, for the most honorable of objectives. They wanted to get ahead of the curve on this, and avoid the situation that occurred in Southern New England.

Because of this kind of poisonous mix of issues, I think if we take this out, we've got to have a range. I think that's important to do. It is going to generate a discussion from a number of industry people about the need to be conservative. Most people that I know in the industry are not going to like the gauge increase, so I'll just state the obvious.

But when they start looking at declines like this for a billion-dollar fishery that you start talking about 20, 30, 40 percent declines. People are going to get very concerned about the longevity of their financial businesses. I think we should have a full range of items in the triggers, to generate a discussion on it.

MS. STARKS: Thanks, David. I just want to clarify one thing here. Are you suggesting keeping the 17 percent and 20 percent trigger levels in the document, despite the fact that they've already been surpassed? If that's the case, if the document were approved, would that mean those management measures would automatically go into place, if one of those options were adopted with those trigger levels?

MR. BORDEN: I'm not suggesting that. What I'm suggesting is it is important to keep in mind that the industry wanted to be proactive when we started this. Granted, it was a period of historic highs. The industry wanted to be proactive and get ahead of

the issue, and that is one of the reasons we ended up with 17 percent.

It's almost like we need a short history of how the trigger has declined. I think for the range, I think we need a number higher than 23, 26, 27 or whatever, up to something like 45 as the range in the document. I don't think, to answer your question directly, I don't think we should start out with a trigger that is automatically triggered. We might as well just take a proposal to public hearing and say, we're going to raise the gauge, or whatever mechanism we choose.

CHAIR McNAMEE: We're starting to drift into a comment, so I just want to make sure, you know does anybody have any remaining clarifying questions for Caitlin, just to make sure you have the info you need, before we start to have our deliberations here? Not seeing any hands, any hands online? No, okay. Pat, I saw you raise your hand. Go ahead, please.

MR. KELIHER: I think what I would like to do to start this process is make a motion that would rescind prior motions. Then there are some conversations around some changes to the document that seem to be drowning on potentially one or two different options. I'm wondering if we couldn't maybe even take a five-minute break to have some caucus time to kind of maybe fine tune something. But I'll leave that up to you. If the staff, look at that, has pulled up the motions. I'll go ahead and make that now, Mr. Chairman, and we can go from there.

CHAIR McNAMEE: Okay.

MR. KELIHER: Did you have something, Toni? No, okay. **I would move to rescind the following two motions passed in the August 2022, and the January 2022 meetings respectively. Move to postpone the consideration of public hearings on the Draft Addendum until the Annual Meeting, to allow the PDT time to address challenges raised by existing MSA language regarding possession of lobsters smaller than the lowest minimum size limit specified in the American Lobster FMP.**

This could include language which differentiates harvest vs. possession limits to reduce impacts to dealers and processors. The LEC should also review the new language that may be suggested by the PDT, and then also move to approve. Hold on, what's going on here?

MS. STARKS: That's the motion to approve it for public comment. That needs to be rescinded.

MR. KELIHER: Okay, so it's a little bit different than the way I drafted, sorry. **Then also move to rescind, the ability to approve the Draft Addendum for public comment as amended.**

CHAIR McNAMEE: Okay, do I have a second to the motion? I saw Cheri Patterson, thank you, Cheri. This is the sort of procedural element I talked about earlier that we needed to sort of take care of, depending on how we wanted to go here. We've got a motion on the table. Discussion on that motion. I saw Dennis first. Go ahead, Dennis.

MR. DENNIS ABBOTT: Yes, I'm in favor of the motions, I believe. But I would just like clarification from Bob Beal as the process for rescinding a motion at this point in time.

CHAIR McNAMEE: Go ahead, Bob.

EXECUTIVE DIRECTOR ROBERT E. BEAL: A few years back the Commission passed a special rule that is included in the Rules and Regulations of the Commission, and it effects amending or rescinding previously approved actions. It differs a little bit from what's in Robert's Rules of Order, but essentially, in order to approve this motion, which would rescind those two previous motions, it would need a two-thirds majority vote of the entire voting membership of the Board. It is a special rule that was approved by the Full Commission a few years ago.

CHAIR McNAMEE: All set, Dennis? Great.

CHAIR McNAMEE: We have a motion on the board, it's been seconded. Pat, anything remaining you want to say, it's sort of procedural? Any further discussion on the motion? Anybody online with a hand raised? Okay. I think we are ready to vote. I guess what we'll do is, I'll first do. Have I mis-stepped here? I'm seeing some chatter, so I'm just making sure I haven't done anything wrong. Okay, good. I'm going to first look at the table for a vote, and then we'll count hands online as well. I'm sorry, I should stop looking over there. Every time you move, I think I've done something wrong. All those in favor of the motion around the table, please raise your hand.

MS. KERNS: Jason, I'm going to read the names out loud, since we have people on the webinar, just like we have been. I have Massachusetts, Connecticut, New York, Rhode Island, New Jersey, Virginia, Delaware, Maryland, Maine, and New Hampshire, and those online.

CHAIR McNAMEE: Is that everybody?

MS. KERNS: I need those online to raise their hand if they are in favor.

CHAIR McNAMEE: Folks online, please raise your hand if you approve the motion.

MS. KERNS: No hands online.

CHAIR McNAMEE: Okay, no hands online. All those opposed to the motion, please raise your hand around the table first. No hands around the table. Folks opposed to the motion online, please raise your virtual hand. Okay, no virtual hands online. Any abstentions around the table, please raise your hand.

Not seeing any abstentions, online, any abstentions to the motion, please raise your hand. Okay, no hands online. All right, so with that I guess that is unanimous. The motion is approved. Thanks for that, Pat. All right, so that gets us started with procedural element. Senator Miner, go ahead.

SENATOR CRAIG A. MINER: With the passage of that action, what if anything does that do, in terms of our obligation to do something, seeing as it was postponed back in January and in August, the motion was postponed? That action now says that we didn't postpone it. I believe. We also didn't take any action. Have I got that right?

CHAIR McNAMEE: I think the intent here is to sort of free us now to be able to make modifications. I think currently as we stand right now you are correct. But we can now take additional steps to not make that be true.

SENATOR MINER: I'll accept that, but I would have thought that we actually could have taken action, even though those were in place, because they were specific to a day at which time, we would take them. That's all right.

CHAIR McNAMEE: Go ahead, Bob, for a response.

EXECUTIVE DIRECTOR BEAL: Essentially where the Board is now is Addendum XXVII is no longer approved for public comment. You've got a document that sort of reverted back to draft form when you rescinded the second motion up there, which is approving the Draft Addendum for public comment. Now the Board has this document open for editing, and then any changes that the PDT makes or the Board makes today, can then be approved for public comment in a subsequent motion, and then we can have hearings after that. Essentially all this did was clear the slate, unapproved the Addendum for public comment, and now you can manipulate it anyway you want.

CHAIR McNAMEE: Great. Good? Okay. All right, so now we're sort of free to make modifications or other adjustments as needed. I see Pat with a hand raised. Go ahead, Pat.

MR. KELIHER: I have another motion prepared that would task the PDT. Mr. Borden talked about getting something out to the public this spring.

That is the intent within the motion that I'm going to make. It sounds like there may be some other thoughts around this, but I thought it would be good to put this motion up, and if I get a second, I can give a little bit more clarity.

I would move that the PDT simplify Section 3.2 of Draft Addendum XXVII to the American Lobster FMP, by creating a single trigger level that shall act as a backstop, protecting the stock from further declines. The PDT shall use the Technical Committee's trigger level recommendation (from the September 10, 2021 memo to the Board), utilizing a three-year running average of the trigger index when it declines by 45% from the reference period.

CHAIR McNAMEE: Okay, we have a motion by Pat Keliher. Is there a second to that motion? Seconded by Dennis Abbott. Discussion on the motion? Pat, I'll give you first crack at it.

MR. KELIHER: I realize this is a change, but again this change is to put something on the table while whale rules continue to be worked on. Mr. Borden talked about all of the challenges facing the lobster industry, and the uncertainty from the expense side to the wind side to the whale side.

There is a lot at stake right now. My belief that we do have some time left to continue to deal with this issue, but I was unwilling to just continue to delay, without having something in place, again to act as that backstop. I guess I'll just stop there, Mr. Chairman, we can deal with it as comments come.

CHAIR McNAMEE: Dennis, do you want to make a comment as the seconder?

MR. ABBOTT: No, I'll pass at this time to my more learned.

CHAIR McNAMEE: Okay, around the table, folks wishing to make a comment on the motion. I see Steve Train.

MR. TRAIN: Thank you, Pat, for straightening some of this out and getting us a backstop. If we could get that other table back up there for a minute that showed the rate of decline, or the declines where we are. I would really appreciate it if somebody could pull that up. There is a lot going on in the industry. We're dealing with whale restrictions, law suits, fuel costs, increased bait cost, possible displacement by windmills, and other things.

It is a maelstrom, and the one thing that we keep thinking will get us through all this, besides being right, is we have a healthy resource. That right there may still be a healthy resource, but it's going in the wrong direction. That star is at 23 percent. We're talking about twice the length of that down before we do anything for the backstop. What was the figure on the dotted red line, the one we said we wouldn't use, because it was already at the limit?

MS. STARKS: Fifty-one percent.

MR. TRAIN: We're coming almost close to that line before we do anything, which I guess is better than doing nothing. But to me, 45 percent is too far away. I'll support it over nothing, but it's already. If we're hoping that the health of the resource is going to save us from all the other problems, we're going to make sure we've got a healthy resource.

CHAIR McNAMEE: Okay, looking around the table for other comments on the motion. David, we see you online, but I'm going to go to Doug Grout first.

MR. DOUGLAS GROUT: Just a clarification. I was trying to go through the document, and currently is the trigger in the document based on a five-year running average, or a three-year running average?

MR. KELIHER: Three.

MR. GROUT: Okay, thank you.

CHAIR McNAMEE: Okay, the answer to that was three years. Next up I have David Borden online. Go ahead, David.

MR. BORDEN: I have a slightly different view, as I echoed before. I think we need a range in this document. I support what Pat has proposed for 45 percent, but if you go back and reflect on the comments that Steve Train has made today, who is a key player in the Maine industry.

I think he has been arguing steadily for another set of alternatives that would be more conservative, not because he necessarily wants those to implement, because he wants to promote a discussion and dialogue among the industry. I'm kind of in the same position. I would be happy to offer a motion to amend at the appropriate time.

I think we should insert something like a range from something that is higher than we are now, say 26 or 27 percent, so we've got some separation between where we are and actual action. Then take that range out to public hearing. That is my position, and if I get some positive feedback from other Board members, I'll offer a motion to amend.

CHAIR McNAMEE: The idea there would be to amend the motion to add some other potential options in there. We'll let folks' kind of think about that for a minute, and I had a hand from Cheri, so go ahead, Cheri.

MS. CHERI PATTERSON: I agree with Dave. I think that we should present a range over a single target number that is going to put us on a brink, as opposed to being proactive, more proactive, I should say. I would like to also propose a range when the time comes. But I also think it would behoove us all to take a beat, and maybe talk amongst ourselves, before we get to the decision.

CHAIR McNAMEE: Yes, so let me just take one more pass around the table, to see if anybody wants to make a comment right now. I think what I will do is take like a five-minute break for folks. There has been some talk about some additional levels to kind of drop in here, not very specific at this point. I'm hoping the little break will give people some time to think about the specific range or values that they would want to drop in there for potentially an amended motion. I suppose it could be just a second motion as well, as long as folks are okay with this one. However, folks want to approach it is fine. I have Dan McKiernan.

MR. McKIERNAN: Yes, before we break, I just want to plant this idea in our collective heads. If this rule were already enacted, we would be looking at the 2019 through 2021 trigger value reported today in 2022, and it would trigger two-gauge increases, one in 2023 and a second gauge in 2025. We are essentially enacting a rule that creates like a four-year timeline between the introduction of the value and the final action. I hope that that makes people pause and think about, maybe we need to accelerate this Amendment.

CHAIR McNAMEE: Eric.

MR. ERIC REID: My question is, we were having a discussion about 17 and 20 percent, and now we're talking about perhaps something above where we are now, 25 or 26. That is the numbers that I've heard. What does that do after we come back from the public? If we do a range, are we bound by that range, or can we go to 17 percent or 21 percent in final document?

CHAIR McNAMEE: Good question, I'm looking over at Caitlin.

MS. STARKS: I believe you would be bound by the range that is included. Whatever trigger level is implemented would have to fall between the lowest and the highest.

MR. REID: That would be what goes out to the public. Okay, thank you.

CHAIR McNAMEE: Dan.

MR. McKIERNAN: Just a follow up. I think to answer Eric's question. I think Option E is simply scheduled changes to minimum gauge size. There is

actually an option that ignores the trigger and just takes gauge increases, so that is kind of built in.

CHAIR McNAMEE: I'm looking around the table, not seeing hands. Any hands online? I'm seeing a no, so why don't we, let's see, it's 11:20, let's take five minutes. I'll check in at five minutes. Let's make it ten, because I think this takes a little bit of thought. We'll be back at 11:30 to bring this motion back up.

(Whereupon a recess was taken.)

CHAIR McNAMEE: All right, so just to recap, we've got a motion on the table made by Pat Keliher, I think seconded by Dennis Abbot. Then we took a quick break, so folks could kind of construct an amended motion, because it seemed like that was where the discussion was going around the table.

I'm going to ask that we make sure we clarify two things before we kind of wrap this up here. The first is to clarify whether we are now, remember the original construct was to have two triggers. There was sort of like an entry trigger and then like another trigger. It's important to clarify whether or not we're now defaulting to just a single trigger.

Then to go along with that, that impacts the steps, in particular the gauge increases. I would suggest that if we are going to a single trigger that we just drop to that second step. But that is something I think we want to clarify. Then the second thing to clarify is under Option 1D, and that is the years that we're talking about here.

Maybe you will want to keep the ones that are there, but I'll just sort of flag that for you so you can take a look to make sure. With that, let me look around the table to see if anybody has come up with an amended motion, and I see a hand from Cheri Patterson. Go ahead, Cheri.

MS. PATTERSON: If you can bring up the motion. I would like to move to amend the percentage to a range of 30 percent to 45 percent.

CHAIR McNAMEE: Okay, motion on the table by Cheri. Is there a second? I see Eric Reid seconding the motion. We have a motion it's been seconded. Any discussion, Cheri, I'll go to you first?

MS. PATTERSON: I think that this gives us a little bit of comfort in knowing that we're not going to be reacting when we hit a 45 percent level, which is a pretty severe trigger to wait for. The range of 30 percent was within the range that the PDT had indicated, and if you want to bring up the table so people can see it again, or the chart.

Then I think that this gives us some buffer to work within, as the Atlantic Large Whale Take Reduction Plan becomes modified over the next year or two, or at least we'll have a clearer idea as to whether we're going to be realizing any resiliency from a modification to that plan.

CHAIR McNAMEE: Eric, do you wish to make a comment?

MR. REID: Yes, thank you, Mr. Chairman, I'm more comfortable with a range that is more proactive than 45 percent. As uncomfortable as it is, I'm comfortable having a range and being more proactive. Sort of in line with Mr. Train's comments about protecting the resource.

CHAIR McNAMEE: Ray Kane, go ahead.

MR. KANE: I can support this motion, but my concern and maybe Caitlin could answer this, it probably has to go back to the PDT. But 30 percent, this is a three-year running average, so it was 18, 19, 20 that was included?

MS. STARKS: Twenty-twenty-one was the final year.

MR. KANE: Oh, '21 was, because with COVID and what not. Any projections on when we're going to hit 30 percent? I mean when you look at that graph it's quick. I support this motion, Cheri and Steve,

but I'm concerned that we're going to hit 30 rather quickly.

CHAIR McNAMEE: Ray, I think your comments about the rate of decline is a good one. But I don't think we have that information at hand to answer.

MR. KANE: Thank you, Mr. Chairman.

CHAIR McNAMEE: You're welcome. Any other hands around the table for discussion? Not seeing any around the table. Anyone online? No one online. I think we are, well maybe I'll offer a quick opportunity for public comment. We've got a motion on the table, and so I'll first look in the room. If there is anybody in the room wishing to make a public comment on this. Okay, not seeing any hands in the room. Any online hands? All right, so back to the table here. Why don't we go ahead and call the vote? All those in favor of the motion, please raise your hand.

MS. KERNS: Clarifies the Motion to Amend.

CHAIR McNAMEE: Thanks, Toni, yes this is to approve the Motion to Amend offered by Cheri Patterson and seconded by Eric Reid.

MS. KERNS: I have Rhode Island, Massachusetts, New York, Connecticut, New Jersey, Virginia, Maryland, Delaware, Maine and New Hampshire.

CHAIR McNAMEE: Any hands online, those to approve the amended motion? Okay, no hands, are there any objections to the Motion to Amend? Looking around the table first, please raise your hand if you object to the motion. No hands around the table, any hands online? No hands online. Are there any abstentions that folks wish to cast? Looking around the table first, please raise your hand. No hands around the table. Anyone online?

MS. KERNS: NOAA Fisheries.

CHAIR McNAMEE: NOAA Fisheries is abstaining. Great, and I guess I forgot to ask about null votes. I think I'll go ahead and ask, even though I think that accounts for everybody. Any null votes, please raise your hand around the table. Not seeing any hands, any online? No**. That approves the Motion to Amend, and it was unanimous with one abstention.**

Now we're back to the Main Motion. I can't turn my head quite far enough to read it, but I'm assuming it's up on the board here. Back to the main motion, any discussion on the main motion before we take a vote? No hands around the table. Any hands online? Okay, let's call the vote. Go ahead, Dan.

MS. McKIERNAN: I'm just working at the language. Is it clear that this Board will pick a number in a final addendum, as opposed to having a document that says in a Final Rule when it declines by 30-45% giving us discretion? I just want to be sure that the document captures the fact that after the final approval there will be one number.

CHAIR McNAMEE: Caitlin, did you want to respond to that?

MS. STARKS: Yes, thank you, Dan, I would like clarification on that as well, and I think it would need to be clarified whether the intention is to just have one single trigger, where the final gauge size changes that are proposed in the Addendum go into place, not the first step, but the second step.

CHAIR McNAMEE: Okay, why don't I first look to the, we're back to the main motion here, so go ahead, Pat.

MR. KELIHER: Dan picked up exactly what I was going on, because the original motion, the intent was to have a single trigger. Just for clarity, the Board will choose a trigger from a range between 30 and 45 percent, based on the public comment that we receive.

CHAIR McNAMEE: Thank you, Pat, so that is clear for the record now, thank you. All right, we're back

to the Main Motion, and I think we're ready to vote. All those in favor of approving the Main Motion, please raise your hand around the table first.

MS. KERNS: We have Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Virginia, Maryland, Delaware, Maine and New Hampshire.

CHAIR McNAMEE: Okay, any hands online to approve the Main Motion?

MS. KERNS: No hands.

CHAIR McNAMEE: Okay, thanks for that, any objections to the motion, please raise your hand around the table. No hands around the table. Any hands online? No hands online. Any abstentions to the motion looking around the table? No hands raised around the table. Any hands online?

MS. KERNS: NOAA Fisheries.

CHAIR McNAMEE: NOAA Fisheries abstains, and then finally, any null votes looking around the table first? No hands around the table, any hands online? I'm going to assume no. All right, so the motion stands approved. Thanks for that everybody. Any further discussion on this topic? Oh right, so the other clarification that we need is the years that we're talking about. That is in Option E. Caitlin, do you want to clarify what we're looking for by way of clarification?

MS. STARKS: Sure, I just want to ask from the Board if there was an intent to modify this option in the document. Currently the years that were proposed for changing gauge sizes were 2023 and 2025. This is the option that doesn't involve the trigger, it's just a scheduled change to the gauge sizes.

CHAIR McNAMEE: Okay, thanks for that. If folks are okay with this, you know 2023 is not too far off, but if folks are okay with this, we can stick with it, but we can also modify those if folks wish. I see Pat.

MR. KELIHER: These dates were chosen when the document was being developed two years ago, right, so in my mind they have to be moved out with the corresponding timeframe if we're going to leave them in the document. That would be 2025/2027, I believe.

CHAIR McNAMEE: I think a motion is in order here to make that modification.

MR. KELIHER: So moved.

CHAIR McNAMEE: Let's give it a minute to get up on the board. Oh, go ahead, Bob.

EXECUTIVE DIRECTOR BEAL: Thank you, Mr. Chair. Just for efficiencies sake, if there is no objection to changing those two dates around the table, I think it can just be made as a direction to the PDT. You won't need a motion.

CHAIR McNAMEE: That's much better, but let's see. Let's not count our chickens just yet, because I see Dan has got his hand raised. Go ahead, Dan.

MR. McKIERNAN: Yes, I appreciate Pat's recollection, but practically speaking, I would be comfortable with 2024, 2026. If we're going to go to instant gauge increases, there is no reason to wait two more years. I mean 2023 is too early. February of 2023, if it's enacted, I couldn't get rules in place for another five or six months, but I could certainly do it in 2024. I think we should just move it that one year to each of those steps.

CHAIR McNAMEE: Okay, so I'm going to see if we have some sort of agreement, and I'm looking over at you, Pat, and so the answer to that is no. We probably need to then go with a motion here. Pat, do you wish to introduce that motion?

MR. KELIHER: Bob just whispered in my ear the question the comment that I was going to bring up. We have to have gauges made, right. Nobody is going to even start building them until a Board

process went forward, was finished, finalized and voted on. My Major is probably running out of the room right now.

But Major Beal did contact all of the manufacturers in gauges, and to get gauges based on supply chain issues and all kind of other complications, we wouldn't get them done. It wouldn't be done for that timeframe. **I would move that we push these out to 2025, 2027.**

CHAIR McNAMEE: Okay, so there is a motion. Pat, you are making that as a motion, correct? Motion on the table to basically add two years to each of the years currently in this Option E. There is like some Jimi Hendrix feedback going on there. I think it's gone away. I think we've got the motion up on the board here. Is there a second for that motion? Seconded by Dennis Abbott. All right, so we've got a motion on the board to extend the existing years by two years for Issue 2, Option E. Discussion. Senator Miner, go ahead.

SENATOR MINER: What happens if the trigger is hit before the dates?

CHAIR McNAMEE: I believe there are sort of two things. I think this one is kind of these automatic gauge increases, without the triggers, unless I'm thinking about the wrong one. But the triggers have their own set of rules, and so I think gauge increases would occur when that trigger was hit under that regime.

SENATOR MINER: Well, I don't think this says that, and I just get concerned that if we have put out a range for public discussion, and choose a point at which we'll know what the trigger is. If the trigger is reached before 2025, does this supersede the trigger?

CHAIR McNAMEE: Caitlin is going to help us clarify.

MS. STARKS: There are two completely separate options, so this is Option E, and it does not involve a trigger mechanism at all. These are simply just scheduled changes in advance. If this option was selected, the final approval of the Addendum, then there would be no trigger mechanism.

CHAIR McNAMEE: Go ahead, Senator Miner.

SENATOR MINER: Follow up, so if the trigger was achieved prior to these dates, would the trigger then trigger the gauge? What does the trigger, trigger?

MS. STARKS: The trigger options are separate. In those trigger options, if we're using the 45% or 30 % range trigger. If that option is selected to use a trigger mechanism, then it would trigger gauge increases at that time. But that is a separate option from these years, so if this is chosen to use the scheduled years, there would be no trigger mechanism, we wouldn't be monitoring that index, we would just make these changes at these times.

SENATOR MINER: Thank you.

CHAIR McNAMEE: Dan, go ahead.

MR. McKIERNAN: I appreciate Pat's insight, in terms of the amount of time gauges have to be manufactured. But I think what Craig is referring to is, there is a disconnect here, and I guess the real question is, if we come back next summer or fall, and one we've tripped the trigger, exceeded the trigger, then the gauge increase has to take place. What Pat is describing for us is the fact that it takes a long time to build gauges, so are we de facto building in another year of delay for the gauge increase?

In my mind there is already a lot of gauges, well actually not that particular gauge. That is a special size, the intermediate size. I think we had better wrap our heads around this, and maybe figure out. Maybe through the public hearing process. We learn if the gauge manufacturers can actually produce enough gauges in time to do it within one year.

CHAIR McNAMEE: Toni.

MS. KERNS: Perhaps while the PDT is working on the document, the states can talk to the manufacturers, and when we come back to the Board to approve the document for public comment, we'll have better clarity.

CHAIR McNAMEE: Pat.

MR. KELIHER: Yes, I would volunteer Major Robert Beal from Maine Marine Patrol to pull that information together for the Board.

CHAIR McNAMEE: Thanks, Pat. Okay, so we've got a motion on the table here, it's been seconded. Any additional discussion on this before we call the vote? Not seeing any hands around the table, so let's go ahead. All those in favor of the motion, please raise your hand. Sorry, around the table first.

MS. KERNS: Jay, I can take the webinar at the same time.

CHAIR McNAMEE: We'll do them all at once then. Please, both in the virtual world and the real world here in the room, please raise your hand if you approve the motion.

MS. KERNS: I have Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Virginia, Maryland, Delaware, Maine and New Hampshire. No hands online.

CHAIR McNAMEE: Okay, any objections to the motion, please raise your hand, both here in the room and online.

MS. KERNS: No objections.

CHAIR McNAMEE: Okay, any abstentions in the room or online?

MS. KERNS: NOAA Fisheries.

CHAIR McNAMEE: Then finally, any null votes please raise your hand.

MS. KERNS: No null votes.

CHAIR McNAMEE: Okay, so the motion stands approved. Great. Caitlin, anything else we need to clear up before we move on from this topic? Toni, go ahead.

MS. KERNS: I was going to ask about the timeline. There was a suggestion to do a Board meeting in December. But if it is the intention of the Board to finalize this document at the May meeting, then I'm not sure what the December approval gets you. I don't think that if we do a December approval of the document, it will be very tight to pull off public hearings between December and the winter meeting. I'm not sure that that would be viable for us. If there is a desire for that, then I would like to know if that is what the Board is wanting.

CHAIR McNAMEE: Go ahead, Dan.

MR. McKIERNAN: I think May final approval would be ideal, because it would give us a chance to meet with the industry at the wintertime trade shows.

CHAIR McNAMEE: Okay, I heard one voice of support for that. I'm seeing thumbs up around the table. Anyone have a different feeling or take on that, either in the room or online? Please, flag me down, raise your hand. Nobody in the room, anybody online? Did you have something, Caitlin? Go ahead, Caitlin.

MS. STARKS: Sorry, just want to clarify, make sure I have my head on straight here. It is the intention of the Board to come back in February and approve the document for public comment?

CHAIR McNAMEE: I think the answer to that is yes. Yes, seeing nodding heads around the table. Doug, go ahead.

MR. GROUT: Just one quick clarification for me. You know we've approved a range for the triggers, but what is the management measures that they are going to trigger in the document? What are we putting out there? Is it that a single gauge increase, by an eighth of an inch, or something else, or

including the maximum gauge reduction in Area 3, and the vent size changes? Is it just a single, we're going to do it at that time? Is that the way we've decided to craft this document?

CHAIR McNAMEE: I think that's right, I'll look to Caitlin to see if that is her understanding as well.

MS. STARKS: That was my understanding, so if there is a difference that needs to be made, we can change it.

CHAIR McNAMEE: Nobody is raising their hand, so we'll assume that that is correct. All right, I think Caitlin, are we done with that one?

MS. KERNS: If we need some additional work for the provision, the Mitchel Provision and Magnuson-Stevens, we'll work with the PDT on that. But again, I think we might have a workaround, where we don't need that. Staff will make sure we have what we need for February.

CHAIR McNAMEE: Great, thanks for that, Toni. That is the MSA provision, so thanks for that. We're way over, we're not way over, 15 minutes over time here. We still have a number of things to kind of get through on the agenda, so I guess we'll keep plugging along here, and maybe some of these more update-oriented things we can get done quickly.

UPDATE FROM WORK GROUP ON IMPLEMENTATION OF ADDENDUM XXIX ON ELECTRONIC VESSEL TRACKING FOR FEDERAL PERMIT HOLDERS

CHAIR McNAMEE: Why don't we just go ahead and go to the next thing here. I'll go to Toni for the Addendum, what is that XXIX update, so Toni, whenever you're ready.

MS. KERNS: I'll be brief, and if anybody has questions or more details, I'm happy to chat anytime this week. This Addendum is dealing with the Trackos, the Tracking Work Group, and subsets of the Tracking Work Group have been diligently working. We did receive five applications of trackers. There is only one tracker per application.

The Review Committee is in process of reviewing those. We are going to ask all five permittees to test their data with the API, and we have some additional follow up questions for those five companies. In terms of the work that ACCSP has been doing, the SAFIS API is complete, and it is ready for testing, hence why we were asking for the devices to be tested.

It includes data validations in new fields that support the Lobster Addendum requirements. In addition, there has been comprehensive requirements document that has been completed for the application, as well as the tracker viewer and compliance reports are in process of development. ACCSP and GARFO staff have been coordinating on the GARFO provisions of the lobster permit data, and the VTRs that are being submitted directly to GARFO, so that we can combine the landings reports with the trackers, so they can talk to each other. That's what I have.

CHAIR McNAMEE: Awesome, very concise, thanks, Toni. Any questions for Toni on this topic? Looking around the table. Okay no hands, any hands online? David Borden, go ahead.

MR. BORDEN: I guess a question for Toni, or possibly Bob. When is the funding going to be available to the state agencies to fund this?

EXECUTIVE DIRECTOR BEAL: It's like a trick question. Actually, the ASMFC has the money available to the Commission. However, we need to develop the state spend plans for specific state allocations for each jurisdiction will receive a subcomponent of the overall 14-million-dollar allocation.

We need to develop those spend plans. We've had some conversations with the four northern states, and we need to have more conversations with the states to the south. We're going to have that

conversation at the Executive Committee on Wednesday morning of this week. We should be able to get those spend plans pulled together pretty quickly after that conversation.

MR. BORDEN: Mr. Chairman, can I follow up on that?

CHAIR McNAMEE: You sure can, David, go ahead.

MR. BORDEN: Thank you very much for that response. One point that has come up in my discussions with the industry on whales, has been some individuals have talked about mechanisms, using techniques to reduce risk. It would require tracking sooner than what the Commission has proposed as an enforcement tool. You may want to at least consider that, and even if the Commission, if some group, one of these LMAs proposes something like that, is some mechanism to get access to the funding earlier than what has been proposed.

CHAIR McNAMEE: Okay, so with no additional questions, not seeing any other hands around the table. Let's move on to the next agenda item, which may also be quick. This was to Discuss the Trap Transfer Tax, was an item that Dan McKiernan asked to put on the agenda here. Dan, I'll kind of turn to you for this one.

MR. McKIERNAN: Can I ask that this be postponed until the February meeting?

CHAIR McNAMEE: I think that would be perfectly fine.

MR. McKIERNAN: Thank you.

PROGRESS UPDATE ON JONAH CRAB BENCHMARK STOCK ASSESSMENT

CHAIR McNAMEE: We're going to pick this one back up at our next meeting. Moving on to the next agenda item, it's a progress item on the Jonah Crab Benchmark Stock Assessment, and I will look to you, Jeff, to take us into that one.

MR. JEFF J. KIPP: I'll be providing a quick progress update here in the next few slides on the ongoing 2023 Jonah Crab benchmark stock assessment. The review the TC and SAS have completed since we initiated the assessment at the beginning of the year were the Data Workshop and Methods Workshop. The Data Workshop was held virtually from June 13-15.

The Data Workshop built upon our Preassessment Workshop and report, to review the available datasets for their use in this first coastwide stock assessment. Major topics covered during the workshop included the stock structure, to assess the population, potential stock and fishery indicators from available datasets, and necessary data revisions based on determinations made from those two previous topics.

The Methods Workshop was held virtually from October 3rd through the 5th. The TC and SAS reviewed the results of those data revisions identified during the Data Workshop, continued development of potential stock indicators, and also discussed the assessment methods to pursue following this workshop with our available datasets.

I will note that we have experienced some whale work related data delays, but we are currently working through those to get all the completed datasets finalized for this assessment, and for the assessment methods and stock indicators covered at the workshop.

Looking forward to our many milestones include an Assessment Workshop to review and finalize assessment results in early 2023, an external peer review of the assessment in mid-2023, and delivery of assessment to the Board at the ASMFC Annual Meeting next year, to be considered for management. That's what I've got for my presentation, I can take any questions on the Jonah Crab Assessment.

CHAIR McNAMEE: Awesome, thank you, Jeff. Any questions for Jeff on the update about the Jonah

Crab Assessment? Looking around the table, not seeing any hands, any hands online? No hands online either, so thanks for that, Jeff. Nice and easy.

CONSIDER FISHERY MANAGEMENT PLAN REVIEWS AND STATE COMPLIANCE FOR AMERICAN LOBSTER AND JONAH CRAB FOR 2021

CHAIR McNAMEE: We're on our last agenda item here, and that is to Consider Fishery Management Plan Reviews and State Compliance for American Lobster and Jonah Crab for 2021, and with that I will turn to you, Caitlin.

MS. STARKS: Given that we're over time at this point, I'm going to really abbreviate this. The Lobster FMP Review had no issues identified by the PRT in a comprised report, so if it's all right, I can send that out to the Board for approval by e-mail after this meeting. Then for Jonah Crab, we've discussed this over the last several years.

But the only issue that was noted by the PRT is related to the New York implementation of the required measures of the Jonah crab FMP, and that's just the regulations to limit the directed trap fishery to lobster permit holders only, and the 1,000-crab bycatch limit. I just want to give a quick update on this issue, which is that New York is now in the process of implementing those measures.

They have not been implemented because of the way New York's crab legislation had to be revised, in order to allow NYSDEC to put those regulations in place. But the legislature had to revise the law so that they can now put those in place in their rulemaking process. I just wanted to provide that quick update, and we can also send this one out to the Board for approval via e-mail.

CHAIR McNAMEE: All right, thanks, Caitlin. It sounds like the one kind of issue that was within the compliance report world is at least in the process for being resolved. Any questions for Caitlin on this? Dan.

MR. McKIERNAN: Caitlin, I wanted to correct that one section about the lack of Massachusetts recreational landings. Is there an opportunity for me to do that? There will be?

MS. STARKS: If it's all right. I can get the correction from you, Dan, and just work it into the document before I send it out for approval by the Board.

CHAIR McNAMEE: The plan here then is to do e-mail vote on the management plan. Keep an eye out for additional information. I think that is the opportunity, Dan, for you to offer your correction, and we'll take it from there. Anything else on that, Caitlin?

OTHER BUSINESS
TAKE REDUCTION TEAM, TRAP COMPONENT

CHAIR McNAMEE: All right, so we are on our last agenda item which is any Other Business? Pat, go ahead.

MR. KELIHER: I'll be very quick. I think this can happen organically between the states that are dealing with this whale issue. The Take Reduction Team will be meeting in November, and two days in early December. There is a good chance that traps could become part of the currency with that conversation, so yet to be seen. I'm not sure what is being put on the table, but I think it's going to be imperative that this management board deals with the trap component, and we don't depend on the Take Reduction Team process.

I don't want to see that coming in that direction. I would urge us to, as we start to understand where the Take Reduction Team conversations, to come together as states to talk a little bit offline, and maybe be able to have something ready, and maybe some formal tasking of the TC at the winter meeting. I just wanted to put that stake in the ground.

CHAIR McNAMEE: Thanks, Pat. Just to summarize the idea of trap reductions in developing metrics, to kind of understand what those trap reductions are doing is kind of the idea. Thanks for kind of getting that out in front of the Board, Pat, something that we'll revisit here in the near future. All right, any other business from anyone else on the Board?

ADJOURNMENT

CHAIR McNAMEE: Are there any hands online, Caitlin? All right, so I think that does it. Thanks everybody for hanging in. Sorry it went a little long there. Actually, I guess I'm supposed to make that into a motion. Is there any objection from the Board to adjourning? No objections to adjourning, we are adjourned, thanks everybody.

(Whereupon the meeting adjourned at 11:55 a.m. on Monday, November 7, 2022)

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM XXVII TO AMENDMENT 3 TO THE AMERICAN LOBSTER FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT

Increasing Protection of Spawning Stock in the Gulf of Maine/Georges Bank

This draft document was developed for Management Board review and discussion. This document is not intended to solicit public comment as part of the Commission/State formal public input process. However, comments on this draft document may be given at the appropriate time on the agenda during the scheduled meeting. Also, if approved, a public comment period will be established to solicit input on the issues contained in the document.

January 2023

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Public Comment Process and Proposed Timeline

In August 2017, the American Lobster Management Board (Board) initiated Draft Addendum XXVII to increase the resiliency of the Gulf of Maine/Georges Bank (GOM/GBK) stock. Work on this addendum was paused due to the prioritization of work on take reduction efforts for Atlantic right whales and the 2020 stock assessment. The Board reinitiated work on Draft Addendum XXVII in February 2021, and has since revised the goal of the addendum to consider a trigger mechanism such that, upon reaching the trigger, measures would be automatically implemented to increase the overall protection of spawning stock biomass of the GOM/GBK stock. The management action was initiated in response to signs of reduced settlement and the combining of the GOM and GBK stocks following the 2015 Stock Assessment. This document presents background on the Atlantic States Marine Fisheries Commission's management of lobster, the addendum process and timeline, a statement of the problem, and management measures for public consideration and comment.

The public is encouraged to submit comments regarding the proposed management options in this document at any time during the addendum process. The final date comments will be accepted is **Month Day, 2023 at 11:59 p.m**. **EST.** Comments may be submitted by mail, email, or fax. If you have any questions or would like to submit comments, please use the contact information below.

Mail: Caitlin Starks
Atlantic States Marine Fisheries Commission
1050 N. Highland St. Suite 200A-N
Arlington, VA 22201

Email: comments@asmfc.org
(Subject line: Lobster Draft Addendum XXVII)

May – Dec 2022	Draft Addendum for Public Comment Developed
Winter 2023	Board Considers Draft Addendum for Public Comment
February 2023	Public Comment Period Including Public Hearings
May 2023	Board Reviews Public Comment, Selects Management Measures, Final Approval of Addendum XXVII
TBD	Implementation of Addendum XXVII Provisions

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1.0 Introduction

The Atlantic States Marine Fisheries Commission (ASMFC) has coordinated the interstate management of American lobster (*Homarus americanus)* from 0-3 miles offshore since 1996. American lobster is currently managed under Amendment 3 and Addenda I-XXVI to the Fishery Management Plan (FMP). Management authority in the Exclusive Economic Zone (EEZ) from 3-200 miles from shore lies with NOAA Fisheries. The management unit includes all coastal migratory stocks between Maine and Virginia. Within the management unit there are two lobster stocks and seven management areas. The Gulf of Maine/Georges Bank (GOM/GBK) stock (subject of this draft addendum) is primarily comprised of three Lobster Conservation Management Areas (LCMAs), including LCMA 1, 3, and OCC (Figure 1). There are three states (Maine through Massachusetts) which regulate American lobster in states waters of the GOM/GBK stock; however, landings from the GOM/GBK stock occur from Rhode Island through New York and these states regulate the landings of lobster in state ports.

The Board initiated Draft Addendum XXVII as a proactive measure to improve the resiliency of the GOM/GBK stock. Since the early 2000's, landings in the GOM/GBK stock have exponentially increased. In Maine alone, landings have increased three-fold from 57 million pounds in 2000 to a record high of 132.6 million pounds in 2016. Maine landings have declined slightly but were still near time-series highs at 97.9 million and 108.9 million in 2020 and 2021, respectively. However, since 2012, lobster settlement surveys throughout the GOM have generally been below the time series averages in all areas. These surveys, which measure trends in the abundance of newly-settled lobster, can be used to track populations and potentially forecast future landings. Consequently, persistent lower densities of settlement could foreshadow decline in recruitment and landings. In the most recent years of the time series, declines in other recruit indices have already been observed.

Given the American lobster fishery is one of the largest and most valuable fisheries along the Atlantic coast, potential decreases in abundance and landings could result in vast economic and social consequences. With peak values in 2016 and 2021, the at-the-dock value of the American lobster fishery has averaged $660 million dollars from 2016-2021, representing the highest ex-vessel value of any species landed along the Atlantic coast during peak years. Ex-vessel value declined slightly from 2017 to 2020, but not proportionally to declines in landings. The vast majority of the overall landings value (>90%) comes from the GOM/GBK stock, and more specifically from the states of Maine through Rhode Island. As a result, the lobster fishery is an important source of jobs (catch, dock side commerce, tourism, etc.) and income for many New England coastal communities. The lack of other economic opportunities, both in terms of species to fish and employment outside the fishing industry, compounds the economic reliance of some coastal communities on GOM/GBK lobster – particularly in Maine.

Draft Addendum XXVII responds to signs of reduced settlement and the combination of the GOM and GBK stocks following the 2015 Stock Assessment. The Board specified the following objective statement for Draft Addendum XXVII:

Given persistent low settlement indices and recent decreases in recruit indices, the addendum should consider a trigger mechanism such that, upon reaching the trigger, measures would be automatically implemented to increase the overall protection of spawning stock biomass of the GOM/GBK stock.

Draft Addendum XXVII considers implementing management measures—specifically gauge and vent sizes—that are expected to add an additional biological buffer through the protection of spawning stock biomass (SSB). The addendum also considers immediate action upon final approval to standardize some management measures within and across LCMAs in the GOM/GBK stock. The purpose of considering more consistency in measures is to resolve discrepancies between the regulations for state and federal permit-holders, to provide a consistent conservation strategy, and simplify enforcement across management areas and interstate commerce.

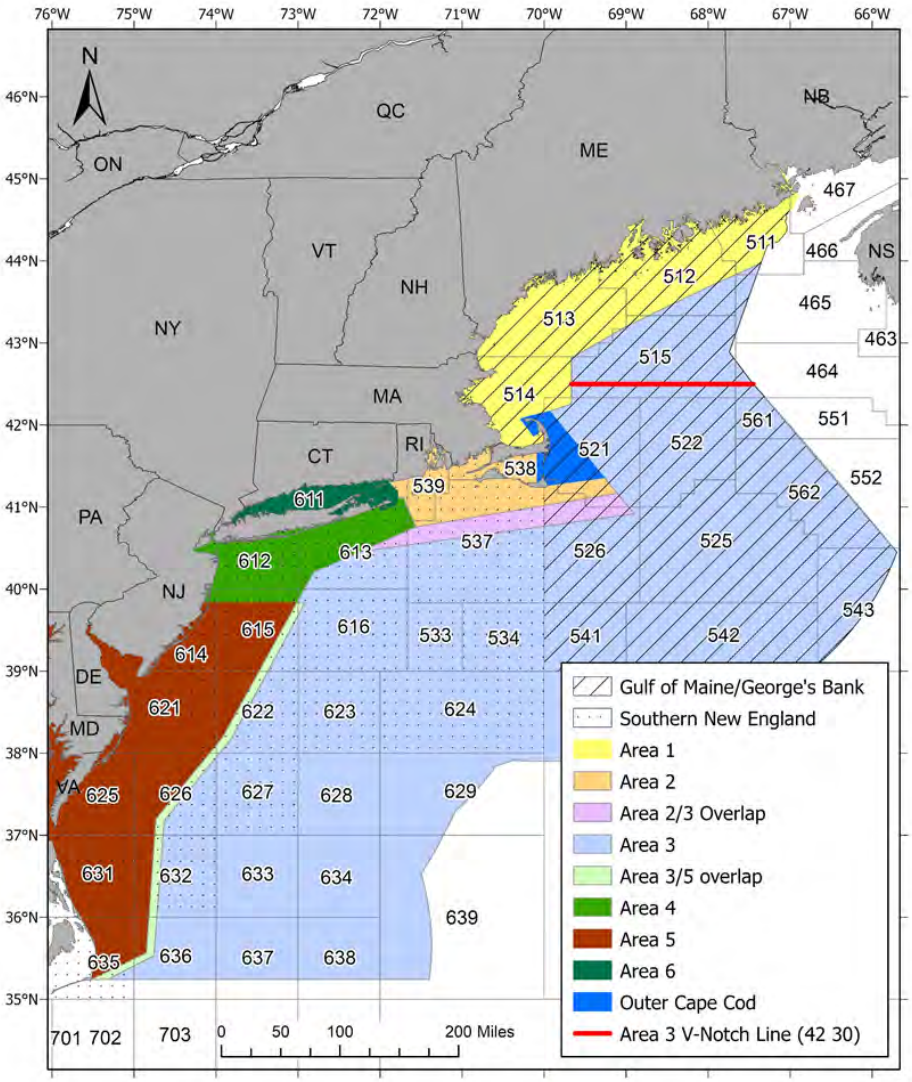


Figure 1. Lobster conservation management areas (LCMAs) in the American lobster fishery. LCMAs 1, 3, and OCC make of the majority of the GOM/GBK stock. The Area 3 V-Notch line is shown in red where v-notching is required north of the 42°30' line.

2.0 Overview

2.1 Statement of Problem

While 2016 landings in the GOM/GBK lobster fishery were the highest on record, settlement surveys for more than five years have consistently been below the 75th percentile of their time series, indicating neutral or poor conditions. Additionally, there is evidence of declines in recruit abundance in ventless trap survey and trawl surveys for the GOM/GBK stock since the most recent stock assessment. These declines could indicate future declines in recruitment and landings. Given the economic importance of the lobster fishery to many coastal communities in New England, especially in Maine, potential reductions in landings could have vast socioeconomic impacts. In addition, the 2015 Stock Assessment combined the GOM and GBK stocks into a single biological unit due to evidence of migration between the two regions. As a result, there are now varying management measures within a single biological stock. In response to these two issues, the Board initiated Draft Addendum XXVII to consider the standardization of management measures across LCMAs.

However, in 2021, the Board revised the focus of Addendum XXVII to prioritize increasing biological resiliency of the stock over standardization of management measures across LCMAs. Increased resiliency may be achieved without completely uniform management measures, so the main objective of the Addendum is to increase the overall protection of SSB while also considering management options that are more consistent than status quo. Increasing consistency across management areas may help to address some assessment and enforcement challenges, as well as concerns regarding the shipment and sale of lobsters across state lines.

2.2 Status of the GOM/GBK Fishery

The GOM/GBK fishery has experienced incredible growth over the last two decades. Throughout the 1980s, GOM/GBK landings averaged 35 million pounds, with 91% of landings coming from the GOM portion of the stock. In the 1990s, landings slightly increased to an average of 53 million pounds; however, landings started to rapidly increase in the mid-2000s. Over a one-year span (2003-2004), landings increased by roughly 18 million pounds to 86 million pounds. This growth continued through the 2000s with 97 million pounds landed in 2009 and 113 million pounds landed in 2010. Landings continued to increase and peaked at 156 million pounds in 2016 (Figure 2).

In the peak year of 2016, Maine alone landed 132.7 million pounds, representing an ex-vessel value of over $541 million. The states of Maine through Rhode Island (the four states that account for the vast majority of harvest from the GOM/GBK stock), landed 158 million pounds in 2016, representing 99% of landings coastwide. Total ex-vessel value of the American lobster fishery in 2016 was $670.4 million, the highest valued fishery along the Atlantic coast in 2016. While landings have declined slightly from peak levels in 2016, they remain near all-time highs. Coastwide landings and ex-vessel value for 2017-2021 averaged 133.4 million pounds and $658.4 million, respectively. However, ex-vessel value in 2021 increased and was estimated at over $924 million, the highest value in the time series.

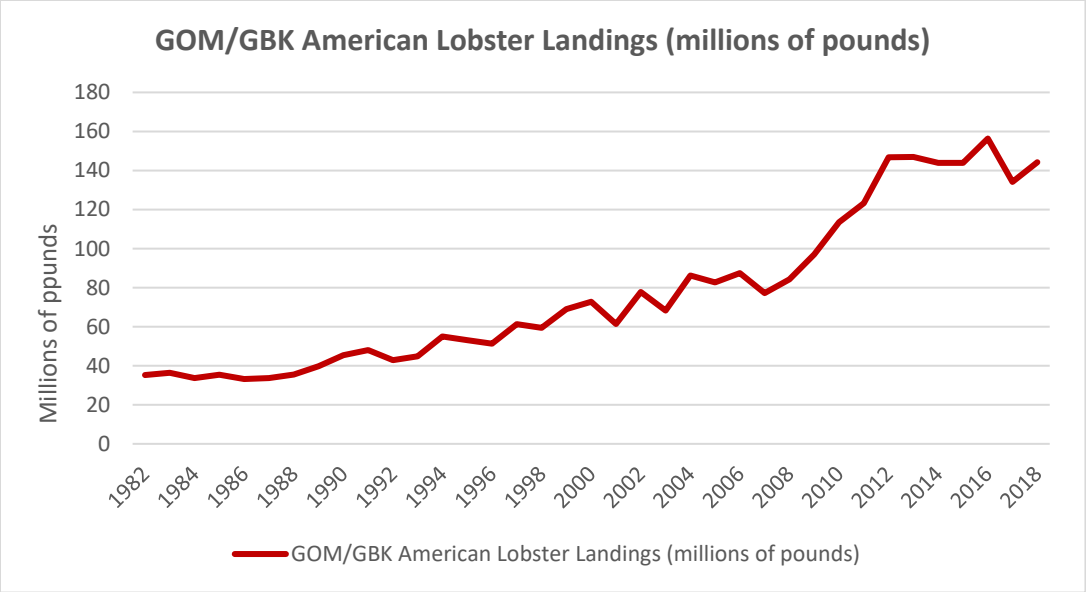


Figure 2. Landings in the GOM/GBK stock (1982-2018). Stock specific landings are updated during each benchmark stock assessment.

2.3 Status of the GOM/GBK Stock

2.3.1 *2020 Stock Assessment*

Results of the 2020 Benchmark Stock Assessment indicate a dramatic overall increase in the abundance of lobsters in the GOM/GBK stock since the late 1980s. After 2008, the rate of increase accelerated, and the stock reached a record high abundance level in 2018. Based on a new analysis to identify shifts in the stock that may be attributed to changing environmental conditions and new baselines for stock productivity, the GOM/GBK stock shifted from a low abundance regime during the early 1980s through 1995 to a moderate abundance regime during 1996-2008, and shifted once again to a high abundance regime during 2009-2018 (Figure 3). Spawning stock abundance and recruitment in the terminal year of the assessment (2018) were near record highs. Exploitation (proportion of stock abundance removed by the fishery) declined in the late 1980s and has remained relatively stable since.

Based on the new abundance reference points adopted by the Board, the GOM/GBK stock is in favorable condition. The average abundance from 2016-2018 was 256 million lobsters, which is greater than the fishery/industry target of 212 million lobsters. The average exploitation from 2016-2018 was 0.459, below the exploitation target of 0.461. Therefore, the GOM/GBK lobster stock is not depleted and overfishing is not occurring.

Stock indicators based on observed data were also used as an independent, model-free assessment of the lobster stocks. These indicators included exploitation rates as an indicator of mortality; YOY, fishery recruitment, SSB, and encounter rates as indicators of abundance, and total landings, effort, catch per unit effort, and monetary measures as fishery performance indicators. Additionally, annual days with average water temperatures >20°C at several temperature monitoring stations and the prevalence of epizootic shell disease in the population

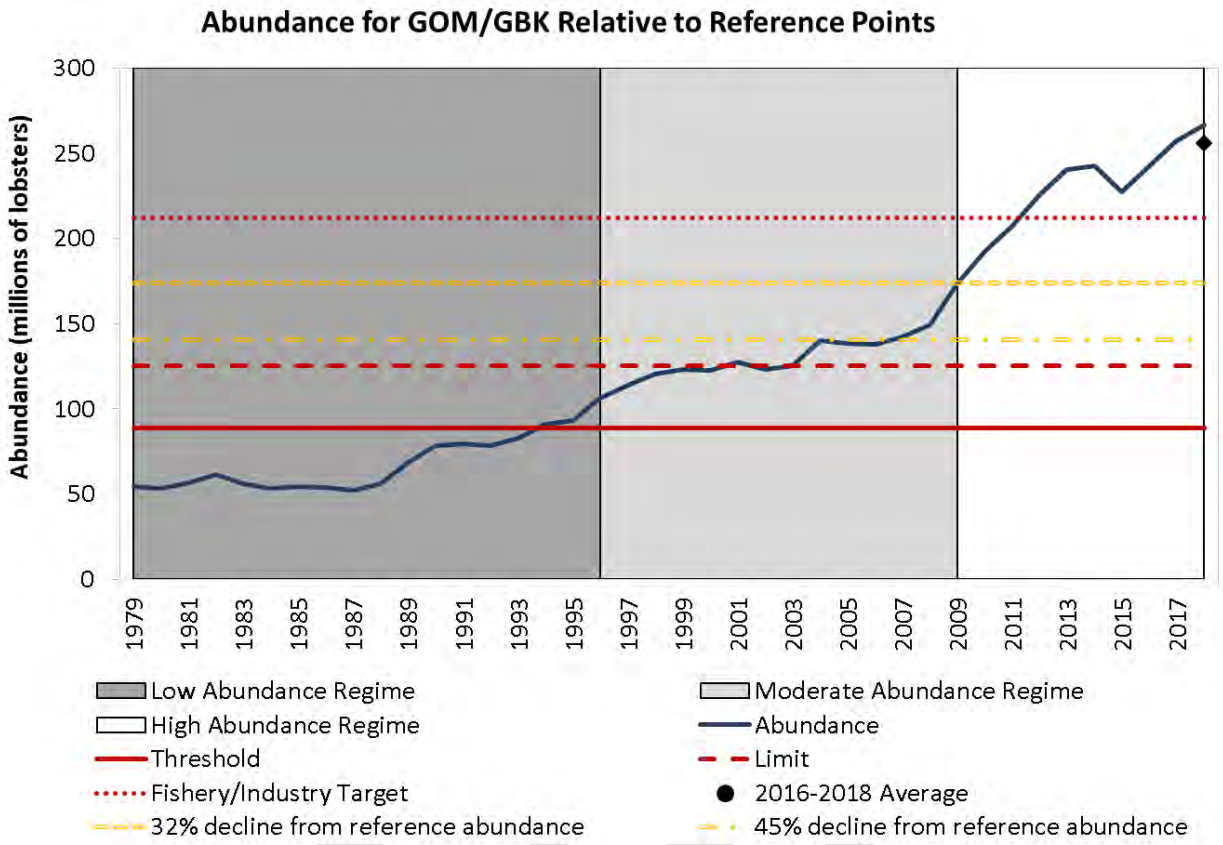


Figure 3. GOM/GBK stock abundance from the 2020 Stock Assessment.

were added as indicators of environmental stress. The 20°C threshold is a well-documented threshold for physiological stress in lobsters. Epizootic shell disease is considered a physical manifestation of stress that can lead to mortality and sub-lethal health effects.

While the stock assessment model and model-free indicators supported a favorable picture of exploitable stock health during the recent 2020 Stock Assessment, the assessment conversely noted young-of-year (YOY) indices did not reflect favorable conditions in recent years and indicate potential for decline in recruitment to the exploitable stock in future years (Table 1). Specifically, YOY indices in two of five regions were below the 25th percentile of the time series (indicating negative conditions) in the terminal year of the assessment (2018) and when averaged over the last five years (2014-2018); the remaining three regions were below the 75th percentile (indicating neutral conditions).

Mortality indicators generally declined through time to their lowest levels in recent years. Fishery performance indicators were generally positive in recent years with several shifting into positive conditions around 2010. Stress indicators show relatively low stress, but indicate some increasingly stressful environmental conditions through time, particularly in the southwest portion of the stock.

As recommended in the 2020 stock assessment, a data update process will occur annually to update American lobster stock indicators, including YOY settlement indicators, trawl survey indicators, and ventless trap survey indices. The second annual data update was completed in 2022 with data through 2021, and the results are provided in Appendix A.

2.3.2 *YOY Surveys*

Since the terminal year of the assessment (2018), YOY indices have continued to show unfavorable conditions in the GOM/GBK stock. There have been sustained low levels of settlement observed from 2012 through the assessment and in the time period since the assessment terminal year in 2018. In Maine, 2019, 2020, and 2021, YOY indices were below the 75th percentile of their time series throughout most statistical areas sampled, (all except Statistical Area 512 in 2019). In 2021, YOY values fell below the 25th percentile in all three northeast areas. In New Hampshire, YOY values have shown a lot of interannual variation over the past three years (2019-2021) with values above the 50th percentile in 2019, then below the 25th in 2020, followed by an increase in the terminal year (2021) above the 75th percentile of the time series. In Massachusetts, the 2019 index was below the 25th percentile of its time series; it rebounded slightly in 2020 and 2021, but remained below the 75th percentile.

Sustained and unfavorable YOY indices are concerning as they could foreshadow poor future year classes in the lobster fishery. Lobster growth is partially temperature-dependent and it is expected that it takes seven to nine years for a lobster to reach commercial size. Thus, decreased abundance of YOY lobsters today could foreshadow decreased numbers of lobsters available to the fishery in the future. Given there have been nine consecutive years of low YOY indices in the GOM, this trend may soon be reflected in the GOM/GBK stock. What is more concerning is that declines in the SNE stock, which is currently at record low abundance, began with declines in YOY indices. Specifically, SNE YOY indices began to decline in 1995, two years before landings peaked in 1997, and roughly five years before landings precipitously declined in the early 2000's.

There are several hypotheses as to why the YOY indices have been low and what this could mean for the future of the GOM/GBK stock. One hypothesis is that declines in the YOY indices are reflecting a true decline in the newly-settled portion of the stock, and are related to declining food resources (specifically zooplankton). Carloni et al. (2018) examined trends in lobster larvae to explore linkages between SSB and YOY abundance. The study found a significant increasing trend in stage I larval abundance consistent with the increases in SSB in the GOM. Planktonic postlarvae on the other hand, had a declining trend in abundance similar to trends for YOY settlement throughout western GOM. The study also found significant correlations between lobster postlarvae and the copepod *C. finmarchicus*, but there were no relationships with other zooplankton. This suggests recruitment processes in the GOM could be linked to larval food supply.

Declines in the YOY indices could also be an artifact of the lobster population moving further offshore. Recent work suggests warming in the GOM on the scale of decades has expanded thermally suitable habitat areas and played a significant role in the increase of observed

settlement into deeper areas, particularly in the Eastern Gulf of Maine (Goode et al. 2019), so lobster settlement may be diluted across a greater area. Given the YOY surveys typically occur inshore, the surveys may be unable to account for increased abundance of YOY lobsters farther offshore. In an effort to test this theory, the TC looked at potential increases in the habitat available for recruitment in the GOM/GBK stock due to warming waters. Specifically, the TC calculated the quantity of habitat by depth in the GOM. Results showed that incremental increases in depth result in incremental increases in recruitment habitat and small observed decreases in recruit densities in shallow waters; there is no evidence that incremental increases in depth result in exponential increases in available habitat. In order for the diffusion of YOY lobsters over a larger area to completely explain the observed decreases in the YOY indices, the habitat available to recruitment would have to more than double. This suggests dilution effects from increased habitat availability alone are not sufficient to explain decreases in the YOY indices, and there are likely other changes occurring in the system.

2.3.3 *Ventless Trap Surveys and Trawl Surveys*

While YOY surveys have detected declines in the number of newly settled lobsters, results of the ventless trap survey (VTS) and trawl surveys, which encounter larger sized lobsters just before they recruit to the fishery, have only exhibited evidence of decline in the most recent years and interpretation of these trends are complicated by sampling restrictions and limited surveys in 2020 resulting from the COVID-19 pandemic. VTS indices show declines since peaking in 2016, especially in the eastern regions. The ME/NH and the MA Fall Trawl Surveys have both showed declines in recruit lobster abundance since 2018. For the spring trawl surveys, recruit abundance indices increased from 2018 to 2019, but decreased again in 2021. Only the ME/NH Fall trawl survey ran in 2020 due to the COVID-19 pandemic.

It is important to continue to closely monitor these surveys as marked decreases in the VTS and/or trawl surveys would confirm the declines seen in the YOY surveys.

2.4 Economic Importance of the American Lobster Fishery

Much of the concern regarding the declines in the lobster indices result from the vast economic importance of the lobster fishery to much of the GOM. For the states of Maine through Massachusetts, lobster is one of the most valuable fisheries and the large majority of landings come from the GOM/GBK stock.

For Maine, American lobster is an essential economic driver for the coastal economy. Lobster annually represents more than 75% of Maine's marine resource landings by ex-vessel value (82% in 2021). The landings peaked in 2016 with more than 132 million pounds harvested, while in 2021, the ex-vessel value was estimated as more than $730 million dollars[1]. The lobster harvester sector includes more than 5,770 license holders, 4,200 of which are active license holders who complete more than 250,000 trips a year selling to 240 active lobster dealers (Maine DMR, unpublished data). The lobster distribution supply chain was estimated in 2018 to contribute an additional economic impact of $1 billion annually ("Lobster to Dollars", 2018).

[1] https://www.maine.gov/dmr/commercial-fishing/landings/documents/lobster.table.pdf

Not included in these numbers are the vessel crew members and other associated businesses (bait vessels and dealers, boat builders, trap builders, and marine supply stores) that are essential in delivering lobsters to consumers worldwide, supporting the industry, and driving Maine's coastal communities.

The American lobster fishery is the most valuable commercial fishery in New Hampshire with an ex-vessel value of over $44 million in 2021. The value of lobster landed accounted for over 90% of the value of all commercial species landed in New Hampshire. The lobster fishery in New Hampshire includes over 300 licensed commercial harvesters, over 200 of which are active, who sold to more than 30 licensed wholesale lobster dealers (Renee Zobel, personal communication). The importance of the economic impact of the lobster fishery to New Hampshire is also seen in the over 350 businesses licensed to sell lobster to consumers at the retail level.

For Massachusetts, American lobster is the second most valuable fishery in terms of overall landings value, and the most valuable of all fisheries conducted within Massachusetts state waters. The total estimated value for annual lobster landings in Massachusetts has been over $93 million per year on average for 2017-2021. On average, landings from the GOM/GBK stock make up 96% of the total lobster landings for Massachusetts; roughly 72% of this comes from LCMA 1, 22% from LCMA 3, and 7% from LCMA OCC (Massachusetts DMF, unpublished data).

Though the state is not directly situated on the GOM, a significant contingent of the Rhode Island commercial lobster fleet harvests lobsters in GOM/GBK. In 2020 and 2021, approximately 30% and 19% of Rhode Island's commercial landings, respectively, came from statistical areas in GOM/GBK (2020: 497,705 pounds, 2021: 257,225 pounds). The estimated ex-vessel value for lobsters from this stock was approximately $2.9 million in 2020.

2.5 Current Management Measures in the GOM/GBK Stock

Lobster is currently managed under Amendment 3, and its 27 addenda. One of the hallmarks of Amendment 3 was the creation of seven LCMAs along the coast. The GOM/GBK stock is primarily comprised of LCMAs 1 and OCC as well as the northern half of LCMA 3. Each management area has a unique set of management measures. Table 2 shows the current measures for each area. Because the GOM/GBK stock is now assessed as a single area the result is a diverse suite of regulations for each LCMA within a single stock unit, creating challenges for assessing the impacts of management measures within the stock. Specifically, the minimum gauge size (the smallest size lobster that can be legally harvested) in LCMA 1 is 3 ¼" while it is $3^{3}/_{8}$" in LCMA OCC and $3^{17}/_{32}$" in LCMA 3[2]. Likewise, the maximum gauge size (the largest size lobster that can be legally harvested) differs among the three areas, with a 5" maximum gauge size in LCMA 1, a 6 ¾" maximum gauge size in LCMA 3 and for federal permit holders in LCMA OCC, and no maximum gauge size for state-only OCC permit holders. V-notch definitions are inconsistent where LCMA 1 implements a no tolerance for possession of any size v-notch or

[2] The coastwide minimum size remains at 3 ¼ inches, this is the minimum size that no LCMA can go below. It is noted that each LCMA has its own minimum size that may be higher than the coastwide minimum size.

mutation and LCMA 3 defines a v-notch as greater than $^1/_8$" with or without setal hairs while OCC has different definitions for federal permits (similar to LCMA 3) state only permits (> ¼" without setal hairs). V-notch requirements are also inconsistent, with LCMA 1 requiring all egg-bearing lobsters to be V-notched, LCMA 3 only requiring V-notching above 42°30' line, and no requirement in OCC (Figure 1).

Several concerns have been noted regarding the current management measures beyond these disparities. At the current minimum sizes, growth overfishing is occurring in the LCMAs within the GOM/GBK stock. Growth overfishing refers to the harvest of lobsters at sizes smaller than the size where their collective biomass (and fishery yield) would be greatest, and when they have very large scope for additional growth. This is demonstrated by the potential increases in catch weight associated with increasing the minimum gauge size (see Appendix B). In LCMA 1, most of the catch consists of individuals within one molt of minimum legal size, which results in a much smaller yield-per-recruit (YPR) than could be achieved if lobsters were allowed to survive and grow to larger sizes before harvest. While the size distribution of the lobsters harvested lobsters in LCMA 3 is much broader than inshore (the fishery is less recruit-dependent) there is still considerable potential for additional growth, and delaying harvest could increase yield per recruit in this region as well. Another concern is the loss of conservation benefit of measures across LCMA lines due to inconsistent measures between areas. The 2015 assessment combined the GOM and GBK areas into one stock because the NEFSC trawl survey showed evidence of seasonal exchange and migration of lobsters between areas. Loss of conservation benefit occurs when lobsters are protected in one area but can be harvested in another when they cross the LCMA boundaries.

2.6 Biological Benefits of Modifying Gauge Sizes

Of the existing biological management measures for the lobster fishery, the minimum and maximum gauge sizes are most likely to have biological impacts on the GOM/GBK stock and fishery. Analyses were performed by the American Lobster Technical Committee to evaluate the impacts of alternate minimum and maximum sizes for the LCMAs within the stock. For LCMA 1, analysis involved updating existing simulation models with more recent data to estimate the impacts of specific minimum and maximum gauge size combinations on total weight of lobsters landed, number of lobsters landed, SSB and exploitation. A separate analysis for LCMA 3 was performed due to concerns that the offshore fishery in LCMA 3 is considerably different from the inshore (which tends to drive stock-wide modelling results). For OCC, simulations were run with both LCMA 1 and LCMA 3 parameters because it is considered a transitional area. The full report on these analyses is included in Appendix B.

Based on these analyses, several general assumptions can be made about potential changes to the minimum and maximum gauge sizes. Increasing the minimum legal gauge size in LCMA 1 is projected to result in large increases in SSB; while increasing the minimum gauge size for LCMA 3 and OCC is projected to result in much smaller increases in SSB relative to LCMA 1. This is primarily because of the significantly larger magnitude of the LCMA 1 fishery and that the current minimum legal size in LCMA is significantly below the size at maturity; meanwhile, the current minimum gauge sizes in LCMA 3 and OCC are much closer to the size at maturity and,

additionally, landings from these areas account for only a small fraction of the fishery. Minimum sizes that approach or exceed the size at maturity produce increasing returns on SSB as this allows a much larger portion of the population to reproduce at least once. Therefore, increasing minimum legal size in LCMA 1 to $3^{15}/_{32}$" (88 mm) is projected to result in a near doubling of SSB. This would significantly increase egg production potential and may provide some buffer against the effects of future changes in productivity. At the same time, this change would be expected to produce only marginal decreases in the total number of lobsters landed but result in a net increase in YPR and total weight of catch.

Generally, decreasing maximum gauge sizes is projected to have larger effects for LCMA 3 both relative to increasing the minimum size in LCMA 3 and to changing the maximum sizes for the other LCMAs. However, relative to increasing the minimum size in LCMA 1, the positive impact to the overall stock projected to result from decreasing the maximum gauge sizes in LCMA 3 and OCC is significantly smaller.

2.7 Potential Implications of Increasing Consistency of Measures

Beyond the biological concerns for the GOM/GBK lobster stock, the disparities in the current measures also create challenges for stock assessment, law enforcement, and commerce. Increasing consistency among the measures for the LCMAs within the stock could have benefits in each of these areas, which are described in the following sections.

2.7.1 Stock Boundaries

A complicating factor in the management of lobster is that the boundaries of the LCMAs do not align with the biological boundaries of the stocks (GOM/GBK vs. SNE). This is particularly problematic in LCMA 3 which spans both GOM/GBK and SNE. The intricacy of the stock boundaries is further complicated by the fact that many vessels fishing out of Rhode Island and Massachusetts, which are harvesting lobsters on Georges Bank, must travel through the SNE stock area to reach their port of landing. In addition, these vessels may be permitted to fish in multiple management areas, including areas that span both lobster stocks.

To date, there have been no permit requirements to delineate within which stock a harvester in LCMA 3 is eligible to fish. In addition, management actions responding to the decline in the SNE stock have been applied throughout LCMA 3. Given the Board initiated this addendum with the goal of increasing resiliency in the GOM/GBK stock, new management measures must either apply to all LCMA 3 fishermen regardless of location and stock fished (with implications on the SNE fishery) or be stock specific.

2.7.2 Interstate Shipment of Lobsters

Increasing consistency in regulations may address concerns regarding the sale and shipment of lobsters across state lines. With decreased landings in SNE and expanding markets for the GOM/GBK stock, there has been increased demand for the shipment of lobsters across state lines. This movement of lobster can be complicated by the fact that the gauge sizes differ across LCMAs, and many states implement the minimum and maximum gauge sizes as possession limits rather than landing limits per state regulation or law. This means the gauge sizes apply to

anyone in the lobster supply chain, not just harvesters. While these strict regulations improve the enforcement of gauge sizes, it can complicate interstate shipment of lobsters, particularly given the minimum size in LCMA 1 is smaller than the other management areas. As a result, some dealers must sort lobster by size in order to ship product across state lines.

Moving toward more consistent minimum sizes within the inshore LCMAs would help alleviate this issue by easing the ability of states to participate in the GOM/GBK lobster supply chain. This would not only reduce the burden on dealers that sort product by size but also enhance the enforcement of gauge sizes in the fishery.

2.7.3 Improve Enforcement

Another potential advantage of more consistent management measures is the ability to improve enforcement throughout the stock. Currently, disparate management measures hinder the ability for law enforcement to enforce various regulations in the lobster fishery. For example, vessels landing in Massachusetts harvest lobsters from four LCMAs, each of which has a different set of minimum gauge sizes (ranging from 3 ¼" to 3 $^{17}/_{32}$") and maximum gauge sizes (ranging from 5" to no maximum gauge size). As a result, at dealers only the most liberal measure can be implemented as a strict possession limit. The Law Enforcement Committee has continually recommended the use of standardized management measures in the lobster fishery, as inconsistent regulations mean that the least restrictive regulations becomes the only enforceable standard once product leaves the dock. In addition, regulatory inconsistencies decrease the likelihood of successful prosecution of violators.

3.0 Proposed Management Options

The following management options consider modifications to the management program with the goal of increasing protection of the GOM/GBK spawning stock. The final management program selected will apply to LCMAs 1, 3, and OCC.

- Issue 1 addresses the standardization of a subset of management measures within LCMAs and across the GOM/GBK stock.
- Issue 2 considers applying either a trigger mechanism or a predetermined schedule for implementing biological management measures that are expected to provide increased protection to the spawning stock biomass and increase the resiliency of the stock.

3.1 Issue 1: Measures to be standardized upon final approval of Addendum XXVII

This issue considers options to modify some management measures immediately upon final approval of the Addendum to achieve more consistency in measures within and across LCMAs. One option proposes to modify some of the OCC measures to address differing regulations for state and federal permit holders. Specifically, for state-permitted fisherman in state waters there is no maximum gauge size and the V-notch definition is $^{1}/_{4}$" without setal hairs. For federal permit holders, the maximum gauge size is 6 $^{3}/_{4}$" and the V-notch definition is $^{1}/_{8}$" with or without setal hairs. The disparity between regulations for different harvesters within the same area creates challenges for enforcement, and potentially weakens the conservation benefit of the stricter definition.

Options are also proposed to standardize V-notch regulations across the LCMAs within the GOM/GBK stock, as well as regulations related to the issuance of tags for trap tag losses. Uniformity in these measures would benefit enforcement and apply a consistent conservation strategy across the stock unit.

Option A: Status Quo
This option would maintain the current management measures for each LCMA at final approval of the addendum.

Option B: Standardized measures to be implemented upon final approval of addendum
The Board may select more than one of the below options. The states would be required to implement the selected management measures for the fishing year specified by the Board at final approval of the addendum.

- **Sub-option B1**: Upon final approval of the addendum, implement standardized measures within an LCMA to the most conservative measure where there are inconsistencies between state and federal regulations within GOM/GBK stock LCMAs. This would result in the maximum gauge being standardized to 6-3/4" for state and federal permit holders, and the V-notch possession definition being standardized to $^1/_8$" with or without setal hairs in Outer Cape Cod (OCC). This means harvest is prohibited for a female lobster with a V-shaped notch greater than $^1/_8$".
- **Sub-option B2**: Upon final approval of the addendum, implement a standard V-notch requirement across all LCMAs in the GOM/GBK stock. This would result in mandatory V-notching for all eggers in LCMA 1, 3, and OCC.
- **Sub-option B3**: Upon final approval of the addendum, implement a standard V-notch possession definition of $^1/_8$" with or without setal hairs for LCMA 1, 3, and OCC. Any jurisdiction could implement more conservative regulations.
- **Sub-option B4:** Upon final approval of the addendum, standardize regulations across LCMAs 1, 3, and OCC to limit the issuance of trap tags to equal the harvester trap tag allocation. This would mean no surplus trap tags would be automatically issued until trap losses occur and are documented.

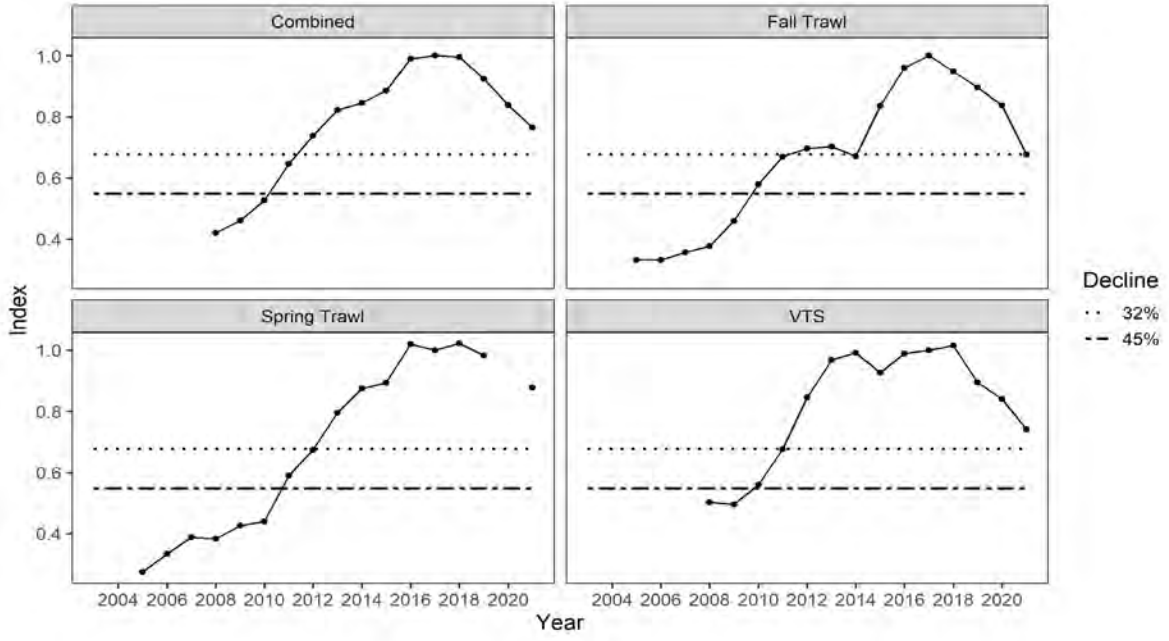
3.2 Issue 2: Implementing management measures to increase protection of SSB
The primary objective of this action is to increase the protection of SSB in the GOM/GBK stock. The proposed options consider changes to the minimum and maximum gauge sizes along with corresponding vent sizes for the LCMAs within the stock. The proposed measures are expected to 1) increase SSB, and 2) result in the minimum gauge size increasing to meet or exceed the size at 50% maturity (L50) for each LCMA (LCMA 1: eastern GOM L50 = 88 mm, western GOM L50 = 83 mm, LCMA 3: Georges Bank L50 = 91 mm). Appendix B includes a full technical report of analysis performed to project the impacts of various gauge size combinations on total weight of lobsters landed, number of lobsters landed, SSB and exploitation.

This issue proposes two approaches for implementing management changes to increase protection of SSB. One approach, which is applied in Options B through D, is to establish a trigger mechanism whereby pre-determined management changes would be triggered upon reaching a defined trigger level based on observed changes in recruit (71-80 mm carapace length) abundance indices. The proposed mechanism includes establishing a management trigger based on recruit conditions observed in three surveys that were used to inform the assessment model estimates of reference abundance and stock status for the GOM/GBK stock. These recruit indices include: 1) combined ME/NH and MA spring trawl survey index, 2) combined ME/NH and MA fall trawl survey index, and 3) model-based VTS index.

The management trigger is defined by a certain level of decline in the indices from an established reference period. The reference value for each index is calculated as the average of the index values from 2016-2018. The percent declines in the indices are expected to approximate comparable declines in overall abundance of the stock, and relate to the abundance reference points established by the Board. The analyses conducted to develop the trigger mechanism and evaluate its performance in appropriately triggering management are described in detail in Appendix C. Figure 4 (top left panel) shows the calculated trigger index compared to the two proposed trigger levels in this document.

A second approach, which is applied in Option E, is to establish a pre-determined schedule for future changes to the management measures. This approach is more proactive in nature and addresses the issue of growth overfishing by increasing the minimum legal size while the stock conditions are favorable.

Figure 4. Scaled survey-specific indices and combined trigger index compared to proposed trigger levels. Top-left: combined trigger index that would be used to trigger changes in management measures. Top-right: moving three-year average of fall trawl survey indices. Bottom-left: moving three year average of spring trawl survey indices. Bottom-right: moving three year average of VTS indices.



Option A: Status Quo
Under this option there would be no additional changes to the management measures for the LCMAs within the GOM/GBK stock beyond the option(s) selected under Issue 1.

Option B: Gauge and vent size changes triggered by 32% decline in trigger index
This option would establish a trigger based on observed changes in indices of recruit abundance compared to the reference level of the trigger index. The trigger point would be a change in the recruit abundance indices greater than or equal to a 32% decline from the reference abundance level (equal to the average of the index values from 2016-2018). This trigger level approximates a decline in reference abundance to the level where the stock abundance regime shifted from moderate to high abundance (Figure 3). Upon this trigger level being reached, the minimum gauge size for LCMA 1 would increase by from the current size (3 ¼") to 3 $^{3}/_{8}$" for the following fishing year. The vent size in LCMA 1 would be adjusted corresponding with the minimum gauge size change.

Additionally, the maximum gauge size in LCMA 3 and OCC would decrease to 6" for the following fishing year. The proposed gauge and vent size changes are expected to maintain similar retention rates of legal lobsters and protection of sub-legal sizes as the current gauge and vent sizes. The vent size is consistent with the current vent size used in SNE for the same minimum gauge size of 3 $^{3}/_{8}$". The table below lists the management measures that would be automatically implemented when the trigger point is reached, with changes from the current measures in bold.

Option B	**LCMA 1**	**LCMA 3**	**OCC**
Management Triggered by 32% decline	**Minimum gauge: 3 $^{3}/_{8}$" (86 mm)** Maximum gauge: status quo **Vent size: 2 x 5 $^{3}/_{4}$" rectangular; 2 $^{5}/_{8}$" circular**	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo

The proposed increase to the minimum gauge size in LCMA 1 is expected to increase the proportion of the population protected from being harvested by the fishery before being able to reproduce. The proposed decreases to the maximum gauge sizes in LCMA 3 and OCC are expected to enhance resiliency by placing forever protections on a small proportion of the population, including larger lobsters of both sexes.

Option C: Gauge and vent size changes triggered by 45% decline in trigger index
This option is identical to Option B above, with the exception of the trigger level that would result in changes to the management measures. Under this option, the trigger point would be a change in the recruit abundance indices greater than or equal to a 45% decline from the reference abundance level (equal to the average of the index values from 2016-2018). This trigger level approximates a decline in stock abundance to the 75th percentile of lobster abundance during the moderate abundance regime from the stock assessment (Figure 3). The

measures that would be implemented when the trigger level is reached are shown in the table below.

Option C	LCMA 1	LCMA 3	OCC
Management Triggered by 45% decline	**Minimum gauge: 3 3/8" (86 mm)** Maximum gauge: status quo **Vent size: 2 x 5 3/4" rectangular; 2 5/8" circular**	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo

Option D: Gradual change in gauge sizes triggered by 32% decline in trigger index
This option considers establishing a trigger level which, upon being reached, would initiate a series of gradual changes in gauge sizes for the LCMAs in the GOM/GBK stock. The minimum gauge size would change in increments of 1/16", and the maximum gauge size would change in increments of ¼". The first change would be triggered by a change in the recruit abundance indices greater than or equal to a 32% decline from the reference abundance level (equal to the average of the index values from 2016-2018). Following this initial change, incremental changes to the gauge sizes would occur every other year. The gauge size changes that would be implemented at each step and the final gauge sizes that would be reached for each area are shown in the table below. The vent size in LCMA 1 would be adjusted when the final gauge size is implemented in order to maintain protect sub-legal sizes. The final vent size is also consistent with the current vent size used in SNE for the same minimum gauge size of 3 3/8".

Option D	LCMA 1	LCMA 3	OCC
Current Measures	Minimum gauge: 3 ¼" Maximum gauge: 5" Vent size: status quo	Minimum gauge: 3 17/32" Maximum gauge: 6 ¾" Vent size: status quo	Minimum gauge: 3 3/8" Maximum gauge: 6 ¾" Vent size: status quo
Trigger 1 (32% decline)	**Minimum gauge: 3 5/16" (84 mm)** Maximum gauge: status quo Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6 ½"** Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6 ½"** Vent size: status quo
Intermediate gauge sizes	**Minimum gauge: 3 3/8" (86 mm)** Maximum gauge: status quo **Vent size: 2 x 5 3/4" rectangular; 2 5/8" circular**	Minimum gauge: status quo **Maximum gauge: 6 ¼"** Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6 ¼"** Vent size: status quo
Final gauge and vent sizes	Minimum gauge: 3 3/8" Maximum gauge: status quo Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo

Option E: Scheduled changes to minimum gauge size in LCMA 1
This option considers establishing a predetermined schedule for implementing gradual changes to the minimum gauge and vent size in LCMA 1 to increase the SSB (see table below for the proposed changes). The first step increases the minimum gauge size in LCMA 1 by $^{1}/_{16}$" to $3^{5}/_{16}$" for the 2025 fishing year. In the final year of adjustments, the minimum gauge size in LCMA 1 would be increased to $3\ ^{3}/_{8}$" for the 2027 fishing year. The vent size in LCMA 1 would also be adjusted once, at the same time the final gauge size is implemented. The final gauge and vent size changes are expected to maintain similar retention rates of legal lobsters and protection of sub-legal sizes as the current gauge and vent sizes.

Option E	LCMA 1	LCMA 3	OCC
2025 fishing year measures	**Min: $3\ ^{5}/_{16}$" (84 mm)** Max: status quo Vent size: status quo	Min: status quo Max: status quo	Min: status quo Max: status quo
2027 fishing year measures	**Min: $3\ ^{3}/_{8}$ (86 mm)** Max: status quo **Vent size: 2 x $5\ ^{3}/_{4}$" rectangular; $2\ ^{5}/_{8}$" circular**	Min: status quo Max: status quo	Min: status quo Max: status quo

3.3 Implementation of Management Measures in LCMA 3
Although only a portion of LCMA 3 pertains to the GOM/GBK stock (see Section 2.8 Stock Boundaries for additional information), the measures selected by the Board pertaining to LCMA 3 would apply to all LCMA 3 permit holders, including those that fish in the SNE stock.

Applying the selected measures to only the GOM/GBK portion of LCMA 3 would create a significant administrative burden, as well as additional potential for confusion and noncompliance among LCMA 3 permit holders. To date there have been no permit requirements that delineate in which stock area an LCMA 3 fisherman is eligible to fish. Given the objective of this addendum is specific to protecting the GOM/GBK spawning stock, new management measures must either apply to all LCMA 3 harvesters regardless of location and stock fished (and therefore also impact the SNE fishery) or new measures would have to be stock (and geographic area) specific in order to only affect the GOM/GBK fishery. For example, an LCMA 3 harvester seeking to continue fishing in GOM/GBK would either have to declare and be permitted to fish within the GOM/GBK stock area to be held accountable, or opt to not participate in the GOM/GBK fishery to avoid the more restrictive measures.

Applying the measures across the entire management area is consistent with previous changes to the management measures in LCMA 3. When several addenda implemented reductions in fishing capacity and the Area 3 conservation tax (Addendum XIX) to address the declining condition of the SNE stock, the measures were also applied to the GOM/GBK portion of LCMA 3, which was not overfished nor experiencing overfishing. Though the impacts of the proposed measures on the SNE stock and fishery have not been analyzed, it is likely that the proposed changes would have only trivial negative impacts to catch and positive impacts to SSB considering the current depleted status of the stock.

4.0 Compliance

If the existing FMP is revised by approval of this draft addendum, the American Lobster Management Board will designate dates by which states will be required to implement the provisions included in the addendum. A final implementation schedule will be identified based on the management tools chosen.

5.0 Recommendations for Actions in Federal Waters

The management of American lobster in the EEZ is the responsibility of the Secretary of Commerce through the National Marine Fisheries Service. The Atlantic States Marine Fisheries Commission recommends that the federal government promulgate all necessary regulations in Section 3.0 to implement complementary measures to those approved in this addendum.

6.0 References

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7.0 Tables

Table 1. Existing LCMA specific management measures.

Mgmt. Measure	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	OCC
Min Gauge Size	3 1/4"	3 3/8"	3 17/32"	3 3/8"	3 3/8"	3 3/8"	3 3/8"
Vent Rect.	1 15/16 x 5 3/4"	2 x 5 3/4"	2 1/16 x 5 3/4"	2 x 5 3/4"	2 x 5 3/4"	2 x 5 3/4"	2 x 5 3/4"
Vent Cir.	2 7/16"	2 5/8"	2 11/16"	2 5/8"	2 5/8"	2 5/8"	2 5/8"
V-notch requirement	Mandatory for all eggers	Mandatory for all legal size eggers	Mandatory for all eggers above 42°30'	Mandatory for all eggers in federal waters. No V-notching in state waters.	Mandatory for all eggers	None	None
V-notch Definition[1] (possession)	Zero Tolerance	1/8" with or w/out setal hairs[1]	1/8" with or w/out setal hairs[1]	1/8" with or w/out setal hairs[1]	1/8" with or w/out setal hairs[1]	1/8" with or w/out setal hairs[1]	State Permitted fisherman in state waters 1/4" without setal hairs Federal Permit holders 1/8" with or w/out setal hairs[1]
Max. Gauge (male & female)	5"	5 ¼"	6 3/4"	5 ¼"	5 ¼"	5 ¼"	State Waters none Federal Waters 6 3/4"
Season Closure				April 30-May 31[2]	February 1-March 31[3]	Sept 8-Nov 28	February 1-April 30

Table 2. GOM/GBK model-free indicators for the 2020 Stock Assessment. The left table shows the GOM spawning stock abundance, the right table shows GBK spawning stock abundance.

SPAWNING STOCK ABUNDANCE Mean weight (g) per tow of mature females						
Survey	NESFC		ME/NH		MA 514	
	fall	spring	fall	spring	fall	spring
1981	175.32	400.28			502.65	430.53
1982	39.45	113.58			626.48	151.21
1983	206.03	234.21			844.76	67.08
1984	234.64	443.81			593.77	126.47
1985	499.62	2771.23			919.56	93.81
1986	267.97	502.99			231.88	112.97
1987	85.35	497.40			194.34	148.62
1988	186.56	244.92			200.58	88.14
1989	325.69	247.15			293.61	230.26
1990	216.65	516.20			1048.72	241.94
1991	247.11	430.56			335.80	165.54
1992	193.95	453.31			512.83	212.89
1993	284.34	484.30			120.59	229.72
1994	430.32	720.67			783.17	285.01
1995	464.96	390.15			520.26	171.71
1996	734.25	872.53			569.39	156.53
1997	568.34	1083.76			235.18	114.78
1998	381.81	1182.44			282.79	170.21
1999	1444.07	807.41			365.53	282.12
2000	585.66	1281.05	4430.55		533.40	236.55
2001	511.25	1498.42	2446.85	690.89	165.74	235.85
2002	1789.42	2022.04	4638.64	1436.34	324.34	175.73
2003	985.93	2343.63	3949.63	1226.05	129.67	72.99
2004	685.89	2773.35	3610.67	907.07	120.27	259.35
2005	465.35	1670.29	4805.25	1990.08	248.23	489.12
2006	681.87	1810.96	3698.94	1327.93	240.27	410.97
2007	445.78	1536.47	3163.24	1437.85	176.95	139.94
2008	805.10	1894.91	4080.36	1107.00	559.70	300.35
2009	1787.92	1864.92	6906.45	1747.30	630.52	219.83
2010	2850.60	2476.79	5793.51	1886.61	1424.75	211.52
2011	2317.94	2089.39	6169.40	2013.80	1268.44	267.51
2012	3215.29	3516.38	4174.85	2287.55	889.87	124.81
2013	3299.56	2499.71	5363.14	2007.92	1135.54	300.86
2014	4979.28	3083.09	5891.58	3010.73	768.88	382.81
2015	3553.44	3665.39	8488.62	2233.05	1947.04	418.46
2016	3692.26	5142.42	7691.01	2613.49	3712.66	1119.26
2017	3274.69	6566.80	4629.68	2530.74	2309.44	564.30
2018	2093.20	3555.09	5242.34	2005.07	2782.55	550.68
2014-2018 mean	3518.57	4402.56	6388.65	2478.62	2304.11	607.10
25th	272.06	487.57	4015.00	1355.03	242.26	149.27
median	539.79	1389.74	4638.64	1938.34	526.83	224.78
75th	1789.05	2443.50	5842.54	2178.24	878.60	296.52

SPAWNING STOCK ABUNDANCE Mean weight (g) per tow of mature females		
Survey	NESFC	
	fall	spring
1981	707.14	69.71
1982	670.07	123.96
1983	643.84	152.05
1984	397.33	45.17
1985	504.87	39.00
1986	491.96	307.05
1987	537.31	113.27
1988	695.27	307.49
1989	933.18	161.43
1990	761.64	103.62
1991	848.03	164.32
1992	817.25	213.11
1993	626.81	126.03
1994	774.61	41.77
1995	939.85	71.74
1996	1051.09	482.61
1997	754.00	62.46
1998	993.56	64.67
1999	1363.68	395.66
2000	945.69	132.57
2001	1756.38	313.41
2002	2183.80	341.90
2003	1030.19	842.92
2004	1557.16	298.95
2005	1404.20	491.00
2006	2123.43	465.72
2007	1859.53	728.26
2008	3074.33	1827.61
2009	3703.99	1336.34
2010	2120.51	1126.52
2011	4681.76	1113.11
2012	2696.38	1510.08
2013	2530.26	1369.39
2014	3012.69	1833.98
2015	3743.71	1509.13
2016	3020.98	2138.96
2017	6627.18	3749.60
2018	9630.86	725.09
2014-2018 mean	5207.09	1991.35
25th	755.91	124.47
median	1040.64	310.45
75th	2443.64	1045.56

Appendix A. 2022 Annual Data Update of American Lobster GOM/GBK Stock Indicators

Background

An annual Data Update process between American lobster stock assessments was recommended during the 2020 stock assessment to more closely monitor changes in stock abundance. The objective of this process is to present information—including any potentially concerning trends—that could support additional research or consideration of changes to management. Data sets updated during this process are generally those that indicate exploitable lobster stock abundance conditions expected in subsequent years and include:

- YOY settlement indicators
- Trawl survey indicators, including recruit abundance (71-80 mm carapace length lobsters) and survey encounter rate
- Ventless trap survey sex-specific abundance indices (53 mm+ carapace length lobsters)

This is the second Data Update and provides an update of last year's review with the addition of 2021 data. Indicator status (negative, neutral, or positive – see table below) was determined relative to the percentiles of the stock assessment time series (i.e., data set start year through 2018).

Indicator	< 25th percentile	Between 25th and 75th percentile	> 75th percentile
YOY settlement (larval or YOY)	Negative	Neutral	Positive
Trawl survey recruit abundance	Negative	Neutral	Positive
Trawl survey encounter rate	Negative	Neutral	Positive
Ventless trap survey abundance	Negative	Neutral	Positive

The five-year means provided during the stock assessment (2014-2018) for terminal indicator status determinations were also updated with new years of data. This treatment of data is consistent with stock indicators provided during stock assessments (see Section 5 in the stock assessment report for more detail). As noted in last year's Data Update memo, ventless trap survey abundance indices were added to indicators used in the stock assessment for this Data Update process. Note that updated five-year means (2017-2021) for several trawl survey-based indicators remain impacted by covid-19 data collection disruptions. A change that impacted this year's update is a reduction in the spatial coverage of Massachusetts' Southern New England (statistical area 538) ventless trap survey due to reduced participation. This change necessitates dropping out data collected during earlier years from areas no longer sampled to calculate an index from a consistent survey footprint, resulting in changes to the indices from what was reviewed last year. Note that the updated index increased slightly in scale (the reduced footprint excludes most of the interior of Buzzards Bay), but the pattern over time is generally consistent with the previous index. Below are the results of the data updates by sub-stock.

Results

Gulf of Maine (GOM)

Overall, Gulf of Maine indicators show declines from time series highs observed during the stock assessment.

- YOY conditions showed improvements since the stock assessment, but were still not positive (Table 1 and Figure 1).
    - Updated five-year means were all neutral, indicating improvement since the stock assessment when two of the five-year means were negative (both southwest areas).

    - 2021 values moved from neutral to negative conditions in all three northeast areas, reversing some improvements seen in previous years. The two most southwest areas remained in neutral conditions observed in 2020.
- Trawl survey recruit abundance indicators generally remained positive, but showed some sign of decline since the stock assessment (Table 2 and Figure 2).
    - One of the updated five-year means changed from positive to neutral. The others remained positive.
    - 2021 values for three of four inshore indicators were neutral and the only available 2020 value was also neutral, the first observed neutral values since 2014 or 2015 for these indicators.
    - Five of six indicators were not available for 2020 due to covid-19 sampling restrictions.
- Trawl survey encounter rates show deteriorating conditions inshore since the stock assessment (Table 3 and Figure 3).
    - All four updated five-year means for inshore indicators were neutral, whereas only one was neutral during the stock assessment. Updated five-year means for the two offshore indicators remain positive.
    - Five of six indicators were not available for 2020 due to covid-19 sampling restrictions.
- Ventless trap survey indices show abundance declining since the stock assessment (Table 4 and Figure 4).
    - Seven of eight updated five-year means were neutral and one was negative, compared to four positive means and no negative means during the stock assessment.
    - Two additional values in 2021 moved into negative conditions.
    - 2021 values for both sexes in statistical area 514 were among the lowest values observed during the time series.

Georges Bank (GBK)

Overall, Georges Bank indicators show conditions similar to during the stock assessment. Note that there are no YOY or VTS indicators for this sub-stock area.

- Trawl survey recruit abundance indicators showed conditions similar to during the stock assessment (Table 5 and Figure 5).
    - Updated means for both indicators were neutral. This is unchanged from the stock assessment.
    - 2021 values were both positive and relatively high compared to other recent years.
    - No indicators were available for 2020 due to covid-19 sampling restrictions.
    - These indicators tend to be noisier than some of the other abundance indicators, with high interannual variability and lack of discernible trends.
- Trawl survey encounter rates showed declines in the fall since the stock assessment (Table 6 and Figure 6).
    - The updated mean for the fall indicator changed from positive to neutral, while the updated mean for the spring indicator remained positive.
    - No indicators were available for 2020 due to covid-19 sampling restrictions.

Southern New England (SNE)

Overall, Southern New England indicators show continued unfavorable conditions with some further signs of decline since the stock assessment.

- YOY conditions were negative across the stock with some decline since the stock assessment (Table 7 and Figure 7).

  - Updated five-year means were all negative, whereas one of three was neutral during the stock assessment.
  - Only one non-negative annual indicator has been observed since the stock assessment.
  - No YOY have been caught during the MA survey for the last seven years.
- Trawl survey recruit abundance indicators generally showed conditions similar to during the stock assessment with some slight decline offshore (Table 8 and Figure 8).
  - The updated five-year mean for the spring indicator offshore changed from neutral to negative. Other updated means were unchanged, with five inshore indicators remaining negative and the other two indicators (one inshore and one offshore) remaining neutral.
  - Six of eight indicators were not available for 2020 due to covid-19 sampling restrictions.
- Trawl survey encounter rates showed deteriorating conditions since the stock assessment (Table 9 and Figure 9).
  - Updated five-year means for all eight indicators were negative, with two changing from neutral to negative since the stock assessment.
  - 2021 values for all indicators were negative, the first year these uniform conditions have occurred during the time series.
  - Six of eight indicators were not available for 2020 due to covid-19 sampling restrictions.
- Ventless trap survey indices showed conditions similar to conditions during the stock assessment (Table 10 and Figure 10).
  - Updated five-year means were all neutral, unchanged from the stock assessment.
  - All annual values since the stock assessment have been negative in statistical area 539, but higher values observed in 2018 have kept the five-year means neutral.
  - The female index calculated with reduced survey area in statistical area 538 was similar to the index from the historical survey area reviewed last year. The 2018 and 2019 values for the male index changed from neutral for the historical survey area to negative for the reduced survey area.
  - It is important to note that the ventless trap survey has only taken place during depleted stock conditions coinciding with an adverse environmental regime, so interannual variability can be misleading without the context of a longer time series encompassing varying stock conditions.

Tables and Figures

Table 1. GOM abundance indicators: YOY indices.

YOUNG-OF-YEAR INDICES					
Survey	*ME*				*MA*
	511	*512*	*513 East*	*513 West*	*514*
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989			1.64		
1990			0.77		
1991			1.54		
1992			1.30		
1993			0.45		
1994			1.61		
1995		0.02	0.66		0.91
1996		0.05	0.47		
1997		0.05	0.46		0.10
1998		0.00	0.14		0.03
1999		0.04	0.65		0.43
2000	0.00	0.10	0.13	0.17	0.07
2001	0.24	0.43	2.08	1.17	0.39
2002	0.13	0.29	1.38	0.85	1.00
2003	0.22	0.27	1.75	1.22	0.75
2004	0.18	0.36	1.75	0.67	1.02
2005	1.42	1.25	2.40	1.12	1.06
2006	0.49	1.06	1.57	1.08	0.45
2007	0.59	1.11	2.23	1.30	1.27
2008	0.32	0.59	1.27	1.10	0.33
2009	0.66	0.33	1.51	0.48	0.17
2010	0.16	0.64	1.25	0.63	0.44
2011	0.41	0.98	2.33	0.90	0.58
2012	0.44	0.62	1.27	0.30	0.08
2013	0.10	0.20	0.48	0.12	0.00
2014	0.16	0.47	1.04	0.42	0.11
2015	0.15	0.22	0.42	0.03	0.00
2016	0.13	0.21	0.42	0.14	0.08
2017	0.21	0.36	0.65	0.23	0.08
2018	0.27	0.34	0.62	0.22	0.03
2014-2018 mean	0.18	0.32	0.63	0.21	0.06
2019	0.43	0.64	0.94	0.45	0.06
2020	0.29	0.51	1.06	0.33	0.19
2021	0.06	0.12	0.38	0.28	0.28
2017-2021 mean	0.25	0.39	0.73	0.30	0.13

25th	0.15	0.18	0.51	0.23	0.08
median	0.22	0.34	1.26	0.63	0.33
75th	0.42	0.60	1.60	1.09	0.67

Figure 1. GOM abundance indicators: YOY indices.

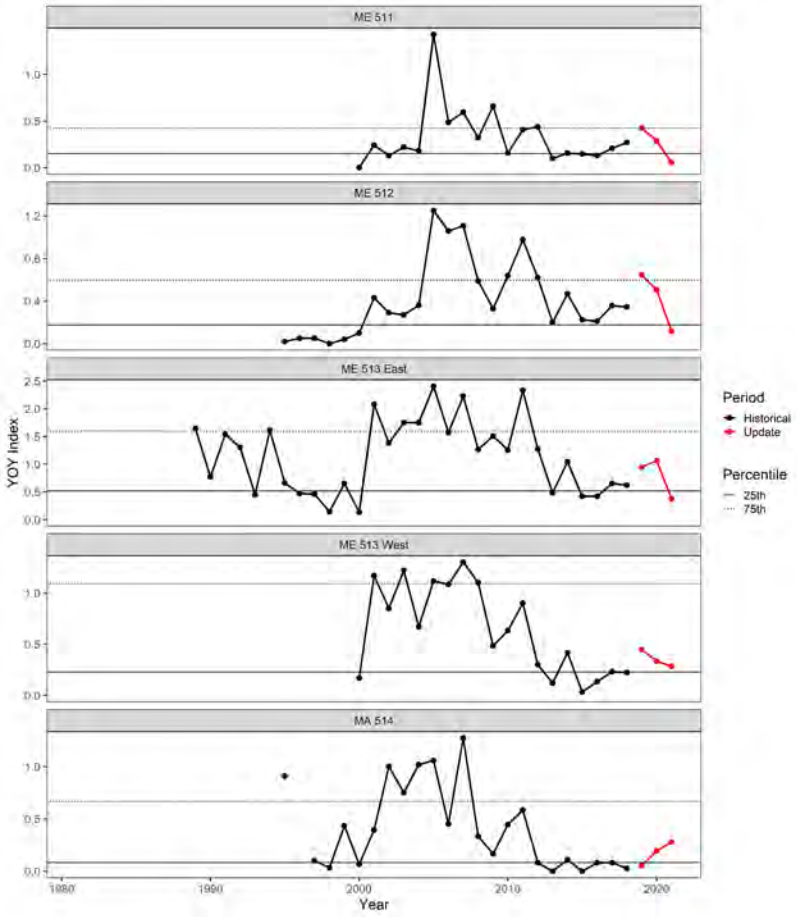


Table 2. GOM abundance indicators: trawl survey recruit abundance.

RECRUIT ABUNDANCE (SURVEY)						
Abundance of lobsters 71 - 80 mm CL (sexes combined)						
Survey	*NEFSC*		*ME/NH*		*MA 514*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.13	0.06			6.38	4.84
1982	0.29	0.42			2.74	3.85
1983	0.28	0.90			1.76	9.76
1984	0.20	0.31			2.15	6.13
1985	0.14	1.41			4.48	9.60
1986	0.27	1.29			3.01	3.80
1987	0.67	0.57			2.47	1.16
1988	0.67	1.21			2.52	4.12
1989	0.00	1.61			4.48	7.51
1990	0.27	1.76			6.11	15.36
1991	0.55	1.41			2.73	7.55
1992	0.50	1.37			4.31	8.95
1993	0.25	0.86			5.12	3.19
1994	0.15	2.75			7.59	13.77
1995	1.45	1.44			4.54	12.12
1996	0.76	4.59			3.09	12.10
1997	2.02	2.12			4.59	6.46
1998	1.59	2.16			4.50	7.47
1999	1.51	3.01			4.29	8.73
2000	4.64	3.01		24.09	4.24	8.87
2001	1.05	1.51	9.28	17.81	4.32	1.58
2002	1.08	1.91	22.00	22.41	3.43	5.00
2003	1.41	0.36	10.65	18.32	1.96	0.66
2004	0.84	2.26	7.55	12.29	2.46	1.30
2005	0.34	0.87	18.51	25.90	4.35	2.11
2006	2.17	1.27	18.07	18.30	6.09	5.30
2007	1.62	0.64	15.91	16.82	0.77	1.61
2008	0.99	2.41	17.88	31.61	2.54	6.12
2009	4.88	4.90	24.72	32.67	3.19	8.88
2010	2.98	4.53	17.66	37.35	2.22	9.39
2011	10.27	11.83	39.25	46.09	5.24	15.04
2012	11.25	6.74	36.55	37.12	3.03	11.30
2013	10.93	18.12	34.50	37.86	4.83	12.20
2014	11.66	21.54	65.07	41.95	3.35	7.06
2015	14.44	17.89	38.51	67.99	7.05	17.91
2016	13.25	22.54	50.83	60.07	13.61	17.44
2017	15.74		48.42	48.13	7.85	13.58
2018	14.15	15.87	42.77	55.84	5.25	25.69
2014-2018 mean	13.84	19.46	49.12	54.80	7.42	16.34
2019	16.69	7.62	46.37	50.85	10.69	14.59
2020				34.65		
2021	10.04	8.04	32.86	29.64	6.39	10.16
2017-2021 mean	14.15	10.51	42.61	43.82	7.55	16.01
25th	0.30	1.21	17.72	20.37	2.73	4.30
median	1.07	1.76	23.36	32.67	4.30	7.53
75th	4.23	4.53	39.07	44.02	5.05	11.90

Figure 2. GOM abundance indicators: trawl survey recruit abundance.

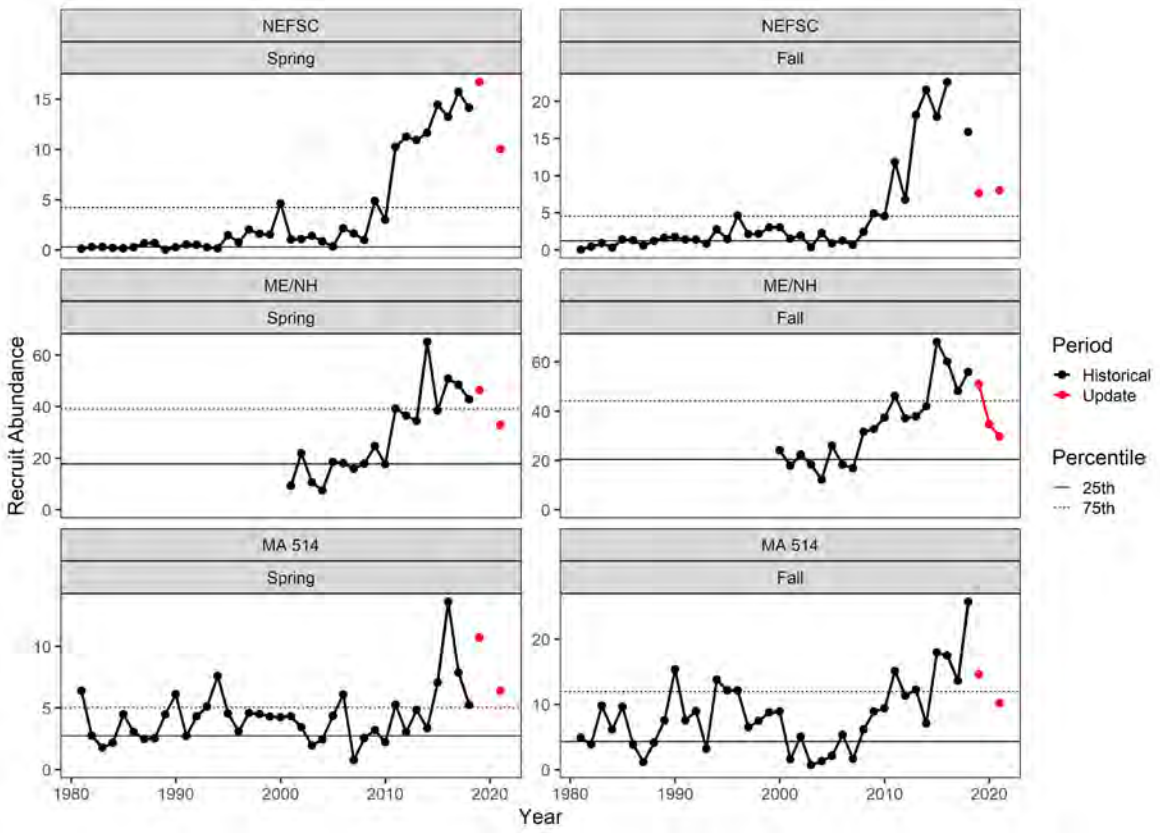


Table 3. GOM abundance indicators: trawl survey encounter rate.

SURVEY LOBSTER ENCOUNTER RATE						
Proportion of postive tows						
Survey	*NEFSC*		*ME/NH*		*MA 514*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.44	0.25			0.86	0.72
1982	0.34	0.18			0.50	0.70
1983	0.26	0.33			0.76	0.76
1984	0.28	0.36			0.76	0.76
1985	0.38	0.49			0.71	0.67
1986	0.33	0.47			0.68	0.83
1987	0.43	0.24			0.85	0.54
1988	0.31	0.30			0.76	0.58
1989	0.19	0.35			0.78	0.95
1990	0.41	0.32			0.86	0.95
1991	0.42	0.32			0.87	0.94
1992	0.40	0.24			0.93	0.77
1993	0.41	0.39			0.97	0.82
1994	0.45	0.40			1.00	0.93
1995	0.41	0.37			0.93	0.93
1996	0.54	0.54			0.91	0.95
1997	0.64	0.35			0.93	0.86
1998	0.52	0.40			0.76	0.69
1999	0.51	0.42			0.73	0.91
2000	0.63	0.42		0.94	0.93	0.98
2001	0.57	0.40	0.88	0.86	0.93	0.72
2002	0.75	0.53	0.94	0.95	0.91	0.73
2003	0.69	0.44	0.92	0.85	0.82	0.55
2004	0.87	0.31	0.89	0.86	0.84	0.56
2005	0.77	0.36	0.95	0.91	0.95	0.67
2006	0.72	0.60	0.93	0.93	0.91	0.88
2007	0.72	0.43	0.97	0.85	0.51	0.54
2008	0.84	0.49	0.92	0.86	0.83	0.75
2009	0.82	0.63	0.98	0.92	0.89	0.87
2010	0.85	0.75	0.98	0.96	0.87	0.98
2011	0.83	0.74	0.99	0.96	0.89	0.85
2012	0.86	0.78	0.98	0.98	0.91	0.95
2013	0.87	0.73	1.00	0.93	0.96	0.95
2014	0.90	0.71	1.00	0.99	0.79	0.96
2015	0.93	0.69	1.00	0.96	0.98	0.95
2016	0.94	0.75	1.00	0.96	0.96	0.97
2017	0.86		0.99	0.94	0.84	0.98
2018	0.86	0.71	0.98	0.96	0.84	0.90
2014-2018 mean	0.90	0.72	0.99	0.96	0.88	0.95
2019	0.83	0.71	0.99	0.95	0.85	0.92
2020				0.96		
2021	0.90	0.75	1.00	0.91	0.86	0.90
2017-2021 mean	0.86	0.72	0.99	0.94	0.85	0.93

25th	0.41	0.35	0.93	0.89	0.78	0.72
median	0.60	0.42	0.98	0.94	0.87	0.86
75th	0.84	0.60	0.99	0.96	0.93	0.95

Figure 3. GOM abundance indicators: trawl survey encounter rate.

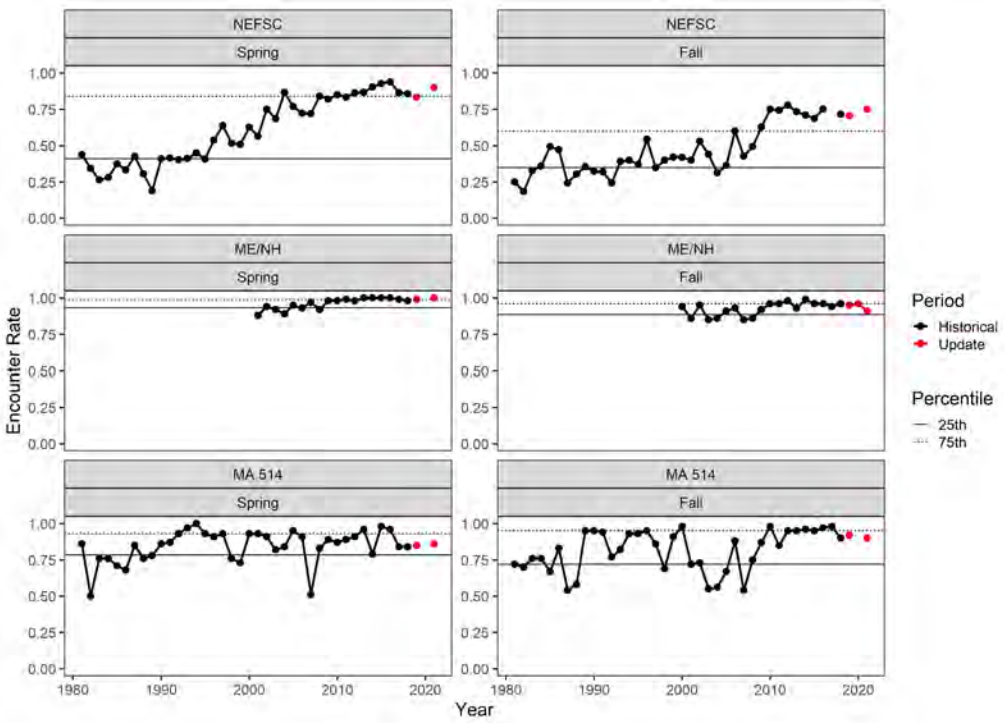


Table 4. GOM abundance indicators: ventless trap survey abundance.

VENTLESS TRAP ABUNDANCE								
Abundance of lobsters ≥ 53 mm CL								
Survey	*511*		*512*		*513*		*514*	
	Female	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*
1981								
1982								
1983								
1984								
1985								
1986								
1987								
1988								
1989								
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006	7.65	5.34	6.87	5.38	5.73	4.37	3.10	3.40
2007	5.06	3.91	3.95	3.83	5.82	4.35	1.85	1.84
2008	4.94	3.87	5.78	4.95	5.78	4.97	2.77	2.51
2009	3.60	2.65	6.31	5.35	6.89	5.53	2.72	2.66
2010	5.66	3.90	6.95	5.69	6.61	5.27	2.49	2.22
2011	8.70	6.52	11.10	8.48	7.32	5.60	3.47	2.60
2012	10.95	7.64	12.06	9.47	11.40	7.72	5.21	4.52
2013	11.14	7.95	11.87	8.64	9.36	6.49		
2014	10.38	6.63	11.92	8.04	7.74	4.96	3.15	2.35
2015	8.47	4.63	10.39	7.70	8.54	5.48	4.01	3.16
2016	14.59	9.15	14.34	10.75	10.78	7.56	4.79	3.56
2017	11.69	7.07	11.61	8.52	8.46	5.56	3.38	2.45
2018	15.10	9.43	11.26	8.23	9.57	6.37	3.47	2.43
2014-2018 mean	12.05	7.38	11.90	8.65	9.02	5.99	3.76	2.79
2019	12.93	8.27	8.22	5.94	8.68	5.25	2.85	1.93
2020	7.66	5.47	7.91	5.96	9.29	6.61	2.50	1.69
2021	7.34	5.44	5.94	5.23	8.24	5.93	1.77	1.37
2017-2021 mean	10.94	7.14	8.99	6.78	8.85	5.94	2.80	1.97
25th	5.66	3.91	6.87	5.38	6.61	4.97	2.76	2.41
median	8.70	6.52	11.10	8.04	7.74	5.53	3.27	2.56
75th	11.14	7.64	11.87	8.52	9.36	6.37	3.61	3.22

Figure 4. GOM abundance indicators: ventless trap survey abundance.

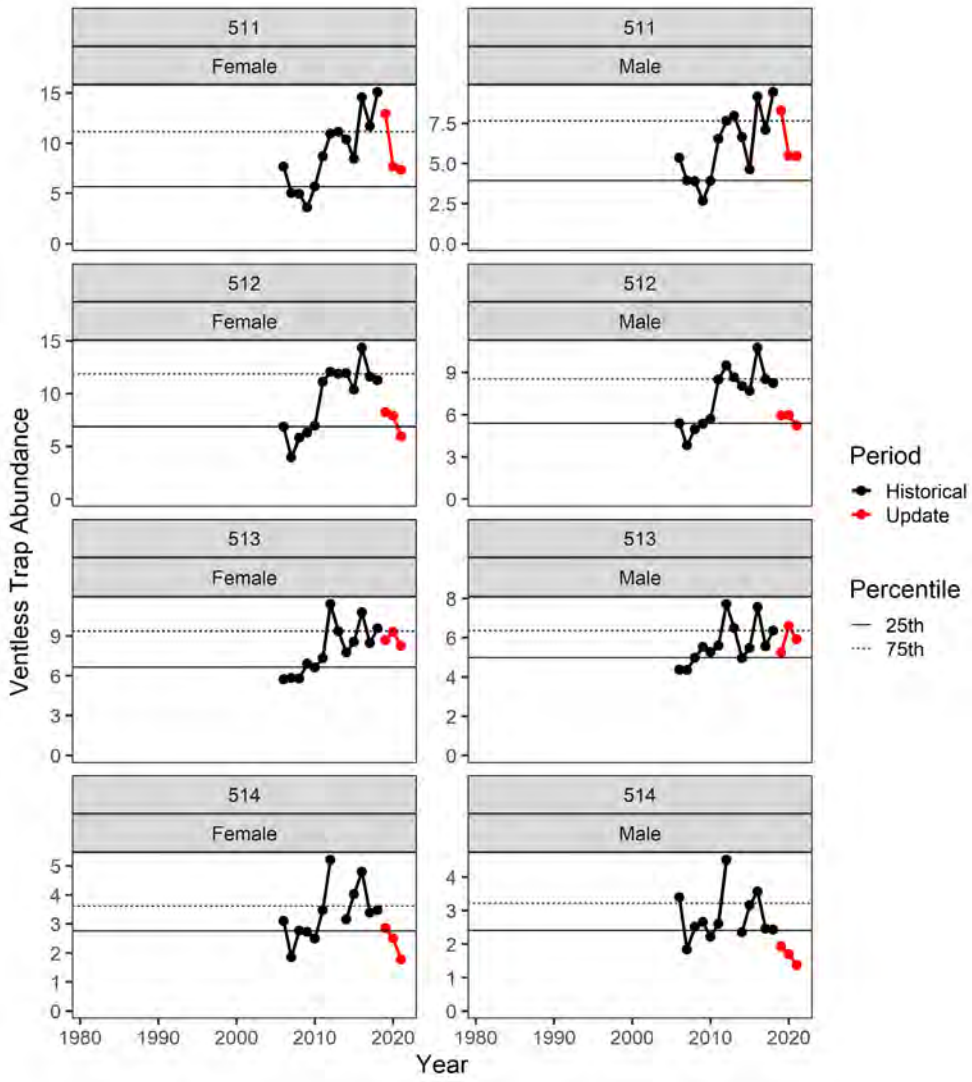


Table 5. GBK abundance indicators: trawl survey recruit abundance.

RECRUIT ABUNDANCE (SURVEY)		
Abundance of lobsters 71 - 80 mm CL (sexes combined)		
Survey	*NEFSC*	
	Spring	*Fall*
1981	0.08	0.28
1982	0.18	0.41
1983	0.16	0.33
1984	0.09	0.40
1985	0.19	0.26
1986	0.57	0.64
1987	0.43	0.54
1988	0.09	0.36
1989	0.04	0.23
1990	0.44	0.47
1991	0.08	0.34
1992	0.13	0.62
1993	0.50	0.22
1994	0.01	0.13
1995	0.03	0.14
1996	0.00	0.35
1997	0.06	0.90
1998	0.01	0.33
1999	0.07	0.29
2000	0.27	0.33
2001	0.47	0.45
2002	0.06	0.56
2003	0.29	0.16
2004	0.04	0.18
2005	0.09	0.13
2006	0.16	0.12
2007	0.03	0.23
2008	0.05	0.17
2009	0.30	0.33
2010	0.30	0.15
2011	0.09	0.35
2012	0.15	0.17
2013	0.14	0.24
2014	0.16	0.21
2015	0.06	0.44
2016	0.15	0.13
2017	0.35	
2018	0.04	0.22
2014-2018 mean	0.15	0.25
2019	0.16	0.13
2020		
2021	0.41	0.43
2017-2021 mean	0.24	0.26

25th	0.06	0.18
median	0.11	0.29
75th	0.25	0.40

Figure 5. GBK abundance indicators: trawl survey recruit abundance.

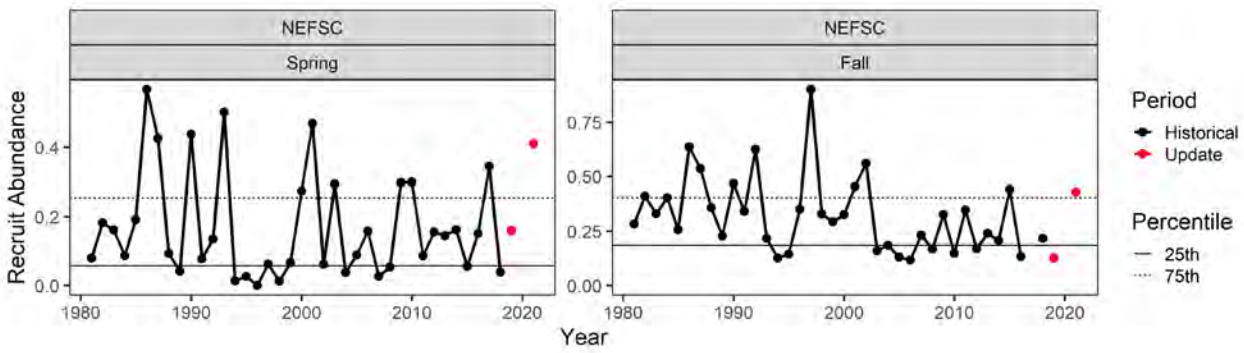


Table 6. GBK abundance indicators: trawl survey encounter rate.

SURVEY LOBSTER ENCOUNTER RATE		
Proportion of postive tows		
Survey	*NEFSC*	
	Spring	*Fall*
1981	0.23	0.52
1982	0.23	0.43
1983	0.18	0.38
1984	0.12	0.34
1985	0.19	0.35
1986	0.27	0.36
1987	0.18	0.35
1988	0.34	0.40
1989	0.14	0.38
1990	0.18	0.44
1991	0.19	0.45
1992	0.26	0.49
1993	0.22	0.36
1994	0.11	0.38
1995	0.14	0.42
1996	0.16	0.40
1997	0.10	0.48
1998	0.10	0.40
1999	0.16	0.58
2000	0.23	0.41
2001	0.23	0.49
2002	0.29	0.55
2003	0.27	0.44
2004	0.18	0.53
2005	0.16	0.58
2006	0.24	0.54
2007	0.26	0.46
2008	0.29	0.55
2009	0.34	0.54
2010	0.38	0.62
2011	0.30	0.69
2012	0.35	0.57
2013	0.33	0.65
2014	0.37	0.61
2015	0.27	0.59
2016	0.45	0.55
2017	0.40	
2018	0.29	0.59
2014-2018 mean	0.36	0.58
2019	0.36	0.57
2020		
2021	0.41	0.48
2017-2021 mean	0.37	0.54

25th	0.18	0.40
median	0.23	0.48
75th	0.29	0.55

Figure 6. GBK abundance indicators: trawl survey encounter rate.

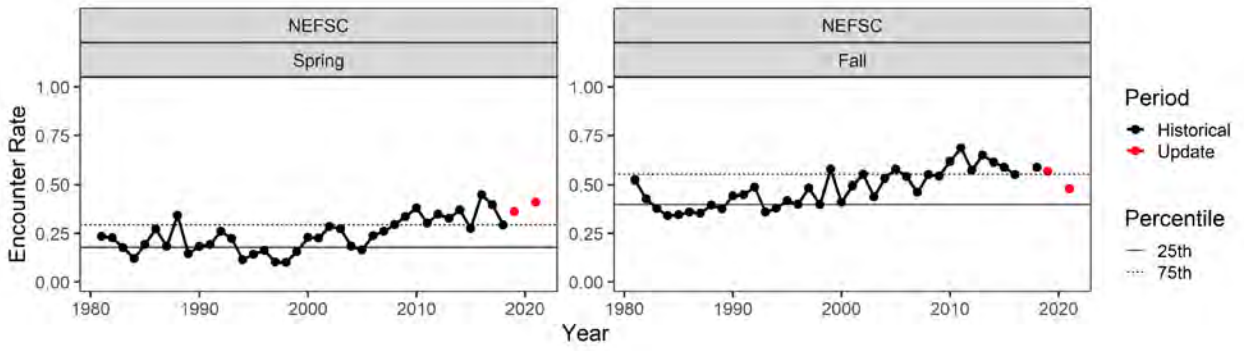


Table 7. SNE abundance indicators: YOY indices.

YOUNG-OF-YEAR INDICES			
Survey	***MA***	***RI***	***CT / ELIS Larvae***
1981			
1982			
1983			
1984			0.43
1985			0.53
1986			0.90
1987			0.78
1988			0.74
1989			0.74
1990		1.18	0.81
1991		1.51	0.55
1992		0.63	1.44
1993		0.51	1.19
1994		1.27	0.98
1995	0.17	0.34	1.46
1996	0.00	0.15	0.31
1997	0.08	0.98	0.21
1998	0.28	0.57	0.55
1999	0.06	1.03	2.83
2000	0.33	0.33	0.78
2001	0.11	0.75	0.32
2002	0.11	0.25	0.64
2003	0.00	0.73	0.25
2004	0.06	0.42	0.45
2005	0.17	0.54	0.49
2006	0.22	0.44	0.71
2007	0.17	0.36	0.37
2008	0.00	0.14	0.37
2009	0.06	0.06	0.19
2010	0.00	0.11	0.35
2011	0.00	0.00	0.26
2012	0.00	0.09	0.12
2013	0.17	0.19	0.16
2014	0.11	0.22	0.06
2015	0.00	0.17	0.19
2016	0.00	0.06	0.45
2017	0.00	0.03	0.10
2018	0.00	0.03	0.17
2014-2018 mean	0.02	0.10	0.19
2019	0.00	0.03	0.21
2020	0.00	0.14	0.10
2021	0.00	0.08	0.19
2017-2021 mean	0.00	0.06	0.15

25th	0.00	0.14	0.26
median	0.06	0.34	0.45
75th	0.17	0.63	0.76

Figure 7. SNE abundance indicators: YOY indices.

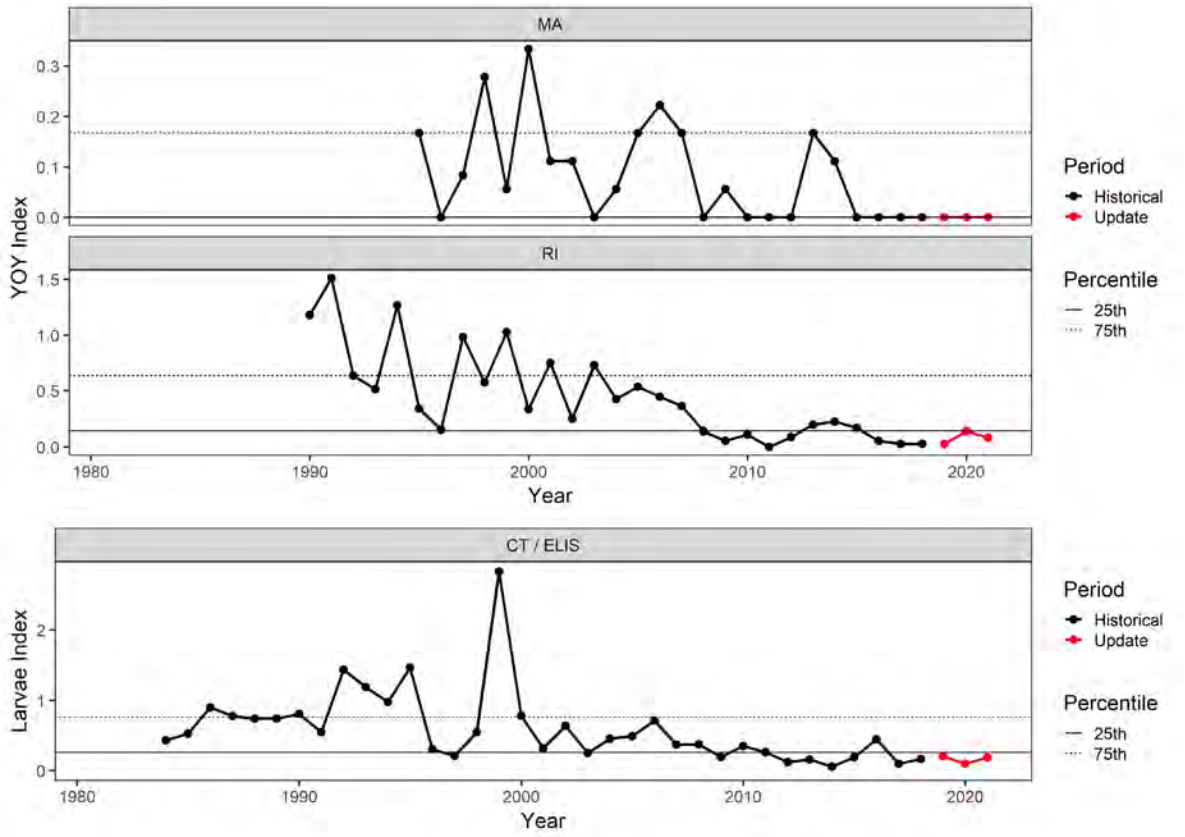


Table 8. SNE abundance indicators: trawl survey recruit abundance.

RECRUIT ABUNDANCE (SURVEY)								
Abundance of lobsters 71 - 80 mm CL (sexes combined)								
Survey	*NEFSC*		*MA*		*RI*		*CT*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.10	0.89	0.65	0.07	0.89	1.31		
1982	0.74	0.74	0.10	0.04	0.26	0.64		
1983	0.45	0.62	0.09	0.04	0.94	0.43		
1984	0.10	0.81	0.42	0.01	1.03	1.35	10.09	6.80
1985	1.99	1.01	0.34	0.09	0.28	0.97	3.08	3.93
1986	0.18	0.59	0.17	0.20	0.91	1.28	2.77	5.76
1987	1.04	0.45	0.26	0.17	0.79	3.14	2.93	6.86
1988	0.55	0.60	0.24	0.16	0.47	4.05	1.85	4.88
1989	0.09	1.65	0.14	0.43	0.90	3.26	4.86	5.28
1990	0.71	0.83	2.29	0.31	2.17	2.69	6.89	7.74
1991	0.31	0.51	1.18	0.87	4.77	3.10	10.83	10.32
1992	0.19	0.94	0.10	0.57	0.62	1.97	10.31	10.65
1993	0.59	0.42	0.25	0.52	7.81	8.29	7.78	15.18
1994	0.15	0.38	0.95	0.42	1.00	3.88	5.07	11.51
1995	0.01	0.61	1.14	0.03	1.33	4.50	12.13	11.20
1996	0.40	2.39	0.40	0.32	1.60	6.55	11.37	11.08
1997	1.64	1.60	1.45	0.12	2.58	6.10	15.42	24.99
1998	0.78	1.06	1.09	0.11	1.63	3.24	24.06	12.72
1999	2.43	0.66	0.75	0.19	1.71	2.07	24.57	12.96
2000	0.67	1.27	0.56	0.13	1.54	1.83	13.37	8.27
2001	0.39	0.45	0.18	0.03	2.97	2.17	10.77	7.41
2002	1.63	0.39	0.34	0.00	2.68	0.73	8.07	2.75
2003	0.34	0.33	0.07	0.00	0.29	0.93	3.52	4.08
2004	0.27	0.28	0.05	0.00	1.86	1.48	2.38	3.37
2005	0.11	0.24	0.08	0.00	1.07	2.53	2.26	1.54
2006	0.19	0.32	0.08	0.03	3.63	2.24	2.02	1.38
2007	0.19	0.35	0.08	0.00	0.68	2.68	2.65	1.12
2008	0.21	0.29	0.16	0.01	0.64	2.95	2.20	1.27
2009	0.15	0.35	0.16	0.05	1.14	1.36	1.20	1.33
2010	0.21	0.73	0.06	0.18	0.44	1.21	1.26	
2011	0.10	0.64	0.18	0.00	0.42	1.02	0.43	0.18
2012	0.11	0.99	0.07	0.21	0.30	0.18	0.44	0.08
2013	0.23	0.44	0.11	0.04	0.16	0.02	0.23	0.06
2014		0.67	0.04	0.00	0.02	0.14	0.15	0.05
2015	0.03	0.28	0.07	0.30	0.05	0.37	0.15	0.06
2016	0.83	0.69	0.05	0.14	0.57	0.25	0.16	0.00
2017	0.10		0.13	0.16	0.14	0.41	0.03	0.00
2018	0.08	0.38	0.02	0.01	0.18	0.68	0.00	0.01
2014-2018 mean	0.26	0.51	0.06	0.12	0.19	0.37	0.10	0.03
2019	0.06	0.32	0.01	0.02	0.52	0.50	0.03	0.00
2020					0.23	0.32		
2021	0.01	0.59	0.01	0.00	0.27	0.07	0.03	0.00
2017-2021 mean	0.06	0.43	0.04	0.05	0.27	0.40	0.02	0.00
25th	0.11	0.38	0.08	0.02	0.42	0.78	1.23	1.16
median	0.23	0.61	0.17	0.10	0.91	1.65	2.93	4.48
75th	0.67	0.83	0.42	0.20	1.62	3.07	10.20	9.81

Figure 8. SNE abundance indicators: trawl survey recruit abundance.

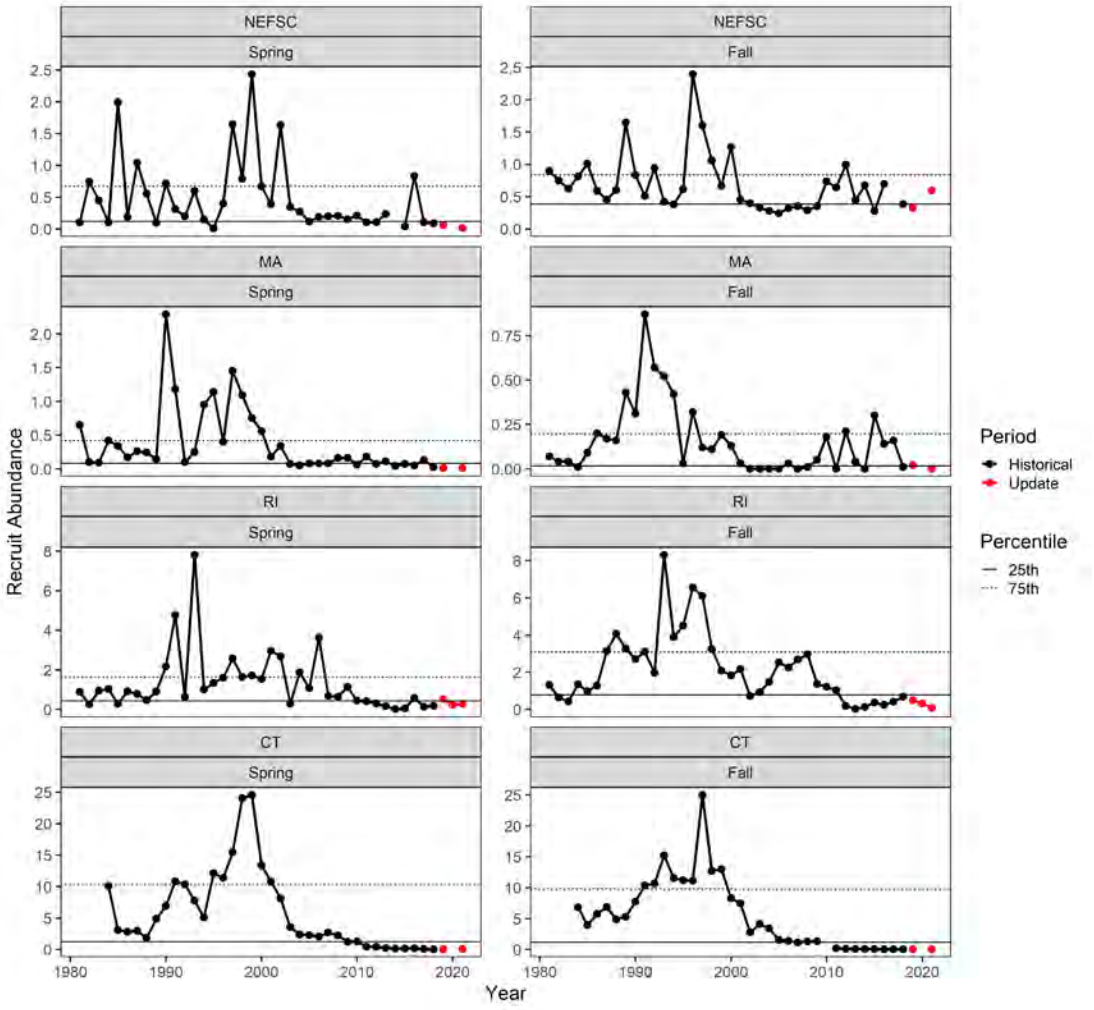


Table 9. SNE abundance indicators: trawl survey encounter rate.

SURVEY LOBSTER ENCOUNTER RATE								
Proportion of postive tows								
Survey	*NEFSC*		*MA*		*RI*		*CT*	
	Spring	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*	*Spring*	*Fall*
1981	0.18	0.47	0.38	0.15	0.49	0.41		
1982	0.26	0.35	0.28	0.21	0.30	0.43		
1983	0.14	0.26	0.21	0.16	0.46	0.37		
1984	0.08	0.32	0.40	0.18	0.59	0.44	0.63	0.76
1985	0.21	0.34	0.51	0.22	0.31	0.50	0.57	0.69
1986	0.17	0.25	0.39	0.38	0.64	0.46	0.67	0.61
1987	0.13	0.23	0.28	0.18	0.35	0.47	0.63	0.76
1988	0.09	0.28	0.39	0.21	0.49	0.55	0.65	0.66
1989	0.13	0.40	0.50	0.33	0.52	0.57	0.75	0.63
1990	0.14	0.44	0.66	0.44	0.64	0.53	0.73	0.76
1991	0.14	0.33	0.41	0.39	0.77	0.69	0.81	0.77
1992	0.22	0.34	0.51	0.23	0.40	0.57	0.77	0.68
1993	0.12	0.27	0.54	0.26	0.50	0.71	0.73	0.75
1994	0.09	0.25	0.51	0.20	0.58	0.57	0.73	0.74
1995	0.05	0.35	0.44	0.12	0.55	0.67	0.77	0.68
1996	0.10	0.39	0.30	0.16	0.79	0.76	0.66	0.78
1997	0.25	0.28	0.45	0.21	0.75	0.71	0.71	0.81
1998	0.12	0.34	0.54	0.13	0.59	0.55	0.83	0.71
1999	0.22	0.28	0.41	0.21	0.76	0.59	0.78	0.79
2000	0.13	0.31	0.45	0.15	0.68	0.63	0.81	0.73
2001	0.21	0.25	0.28	0.18	0.65	0.60	0.77	0.58
2002	0.19	0.24	0.28	0.03	0.61	0.45	0.73	0.59
2003	0.11	0.26	0.14	0.03	0.51	0.40	0.71	0.64
2004	0.10	0.19	0.28	0.03	0.54	0.50	0.61	0.66
2005	0.08	0.19	0.34	0.15	0.49	0.45	0.63	0.54
2006	0.14	0.23	0.42	0.03	0.79	0.62	0.61	0.51
2007	0.13	0.21	0.34	0.10	0.44	0.54	0.70	0.53
2008	0.10	0.22	0.32	0.10	0.55	0.52	0.63	0.65
2009	0.17	0.32	0.50	0.05	0.57	0.40	0.49	0.55
2010	0.12	0.33	0.22	0.24	0.47	0.45	0.54	
2011	0.13	0.35	0.17	0.05	0.30	0.23	0.46	0.28
2012	0.13	0.34	0.17	0.15	0.27	0.16	0.43	0.20
2013	0.10	0.28	0.18	0.08	0.20	0.09	0.28	0.15
2014		0.26	0.13	0.08	0.07	0.23	0.26	0.10
2015	0.06	0.27	0.10	0.05	0.12	0.16	0.27	0.10
2016	0.15	0.25	0.08	0.11	0.30	0.14	0.25	0.03
2017	0.08		0.07	0.16	0.16	0.23	0.08	0.03
2018	0.08	0.29	0.11	0.06	0.09	0.18	0.09	0.01
2014-2018 mean	0.09	0.27	0.10	0.09	0.15	0.19	0.19	0.05
2019	0.05	0.26	0.05	0.11	0.16	0.11	0.09	0.00
2020					0.16	0.16		
2021	0.04	0.18	0.07	0.00	0.20	0.12	0.06	0.03
2017-2021 mean	0.06	0.24	0.08	0.08	0.15	0.16	0.08	0.02
25th	0.10	0.25	0.21	0.09	0.32	0.40	0.52	0.52
median	0.13	0.28	0.34	0.16	0.51	0.49	0.65	0.64
75th	0.17	0.34	0.45	0.21	0.60	0.57	0.73	0.74

Figure 9. SNE abundance indicators: trawl survey encounter rate.

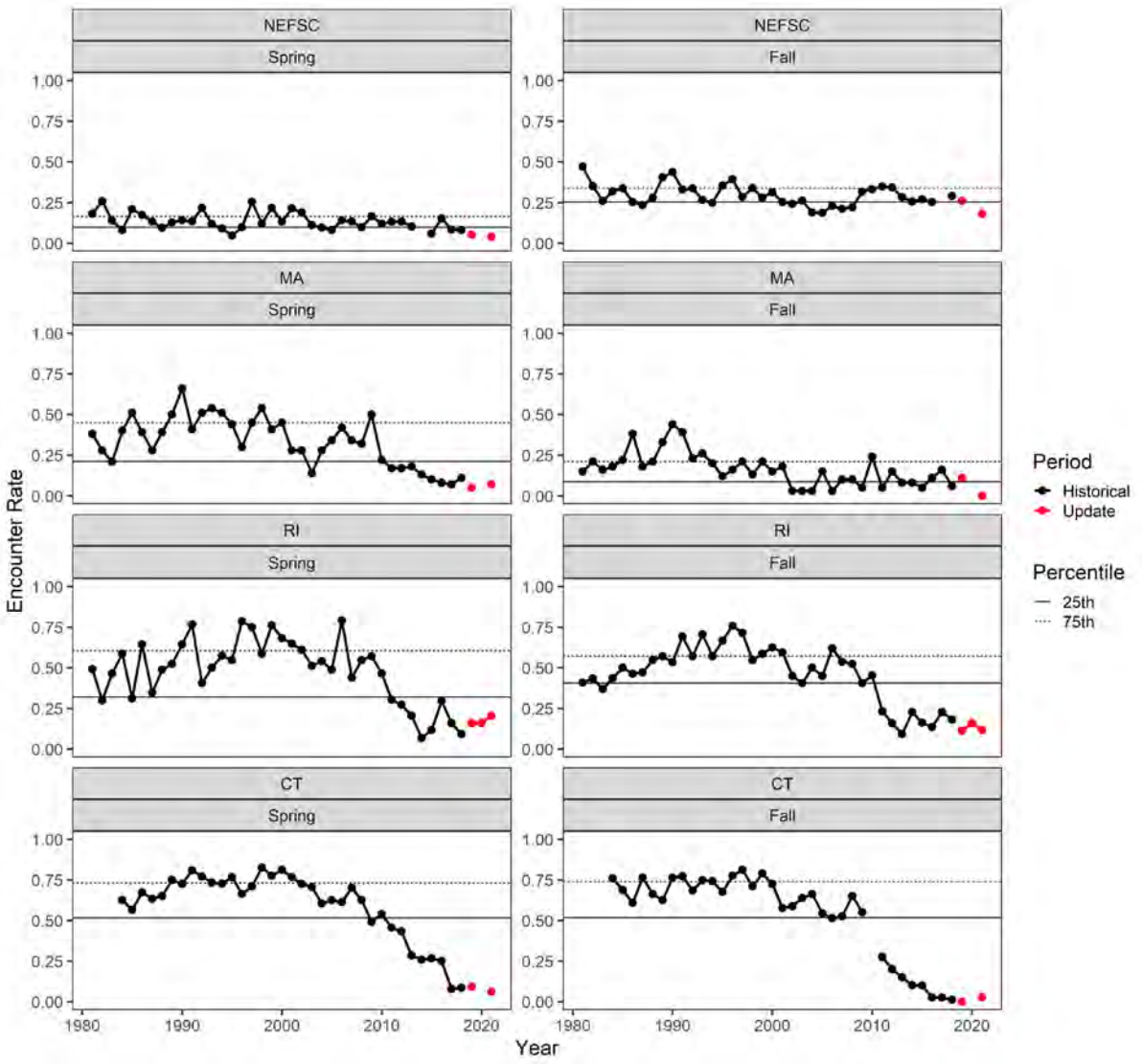
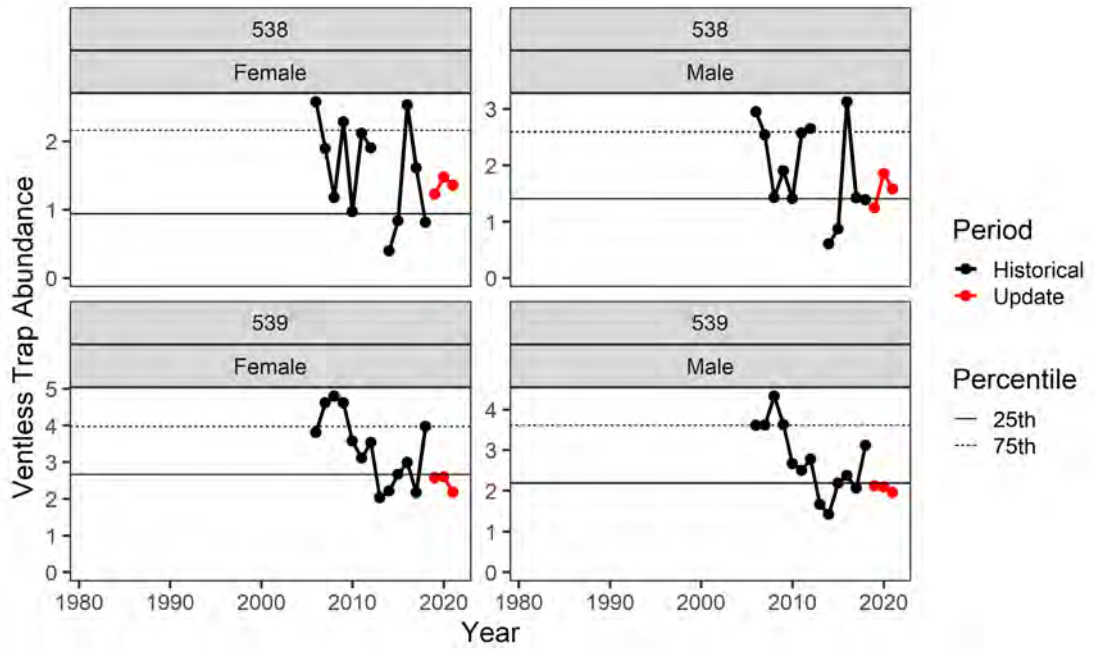


Table 10. SNE abundance indicators: ventless trap survey abundance.

VENTLESS TRAP ABUNDANCE				
Abundance of lobsters ≥ 53 mm CL				
Survey	*538*		*539*	
	Female	*Male*	*Female*	*Male*
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005				
2006	2.58	2.95	3.81	3.60
2007	1.89	2.54	4.61	3.61
2008	1.18	1.43	4.80	4.32
2009	2.29	1.90	4.61	3.62
2010	0.97	1.41	3.57	2.67
2011	2.12	2.58	3.11	2.50
2012	1.90	2.65	3.53	2.77
2013			2.03	1.67
2014	0.40	0.61	2.22	1.42
2015	0.84	0.87	2.66	2.18
2016	2.53	3.13	2.99	2.38
2017	1.61	1.43	2.17	2.06
2018	0.82	1.39	3.97	3.12
2014-2018 mean	1.24	1.48	2.80	2.23
2019	1.23	1.25	2.57	2.12
2020	1.47	1.85	2.60	2.10
2021	1.36	1.58	2.19	1.95
2017-2021 mean	1.30	1.50	2.70	2.27
25th	0.94	1.40	2.66	2.18
median	1.75	1.67	3.53	2.67
75th	2.16	2.60	3.97	3.60

Figure 10. SNE abundance indicators: ventless trap survey abundance.



Appendix B. Analysis of alternate minimum and maximum sizes as management options for Lobster Management Areas in the Gulf of Maine. Report to the ASFMC Lobster TC and PDT.

Burton Shank and Jeff Kipp

Sept. 9, 2021

The Lobster TC provided analysis to the ASFMC Lobster Board ahead of the Spring 2021 meeting with estimated outcomes to the Gulf of Maine / Georges Bank lobster fishery given the implementation of alternative management measures (min and max gauge size), including changes to total weight of lobsters landed, number of lobsters landed, Spawning Stock Biomass (SSB) and Exploitation. The analysis included an attempt to examine how fisheries in different LCMAs would be affected though the population simulation model was not re-parameterized for each LCMA. In discussions, we concluded that the simulations for LCMA1 were probably reasonably accurate because:

1. Many of the inputs for the simulations are taken from the 2020 stock assessment. Because the vast majority of the landings come from LCMA1, the stock assessment parameters are essentially already tuned to the parameters of the LCMA1 fishery.
2. LCMA1 is primarily a recruitment-based fishery in inshore or nearshore habitats and, therefore, likely to be representative of the full stock model.

However, there was concern that the offshore fishery in Lobster Management Area 3 was considerably different from the full stock model and, thus, may have inaccurate outcomes due to a mis-parameterized simulation model. The parameters for the Outer Cape Cod fishery are probably somewhere between LCMA1 and LCMA3 as it consists of both a resident lobster population and a seasonally-migrating population, moving between inshore and offshore habitats.

To address these differences between the LCMAs in population simulations, we performed the following:

1. For the LCMA1 simulations, we used the stock assessment parameters as the inputs.
2. For LCMA3 simulations, we attempted to manually tune the population simulation model to match the catch characteristics of the LCMA3 fishery, under the assumption that a simulation model that could reproduce the catch characteristics of the fishery may more accurately project changes in the fishery given changing management measures.
3. For the OCC simulations, we ran two sets of simulations, using the input parameters for both LCMA1 and LCMA3 under the assumption that this bounds the dynamics we might see in OCC.

For all simulations, populations were initiated with zero abundance and run for 50 years with constant recruitment to allow population abundances and length comps to reach equilibrium.

The equilibrium populations were then compared across the various legal selectivity scenarios to determine the effect of these different management alternatives.

For a simple, model-free analysis of the fishery catch composition for LCMA1 and LCMA3, we calculated the cumulative proportion of catch by weight at length by converting catch-at-size to weight-at-size and weighting for unequal sex ratios and seasonality of landings.

LCMA1 Simulations

The input parameters for the LCMA1 simulations were primarily drawn from the 2020 stock assessment. This includes the recruitment seasonality, length composition and sex ratio, growth model, gear, legal and conservation selectivities and mean estimated fishing mortality from the terminal years.

LCMA1 Results

The cumulative catch weight-by-length curve indicates that the mean size of lobsters landed in the LCMA1 fishery is within the smallest legal size bin (83-91mm, Figure 1). Nearly 90% of the catch are below 100mm CL and only about 2% of the catch are over 120mm CL. This supports the perspective that LCMA1 landings involve a narrow range of small lobster sizes and is primarily a recruitment-dependent fishery.

Increasing the minimum legal size is projected to decrease the total number of lobsters landed but result in a net increase in yield-per-recruit (YPR) and total weight of catch (Table 1 and 2). However, the magnitude of these changes are small enough that they may not be detectable in the actual fishery given inter-annual variations in recruitment and catch. Changing the maximum legal size is projected to have very little effect on either catch number or weight.

Note that these are purely yield-per-recruit simulations so recruitment subsidies from increased SSB are not assumed in the calculations of catch weight or number so, thus, probably represent a conservative, lower bound. A less conservative upper bound would be the product of change in YPR and the change in SSB.

Increasing the minimum legal size is projected to result in large increases in SSB (Table 3). Minimum legal sizes that approach or exceed the size of maturity produce increasing returns on SSB as this allows a much larger portion of the population to reproduce at least once. Thus, increasing minimum legal size to 88mm is projected to result in a near doubling in SSB. Increasing maximum size can result in a large decrease SSB, particularly as the minimum legal size increases and more of the population survives to reach the current maximum legal size.

Increasing legal size would result in moderate to large decreases in exploitation as more of the stock becomes protected (Table 4) with exploitation decreasing by nearly 30% at a minimum legal size of 88mm. As with catch weight and number, changing maximum legal size has little effect on exploitation rates as these sizes represent a very small portion of the LCMA1 population.

LCMA3 Simulations

We first analyzed the port and sea sampling data provided for the 2020 benchmark assessment but constrained to LCMA3 to estimate fishery characteristics, including catch size composition, catch sex ratio, and conservation selectivity (discarding due to egg-bearing or V-notch status).

We then specified the conservation selectivity from the biosamples and current legal selectivity appropriate for LCMA3 in the population simulation model and iteratively tuned the following parameters:

1. Fully-selected fishing mortality, assumed constant across seasons
2. Recruitment sex ratio
3. Recruitment size composition for each sex.

For a given tuning run, the population simulation model was provided an updated set of input parameters and projected forward 25 year to reach equilibrium. The resulting catch composition from the model run was then compared to the average catch composition from the last five years of the biosamples to determine accuracy of the simulation models. Comparisons were conducted both visually for obvious lack-of-fit and by correlating the simulated and observed catch compositions. Correlations were performed on both the catch proportions and logit-transformed catch proportions, the latter to place more emphasis on length compositions that occur in smaller proportions.

Once the model was tuned to perform as well as might be expected, given minor, seasonal lack-of-fit that could not be easily resolved, the simulation model was then run with the tuned parameters for all combinations of proposed minimum and maximum size limits. We then summarized the outputs from the different simulations as values relative to the current minimum and maximum size regulations in place for LCMA3.

Results

The cumulative catch weight-by-length curve indicates that 110 mm carapace length is the approximate mean size of lobsters landed in the LCMA3 fishery (Figure 1). However, the cumulative curve is nearly linear from 90mm through 130mm, indicating lobsters across this size range are about equally important to the landings of this fishery. Lobsters less than about 92mm constitute the lower 10% quantile of landings while lobsters greater than 136mm constitute the upper 10% quantile with lower and upper quartiles around 98mm and 123mm respectively. This suggests that LCMA3 landings include a broad range of lobster sizes, unlike typical inshore lobster fisheries that are primarily recruitment-driven.

The final tuned parameters included a quarterly fishing mortality of 0.1 (0.4 total annual mortality) and a 70:30 female to male recruitment sex ratio. The tuned recruit length

compositions are bi-modal for both sexes, indicating recruitment to the fishery comes both from growth of smaller individual within the LCMA and immigration from outside the LCMA (Figure 2). With these compositions, about 80% of male recruitment and 30% of female recruitment is attributed to growth with the remainder of new individuals coming from immigration from outside the LCMA.

Fitting the simulation length comps by manually tuning these parameters resulted in reasonably good fits to the observed length compositions (Figures 3, 4, and 5). Some lack-of-fit is still evident within seasons but this lack-of-fit is generally contrary to the lack-of-fit observed in other seasons, making it difficult to further improve the fit with just the parameters of interest. Correlations between observed and predicted compositions were 0.981 for simple proportions and 0.97 for logit-transformed proportions, suggesting both high and low proportion values for observed length comps are well matched by the simulation and we deemed this adequate to a basis to examine alternative management options.

Decreasing either the minimum or maximum legal size is projected to decrease total weight of catch (Table 5). However, contrary to the previous analysis for the full stock or inshore LCMA's, changes to the maximum size have much larger impacts on landings than changes to the minimum size, particularly once the maximum size drops to between 140 and 150mm. Decreasing the maximum size from 171mm to 127mm is projected to decreases landings by about 30% while decreasing the minimum size from 90mm to 83mm is only projected to decrease landings by a couple of percent.

Decreasing the minimum legal size is projected to marginally increase the number of lobsters being landed but decreasing the maximum size marginally to moderately decreases the number of lobsters landed, producing neutral effects for many of the management options explored here (Table 6).

Decreasing maximum legal size from current regulations is projected to increase SSB, possibly significantly, but decreasing minimum sizes would decrease SSB (Table 7). The greatest observed increase would be from holding the minimum size at current values but maximally decreasing maximum sizes, essentially narrowing the length range where lobsters are legal, which is estimated to result in a 64% increase in spawning stock. As above, changes to maximum size have bigger effects on SSB than changes to minimum sizes.

Decreasing maximum sizes would result in a decrease in exploitation but decreasing minimum sizes would increase exploitation (Table 8), countering each other and paralleling patterns observed for SSB. Because the calculation of exploitation is based on numbers of individuals rather than mass, decreasing minimum sizes have larger effects on exploitation than observed above for landings or SSB. Again, changes in exploitation increase rapidly with decreasing maximum sizes once the alternate maximum gauge size reaches a size that includes a significant portion of the catch for the LCMA.

OCC Simulations

Due to time and data constraints, we did not attempt to tune a simulation model for OCC. Rather, we assume that population dynamics and fishing mortality rates in OCC are bounded by the conditions observed in the LCMA1 and LCMA3 fisheries. Thus, we ran simulations for OCC using the OCC legal size range with both the LCMA1 and LCMA3 parameterizations and present both sets of results with the understanding that results for OCC should fall between these extremes.

In general, outputs (catch weight, number, SSB and exploitation) show different responses for the LCMA1 than the LCMA3 parameterizations. LCMA1 parameterizations tend to produce simulations that are very sensitive to changes in minimum legal size but not maximum legal size, while simulations with LCMA3 parameterization only slightly sensitive to changes in minimum legal size but moderately to highly sensitive to changes in maximum legal size.

Total weight of landings is projected to be sensitive to changing minimum legal size with the LCMA1 parameterization but be insensitive with the LCMA3 parameterization (Table 9 A & B). With the LCMA1 parameterization, decreasing minimum size is projected to decrease landings by ~5% while increasing legal size to 88mm would increase landings by 8%. Conversely, landings weight is insensitive to changes in maximum legal size for the LCMA1 parameterization but sensitive to changes for the LCMA3 parameterization.

Total catch number simulations shows trend similar to catch weight with the LCMA1 parameterization being sensitive to changes in minimum size and the LCMA3 parameterization sensitive to changes in maximum size (Figure 10 A & B). The pattern otherwise holds that larger minimum legal sizes result in lower catch numbers.

For SSB, the LCMA1 parameterization is responsive to both changes in minimum and maximum legal size while the LCMA3 parameterization is more sensitive to changes in maximum size (Figure 11 A & B). For example, decreasing minimum legal size to 127mm would increase SSB by between 24% and 65% for the LCMA1 and LCMA3 parameterizations, respectively. The ranges of minimum size tested in simulations produce changes in SSB in the rage of -26% to +76% for the LCMA1 parameterization and -1% to +6.8% for the LCMA3 parameterization.

Decreasing minimum legal size produce increases moderate to small increases in exploitation (16% to 4% for LCMA1 and LCMA3 parameterizations, respectively, Figure 12 A & B). Either increasing minimum legal size or decreasing maximum legal size decrease serve to decrease exploitation with a maximum decrease of ~39% observed at the largest minimum and smallest maximum size and the LCMA3 parameterization.

Discussion

There is a stark difference in cumulative landings by size between LCMA1 and LCMA3. LCMA1 is clearly a recruitment-based fishery that would be highly sensitive to variations in recruitment.

The LCMA3 fishery, in contrast, is fishing a broad range of lobster sizes, and therefore ages, and is thus somewhat buffered from interannual variation in recruitment dynamics.

The LCMA1 fishery is highly sensitive to changes in minimum legal size because of high exploitation rates on newly-recruited lobsters. The range of minimum sizes tested in simulations encompasses size range that represents the majority of landings for the inshore / nearshore fishery. Thus, changes to minimum size would dramatically change the length composition of the catch. Increases in the minimum size will have temporarily but significantly depress landing in the years immediately after are implemented but the benefits to SSB would be similarly immediate. Increasing the minimum legal size can add to the resilience of the fishery by marginally increasing the spread of effort across multiple year classes and significantly increasing SSB and egg production which may buffer the effects in any future change in productivity.

Generally, decreasing maximum gauge sizes have larger effects for LCMA3 both relative to decreasing minimum sizes in LCMA3 or for changing maximum sizes for the other LCMAs. This matches the conclusions based on the cumulative catch curve (Figure 1) that showed that the LCMA3 fishery lands a much broader size range of individuals than the inshore LCMAs, with the upper portion of length compositions overlapping proposed alternative maximum sizes.

This analysis for LCMA3 matches previous analysis conducted for inshore LCMAs, finding that larger minimum legal sizes had positive effects across population parameters including higher catch weights, increased SSB and decreased exploitation. However, decreasing maximum legal sizes has mixed effects, decreasing immediate landings but increasing SSB, potentially by a larger margin. Because recruitment subsidies from increasing SSB are not included in this simulation, the net effect of these two opposing changes are uncertain. While decreasing maximum legal sizes would decrease immediate landings and make a larger portion of the population inaccessible to the fishery permanently (i.e. excluded lobsters won't grow into a legal size in the future), this increase in SSB may eventually produce a recruitment subsidy that could offset this loss of catch. The net effect would depend on multiple factors including the connectivity of the added SSB to larval settlement habitat and the migration patterns of these large females into adjacent habitats including inshore Gulf of Maine and international waters.

Finally, it is important to note the importance of large female lobsters that dominate the landings for much of LCMA3. This both highlights the partial dependence of this fishery on immigration from adjacent habitats and adds uncertainty to this analysis. The growth and molt cycling of such large females is poorly understood and are not particularly well informed in the current growth model. Thus, the tuned parameters may be biased by mis-specification of the growth model and results in this analysis may be sensitive to the growth model used in some cases. Interpretation of tuned parameters and confidence in the precise results of this analysis should be taken with some caution. However, the general patterns of changing catch, SSB and

exploitation with changes in minimum and maximum legal sizes is consistent across this and previous analyses so may be treated with higher confidence.

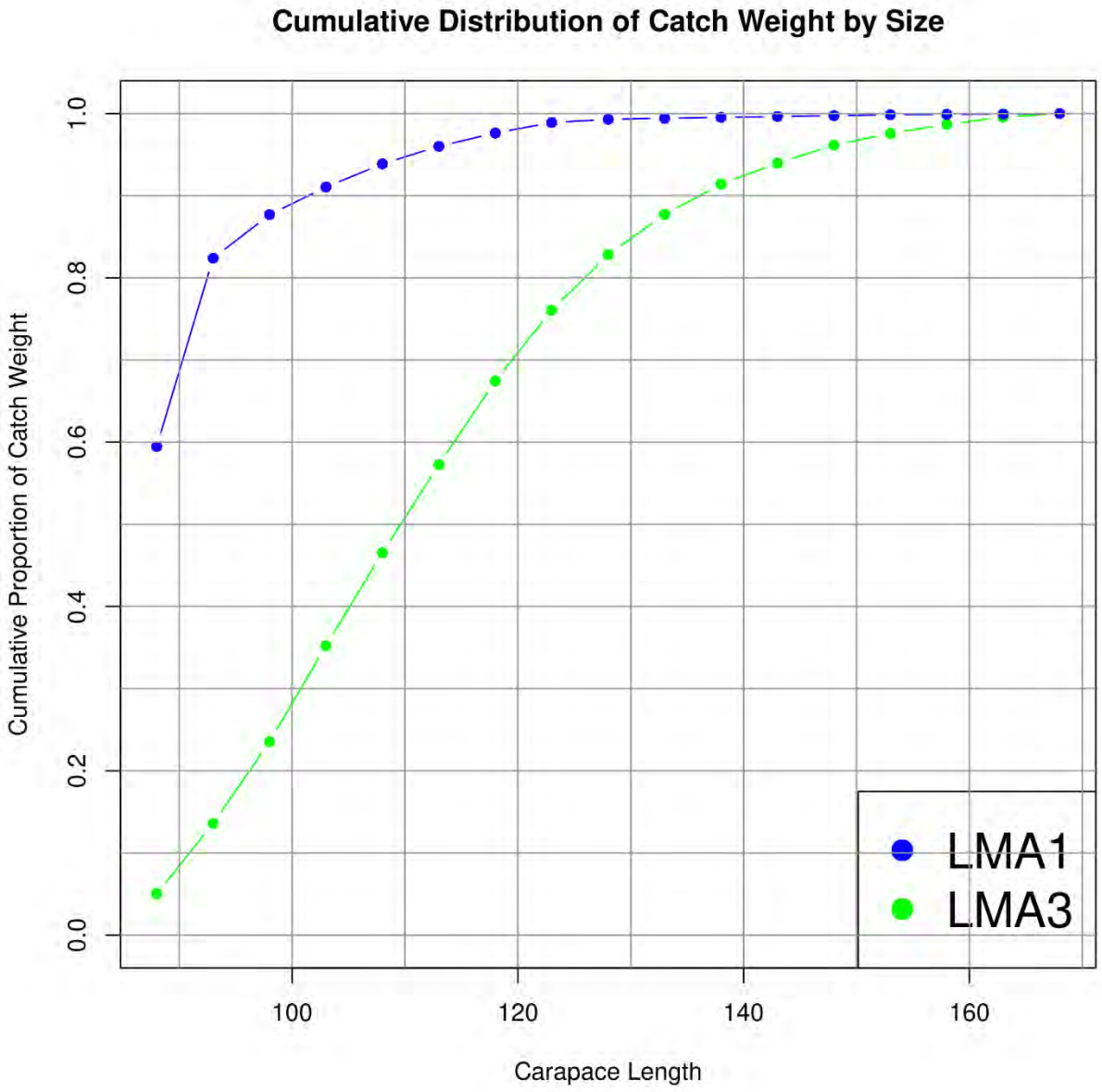


Figure 1. Cumulative proportion of catch weight by carapace length. To interpret, lobsters less than 90mm constitute approximately 8% of landings, while lobsters less than 130mm constitute approximately 85% of landings.

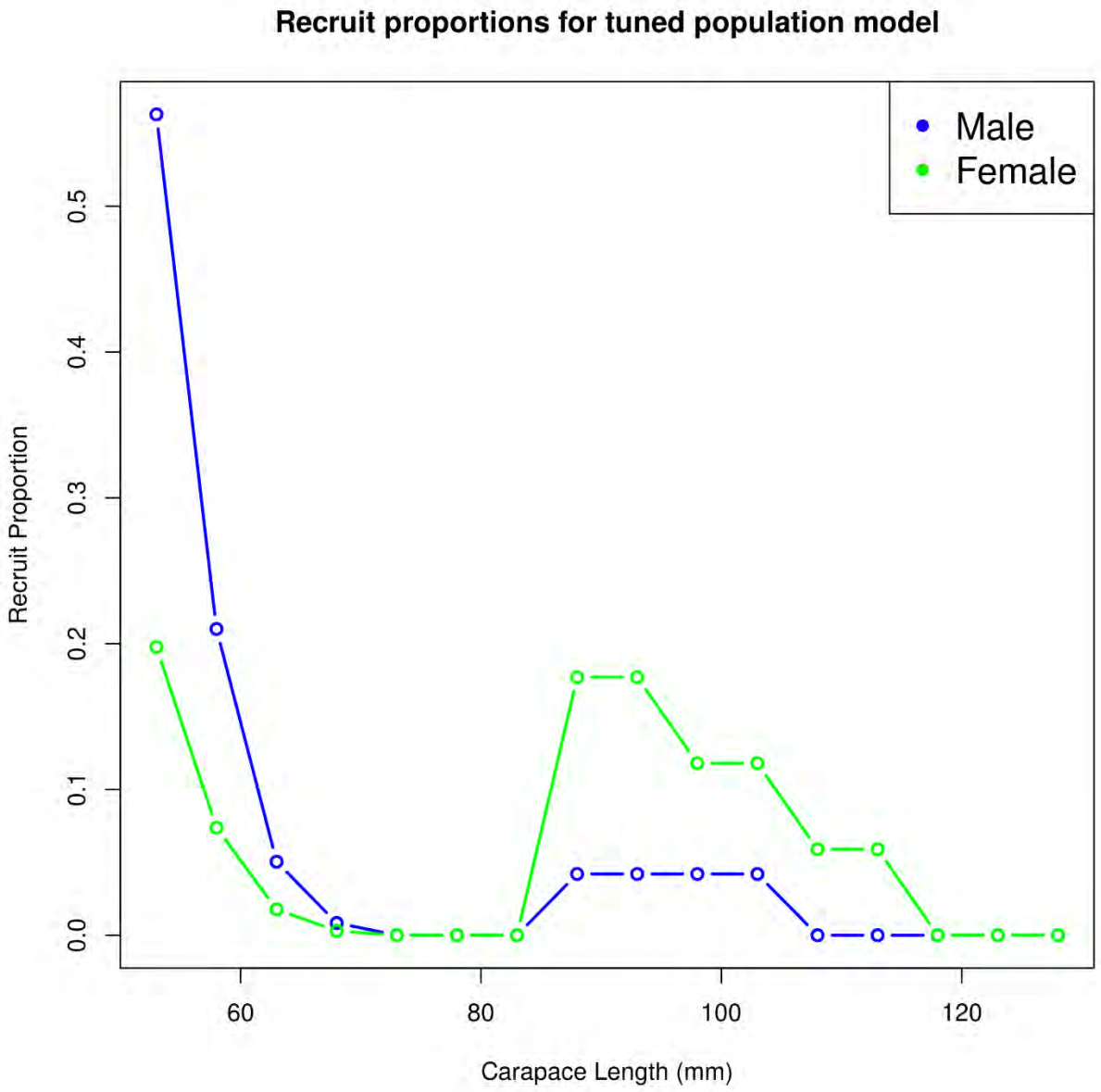


Figure 2. Tuned recruitment length compositions for the fitted model. The bi-modal length distribution suggests a combination of recruitment by growth (individuals <70mm) and migration (individuals >85 mm) with males primarily recruiting by growth and females primarily recruiting by migration as mature adults.

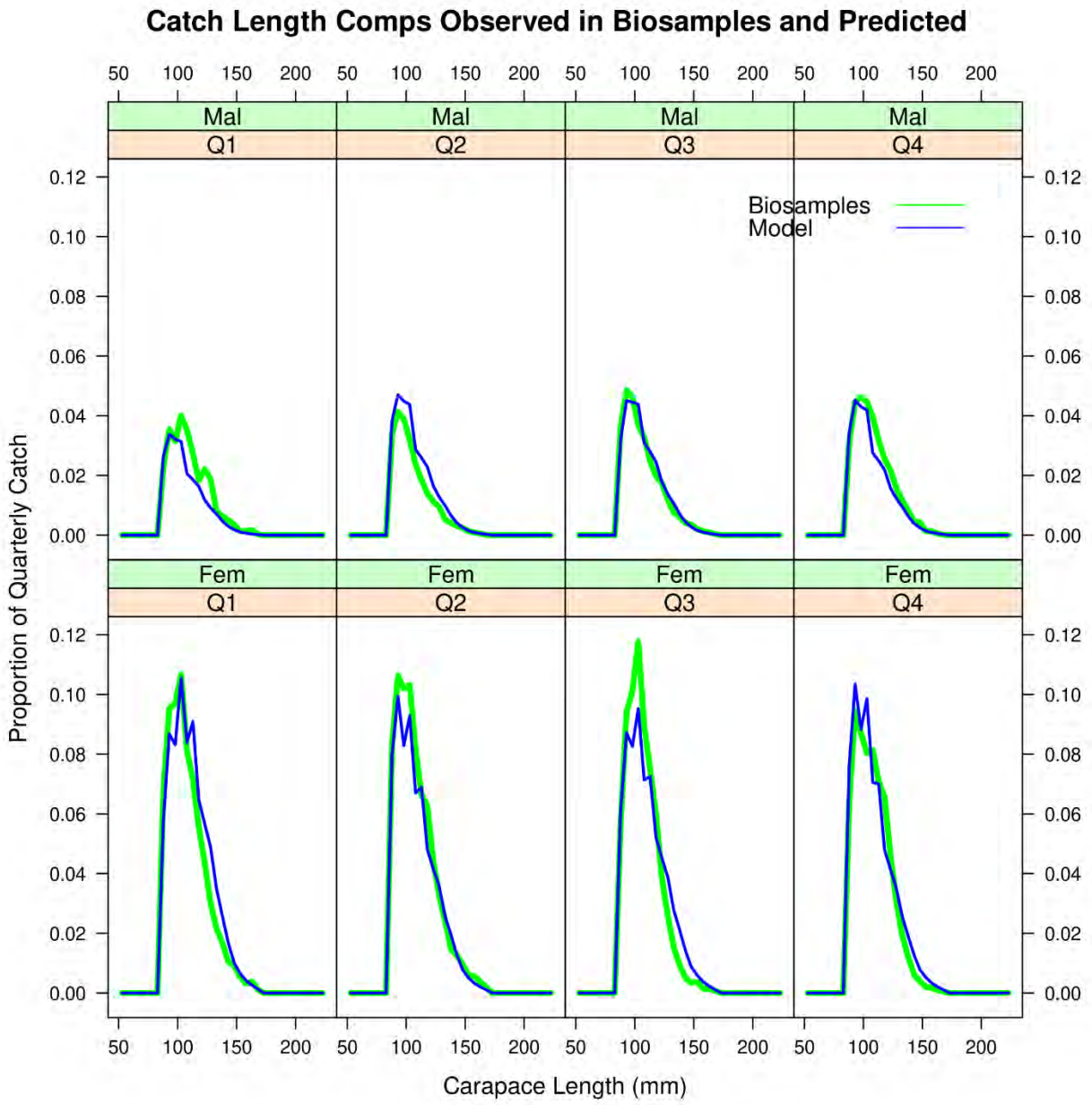


Figure 3. LCMA 3 catch length compositions by sex and quarter based on biosampling and from the tuned population model.

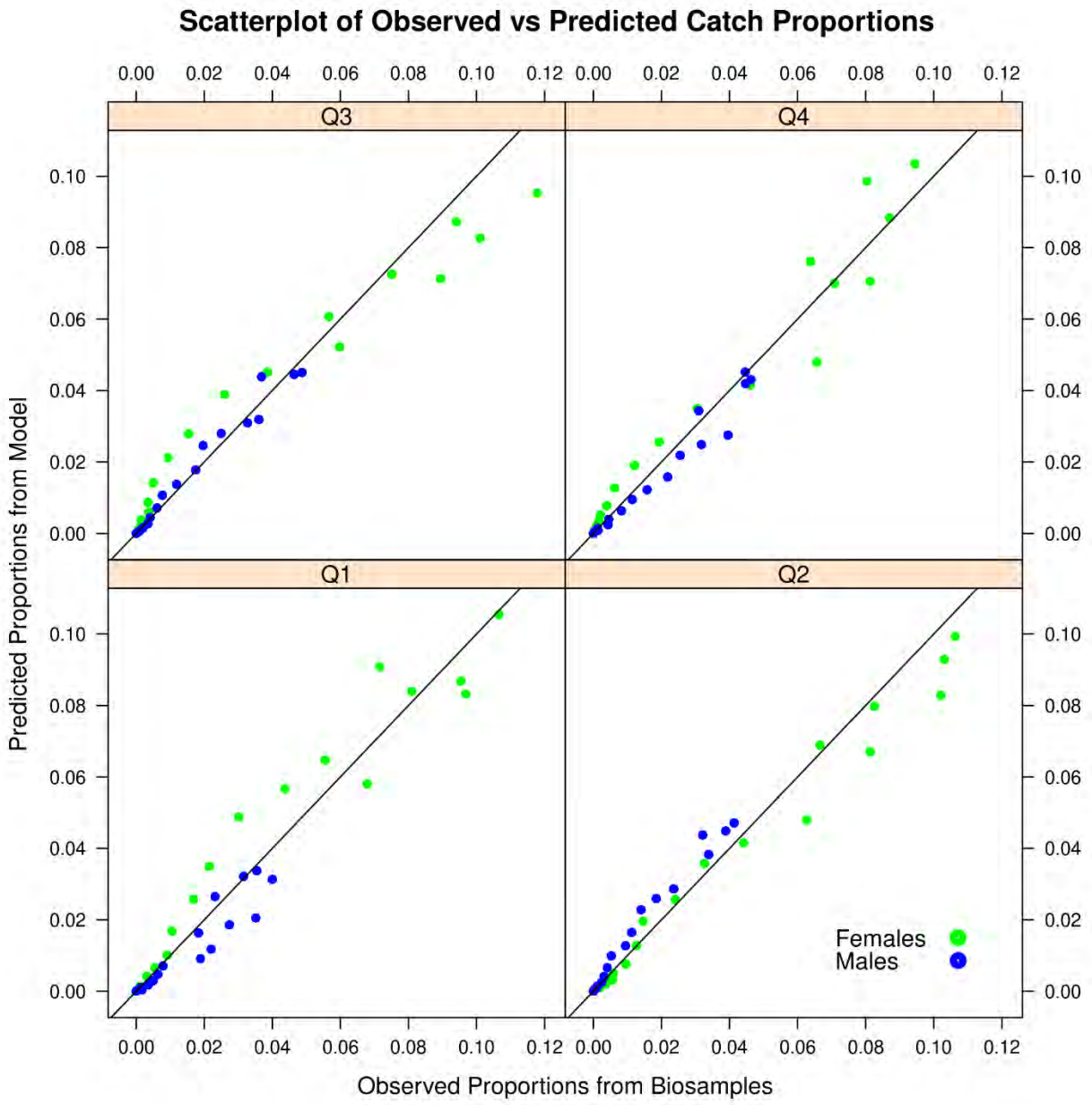


Figure 4. Relationship between length composition proportions observed in biosamples and predicted in the tuned population model by quarter and sex. The diagonal 1:1 line shows an ideal fit between the data sets.

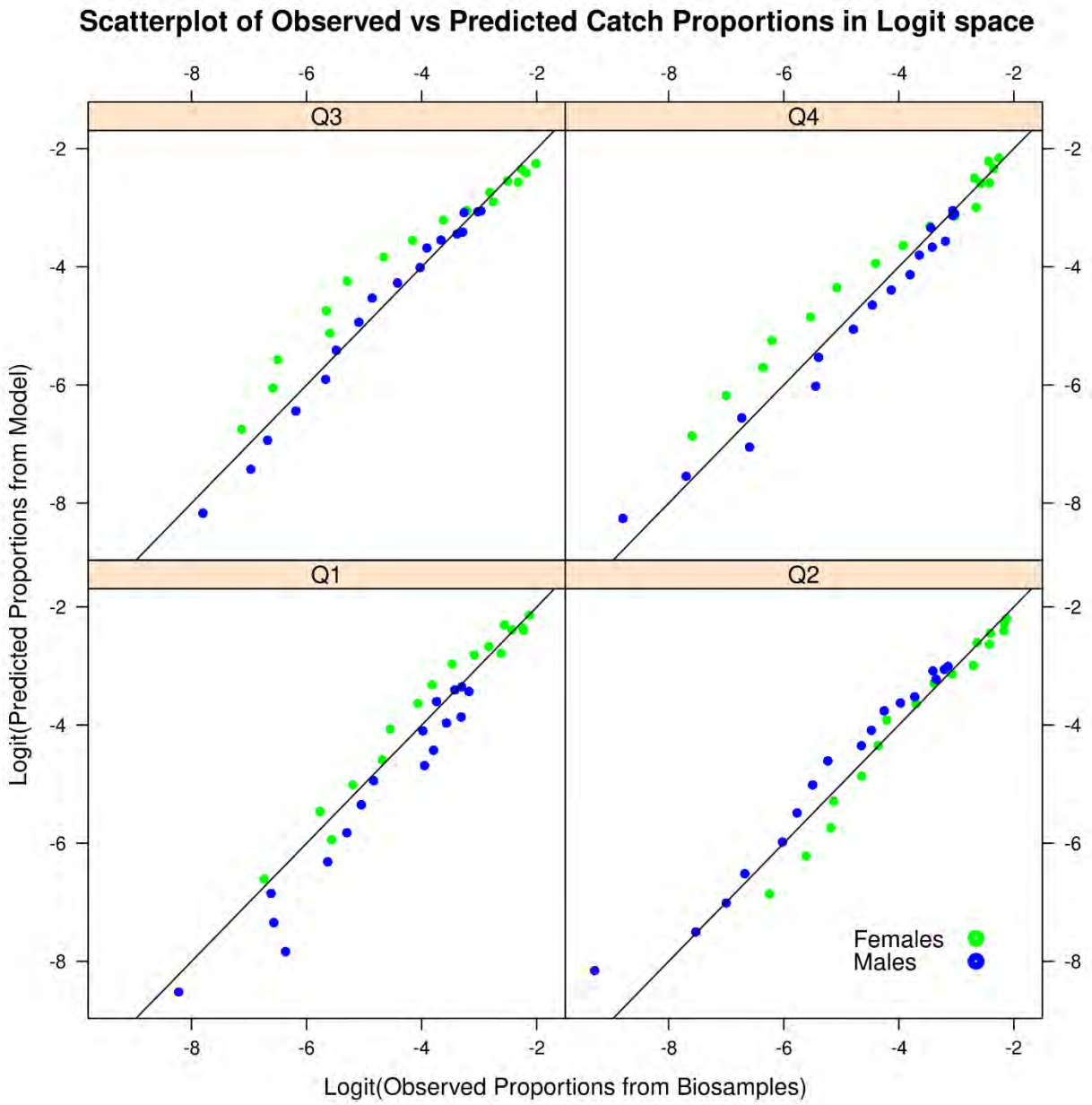


Figure 5. Relationship between length composition proportions observed in biosamples and predicted in the tuned population model by quarter and sex. Data points are logit-transformed to emphasize fit to lengths that occur in low proportions. The diagonal 1:1 line shows an ideal fit between the data sets.

Table 1. LCMA1 projected relative changes to Weight of Landings resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	0.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3.31in / 84mm	3.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
3.38in / 86mm	5.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
3.47in / 88mm	13.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
3.53in / 90mm	14.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
3.594in / 91mm	16.00%	18.00%	18.00%	18.00%	18.00%	18.00%	18.00%

Table 2. LCMA1 projected relative changes to Number of lobsters Landed resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	0.00%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
3.31in / 84mm	-2.00%	-1.80%	-1.80%	-1.80%	-1.80%	-1.80%	-1.80%
3.38in / 86mm	-3.60%	-3.30%	-3.30%	-3.30%	-3.30%	-3.30%	-3.30%
3.47in / 88mm	-8.50%	-8.10%	-8.00%	-8.00%	-8.00%	-8.00%	-8.00%
3.53in / 90mm	-9.50%	-9.00%	-9.00%	-9.00%	-9.00%	-9.00%	-9.00%
3.594in / 91mm	-11.30%	-10.80%	-10.70%	-10.70%	-10.70%	-10.70%	-10.70%

Table 3. LCMA1 projected relative changes to Spawning Stock Biomass resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	0.00%	-16.50%	-18.30%	-18.50%	-18.50%	-18.60%	-18.60%
3.31in / 84mm	19.00%	-1.40%	-3.60%	-3.80%	-3.90%	-3.90%	-3.90%
3.38in / 86mm	38.00%	13.90%	11.30%	11.00%	10.90%	10.90%	10.90%
3.47in / 88mm	98.00%	61.00%	56.90%	56.60%	56.50%	56.40%	56.40%
3.53in / 90mm	117.00%	75.80%	71.30%	70.90%	70.70%	70.70%	70.70%
3.594in / 91mm	151.00%	101.70%	96.40%	95.90%	95.70%	95.70%	95.60%

Table 4. LCMA1 projected relative changes to Exploitation resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	0.00%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%
3.31in / 84mm	-8.50%	-7.70%	-7.60%	-7.60%	-7.60%	-7.60%	-7.60%
3.38in / 86mm	-14.40%	-13.60%	-13.50%	-13.50%	-13.50%	-13.50%	-13.50%
3.47in / 88mm	-29.40%	-28.40%	-28.30%	-28.30%	-28.30%	-28.30%	-28.30%
3.53in / 90mm	-32.10%	-31.00%	-30.90%	-30.90%	-30.90%	-30.90%	-30.90%
3.594in / 91mm	-36.50%	-35.40%	-35.30%	-35.20%	-35.20%	-35.20%	-35.20%

Table 5. LCMA3 projected relative changes to Weight of Landings resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-31.30%	-14.60%	-6.30%	-4.20%	-2.80%	-2.10%	-0.80%
3.31in / 84mm	-31.20%	-14.30%	-6.00%	-3.80%	-2.40%	-1.60%	-0.40%
3.38in / 86mm	-31.20%	-14.00%	-5.60%	-3.40%	-2.00%	-1.20%	0.00%
3.47in / 88mm	-31.10%	-13.60%	-5.00%	-2.70%	-1.30%	-0.50%	0.80%
3.53in / 90mm	-31.40%	-13.40%	-4.60%	-2.30%	-0.90%	0.00%	1.30%
3.594in / 91mm	-31.70%	-13.20%	-4.10%	-1.70%	-0.30%	0.60%	1.90%

Table 6. LCMA3 projected relative changes to Number of lobsters Landed resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-11.10%	-0.80%	3.20%	4.00%	4.50%	4.70%	5.00%
3.31in / 84mm	-12.20%	-1.70%	2.30%	3.20%	3.70%	3.90%	4.20%
3.38in / 86mm	-13.20%	-2.60%	1.50%	2.30%	2.80%	3.10%	3.40%
3.47in / 88mm	-15.20%	-4.20%	-0.10%	0.80%	1.30%	1.50%	1.80%
3.53in / 90mm	-17.10%	-5.90%	-1.70%	-0.80%	-0.30%	0.00%	0.30%
3.594in / 91mm	-19.50%	-7.90%	-3.60%	-2.60%	-2.10%	-1.90%	-1.50%

Table 7. LCMA3 projected relative changes to Spawning Stock Biomass resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	56.00%	19.00%	3.00%	-1.50%	-3.80%	-5.20%	-6.90%
3.31in / 84mm	57.00%	20.00%	3.00%	-0.80%	-3.10%	-4.50%	-6.20%
3.38in / 86mm	59.00%	21.00%	4.00%	0.00%	-2.40%	-3.70%	-5.50%
3.47in / 88mm	61.00%	23.00%	6.00%	1.50%	-0.90%	-2.30%	-4.10%
3.53in / 90mm	64.00%	25.00%	8.00%	3.80%	1.40%	0.00%	-1.80%
3.594in / 91mm	69.00%	29.00%	11.00%	6.70%	4.20%	2.80%	1.00%

Table 8. LCMA3 projected relative changes to Exploitation resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell).

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-20.40%	-0.30%	8.40%	10.30%	11.40%	11.90%	12.50%
3.31in / 84mm	-22.30%	-2.40%	6.30%	8.10%	9.20%	9.70%	10.30%
3.38in / 86mm	-24.10%	-4.40%	4.10%	6.00%	7.00%	7.50%	8.10%
3.47in / 88mm	-27.40%	-8.10%	0.30%	2.20%	3.10%	3.70%	4.30%
3.53in / 90mm	-30.60%	-11.60%	-3.30%	-1.50%	-0.50%	0.00%	0.60%
3.594in / 91mm	-34.20%	-15.60%	-7.50%	-5.70%	-4.80%	-4.20%	-3.70%

Table 9. OCC projected relative changes to Weight of Landings resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell), based on (A) LCMA1 or (B) LCMA3 paramerizations.

A.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-5.60%	-5.00%	-4.90%	-4.90%	-4.90%	-4.90%	-4.90%
3.31in / 84mm	-2.70%	-2.00%	-1.90%	-1.90%	-1.90%	-1.90%	-1.90%
3.38in / 86mm	-0.90%	-0.10%	0.00%	0.00%	0.00%	0.00%	0.00%
3.47in / 88mm	6.60%	7.80%	8.00%	8.00%	8.00%	8.00%	8.00%
3.53in / 90mm	7.40%	8.80%	8.90%	8.90%	8.90%	8.90%	8.90%
3.594in / 91mm	9.30%	11.00%	11.20%	11.20%	11.20%	11.20%	11.20%

B.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-30.40%	-13.50%	-5.20%	-3.00%	-1.60%	-0.80%	0.00%
3.31in / 84mm	-30.30%	-13.20%	-4.80%	-2.60%	-1.20%	-0.40%	1.00%
3.38in / 86mm	-30.30%	-13.00%	-4.40%	-2.20%	-0.80%	0.00%	1.00%
3.47in / 88mm	-30.30%	-12.50%	-3.80%	-1.50%	-0.10%	0.70%	2.00%
3.53in / 90mm	-30.60%	-12.40%	-3.40%	-1.10%	0.40%	1.20%	3.00%
3.594in / 91mm	-30.90%	-12.10%	-2.90%	-0.50%	1.00%	1.90%	3.00%

Table 10. OCC projected relative changes to Number of lobsters Landed resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell), based on (A) LCMA1 or (B) LCMA3 paramerizations.

A.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	3.40%	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%
3.31in / 84mm	1.30%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%
3.38in / 86mm	-0.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3.47in / 88mm	-5.40%	-4.90%	-4.90%	-4.90%	-4.90%	-4.90%	-4.90%
3.53in / 90mm	-6.40%	-5.90%	-5.90%	-5.90%	-5.90%	-5.90%	-5.90%
3.594in / 91mm	-8.30%	-7.70%	-7.70%	-7.70%	-7.70%	-7.70%	-7.70%

B.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-13.80%	-3.70%	0.10%	0.90%	1.40%	1.60%	1.90%
3.31in / 84mm	-14.80%	-4.60%	-0.70%	0.10%	0.60%	0.80%	1.10%
3.38in / 86mm	-15.80%	-5.50%	-1.50%	-0.70%	-0.20%	0.00%	0.30%
3.47in / 88mm	-17.70%	-7.10%	-3.10%	-2.20%	-1.70%	-1.50%	-1.20%
3.53in / 90mm	-19.60%	-8.70%	-4.60%	-3.70%	-3.20%	-3.00%	-2.70%
3.594in / 91mm	-21.90%	-10.70%	-6.40%	-5.50%	-5.00%	-4.80%	-4.50%

Table 11. OCC projected relative changes to Spawning Stock Biomass resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell), based on (A) LCMA1 or (B) LCMA3 parameterizations.

A.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-9.80%	-24.70%	-26.40%	-26.50%	-26.60%	-26.60%	-26.60%
3.31in / 84mm	7.00%	-11.10%	-13.10%	-13.30%	-13.30%	-13.30%	-13.30%
3.38in / 86mm	24.30%	2.70%	0.30%	0.10%	0.00%	0.00%	0.00%
3.47in / 88mm	78.20%	45.10%	41.50%	41.20%	41.10%	41.00%	41.00%
3.53in / 90mm	95.50%	58.50%	54.40%	54.00%	53.90%	53.90%	53.90%
3.594in / 91mm	126.20%	81.80%	77.00%	76.60%	76.50%	76.40%	76.40%

B.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	63.00%	24.00%	7.00%	2.00%	-0.10%	-1.50%	-3.30%
3.31in / 84mm	64.00%	25.00%	7.00%	3.00%	0.60%	-0.70%	-2.60%
3.38in / 86mm	65.00%	26.00%	8.00%	4.00%	1.40%	0.00%	-1.80%
3.47in / 88mm	67.00%	27.00%	10.00%	5.00%	2.90%	1.50%	-0.30%
3.53in / 90mm	71.00%	30.00%	12.00%	8.00%	5.30%	3.90%	2.00%
3.594in / 91mm	75.00%	34.00%	15.00%	11.00%	8.30%	6.80%	4.90%

Table 12. OCC projected relative changes to Exploitation resulting from alternative minimum and maximum options, relative to the current regulations (yellow cell), based on (A) LCMA1 or (B) LCMA3 paramerizations.

A.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	15.60%	16.50%	16.50%	16.50%	16.50%	16.50%	16.50%
3.31in / 84mm	5.80%	6.70%	6.80%	6.80%	6.80%	6.80%	6.80%
3.38in / 86mm	-1.10%	-0.10%	0.00%	0.00%	0.00%	0.00%	0.00%
3.47in / 88mm	-18.40%	-17.30%	-17.10%	-17.10%	-17.10%	-17.10%	-17.10%
3.53in / 90mm	-21.50%	-20.20%	-20.10%	-20.10%	-20.10%	-20.10%	-20.10%
3.594in / 91mm	-26.70%	-25.30%	-25.20%	-25.20%	-25.20%	-25.20%	-25.20%

B.

Minimum Gauge Size \ Maximum Gauge Size	5in / 127mm	5.5in / 140mm	6in / 152mm	6.25in / 159mm	6.5in / 165mm	6.75in / 171mm	None
3.25in / 83mm	-26.00%	-7.30%	0.80%	2.60%	3.60%	4.10%	4.60%
3.31in / 84mm	-27.70%	-9.20%	-1.20%	0.60%	1.50%	2.00%	2.60%
3.38in / 86mm	-29.40%	-11.10%	-3.20%	-1.40%	-0.50%	0.00%	0.60%
3.47in / 88mm	-32.50%	-14.50%	-6.70%	-5.00%	-4.10%	-3.60%	-3.00%
3.53in / 90mm	-35.40%	-17.70%	-10.00%	-8.40%	-7.50%	-7.00%	-6.50%
3.594in / 91mm	-38.80%	-21.50%	-13.90%	-12.30%	-11.40%	-10.90%	-10.40%

Appendix C. Trigger Mechanism Analysis and Recommendation

Recruit (71-80 mm carapace length) indices are used as model-free indicators of recruitment to the lobster fishery in the following year. During the 2020 stock assessment, recruit indicators were found to be correlated with the stock assessment model estimates of reference abundance (78+ mm carapace length), providing a reliable means to track abundance changes and potential need for management response more frequently than through intermittent stock assessments. There are eight GOM/GBK stock recruit indicators updated for each assessment: spring and fall indices for each of the ME/NH, MA DMF, NEFSC GOM, and NEFSC GBK bottom trawl surveys. The NEFSC indicators in the GOM and GBK regions are considered to be indicators of offshore recruitment which differs from the GOM/GBK stock-wide recruitment dynamics. Therefore, the American Lobster Technical Committee (TC) recommended using only the inshore surveys (ME/NH and MA DMF) where the bulk of the population and fishery occur, which are assumed to be more representative of stock-wide recruitment. These trawl surveys employ similar methodologies and, along with selectivity and swept area calibration factors, can be combined into two indices, a spring index and a fall index. Additionally, the TC recommends using the standardized index from the Ventless Trap Survey as an indicator of recruitment during the summer.

To calculate a trigger index, each of the three individual indices were scaled to their 2017 reference levels so they are on the same scale. The one year lag expected between recruit indices and reference abundance due to growth results in 2017 recruit indices mapping to the terminal year reference abundance used in the 2020 stock assessment status determination (2018). The TC recommended linking the trigger index to the reference abundance in this way so the trigger index is an indication of proportional changes to the reference abundance since the 2020 stock assessment. Proportional changes in the trigger index are compared directly to proportional changes between the terminal year reference abundance and abundance reference points established in the assessment to provide an early indication of reference abundance falling below the reference points. Scaled indices were then averaged across surveys to generate a single trigger index. The final trigger index value represents proportional change from 2017 recruitment (and, therefore, expected proportional change from the reference abundance one year later in 2018 - the terminal year of the stock assessment). A value of one indicates no change, a value greater than one indicates an increase (e.g., 1.2 indicates a 20% increase), and a value less than one indicates a decrease (e.g., 0.8 indicates a 20% decrease).

During the 2020 stock assessment, the peer review panel supported using a smoothing algorithm, such as the running average used in past assessments, to determine stock status, but also recommended exploring alternatives (e.g., running median) to evaluate the robustness of status determinations. To evaluate performance of different methods for a trigger mechanism, akin to evaluating stock status in a stock assessment, a simulation analysis was conducted using the trigger index annual point value, three-year running average, and three-year running median to identify need for management action. For each method, all three individual indices

were scaled to a 2017 reference level calculated with the same method used to calculate the index. That is, the 2017 reference level was the 2017 point value for the annual index trigger method, the 2015-2017 average for the three-year running average trigger method, and the 2015-2017 running median for the three-year running median trigger method. The scaled individual and combined indices are compared to various trigger points related to assessment abundance reference points in Figure 1.

The TC treated 0.68 (i.e., a 32% decline) as the trigger for action in the simulation analysis. This decline represents the proportional change between the terminal year stock assessment reference abundance level and the boundary between the high and moderate abundance regimes. Each individual index was projected from 2018 to 2025 following a steady decline that reflected a 32% decline from the observed 2017 index value in 2021. This projected trend is hypothetical to evaluate the performance of the three calculation methods being considered and does not necessarily reflect the true status or projection of the population. It was unclear what impacts the method used to calculate the starting point of the projected trend would have on performance of each trigger mechanism, so declines projected from the (1) 2017 point value, (2) 2015-2017 running average, and (3) 2015-2017 running median were evaluated in three separate scenarios. Indices were then sampled from these simulated trends with CVs equal to the average CV over the respective index's time series, assuming a lognormal error structure. These simulations only consider observation error and do not account for process error. Indices were scaled to their reference level as described above, averaged across surveys, and the combined trigger index was evaluated for whether or not it would trigger action ($\leq$0.68) in each year of the projection period. This was repeated 1,000 times for each scenario and action determinations were tallied by year for each of the methods.

Results show similar patterns between the scenarios using a simulated decline from the 2017 point value and from the 2015-2017 average (Table 1; Figures 2-3). The 2015-2017 running median was equal to the 2017 point value for all indices, so the results with a simulated decline from this value were identical to the 2017 point value scenario (Table 2; Figure 4). Incorrect action is triggered very infrequently (< 3% of the time) by the annual and running median methods in the first two years of the projection period and never by the running average method. On average, the annual and running median methods incorrectly triggered action about 9% of the time and about 15 times more frequently than the running average method the year before the decline reached the threshold (2020), but also correctly triggered action ≈38% of the time and roughly twice as frequently as the running average method in the year when the threshold was met (2021). The running average method then tended to perform as well as or better than the other methods from 2022-2025, albeit generally at smaller margins of difference, as all methods tended to perform relatively well in these later years when the decline is exacerbated. The delayed response of the running average method can be seen in Figures 5-7, where the median trigger index value across simulations tends to be slightly higher than the annual and running median methods. The variance in index values, however, is lower for the running average method resulting in more consistency across simulations in terms of

guidance for management action, whereas the other methods result in mixed guidance for some of the more extreme simulations in more years than the running average method. Based on these results, the trigger mechanisms using the annual point value and the running median may be considered precautionary methods that perform better for an immediate trigger, on average, but with more variable guidance than the running average method. The running average method may provide a less responsive trigger mechanism that is less likely to incorrectly trigger premature action, and performs well and more consistently after the initial risk of not triggering action when first needed.

The TC recommended the running average method for calculating the trigger index. The individual surveys display interannual variation that might be related to environmental impacts on catchability (for example), an issue that was identified in the stock assessment and is expected to continue to impact these indices index data sets into the future. This simulation analysis suggests the running average method is more robust to interannual variation than the other methods and therefore can be interpreted with higher confidence.

Table 1. Percentage of 1,000 simulated indices that triggered action for three simulated decline starting point scenarios, and the averages of these scenarios. The simulated stock was projected to decline 32% in 2021.

Simulated Decline Starting Point	Index Calculation Method	2018	2019	2020	2021	2022	2023	2024	2025
2017 Point Value	Annual	0%	2%	12%	50%	85%	97%	100%	100%
	Three-Year Running Average	0%	0%	1%	27%	86%	100%	100%	100%
	Three-Year Running Median	0%	2%	12%	44%	84%	98%	100%	100%
2015-2017 Average	Annual	0%	0%	3%	21%	59%	89%	99%	100%
	Three-Year Running Average	0%	0%	0%	3%	46%	95%	100%	100%
	Three-Year Running Median	0%	0%	3%	19%	60%	90%	99%	100%
2015-2017 Running Median	Annual	0%	2%	12%	50%	85%	97%	100%	100%
	Three-Year Running Average	0%	0%	1%	27%	86%	100%	100%	100%
	Three-Year Running Median	0%	2%	12%	44%	84%	98%	100%	100%
Average	**Annual**	**0%**	**2%**	**9%**	**40%**	**76%**	**94%**	**100%**	**100%**
	Three-Year Running Average	**0%**	**0%**	**1%**	**19%**	**73%**	**98%**	**100%**	**100%**
	Three-Year Running Median	**0%**	**1%**	**9%**	**36%**	**76%**	**95%**	**100%**	**100%**

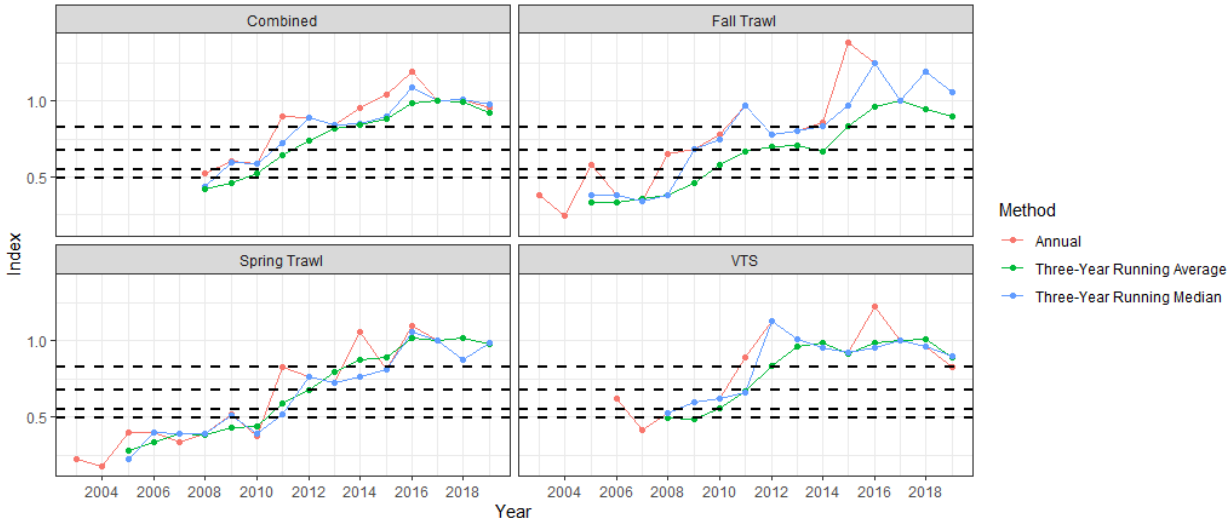


Figure 1. Scaled individual and combined indices using three calculation methods compared to four trigger levels (0.83 – Fishery/Industry Target, 0.68 – Moderate/High Abundance Regime Shift Level, 0.55 – Abundance Limit, 0.49 – Abundance Threshold) identified from potential reference abundance declines (dashed lines).

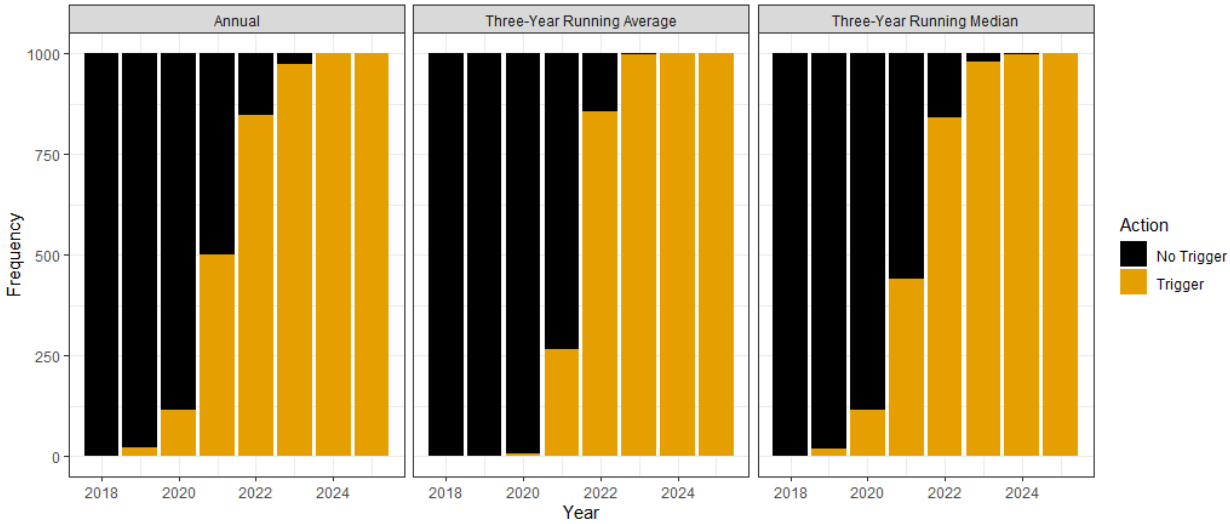


Figure 2. Annual action determinations by method from 1,000 simulated indices with the simulated population declining from the 2017 point value. The simulated stock was projected to decline 32% in 2021.

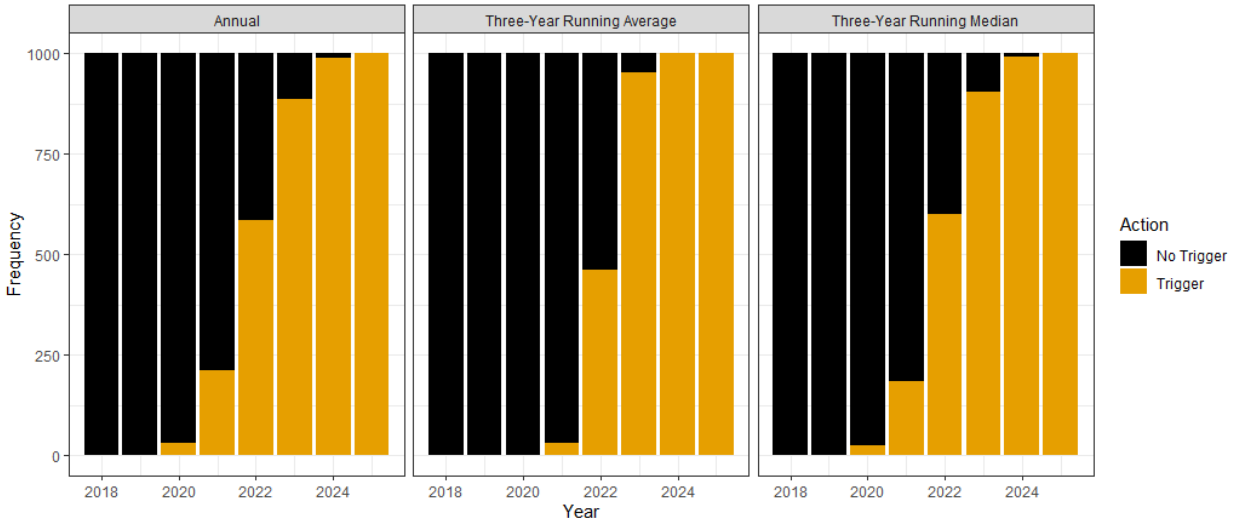


Figure 3. Annual action determinations by method from 1,000 simulated indices with the simulated population declining from the 2015-2017 average. The simulated stock was projected to decline 32% in 2021.

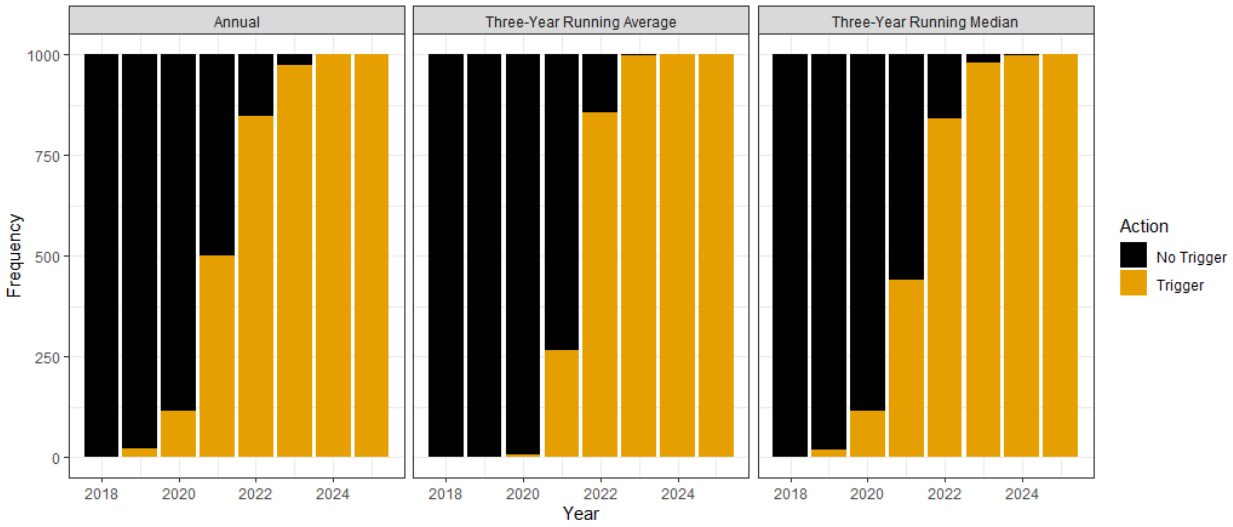


Figure 4. Annual action determinations by method from 1,000 simulated indices with the simulated population declining from the 2015-2017 median. The simulated stock was projected to decline 32% in 2021.

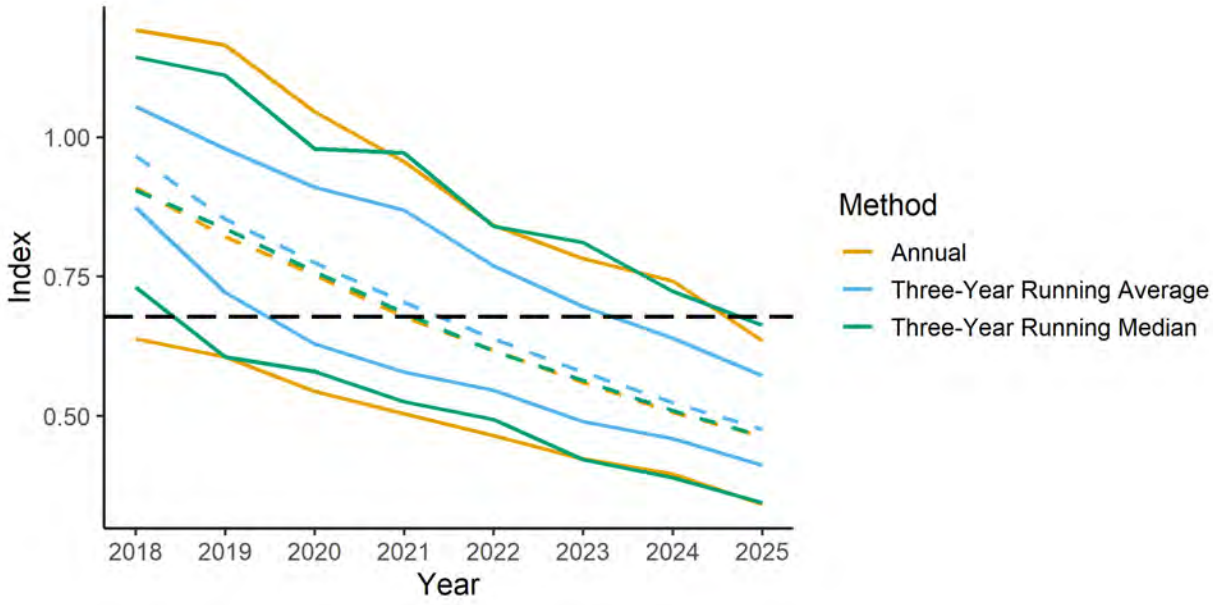


Figure 5. Distribution of index values by method from 1,000 simulations with the simulated population declining from the 2017 point value. The dashed colored lines are the median index values across simulations, the solid color lines are the minimum and maximum index values across simulations, and the dashed black line is the trigger level. The simulated stock was projected to decline 32% in 2021.

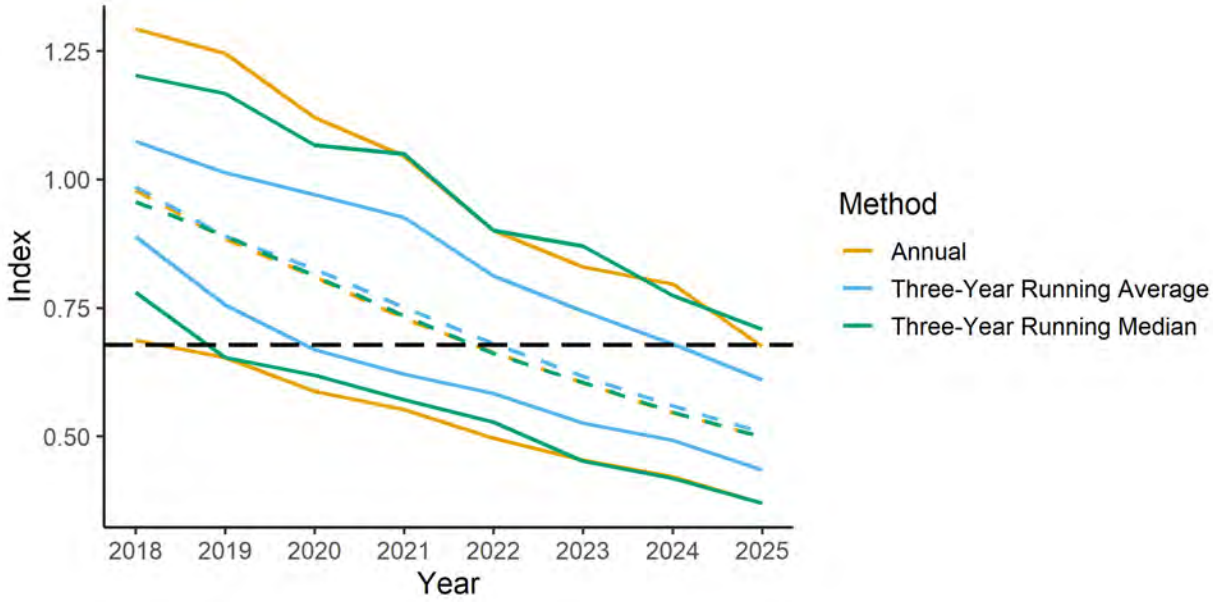


Figure 6. Distribution of index values by method from 1,000 simulations with the simulated population declining from the 2015-2017 running average. The dashed colored lines are the median index values across simulations, the solid color lines are the minimum and maximum index values across simulations, and the dashed black line is the trigger level. The simulated stock was projected to decline 32% in 2021.

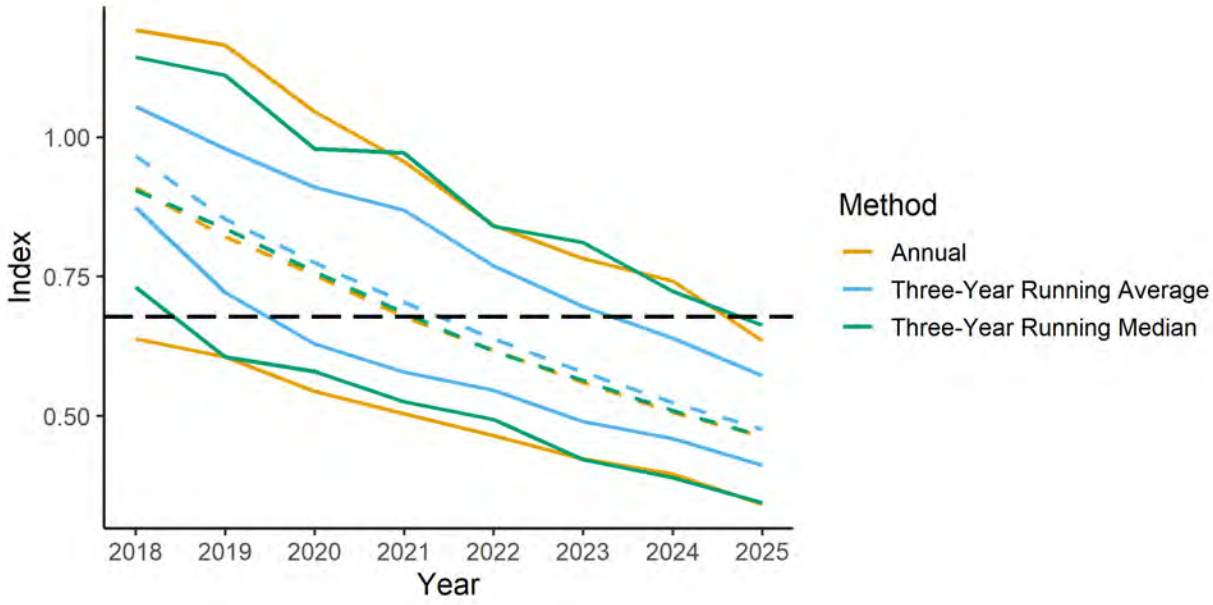


Figure 7. Distribution of index values by method from 1,000 simulations with the simulated population declining from the 2015-2017 running median. The dashed colored lines are the median index values across simulations, the solid color lines are the minimum and maximum index values across simulations, and the dashed black line is the trigger level. The simulated stock was projected to decline 32% in 2021.

Atlantic States Marine Fisheries Commission

Winter Flounder Management Board

January 31, 2023
1:45 – 3:15 p.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(B. Hyatt*)	1:45 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from February 2021	1:45 p.m.
3.	Public Comment	1:50 p.m.
4.	Review 2022 Management Track Assessments for Gulf of Maine and Southern New England/Mid-Atlantic Stocks of Winter Flounder (*P. Nitschke/T. Wood*)	2:00 p.m.
5.	Set 2024-2025 Specifications (*T. Bauer*) **Final Action** • Review Technical Committee Recommendations *(R. Balouskus)* • Review Advisory Panel Report *(B. Brown)*	2:30 p.m.
6.	Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year (*T. Bauer*) **Action**	3:00 p.m.
7.	Review and Populate Advisory Panel Membership (*T. Berger*) **Action**	3:10 p.m.
8.	Other Business/Adjourn	3:15 p.m.

This meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

MEETING OVERVIEW

Winter Flounder Management Board
Tuesday January 31, 2023
1:45 – 3:15 p.m.
Hybrid Meeting

Chair: William Hyatt (CT)	Technical Committee Chair: Rich Balouskus (RI)	LEC Representative: Keith Williams
Vice Chair: Vacant	Advisory Panel Chair: Bud Brown	Previous Board Meeting: February 2, 2021
Voting Members: ME, NH, MA, RI, CT, NY, NJ, NMFS, USFWS (9 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2021

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time should use the webinar raise your hand function and the Board Chair will let you know when to speak. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance, the Board Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Review 2022 Management Track Assessments for Gulf of Maine Winter Flounder and Southern New England/Mid-Atlantic Winter Flounder (2:00 – 2:30 p.m.)

- The Gulf of Maine and Southern New England/Mid-Atlantic Winter Flounder Management Track Assessments were completed and peer-reviewed in Fall 2022 (**Briefing Materials**).
- The Gulf of Maine winter flounder stock biomass status remains unknown and overfishing is not occurring. The Southern New England/Mid-Atlantic winter flounder stock is now no longer considered overfished and overfishing is not occurring.

Presentations

- 2022 Management Track Assessment for Gulf of Maine winter flounder by P. Nitschke
- 2022 Management Track Assessment for Southern New England/Mid-Atlantic winter flounder by T. Wood

5. Set 2024-2025 Specifications (2:30 – 3:00 p.m.) Final Action

- In February 2021, the Winter Flounder Management Board set status quo specifications for state waters for the 2021-2023 fishing years.
- In December 2022, the New England Fishery Management Council (NEFMC) took final action on FY 2023-2025 specifications in Framework 65, which included the Gulf of Maine (GOM) and Southern New England/Mid-Atlantic (SNE/MA) winter flounder

stocks.

- The Technical Committee (TC) met on January 11th to review the GOM and SNE/MA stock assessments, recent fishery performance, and federal specifications approved by the NEFMC. After reviewing these items, the TC recommended no changes to the state water specifications for the 2024-2025 fishing years **(Supplemental Materials).**
- The Advisory Panel met on January 12th to discuss current management issues and provide input on state water specifications for the 2024-2025 fishing years **(Briefing Materials).**

Presentations

- Overview of NEFMC 2023-2025 Specifications and Current State Waters Management Measures by T. Bauer
- Technical Committee Summary by R. Balouskus
- Advisory Panel Summary by B. Brown

Board Actions for Consideration

- Consider GOM and SNE/MA winter flounder specifications for the 2024-2025 fishing year

6. Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year (3:00 – 3:10 p.m.) Action

- Winter flounder state compliance reports are due on December 1.
- The Winter Flounder Plan Review Team (PRT) has reviewed state reports and compiled the annual FMP Review. New Jersey has requested continued *de minimis* status **(Supplemental Materials)**.

Presentations

- 2021 FMP Review for Winter Flounder by T. Bauer

Board Actions for Consideration

- Consider approval of the 2021 FMP Review, state compliance reports, and New Jersey's *de minimis* request for winter flounder

7. Review and Populate Advisory Panel Membership (3:10 – 3:15 p.m.) Action

- Massachusetts has submitted a nomination to the Winter Flounder Advisory Panel: Allan Butler, recreational fisherman **(Briefing Materials)**.

Presentations

- Nomination by T. Berger

Board Actions for Consideration

- Consider approval of Advisory Panel nomination for Allan Butler

8. Other Business/Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

WINTER FLOUNDER MANAGEMENT BOARD

Webinar
February 2, 2021

These minutes are draft and subject to approval by the Winter Flounder Management Board.
The Board will review the minutes during its next meeting.

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INDEX OF MOTIONS

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Sen. David Miramant, ME (LA)
Cheri Patterson, NH (AA)
Ritchie White, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Dan McKiernan, MA (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Conor McManus, RI, proxy for J. McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Matt Gates, CT, proxy for J. Davis (AA)
Willian Hyatt, CT (GA)
Jim Gilmore, NY (AA)
John McMurray, NY, proxy for Sen. Kaminsky (LA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Asm. Houghtaling (LA)
Mike Millard, USFWS
Allison Murphy, NMFS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Paul Nitschke, Technical Committee Chair
Kurt Blanchard, Law Enforcement Representative

Staff

Robert Beal
Toni Kerns
Kristen Anstead
Maya Drzewicki
Emilie Franke
Chris Jacobs
Jeff Kipp
Dustin Colson Leaning
Savannah Lewis
Sarah Murray
Joe Myers
Kirby Rootes-Murdy
Caitlin Starks
Deke Tompkins
Geoff White

Guests

Karen Abrams, NOAA
Max Appelman, NOAA
Pat Augustine, Coram, NY
Richard Balouskus, RI DEM
Vincent Balzano, ME
Chris Batsavage, VMRC
Peter Benoit, Ofc. of Sen. King
Alan Bianchi, NC DENR
Jason Boucher, DE DFW
Delayne Brown, NH F&G
Jeff Brust, NJ DEP
Joe Cavaluzzi
Matt Cieri, ME DMR
Allison Colden, CBF
Heather Corbett, NJ DFW
Jamie Cournane, NEFMC
Jessica Daher, NJ DEP
Justin Davis, CT (AA)
John DePersenaire, RFA
Russell Dize, MD (GA)
Chris Dollar, CBF
Bill Dunn
Julie Evans
Cynthia Ferrio, NOAA
James Fletcher
Alexa Galvan, VMRC
Pat Geer, VMRC
Shaun Gehan, Gehan Law
Bill Gorham, NC
Melanie Griffin, MA DMF

Guests (continued)

Alex Hansell, MA DMF
Helen Takade-Heumacher, FL FWS
Carol Hoffman, NYS DEC
Asm. Eric Houghtaling, NJ (LA)
Rachel Howland, NC DENR
Jeff Kaelin, Lund's Fisheries
Rob LaFrance, Quinnipiac Univ
Wilson Laney
Mike Luisi, MD DNR
Chip Lynch, NOAA
Pam Lyons, Wild Oceans
Shanna Madsen, VMRC
John Maniscalco, NYS DEC
Chris McDonough, SC DNR
Nichola Meserve, MA DMF
Roy Miller, DE (GA)
Pat Moran, MA Environ. Police
Brandon Muffley, MAFMC
Brian Neilan, NJ DEP
Josh Newhard, FL FWS
Gerry O'Neill, Cape Seafoods
Derek Orner, NOAA
Craig Pugh, Leipsic, DE
Kathleen Reardon, ME DMR
CJ Schlick, NC DENR
Eric Schneider, RI DEM
Tara Scott, NOAA
McLean Seward, NC DENR
David Sikorski, CCA MD
Melissa Smith, ME DMR
Somers Smott, VMRD
George Stamboulis, NY IT
Mark Taylor
Chris Uraneck, ME DMR
Beth Versak, MD DNR
Holly White, NC DENR
Chris Wright, NOAA
Sarah York, NOAA
Phil Zalesak, MD
Erik Zlokovitz, MD DNR
Rene Zobel, NH F&G

The Winter Flounder Management Board of the Atlantic States Marine Fisheries Commission convened via webinar; Tuesday, February 2, 2021, and was called to order at 1:30 p.m. by Chair David V. Borden.

CALL TO ORDER

CHAIR DAVID V. BORDEN: Good afternoon, this is the Winter Flounder Management Board meeting. My name is David Borden; I'm the Governor's Appointee from the state of Rhode Island. We have a relatively short agenda, most of which relates to reports, and the main purpose of this meeting is to set specifications for 2021.

I'll just run through the items on the agenda. Under other business, I only have one item. Toni has asked for like one minute to update us on an issue, and when we get to that subject, I'll ask whether or not anyone else wants to add anything to the agenda.

APPROVAL OF AGENDA

CHAIR BORDEN: In terms of the agenda, any additions or deletions to the agenda, other than what I said? There are no hands up that I can see, Toni.

MS. TONI KERNS: I don't see any hands either, David.

CHAIR BORDEN: Okay, so any objections to approving the agenda? I have no hands up, the agenda stands approved as is.

APPROVAL OF PROCEEDINGS

CHAIR BORDEN: Approval of the proceedings is the next item of business. The proceedings of October 20th, any objections to approving the proceedings? If you object, please raise your hand. I see no hands up, the proceedings stand approved by consent.

PUBLIC COMMENT

CHAIR BORDEN: Public comments. We normally take public comments on issues that are not on the agenda, so are there any members of the public that wish to comment on a winter flounder issue that is not on the agenda? For this, Toni, I think I'm going to ask you, do you have any hands up?

MS. KERNS: No hands, David.

CHAIR BORDEN: Okay, so although we don't have any public comments at this time, I may take public comments later on, depending upon the circumstance.

CONSIDER SPECIFICATIONS FOR THE 2021 FISHING YEAR

CHAIR BORDEN: When we get to the substance of the meeting, we've got two items. One is a Technical Committee report, and the other is an Advisory Panel report. Dustin, would you like to provide both reports? I think you can do both at the same time, and then we'll take questions on both of them.

MR. DUSTIN COLSON LEANING: Yes, thank you, Mr. Chair, I'll just transition over to my screen now. All right, thank you. As the Chair alluded to, we have a pretty straightforward agenda today. We'll be covering winter flounder specifications for the 2021 to 2023 fishing years. I'll start with an outline here. Just going over a background first. I'll cover the status of the winter flounder Gulf of Maine and southern New England, Mid-Atlantic stock, followed by commercial and recreational fishery trends. Then I'll cover the New England Fishery Management Council winter flounder specifications for the fishing years 2021 through 2023.

Then, I'll go over the Addendum III specifications process. This will be followed by the Technical Committee report and recommendations, and then I'll wrap up with the Advisory Panel report, before we have the Board action, which is to consider setting specifications for the fishing years 2021

through 2023 for winter flounder, Gulf of Maine and southern New England/Mid-Atlantic stock.

The 2020 management track stock assessment determined that the Gulf of Maine winter flounder stock biomass, status is unknown, and overfishing is not occurring. For the 2019 biomass for fish over 30 centimeters, that is the exploitable threshold, according to the minimum size. This was estimated to be 2,862 metric tons, and the fishing mortality rate was estimated to be 0.052, which is well below the fishing mortality threshold of 0.23.

Side notes here, the Gulf of Maine stock is not in a rebuilding plan, since it was never declared overfished. Here we have a quick snapshot view of the surveys, which informs the stock assessment, a lot of noise here, a little volatility over the years. But for the most part we can see an average kind of flat line trend over time.

Hence, a very different picture when you look at total catch from both the commercial and recreational fisheries. As you can see, total catch has declined in the eighties, and precipitously in the nineties, and has remained quite low since. We've got commercial landings here in purple, and recreational landings here in green, all of which are at timeseries lows in recent years.

Despite the decline in commercial and recreational landings, the indices of abundance have remained somewhat flatlined. The general lack of response in survey indices, and lack of changes in age and size structure are the primary sources of concern, with catches remaining far below the overfishing level.

Now moving on to the southern New England and Mid-Atlantic stock. The spawning stock biomass in 2019 was estimated to be 3,959 metric tons, which is 32 percent of the biomass target, and 64 percent of the biomass threshold for an overfished stock. Both SSB or spawning stock biomass and fishing mortality are at timeseries lows.

As a reminder, this stock is in a rebuilding plan with a target date of 2023, and a projection using assumed catch in 2020 and fishing mortality of zero through 2023, indicated that there was about a 5 percent chance of rebuilding SSB to the target by 2023. Overall, the outlook is not looking very good for this stock.

Here we have recreational landings for the southern New England stock. As you can see here on the graph, we have the old MRIP landings in red and the blue designates the new MRIP landings. There was a scale up here, it was a pretty consistent scale up across the timeseries, but due to the scale of the graph, it's kind of hard to tease that out in the most recent years, where you've just got timeseries lows of recreational catch. Then we also have the commercial landings displayed here on this graph. We see a big decline in the eighties, followed by a little bit of an increase in the nineties, but then another precipitous decline from 2000 all the way until present day.

At the stock assessment peer review, Tony Wood, the assessment scientist, his sensitivity analysis using an environmentally driven model, was discussed. The inclusion of estuary water temperature into the model had little impact on the estimates of SSB but did help to explain the declines in recruitment values in recent years.

I mention this because it was in response to the Bell et al. paper, although it wasn't included in the official stock assessment. It was approved for management. It was ran as a sensitivity analysis, just to show that these things are being explored, and that it may help explain recruitment, but may not really contribute to any differences in estimated levels of spawning stock biomass.

Now moving into the specifications portion of this presentation. After these two stock assessments were accepted for management use, the Council met in December to set specifications for federal waters. This table displays the total ACL and state subcomponents for each of the stocks.

A state subcomponent is comprised of both recreational and commercial catch, and the commercial portion of the state subcomponent is caught by vessels that do not hold federal northeast multispecies permits. The recreational portion is based off of the MRIP estimates of recreational catch.

The subcomponent is an estimation of what the state fisheries will harvest each year. It is important to note that it is not an allocation, and there are also no accountability measures associated with a state water subcomponent, meaning that there is no pound for pound payback if the state waters subcomponent is exceeded.

Looking at this table, you can see that 2021 to 2023 Gulf of Maine state subcomponent was revised upward from the 2020 value, to reflect the recent fishery trends, using 2017 through 2019 average catch. The reverse happened for the southern New England/Mid-Atlantic stock, which was revised downward to reflect the reduction of catch in recent years.

As a reminder, Addendum III was approved in 2013, and this revised the specification process, so that the recreational and commercial fishery measures may be set for up to three years, to better align with the federal water's specifications process. Previously, measures were changed through addendums, and the majority of the measures that are currently in place were set through Addendum II.

The commercial measures that are subject to change are trip limits, trigger trip limits, size limits, season, and area closures. The recreational measures subject to change are size limits, bag limits and season. The commercial management measures presented here have not changed since 2014. I can come back to this slide later during the discussion, if needed. Here we have listed the current recreational winter flounder regulations by state. You'll note here that the federal waters measures are open all year, with no creel limit and a uniform size limit of 12 inches. This particular discrepancy between state and federal waters measures I'll get back to later.

TECHNICAL COMMITTEE REPORT

MR. COLSON LEANING: The Technical Committee met on January 6, to review recent fishery trends, stock status information, and the Council specifications to help review state waters measures.

The TC recommended no changes to the recreational or commercial measures, and there were several reasons for why they supported this recommendation. First, the Council's groundfish Plan Development Team or PDT adjusted the state subcomponent to reflect recent trends in catch. The 2017 through 2019 average catch was used as a proxy for catch in 2021.

But this assumed constant measures within state waters. Changing the measures would make this analysis invalid, and in effect invalidate the states subcomponent catch value. Second, the TC recalled their 2018 analysis, which indicated that the majority of southern New England and Mid-Atlantic commercial fishermen are not landing their trip limits, which means that the trip limit is successful in its design of solely accounting for bycatch.

Since winter flounder aren't being targeted in the southern New England/Mid-Atlantic stock, a greater reduction in the trip limit could lead to more regulatory discards, without much of an effect on fishing mortality. Lastly, the TC has heard anecdotal reports that anglers are rarely catching their bag limit, so adjustments to the recreational measures may not prove fruitful either.

The TC also discussed the mismatch between the state measures and the lack of a bag limit in season in federal waters, but reasoned that any angler fishing in the EEZ would need to abide by the regulations of the state waters they travel back through to, to get back to shore. TC was also concerned about the low likelihood of the stock rebuilding to the target biomass.

In addition, it is more concerning that fishing mortalities have not appeared to be the main cause, and they supported that more analysis is needed to better understand how environmental indicators play a role in winter flounder recruitment. This will likely need to be taken up in a more substantive way through the next research track stock assessment.

ADVISORY PANEL REPORT

MR. COLSON LEANING: The Advisory Panel also met. That was on January 14 via webinar. They discussed specifications, current fishery management issues, and provided research recommendations. Of note here that attendance was limited. We had one participant from the commercial industry, and two who are recreational fishermen, and also come from a very environmentally focused perspective.

The Advisory Panel members were all concerned about the status of the stock in southern New England/Mid-Atlantic, but there was some disagreement on what was the greatest cause for concern. One member noted that environmental stressors have been an issue, such as hypoxia, pollution, habitat destruction, as well as rising sea temperatures.

Another did think that sea temperature is an issue, but not to the extent in which it is being brought as the primary cause for low abundance. He however, thought that fishing mortality was the biggest issue, and should be addressed immediately. However, all three were in agreement that natural mortality through predation appears to be a big problem. The AP also commented on the fact that there are many places in the Gulf of Maine where winter flounder were once abundant, but are no longer encountered.

Due to these concerns, two Advisory Panel members supported a recreational fishing moratorium, until both stocks show increases in abundance. The third AP member in attendance, coming from the commercial industry perspective, thought that the potential cost of reduced access and regulatory discards, outweighed the potential benefits of a moratorium, and so did not support this recommendation, and felt he could not really weigh in on it, considering that he is more of a commercial representative.

Those original two AP members also thought that the inshore commercial fishery should close during the spawning season, from December to April, to protect the spawning stocks. The AP also had a number of research recommendations. They went from increasing understanding of the internal stock substructure, there have been some tagging studies that they referenced and talked about, but they encourage more research in this area, to kind of understand the interesting dynamics there.

One idea was to have sonic tag tracking studies, to improve the life history information of winter flounder. Another idea in that lane was looking at genetic testing to analyze natal homing. It was also the recommendation to conduct studies of eggs, larvae, and young of year, to test for abnormalities contributing to natural mortality.

One AP member was also interested in looking at the effects of nearshore pollution on winter flounder. Lastly here, just wrapping up. The AP also had a request specific to the Board to review panel membership, and appoint representatives. They recognize that this is an issue more broadly, not just with winter flounder. But there has been decreased participation in the Advisory Panel process.

They thought with the greater focus on younger membership, they might be able to ensure sustained stakeholder participation in the management process. With that I'll ask if there are any questions, and then as a reminder today, we are considering setting specifications for the 2021 through 2023 fishing years.

The Board has the ability to set specifications for only one year, if they prefer that approach. However, Addendum III did provide the ability to set specifications for three years, to align with the

Council specification setting process. With that I'll take any questions.

CHAIR BORDEN: Questions for Dustin, let's have the order of taking questions on the Technical Committee first. Any questions? I see no hands up, Toni, have you got any hands?

MS. KERNS: Yes, we have Conor McManus.

CHAIR BORDEN: Conor.

MR. CONOR McMANUS: Dustin, from the TC's notes, was it apparent whether there were suggestions for further research or work to address needs for upcoming stock assessments, to help better inform ABCs or OFLs, or was there more of a focus on trying to address some research or science within state waters that might lend themselves to better spatial management, or trying to address some of the questions during those early life stages? Just trying to get a sense from a management board perspective, where we should be trying to think about focusing our efforts.

CHAIR BORDEN: Dustin.

MS. KERNS: Dustin, if you're talking, we can't hear you.

MR. COLSON LEANING: Man, I hate when I do that. Thank you for letting me know, so I don't go on for a minute by myself. No, thank you for the question. It was tough, because the conversation at the Technical Committee level was sparked by the discussion of Tony Wood's sensitivity analysis.

Some on the TC acknowledged that it seems that some within the Board, or people who are interested in winter flounder management, are trying to grapple with the understanding of what does it mean if catch is declining precipitously over time, and you're not seeing a rebound in the population or recruitment. Most often with a rebuilding plan, the tried-and-true way to solve things is to reduce fishing mortality. In the absence of that being an effective tool, what can be done?

They were saying primarily we should get a better understanding of what may be causing this decline. Through the type of analyses that Tony Wood conducted and were referenced in the Bell et al. paper, but there were some problems there, because the timeline on which these might be revolved is kind of up in the air. I think at this point there hasn't been an official date set for the next research track stock assessment.

I think the date 2026 was tossed around. But up until now, the NRCC has established a process where substantial revisions to a stock assessment model needs a research track stock assessment, so that is why these types of analyses and this type of work haven't been conducted through the management stock assessment process. I may have kind of answered your question. You can maybe try reiterating again if I've missed some of your key points there.

CHAIR BORDEN: Conor, a follow up?

MR. McMANUS: No, thanks for that, Dustin. I was just thinking in the larger context, particularly in the discussions we had for lobster this morning, trying to find not just any tools to improve the stock, but the ones that are actually to be effective. Just trying to think about what properties for us to hone in on moving forward in the future.

What might these bottlenecks be, considering both the TC's and the AP's hypotheses for things for us to look at, and how we would try to address those? I think it's interesting in the context of temperature, and how that is, I think an improvement to the assessment model, once it passes if we can get it into a research track. But it's interesting in that it doesn't really change our understanding of SSB perhaps, so it might be helpful for a projection. But it leads to the question of what should we do moving forward. I guess I would just try to think from the Board perspective, and all of us, about what types of things we would want to consider, continue to look for guidance from the TC on how

we should prioritize examining the different processes that may be controlling southern New England and Mid-Atlantic winter flounder.

CHAIR BORDEN: Thanks, Conor, Tom Fote you're next.

MR. THOMAS P. FOTE: Yes, I was wondering if you have a projection of how the Gulf and Georges Bank winter flounder stocks are doing, because I know some of the guys that take trips. As a matter of fact, I did two years ago make the cruise, you know 35, 40 miles offshore to go for black sea bass.

We rounded up a winter flounder that was about 3 pounds, which is never what we see inshore, and never what we see in the bays and estuaries. We figured they were Georges Bank stock. What information can you give me on that? If we went and got basically recorded it when we came in, it would have been recorded as a New Jersey stock, but they were really, I think Georges Bank stock.

CHAIR BORDEN: Dustin, do you want to follow up on that, or someone else?

MR. COLSON LEANING: Yes, I'll give it a shot. I'm relatively new to winter flounder, so the majority of my experience and my learning process has been centered on these two stocks. Offhand, I can't give you the scientific stock assessment perspective. I can maybe pull that out later in the discussion. But I do know that during the Advisory Panel meeting, the commercial fishery representative was saying that they have been encountering some really sizeable, some really large winter flounder.

It seems from his perspective that there is a healthy offshore stock, and so that is in huge contrast to some of the winter flounder that are encountered inshore. He also noticed that discrepancy, and that kind of tied into the whole conversation about complex stock substructures, and how in some areas they may be completely gone, but in other areas they may still be doing quite well.

CHAIR BORDEN: Any other questions on either one of these reports? I have no hands up. Anyone? Toni, have you got? Jim Fletcher.

MR. JAMES FLETCHER: Since Tom is there, would you ask do the Jamaica Bay effect of the estrogen or warmer climate, and is it possible that one of those slides you showed had small fish in it? Has any consideration been done to enhancing the stock through producing mainly female fish? Thank you.

CHAIR BORDEN: Dustin.

MR. COLSON LEANING: Mr. Chair, I'm not sure if that was directed to me. I'm not sure if I'm able to answer that.

MR. FOTE: Dave, could I follow up on what Fletcher was asking? This is Tom Fote.

CHAIR BORDEN: Certainly.

MR. FOTE: Yes, what he is talking about is Dr. McElroy's study that was done in Jamaica Bay, which showed that there were only females in most of it. I mean there were like 15 to 1, 16 to 1, 14 to 1, and I think it was 13 to 1, in a survey she had done over a period of time, looking at winter flounder in Jamaica Bay.

As some of you know, I grew up fishing Jamaica Bay, and that has huge sewer outflows right into Jamaica Bay, and matter of fact, if you ever go out in the Bell Park, when you pass Starlight City, that is still the landfill seeping into Jamaica Bay from when we basically put in many years ago. There is a high concentration of anything disruptive in Jamaica Bay.

It looks like it is affecting the sex of winter flounder inside the bays and estuaries. It is one of, also the fact that New Jersey was the last one to see a collapse in the winter flounder stock, even though it was due to warm water. We should have seen the first collapse. But we have no bays or estuaries that we directly dumped sewage in, so we just pump it

directly into the ocean. The winter flounder were left alone when they were in the bays and estuaries. That is just a hypothesis, but Dr. McElroy, she's a friend of Emerson, he could probably answer more to that.

CHAIR BORDEN: Thanks, Tom, anyone else for a question for Dustin? I don't have any hands up. **If not, we're going to move on. I asked the staff to develop a draft motion. If they could put that up on the board, please. All right, you can see the motion that the staff recommends. Would someone like to make that as a motion?** If so, raise your hand. I've got Conor McManus, and then I have Dennis Abbott as a second. Any discussion on the motion?

MR. McMANUS: I guess I would just say well I do support this motion. I would just urge us to continue to think about, similar to other stocks in other circumstances, what we want this fishery to look like, and try and think through about what the goals are for us in southern New England, particularly in southern New England for winter flounder.

CHAIR BORDEN: Thanks, Conor, Dennis, would you like to comment on the motion?

MR. DENNIS ABBOTT: No, I don't think there is anything to comment on.

CHAIR BORDEN: Anyone else? I have no hands up. Let me ask, are there any objections to approving this motion by consensus? If so, raise your hand. There are no hands up, so the motion stands approved by consensus.

OTHER BUSINESS

CHAIR BORDEN: Next item on the agenda is Other Business. Toni, do you want to report on a follow up item?

MS. KERNS: I apologize, I'm having some work so I can have some heat added to my house, since I have none right now, and there might be some loud construction noises. A couple of commissioners have raised some concerns with staff, and we started to touch on some of these concerns, either through the TC report, or issues that folks have brought up. Conor, you raised some of them, in terms of trying to figure out what is the science that we need to understand, in order to start seeing rebuilding for this, in particular southern New England/Mid-Atlantic stock, and even some questions with the Gulf of Maine stock for winter flounder. The stock assessment showed that you wouldn't be able to rebuild the stock by 2023, and that is the end date for the rebuilding program.

We do not manage this stock alone; we partner with the New England Fishery Management Council on this stock. Federal regulations are set through the Council. The Commission just sets regulations in state waters, as we've done today, and there have been some questions raised about the discrepancy between trip limits in federal waters, versus state waters.

I think that there may need to be some additional discussion with the New England Fishery Management Council, that we have done some through the NRCC about how to move forward with management in this stock. What happens when we don't rebuild in 2023, questions such as that. You know there are some questions that we would want to bring forward to the Science Center.

Tony Wood did this paper that was not a part of the official peer review for the assessment, if I'm understanding correctly. We would need some more science, which we thought was going to be included in this last assessment, but then it turned out it wasn't. I think we just need to find a path forward for trying to rebuild this stock, or having an understanding of what is possible.

Maybe it isn't rebuilding this stock, but what does happen? I think we will bring forward these questions, and raise these issues with the NRCC, to try to work together as both NOAA Fisheries, the Science Center and New England Fishery Management Council, to find a path forward.

ADJOURNMENT

CHAIR BORDEN: Any questions for Toni? I see no hands up. Any other business to come before the Board? There are no hands up, so the meeting stands adjourned by consensus.

(Whereupon the meeting convened at 2:00 p.m. on Tuesday, February 2, 2021)

Introduction

This document summarizes the 2022 Stock Assessment Updates for the Gulf of Maine (GOM) and Southern New England/Mid-Atlantic (SNE/MA) winter flounder stocks. Both assessments revise the 2011 Benchmark Stock Assessments that were peer-reviewed by an independent panel of scientific experts at the 52nd Northeast Regional Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC 52) meeting. These assessments reflect the latest and best information available on the status of the two winter flounder stocks for use in fisheries management.

Management Overview

Winter flounder (*Pseudopleuronectes americanus*) is an estuarine flatfish found in almost all shoal water habitats along the northwest Atlantic coast. The geographic distribution ranges from nearshore habitats to offshore fishing banks along the New England and Mid-Atlantic coast of North America.

Winter flounder are jointly managed by the Atlantic States Marine Fisheries Commission (ASMFC) and the New England Fishery Management Council (NEFMC) under complementary fishery management plans. This is due to their presence in, and migration between, state waters (0-3 miles) and federal waters (3-200 miles). The Commission sets regulations for state waters in accordance with Amendment 1 to the Winter Flounder Fishery Management Plan. NEFMC sets regulations for federal waters in accordance with the Northeast Multispecies Fishery Management Plan. The management unit for the GOM stock includes waters north of Cape Cod to the US-Canada border. By comparison, the SNE/MA stock area spans the waters south of Cape Cod to the Delaware-Maryland border.

In February 2021, the Winter Flounder Management Board approved status quo specifications (commercial trip limits, minimum size limits, seasons, area closures, and recreational bag limits) in state waters for the 2021-2023 fishing years. These same measures have been in place since 2014. Federal management focuses on the commercial fishery because the bulk of harvest in federal waters is attributed to commercial vessels. The federal commercial fishery is managed through an annual catch limit to prevent overfishing.

Life History

Winter flounder make annual spawning migrations into nearshore waters primarily during the winter. Adults migrate in two phases. An autumn estuarine migration occurs prior to spawning. In the late spring/early summer after spawning, they travel to either deeper, cooler portions of estuaries or to offshore areas. This pattern of seasonal distribution may change in colder waters at the northern extent of their range. Under these differing temperature conditions, winter flounder make a reverse migration to shallow waters in the summer and deeper waters in the winter. The annual spawning period varies geographically. Although spawning periods overlap considerably, peak spawning times are earlier in southern locations.

During spawning, females release eggs whose adhesive properties facilitate retention within spawning grounds. Many factors influence larval and juvenile growth and survival, including

temperature, salinity, dissolved oxygen, and food availability. Nursery habitat for winter flounder larvae and juveniles is typically saltwater coves, coastal salt ponds, estuaries, and protected embayments; although larvae and juveniles have also been found in open ocean areas such as Georges Bank and Nantucket shoals. Larvae are predominantly found in the upper reaches of estuaries in early spring, moving into the lower estuary later in the season. Five to six weeks after they hatch, larvae settle to the bottom to begin their transformation into juveniles. After several weeks of adapting to living on the bottom, juveniles' left eye migrates to the right side of their body and their metamorphosis is complete.

What Data Were Used?

The GOM and SNE/MA stock assessments used fishery-dependent and -independent data collected through state, federal, and academic research programs. Fishery-dependent data are collected from fish caught by either the commercial or recreational fisheries. Whereas fishery-independent data are collected from fish caught through biological surveys that are operated independently from commercial and recreational fisheries. The SNE/MA assessment included final data through 2021, and the GOM assessment included final data through spring 2022.

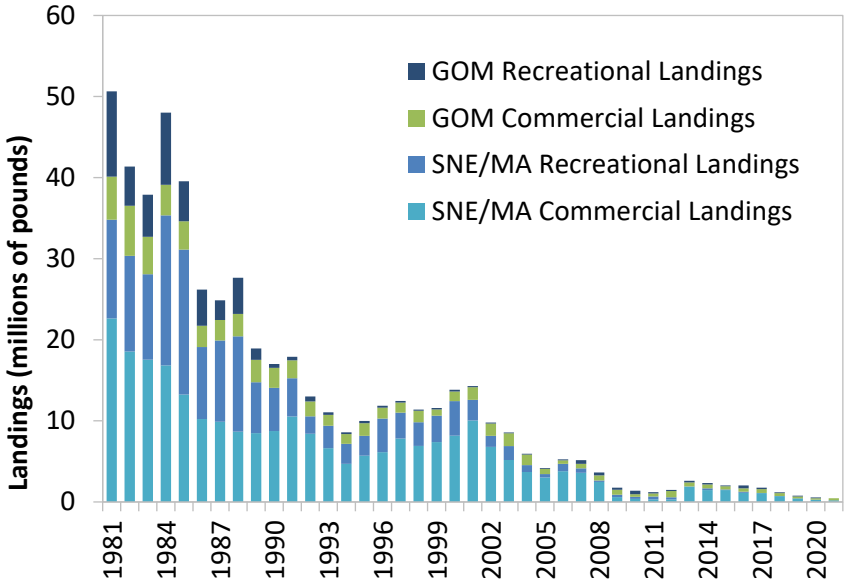
Commercial and Recreational Data

GULF OF MAINE

The stock assessment used commercial and recreational fishery landings and discards data. A discard mortality rate of 15% was assumed for recreational discards and 50% for commercial discards. Discards were estimated for the large mesh trawl (1982-2021), gillnet (1982-2021), and northern shrimp fishery (1982-2021).

Figure 1. Winter Flounder Commercial & Recreational Landings by Stock Unit

Source: Northeast Fisheries Science Center, 2022



Throughout the management area, states conduct strict commercial quota monitoring through various state and federal dealer and harvester reporting systems. Data from those sources is compiled into annual landings by state biologists.

The commercial fishery has experienced sharp declines in landings since the industry's heyday in the 1980s (Figure 1). Commercial landings peaked in 1982 at just over six million pounds and then declined steadily to approximately 770,000 pounds in 1999. Commercial landings have been below one million pounds since 2005, and were approximately 260,145 pounds in 2021.

Recreational catch, effort, and fish length frequency data were obtained from the Marine Recreational Information Program (MRIP) for 1982-2021. Starting in 2018, MRIP estimates of recreational effort and catch were improved through a transition from a phone-based survey to a mail-based survey to estimate fishing effort. Catch estimates prior to 2018 were subsequently calibrated to the new estimation methodology based on the improved mail-based survey.

Recreational landings represented a significant portion of total harvest on the GOM stock during the 1980s, ranging between 2.5 and 10.5 million pounds (Figure 1). Recreational landings dropped below 440,000 pounds in 1992 and continued to drop to their present low of approximately 94,799 pounds in 2021. This significant reduction in landings is largely attributable to low availability and/or low effort.

SOUTHERN NEW ENGLAND/MID-ATLANTIC

Similar to the GOM update, the SNE/MA update also relied on commercial and recreational fishery landings and discards data. A discard mortality rate of 15% was assumed for recreational discards and a discard mortality rate of 50% was assumed for the commercial discards.

Commercial landings from the SNE/MA stock have declined significantly from the record high of 22.6 million pounds in 1981 (Figure 1). Commercial landings averaged 14.8 million pounds in the 1980s, 7.3 million pounds in the 1990s, and 4.7 million pounds in the 2000s. In response to the poor condition of the stock, a moratorium in the SNE/MA fishery was implemented in federal waters between May 2009 and April 2013. Concurrently, a 50-pound commercial bycatch limit was implemented in state waters and still remains in place today. SNE/MA commercial landings only averaged 902,576 pounds in the past 10 years (2012-2021), with a time series low of approximately 192,322 pounds landed in 2021.

The recreational sector has also experienced significant declines over time due to decreases in abundance. Landings were around 12 million pounds in the early 1980s, increased to 18.5 million pounds in 1984, and then precipitously declined to between 2 and4.5 million pounds from 1992 to 2001 (Figure 1). Landings continued to decline over the next two decades, from a high of 1.4 million pounds in 2002 to a low of 1,080 pounds in 2019. In 2021, recreational landings were estimated at 11,222 pounds.

Fishery-Independent Surveys

GULF OF MAINE

The GOM stock assessment used research survey indices of abundance to estimate area-swept estimates of 30+ cm biomass based on the Northeast Fisheries Science Center (NEFSC) Bigelow Survey, the Massachusetts Division of Marine Fisheries Trawl Survey, and the Maine/New Hampshire Inshore Trawl Survey. The area-swept method uses mean catch (either in weight or in numbers) per unit of effort or per unit of area as an index of the stock abundance. This index is converted into an absolute measure of biomass. All three of the surveys are conducted annually in the spring and fall.

SOUTHERN NEW ENGLAND/MID-ATLANTIC

The SNE/MA stock assessment used several fishery-independent indices of abundance with associated age compositions from the NEFSC Winter, Spring, and Fall Surveys; the Northeast Area Monitoring and Assessment Program Spring Survey; the Massachusetts Spring Trawl Survey; the Rhode Island Spring Trawl Survey; the University of Rhode Island Graduate School of Oceanography Fish Trawl Survey; the Connecticut Long Island Sound Spring Trawl Survey; and the New Jersey Ocean and River Spring Survey. The model also used recruitment indices (age-0; young-of-the-year or YOY) from surveys conducted by the Massachusetts Department of Marine Fisheries and the Connecticut Department of Energy and Environmental Protection.

How Were the Data Analyzed?

Gulf of Maine – Area-Swept Assessment

GOM winter flounder assessment models developed during the 2011 assessment were determined to be too unreliable for stock status determination. The population models had difficulty with the conflicting data trends within the assessment, specifically, the large decrease in the catch over the time series with very little change in the indices or age structure in both the catch and surveys. Instead, an area-swept approach was utilized to produce an estimate of biomass. However, the area-swept method is unable to determine if the stock is overfished.

SNE/MA – Age-Structured Model, ASAP

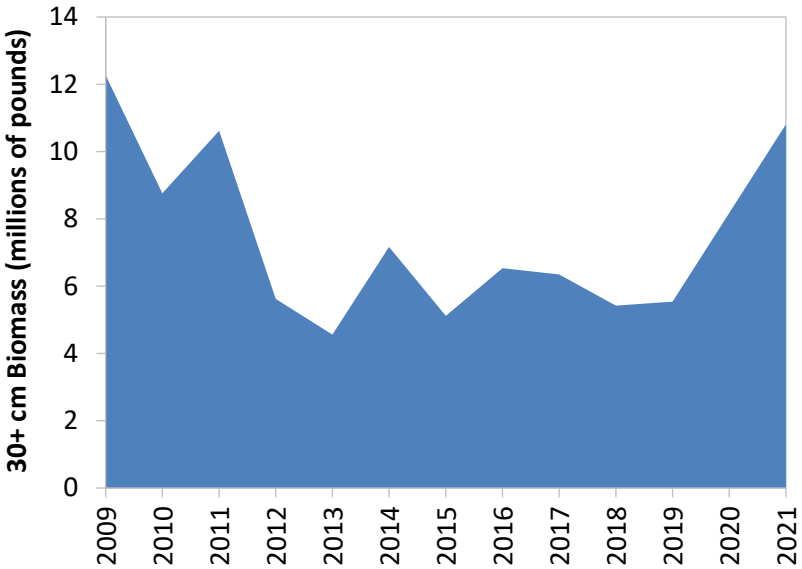
The Age-Structured Assessment Program (ASAP) model is the accepted model for the SNE/MA winter flounder stock assessment. The ASAP model uses commercial and recreational fishery landings and discards-at-age, as well as indices of abundance, to estimate annual stock size and fishing mortality rates. Indices of abundance indicate relative changes in abundance over time, while catch data provide information on the magnitude of abundance and the proportion of abundance removed by fishing. Age composition data link the information provided by indices of abundance and catch to specific year classes. Stock abundance is tracked by the model as new year classes recruit to the stock and then decline over time due to mortality (both natural and fishing).

What is the Status of the Stock?

Gulf of Maine

As described previously, the GOM stock was assessed using an area-swept model which does not provide spawning stock biomass reference points. As such, it is unknown if the stock is overfished. However, the assessment is able to provide an estimate of biomass for fish 30 cm and larger for 2009-2021 (Figure 2). The 2021 30+ cm exploitation rate was estimated to be 14% of the overfishing exploitation threshold proxy, indicating the stock is not experiencing overfishing.

Figure 2. Gulf of Maine Winter Flounder 30+ cm Biomass
Source: Northeast Fisheries Science Center Fall Survey, 2022



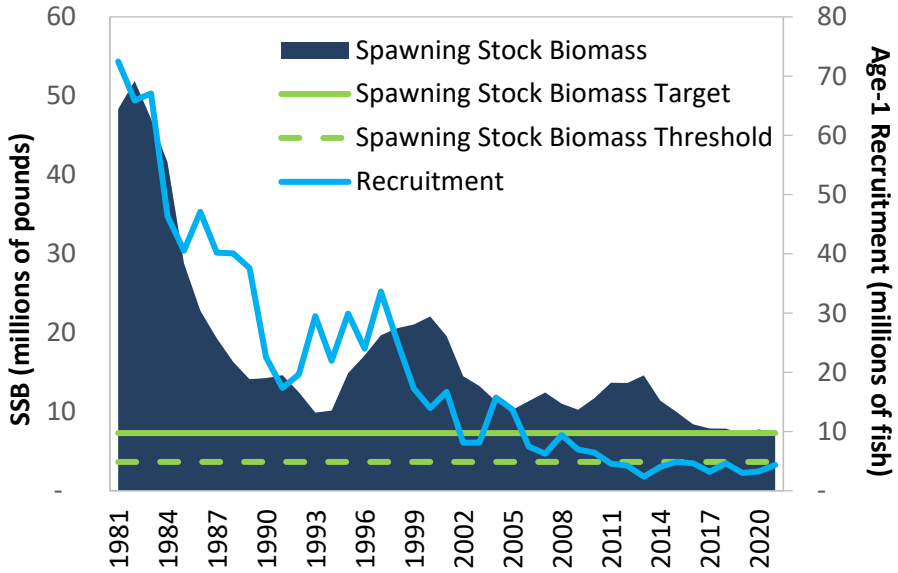
The GOM winter flounder stock has relatively flat survey indices with little change in the composition of age classes over time. This phenomenon is concerning considering the declining level of annual landings in the GOM. Overall, these indices of abundance have not demonstrated any positive response to the large declines in commercial and recreational removals since the 1980s. However, there were increases in the fall 2021 and spring 2021 and 2022 area-swept biomass estimates, which, if they continue, could be the beginning of a response to continued low fishing effort. It should be noted, however, that no survey data is available for 2020 due to the COVID pandemic, which is a source of uncertainty in this area-swept assessment that relies on survey data.

Southern New England/Mid-Atlantic

The 2022 assessment indicates the SNE/MA stock of winter flounder is not overfished and not experiencing overfishing relative to the updated biological reference points defined in the assessment. This is a change in stock status compared to previous assessments is due to a change in the years of recruitment estimates used

to estimate biological reference points. Instead of drawing upon the entire time series of recruitment estimates, the projections now only use recruitment estimates from the past 20 years (2002-2021). The winter flounder stock is most likely not capable of achieving the high levels of recruitment prior to 2000; therefore, using a truncated recruitment time series of only the past 20 years better reflects the current state of the stock.

Figure 3. Winter Flounder Southern New England/Mid-Atlantic Spawning Stock Biomass (SSB)
Source: Northeast Fisheries Science Center, 2022



SSB in 2021 is estimated at 7.4 million pounds, slightly above the SSB target of 7.3 million pounds (Figure 3). Total fishing mortality is estimated at 0.061, which is 23% of the overfishing threshold of 0.265 (Figure 4). Natural mortality, defined as the removal of fish from the stock due to causes not associated with fishing, is a source of uncertainty in the stock assessment. Natural mortality may be contributing to declining abundance.

Despite a change in stock status, the perception of the stock has not changed; trends in survey indices and model estimates all continue to indicate the stock is in poor condition.

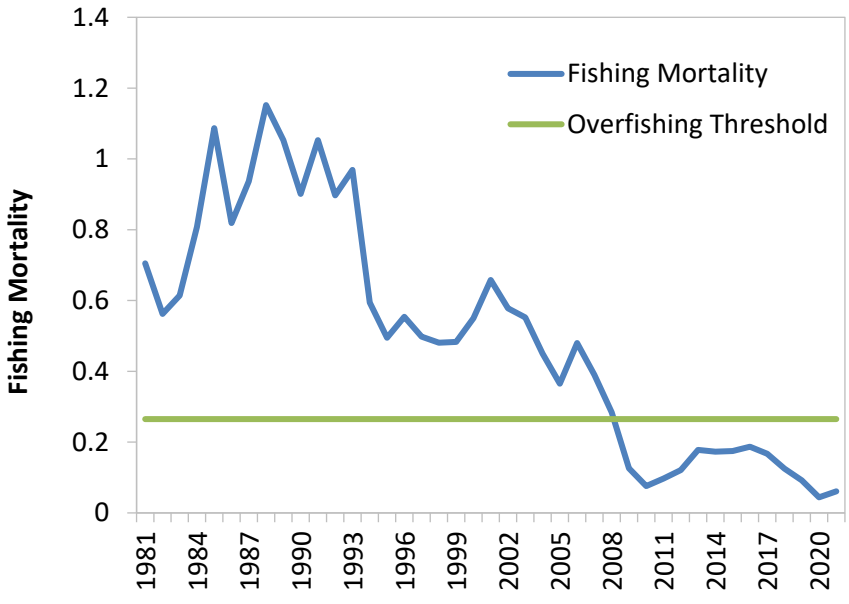
Recruitment

GULF OF MAINE

Estimates of recruitment are not possible under the area-swept assessment method.

SOUTHERN NEW ENGLAND/MID-ATLANTIC

Figure 4. Southern New England/Mid-Atlantic Fishing Mortality
Source: Northeast Fisheries Science Center, 2022



Recruitment, or the number of age-1 fish, for the SNE/MA stock has decreased significantly since peaking in 1981 at around 160 million. Since 1981 recruitment decreased precipitously to a low of 49 million in 1991. Recruitment had a small resurgence in the 1990s, reaching a peak in 1997 at 75 million fish before dropping to around 10 million recruits per year in 2011. Recruitment in 2021 was estimated at 4.4 million fish, a time series low (Figure 3). Preliminary analysis has revealed that winter estuarine water temperature influences recruitment. This may indicate that warming winter

temperatures are related to a reduction in the number of age-0 and age-1 fish. However, the exact environmental drivers of this declining trend in recruitment have not been definitively identified yet.

Biological Reference Points

GULF OF MAINE

The area-swept assessment does not produce biomass-based biological reference points.

SOUTHERN NEW ENGLAND/MID-ATLANTIC

The reference points used for management include a fishing mortality threshold of 0.265, SSB target of 7.31 million pounds, and SSB threshold of 3.65 million pounds. The SSB reference points are much lower than the previous assessment, due to limiting the recruitment estimates used in the projections to the past 20 years.

Data and Research Priorities

Gulf of Maine

The stock assessment indicated several areas for improvement. The area-swept assessment could be improved with additional studies on state survey gear efficiency. The current assessment averaged the full time series of catchability estimates, but the area-swept assessment model may more precisely estimate winter flounder biomass within the GOM if year-specific catchability estimates are applied instead. Statistical approaches that overcome the imbalance between night and day tows in a stratum could also be investigated. The assessment also identified the need for more studies quantifying winter flounder abundance and distribution among habitat types, and especially within estuarine environments.

Southern New England/Mid-Atlantic

The SNE/MA winter flounder assessment could be improved with additional studies on maximum age and maturity, particularly with regard to latitudinal patterns. The localized structure or genetics of the stock should be examined. The migration and movement rates of SNE/MA winter flounder need to be updated and investigated, especially as there has been advances in tagging technology and study design since the previous studies were conducted. Environmental influences on recruitment, mortality, and/or survey catchability should be incorporated when evaluating the stock using state-space models. All three winter flounder stocks (SNE/MA, GOM, and Georges Bank) should be assessed at the same time. Alternative model structures that may be robust to patterns of biases evident in age composition fits in commercial catch data and survey time series should be evaluated.

Next Steps

The Winter Flounder Management Board will meet at the Commission's Winter Meeting to set specifications for 2024-2025. The next management track assessment is scheduled for 2024, which will be used to set 2025-2027 specifications.

Glossary

Age structure: the separation of a fish population into distinct age groups

Age-Structured Assessment Program (ASAP): an age-structured stock assessment model that works forward in time to estimate population size and fishing mortality in each year

Area-swept method or approach: The mean catch (either in weight or in numbers) per unit of effort or per unit of area is an index of the stock abundance. This index is converted into an absolute measure of biomass.

Benthic: at or near the bottom of a body of water including the lowest level of water and bottom substrate

Demersal eggs: negatively or neutrally buoyant eggs

Fishing mortality rate: the instantaneous rate at which fish are killed by fishing

Recruitment: a measure of the weight or number of fish that enter a defined portion of the stock, such as the spawning stock or fishable stock. For this stock assessment, recruitment refers to the number of age-1 fish entering the population

Spawning stock biomass (SSB): the total weight of the mature females within a stock of fish; frequently used instead of total biomass as a better measure of the ability of a stock to replenish itself

Young-of the-year (YOY): an individual fish in its first year of life; for most species, YOY are juveniles, age-0 fish

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draft working paper for peer review only

Gulf of Maine winter flounder

2022 Management Track Assessment Report

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northeast Fisheries Science Center
Woods Hole, Massachusetts

Compiled September 2022

This assessment of the Gulf of Maine winter flounder (Pseudopleuronectes americanus) stock is a management track assessment of the existing 2020 area-swept management track assessment (NEFSC 2022). Based on the previous assessment the biomass status is unknown but overfishing was not occurring. This assessment updates commercial and recreational fishery catch data, research survey indices of abundance, and the area-swept estimates of 30+ cm biomass based on the fall NEFSC, MDMF, and MENH surveys.

State of Stock: Based on this updated assessment, the Gulf of Maine winter flounder (*Pseudopleuronectes americanus*) stock biomass status is unknown and overfishing is not occurring (Figures 1-2). Retrospective adjustments were not made to the model results. Biomass (30+ cm mt) in 2021 was estimated to be 5,093 mt (Figure 1). The 2021 30+ cm exploitation rate was estimated to be 0.033 which is 14% of the overfishing exploitation threshold proxy (E_{MSY} *proxy* = 0.23; Figure 2).

Table 1: Catch and status table for Gulf of Maine winter flounder. All weights are in (mt) and E_{Full} is the exploitation rate on 30+ cm fish. Biomass is estimated from survey area-swept for non-overlaping strata from three different fall surveys (MENH, MDMF, NEFSC) using an updated q estimate of 0.81 based on the wing spread from the sweep study (Miller et al., 2020).

	2016	2017	2018	2019	2020	2021
			Data			
Recreational discards	11	5	2	2	1	1
Recreational landings	41	161	80	42	51	43
Commercial discards	3	3	3	4	2	6
Commercial landings	185	210	158	102	81	118
Catch for Assessment	240	378	243	150	134	168
			Model Results			
30+ cm Biomass	3,037	3,039	2,610	2,620	NA	5,093
E_{Full}	0.079	0.124	0.093	0.057		0.033

Table 2: Comparison of reference points estimated in an earlier assessment and from the current assessment update. An $E_{40\%}$ exploitation rate proxy was used for the overfishing threshold and was based on a length based yield per recruit model from the 2011 SARC 52 benchmark assessment.

	2020	2022
E_{MSY} *proxy*	0.23	0.23
B_{MSY}	Unknown	Unknown
MSY (mt)	Unknown	Unknown
Overfishing	No	No
Overfished	Unknown	Unknown

Projections: Projections are not possible with area-swept based assessments. Catch advice was based on 75% of $E_{40\%}$(75% E_{MSY} *proxy*) using the terminal year fall area-swept estimate assuming q=0.81 on the wing spread which was updated using the average efficiency from 2009-2021 from the sweep experiment (Miller et al., 2020). Updated 2021 fall 30+ cm area-swept biomass (5,093 mt) implies an OFL of 1,171 mt based on the E_{MSY} *proxy* and a catch of 879 mt for 75% of the E_{MSY} *proxy*. Catch advice (OFLs and ABCs) from the 2020 managment track assessment was based on the average of the last two years of the fall surveys to make better use of the available new information and to help stabilize the catch advice. Alternatively, since the 2020 surveys are not available due to covid, using the average of updated 2021 and 2022 spring and 2021 fall 30+ cm area-swept biomass (4,660 mt) implies an OFL of 1,072 mt based on the E_{MSY} *proxy* and a catch of 804 mt for 75% of the E_{MSY} *proxy*.

Special Comments:

- What are the most important sources of uncertainty in this stock assessment? Explain, and describe qualitatively how they affect the assessment results (such as estimates of biomass, F, recruitment, and population projections).

  The largest source of uncertainty with the direct estimates of stock biomass from survey area-swept estimates originates from the survey gear catchability (q). Biomass and exploitation rate estimates are sensitive to the survey q assumption. However this 2022 update does incorporate the use of a re-estimated q through an average estimate of efficiency from 2009-2021 fall and 2009-2022 spring (q=0.81 fall and q=0.70 spring) from the sweep study for the NEFSC survey. This updated q assumption (0.81) results in a lower estimate of 30+ biomass (5,093 mt) relative to the 2020 estimate q=0.71 assumption (5,783 mt) from the updated fall surveys. Another major source of uncertainty with this method is that biomass based reference points cannot be determined and overfished status is unknown.

- Does this assessment model have a retrospective pattern? If so, is the pattern minor, or major? (A major retrospective pattern occurs when the adjusted SSB or F_{Full} lies outside of the approximate joint confidence region for SSB and F_{Full}

  The model used to determine status of this stock does not allow estimation of a retrospective pattern. An analytical stock assessment model does not exist for Gulf of Maine winter flounder. An analytical model was no longer used for stock status determination at SARC 52 (2011) due to concerns with a strong retrospective pattern. Models have difficulty with the apparent lack of a relationship between a large decrease in the catch with little change in the indices and age and/or size structure over time.

- Based on this stock assessment, are population projections well determined or uncertain? If this stock is in a rebuilding plan, how do the projections compare to the rebuilding schedule?

  Population projections for Gulf of Maine winter flounder do not exist for area-swept assessments and stock biomass status is unknown. This stock was never declared as overfished. Catch advice from area-swept estimates tend to vary with interannual variability in the surveys. Consideration was given to using multiple surveys (fall 2021 and spring 2021-2022) to stabilze the biomass estimates and catch advice since 2020 surveys are not available due to covid.

- Describe any changes that were made to the current stock assessment, beyond incorporating additional years of data and the effect these changes had on the assessment and stock status.

  The assumption on q changed from 0.71 to 0.81 for the fall and from 0.62 to 0.70 for the spring using information from the updated average qs from the NEFSC survey (Miller et al., 2020) and incorporation of new survey data were made to this Gulf of Maine winter flounder management track assessment. The 2020 and 2021 commercial catch estimates are based on CAMS in this assessment. However, changes in total removals will not directly affect the estimated biomass or catch advice and total removals still remain far below the overfishing definition. In addition there were some minor changes to the survey indices due to tow based area-swept adjustments.

- If the stock status has changed a lot since the previous assessment, explain why this occurred.

  The overfishing status of Gulf of Maine winter flounder has not changed.

- Provide qualitative statements describing the condition of the stock that relate to stock status.

  The Gulf of Maine winter flounder has relatively flat survey indices with little change in the size structure over time. There have been large declines in the commercial and recreational removals since the 1980s. This large decline over the time series does not appear to have resulted in a response in the stock's size structure within the catch and surveys nor has it resulted in a change in the survey indices of abundance. However, there have been increases in the fall 2021 and the spring 2021 and 2022 area swept biomass estimates. If increasing biomass trends continue then perhaps this is the beginning of a response to time series lows in exploitation rates.

- Indicate what data or studies are currently lacking and which would be needed most to improve this stock assessment in the future.

  Direct area-swept assessments could be improved with additional studies on state survey gear efficiency. Quantifying the degree of herding between the doors and escapement under the footrope and/or above the

headrope for state surveys is needed to improve the area-swept biomass estimates. Studies quantifying winter flounder abundance and distribution among habitat types and within estuaries could improve the biomass estimate.

- Are there other important issues?

  The general lack of a response in survey indices and age/size structure are the primary sources of concern with catches remaining far below the overfishing level. Recent increases in the biomass could perhaps be the being of a response to removals being at record lows over the last three years (2019-2021). If recent increases in biomass is a response to the low catches then continuation of keeping catchs near recent levels should result in further increases in biomass.

References:

Northeast Fisheries Science Center. 2022. Fall Management Track Assessments 2020., US Dept Commer, Northeast Fish Sci Cent Ref Doc. 22-08; 168 p.Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026. https://doi.org/10.25923/8n72-q136

Northeast Fisheries Science Center. 2011. 52^{nd} Northeast Regional Stock Assessment Workshop (52^{nd} SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-17;
962 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026. CRD11-17

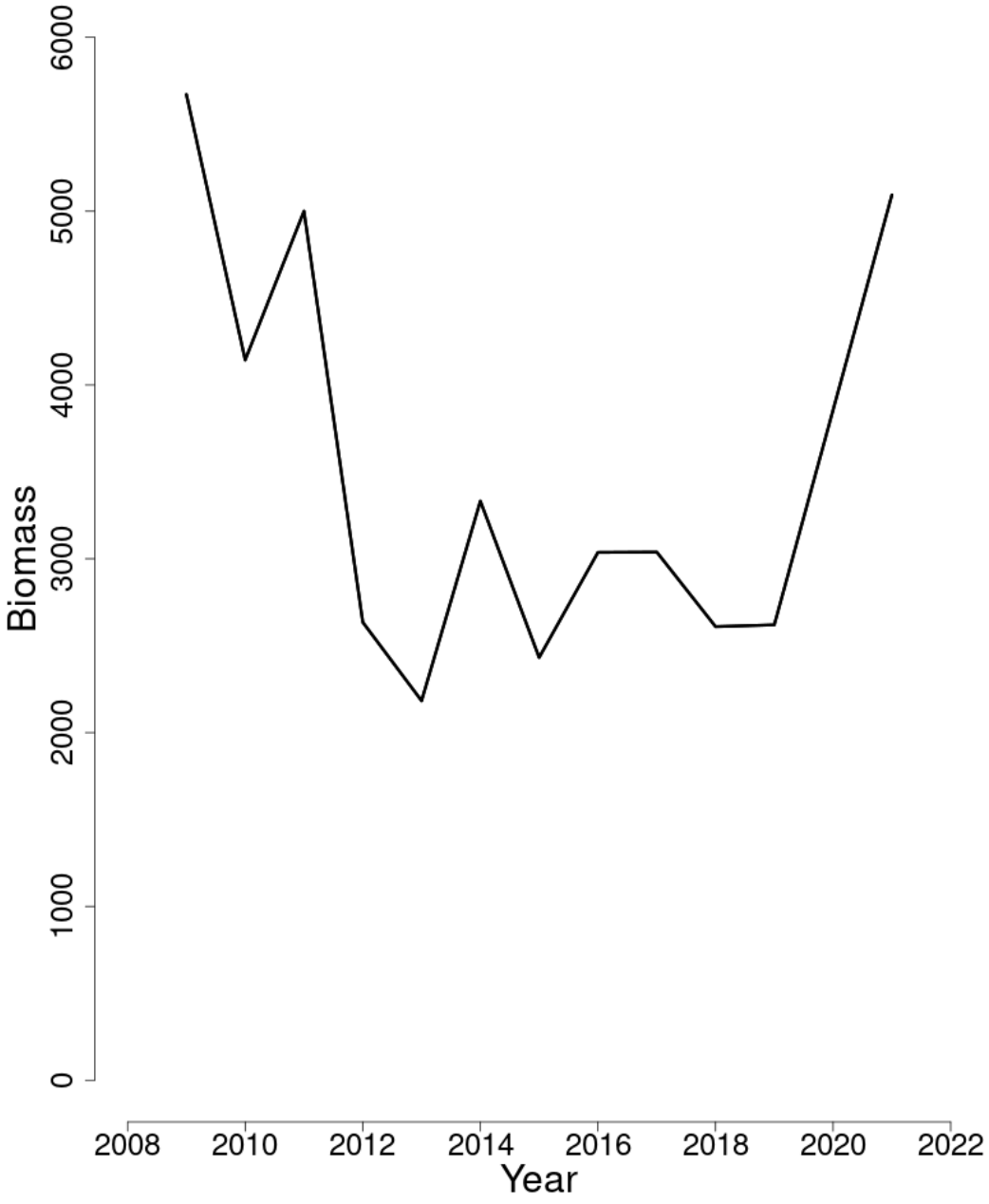

Figure 1: Trends in 30+ cm area-swept biomass of Gulf of Maine winter flounder between 2009 and 2021 from the current assessment based on the fall (MENH, MDMF, NEFSC) surveys.

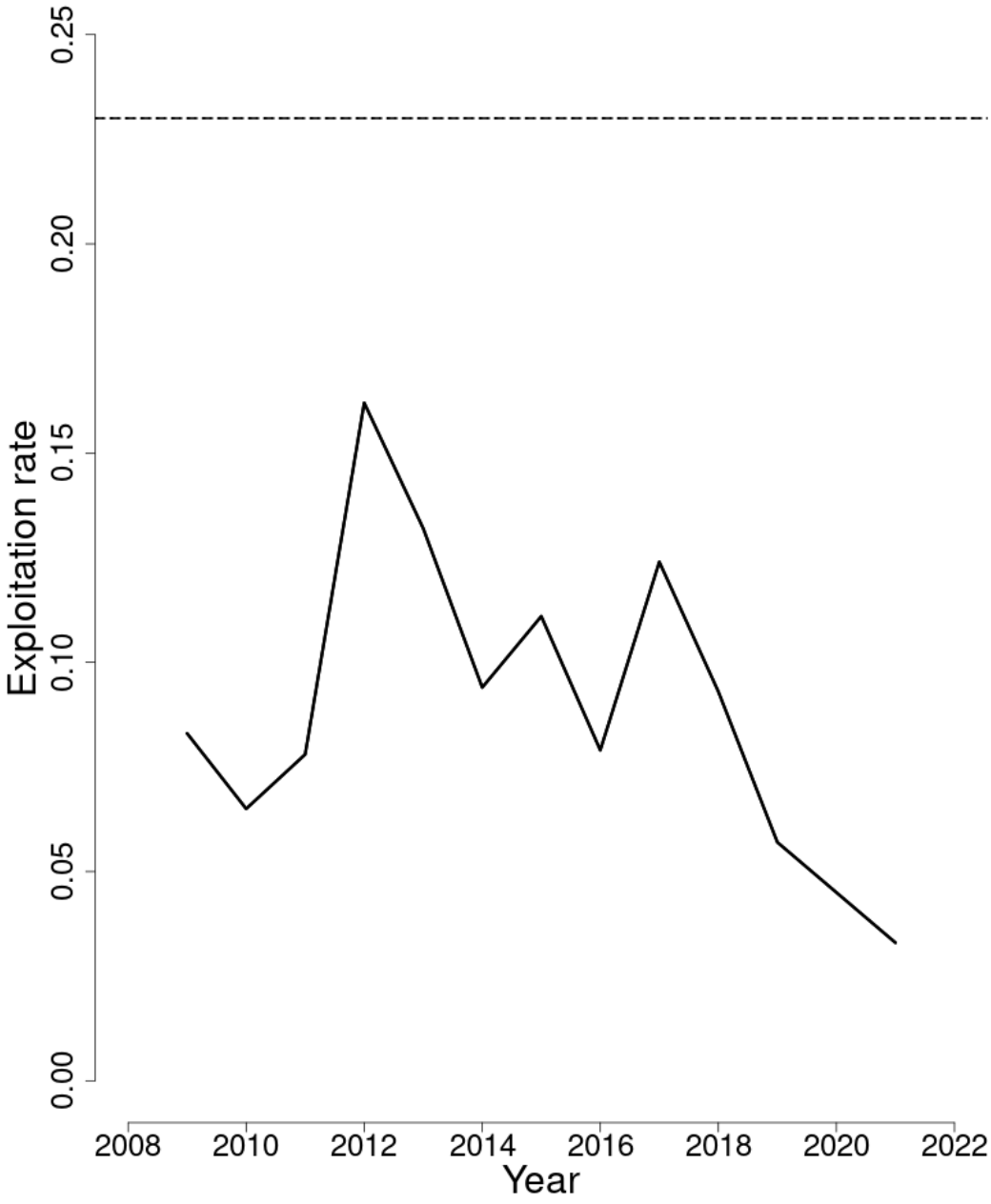

Figure 2: Trends in the exploitation rates (E_{Full}) of Gulf of Maine winter flounder between 2009 and 2021 from the current assessment based on the fall (MENH, MDMF, NEFSC) surveys and the corresponding $F_{Threshold}$ (E_{MSY} *proxy*=0.23; horizontal dashed line).

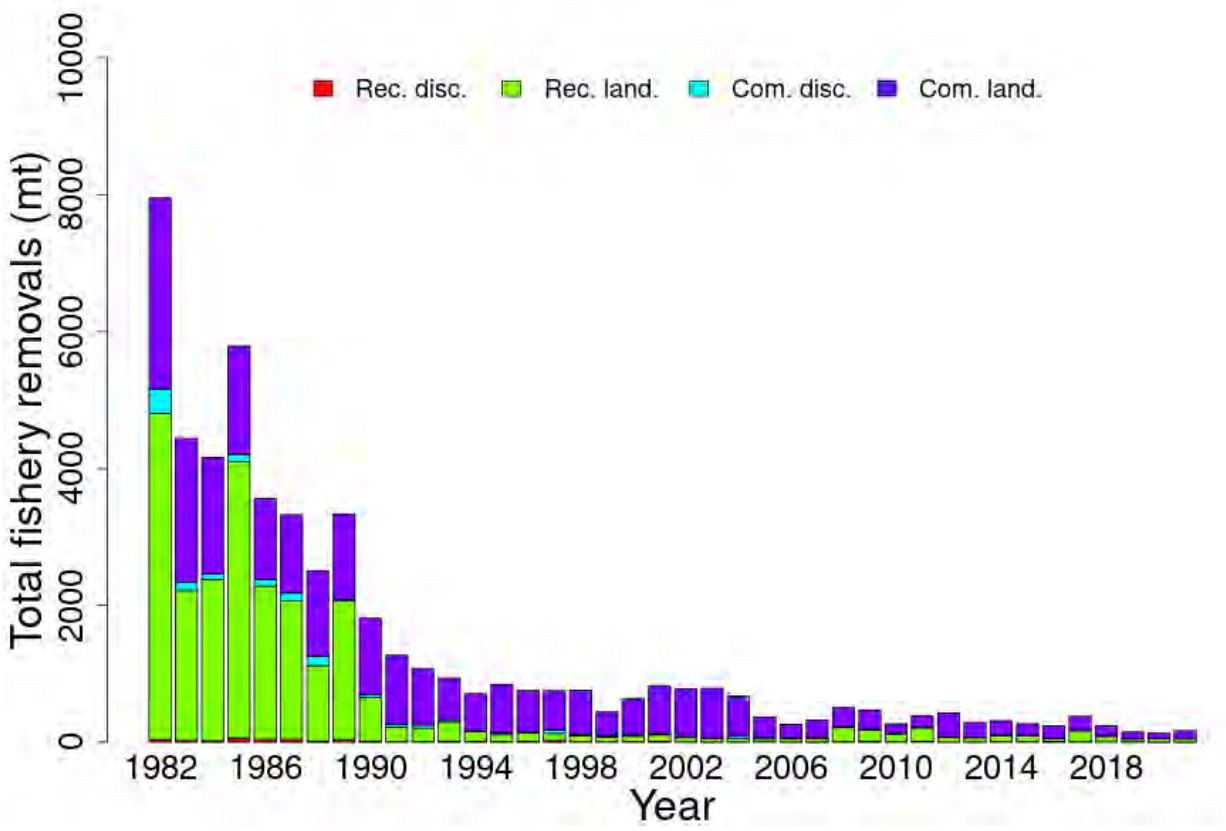

Figure 3: Total catch of Gulf of Maine winter flounder between 2009 and 2021 by fleet (commercial and recreational) and disposition (landings and discards). A 15% mortality rate is assumed on recreational discards and a 50% mortality rate on commercial discards.

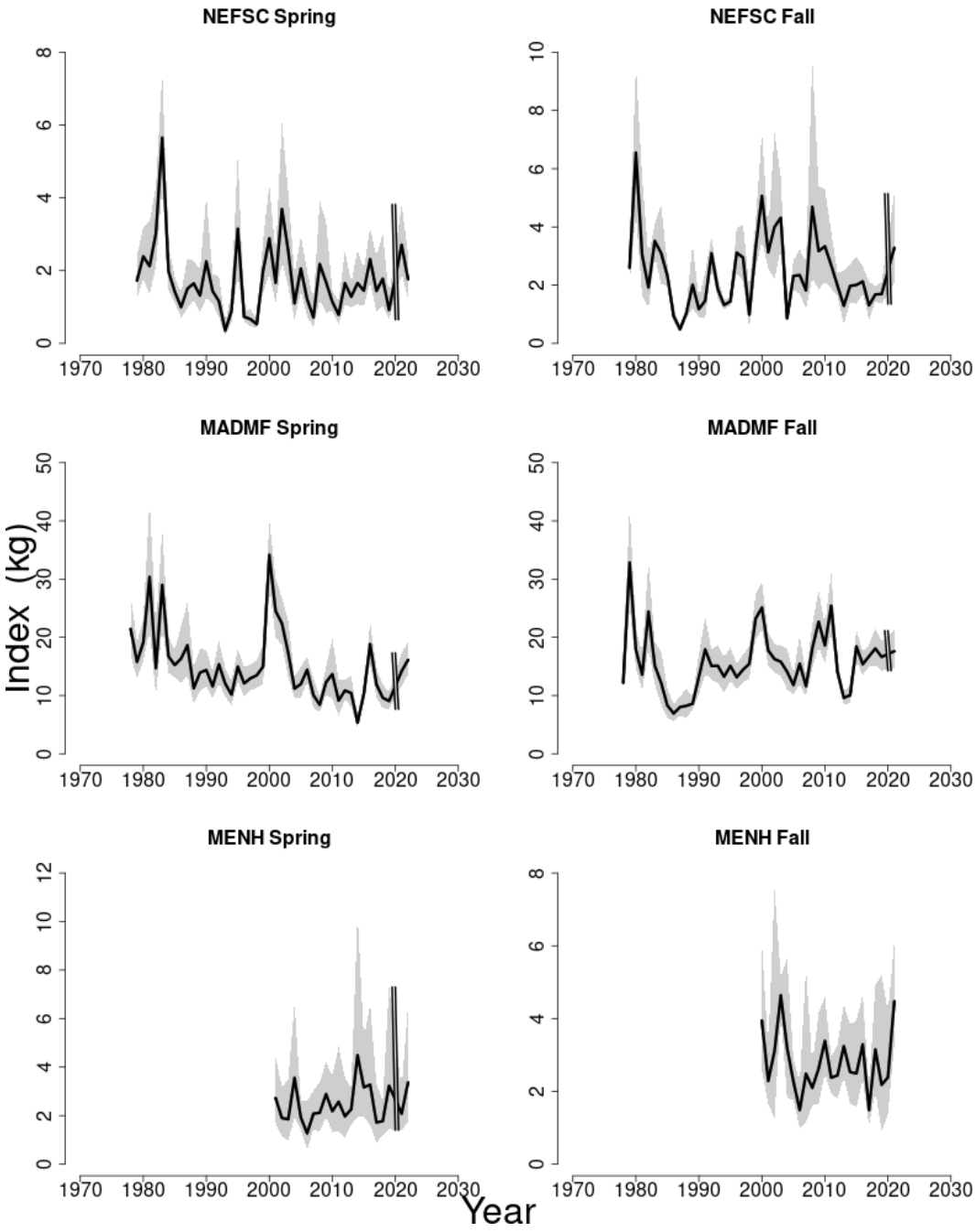

Figure 4: Indices of biomass for the Gulf of Maine winter flounder between 1978 and 2022 for the Northeast Fisheries Science Center (NEFSC), Massachusetts Division of Marine Fisheries (MDMF), and the Maine New Hampshire (MENH) spring and fall bottom trawl (strata 1-3) surveys. NEFSC indices are calculated with gear and vessel conversion factors where appropriate. The approximate 90% lognormal confidence intervals are shown.

draft working paper for peer review only

Southern New England Mid-Atlantic winter flounder

2022 Management Track Assessment Report

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northeast Fisheries Science Center
Woods Hole, Massachusetts

Compiled June 2022

This assessment of the Southern New England Mid-Atlantic winter flounder (Pseudopleuronectes americanus) stock is an operational assessment of the existing benchmark assessment (NEFSC 2011), and follows operational updates in 2015, 2017, and 2020. In each assessment since the benchmark the stock was overfished, but overfishing was not occurring (NEFSC 2015, 2017, 2022). The current assessment updates commercial fishery catch data, recreational fishery catch data (using new MRIP calibrated data), research survey indices of abundance, and the analytical ASAP assessment models and reference points through 2021. Additionally, stock projections have been updated through 2025.

State of Stock: Based on this updated assessment, the Southern New England Mid-Atlantic winter flounder (*Pseudopleuronectes americanus*) stock is not overfished and overfishing is not occurring (Figures 1-2). Retrospective adjustments were not made to the model results. Spawning stock biomass (SSB) in 2021 was estimated to be 3,353.2 (mt) which is 101% of the biomass target (3,314 mt), and 202% of the biomass threshold for an overfished stock ($SSB_{Threshold}$ = 1657 (mt); Figure 1). The 2021 fully selected fishing mortality was estimated to be 0.061 which is 23% of the overfishing threshold (F_{MSY} = 0.265; Figure 2).

Table 1: Catch and status table for Southern New England Mid-Atlantic winter flounder. All weights are in (mt), recruitment is in (000s), and F_{Full} is the fishing mortality on fully selected ages (ages 4 and 5). Model results are from the current updated ASAP assessment.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
					Data					
Recreational discards	11	8	4	13	3	2	4	2	3	1
Recreational landings	126	15	99	39	61	10	10	0	9	5
Commercial discards	482	206	64	82	125	101	108	127	47	122
Commercial landings	132	857	659	654	519	515	337	212	120	87
Catch for Assessment	750	1,085	826	787	708	629	460	342	180	216
					Model Results					
Spawning Stock Biomass	6,186.4	6,631.6	5,173.6	4,528.1	3,819.4	3,573.6	3,569.7	3,271.2	3,522.3	3,353.2
F_{Full}	0.121	0.178	0.173	0.175	0.187	0.167	0.125	0.092	0.044	0.061
Recruits	4,226.8	2,379.5	4,032.7	4,861.5	4,641	3,186.6	4,622.6	3,001.3	3,263.7	4,364.5

Table 2: Comparison of reference points estimated in the 2020 operational assessment and from the current assessment update. F40% was used as a proxy for F_{MSY} and an SSB_{MSY} proxy was calculated from a long-term stochastic projection drawing from the last 20 years of empirical recruitment. Recruitment estimates are median values of the time-series. 90% CI are shown in parentheses.

	2020	2022
F_{MSY} *proxy*	0.284	0.265
SSB_{MSY} (mt)	12,322	3,314 (2,432 - 4,687)
MSY (mt)	3,906	1,025 (755 - 1,441)
Median recruits (000s)	16,649	15,742
Overfishing	No	No
Overfished	Yes	No

Projections: Short term projections of biomass were derived by sampling from a cumulative distribution function of the last 20 years of recruitment estimates. The annual fishery selectivity, maturity ogive, and mean weights at age used in the projection are the most recent 5 year averages; The model exhibited a minor retrospective pattern in F and SSB so retrospective adjustments were not applied in the projections.

Table 3: Short term projections of total fishery catch and spawning stock biomass for Southern New England Mid-Atlantic winter flounder based on a harvest scenario of fishing at F_{MSY} *proxy* between 2023 and 2025. Catch in 2022 was assumed to be 441 (mt), which is the 2022 ACL for the stock. 90% CI are shown next to SSB estimates.

Year	Catch (mt)	SSB (mt)	F_{Full}
2022	441	3,472 (2,859 - 4,222)	0.114

Year	Catch (mt)	SSB (mt)	F_{Full}
2023	1,142	3,447 (2,845 - 4,156)	0.265
2024	1,276	3,894 (3,367 - 4,491)	0.265
2025	1,256	4,186 (3,666 - 5,011)	0.265

Special Comments:

- What are the most important sources of uncertainty in this stock assessment? Explain, and describe qualitatively how they affect the assessment results (such as estimates of biomass, F, recruitment, and population projections).

  A source of uncertainty is the estimate of natural mortality based on longevity, which is not well studied in Southern New England Mid-Atlantic winter flounder, and assumed constant over time. Natural mortality affects the scale of the biomass and fishing mortality estimates. Natural mortality was adjusted upwards from 0.2 to 0.3 during the last benchmark assessment (2011), assuming a max age of 16. However, there is still uncertainty in the true max age of the population and the resulting natural mortality estimate.

  Other sources of uncertainty include the length distribution of the recreational discards. The recreational discards are a small component of the total catch, but the assessment suffers from very little length information used to characterize the recreational discards (1 to 2 lengths in recent years). For this assessment a compiled discard length distribution over all years was used to characterize the recreational discards. In addtion, the poor sampling of recreational fishery information could be an issue for this assessment moving forward.

  The population projections are sensitive to the recruitment model chosen, as well as the temporal period selected from which recruitment estimates are drawn. In addition, recruitment and natural mortality are likely both dependant on environmental conditions, which can not be explored within the framework of ASAP

- Does this assessment model have a retrospective pattern? If so, is the pattern minor, or major? (A major retrospective pattern occurs when the adjusted SSB or F_{Full} lies outside of the approximate joint confidence region for SSB and F_{Full}

  The retrospective patterns for both Ffull and SSB are minor and a retrospective adjustment in 2021 was not required.

- Based on this stock assessment, are population projections well determined or uncertain? If this stock is in a rebuilding plan, how do the projections compare to the rebuilding schedule?

  Population projections for Southern New England Mid-Atlantic winter flounder are reasonably well determined. However, the results are sensitive to both the recruitment model and the time-period of recruitment used. In addition, while the retrospective pattern is considered minor (within the 90% CI of both F and SSB), the rho adjusted terminal value of F and SSB are close to falling outside of the confidence bounds, which would indicate a major retrospective pattern. This would lead to retrospective adjustments being needed for the projections.

  The stock is in a rebuilding plan with a rebuild date of 2023. The projections for this assessment update used a truncated stanza for recruitment, incorporating values from 2002-2021 (last 20 years). Previous assessments have used the entire time-series of recruitment, with historical recruitments that are well beyond

the current productivity of the stock. The truncated recruitment stanza led to a much reduced biomass target and as a result the overfished status of the stock has changed. The current status is that the stock is not overfished, overfishing is not occurring, and the stock has rebuilt by the 2023 deadline.

- Describe any changes that were made to the current stock assessment, beyond incorporating additional years of data and the effect these changes had on the assessment and stock status.

  There has been a change in the commercial data processing for the NEFSC over the past few years. The NEFSC has switched to the Catch Accounting and Monitoring System (CAMS) from the AA table procedure. CAMS estimates of landings were available for 2020 and 2021. CAMS will be used going forward for commercial catch information and historical catch from 1981-2019 will remain based upon the AA table estimates.

  A minor change was made to the assessment model data for this update. The NEFSC fall survey index was previously input as an age 2-7+ index. This input format was carried over from when the model was a VPA. The index was un-bumped to an age 1-7+ index, which did not have any noticeable impacts on model performance or estimates.

  There was a change to the stanza of recruitment that is used in the projections for this update (which led to the level 3 review requirement). This new recruitment stanza uses the last 20 years of estimates (2002-2021) for both short term projections, and to estimate the biomass target (SSBMSY) from a long term (100yr) projection. Previous assessments have used the entire time-series of recruitment (1981-present). Many of the historical recruitment estimates are overly optimistic, if not impossible, for the current stock size and productivity to achieve. Very early recruitment estimates are 20 times the levels seen in recent years. At the 2020 management track review the main recommendation from the review panel was:

  The Peer Review Panel notes, as had been done in previous reviews, that recruitment had been de- clining throughout the period and was currently very low. As for several other stocks under the purview of the NEFSC it would be helpful to evaluate if the previously observed high recruitment are possible; i.e., is it simply a matter of building back SSB and recruits will follow, or are there other factors at play. If the productivity of the resource(s) has decreased, it would be helpful to adjust reference points accordingly. This would be unlikely to change fisheries yield much but would be more realistic in terms of setting expectations.

  Extensive work has been carried out to evaluate the effects of climate change on recruitment for southern New England winter flounder. Two assessment models that include environmental covariates have been developed: an environmental ASAP model (Bell et al 2018) and the transition of this environmental model into the state space Woods Hole Assessment Model (WHAM). In order to move to one of these alternative models for management, SNEMA winter flounder would have to go through a research track assessment. To help bridge the gap from now until the next research track (2026) more realistic reference points were estimated in this assesment. The environmental index (time-series of mean winter estuary temperatures) applied in the alternative assessment models was used as support in this assessment for choosing a more representative time period of recruitment for the projections.

- If the stock status has changed a lot since the previous assessment, explain why this occurred.

  The stock status of Southern New England Mid-Atlantic winter flounder has changed since the previous operational updates and from the status determined at the last benchmark assessment in 2011. The overfished status of the stock has changed to not overfished, and the stock is now considered rebuilt by the 2023 deadline. The reason for this change in status determination is directly due to changing the recruitment stanza going into the projections. Previous assessments used the full time-series of recruitment, however, for this assessment a more recent range of recruitment (the last 20 years) was chosen. This truncated recruitment stanza eliminates the highest estimates of historical recruitment and greatly reduces the median recruitment used by the projections. The lower median recruitment estimates in the long term BRP projection results in a much lower SSB value for the SSBMSY reference point. While the stock status has changed, the perception of the stock has not, and recent model estimates and fishery independent survey indices all reveal a poor stock condition for southern New England winter flounder.

- Provide qualitative statements describing the condition of the stock that relate to stock status.

  The Southern New England Mid-Atlantic winter flounder stock shows an overall declining trend in SSB over the time series, with the current estimate (3,353 MT) at the second lowest in the time series. Estimates of fishing mortality have been declining since 2015 and the current value (0.061) is also the second lowest of the time-series. Recruitment has reamined low and steady over the past decade with a current value of 4.4 million fish, which is above the 10 year average of 3.9 million fish

- Indicate what data or studies are currently lacking and which would be needed most to improve this stock assessment in the future.

  The Southern New England Mid-Atlantic winter flounder assessment could be improved with additional studies on maximum age, as well as improved recreational discard length information. In addition, further investigation into the localized struture/genetics of the stock is warranted. Finally, a future shift to WHAM (during the next research track assessment) will provide the ability to model envirionmental factors that may influence recruitment and mortality, and help develop more informed population projections.

- Are there other important issues?
  None.

References:

Bell, R.J., A.D. Wood, J. Hare, D. Richardson, J. Manderson, and T. Miller.Rebuilding in the face of climate change. CJFAS 75(9) https://doi.org/10.1139/cjfas-2017-0085

Northeast Fisheries Science Center. 2011. 52^{nd} Northeast Regional Stock Assessment Workshop (52^{nd} SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-17; 962 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

Northeast Fisheries Science Center. 2015. Operational Assessment of 20 Northeast Groundfish Stocks, Updated through 2014. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 15-24; 251 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

Northeast Fisheries Science Center. 2017. Operational Assessment of 19 Northeast Groundfish Stocks, Updated through 2016. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 17-17; 264 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

Northeast Fisheries Science Center. 2022. Fall Management Track Assessments 2020US Dept Commer, Northeast Fish Sci Cent Ref Doc. 22-08; 168 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

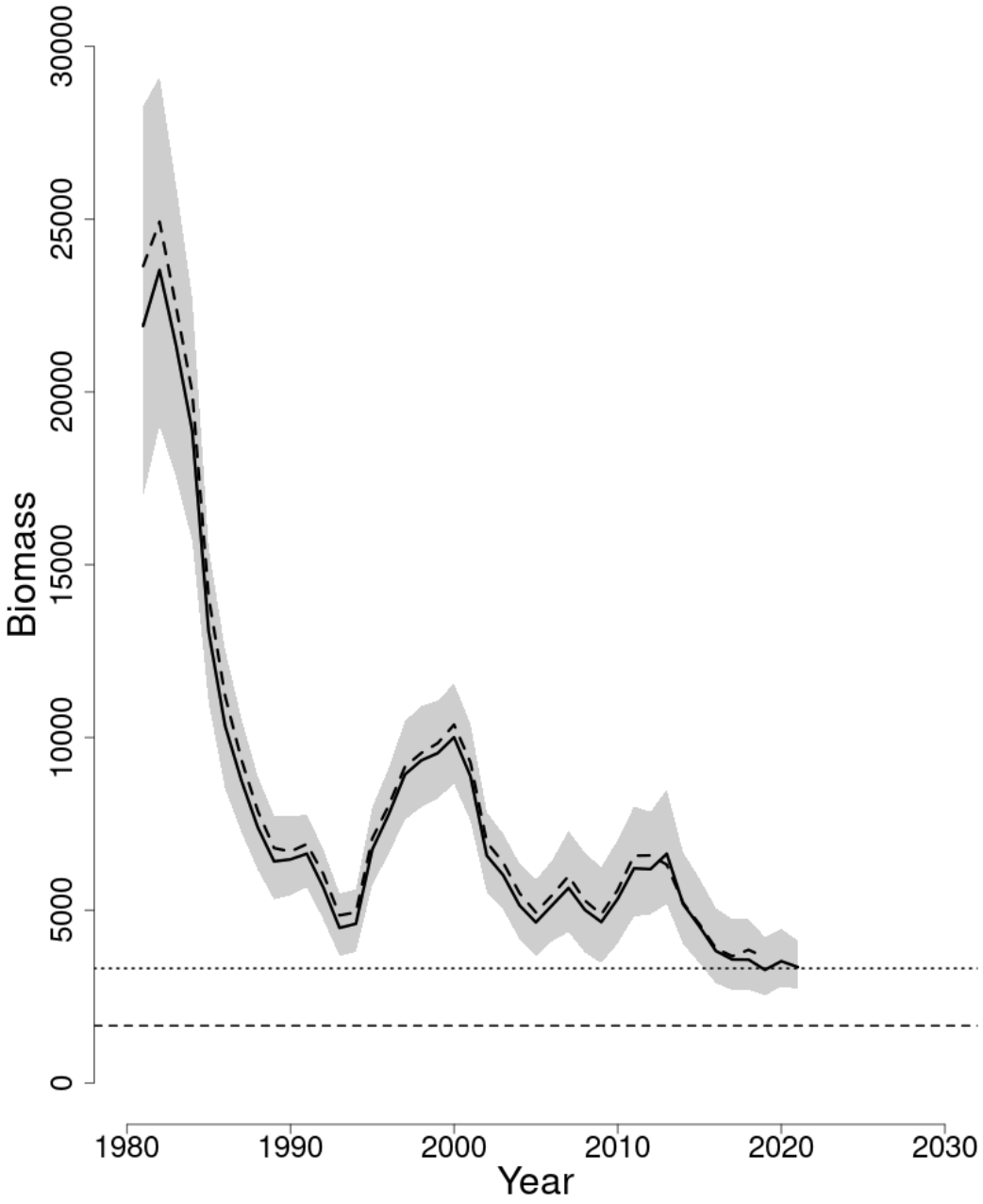

Figure 1: Trends in spawning stock biomass of Southern New England Mid-Atlantic winter flounder between 1981 and 2021 from the current (solid line) and previous (dashed line) assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the 2022 assessment. The approximate 90% lognormal confidence intervals are shown.

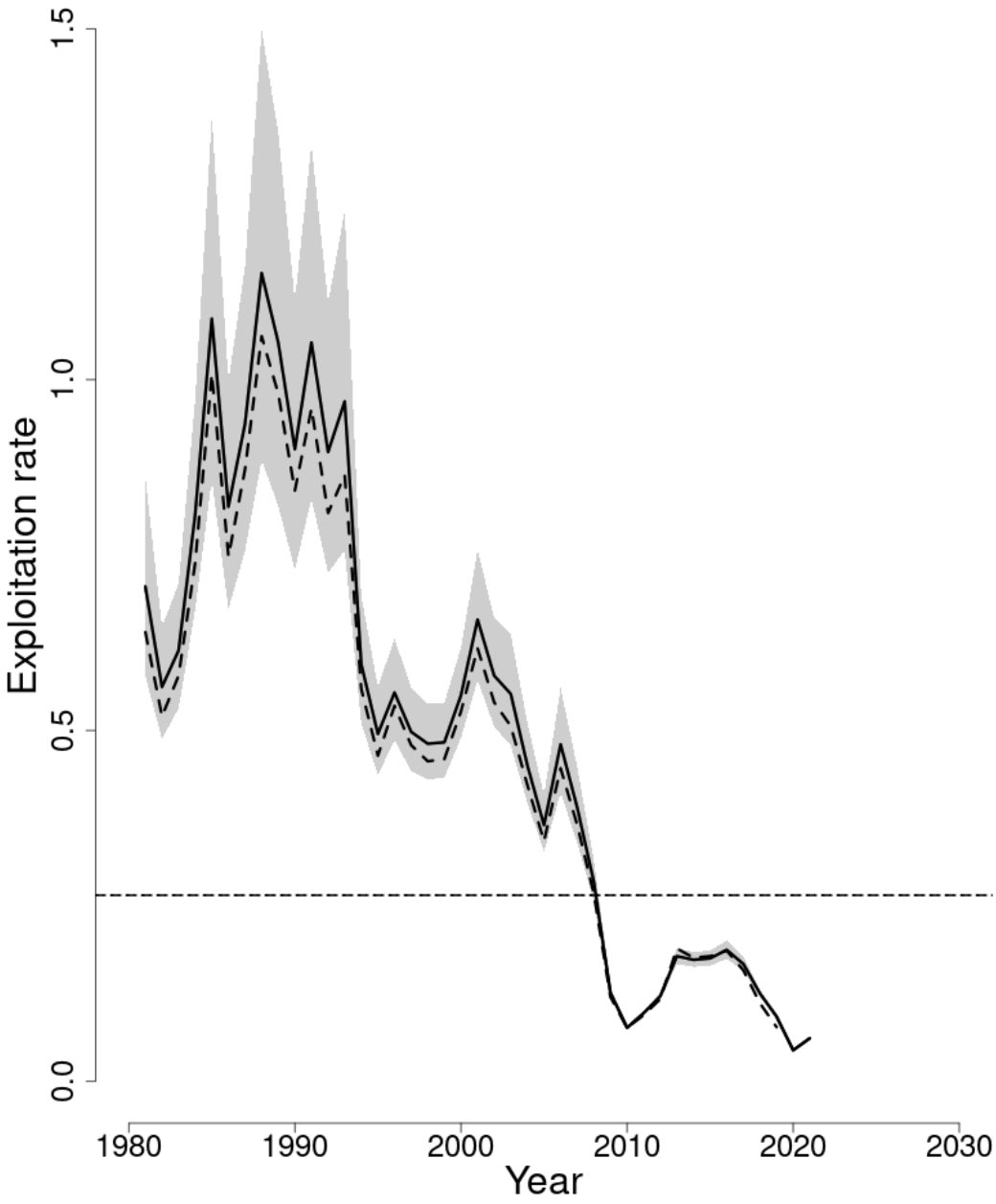

Figure 2: Trends in the fully selected fishing mortality (F_{Full}) of Southern New England Mid-Atlantic winter flounder between 1981 and 2021 from the current (solid line) and previous (dashed line) assessment and the corresponding $F_{Threshold}$ (F_{MSY}=0.265; horizontal dashed line) based on the 2022 assessment. The approximate 90% lognormal confidence intervals are shown.

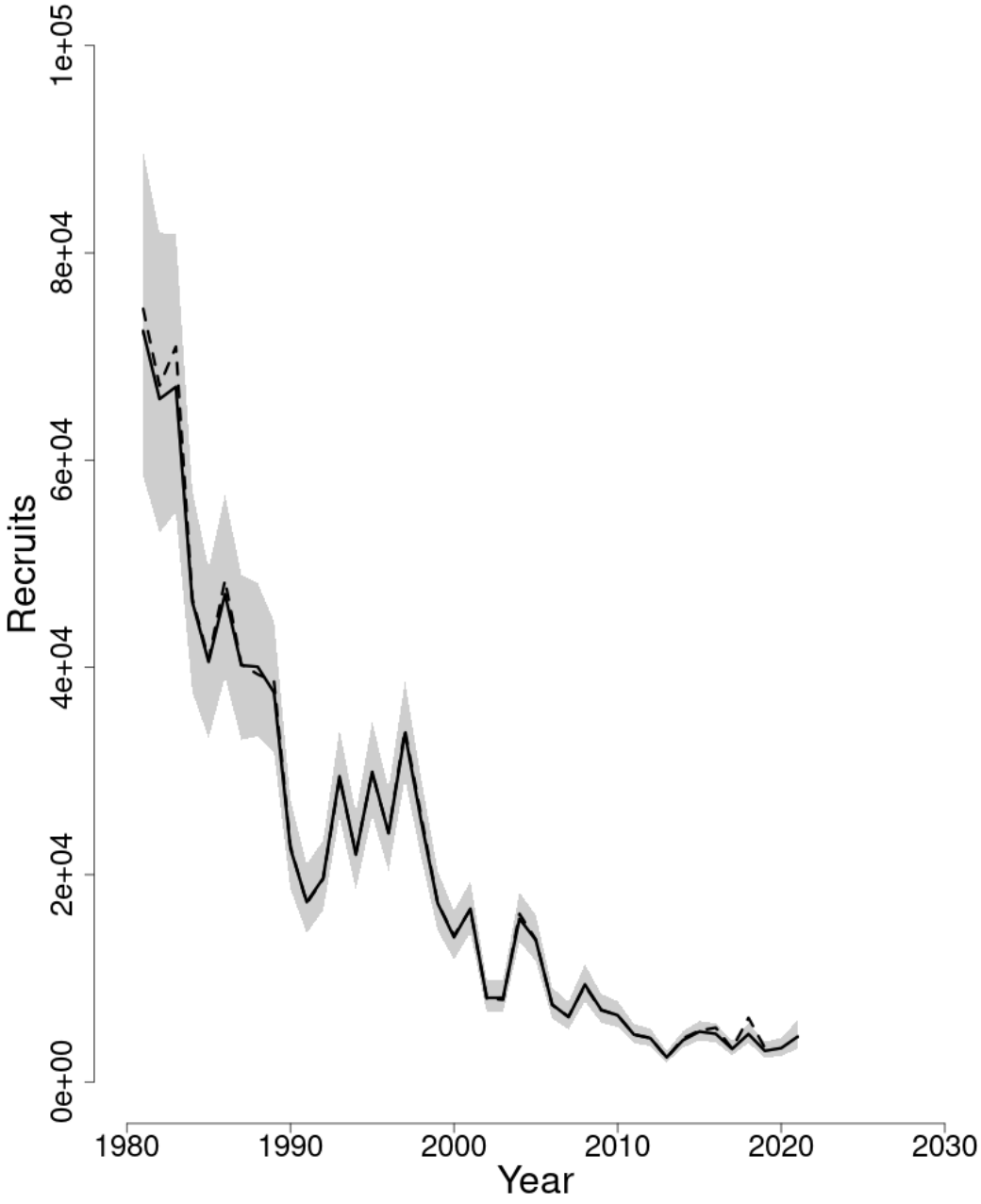

Figure 3: Trends in Recruits (000s) of Southern New England Mid-Atlantic winter flounder between 1981 and 2021 from the current (solid line) and previous (dashed line) assessment. The approximate 90% lognormal confidence intervals are shown.

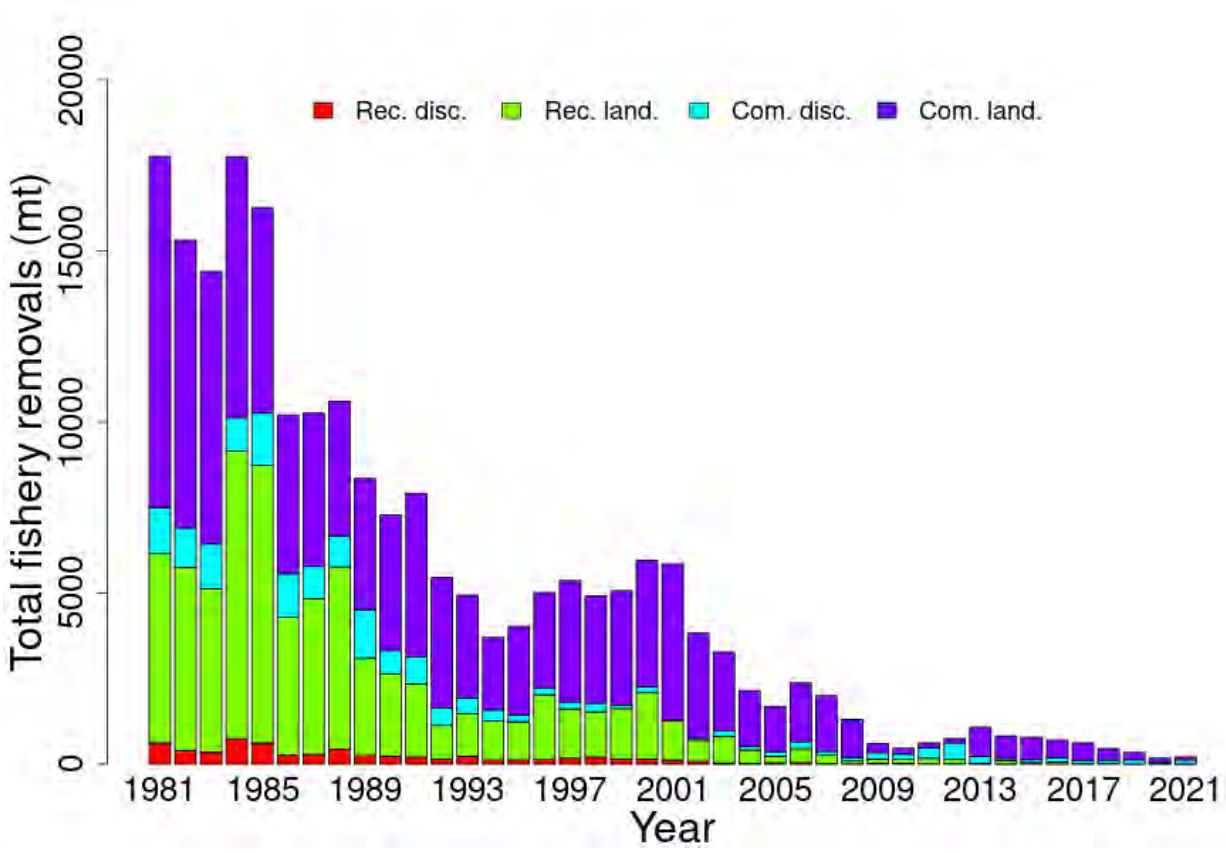

Figure 4: Total catch of Southern New England Mid-Atlantic winter flounder between 1981 and 2021 by fleet (commercial, recreational) and disposition (landings and discards).

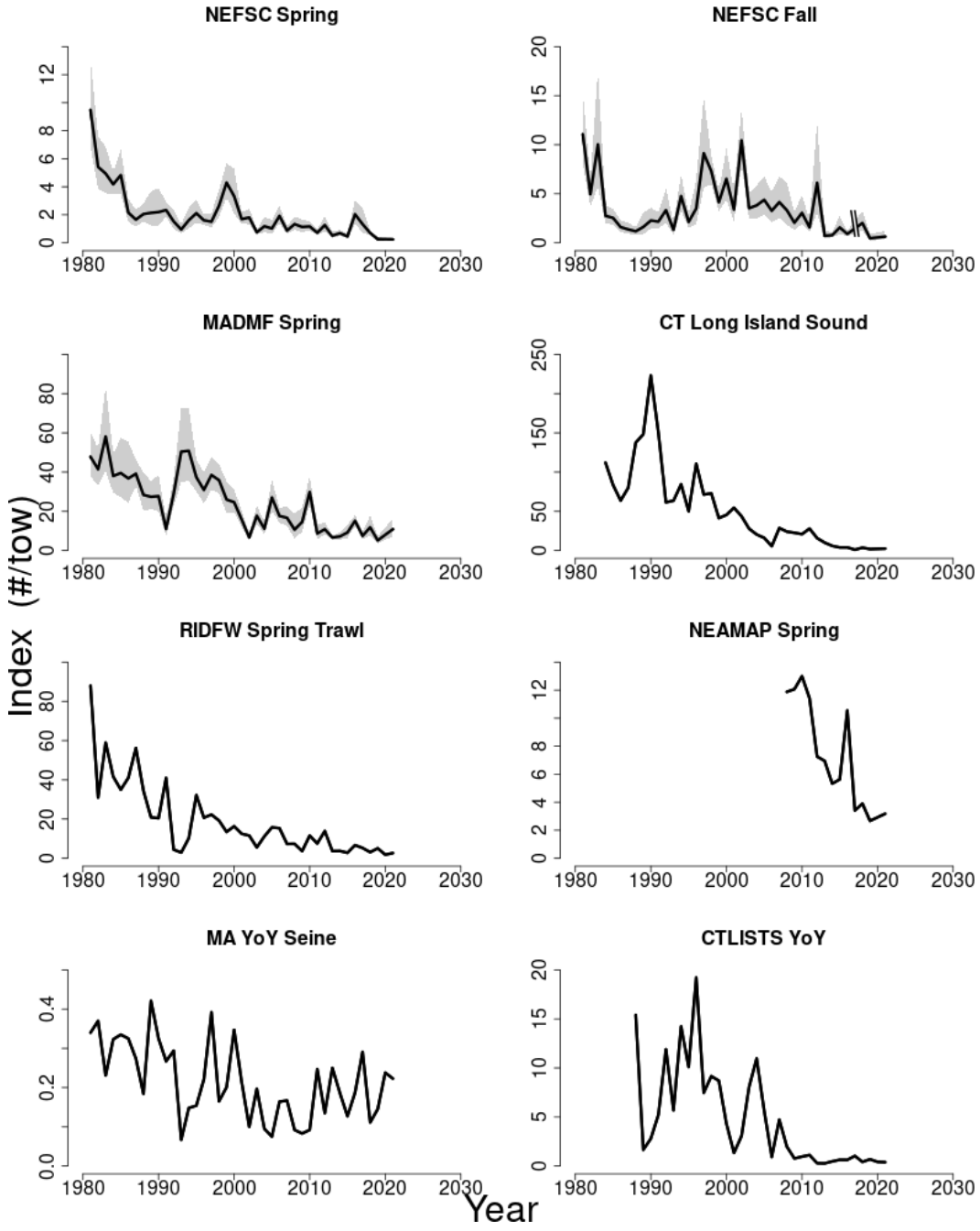

Figure 5: Indices of biomass for the Southern New England Mid-Atlantic winter flounder between 1981 and 2021 for the Northeast Fisheries Science Center (NEFSC) spring and fall bottom trawl surveys, the MADMF spring survey, the CT LISTS survey, the RIDFW Spring Trawl survey, the NJ Ocean Trawl survey, and two YoY surveys from MADMF and CT LISTS. Where available, the approximate 90% lognormal confidence intervals are shown. Slashes through the solid line indicate a hole in the survey time series.

Atlantic States Marine Fisheries Commission

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Winter Flounder Advisory Panel
Call Summary

Webinar
January 12, 2023

Advisory Panel Members in Attendance: Bud Brown (Chair, ME), David Goethel (NH), Charles Witek (NY), Allen Butler (MA)

ASMFC Staff: Tracey Bauer

Others in Attendance: Jared Lamy, Tony Wood, Paul Nunnenkamp, Tara Dolan, Paul Nitschke, Kurt Blanchard, Jay Hermsen

The Winter Flounder Advisory Panel (AP) met via conference call to review the Gulf of Maine (GOM) and Southern New England/Mid-Atlantic (SNE/MA) stock assessments, provide recommendations for 2024-2025 specifications for state waters, and to comment on any other current fishery management issues of concern to them.

General Comments
General concern was expressed by the AP about the low abundance in both the Gulf of Maine and Southern New England/Mid-Atlantic areas. One AP member was also concerned that the current low rates of reproduction cannot overcome the higher rate of natural mortality.

Specifications Recommendations
One advisor recommended a moratorium for the SNE/MA winter flounder stock, as he thought there was little interest by recreational fishermen in this area for a fishery, and an open season in the GOM because he believed more people actively participate in that fishery. Another advisor cautioned that, given the state of the stock, they prefer to convert those discards to landings. This advisor recommended to continue to have a small recreational creel limit and a small commercial trip limit, as they would rather see some landings than dead discards. This advisor also supported allowing some landings because this will ensure scientific data are still be able to be collected on the catch, and that a complete moratorium would mean no data would be able to be collected. A third advisor initially recommended no allowable catch in both SNE/MA and GOM regions, but later agreed with this second advisor that some landings should be allowed to minimize dead discards.

An advisor commented that the Winter Flounder Management Board should not have expanded the winter flounder fishing season in the SNE/MA region in 2014, and that it should instead be limited again.

Two AP members expressed support for all states to adopt a commercial and recreational spawning season closure to allow winter flounder the chance to spawn with no fishing pressure, and recommended that the Board strive for consistency in spawning closure seasons between states. An AP member noted that currently, there is disparity between states with spawning closures in both the

commercial and recreational fisheries; some states do not have closures at all, and for those that do, the timing of the spawning closure can differ between states.

Research Recommendations

The advisory panel also provided comments on research recommendations for consideration at the next research track stock assessment. Two advisors expressed their concern that the current stock boundaries do not reflect what may actually be many more distinct, smaller stocks that we should be managing by; they believed more research into winter flounder genetics was crucial to understanding this issue. An AP member expressed his frustration that the stock assessments do not include many years of high catch and abundance of winter flounder because the start years currently used are at the latest in the 1980's; however, it was explained that the data for these earlier periods, especially for the recreational fishery, are sparse or does not exist.

One advisor expressed concern that discards from observer data are being misrecorded and recommended that discards and discard mortality in state waters should to be investigated further. Winter flounder discards in state waters are currently calculated from only federal observer data and so these data are more uncertain than the federal discard numbers. This advisor recommended that states should not rely on the federal observer program to calculate these discards, but instead should invest in their own systems to calculate discards and discard mortality.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

January 9, 2023

To: **Winter Flounder Management Board**

From: **Tina Berger, Director of Communications**

RE: **Advisory Panel Nomination**

Please find attached a new nomination to the Winter Flounder Advisory Panel – Allan Butler, a recreational angler from Massachusetts. Please review this nomination for action at the next Board meeting.

If you have any questions, please feel free to contact me at (703) 842-0749 or tberger@asmfc.org.

Enc.

cc: Tracey Bauer

Winter Flounder Advisory Panel

1/18/2023

Maine
Chair - Harold Brown (rec) (4/96)
Eco Analysis Inc.
P.O. Box 224
Bath, ME 04530
Phone: 207.837.2442
raptor@gwi.net
Appt. Confirmed 4/24/95
Appt. Reconfirmed 3/11/03
Appt Reconfirmed 3/07
Participation: Active

Gary Libby
PO BOX 91
Port Clyde ME 04855-0091
Phone: 207.542.9557
portclydecowboy@gmail.com
Appt. Confirmed 5/09
Participation: Inactive; Last meeting attended was in 2012

New Hampshire
David Goethel (comm.)
23 Ridgeview Terrace
Hampton, NH 03842
Phone: 603.926.2165
Email: egoethel@comcast.net
Appt. Confirmed 10/27/14
Participation: Active; attended last meeting in 2023

1 Vacancy – recreational

Massachusetts
Allan Butler (rec)
1899 Main Street
Athol, MA 01331
Phone: 508.382.2274
Stripernut1@gmail.com

Vacancy – commercial

Rhode Island
2 Vacancies – commercial and recreational

Connecticut
Vacancy - commercial

Art DeFrancisco (rec)
89 Avon Street
Stratford, CT 06615-6703
Phone: 203.922. 650.1745
Email: adefra3228@yahoo.com
Appt. Confirmed 6/9/03
Appt Reconfirmed 6/07
Reconfirmed 3/2014
Participation: Inactive; attended last meeting in 2014

New York
Charles Witek (rec)
1075 Tooker Avenue
West Babylon, NY 11704
Phone (office): 212.412.6707
Phone (home): 631.587.2211
charleswitek@gmail.com
Appt. Confirmed 8/5/98
Appt. Reconfirmed 5/30/03
Appt. Reconfirmed 5/07
Participation: Active; attended last meeting in 2023

Ken Mades (comm)
14 Carter Road
Hampton Bays, NY 11946
Phone: 516.728.4792
Appt. Confirmed 10/17/94
Appt. Reconfirmed 5/30/03
Appt. Reconfirmed 5/07
Participation: Inactive; Never attended a meeting since appt in 1994

New Jersey
James R. Lovgren (comm)
17 Laurelhurst Drive
Brick, NJ 08724
Phone: 732.899.1872
Jlovgren3@gmail.com
Appt. Confirmed 4/24/95
Appt. Reconfirmed 6/9/03
Appt Reconfirmed 6/07
Participation: Inactive; Never attended a meeting since appt in 1995

Thomas Siciliano (rec)
6 Nautic Way
Little Egg Harbor Township, NJ 08087-1688
Phone (day): 732.267.6451
Phone (eve): 609.296.3774
Email: TomS6363@comcast.net
Appt Confirmed 5/4/09
Appt Reconfirmed 3/2014
Participation: Inactive; Never attended a meeting since appt in 2009

Delaware
Vacancy - recreational

ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

This form is designed to help nominate Advisors to the Commission's Species Advisory Panels. The information on the returned form will be provided to the Commission's relevant species management board or section. Please answer the questions in the categories (All Nominees, Commercial Fisherman, Charter/Headboat Captain, Recreational Fisherman, Dealer/Processor, or Other Interested Parties) that pertain to the nominee's experience. If the nominee fits into more than one category, answer the questions for all categories that fit the situation. **Also, please fill in the sections which pertain to All Nominees (pages 1 and 2). In addition, nominee signatures are required to verify the provided information (page 4), and Commissioner signatures are requested to verify Commissioner consensus (page 4). Please print and use a black pen.**

Form submitted by: Daniel McKiernan State: MA
(your name)

Name of Nominee: Allan Butler

Address: 1899 Main St

City, State, Zip: Athol, MA 01331

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 508-382-2274 Phone (evening): 978-780-4015

FAX: _____ Email: stripernut1@gmail.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.
   1. Winter Flounder
   2. _____
   3. _____
   4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

   yes_____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes _____ no X_____

If "yes," please list them below by name.

_____ _____

_____ _____

_____ _____

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Winter Founder _____ Black Fish _____

Summer Flounder _____ Haddock _____

Striped Bass _____ _____

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

_____ _____

_____ _____

_____ _____

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years

2. Is the nominee employed only in commercial fishing? yes_____ no_____

3. What is the predominant gear type used by the nominee?_____

4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)?_____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years

2. Is the nominee employed only in the charter/headboat industry? yes _____ no_____

   If "no," please list other type(s)of business(es) and/occupation(s):_____

   _____

3. How many years has the nominee lived in the home port community? _____ years

   If less than five years, please indicate the nominee's previous home port community.

   _____

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? 56 years

2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes X no _____

   If "yes," please explain.

Fishing Guide (30 years), Fresh and Salt, Outdoor Writer (at one time had a column in On The Water),

Mated on a headboat, I run tours on mini Buses for anglers, I load Waypoints (for mostly haddock now)

into anglers chartplotters, but mostly I am hired to do instuction on a anglers boat.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____years

2. Is the nominee employed only in the business of seafood processing/dealing?

   yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

   _____

   _____

   _____

3. How many years has the nominee lived in the home port community? _____ years

If less than five years, please indicate the nominee's previous home port community.

_____

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years

2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

_____

_____

_____

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

I am interested in nomination to the Advisory Panel because I feel my background could be a real asset. I have been a fishing guide and outdoor writer for over 3 decades and have fished the coast much longer. I had a column in On The Water for many years and have worked in the industry for companies as diverse as Orvis and New England Marine Industries, giving me a much broader point of view than many. I have been active in public speaking on fishing-related subjects (before covid) and do my best to stay up to date in the industry.

Nominee Signature: Allan Butler Jr Date: 7. 4. 2022

Name: Allan Butler, Jr.
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

Daniel J McKiernan
State Director

Sarah M. Peake
State Legislator

Raymond McKay
Governor's Appointee

Atlantic States Marine Fisheries Commission

Atlantic Striped Bass Management Board

January 31, 2023
3:30 p.m. – 5:00 p.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(M. Gary)*	3:30 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from November 2022	3:30 p.m.
3.	Public Comment	3:35 p.m.
4.	Addendum I on Ocean Commercial Quota Transfers for Final Approval **Final Action** • Review Options and Public Comment Summary *(E. Franke)* • Review Advisory Panel Report *(E. Franke)* • Consider Final Approval of Addendum I	3:45 p.m.
5.	Other Business/Adjourn	5:00 p.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

MEETING OVERVIEW

Atlantic Striped Bass Management Board
January 31, 2023
3:30 p.m. – 5:00 p.m.
Hybrid

Chair: Marty Gary (PRFC) Assumed Chairmanship: 01/22	Technical Committee Chair: Nicole Lengyel Costa (RI)	Law Enforcement Committee Rep: Sgt. Jeff Mercer (RI)
Vice Chair: Megan Ware (ME)	Advisory Panel Chair: Louis Bassano (NJ)	Previous Board Meeting: November 7, 2022
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, NMFS, USFWS (16 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from November 2022

3. Public Comment – At the beginning of the meeting, public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance, the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Draft Addendum I on Ocean Commercial Quota Transfers (3:45-5:00 p.m.) Final Action

Background

- Draft Addendum I proposes options to allow for the voluntary transfer of striped bass commercial quota in the ocean region between states that have ocean commercial quota. It was approved for public comment in November 2022.
- Public comment was gathered from November 2022 through January 13, 2023 **(Briefing Materials)**.
- The Advisory Panel reviewed the draft addendum on January 17 **(Supplemental Materials)**.

Presentations

- Overview of options and public comment summary by E. Franke
- Advisory Panel report by E. Franke

Board actions for consideration at this meeting

- Select management option and implementation date.
- Approve final document.

5. Other Business/Adjourn (5:00 p.m.)

Atlantic Striped Bass

Activity level: High

Committee Overlap Score: Medium (TC/SAS/TSC overlaps with BERP, Atlantic menhaden, American eel, horseshoe crab, shad/river herring)

Committee Task List

- TC – June 15th: Annual compliance reports due
- TC – Review 2022 landings

TC Members: Michael Brown (ME), Kevin Sullivan (NH), Gary Nelson (MA), Nicole Lengyel Costa (RI), Kurt Gottschall (CT), Caitlin Craig (NY), Brendan Harrison (NJ), Tyler Grabowski (PA), Margaret Conroy (DE), Alexei Sharov (MD), Luke Lyon (DC), Ingrid Braun (PRFC), Joshua McGilly (VA), Charlton Godwin (NC), Jeremy McCargo (NC), Peter Schuhmann (UNCW), Tony Wood (NMFS), Steve Minkkinen (USFWS), John Ellis (USFWS), Katie Drew (ASMFC)

SAS Members: Michael Celestino (NJ, Chair), Gary Nelson (MA), Alexei Sharov (MD), Hank Liao (VMRC), John Sweka (USFWS), Margaret Conroy (DE), Katie Drew (ASMFC)

Tagging Subcommittee (TSC) Members: Angela Giuliano (MD), Beth Versak (MD), Brendan Harrison (NJ), Chris Bonzek (VIMS), Gary Nelson (MA), Ian Park (DE), Jessica Best (NY), Josh Newhard (USFWS), Julien Martin (USGS), Katie Drew (ASMFC)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ATLANTIC STRIPED BASS MANAGEMENT BOARD

The Ocean Place Resort
Long Branch, New Jersey
Hybrid Meeting

November 7, 2022

TABLE OF CONTENTS

INDEX OF MOTIONS

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Steve Train, ME (GA)
Cheri Patterson, NH (AA)
Doug Grout, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Mike Armstrong , MA, proxy for D. McKiernan (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Jason McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
Sen. Craig Miner, CT (LA)
Jim Gilmore, NY (AA)
Emerson Hasbrouck, NY, (GA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
G. Warren Elliott, PA (LA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Mike Luisi, MD, proxy for L. Fegley (AA Acting)
Robert Brown, MD, proxy for R. Dize (GA)
David Sikorski, MD, proxy for Del. Stein (LA)
Pat Geer, VA, proxy for J. Green (AA)
Bryan Plumlee, VA (GA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Jerry Mannen, NC (GA)
Marty Gary, PRFC
Dan Ryan, DC, proxy for C. Rese
Rick Jacobson, USFWS
Max Appelman, NMFS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Nicole Costa, Technical Committee Chair
Louis Bassano, Advisory Panel Chair
Jeffrey Mercer, Law Enforcement Representative
Mike Celestino, Stk. Assmnt. Subcommittee Chair

Staff

Bob Beal
Toni Kerns
Tina Berger
Katie Drew
Madeline Musante

Guests

Jason Avila
Linda Barry, NJ DEP
Louis Bassano, NJ
Rick Bellavance
John Bello
Jessica Best, NYS DEC
Kurt Blanchard, RI DEM
Christopher Borgatti
Delayne Brown, NH F&G
Simon Brown, MD DNR
Jeff Brust, NJ DEP
Mike Celestino, NJ DEP
Blane Chocklett
Matt Cieri, ME DMR
Germain Cloutier
Phil Coates
Christine Condon, Baltimore Sun
Margaret Conroy, DE DFW
Matthew Corbin, MD DNR
Heather Corbett, NJ DEP
Caitlin Craig NYS DEC
Jessica Daher, NJ DEP
Bob Danielson
Maureen Davidson, NYS DEC
Patrick Denno
Even Dintaman
Chris Dollar
Russell Dize, MD (GA)
Eric Durell, MD DNR
Wes Eakin, NYS DEC

These minutes are draft and subject to approval by the Atlantic Striped Bass Management Board.
The Board will review the minutes during its next meeting.

Guests (continued)

Arissa Edwards, CBF
Peter Fallon, Maine Stripers
Tony Friedrich, SGA
Tom Fuda
John Gans, TRCP
Steve Garafalo
Lewis Gillingham, VMRC
Angela Giuliano, MD DNR
Willy Goldsmith, SGA
Kurt Gottschall, CT DEEP
Tyler Grabowski, PA F&B
Brendan Harrison, NJ DEP
Helen T. Heumacher, USFWS
Jaclyn Higgins, TRCP
Peter Himchak, Cooke Aqua
Mark Hoffman, CBC
Jeffrey Horne, MD DNR
Harry Hornick, MD DNR
Jesse Hornstein, NYS DEC
Bob Humphrey
Jim Hutchinson, *The Fisherman*
Taylor Ingraham
Gary Jennings, FL (GA)
Dylan Jewell
Carrie Kennedy, MD DNR
Gregg Kenney, NYS DEC
Jared Lamy, NH F&G
Brooke Lowman, VMRC
Mike Luisi, MD DNR
Shanna Madsen, VMRC
John Maniscalco, NYS DEC
Casey Marker, MD DNR
Dan McKiernan, MA (AA)
Kevin McMenamin
Jeff Mercer, RI DEM
Nichola Meserve, MA DMF
Mike Millard
Steve Minkkinen, US FWS
Derek Monfort
Gabriel Montemuro
Chris Moore, CBF
Brandon Muffley, MAFMC
Kirby Rootes-Murdy, USGS
Brian Neilan, NJ DEP
Gary Nelson, MA DMF
Robert Newberry
Thomas Newman
Jeffrey Nichols, ME DMR
Tyler O'Neill
Zane Oliver
Jeff Panzo
John Papciak
Charles Paullin
Michael Plaia
Nicholas Popoff, US FWS
Will Poston, SGA
Marcus Quenzer
Michael Quinan
Jill Ramsey, VMRC
Kathy Rawls, NC (AA)
Jason Rock, NC DENR
Mike Ruccio
Patrick Rudman
Brandi Salmon, NC DMF
McLean Seward, NC DENR
Paul Shafer
Scott Simms, MD DNR
Ethan Simpson, VMRC
Amanda Small, MD DNR
Ross Squire
David Stormer, DE DFW
ElizaBeth Streifeneder, NYS DEC
Kevin Sullivan, NH F&G
Colin Temple
Michael Toole
Taylor Vavra
Beth Versak, MD DNR
Ralph Vigmostad
Mike Waine, ASA
William Wayman, US FWS
Craig Weedon, MD DNR
Tim Wheeler, *Bay Journal*
Peter Whelan
Holly White, NC DENR
Logan Williams
John P. Williams
Charles Witek
Steven Witthuhn
Michael Woods
Chris Wright, NOAA
Erik Zlokovitz, MD DNR
Renee Zobel, NH F&G

The Atlantic Striped Bass Management Board of the Atlantic States Marine Fisheries Commission convened in The Monmouth I Room in The Ocean Place Resort via hybrid meeting, in-person and webinar; Monday, November 7, 2022, and was called to order at 3:00 p.m. by Chair Martin Gary.

CALL TO ORDER

CHAIR MARTIN GARY: Good afternoon, everybody, and welcome to the Atlantic States Marine Fisheries Commission Atlantic Striped Bass Management Board meeting. My name is Marty Gary, I'm your Chair with the Potomac River Fisheries Commission. Our Vice-Chair for this Board is Megan Ware from the state of Maine, and I'm joined by staff members from ASMFC, Emilie Franke, seated to my right, and also our ASMFC Science Lead, Dr. Katie Drew.

Before we get started just a few announcements. I know the New Jersey DEP folks are going to get a lot of accolades over the next few days, but I'll start it, or maybe I'm second or third in line here. But I want to thank Joe Cimino, and all of his staff, Mike and Jeff and Heather and everybody for putting on a great show, and getting us settled here in Long Branch, New Jersey, a beautiful setting.

If any of you are lucky enough to see the sight this morning, it was pretty impressive to wake up to a textbook predator/prey relationship, huge amounts of menhaden along the beach, with stripers working on them, a humpback whale, and certainly a whole bunch of charter boat and fishing vessels.

The only thing I think that was missing, I was looking for Joe and a trident, as he summoned all of this to come together. Pretty impressive. Joe, thanks for all your hard work and all your staff for putting this together. We have a couple new Commissioners here, not new faces, but new in their seats. Doug Grout is here as a Governor's Appointee for New Hampshire, Doug, welcome back. You replace Ritchie White.

It's hard to believe we're not going to see Ritchie White around this table. But I will say, the granite state loses nothing in an intellectual and experiential prowess, so we welcome you back to work with the Board here. Then also, welcome back to Adam Nowalsky, for New Jersey. Adam is going to be at the table as proxy for New Jersey's new Legislative Commissioner, Senator Vin Gopal.

I was going to say, Adam, I personally missed you not being here, to not miss the things that I miss. If everybody knows you, you don't miss anything. Thank you for all your hard work, and we welcome you back. Also, seated to my left is Sargent Jeff Mercer from Rhode Island, and he will be taking over at the Law Enforcement Committee for striped bass, so welcome, Jeff. He'll be replacing Kurt Blanchard, and Kurt, if you could raise your hand. Hopefully Kurt is still in the room, he's in the back. Kurt, thank you so much for all your help. (Applause)

Thank you, Kurt, for all your good work with this species over the years, much appreciated.

APPROVAL OF AGENDA

CHAIR GARY: All right, so we'll move on with our agenda, Number 2, Board consent. First order of business is the Approval of the Agenda. Are there any additions or modifications to the agenda? Joe Cimino.

MR. CIMINO: No, I just wanted to say thank you for that. I just would be remiss. We can't accept all those kudos, ASMFC staff has just done so much. The thanks really belong to Laura and the Lisa's and Tina. Thank you.

CHAIR GARY: Thank you, Joe, and absolutely right on the kudos to the ASMFC staff, so thanks to all of them. If there are no objections to the agenda as presented, we'll approve that by consent and go on to our next item, which is approval of the proceedings from August 2022.

APPROVAL OF PROCEEDINGS

CHAIR GARY: Are there any edits to those proceedings? Seeing none; we'll approve those proceedings by consent.

PUBLIC COMMENT

CHAIR GARY: Next up is Public Comment for items that are not on the agenda. We'll entertain comments for those items not on the agenda from those folks in the room, so we'll look for a show of hands, and also online, and I think, Katie, you have those if you see somebody, and Emilie. No hands online. Is there anybody that would like to make comments that is in attendance? There doesn't appear to be any, so we'll move on.

CONSIDERATION OF THE 2022 ATLANTIC STRIPED BASS STOCK ASSESSMENT UPDATE

CHAIR GARY: Item Number 4 on the agenda is Consideration of the 2022 Atlantic Striped Bass Stock Assessment Update**.** We'll have a presentation of the stock assessment report. Dr. Gary Nelson from Massachusetts Division of Marine Fisheries is lead analyst for the Striped Bass Stock Assessment. He is joining us virtually on the webinar, and will present the 2022 Stock Assessment Update. Is Gary prepared?

MS. EMILIE FRANKE: Yes, we are pulling his presentation up on the screen right now.

PRESENTATION OF THE STOCK ASSESSMENT REPORT

DR. GARY NELSON: Good afternoon, everyone. I will be presenting the results of the updated stock assessment, which we completed this past August, I believe. I will be going through each of the terms of reference that were assigned to us during the update. For the first Terms of Reference 1, we were required to update all the fisheries dependent data that were included in the last benchmark.

We did that by updating all of the commercial and recreational data for 2018 to 2021, these were included in the assessment. The recreational harvest and releases allowed us to calculate the dead releases, were obtained for each state via the MRIP website. The commercial harvest data were reported by the individual states, and as we did in the benchmark with the new improved method, we estimated commercial discards using tag data and MRIP estimates.

Again, that method was approved at the benchmark. It's a kind of complicated method, so I won't get into it. Just as a reminder, there is actually some missing data sources which we have no information on. We have no harvest or release data from major rivers like the Hudson River, the Delaware River, and of course we really have no estimates of the amount of poaching that does take place. Those numbers are lacking from the assembly of the catch data. This slide just shows the total removals in millions of fish taken in Chesapeake Bay and the ocean region.

The ocean region includes all areas outside of Chesapeake Bay, and this is the time series since 1982. If you look at the vertical red dash line that indicates the separation between 2017 and 2018, and you can see that the landings after 2017 have been declining a bit. The total landings pretty much dropped and kind of leveled out in 2021.

The region with the highest removals is the ocean region, compared to Chesapeake Bay. This flag just shows the total removals by disposition category. Recreational harvest is here in pink. Recreational dead releases are in blue. Commercial harvest is in yellow, and the commercial dead discards are in black.

As you can see, recreational harvest and dead releases comprised most of the removals over the time series. In 2021, the recreational harvest and dead releases comprised about 86 percent of the total removals. This slide shows the age composition of the total removals from 2012 in the upper left-hand corner, to 2021 down at the lower right-hand corner.

Age is on the X axis here or the bottom axis. The strong year classes witnessed over time are represented as different colors. We have the 2011-year class here in yellow, and you can see starting in 2012, 2011-year class from Chesapeake Bay entered the fishery and progressed. You can see the landings progressing through time, they were strong age components of the total removals during the time

period.

Then since like 2019, 2020 the contribution of that large year class has waned over time. We also show here in blue the 2014-year class out of the Hudson, that's in blue. Then also the 2015-year class that entered the fishery in 2016. You can see that progressing through time, where currently it is one of the major contributors to the total removals.

We also have plotted the about average 2018-year class here in green. You can see that starting to come into the population too. This just shows you what ages comprised the total reports. We also were charged with updating all of the fisheries independent data that were used in the previous peer review benchmark stock assessment, so showing you that.

What we did was we updated all the young of the year indices, the age specific indices. We had surveys with complete age composition data, and all of the information here is used in the stock assessment to help tune the model, to determine fishing mortality and spawning stock biomass. This table just shows a pattern of how some of the surveys were impacted during COVID, and also for other reasons.

During the period 2018 to 2021, during COVID, during year 2020, New York's Age 1 Survey was delayed a bit in getting started. The New Jersey Young of the Year Index sampling did not occur during 2020. Getting to some of the age composition surveys down below, Connecticut Trawl Survey did not occur in 2020, neither did the New Jersey Trawl, but it also it wasn't conducted in 2019 and '21, I think due to boat issues or something like that. Then the Delaware Spawning Stock Electrofishing Survey did not occur in 2020. The Maryland Gillnet Spawning Stock Survey was interrupted, I think shortened in 2021 for reasons I don't remember, and the ChesMMAP Index from the ChesMMAP Survey was not provided, because they switched vessels and they are running calibration studies, so that the studies prior to the Index, prior to 2019 can be compared to what happened in the past.

Just to point out, these are young of the year indices, and just point out a few features. Shown in this slide are the young of the year at Age 1, survey indices from the Hudson River, Delaware Bay, and Chesapeake Bay, as well as the Maryland/Virginia Composite Index, which we use now as the primary Chesapeake Bay young of the year index in the assessment.

This is a modeling approach, where we combined the Maryland and the Virginia juvenile indices. The Young of the Year Index for New York showed a bit of a decline relative to 2008. The New Jersey, we've had a peak in 2020 and a drop in 2021, 2020 we still wonder whether this big peak here is either a strong year class coming out of the Hudson or it could have been due to the effect of that delay or later time period in which the survey was conducted.

The Virginia Index here shows a lack of strong year classes in the later time period in the lower one in 2021. The Maryland, in the lower left-hand corner, again we all know what's going on there. We have very low recruitment indicated by that index, and in New Jersey's Delaware Bay Index, they missed 2020, but the 2021 value has dropped to a fairly low value.

If we look at the composite up in the left-hand corner, this is the Maryland and Virginia Index, and we can see that the combined index is saying that recruitment has been declining since about 2017, '18, around there. These are for the Age 1 fishes, the Maryland Age 1 and the New York Age 1.

The Maryland as indicated here with the circles showing the strong 2015 and average 2018-year classes, and then New York Age 1, we can see that big 2014-year class indicated here. But in recent years it's getting lower. Recruitment appears to be lower. This map just shows the total index for the age surveys with complete age composition.

Again, ChesMMAP only provided, I think one data point from 2018, because from 2019 on they switched vessels. We can't really say much about what's going on in the nearest years. Maryland Spawning Stock Gillnet Surveys have always been kind of flat and variable through time. The Delaware 30-foot trawl survey has been kind of flat since the mid-2000s.

Delaware Spawning Stock Electrofishing Survey showed their index as actually in the latter five or six years has been lower than in the former part of the time series. New Jersey trawls, we didn't have any information again for various reasons. The New York Ocean Haul Survey stopped in 2006, but we still use it in the assessment, and the index from the Connecticut Trawl Survey was missing 2020, but in 2021 value appears to be lower than previous years also.

Then the MRIP Catch Per Unit Effort Index that we developed has been declining a little bit in the last years. For TOR 3, we were assigned to tabulate a list of life history information used in the assessment in a model parameterization, and note any differences from the benchmark. Just to refresh your memory about the 2018 benchmark. We used a forward projecting statistical catch at age model, which estimates Age 1 abundance in each year. It estimates fully recruited F in each year. It estimates catch selectivity in four regulatory periods.

There is a catchability coefficient estimated for all indices. There is selectivity estimated for each of the age composition surveys, and the data are split into two fleets as mentioned before, the ocean and the Bay region, and this because we approved the selectivity fits and provides partial Fs for each of those regions.

We had used age-specific M's, which we had developed from various methods. To update, we used the same life history parameters, the natural mortality, maturity at age. We updated the weights at age for use in the spawning stock biomass calculation. We added a new selectivity block for 2020 and '21 because of all the regulatory changes that went into effect in 2020, where there were some major changes in size limits.

We thought it was best to start a new selectivity block. During the exploratory analyses, we tried to figure out what shape the new selectivity blocks, the selectivity kind of would be in these blocks. We explored providing a four parameter double logistic equation that can produce both flat top and dome shaped selectivity, and the result was that the dome shaped was needed in Chesapeake Bay, but flat top was still evident for the ocean.

However, because of the size changes, the selectivity slid down to younger ages. As part of the update, we also adjust the CVs, you can see it is the statistical thing to do. We adjust the CVs for the surveys, and to get residual mean square area around 1.0, and then we also adjust the effective sample size of the survey age composition data using Francis's method.

TOR 4 was to update accepted model and estimate uncertainty, conduct retrospective analyses, include some sensitivity runs, and compare the benchmark assessments with the results from the current assessment. Our model, again we updated the model and we have a new selectivity period for both the Bay and ocean, and that was a model approved by the TC.

That is considered our base model. These are results from our base model. Shown here are the estimates of fully recruited fishing mortality for the Bay, which is in the lower gray line, and the ocean, which is the upper gray line. The total fishing mortality is in the red here. The highest fishing mortality generally occurred in the ocean region, and all of the regions showed a decline after 2017.

The fully recruited F in 2021 was 0.5 in the Bay, and 0.1 in the ocean. The total fishing mortality that we use in stock determination was estimated to be 0.136. If you look at the graph you can see that there has been a tremendous decline in fishing mortality since after 2017. The regulations have done its job.

Okay, this slide just shows the estimates of recruitment for the model. Remember, this is a combined stock model, so even though Chesapeake Bay catch influences a lot of the components in the estimates in the model, we also have Delaware, and also the Hudson River fish in here too. You can see, I just pointed out some of the past strong year classes, 2011, 2015 and that average year class 2018. In the last couple years, it's been estimated to be lower. This slide just shows the estimates of abundance coming from the model. Age 1 plus

abundance, which is Age 1 through 15, is shown here in the gray, and you can see that increased over time, but has declined after about 2003 or '04, and has kind of jumped around.

That's simply because recruitment overshadows most of the other ages. But if we break it down into just Age 8 plus fish, you can see again there was a big increase up to about 2003 or '04, some bouncing around then since about 2011, numbers of 8 plus fish have declined. These are the estimates of female spawning stock biomass in metric tons that comes from the model.

Kind of similar pattern to the numbers, we were peak in about 2003 or '04, some bouncing around and after about 2010 or '11, it has declined. The current model estimates suggest that it's actually been increasing over the last few years. That is probably due to the 2015-year class starting to move into the active part of the population.

We were asked to do retrospective analyses on a model, and what a retrospective analysis allows is it allows you to observe the impact of parameter estimation with the addition of another year's worth of data. The way it works is that a current model estimate is compared to the estimates that would occur when the current year's data are deleted.

We do this essentially seven times, so what you're seeing here on the left are the actual estimates from each model run in which the current year is deleted, so we start at 2021 and repeat each model by deleting the next year and the next year and next year. It gives you a sense of how stable the estimates are.

The top is using the fully recruited F, and the bottom is female spawning stock biomass. Not too bad, in terms of stability of the estimates for fishing mortality. If we look at female spawning stock biomass you get a more sense that we're slightly overestimating the female spawning stock biomass now, and on the right are actually the retrospective plots, where you can see for most of the time series up top is fishing mortality.

We slightly overestimated fishing mortality, but in the more recent years we're underestimating slightly. Fishing mortality on average is about 10 percent or so. Below is the retrospective for seven peels for the female spawning stock biomass, and you can see here that we're actually slightly overestimating the female spawning biomass now.

In the past, the last benchmark assessment, it was kind of the other way. The spawning stock biomass actually was usually underestimated. But that underestimation was becoming less as we were approaching using the 2017 data. However, with the addition of the 2018 through '21, that pattern changed a bit with those data.

But it also changed because of a slight change in weightings that occurred this time around when we used the methods to reweight the data, the new data. It definitely has changed. That was an issue we all discussed during the TC and stock assessment. Since there is a slight systematic bias in the 2021 SSB and fishing mortality estimates, which we identified through the retrospective, we investigated whether our terminal estimates should be adjusted for that bias. What we did was use the National Marine Fisheries method of doing so, and in this method, what happens is that there is a statistic called the Mohn's Rho, which is calculated, essentially the average of the proportional differences between the retrospective peels, and we use seven peels.

Those values are then used to adjust the terminal F and the SSB values. In this graph here, the black value is a five-area plot of the fishing mortality on the left versus the female SSB in the black circle here is the 2021 values. We adjust the terminal F and SSB using the Mohn's Rho. This red value is what that adjustment would be.

If the adjusted values are outside the 90 percent five-area confidence interval here, which are these lines coming out from the original estimate. Then adjustment is desired. However, if the adjusted values are within the confidence intervals, then correction isn't required. That's kind of a rule that the National Marine Fisheries Service developed.

I couldn't explain completely how they got there, but that has been a standard that has been adopted, so we adopted that here. Based on this comparison here, the resulting values did not have to be adjusted in any way, so we'll just use the values that were produced somewhere else. We did a number of sensitivity-runs.

We ran a sensitivity analysis to examine the potential impact of the delay in sampling that occurred for the New York Age 1 Index, in that the shortened season in the Maryland Spawning Stock Survey. We looked at the impact by essentially moving those points from the assessment model, and re-estimating everything, and then comparing the estimates from the model.

You can see here on the left are the estimates of fishing mortality for both models, which you can't see, because they lay right over each other. The top is fishing mortality, middle is female spawning stock biomass, and bottom is the Age 1 recruits. The only slight difference that occurred was in the 2019 value, and if you look over to the right, which just shows the percent differences in the estimates between the two models.

There was a slight change between the base and the model with the points deleted, and it was essentially the current model estimates the recruitment about 10 percent higher than the models without those data points. It really wasn't much impact at all, so we weren't worried about it. We also examined other configurations for the selectivity blocks in the 2020 and '21 period.

We ran two scenarios to explore resulting changes to our model. In the first scenario, a selectivity block was used only in the ocean region, and in these graphs the ocean only region will be in red here, with the triangle. In the second scenario, we just continued using the same selectivity blocks as we used in the benchmark, which essentially the last block went from 1996 up to 2017. That was one time block.

These graphs just compare the changes in the fishing mortality and SSB. The resulting fishing mortality in SSB for the ocean only stock actually ocean only selectivity block, came up almost about the same as our base model, which you can see here in the red the base model is in the black. That is fishing mortality. The estimates were just slightly lower. For SSBs they were just slightly lower than the base model. Assuming no changes in selectivity, the estimates were a lot higher in the orange here up above, then the current base model. The SSB actually declined a bit compared to the base model. This slide just shows a comparison of the fishing mortality and spawning stock biomass between the benchmark and the 2022 update. You can see up at the top this fishing mortality.

They pretty much agreed up until you got near the terminal years in the benchmark, but now the model is estimating a higher fishing mortality at particular years, so that it changes a little bit. At the bottom there is female SSB showing that during the early parts of the time series the new model is slightly underestimating SSB compared to the benchmark, pretty close during the middle, and now it is underestimating, I wouldn't say underestimating. It is lower than the benchmark produced in 2018. There are some changes.

Term of Reference 5 was to update the biological reference points of the stock and determine stock status. Because of that we're in the low recruitment period, all the reference points that I'll be showing were developed using the low recruitment regime, which are pretty much using the recruitment estimates from 2008 to 2021, which represents our low recruitment regime.

The female spawning stock biomass reference points are essentially determined from the estimates that come out of the stock assessment. The threshold is the 1995 spawning stock biomass value, and in the model, it was estimated to be 85,800 metric tons. Our SSB calculation is just taking 125 percent of the threshold, and that estimate is 106,800 metric tons. Oops.

The way we come up with the fishing mortality associated with those thresholds and targets, is we use a stochastic projection model. This is

parameterized with the estimates of abundance at age and associated errors from the model estimate ending in year 2021. We use an average selectivity after 2021 in the projection.

We project 100 years in the future and we do that 10,000 times, and during each time we're randomly drawing recruit Age 1 estimates from, again from the 2008 to 2021 low recruitment regime. Essentially in this model you adjust, we have an F that you adjust, and you adjust that until the median spawning stock biomass at the end of 100 years equals our SSB threshold and SSB target estimated from the stock assessment model.

The Fs associated with the threshold came out to be 0.20, and the F target was 0.17, which are pretty close to, if I remember correctly, pretty close to the F threshold and target that we had in the benchmark. If we overlay these values onto the female SSB and fishing mortality plots, on the left here the red solid line is the SSB threshold, and the upper dash line SSB target.

If you compare the estimates of female spawning stock biomass, they are all below those reference points, and so the stock is determined to be overfished. If we look at the fully recruited fishing mortality below however, current fishing mortality is estimated to be below both the F target and F threshold values, so we can conclude that overfishing is not occurring.

We were also asked to do short-term projections. This is TOR 6. What people were interested in is, determine the probability of reaching the target by 2029, under the low recruitment regime. We expect to project to the population using the same starting values that we did to determine the reference points, same values starting at 2021. We sampled from the low recruitment data, assuming that the current F remain constant over the time period. That would be in the upper graph here. The middle graph is assuming that we fished at the target after 2021.

Then at the bottom is fishing at the threshold after 2021. The red triangles here, the median of the 10,000 replicates, the projection, and then shown here in the dash the upper and lower 2.5 and 97.5 percent tiles. The target and threshold are the dash lines, the threshold values and the solid, what do they call that? That dashed line, it was the dotted line is the target.

Under the current, if we can maintain F at the current level, it's projected that the SSB would be reached by around 2025. By 2029 there is a 78.6 percent probability that SSB has exceeded the target value. By that time too, close to almost 100 percent of the SSB will be above the threshold.

As we increase the fishing mortality to the target at 0.1677, we do reach the target value by 2029, and the probability of being above the target is about 52 percent or so, about 82 percent being above the threshold. Then if we fish at the threshold value, the SSB increases a little bit, but then tapers and starts coming closer to the threshold.

By 2029 there is only a 30 percent chance it is above target, and 59 percent chance or so that it is above the threshold. In conclusion, the stock is overfished, but overfishing is not occurring. This is relative to the new low recruitment at reference points. There is a 78.6 percent chance the stock will be at or above the SSB target in 2029 under the current F. Based on these results, there seems to be no further reduction needed at the time.

Just to mention some sources of uncertainty, 2020 and '21 data are more uncertain because of COVID-19. The retrospective pattern has changed directions a bit, and we're now underestimating F and overestimating SSB. We only have two years of data for which to estimate the new selectivity block, so that could change a little bit, at least the patterns in selectivity or the shape, I should say, might change a little bit when more years of data are added. That's it for me.

CHAIR GARY: Thank you, Gary for your presentation. At this time, we'll take questions for Dr. Nelson, and just a reminder, we do have two Board members participating online, so Katie and Emilie will be taking a look to see if they raise their hands. Questions for Dr. Nelson? Start with Jason, Mike Armstrong, and

we'll go to John Clark.

DR. JASON McNAMEE: Thanks Gary for the kind of whirlwind tour of the assessment, appreciate it. The question I have, I want to hone in on that selectivity block that you noted. I had sort of made a note of that myself. What I was wondering, because that was an element of the assessment.

Everything was pretty stable for a lot of the different sensitivities that you guys tried. The one that has kind of an important impact, depending on the assumption that you make is that last selectivity block. You've only got two years in there, which you noted. What's your feeling of the ability of the model to kind of estimate parameters for the function of forms there? Did it seem like it could, were they stable? Was it coming up with the same kind of parameter estimates with the various runs, or did there seem like there was kind of a lack of stability there? I was wondering about how much faith we can kind of put in the model's ability to kind of figure out the shape of those selectivity's.

DR. NELSON: Well, I can tell you offhand that the selectivity parameters estimated have really tight CVs, you know less than 10 percent. There is information there. In terms of the potential shape, that may be an issue. It was my thinking that with the change in size regulations on the coast, you know going to a 35 maximum size limit, that the selectivity on the ocean, in my mind should have gone a little dome shaped.

The model still estimated its flat top, but the midpoint, if you will, the LD50, whatever you want to call it. Actually, those slid down so it's actually encompassing younger fish, which after talking about it for a long time in the group, we kind of considered that could make some sense. It may be different in another model, depending on how you're estimating things.

I think I did look at; I can't remember exactly. I think I did look at leaving out the 2021, and just running a 2020, and things came out fairly similar. But I'm more confident that the shape may not change that much as we add data, but it may will, at least for the ocean. We might actually start seeing a dome shaped curve being developed as we add more data. I don't know if that answers your question, Jay.

DR. McNAMEE: Yes, absolutely did, thanks so much, Gary, appreciate it.

CHAIR GARY: Your next question is from Mike Armstrong.

DR. MIKE ARMSTRONG: Hey Gary, I think it's probably in the document. I couldn't find it. I'm curious, how much did the SSB reference points change with the low productivity at the end?

DR. NELSON: Yes, I would have to dig out the old assessment. I think it declined the SSB in the 1995 estimates went down. However, the F estimates associated with that level of SSB that we did through the projection, were kind of close to what we were using in the benchmark, if I remember correctly. I think the target was like 0.18, and I think the threshold might have been 0.22 or something. Katie, can you remember? You don't remember what that was?

DR. KATIE DREW: Yes, it seems a little bit more than you might thing. The fishing mortality threshold previously was 0.24, and now it's 0.20 with the low recruitment assumption, so that's the threshold. Similarly, the target I think was 0.20 for the, sorry we don't have it, I think it was 0.20 for the old one and now it's more like 0.17.

I would say it was maybe like a 10 to 20 percent change on the F side of that. Then there was maybe a 10 percent change in the SSB threshold and target itself, but that was surely because of changes to what the model was estimating that 1995 SSB to be. I would say it was within sort of the confidence intervals of that last reference point.

DR. NELSON: I must have been thinking of 2017 stock assessment. Does that answer your question, Mike?

DR. ARMSTRONG: Yes, particularly the SSB. It didn't change radically, it's not like we have a whole new place to go to. It's almost the same. Looking at the

retrospective, you decided based on Mohn's Rho that you didn't adjust it, but just verify this for me. I did a little back of the envelope calculation. Even if you adjusted it, it wouldn't have changed stock status, right? It looks like it might have changed it from 0.14 to 0.15. We would still be okay, is that correct?

DR. NELSON: Yes, that's correct.

DR. ARMSTSRONG: This one may be more of a comment. There might be a question coming out of it. The projections seem really sensitive to F, which no brainer, but we're talking operating in the hundredths place, and a few points changed there really changes the course of how we recover. Would you agree with that, Gary?

DR. NELSON: Yes, going from 0.13 essentially to 0.2 for the threshold. You know that is considerable increase in catches going from the lower one up to the other, which is why the population levels off at a different F. Are you asking me whether that is realistic or not?

DR. ARMSTRONG: I conclude with, it's just this Board should be very cautious, because it doesn't take a lot to change the course of a recovery, relatively minor change in rise in F that will put us back in the recovery period. That was my point. But just I wasn't to emphasize we have to remain cautious as we move forward.

DR. NELSON: Yes, particularly since there is error in the F estimates and stuff like that.

DR. ARMSTRONG: Thanks, Gary, that's all I've got.

CHAIR GARY: We'll go to John Clark, Emerson Hasbrouck and Mike Luisi.

MR. JOHN CLARK: Thank you for the presentation, Gary. I wanted to follow up on SSB. I have a, I'm sure it's a simpler question. One thing I found confusing than Mike Armstrong had there, but the benchmark assessment, the 2018 one had the SSB threshold at 202 million pounds, and now with this low recruitment it is down to 85 million, which is a much bigger. I thought you just said it was a 10 percent decrease. Am I missing something there?

DR. NELSON: Yes, the ones I'm stating are in metric tons. I don't know what it would be in millions of pounds.

MR. CLARK: Okay, I was looking at the wrong thing there. The other thing I just was curious about was that even though they had about the same pattern as the benchmark, that the years at the highest SSB were above the target in this latest assessment, where to the benchmark they never surpassed the target. Is that all just having to do with using the low recruitment assumption, or were there other factors at play there?

DR. NELSON: That's a good question. I don't know, I'll have to run the projections again with the old recruitment period. I don't know. Do you have any idea, Katie?

DR. DREW: The low recruitment assumption doesn't have anything to do with the actual SSB target and threshold, that comes purely out of the model, based on the data that we've seen. The low recruitment assumption then is what level of F do you need to get back to that historical level? What changed is we've added new years of data.

We adjusted sort of the structure of the model a little bit at the end, and that caused a change in some of the historical perception of the stock. Where that '95 value is now estimated to be lower than it was in the benchmark, that then rippled through to the SSB target. I would say that right now, historically it looks like we were above that target. But I would also say that during the benchmark, if you looked at the confidence intervals around the SSB, those confidence intervals did encompass the target.

Similarly, they also encompassed below the target in this run. It adjusted the point values. We were really close to the target, but not at it previously. Now we add a little bit more data, the model adjusts itself a little bit, and now we're a little bit above it. But probably within the overall uncertainty of the benchmark and this one.

MR. CLARK: The changes you're saying, Katie that really, it's following pretty closely what you saw with the benchmark, even with the changes in the low recruitment, the different selectivity block, and all that. Everything is following pretty much what we saw with the 2018.

DR. DREW: Yes, it's a very small difference. It's just enough, to kind of like flip you over that threshold, as opposed to just being slightly under it now at that target.

MR. CLARK: Just curious about that, thanks.

CHAIR GARY: We'll go to Emerson Hasbrouck and then over to Mike Luisi.

MR. EMERSON C. HASBROUCK: Thank you, Gary, for your presentation. My question and concern are very similar to what Mike just expressed a couple of minutes ago. Can we put up that slide that had the graphic in the table of rebuilding? It was up there just a couple minutes ago, yes, that one.

If the retrospective pattern is telling us that we tend to overestimate SSB and underestimate F, we're getting close to being on the razors edge here. As Mike said, you know a little bit of change in F can have a significant impact on our rebuilding for SSB to target. If F starts to approach the target, or even the threshold, it's going to have a significant impact here. Are we going to get another update next year, or do we have to wait two years?

DR. NELSON: I believe it's two years. But I hear what you're saying, no I understand what you're saying.

MR. HASBROUCK: Is there any way we can have like an interim update next year, to kind of see where we are with F? You know like I said, we're on the razor's edge here, and if we fall to the unfortunate side, we're going to be in worse shape two years from now.

DR. NELSON: I think that would be up to the Board and ASMFC whether they would want us to do another one. Doing an intermediate update would take just as much work to do it. We have to update all the data, same process we do two years from now.

CHAIR GARY: Emerson, Toni I think wants to comment.

MS TONI KERNS: That would be the prerogative of the Board to make a recommendation to the Policy Board, and then the Policy Board would have to take that into consideration. As you all know, we look at the stock assessment schedule every year, and we are almost at or maybe more than at capacity for our stock assessment team, as well as the stock assessment members of the states, and organizations that partner with us. If we add striped bass, we would likely need to take something else off the schedule, in order to make time for that. That would be a consideration that the Policy Board would need to take into account.

CHAIR GARY: Emerson, do you have a follow up to that?

MR. HASBROUCK: Well, yes, I understand that. I thought there might have been like a quick and easy way, just to update and see where we are with F. But from what Gary said, it doesn't seem like there is a short version here.

DR. DREW: I think what the TC would recommend that we do is, so as part of these projections that you do, what you get out is kind of under this F. What would be your expected level of catch next year and the year after with some confidence intervals. Instead of updating the full model, we could look at the projections and say, we would expect, if we are still fishing at our current F or an acceptable level of F.

What is the acceptable range of tests to get out of that and still be within your sort of predicted F rate? Then compare that to the removals that we saw in 2022. When we do the FMP review in 2023, and see are we maintaining current levels of removal that are within our expected rebuilding trajectory. That would definitely be easier on the Technical Committee than doing a full assessment update, and

then do the updates again in 2024, and have two more years of data to help anchor where we are.

MR. HASBROUCK: Yes, that sounds reasonable. If we get to a point, Mr. Chair, where you would like a motion to that effect, I would happy to do that.

CHAIR GARY: Thanks, Emerson, we're going to go to Mike Luisi, and I would like to go to Justin Davis, and then back to Mike Armstrong.

MR. MICHAEL LUISI: Gary, thank you for your presentation. You made a comment during your presentation, which was very well done, by the way. In speaking about spawning stock biomass that the regulations that we currently have in place are doing their job. I'm just interested in understanding maybe a little bit more about what the team that did the assessment discussed regarding maybe some of the social aspects. Based on your opinion, and the work that you've done over the years with striped bass, is it the regulations that are working or do we just have less effort and less availability? I'm just asking for your opinion. I think that is important to put on the record, based on the comment you made.

DR. NELSON: Yes, I'm not sure about effort. I haven't looked at the effort estimates from MRIP to see if they've gone up or down. Potentially we can do that and send it with a memo or something. I think actually in my opinion up here anyway, in Massachusetts I did think that the maximum size limit provided is really working.

There are lot of people releasing those big fish now, and I just think it is all part for allowing those older, mature fish to survive. We're getting this uptick in SSB as the 2015 in our year class is starting to go through. I think that year class has got to hold us out for a while as the 2000 (faded) progresses after that. I don't know if that answered your question.

MR. LUISI: Yes, that helps. It definitely helps, and I think it's a good thing for the public to understand that the actions that we've taken over the years are starting to show signs of progression towards our ultimate goal. I wanted to get your professional opinion, so thank you.

CHAIR GARY: Over to Justin Davis.

DR. JUSTIN DAVIS: Thanks, Gary, for the presentation. I've got a two-parter here if you'll indulge me, Mr. Chair. The first question had to do with a low recruitment assumption. Based on the presentation we just saw, because you selected the low recruitment assumption in the rebuilding plan in Amendment 7.

The projections that were used to develop the reference points, the fishing mortality reference points and the short-term projections to see where we would end up by 2029 both use that low recruitment assumption, which is pulling from recruitment from 2008 to 2021. My question is, for the recruitment that we've seen in the last three years, which has been below average and kind of concerning.

I'm wondering, Gary, can you comment on whether the recruitment we've seen in the last three years is within that range from 2008 to 2021, the sort of low recruitment dataset we're using? If it's within that range, sort of where does it fall out? Is it 25th percentile, you know below the median, above the median?

DR. NELSON: You mean the what the index out of Maryland is showing, those last since 2018, the very low recruitment, how that compares?

DR. DAVIS: Yes, correct. I'm just trying to get a sense with the recruitment we've seen in the last couple years that's been low, how that compares to that range of years used for the low recruit assumption.

DR. NELSON: It includes up to 2021, so I have looked at the recent values, just for edification, using a model to estimate what the Age 1 recruitment might be out of the model, given the Chesapeake Bay Index. It's pretty much within the same range that we have in there for the last few years, the 2018 or '19 to 2021. The range is in there.

What we don't model in the projections is whether there is a serial correlation between one year to the

next, which less values the last four years or so with the Chesapeake Bay, it seems to be, it was a correlation with not much happening there, all kind of the same level. Does that answer your question?

DR. DAVIS: It does, thanks, Gary. The second question I had is probably simpler. If you had made the bias correction to F, based on the slide we're looking at right now. I'm just wondering if F current was biased corrected. Where would we kind of fall out relative to the three scenarios here? Essentially, what would be our probability of being at an SSB target by 2029 under that F, if it was bias corrected?

DR. NELSON: It's about, I'd say about 10 percent. Let me just pull out my calculator here. Current F would probably go up to 0.145/6 around there. If we look at the values on the slide here, current F of 0.36 and targeted point 0.67. We could adjust the SSB projections a little bit downwards, and I would think that we would still be reaching the target by 2029, based on what I see on the graph.

CHAIR GARY: Thanks, Gary, thanks, Justin. Over to Mike Armstrong.

DR. ARMSTRONG: Thank you for another bite. This is more of a comment, but I think it's the right time to bring it up. It's following what Emerson said, and I'm extremely sensitive to the workload. But again, this is a multibillion-dollar fishery, and perhaps, you know rather than doing a spot assessment, maybe striped bass is the one we should do, just my opinion.

I looked at the MRIP landings, and they are up considerably this year. There is only one way we can react as a Board to low recruitment, and that's maintaining an increasing SSB. If in fact the retrospective is right and we're a little bit higher, and some of the other uncertainty and landings are up. We may in fact be at the threshold already, after this year.

It would be good to know that. Alternatively, Katie brought up a method, maybe you can project landings and compared to what we actually did, and maybe we can say, you know we're okay, or conversely say no, we went up a lot. That is the problem. We don't have an output control for a direct fishery, so there is stuff that happens again and again.

But the main reason we are in this situation is we have never hit our target F, at least for a prolonged period of time. To prevent that we need to know what F is. I would advocate for something, either an update, or what Katie was talking about, to kind of give us an idea within one year of where we're at. That's because mostly of the recruitment. We need to get SSB up, which may not work, but that's all we can do. I'll leave it at that.

CHAIR GARY: Thanks, Mike, Emilie is going to respond for the staff.

MS. FRANKE: Thanks, Mike. The method that Katie outlined were from these projections. We have the projected catch that would keep us at this current F, and we could compare the realized removals next year, once we have all the 2022 data to that projected catch.

I think that's something we could add to the FMP review process without any sort of motion, we could just do that. If the Board did want to see a more full assessment update that would require a motion for next year. But otherwise, the next update will be in 2024. But we can plan to do that comparison of realized removals versus projected catch next year.

DR. ARMSTRONG: If we did that, would we have time to get the assessment together, or would we wind up in a two-year period anyway?

MS. FRANKE: Right, so if we did that comparison that would be in August. We wouldn't have time then to do a 2023 assessment, we would still be waiting for 2024. It wouldn't be sort of a wait and see if we want to do a 2023, we would have to decide pretty soon if we were going to just do the projection comparison or go the full assessment update route next year.

DR. ARMSTRONG: I don't know quite how to react to that, other than you know we're not locked in. This is kind of crazy speak, but if we find that landings are high, and projected to go above F, we could

always cut harvest without a quantitative assessment. I could sit here and make a motion and say, let's cut harvest by 10 percent.

I don't know what it will do. It may cause people to go crazy. But I just think we're in a spot that we need to react. That being said, stocks don't collapse overnight. But with 4 years of poor recruitment, we're approaching that point, in my mind. Anyway, something to think about for this Board.

CHAIR GARY: We're still on questions. We have a couple in the queue, we have Steve Train and then we'll go to Mike Luisi. Is there anybody else who wanted to ask a question who hasn't asked one yet? Okay that's our queue, and then we're going to pivot to staff for some additional information they are going to provide, before we open this up to comments and potential reaction to this. Go ahead, Steve.

MR. STEPHEN TRAIN: Thank you, Dr. Nelson. I'm, I won't say confused, but I guess I'm uncertain. One of the people at this table I would ask for advice from trying to decide on a species and what I'm going to vote for, what I think needs to be done is Mike, and I'm not sure I agree with what he's been asking.

I mean, for years we've told people when we're managing a fishery to trust the science. We've got some great graphs here of what the science tells us will happen if we maintain the course, and everyone seems worried that it's not enough, not everyone, but a lot. The stock is overfished, but overfishing is not occurring. Correct me if I say anything wrong, Dr. Nelson.

We are now returning trophies, which we didn't for a long time. That is a healthier egg, a better likelihood of spawn ability, and it seems to me like it's the best thing we've done for the brood stock since I've been on this Board. The retrospective analysis appears that this is a good model, although it did show us there was a little bit of trouble with the brood stock. But this is the new regime we're in with the management of returning the trophies. The stock will be growing, and if we do nothing, it should recover. If we stay the course this should recover. That is if we trust the science. The only thing we don't know, I feel like I'm a politician, we don't know the unknown. We don't know how much effort that we haven't accounted for.

I guess with everything I've heard here, I'm wondering why we're questioning the science so much. If it's possible that it could be weak, that this is inaccurate because we have an unknown. How much damage can we do if we allow this to go under this for another year or two before we correct it? We're not going to wipe out this fishery, am I wrong?

DR. NELSON: I'm just thinking of those fronts. There is error in everything that we're showing here, so things may be a little higher, they may be a little lower. The big issue I think in my mind is we basically have no control on what the recreational fishermen do. You know it's unlimited access.

If all of a sudden like Mike said, there could be a huge increase in landings one year. If that forces the F to go above what we're showing here in the projections at F current, then yes it can be a definite impact on the rate of recovery of the spawning stock biomass. Yes, that's just what comes to mind. I don't know if that answers your question. I don't know if you were talking to me directly, or it sound like you were talking to a lot of people on the Board too.

MR. TRAIN: Yes, maybe a little of both, but I guess the question came down to, is it the unknowns that could really mess this up, and could it really cause a lot of problems in one or two years? I don't even think that would be big enough to throw us way off course.

DR. NELSON: Gee, that's hard to say, it depends on what the endpoints are. But I wouldn't see F increasing astronomically. It might be within a range that we're showing here. I don't see any of the selectivity patterns changing majorly with an addition of another year. That is a good question, but I really don't have a good feeling about the answer.

CHAIR GARY: All right, thanks, Steve, are you good, Mike?

MR. LUISI: Yes, I'll hold my comment to the point where if somebody does make a motion on action, I'll save it for that.

CHAIR GARY: I would like to go ahead and turn to staff. Now there are a couple of additional points related to the assessment that they'll provide, so I'll go to Emilie.

MS. FRANKE: We're just taking back the screen here. Real quick thanks again, Gary, for the presentation. While we're getting the screen pulled up here, I was just going to quickly go over two points related to the stock assessment. The first is, the provision in Amendment 7 that specified the possibility of the Board taking quick action in response to this assessment, and noting that that does not come into effect, and I will go over that in a minute. I'm also going to just briefly go over some questions that we've gotten about the juvenile abundance indices, related to rebuilding. Again, there have been some questions following the recent release of the JAIs in the Chesapeake Bay. I'll just briefly go over those two topics in just a moment. Perfect. The first point is the fast-track response. In Amendment 7 we have this provision that if the 2022 assessment indicated that there is less than a 50 percent chance of rebuilding, and at least a 5 percent reduction is needed, then the Board could adjust measures via Board action. By taking action at a Board meeting without going through the Addendum process.

As we heard in the presentation, the assessment indicates there is a greater than 50 percent probability of rebuilding, and that no reduction is needed. Neither of these criteria are met, so therefore this fast-track response does not come into effect. That means that any action the Board wanted to take would go through the normal addendum process. Then just a couple points on the JAIs, again we've gotten some questions with the recent news from the Chesapeake Bay JAIs.

Again, as Gary mentioned, there is the four JAIs and the two Age 1 indices that all go into the stock assessment model to estimate Age 1 recruitment. Those indices are all weighted by the model, and overall, the Maryland JAI is closely correlated to that model estimate of Age 1 recruitment. That indicates that the Maryland JAI is a good predictor of coastwise Age 1 recruits. For this year's stock assessment, the terminal year was 2021.

We have those Age 1 estimates of recruitment through 2021. That incorporated all those Age 0 JAIs through 2020. Those low JAIs from 2019 and 2020 translated into those below average recruits that we saw in the final two years of the assessment. Then the most recent JAIs in 2021 and 2022, those will inform Age 1 recruitment estimates in the next assessment, when we're looking at Age 1 recruitment in 2022 and 2023, and so on.

Finally, this assessment used that low recruitment assumption that Gary reviewed. Just a note that these recent below average year classes, these recent JAIs we've seen, those fish aren't going to reach maturity until 2027 and after that. These recent low year classes may not impact spawning stock biomass until after that 2029 rebuilding deadline. Future stock assessments are going to be really important to provide those updated projections, as we start to see those below average year classes enter the fishery.

CHAIR GARY: Could you remind the Board what action is required today as a result of this update.

MS. FRANKE: Sure, for stock assessment updates no Board motion is required. As I mentioned, if the Board did take any action, that would go through the typical Addendum process. If the Board didn't take any action, then things would remain as they are, status quo.

CHAIR GARY: What I would like to do now, before we embark on any additional Board discussion is, I know myself and several other Board members received a flurry of comments from the public in advance of this meeting. I would like to carve out five minutes and ask if we could put the timer up, and initiate it upon the first public comment. Carve out five minutes for public comment, and Emily, if you could help me out with that to see if there is anybody that would like to offer comment.

MS. FRANKE: I see one hand on the webinar.

CHAIR GARY: All right, Ross Squire, would you like to comment?

MR. ROSS SQUIRE: Okay great, I actually had two questions. Can you explain, when you have the amount of data that is missing, in terms of the catch data from a number of rivers, and index data that is missing. What accommodation does the Technical Committee make in terms of estimating the impact of harvest in those areas?

Then the second question that I had is, you know we have a very large year class. The 2015-year class was a 24.2 young of year index versus the last four years coming in at about a 3.2. You have all of these large numbers of fish now exploitable within the slot. Can you tell me what, if any, impact that has in terms of how F is calculated going forward?

DR. DREW: This is Katie, I'll jump in, and then if Gary wants to add anything he can. I will say, so Number 1, I think your first question about missing catch. Catch that we're missing is catch that happens above the tidal limits of MRIP. You know catch in the rivers, essentially the Hudson River, the Delaware River et cetera.

We've looked at creel surveys that occurred on those rivers in the past, and compared them to MRIP estimates for those years. Overall, we've found that those estimates of harvest are very tiny, negligible compared to the rest of the coast. We know it's there; we know we're probably underestimating catch somewhat, but we don't believe it has a significant impact on the stock assessment.

In terms of years that we missed sampling, because of COVID or because of other issues. Basically, we just leave those estimates out of the model, and the model can smooth over them. It essentially just increases some of the uncertainty in the final results that are carried through into the projections, to try to figure out how much uncertainty there is around those percentages.

We know that it does increase the uncertainty, and that is sort of feeding into the projections. It's basically we can't correct for it or accommodate those missing surveys, because we don't know what happened. But we do have data from, it's not a complete lack of data. We do have data from other surveys that happened, it's just less information for the model to use.

Again, that uncertainty gets propagated through the projections, so when we were talking about that probability of rebuilding, some of that uncertainty about what happened in 2020 is included in those projections. Then the second question about, you know those fish entering the new slot, and that is taken into account when we do these projections, so that we start with that population.

You know you can see the 2015 and the 2018-year classes where they are now just starting to enter those fisheries. As we project them forward, we move them so the model will see how vulnerable they are to the fishery as it stands now. They will also see the amount of removals that we're expecting. As these strong year classes enter the fishery, it is expected that catch will go up somewhat, because there are just more fish out there, and that won't necessarily make F go up. However, there is a limit to as catch increases it will start to drive fishing mortality up, even as strong year classes come in to help support that catch. The model is aware of those year classes and how the fishery is impacting them, and it moves them forward to try to figure out how all of those things interact when we are finalizing our probabilities of rebuilding after that timeline.

MR. SQUIRE: Entering the slot will adjust F, or will it not? Is it just a datapoint that you're aware of, or is there some accommodation made for a significantly large year class entering the slot?

DR. DREW: The model knows that they're entering, and then it will expect that your catch will go up if you keep effort constant. I think what the model will not know is whether those increasingly available fish will cause effort to increase, which will drive your fishing mortality up more than we would expect.

That I think is harder to keep an eye on, but that's again why we would want to go back and check kind of how does the catch that we're seeing in 2022 compare to how much catch we would expect, given that these strong year classes are now more available to the fishery, and whether or not that catch indicates that effort is going up as well as the catch.

MR. SQUIRE: Thank you, Katie, thank you, Mr. Chair.

CHAIR GARY: Thank you, Ross, good questions. We're going to take one more comment, and that's from Tony Friedrich.

MR. TONY FRIEDRICH: Thank you so much for the time, I sincerely appreciate this. I'm looking at fish inclusion slide, and it says there are sources of uncertainty because the 2020 and 2021 data are uncertain because of COVID-19, underestimates F and we only have two years of data with the new selectivity blocks.

We're betting the house, because we have three good year classes left and that's the 15th, 17th and 18th, and there are no regulation changes. We know that Maryland and New Jersey can keep their season plans, and that is not what the public wanted through the Amendment 7 process. You had over 6,000 comments with 98 percent saying to put guardrails on CE.

You know I don't know how long people can remember back, but we bet the house on the 2011-year class, and that did not work out very well. We should have taken more reductions. We took less reductions than we should have. The 2011-year class never came through, and are we betting the house that this selectivity block is going to work out as we think it's going to.

With squishy data on 2020 and 2021, and a retrospective pattern that underestimates F, with the 2015s have just entered the slot. The 2017s are coming up, 2018s will be right behind them, and we know, based on history that if there is more fish out there, effort will increase exponentially. It's so fractional that we have to maintain this F in order to meet our conservation goal for 2029.

I feel like this is a little Lucy goosey, and there is one other thing that I would just kind of like to point out. You know not only is this not in the spirit of Amendment 7. I'm not trying to be too abrasive when I say this, but effort is down, because the fishing hasn't been as good. You can't say these regulations are the thing that's making the difference, because there are other forces at work. You have 2021 and 2020 data that is uncertain at best because of COVID, and we know that some areas are doing really well, and some areas it's like the dead sea. I wouldn't hang your hat necessarily on these regulations, because you're going to have all three of those year classes in the slot and F is going to go up.

Then when we come back to the table in a couple of years, we're not going to have anything to work with, because there are no year classes really between 2019 and 2022. Again, I'll just put an exclamation point on it. The point is pretty loud and clear and they certainly did not want to see CE without guardrails. Thank you so much for the time, Marty. I appreciate it so much and thank everyone else as well.

CHAIR GARY: All right, thank you, Tony, I appreciate that. We're going to return the discussion to the Board for any potential action. I'll open it up for discussion. Tom Fote.

MR. THOMAS P. FOTE: I've been sitting around this table for a long time, and basically, we basically try to do what is right. We trust the science, we work on the science, whether it's horseshoe crabs or whatever. The science isn't perfect, we all know that. Also, every time we tweak one thing it winds up doing something else.

I remember back when we changed size limits on striped bass three years in a row, because it showed different things if somebody tweaked it this way or that way. Then we basically counted these surf fishermen in a bigger range than they've ever been, and that's why we were overfished and overfishing when we put this Amendment through.

Now, we're saying it will help the spawning stock biomass because we'll have larger spawning stock biomass and make heavier recruitment. Well, we did that. We said the same thing on weakfish, winter flounder and bluefish. I mean bluefish was doing great and we put a 10-fish bag limit then it went down the tank.

It had nothing to do with the bag limit or the commercial fishery, it had to do with the environmental conditions. We can't control the environment. We put a lot of restrictions in place, some of us didn't agree with the size limit slot that you picked, because it basically targeted what we thought would be the year classes coming along.

But everybody didn't want to go to a bigger fish or a smaller fish, they just wanted to move it along. I'm satisfied, and I got involved in this whole process in '86 because of striped bass, and I wouldn't do anything that would imperil the stocks. Yes, science is going to say we can do it. It might work out, and if we make a mistake, we'll fix it and correct it.

But if we start jerking around every year saying, also I didn't hear one of those persons say, suppose we've got a big young of the year next year and we show the numbers go up. Do we want to increase the stock? Do we want to increase the catch? I'm satisfied where we are. We don't have to make a motion to approve the stock assessment is what we were told. I agree with the stock assessment.

CHAIR GARY: Any other comment from the Board? Loren.

MR. LOREN LUSTIG: My question is for Emilie, and thank you for that excellent report to us. Early on in your slide presentation I was very impressed by the phrase, I think that was used either by you vocally or on the slide itself. If there was a greater than 50 percent probability of recovery, can you be more definitive than that? For example, if it's 51 percent probability of recovery, that means there is a 49 percent probability of failure. It would be helpful for me to know what that number might be in your estimation.

MS. FRANKE: In Amendment 7 that provision specified that 50 percent cut off as the metric for sort of success of whether if the measures have a certain probability of rebuilding. The Board agreed that if there was a greater than 50 percent chance then the Board potentially wouldn't have to take action.

If there was a less than 50 percent chance the Board could act quickly to take action. From the assessment there is under the current fishing mortality rate, there is a 78 percent chance that the stock will rebuild by 2029. That is where we're at. I'm not sure if that fully answered your question.

CHAIR GARY: Any other comments? I'll ask the question of the Board. We can accept this as is, unless somebody has a motion they would like to advance forward, and it's alternative to accepting this. Are there any such motions? Mike.

DR. ARMSTRONG: It's a comment, maybe leading to a motion. I've heard a few comments. I just want to talk to them. To Steve Train, I don't criticize science, but we have empirical data. I'm looking at the MRIP estimates for this year. Through the first four waves we're up between 17 percent or 1000 percent, pick your state.

We're up, F is up. It has to be up. To Tom Fote's point. We've failed time and time again because we did not hit the target F, and that is my concern, and why I think we need to track it better at this point in time. The only way we can do that is with an assessment or projection, anything would be helpful. That being said, I will make a motion to accept the stock assessment as presented today.

MS. FRANKE: Thanks, Mike, we don't actually need a motion to accept the assessment, but thank you.

DR. ARMSTRONG: Yes, but I wanted to do that.

CHAIR GARY: All right, before we move on. Emerson, go ahead.

MR. HASBROUCK: Earlier I believe Emilie said that we do not need a motion to take a look at that projected catch and actual catch. Are we to assume

then that the TC will be able to do that for us next year?

MS. FRANKE: Yes, as part of the FMP Review Process, which is typically in August of next year, once we have all the 2022 landings, we can include that in an FMP review, that comparison of what the catch was in 2022 versus what the assessment projected catch would be to maintain that F, so yes, we will include that next year.

CHAIR GARY: Got a couple of hands that popped up. I'm going to go to Chris Batsavage and then Mike, and then we're going to finish there.

MR. CHRIS BATSAVAGE: Yes, sorry for the last-minute question. Emilie, just to understand when we look at catch from the FMP review next year, and we see that it's quite a bit higher than what we projected. Would that be an opportunity for the Board to initiate an action to reduce catch? If so, would that possibly be in place by the 2024 fishing year, if the Board decided to go that route?

MS. FRANKE: I'll go to Toni first.

MS. KERNS: Chris, you could initiate an action through an addendum or an amendment at any time the Board desires. If we initiated action in August, I think it would be pretty difficult to get it in time for the 2024 fishery.

MS. FRANE: Yes, I think it would be difficult to get anything in place by 2024. One other potential direction is maybe we could have an earlier meeting with the TC, earlier in the spring once MRIP estimates are finalized, and maybe bring it to the May meeting. We won't probably have final commercial landings by that point. I'm not promising that's going to happen by May, but we could maybe talk to the TC and the Plan Review Team about taking an earlier look at the MRIP estimates, and just having a discussion of where we are at that point.

CHAIR GARY: Does that answer your inquiry, Chris? Okay. Mike, you have the last word.

MR. LUISI: Chris asked my first question. I did have a question, if I could ask it through you to staff. What is being planned, as far as the comments that were made about a follow up? Is that going to be ASMFC only work, or is it going to require the Science Center as part of that as well?

Because the interaction that I have as the Chairman of the Mid-Atlantic Council, with our Northeast Regional Coordinating Committee, which includes Bob and Toni and Chairman Reid and others. I just wonder how that would all fit in. But if it's an ASMFC only thing, then I feel like I can fully support that.

MS. FRANKE: Yes, it would be an ASMFC only thing, with an in-house Plan Review Team and Technical Committee, and maybe the Stock Assessment Committee if needed.

CHAIR GARY: Are you good, Mike?

MR. LUISI: Yes, perfect, thanks, Marty.

CHAIR GARY: All right, thanks, everybody, for that discussion. Gary, before we move on, I want to just thank you on behalf of the Board for all of your hard work, the hard work of the Technical Committee and the Stock Assessment Subcommittee. Dr. Nelson, thank you so much for all that good work.

CONSIDER DRAFT ADDENDUM I ON QUOTA TRANSFERS FOR PUBLIC COMMENT

CHAIR GARY: We're going to move on to Item Number 5, Consider Draft Addendum I on Quota Transfers for Public Comment. I'll turn to Emilie.

MS. FRANKE: I feel those things to Gary as well. Today I'll provide an overview of Draft Addendum I to Amendment 7 for Board review today. I'll start with the statement of the problem here for this Draft Addendum. There were questions and concerns that have been raised about the striped bass commercial quota system, with some particular concern about the current use of the 1970s reference period as the basis for state commercial quotas.

Also, other issues and questions about how the quota system could be set up. All these concerns were included in the scoping document for Draft

Amendment 7 last year in 2021, but ultimately this issue of addressing commercial quotas was not selected for further development in Draft Amendment 7.

Some Board members expressed support for addressing the commercial quota issue separately from Amendment 7, with the intent of not slowing down the progress on Amendment 7. In August, 2021, the Board did initiate this draft addendum to consider allowing for the voluntary transfer of striped bass commercial quota in the ocean region.

That was in order to consider a management option that could provide some more immediate relief to states that were steeking a change to their commercial quota. Again, this would be separate from addressing those other concerns raised about the quota system. As we all know, other Commission managed species do allow for the voluntary transfer of commercial quota, and quota transfers can address issues like shifting stocks and quota overages, et cetera.

Here is the current timeline on the next slide for the draft addendum. After the Board initiated the Addendum in August of last year, the PDT developed the first draft of that draft addendum. In October of last year, the Board deferred consideration and later postponed until August of this year. Just a couple months ago in August, the Board provided additional guidance to the PDT for further development.

The PDT revised the draft addendum for the Board's review today, and the Board is considering approving the draft addendum for public comment. If approved, public comment could potentially occur from November through January, although I will note it might be a little bit tough to schedule hearings, depending on how many there are with the holidays. But you could probably make it work.

Then if that happened, the Board could consider final action in February, 2023. The initial development of the draft addendum last year was constrained due to the focus of the Board and the PDT on Amendment 7. The Board provided additional guidance a couple months ago, and the PDT met a couple times over the past few months to revise the draft addendum for Board review. Today I'll review the PDT revisions. I'll outline a question the PDT has for the Board, and go over the range of options that are in the draft addendum.

This was all in a PDT memo that was in supplemental materials. For the introductory portion of the draft addendum, the PDT did some significant revisions to the background section, to focus more narrowly on the commercial quota system itself and the ocean fishery, since that is the focus of this Addendum.

It includes a more detailed history of quota changes in the FMP, both pre and post Amendment 6, and also includes some pertinent information on ocean quota utilization. Here is an example of one of the new figures, showing the ocean commercial landings in the blue bars underneath the total ocean quota, that red line.

It lists the percent quota utilization each year. Again, this was information the PDT thought was relevant to the discussion. The quota utilization section in the draft addendum also includes the PDTs concern that we had originally discussed last year, which is that quota transfers could potentially increase the utilization of the total ocean quota, and this could potentially undermine the goals of the reductions taken under Addendum VI.

The commercial fishery has consistently underutilized its quota due to fish availability, and also some states prohibiting commercial fishing. The Addendum VI calculations assumed that the commercial fishery would continue to underutilize its quota, as it has in the past. This assumption might be violated if quota transfers do occur.

Moving into the proposed options. The options consider allowing for the voluntary transfer of commercial quota in the ocean region, between states that have ocean quota. If transfers are permitted, the draft addendum states that quota would be transferred pound for pound. I'll come back to that at the end to go over the PDTs discussion on that point.

The Draft Addendum options do not address Chesapeake Bay quota, Chesapeake Ocean quota, and the options also do not consider transfers between the ocean and the Chesapeake Bay. Then the PDT had a discussion about commercial quota that through CE is reallocated to the recreational sector.

The PDT determined that commercial quota that has been reallocated to a state's recreational fishery, so to a bonus program, is not eligible to be used for quota transfers. This is due to the complexity of accounting for moving quota back and forth between sectors during the year. You know when states are developing their CE proposals in the first place, you know they could specify that they want to reallocate part or all of their quota to the recreational sector.

If they choose to leave some of that quota in its original commercial quota form that would be eligible for transfer. But anything that is reallocated to the recreational fishery would not be eligible to be transferred. Getting into the options themselves. The revised draft for review today now includes some additional options.

There is sort of a range of options considering allowing voluntary transfers of ocean quota. Status quo is Option A, in which transfers are not permitted. That's the current status quo. Then the alternatives range from Option B, which would be a general transfer provision similar to other ASMFC species. Option C would limit transfers based on stock status. Option D would give the Board discretion to decide on whether to permit transfers each year, and potentially establish some criteria around that. Then Option E combines the stock status limitations and the Board discretion into one option. For the alternatives you're sort of starting with Option B, which is sort of the least restrictive. If you're going to allow transfers, and you kind of move down to Option E, which would be the most restrictive for allowing transfers.

Getting into the details, Option B would be that general transfer provision for voluntary transfers of ocean quota. Again, similar to the transfer process in place for several other ASMFC species. The transfers may occur any time during the year, and up to 45 days after the last day of the calendar year.

All transfers require a donor and receiving state, and the Administrative Commissioners must submit a signed letter, and there is no limit on the amount of quota that can be transferred. Transfers do not require approval by the Board. These transfers don't permanently affect the state specific quota shares. The state receiving the quota is responsible for any overages.

The PDT did have a question for the Board regarding the 45-day window provision. In addition to voluntary quota transfers providing in-season relief for states, is it also the Board's intent for quota transfers to address overages after the season ends? If not, the Board could remove this 45-day provision from the Draft Addendum. That is a question for discussion at the end of the presentation.

Moving on to Option C. Option C would limit transfers based on stock status. Voluntary transfers would not be permitted if the stock is overfished. Again, it would be the same general transfer process, but with that built in stock status limitation. This type of option has been raised during Board and PDT discussions, and also in public comments. This type of option would address concerns about allowing quota transfers during stock rebuilding.

However, the PDT noted that given the current overfished status of the stock, this option would not provide that near-term relief for states that receive some additional quota, which was part of the basis for this Addendum. Moving in to Option D, this is the Board discretion option. The Board would decide whether voluntary transfers are permitted in the next one or two years. This option was added at the last Board meeting in August.

The process would be that the Board would decide by their final meeting of the year, whether to allow transfers in the next one or two years, based on information on the status of the stock, and also performance of the fisheries. The PDT did add here some flexibility for the Board to decide every one, or

two years.

The two years is on track with when stock assessments would occur, so that might be some good flexibility. Then the PDT also added a note that transfers are not permitted unless the Board decides to allow them. If the Board for some reason doesn't make a decision for a particular year, then transfers would not be permitted until the Board decides to allow them.

If the Board did with this Board discretion, decide to allow transfers, the Board could specify some criteria. The Board could set a limit on how much quota could be transferred in a year. For example, only X number of pounds could be transferred in year 2024, and further the Board could set a seasonal limitation on when quota could be transferred. For example, the Board could say, you know no more than 50 percent of that quota amount could be transferred before July, with the intent there of saving quota throughout the year if states with different seasons might decide they want a quota transfer at different times.

The Board could also determine the eligibility of a state to receive a transfer, based on the percentage of that state's quota landed. For example, state's may not request a quota transfer until it has landed X percent of their quota. The PDT noted that if any of these criteria are implemented, the Board should be as specific as possible with these criteria.

Finally, for this option on Board discretion on the timeline. You know if the Board selects this option and the Addendum is approved in the middle of next year, 2023, the Board could decide at the time the Addendum is approved, whether or not to allow transfers for the rest of that year, and then the Board would start their regular process of deciding on transfers, you know at the end of the year before the next.

Finally, our last option here is Option E, and that combines both that stock status option and the Board discretion into one option. The Board would still decide whether voluntary transfers are permitted, except you have this built-in provision that transfers are not permitted when the stock is overfished.

Again, the PDT notes here that given the current overfished status of the stock, this type of option would not provide near-term relief to states seeking quota at this time. The final section of the document is the compliance section on the next slide. Basically, any measures approved by the Board would be effective immediately.

Just a note here that if quota transfers are committed, states would need to account for any transfers and potentially order some extra commercial tags to account for additional quota that they might receive. Then I'll just wrap up with a couple slides on the PDTs discussion about transfers between states with different size limits.

One of the PDTs concerns about quota transfers is that a pound of stripe bass quota is not equal across states. This concern was also previously noted by the Technical Committee during discussion of Addendum IV in 2014. We know that state commercial fisheries catch different size of striped bass, due to multiple factors.

You know the variability of striped bass size distribution along the coast, and also different state management programs, different gear, size limits, et cetera. Then further, through CE, states have made adjustments to their commercial size limits over time, deviating from the historical standard size limit.

This has resulted in changes to some commercial quotas over time. Standard pound for pound transfers would be most efficient, but they wouldn't address this uncertainty of moving quota between states that catch different size fish. Per the Board's request, the PDT did discuss this. The PDT first considered a same number of fish approach. The intent here would be to transfer the same number of fish to the receiving state as would have been caught by the donor state under the transfer quota amount. This analysis would require an average weight of commercially harvested fish for both states to convert from pounds to number of fish. After you

have the average weight for both states, it's a pretty straightforward calculation.

However, the PDT discussed that determining what average weight to use could be difficult, because one, not all states have recent commercial harvest, and then two, for those that do, commercial catch and the size of the fish caught vary within the season, depending on gear type, time of year, or the area within the state.

The Technical Committee could provide some criteria to determine the average weight for each state, but there would still be some assumptions associated with those populations. Then second, the PDT considered a maintain spawning potential approach. The intent here would be maintaining at least equivalent spawning potential as the quota moves from the donor state size limit to the receiving state size limits.

This would require yield per recruit, and spawning stock biomass per recruit, YPR and SPR analysis, and this is the same methodology that's been used in commercial CE programs. This type of analysis requires several inputs, including natural mortality, weights at age, maturity selectivity curve, et cetera.

This approach could more thoroughly address concerns about different size limits, but it would be a complex and time-consuming approach, and would require likely a TC review. Ultimately, the PDT supports moving forward with a standard pound for pound transfer approach. You know considering the complexity of the alternative approaches, particularly considering that it potentially could be a small amount of quota that could be transferred, and those transfers again are voluntary.

The revised draft addendum is currently written with a standard pound for pound transfers, and there is a note about the inherent uncertainty of transferring a quota between states that catch different size striped bass. The PDT noted that this uncertainty could potentially be limited, if there are criteria set to limit how much quota is transferred. That wraps up my presentation of the Draft Addendum, and I'm happy to take any questions.

CHAIR GARY: For efficiency's sake, I would like to go ahead and get Board feedback for Emilie, and you can either ask questions or comments. Before we do that, Emilie, you may have mentioned this, but can you characterize the current prohibition on the state transfers related to how the PDT recommendation compares for other species that have state quotas? Does that make sense?

MS. FRANKE: Sure. As far as the range of options. You can actually go to the next slide, two slides in, maybe. Yes, perfect. Most, I think all other ASMFC species that allow commercial quota transfers have something like Option B, sort of a general transfer provision, with no specific restrictions. The Option C through E would be generally more restrictive compared to other species that allow transfers.

CHAIR GARY: We'll open it up for questions and/or comments for Emilie. I'll look to the Board. All right, we'll start with Megan Ware and then Doug Grout.

MS. MEGAN WARE: This is a question for Emilie. Something I think I've been focused on is kind of what the PDT put forward that a pound of quota in one state is not equal in another state. I appreciate their discussion on trying to figure out the best way to handle that. I think the fact that the quota is tied to a limit makes it different from other species that allow quota transfers, at least for what I can think of, in terms of fishery management plans at the Commission.

In the spirit of trying to come up with a simpler approach to handle that, I'm wondering if the PDT discussed some sort of conservation tax and I'm getting this from the Lobster Fishery Management Plan where we have a conservation tax on traps. If someone had a 10,000-pound transfer and you had a 5 percent conservation tax, the transfer would be 9,500 pounds. It's a way to kind of address some of that uncertainty simply, but still allow transfers.

MS. FRANKE: The PDT did not discuss that concept. It did not come up.

MS. WARE: Well, I'll throw that out there for Board consideration. I don't know if anyone likes that idea,

or if people don't like that idea. But it may be a way to address that discrepancy between the quotas.

CHAIR GARY: We'll go to Doug Grout and then Dennis Abbott.

MR. DOUGLAS E. GROUT: I had similar thoughts and concerns as Megan. You know when it came down to seeing this before I got the supplement materials with this potential addendum. I was thinking about all the different size limits and going, whoa, this is more difficult than other species, well the quota transfers.

When you came up with the options that you suggested here, one of the things that struck me was that in Option E, where the Board would set things up, you had some suggestions about potentially limiting the transferability, or the eligibility of a state to receive a transfer based on the percentage of the quotas landed. I thought that was a good way of dealing with it.

But I started to think that maybe we should have something like that as a concept under B, which gets back to your conservation tax, you know something where because we're in an overfished status, maybe you can allow some limited amount of transferability, that we would set ahead of time if we approved Option B. But we would need to have something where the Board, when they make the final decision, could say okay, only 90 percent of the quotas or 80 percent or something like that, which would get down to a transfer tax.

MS. FRANKE: I think I see what you're saying. I think that almost would be incorporated under the current Option D, where the Board has flexibility to set those types of criteria. But there are no criteria in there about this sort of conservation tax, this extra sort of, I guess penalty. I don't know if that is the right word for it, but a state would have to take by accepting a transfer.

I think maybe, if that is something the Board wanted to add, that could potentially be added as a criterion, maybe under Option B.

MR. GROUT: I thought under Option D, I was looking under Option D, because I'm looking for something, you know D and E are where the Board has the discretion to do it for a two-year period. I was trying to think if there was a way where we could just put this into an option that we could potentially accept when approving this Addendum, and then we just keep going forward, as opposed to every two years the Board making a decision on this.

MS. FRANKE: I see what you're saying, so it would be a sub-option of Option B where it would be transfers are permitted, except there is this conservation tax associated with it.

MR. GROUT: Final question if we were to do that, if we were going to make a motion to do that. Would that delay approving this for going out to public hearing, or could we just add that in with a motion here, and then sending this out to public hearing at this meeting?

MS. FRANKE: I think it might kind of be right on the line. You know it could be a general enough criterion that if the Board was comfortable, staff could add that in. But if you wanted to see it more fleshed out, then the PDT could meet and the process could be delayed until the next cycle. I'll turn to Toni.

MS. KERNS: One other option that the Board has that we've done rarely, but have done before, is send a text out to the Board to approve in an e-mail vote just on that one part.

CHAIR GARY: Doug, would that work for you?

MR. GROUT: It would. I was just having a sidebar with Megan, if she had given any thought to what the conservation tax amount would be, because then if we had something in mind, we could just give you some guidance on that.

CHAIR GARY: We can come back, but I will say we would need a motion if this going to advance. Dennis, we have you.

MR. DENNIS ABBOTT: I don't know how big a can of worms we're opening here, and I do thank Emilie for putting all of this together. As we started this it

might have seemed like a simple task to enact some sort of a transfer system. But as we peeled the onion back, there are so many factors involved. One of the things that I would like clarity on, or might be helpful in my decision making would be to know,

I think you said in your presentation that something like 76 percent of the commercial quota is utilized most recently. I would be interested in knowing which states are using their commercial quota entirely, which states would become interested borrowing states, or using 100 percent of their quota, which aren't, and what is the total of that say 24 percent unused quota.

What does that represent in poundage? You know how much striped bass would we be looking for to transfer? I'm not opposed to this entirely, but I think there is still, to me, a lot of unanswered questions that we should know. I'm not sure what the acceptance rate would be, undoubtedly by transferring quota we would be in some sense increasing mortality, and that goes along with our previous discussion also of where we're going with striped bass recovery. Those are just thoughts that I had.

MS. FRANKE: I can respond to your question about quota utilization. We did include a table with state-by-state quota utilization, and in 2021 all states that have a commercial fishery used almost 100 percent of their quota. About 13 percent of the ocean quota is held by North Carolina, and they've had zero harvest for the past decade or so. Then about 10 percent of the ocean quota is held by states that prohibit commercial fishing.

MR. ABBOTT: That's a good answer. Are we really curing a problem by going in this direction is my question.

CHAIR GARY: John Clark.

MR. CLARK: In answer to Dennis, the reason we brought this up is because yes, it is an approach to a problem that I think we've been bringing up here for, I don't even remember when we started on this process. But it was probably back when the halcyon days, when striped bass were not overfished. But here we are. Anyhow, my question was, Emilie, you had one slide where it had something that the Board had to decide on. Does that need to be done before we can approve this for public comment, or is that something that can be done after the fact?

MS. FRANKE: I think it would be best to address that question. This is the question about the 45-day provision. I think if we left it in, could the Board take it out upon final approval? Yes, okay, it's okay to leave it in now. The Board could take out that 45 provision later if they wanted.

MR. CLARK: To the point that Megan and Doug made. If the Board wanted something like that, could we approve the Addendum for public comment and add that provision in before it actually goes to any hearings?

MS. FRANKE: Yes. To your question about the 45-day period, that could be decided later at the time of Addendum approval. To the option that Doug and Megan were potentially talking about, which is that conservation tax criteria. Yes, I think as Toni mentioned, we could sort of in the next week or so.

If there was some text staff could put together to come up with a sub-option. It could be approved by the Board via e-mail. It could be put into the Draft Addendum approved for public comment. I think we would still need a motion to add such a sub-option with the text finalized in the next week.

MR. CLARK: In that case, Mr. Chair, would it help to have a motion on the table to further this discussion, or would you rather wait on that?

CHAIR GARY: It would.

MR. CLARK: Okay, well in that case, I would like to move for the Board to approve Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan for public comment.

CHAIR GARY: Do we have a second to Mr. Clark's motion? Pat Geer. All right, I'll open it up for

discussion on the motion. Go ahead, John.

MR. CLARK: Yes. As I think everybody is aware, Delaware has been bringing this up. I think everybody knows our Commissioner Craig Pugh, who is a commercial fisherman, that this is a valuable small-scale fishery. Once again, we are not talking about a lot of striped bass in the grand scheme of things here.

I also want to point out, of course, that commercial fishermen target striped bass in our area, because there is a market for this and everybody in the Mid-Atlantic enjoys having striped bass in the springtime. It's a very big item in restaurants and for the public. You know once again, this is something that would just be very helpful in states like Delaware, as we know we've got this sporadic allocation system, based on the 1970s landings.

This gives us a way, without going through the full reallocation process, which we know will be difficult, to allow a state that as anybody who looks at Table 2 can see, Delaware does utilize its quota. We have a very good accounting system. We have double tagging, where the netters have to tag every striped bass, they catch. They then have to take it to the weigh station where it gets another tag.

Both, report daily. This is not a situation where we're just looking for more, and there is a lot of problems with our system. I think we have a very good system. We certainly understand the striped bass is currently in an overfished status. But at the same time, we think, hopefully, as things improve, that the Board could see fit to allow a state like Delaware under these very controlled conditions, to get a little bit more quota.

CHAIR CLARK: Pat, as the seconder, do you have any comments?

MR. PAT GEER: No, I would just like to add. I don't think John is looking for a whole lot of quota. John, I think it wasn't a whole lot you were looking for.

MR. CLARK: No, we would not be asking for all of North Carolina's unused quota, obviously. You know just starting off small.

MR. GEER: I think this Addendum also, it has enough flexibility in there. If the Board decides they don't want to do this. Some of those options allow the Board to make that decision, so I think in that regard, I would like to see it move forward with the options that are in here.

CHAIR GARY: Any other comments on the motion? Eric Reid.

MR. ERIC REID: I actually, when Mr. Pugh made the original motion to go down this road, I actually seconded that motion, because I was interested in it. I have no problem going out to the public. But to Mr. Abbott's point. Other than Chris Batsavage is going to be the most popular man in the entire world. I'm not really sure where quota will come from. You've got Maine and New Hampshire have no commercial fishery, and their total quota is about 6,000 pounds, maybe, something like that.

Connecticut and New Jersey give their quota to their recreational sector, so there is probably zero available there, which leaves North Carolina as, like I said. But that is just a comment more than anything. This is not an easy lift. There is going to be a lot of discussion about it. But thank God Delaware only wants a handful of fish, because that's all that is really going to be available. I guess that's my point, so thank you.

CHAIR GARY: Megan, did you have a comment?

MS. WARE: I would like to make a motion to amend. I'll read it and then I have it on a piece of paper, so I'll pass it to staff. But it would be keeping the first part of the original motion, so move to approve Draft Addendum I to Amendment 7 to the interstate fishery management plan for public comment.

Motion to Amend to add that if a stock is overfished, apply a 5% conservation tax to address the discrepancy that a pound of striped bass quota is not equal across all states, and it will apply to Option C and D, and if I get a second, I'll just provide

one more piece of rationale.

CHAIR GARY: Doug Grout seconds that motion to amend. Great, Megan, back to you. Do you want to go ahead and describe your action?

MS. WARE: Yes, I think people understand the idea. I think this is going to be a criticism that we hear in the hearings that the quota is tied to the side limits that states have. This is trying to preemptively address a comment that I think we're going to hear pretty strongly at the hearings.

CHAIR GARY: Doug, as a seconder.

MR. GROUT: Yes, Mr. Chairman, and what this gets for my point of view is an option where we don't have to go to the Board every two years to put these things in place. It just gets put in place; it is done with. Sufficiency.

CHAIR GARY: Cheri Patterson.

MS. CHERI PATTERSON: I'm definitely for this motion to amend. My question is, to Megan, 5% is arbitrary, so are we still going to have the TC or PDT take a look at this, to see if maybe they can come up with something less arbitrary? Because I know I'm going to get, how did we get that 5% conservation tax number, when we get into the public meetings.

MS. FRANKE: To get PDT or TC feedback, we wouldn't be able to approve it for public comment today. We would have to have a PDT or TC meeting, so that would be the choice of the Board if you wanted to go forward with approving it for public comment today with a number, of getting some PDT Feedback. Toni has a comment.

MS. KERNS: Emilie, I don't mean to put you on the spot, but the PDT did talk about, and you presented on the issue of the pounds not being equal across the board and they did not provide an option for the document. I'm not sure the PDT is going to be able to provide you a ton of feedback, based on that response from the PDT. I'm not going to speak for all the members, but that would be a sense that I might have, and I don't know what the TC will provide back as well.

Unless you have a more specific question that you want them to get at. I guess it's the appropriate amount. You could have a range, and then the TC could look at it while the comment is going out, if you want to expedite this. I'm just trying to help the Board have a path to approve this today, because it seems like that is what people are looking to do. If that's what you wanted to do, you could give a range and the TC could comment on that range.

CHAIR GARY: Cheri, do you have any additional thoughts? I think Megan also wants to make a comment.

MS. PATTERSON: Yes, I think we're doing a little sidebar here between me and Megan.

MS. WARE: Yes, I mean I think it's a fair criticism that the 5% is ad hoc. This is just trying to minimize some discrepancy that we see between the different state's quotas. I'm not trying to make this more complicated than it already is turning out to be. I think a priority is approving this for Draft Addendum today, so I'm fine with a 5%.

CHAIR GARY: All right, any other comments from Board members? Tom Fote.

MR. FOTE: It's interesting sitting in this room, because the last time I sat in this room was a striped bass hearing that NOAA was putting on. Bill Hogarth was the hearing officer. This was when they opened the EEZ, and that was 1995. Winds up Bill says, you made me rent this room to sit all those people in. You're going to have empty seats. I said, I'll bet your dinner.

At the end of the night there were over 950 people in this room, so Bill bought me dinner, and it had to do with striped bass. It seems like it was a pertinent issue, and it was keeping the EEZ closed. But I think I just threw that in, because that was the last time I was in this room.

CHAIR GARY: Thank you, Tom, Katie, I think you have a comment.

DR. DREW: Yes. I think to Cheri's question about like, is there a hard and fast number that we could come up with. I would say from a technical standpoint, the TC hasn't discussed this but the PDT has. I was part of those discussions. I think the PDT came to the conclusion that if there was a way to do this quantitively, they would have done it and provided you with that as a way to correct for that. I think it comes back then to the Board's sort of risk tolerance of how risky or how conservative do you want to be, recognizing this is a source of uncertainty that we can't really quantify.

MS. FRANKE: I guess I would add to that, that I think the PDT noted that it could be maybe quantified, but it would be like every transfer would be unique. It wouldn't be a simple calculation in any way.

CHAIR GARY: Cheri, go ahead, you were going to reply to that. Then I'll go to John.

MS. PATTERSON: Follow up, thank you, Mr. Chair. Yes, I'm fine with the 5%, but I think we just have to make sure that we understand at the public hearing that we need to just indicate this is arbitrary numbers.

CHAIR GARY: John.

MR. CLARK: I just want to be clear. In other words, if a state asks for 100 pounds, they get 95. Is that? Okay. They better not ask for 110 then, right?

CHAIR GARY: Thanks, John, Pat Geer.

MR. GEER: Just to be clear under Option D. The Board has the discretion to do what they want if that option is selected in the final Addendum. In that regard it's not needed. This motion is not needed if Option D is selected, because we can put, you know we've already talked about you already have to have 90 percent of your quota landed for the year. We talked about having a maximum amount of transferability. I don't think it's needed for Option B.

MS. FRANKE: Just to respond to that. The Option D provides two types of criteria the Board can specify, the state eligibility and then also how much can be transferred. By adding this provision to Option D. You know this would be in a situation where the Board decides to allow transfers when the stock is overfished. Then this would come into play. You know the Board could still decide whether or not to allow transfers when the stock is overfished. If they do, then we would just have this 5% conservation tax built in.

CHAIR GARY: All right, so any other discussion or are we ready to call the question on the motion to amend? I'm sorry, Mike, go ahead.

DR. ARMSTRONG: I might be missing something. But John was being facetious, but it's absolutely true. If I was coming for 100,000 pounds of quota, I would ask for 110, and I would get exactly what I wanted. It has zero conservation value. Isn't that correct? We can ask for whatever we want. I'll leave it at that for this. I have lots to say about whatever becomes the main motion, but I won't start with that yet.

CHAIR GARY: Steve Train.

MR. TRAIN: Mike, the way I see this is that there is going to be a lot of unintended consequences. I just said to John, you know if we get this through for Delaware, that he's going to be fighting three other states for the fish out of the Carolinas. He might not even get it. But if you've got a 5 percent transfer tax, before all that fish is gone, 5 percent of that quota that's being transferred is going to disappear to protect other fish. Even if it doesn't meet what you just said, because he's going to get his full hundred pounds. There will be fish saved.

DR. ARMSTRONG: If I could just respond. Under the condition that we use all the latent quota, which we can get into that in a second.

CHAIR GARY: All right, thank you. If there isn't any other discussion, we'll go ahead and call the question on the motion to amend. Let's try this. Is there any opposition to the amended motion, the motion to amend? Seeing none; the motion to amend passes. Now that is the original motion. For the record I'll ask again. I'm going to go ahead and

read the main motion into the record, and then we'll have a discussion.

We'll go ahead and read this into the record. Move to approve Draft Addendum I to Amendment 7 to the ISFMP for public comment, if the stock is overfished, apply a 5% conservation tax to address discrepancy that a pound of striped bass quota is not equal across all states. This would apply to Options B and D. Any additional discussion before we take a vote? Tom Fote.

MR. FOTE: Can I have a minute to caucus?

CHAIR GARY: One minute for a caucus, and then we'll vote. All right, let's go ahead and try to see if we can achieve consent. Is there any objection to the main motion that is up on the board? Seeing no objection, the motion passes.

REVIEW AND POPULATE ADVISORY PANEL MEMBERSHIP

CHAIR GARY: Are we ready to move on, Emilie for our next item on the agenda, is Number 6, Review and Populate Advisory Panel Membership. Tina.

MS. TINA L. BERGER: I offer for the Board's consideration and approval the nomination of Craig Poosikian, commercial rod and reel fisherman from Massachusetts.

CHAIR GARY: We have a nomination, Ray.

MR. RAYMOND W. KANE: That's Craig Poosikian, he's been a lifelong commercial, recreational, shell fisherman, hook and line, striper fisherman. I've known him for years. He was born and raised in Tom Fote's foreign state of Jersey, and then he moved to Massachusetts. I'm recommending him for the AP. I think he'll be an addition to the AP. Yes, by all means. **Move to approve Craig Poosikian, representing Massachusetts to the Striped Bass Advisory Panel.**

CHAIR GARY: Got a second, Justin Davis. Anyone in opposition? Seeing none; the motion passes. Toni.

MS. KERNS: I just want to note to the Board that we just approved an Addendum. It is November 7th today, and our meeting is at the end of January, which means we are going to have a very tight timeline with the holidays to get these public hearings done. Please, consider having joint hearings with your neighbors, maybe a webinar hearing, and responding to Emilie as quickly as possible, so that we can get the notice out to the public, and have these hearings on the Addendum. Bob now has information when we're done.

ADJOURNMENT

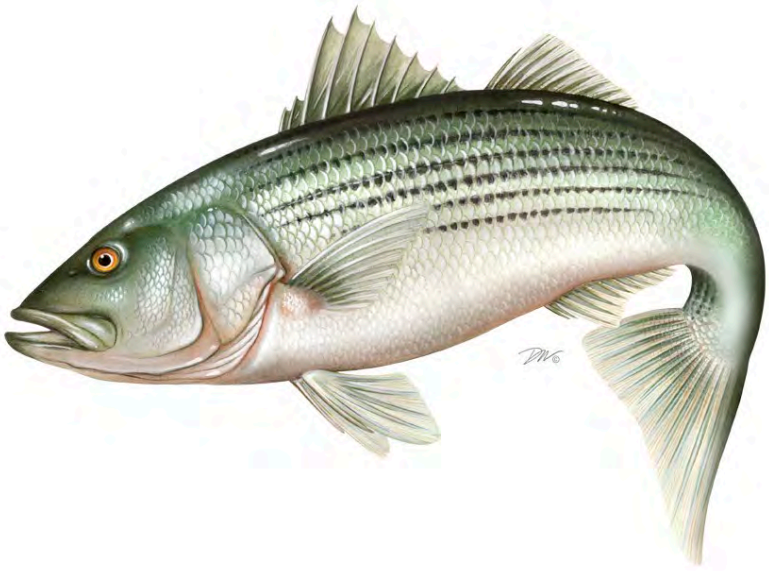
CHAIR GARY: All right, is there any other business to bring before this Board? Seeing none; we'll seek a motion to adjourn. All right, and then Bob, we'll turn it over to you.

(Whereupon the meeting adjourned at 5:25 p.m. on Monday, November 7, 2022)

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM I TO AMENDMENT 7 TO THE ATLANTIC STRIPED BASS INTERSTATE FISHERY MANAGEMENT PLAN

Commercial Quota Transfers in the Ocean Region



November 2022

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Public Comment Process and Proposed Timeline

In August 2021, the Atlantic Striped Bass Management Board initiated the development of Draft Addendum VII to Amendment 6 to the Interstate Fishery Management Plan for Atlantic Striped Bass to consider allowing voluntary transfers of ocean commercial quota. Since then, Amendment 7 to the FMP was approved, so this draft addendum is now Draft Addendum I to Amendment 7. This Draft Addendum presents background on the Atlantic States Marine Fisheries Commission's management of striped bass commercial fisheries; the addendum process and timeline; and a statement of the problem. This document also provides management options for public consideration and comment.

The public is encouraged to submit comments regarding the proposed management options in this document at any time during the public comment period. The final date comments will be accepted is **January 13, 2023 at 11:59 p.m. (EST).** Comments may be submitted at state public hearings or by mail, email, or fax. If you have any questions or would like to submit comment, please use the contact information below. Organizations planning to release an action alert in response to this Draft Addendum should contact Emilie Franke, Fishery Management Plan Coordinator, at efranke@asmfc.org or 703.842.0740.

Mail: Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington VA. 22201
Fax: (703) 842-0741

Email: comments@asmfc.org
(Subject: Striped Bass Draft Addendum I)

Date	Action
August 2021	Board initiated the Draft Addendum
August - October 2021	Plan Development Team (PDT) developed initial Draft Addendum document
October 2021	Board deferred consideration until May 2022, and later postponed until August 2022
August 2022	Board provided guidance to PDT for further development of the Draft Addendum
November 2022	**Board reviewed and approved Draft Addendum I for public comment**
November 2022 - January 2023	Public comment period, including public hearings; written comments accepted through January 13, 2023
February 2023	Board reviews public comment, selects management measures, final approval of Addendum I

1.0 Introduction

Atlantic striped bass (*Morone saxatilis*) are managed through the Atlantic States Marine Fisheries Commission (Commission) in state waters (0-3 miles) and through the National Marine Fisheries Service (NMFS) in federal waters (3-200 miles). The management unit includes the coastal migratory stock from Maine through North Carolina. Atlantic striped bass are currently managed in state waters under Amendment 7 (2022) to the Interstate Fishery Management Plan (FMP).

In August 2021, the Atlantic Striped Bass Management Board (Board) initiated Draft Addendum VII to Amendment 6 to consider allowing for the voluntary transfer of commercial striped bass quota in the ocean region, after deciding that changes to the commercial quota system would not be considered in the then ongoing development of Draft Amendment 7. Subsequently, this draft addendum was postponed to enable the Plan Development Team (PDT) and Board to focus on the development and completion of Amendment 7, which was approved in May 2022. In August 2022, the Board considered next steps for this draft addendum and provided additional guidance to the PDT on management options to be added. Due to Amendment 7's approval during its development, this addendum is now Draft Addendum I to Amendment 7.

2.0 Overview

2.1 Statement of the Problem

Members of the Board and public have raised questions about the striped bass commercial quota system, with particular concern regarding the 1972-1979 reference period and basis for state commercial quotas. Those concerns include, but are not limited to: changes in fishing effort and resource distribution since the 1972-1979 reference period; likely inaccuracies in the commercial landings data for the 1970s reference period due to the lack of mandatory reporting across all states and/or evidence of harvesters selling fish in states other than where it was landed; and inconsistent application of the reference period landings in one management action which increased all but one of the states' quotas (i.e., Delaware in Amendment 6). These concerns, along with other questions about the quota system (e.g., fixed quotas vs. setting quotas annually), were included in the scoping document for Draft Amendment 7 in 2021, but the issue of addressing commercial quotas was not selected for further development in Draft Amendment 7. Some Board members expressed support for addressing the commercial quota issue at a different time separate from Amendment 7, noting a desire to not slow Amendment 7's progress and focus on stock rebuilding.

In order to consider a management option that could provide some, more immediate relief to states seeking a change to their commercial quota, the Board initiated this addendum to consider allowing for the voluntary transfer of striped bass commercial quota in the ocean region. Many quota-managed fisheries allow for the voluntary transfer of commercial quota between states (e.g., black sea bass, bluefish, horseshoe crab). This is a useful technique that can be utilized to address a variety of problems in the management of a commercial fishery (e.g., quota overages, safe harbor landings, shifting stock distributions). The Atlantic Striped Bass FMP is the only Commission FMP with state-by-state commercial quotas that does not

allow for the voluntary transfer of commercial quota or quota reconciliation (using end-of-year quota underages to address any overages).

2.2 Background

2.2.1 Commercial Quota Management for Atlantic Striped Bass

The Atlantic Striped Bass FMP uses a quota system to manage the commercial fishery in the Chesapeake Bay and the ocean region. The FMP establishes a separate Chesapeake Bay-wide quota, which is then allocated to Bay jurisdictions per the mutual agreement of Maryland, the Potomac River Fisheries Commission (PRFC), and Virginia. The FMP establishes state-by-state quotas for the ocean region, which includes all coastal bay, inland rivers, and estuaries outside the Chesapeake Bay system. The ocean region commercial quotas are based on a proportion of the states' average landings during 1972–1979, with one exception for Delaware, and as modified by approved conservation equivalency (CE) proposals, as described in the following section.

Quota overages are paid back the following year on a pound-for-pound basis, while the transfer of quota between states and rollover of unused quota from one year to the next is not permitted.

In addition to commercial quotas, the FMP specifies commercial size limits, and requires states to implement a commercial tagging program whereby all commercially-harvested striped bass must be tagged at the point of harvest and/or the point of sale.

2.2.1.1 History of Commercial Quota Management

In general, the ocean commercial quotas are based on average landings during 1972-1979 and assuming a 28" minimum size limit. This historical base period was first used for management in 1989 under Amendment 4, which allowed for a modest relaxation of the stringent Amendment 3 requirements that had led to harvest moratoria in many states in the mid-to-late 1980s. Amendment 4 required closed seasons in order to restrict commercial harvest to 20% of the 1972–1979 base period, or an equivalent commercial quota as was elected by many of the states. The amendment allowed for separate "producer area" management (including a smaller size limit) for the Hudson River estuary, Chesapeake Bay, and inshore North Carolina. Due to New York's ban on commercial striped bass harvest in the Hudson River since 1976, this resulted in only an ocean quota for New York. In Maryland, separate Chesapeake Bay and ocean quotas were established, whereas Virginia was approved to adopt one state-wide quota for ease of management. Maryland was also authorized to employ a harvest control model to establish a flexible Chesapeake Bay quota based on projected exploitable biomass. The commercial fisheries never reopened in Maine, New Hampshire, Connecticut, and New Jersey following their voluntary moratoria. In 1991, New Jersey started a Striped Bass Bonus Program (i.e., permit program), which reallocates their commercial quota to the recreational fishery, allowing participating recreational anglers to take a "bonus fish"; the New Jersey bonus program is still in place and currently operates through an approved CE program. Connecticut implemented a similar bonus program from 2011-2019.

State-specific quotas were first implemented under Amendment 5 (1995) when the Commission declared the stock fully rebuilt; states were allocated 70% of their average landings during the 1972–1979 base period. Amendment 5 specified separate quotas for producer areas and the ocean, and extended producer-area status to the Delaware River and Bay, which allowed its producer-area commercial quota to be managed under a harvest control model (i.e., maintain a target *F* rate) similar to that used in the Chesapeake Bay. Like Virginia, Delaware was approved to combine its producer area and ocean quotas into one overall state quota beginning in 1996. The three Chesapeake Bay jurisdictions with commercial fisheries (Maryland, PRFC, and Virginia) adopted a Bay-wide commercial quota in 1997 (allocated per their own agreement) that was set using the harvest control model. Maryland maintained a separate ocean quota, while Virginia continued with a combined state-wide quota until 2002, when Virginia switched to managing the ocean and Bay quotas separately due to shifting effort into the coastal area.

Under Amendment 6 (2003), the state-by-state ocean commercial quotas were increased to 100% of the base period, except for Delaware's commercial quota which remained at the level allocated in 2002 for its statewide quota (Table 1). The decision to hold Delaware's commercial quota at the 2002 level was based on tagging information that indicated fishing mortality on the Delaware River/Bay stock was too high, and uncertainty regarding the status of the spawning stock for the Delaware River/Bay.

Producer areas were also no longer used as a management tool under Amendment 6, but the Chesapeake Bay and the Albemarle Sound/Roanoke River in North Carolina were defined as their own management areas, for different reasons. The Albemarle/Roanoke stock contributes minimally to the coastal migratory stock, and is therefore managed separately by the state of North Carolina under the auspices of ASMFC. On the other hand, the Chesapeake Bay stock, which is unquestionably part of the coastal migratory stock, was established as a management area in Amendment 6 in order to have a separate management program due to the size availability of striped bass in the area. This resulted in the ongoing use of a Chesapeake Bay-wide commercial quota distinct from the ocean commercial quotas.

Amendment 6 required all states to maintain a 28-inch minimum size limit for the commercial fishery, with three exceptions. The Delaware Bay shad gillnet fishery and the Albemarle Sound commercial fishery were subject to a 20-inch minimum size limit, and the Chesapeake Bay commercial fishery was subject to an 18-inch minimum size limit.

The ocean quotas were subsequently reduced by 25% in 2015 (Addendum IV) and by an additional 18% in 2020 (Addendum VI) in response to declining stock status (Table 1). Addendum IV required all states to maintain their 2013 commercial size limits and Addendum VI required all states to maintain their 2017 commercial size limits. Throughout quota management, states have used conservation equivalency (CE) to implement different commercial size limits resulting in changes to their quota amounts. Approved CE programs have used yield-per-recruit (YPR) and spawning stock biomass-per-recruit (SPR) analyses to determine how to adjust the quota to maintain the same spawning potential under a new

commercial size limit. The Addendum IV quota reductions were applied to the Amendment 6 base quotas, whereas the Addendum VI reductions were applied to the Addendum IV quotas as modified by conservation equivalency. The Addendum VI quotas were further modified by some states through approved CE plans (Table 1). Massachusetts increased its Addendum VI base quota to account for increasing its commercial minimum size limit, and New York reduced its base quota to account for lowering the minimum size of its commercial slot limit. Additionally, New Jersey, Delaware, Maryland, PRFC, and Virginia increased their Addendum VI base quotas by taking a greater than 18% reduction in the recreational sector to offset the commercial sector taking a smaller reduction. Amendment 7 (2022) maintains the same commercial measures specified in Addendum VI to Amendment 6; all approved Addendum VI CE programs and state implementation plans are maintained until commercial measures are changed in the future.

Table 1. Commercial striped bass quotas for the ocean region from 2003-2022.

Year	**2003-2014**	**2015-2019**	**2020-2022**	
State	**Am6 Quota (lbs)**	**Add IV Base Quotas: 25% reduction from Am6 Quota (lbs)**	**Add VI Base Quotas: 18% Reduction from Add IV Quotas (lbs)** *[accounting for Add IV CE adjustments]*	**Add VI CE-Adjusted Quotas**
Maine*	250	188	154	154
New Hampshire*	5,750	4,313	3,537	3,537
Massachusetts	1,159,750	869,813	713,247	735,240
Rhode Island	243,625[a]	182,719[b]	148,889	148,889
Connecticut**	23,750	17,813	14,607	14,607
New York	1,061,060[a]	795,795	652,552	640,718
New Jersey**	321,750	241,313[b]	197,877	215,912
Delaware	193,447	145,085	118,970	142,474
Maryland Ocean	131,560[a]	98,670[b]	74,396	89,094
Virginia Ocean	184,853	138,640	113,685	125,034
North Carolina	480,480	360,360	295,495	295,495
Ocean Total	**3,806,275**	**2,854,706**	**2,333,409**	**2,411,154**

* Commercial harvest/sale prohibited, with no re-allocation of quota.

** Commercial harvest/sale prohibited, with re-allocation of quota to the recreational fishery.

a. Amendment 6 quota reduced through conservation equivalency; NY (828,293 pounds) and MD (126,396 pounds) beginning in 2004, RI (239,963 pounds) beginning in 2007.

b. Addendum IV quota reduced through conservation equivalency for RI (181,572 lbs), NJ (215,912), and MD (90,727 lbs).

2.2.1.2. Past Consideration of Quota Transfers

Throughout its history, the Striped Bass FMP has not permitted the transfer of commercial quota between jurisdictions. The Board previously considered commercial quota transfers in the FMP through Draft Amendment 5 and Draft Addendum IV to Amendment 6. The Board did not approve the use of transfers in Amendment 5 (1995) in order to focus efforts on rebuilding the stock. During consideration of Draft Addendum IV to Amendment 6, the Technical Committee raised concerns that transfers had the potential to increase harvest at a time when harvest reductions were needed, which contributed to the Board not approving transfers under Addendum IV (2014).

2.2.2 Status of the Stock

Female spawning stock biomass (SSB) and fishing mortality rate (*F*) are estimated on a regular basis, and compared to target and threshold levels (i.e., biological reference points) in order to assess the status of the striped bass stock. The 1995 estimate of female SSB is currently used as the SSB threshold because many stock characteristics, such as an expanded age structure, were reached by this year, and this is also the year the stock was declared recovered. The female SSB target is equal to 125% of the female SSB threshold. The associated *F* threshold and *F* target are calculated to achieve the respective SSB reference points in the long term.

In November 2022, the Board reviewed the results of the 2022 Stock Assessment Update, which uses the same forward projecting statistical catch-at-age model from the peer-reviewed 2018 Benchmark Stock Assessment. The model uses fishery-dependent data and fishery-independent survey indices to develop catch-at-age matrices and estimate annual population size, fishing mortality, and recruitment. Data through 2021 were added to the model, and the model structure was adjusted for 2020-2021 to account for the regulation changes implemented through Addendum VI to Amendment 6.

The 2022 Stock Assessment Update found that the stock remains overfished but is no longer experiencing overfishing in the terminal year (2021). Female SSB in 2021 was estimated at 143 million pounds, which is below the SSB threshold of 188 million pounds and below the SSB target of 235 million pounds. *F* in 2021 was estimated at 0.14, which is below the *F* threshold of 0.20 and below the *F* target of 0.17. The reference points were updated using the low recruitment assumption, which resulted in a lower *F* target and *F* threshold compared to the 2018 Benchmark Assessment.

The assessment also indicated a period of strong recruitment (numbers of age-1 fish entering the population) from 1994-2004, followed by a period of low recruitment from 2005-2011 (although not as low as the early 1980s, when the stock was considered collapsed). This period of low recruitment contributed to the decline in SSB that the stock has experienced since 2010. Recruitment of age-1 fish was high in 2012, 2015, 2016, and 2019 (corresponding to strong 2011, 2014, 2015, and 2018 year classes), but estimates of age-1 striped bass were below the long-term average in 2018, 2020, and 2021. Recruitment in 2021 was estimated at 116 million age-1 fish, below the time series average of 135.7 million fish.

The 2022 Assessment Update also included short-term projections (using the low recruitment assumption) to determine the probability of SSB being at or above the SSB target by 2029, which is the stock rebuilding deadline following the initial overfished determination in the 2018 Benchmark Assessment. The 2022 Stock Assessment Update indicates that under the current fishing mortality rate, there is a 78.6% chance the stock will be rebuilt by 2029, indicating a reduction in catch is not necessary at this time.

The next stock assessment update is scheduled for 2024 with a terminal year of 2023.

2.2.3 Status of the Fishery

Note: Since this draft addendum applies only to commercial quota in the ocean region, this section focuses primarily on the ocean commercial fishery. For information on the Chesapeake Bay commercial fishery or striped bass recreational fisheries, see the Review of the FMP for Atlantic Striped Bass: 2021 Fishing Year (August 2022).

In 2021, total Atlantic striped bass removals (commercial and recreational, including harvest, commercial dead discards and recreational release mortality) were estimated at 5.1 million fish, which is about the same as removals in 2020. In 2021, the commercial sector accounted for 14% of total removals in numbers of fish (12% harvest and 2% dead discards), and the recreational sector accounted for 86% of removals in numbers of fish (36% harvest and 50% release mortality) (Figure 1). Removals for each sector by year are listed in the Appendix.

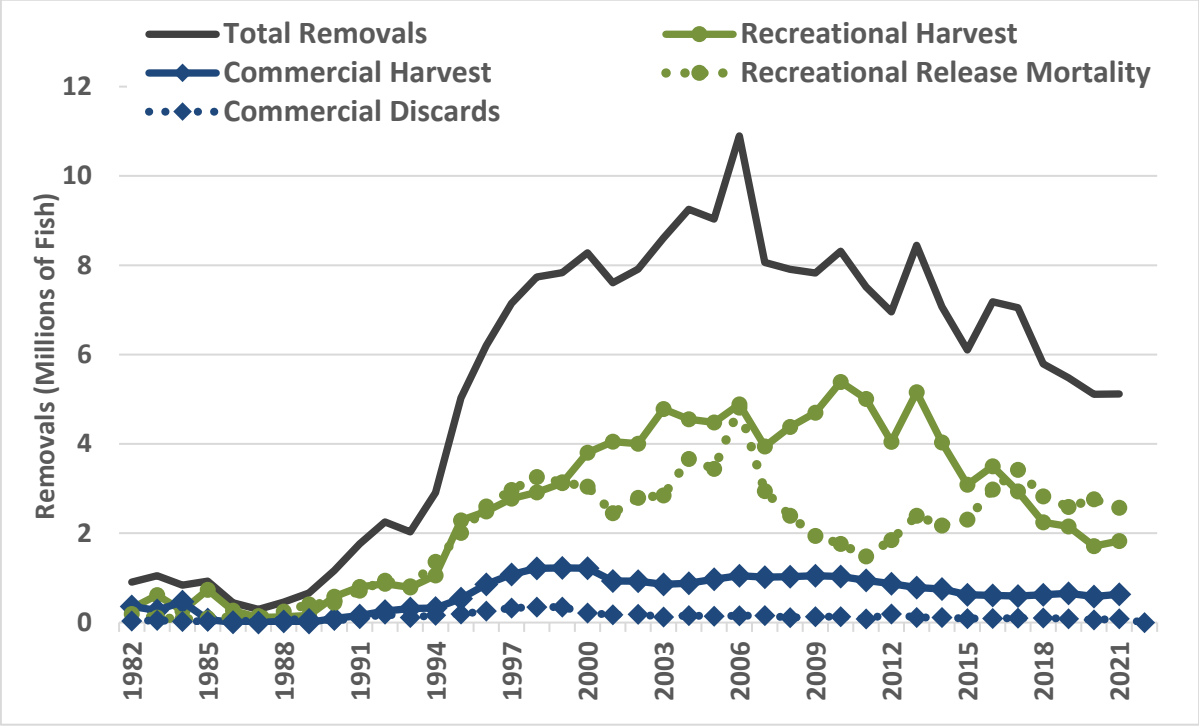


Figure 1. Total Atlantic striped bass removals by sector in numbers of fish, 1982-2021. Source: State compliance reports, MRIP, ASMFC.

Commercial Fishery Landings

In 2021, the ocean commercial striped bass quota was 2,411,154 pounds, and 1,840,693 pounds were harvested in the ocean region. In the Chesapeake Bay region, the 2021 commercial striped bass quota was 3,001,648 pounds, and 2,435,126 pounds were harvested. Neither quota was exceeded in 2021. Refer to the Appendix for 2021 quotas and landings by state, as well as 2021 commercial fishery regulations by state, including size limits, trip limits, and seasons, where applicable.

Since 1990, commercial landings from the ocean fishery have accounted for approximately 40% of total coastwide commercial landings by weight, with the other 60% coming from the Chesapeake Bay (Figure 2). The proportion of commercial harvest coming from Chesapeake Bay is much higher in numbers of fish (roughly 80%) because fish harvested in Chesapeake Bay have a lower average weight than fish harvested in ocean fisheries.

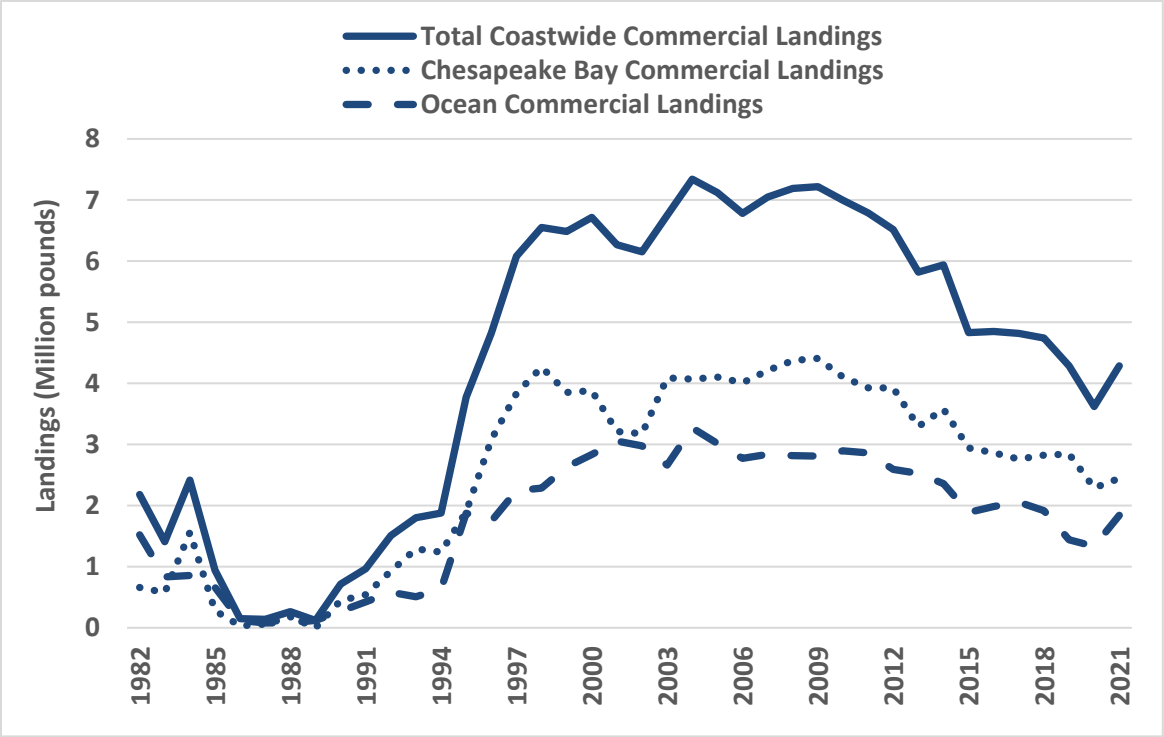


Figure 2. Commercial landings coastwide total, and by region, in pounds, 1982-2021. Source: State compliance reports.

From 2004 to 2014, ocean commercial landings averaged 2.8 million pounds annually. From 2015-2019, ocean commercial landings decreased to an average of 1.9 million pounds annually due to implementation of Addendum IV and a reduction in the commercial quota. In the last two years under Addendum VI, ocean commercial landings were 1.3 million pounds in 2020, and 1.8 million pounds in 2021.

In 2021, Massachusetts landed 40% of the ocean commercial harvest by weight, New York landed 34%, Delaware landed 8%, Rhode Island landed 7%, Virginia landed 7%, and Maryland landed 5% (Figure 3). North Carolina has had zero commercial harvest in their ocean waters since 2012.

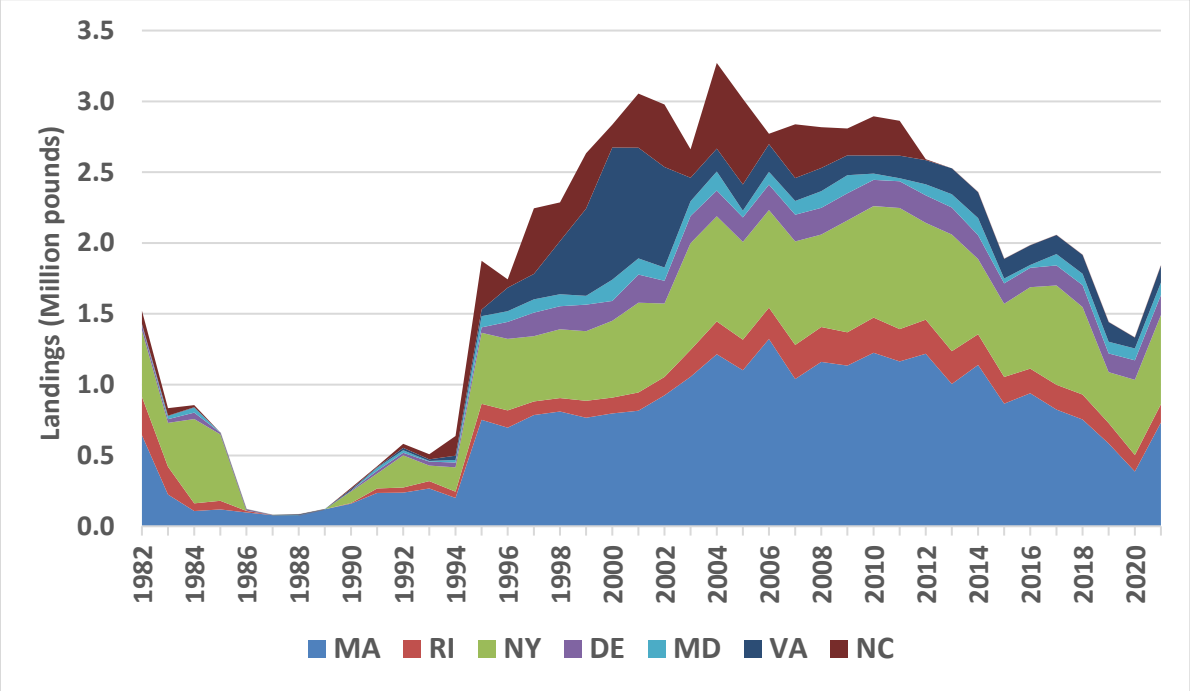


Figure 3. Commercial Atlantic striped bass landings from the ocean region by state in pounds, 1982-2021. Source: State compliance reports. Commercial harvest and sale prohibited in ME, NH, CT, and NJ. NC is ocean only.

Commercial Quota Utilization in the Ocean Region

The ocean region regularly underutilizes its cumulative quota due to lack of striped bass availability in some state waters (particularly North Carolina, which holds 13% of the ocean quota, yet has had zero ocean harvest since 2012) coupled with prohibitions on commercial striped bass fishing in Maine, New Hampshire, Connecticut, and New Jersey (which collectively share about 10% of the ocean commercial quota).

In 2021, the commercial quota utilization in the ocean region increased from 55% in 2020 to 76% in 2021 (Figure 4). This is the highest ocean quota utilization in the past five years and is similar to the ocean quota utilization in 2017 (74%). Each state that allows commercial harvest utilized 87-99% of their ocean quota in 2021, with the exception of North Carolina which had zero ocean harvest (Table 2).

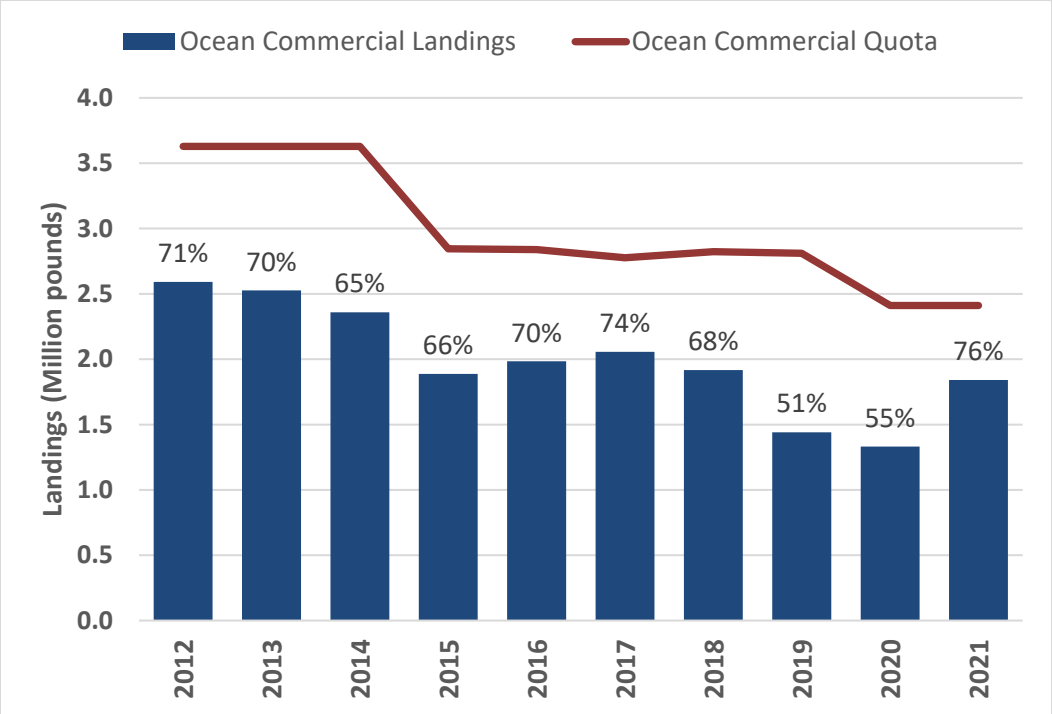


Figure 4. Ocean commercial landings and ocean commercial quota, and percent utilization, 2012-2021.

Table 2. Percent of ocean commercial quota utilized by state, 2017-2021.

State	2017	2018	2019	2020	2021
Maine*	0%	0%	0%	0%	0%
New Hampshire*	0%	0%	0%	0%	0%
Massachusetts	103%	89%	67%	53%	100%
Rhode Island	97%	97%	79%	78%	88%
Connecticut*	0%	0%	0%	0%	0%
New York	88%	78%	45%	83%	98%
New Jersey**	0%	0%	0%	0%	0%
Delaware	98%	107%	98%	97%	98%
Maryland (ocean only)	89%	88%	91%	94%	100%
Virginia (ocean only)	97%	97%	100%	62%	96%
North Carolina (ocean only)	0%	0%	0%	0%	0%
Ocean Total	**74%**	**68%**	**51%**	**55%**	**76%**

* Commercial harvest/sale prohibited.

** Commercial harvest/sale prohibited, with re-allocation of quota to the recreational fishery.

There are several factors that could contribute to how much quota is landed each year, including year class availability, overall stock abundance, nearshore availability, fishing effort, and state management programs. These factors and their impact on striped bass commercial fisheries likely vary among states and within the seasons.

Allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum VI in 2020. The commercial ocean fishery has consistently underutilized its total quota, due to a combination of fish availability and state-specific regulations (e.g., commercial fishing prohibitions). Addendum VI was designed to achieve a specific reduction in total removals through more restrictive recreational measures and reduced commercial quotas in order to achieve the fishing mortality target. During the Addendum VI process, the Technical Committee noted the reduction in commercial quota would achieve the necessary reduction in commercial removals only if the commercial fishery performs as it has in the past (i.e., if the total quota continues to be underutilized to the same degree). This assumption may be violated if the transfer of commercial quota in the ocean region is permitted. If Addendum VI commercial quotas were fully utilized through the transfer of latent quota, commercial harvest would be higher than estimated in the Addendum VI projections and states may not maintain the desired commercial reduction.

3.0 Proposed Management Program

Draft Addendum I presents options that would allow for the voluntary transfer of commercial quota in the ocean region between states that have ocean quota. However, commercial quota that has been reallocated to a state's recreational fishery (i.e., for a recreational bonus program) is not eligible to be used for commercial quota transfers. When developing CE proposals to reallocate commercial quota to a recreational fishery, states can specify reallocation of all or part of their commercial quota; any portion of the state's commercial quota that is not reallocated to the recreational fishery may be used for commercial quota transfers.

This draft addendum does not address potential transfers of the Chesapeake Bay quota among the Bay jurisdictions because the FMP does not establish state-specific shares of the Chesapeake Bay quota; Maryland, Virginia, and PRFC do so per the jurisdictions' mutual agreement. Additionally, this draft addendum does not consider allowing transfer of Chesapeake Bay quota to an ocean fishery (or vice versa) due to the distinct management programs between the regions (e.g., size and availability of fish).

If quota transfers are permitted, quota would be transferred pound-for-pound from the donor state to the receiving state. There would be some inherent uncertainty associated with transfers occurring between states that harvest different size striped bass. State commercial fisheries catch different size fish due to multiple factors, including variability in striped bass size distribution along the coast and state management programs (different size limits, gears, seasons). Further, through CE, states have been able to adjust their commercial size limits from the historical standard, which results in changes to their respective commercial quotas. Several

adjustments have been made to commercial size limits over time resulting in changes commercial quotas. Stated more simply, a pound of striped bass commercial quota is not equal across all states.

3.1 Options for Allowing the Voluntary Transfer of Ocean Commercial Quota

Option A (status quo): Commercial quota transfers are not permitted.

Option B: General commercial quota transfer provision (with overfished conservation tax). The voluntary transfer of commercial quota in the ocean region between states that have ocean quota would be permitted. Transfers between states may occur upon agreement of two states at any time during the fishing year and up to 45 days[1] after the last day of the calendar year. All transfers require a donor state (state giving quota) and a receiving state (state accepting additional quota). There is no limit on the amount of quota that can be transferred by this mechanism, however, if transfers occur when the stock is overfished, a 5% conservation tax would be applied to address the discrepancy that a pound of striped bass quota is not equal across all states.

Example: If State A transfers 1,000 pounds to State B when the stock is overfished, State B would receive 950 pounds and the other 50 pounds would be the conservation tax that is no longer available for harvest.

All other terms and conditions of the transfer are to be identified solely by the parties involved in the transfer.

The Administrative Commissioner of the agencies involved (donor and receiving state) must submit a signed letter to the Commission identifying the involved states, species, and pounds of quota to be transferred between the parties. A transfer becomes effective upon receipt of a letter from Commission staff to the donor and receiving states, and does not require approval by the Board. All transfers are final upon receipt of the signed letters by the Commission. In the event that the donor or receiving state of a transaction subsequently wishes to change the amount or details of the transaction, both parties have to agree to the change, and submit to the Commission signed letters from the Administrative Commissioner of the agencies involved. These transfers do not permanently affect the state-specific shares of the quota (i.e., the state-specific quotas remain fixed).

Once quota has been transferred to a state, the state receiving quota becomes responsible for any overages of transferred quota. That is, the amount over the final quota (that state's quota plus any quota transferred to that state) for a state will be deducted from the corresponding state's quota the following fishing season.

[1] The Board can specify any number from 0 days up to 45 days to limit when transfers could occur after the calendar year ends.

<u>Option C</u>: Limited commercial quota transfer provision based on stock status.
Same as Option B except transfers would not be permitted when the stock is overfished (i.e., below the SSB threshold).

Note: Given the current overfished status of the stock, this option would not provide near-term relief to states seeking additional quota.

<u>Option D</u>: Board discretion commercial quota transfer provision (with overfished conservation tax).
The Board has discretion to decide whether the voluntary transfer of commercial quota in the ocean region between states that have ocean quota would be permitted in the next one or two years. Quota transfers are not permitted unless the Board decides to allow them. The Board would decide by their final meeting of the year, based on information the Board has available on the status of the striped bass stock and performance of the fisheries, whether to allow commercial quota transfers in the next one or two years.

Note: If the Board selects this option and the Addendum is approved during 2023, the Board could decide at the time of the Addendum's approval whether to allow transfers for the 2023 fishing year.

If the Board allows the voluntary transfer of commercial quota, the Board may choose to specify one or more of the following criteria:

- A limit on the transferable amount of quota (e.g., a set poundage or a set percentage of the total commercial quota), and further, a seasonal limitation on its transferability (e.g., no more than 50% of the transferable quota amount may be transferred before July 1).
- The eligibility of a state to receive a transfer based on percentage of that state's quota landed (e.g., state may not request quota until it has landed 90% of its annual quota).

If the above criteria are implemented, the Board should be as specific as possible when developing criteria (e.g., specify whether eligibility is based on total statewide quota utilization, or gear- or season-specific quota utilization within a state).

If the Board approves commercial quota transfers for a given year, transfers between states may occur upon agreement of two states at any time during the fishing year and up to 45 days[2] after the last day of the calendar year. All transfers require a donor state (state giving quota) and a receiving state (state accepting additional quota). All transfers must adhere to the quota transfer limitations/criteria established by the Board for that year. Additionally, if transfers occur when the stock is overfished, a 5% conservation tax would be applied to address the discrepancy that a pound of striped bass quota is not equal across all states.

[2] The Board can specify any number from 0 days up to 45 days to limit when transfers could occur after the calendar year ends.

Example: If State A transfers 1,000 pounds to State B when the stock is overfished, State B would receive 950 pounds and the other 50 pounds would be the conservation tax that is no longer available for harvest.

The Administrative Commissioner of the agencies involved (donor and receiving state) must submit a signed letter to the Commission identifying the involved states, species, and pounds of quota to be transferred between the parties. A transfer becomes effective upon receipt of a letter from Commission staff to the donor and receiving states, and does not require the approval by the Board. All transfers are final upon receipt of the signed letters by the Commission. In the event that the donor or receiving state of a transaction subsequently wishes to change the amount or details of the transaction, both parties have to agree to the change, and submit to the Commission signed letters from the Administrative Commissioner of the agencies involved. These transfers do not permanently affect the state-specific shares of the quota (i.e., the state-specific quotas remain fixed).

Once quota has been transferred to a state, the state receiving quota becomes responsible for any overages of transferred quota. That is, the amount over the final quota (that state's quota plus any quota transferred to that state) for a state will be deducted from the corresponding state's quota the following fishing season.

<u>Option E</u>: Limited Board discretion commercial quota transfer provision based on stock status.
Same as Option D except transfers would not be permitted when the stock is overfished (i.e., below the SSB threshold).

> *Note: Given the current overfished status of the stock, this option would not provide near-term relief to states seeking additional quota.*

4.0 Compliance Schedule
Measures approved by the Board through this Addendum would be effective immediately on the date of approval.

If commercial quota transfers are permitted, states must account for any additional quota potentially received via transfers when determining the number of commercial tags required for the upcoming season.

Appendix. State-by-State Commercial Fishery Regulations, Commercial Landings, 2021 Quota Accounting, and Coastwide Removals by Sector

Table A1. 2021 Striped Bass commercial regulations.
Source: 2022 State Compliance Reports. Minimum sizes and slot size limits are in total length (TL).

STATE	SIZE LIMITS (TL) and TRIP LIMITS	SEASONAL QUOTA	OPEN SEASON
ME	Commercial fishing prohibited		
NH	Commercial fishing prohibited		
MA	≥35" minimum size; no gaffing undersized fish. 15 fish/day with commercial boat permit; 2 fish/day with rod and reel permit.	735,240 lbs. Hook & Line only.	6.16-11.15 (or when quota reached); open fishing days of Monday, Tuesday and Wednesday, with Thursday and Friday added on October 1 (if quota remains). Cape Cod Canal closed to commercial striped bass fishing.
RI	Floating fish trap: 26" minimum size unlimited possession limit until 70% of quota reached, then 500 lbs. per licensee per day	Total: 148,889 lbs., split 39:61 between the trap and general category. Gill netting prohibited.	4.1 – 12.31
	General category (mostly rod & reel): 34" min. 5 fish/vessel/day limit.		5.20-6.30; 7.1-12.31, or until quota reached. Closed Fridays, Saturdays, and Sundays throughout.
CT	Commercial fishing prohibited; bonus program in CT suspended indefinitely in 2020.		
NY	26"-38" size; (Hudson River closed to commercial harvest)	640,718 lbs. Pound Nets, Gill Nets (6-8" stretched mesh), Hook & Line.	5.15 – 12.15, or until quota reached. Limited entry permit only.
NJ*	Commercial fishing prohibited; *quota reallocated to recreational bonus program: 1 fish/permit at 24" to <28"	215,912 lbs.	5.15 – 12.31 (permit required)
PA	Commercial fishing prohibited		

Table A1, continued

STATE	SIZE LIMITS (TL) and TRIP LIMITS	SEASONAL QUOTA	OPEN SEASON
DE	Gill Net: 20” min in DE Bay/River during spring season. 28” in all other waters/seasons.	Gillnet: 135,350 lbs. No fixed nets in DE River.	Gillnet: 2.15-5.31 (2.15-3.30 for Nanticoke River) & 11.15-12.31; drift nets only 2.15-28 & 5.1-31; no trip limit.
	Hook and Line: 28” min	Hook and line: 7,124 lbs.	Hook and Line: 4.1–12.31, 200 lbs./day trip limit
MD	Chesapeake Bay and Rivers: 18–36” Common pool trip limits: Hook and Line - 250 lbs./license/week Gill Net - 300 lbs./license/week	1,445,394 lbs. (part of Bay-wide quota)	Bay Pound Net: 6.1-12.31 Bay Haul Seine: 1.1-2.28; 6.1-12.31 Bay Hook & Line: 6.1-12.31 Bay Drift Gill Net: 1.1-2.28, 12.1-12.31
	Ocean: 24” minimum	Ocean: 89,094 lbs.	1.1-5.31, 10.1-12.31
PRFC	18” min all year; 36” max 2.15–3.25	572,861 lbs. (split between gear types; part of Bay-wide quota)	Hook & Line: 1.1-3.25, 6.1-12.31 Pound Net & Other: 2.15-3.25, 6.1-12.15 Gill Net: 11.9.2020-3.25.2021 Misc. Gear: 2.15-3.25, 6.1-12.15
VA	Chesapeake Bay and Rivers: 18” min; 28” max size limit 3.15–6.15	983,393 lbs. (part of Bay-wide quota)	1.16-12.31
	Ocean: 28” min	125,034 lbs.	
NC	Ocean: 28” min	295,495 lbs. (split between gear types)	Seine fishery was not opened Gill net fishery was not opened Trawl fishery was not opened

Table A2. 2021 Commercial quota accounting in pounds.
Source: 2022 state compliance reports. 2021 quota was based on Addendum VI and approved conservation equivalency programs.

State	Add VI (base)	2021 Quota^	2021 Harvest	Overage
Ocean				
Maine*	154	154	-	-
New Hampshire*	3,537	3,537	-	-
Massachusetts	713,247	735,240	732,071	0
Rhode Island	148,889	148,889	130,308	0
Connecticut*	14,607	14,607	-	-
New York	652,552	640,718	629,491	0
New Jersey**	197,877	215,912	-	-
Delaware	118,970	142,474	140,250	0
Maryland	74,396	89,094	88,652+	0
Virginia	113,685	125,034	119,921	0
North Carolina	295,495	295,495	0	0
Ocean Total	2,333,409	2,411,154	1,840,693	0
Chesapeake Bay				
Maryland	2,588,603	1,445,394	1,305,276+	0
Virginia		983,393	729,736	0
PRFC		572,861	400,414	0
Bay Total		3,001,648	2,435,126	0

Note: North Carolina's fishing year is December-November; PRFC's fishing year for gill nets is Nov-March
* Commercial harvest/sale prohibited, with no re-allocation of quota.
** Commercial harvest/sale prohibited, with re-allocation of quota to the recreational fishery.
^ 2020 quota changed through conservation equivalency for MA (735,240 lbs), NY (640,718 lbs), NJ (215,912 lbs), DE (142,474 lbs), MD (ocean: 89,094 lbs; bay: 1,445,394 lbs), PRFC (572,861 lbs), VA (ocean: 125,034 lbs; bay: 983,393 lbs).
+ Maryland commercial landings for 2021 are considered preliminary.

Table A3. Commercial harvest by state and region in pounds (x1000), 1997-2021 calendar years.

Source: State compliance reports. ^Estimates exclude inshore harvest.

Year	Ocean								Chesapeake Bay				Grand Total
	MA	RI	NY	DE	MD	VA	NC^	Total	MD	PRFC	VA	Total	
1997	784.9	96.5	460.8	166.0	94.0	179.1	463.1	2,244.4	2,119.2	731.9	983.0	3,834.2	6,078.6
1998	810.1	94.7	485.9	163.2	84.6	375.0	273.0	2,286.6	2,426.7	726.2	1,112.2	4,265.1	6,551.6
1999	766.2	119.7	491.8	187.1	62.6	614.8	391.5	2,633.7	2,274.8	653.3	923.4	3,851.4	6,485.1
2000	796.2	111.8	542.7	140.6	149.7	932.7	162.4	2,836.0	2,261.8	666.0	951.2	3,879.0	6,715.0
2001	815.4	129.7	633.1	198.8	113.9	782.4	381.1	3,054.3	1,660.9	658.7	893.1	3,212.6	6,267.0
2002	924.9	129.2	518.6	160.6	93.2	710.2	441.0	2,977.6	1,759.4	521.0	894.4	3,174.9	6,152.6
2003	1,055.5	190.2	753.3	191.5	103.9	166.4	201.2	2,662.1	1,721.8	676.6	1,690.4	4,088.7	6,750.8
2004	1,214.2	232.3	741.7	182.2	134.2	161.3	605.4	3,271.2	1,790.3	772.3	1,507.0	4,069.6	7,340.8
2005	1,102.2	215.6	689.8	173.1	46.9	185.2	604.5	3,017.4	2,008.7	533.6	1,561.0	4,103.3	7,120.6
2006	1,322.3	221.4	688.4	179.5	91.1	195.0	74.2	2,771.8	2,116.3	673.5	1,219.0	4,008.7	6,780.5
2007	1,039.3	240.6	731.5	188.7	96.3	162.3	379.5	2,838.1	2,240.6	599.3	1,369.2	4,209.1	7,047.2
2008	1,160.3	245.9	653.1	188.8	118.0	163.1	288.4	2,817.7	2,208.0	613.8	1,551.3	4,373.1	7,190.8
2009	1,134.3	234.8	789.9	192.4	127.3	140.4	190.0	2,809.1	2,267.3	727.8	1,413.3	4,408.4	7,217.5
2010	1,224.5	248.9	786.8	185.4	44.8	127.8	276.4	2,894.7	2,105.8	683.2	1,313.0	4,102.0	6,996.7
2011	1,163.9	228.2	855.3	188.6	21.4	158.8	246.4	2,862.5	1,955.1	694.2	1,278.1	3,927.3	6,789.8
2012	1,218.5	239.9	683.8	194.3	77.6	170.8	7.3	2,592.0	1,851.4	733.7	1,339.6	3,924.7	6,516.8
2013	1,004.5	231.3	823.8	191.4	93.5	182.4	0.0	2,526.9	1,662.2	623.8	1,006.8	3,292.8	5,819.7
2014	1,138.5	216.9	531.5	167.9	120.9	183.7	0.0	2,359.4	1,805.7	603.4	1,169.4	3,578.5	5,937.9
2015	866.0	188.3	516.3	144.1	34.6	138.1	0.0	1,887.5	1,436.9	538.0	967.6	2,942.5	4,830.0
2016	938.7	174.7	575.0	136.5	19.7	139.2	0.0	1,983.9	1,425.5	537.1	902.3	2,864.9	4,848.8
2017	823.4	175.3	701.2	141.8	80.5	133.9	0.0	2,056.1	1,439.8	492.7	827.8	2,760.3	4,816.4
2018	753.7	176.6	617.2	155.0	79.8	134.2	0.0	1,916.6	1,424.3	449.4	951.0	2,824.7	4,741.3
2019	584.7	144.2	358.9	132.6	82.8	138.0	0.0	1,441.2	1,475.2	417.3	951.1	2,843.6	4,284.8
2020	386.9	115.9	530.5	138.0	83.6	77.2	0.0	1,332.2	1,273.8	400.3	613.8	2,287.9	3,620.0
2021+	732.1	130.3	629.5	140.3	88.7	119.9	0.0	1,840.7	1,305.3	411.3	729.7	2,446.4	4,287.0

+ Maryland commercial landings for 2021 are considered preliminary.

Table A4. Total removals (harvest plus discards/release mortality) of Atlantic striped bass by sector in numbers of fish, 1992-2021 calendar years. Note: Harvest is from state compliance reports/MRIP (June 2022), discards/release mortality is from ASMFC. Estimates exclude inshore harvest from NC.

Year	Commercial		Recreational		Total Removals
	Harvest	Dead Discards*	Harvest	Release Mortality	
1992	256,476	189,814	869,779	937,611	2,253,681
1993	314,526	114,317	789,037	812,404	2,030,284
1994	325,401	165,700	1,055,523	1,360,872	2,907,496
1995	537,412	192,368	2,287,578	2,010,689	5,028,047
1996	854,102	257,506	2,487,422	2,600,526	6,199,556
1997	1,076,561	324,445	2,774,981	2,969,781	7,145,769
1998	1,215,219	346,537	2,915,390	3,259,133	7,736,278
1999	1,223,572	347,186	3,123,496	3,140,905	7,835,158
2000	1,216,812	213,863	3,802,477	3,044,203	8,277,354
2001	931,412	175,815	4,052,474	2,449,599	7,609,300
2002	928,085	187,084	4,005,084	2,792,200	7,912,453
2003	854,326	126,274	4,781,402	2,848,445	8,610,447
2004	879,768	156,026	4,553,027	3,665,234	9,254,055
2005	970,403	142,385	4,480,802	3,441,928	9,035,518
2006	1,047,648	152,308	4,883,961	4,812,332	10,896,250
2007	1,015,114	158,078	3,944,679	2,944,253	8,062,124
2008	1,027,824	108,830	4,381,186	2,391,200	7,909,039
2009	1,050,055	133,317	4,700,222	1,942,061	7,825,654
2010	1,031,448	132,373	5,388,440	1,760,759	8,313,020
2011	944,777	82,015	5,006,358	1,482,029	7,515,180
2012	870,684	192,190	4,046,299	1,847,880	6,957,053
2013	784,379	112,620	5,157,760	2,393,425	8,448,184
2014	750,263	114,065	4,033,746	2,172,342	7,070,415
2015	621,952	88,614	3,085,725	2,307,133	6,103,425
2016	609,028	91,186	3,500,434	2,981,430	7,182,077
2017	592,670	98,801	2,937,911	3,421,110	7,050,492
2018	621,123	101,264	2,244,765	2,826,667	5,793,819
2019	653,807	85,262	2,150,936	2,589,045	5,479,050
2020	583,070	58,641	1,709,973	2,760,231	5,111,915
2021	634,552	85,676	1,824,484	2,572,931	5,117,643

* Commercial dead discard estimates are derived via a generalized additive model (GAM), and are therefore re-estimated for the entire time series when a new year of data is added.

Table A5. Proportion of total removals (harvest plus discards/release mortality) of Atlantic striped bass by sector in numbers of fish, 1992-2021. Note: Harvest is from state compliance reports/MRIP (June 2022), discards/release mortality is from ASMFC. Estimates exclude inshore harvest from NC.

Year	Commercial		Recreational	
	Harvest	Dead Discards*	Harvest	Release Mortality
1992	11%	8%	39%	42%
1993	15%	6%	39%	40%
1994	11%	6%	36%	47%
1995	11%	4%	45%	40%
1996	14%	4%	40%	42%
1997	15%	5%	39%	42%
1998	16%	4%	38%	42%
1999	16%	4%	40%	40%
2000	15%	3%	46%	37%
2001	12%	2%	53%	32%
2002	12%	2%	51%	35%
2003	10%	1%	56%	33%
2004	10%	2%	49%	40%
2005	11%	2%	50%	38%
2006	10%	1%	45%	44%
2007	13%	2%	49%	37%
2008	13%	1%	55%	30%
2009	13%	2%	60%	25%
2010	12%	2%	65%	21%
2011	13%	1%	67%	20%
2012	13%	3%	58%	27%
2013	9%	1%	61%	28%
2014	11%	2%	57%	31%
2015	10%	1%	51%	38%
2016	8%	1%	49%	42%
2017	8%	1%	42%	49%
2018	11%	2%	39%	49%
2019	12%	2%	39%	47%
2020	11%	1%	33%	54%
2021	12%	2%	36%	50%

* Commercial dead discard estimates are re-estimated for the entire time series when a new year of data is added. Note: Percent may not sum to 100 due to rounding.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Atlantic Striped Bass Management Board**

FROM: **Emilie Franke, FMP Coordinator**

DATE: **January 17, 2023**

SUBJECT: **Draft Addendum I Public Hearing Summaries**

Eight public hearings were held for twelve jurisdictions from December 7, 2022 through January 9, 2023. Five hearings were conducted via webinar only: Massachusetts, Rhode Island, New Jersey, Maryland-Virginia-Potomac River Fisheries Commission-District of Columbia, North Carolina. Two hearings were conducted in a hybrid format with attendees participating via webinar and in-person: Delaware, Maine-New Hampshire. One public hearing was conducted in-person only: New York.

193 individuals (not including state staff, ASMFC staff, or Commissioners/Proxies) attended the hearings, and some of these individuals attended/participated in polls at multiple hearings. Each public hearing is summarized in the following pages and the summaries are ordered from north to south. Live polls or a show-of-hands vote were used at most hearings for the proposed options. Each hearing summary lists the number of public participants who attended the hearing as well as the number of people who provided comments and/or participated in polls during the hearing. Full attendance lists are provided following each hearing summary.

Note: A summary of all public comment (written and hearing comments) received by ASMFC on Striped Bass Draft Addendum I is provided in a separate memorandum in the 2023 Winter Atlantic Striped Bass Board main meeting materials.

Maine-New Hampshire Public Hearing
Striped Bass Draft Addendum I
January 9, 2023 – Hybrid: Webinar and Portsmouth, NH

Public Attendees: 61
Hearing Officers: Megan Ware (MEDMR), Cheri Patterson (NHFG)
ASMFC Staff: Toni Kerns, Tracey Bauer

49 attendees participated in live polling and/or provided comments, including comments on behalf of the Maine Association of Charterboat Captains (MACC), Plum Island Surfcasters (PIS), Native Fish Coalition (NFC), American Saltwater Guides Association (ASGA), Stripers Forever (SF)

Poll

Option A	48
Option B	
Option C	1
Option D	
Option E	

Polls/Commenters from

ME	22
NH	21
Other	6 (MA, NY, NJ, MD, FL)

48 people (including MACC, PIS, NFC, ASGA, SF) support status quo Option A: no transfers permitted for the following reasons:

- The stock is still overfished and any increase in fishing mortality should not be considered; management should focus on rebuilding.
- Any increase in harvest would undermine rebuilding progress.
- There is only a 78% chance of rebuilding the stock by 2029, and anything that removes more fish will lower that percent chance of rebuilding and negatively impact the stock.
- Commercial fisheries target large breeding females; if additional quota is transferred to states like Massachusetts, there would be significant impact on large spawners.
- Recruitment has been very poor for the last four years, and management needs to be as conservative as possible to rebuild the stock; the Technical Committee has noted the potential future negative impact of the low recruitment.
- This is not the time to maximize quotas when the stock is vulnerable to future decline.
- Although transfers are in place for other species, the striped bass fishery is unique and the Board has decided in the past that transfers don't fit this fishery.
- Quota transfers are contrary to what the public wants.

1 person supports Option C: transfers permitted except no transfers if overfished.

- No verbal comment provided.

Other comments included:

- Striped bass should be managed for abundance.
- Management should focus on the population as a whole and environmental balance; abundance helps insulate against forces like climate change.
- Conservation equivalency should not be part of management.
- Need to protect spawning locations.
- Live fish are more valuable than dead fish.
- Concern about the data used in the stock assessment related to COVID data quality issues.
- Commercial harvest should end and striped bass should be a gamefish.

Maine-New Hampshire Public Hearing
Striped Bass Draft Addendum I
January 9, 2023
Hybrid: Webinar and Portsmouth, NH

In-Person Attendees: enclosed sign-in sheet

Webinar Attendees:

Last Name	First Name	State
Agnelli	Larry	Massachusetts
Batter	Victoria	Maine
Bauer	Tracey	Virginia
Bryand	Michael	Maine
Calagione	Sam	Maine
Cloutier	Germain	Maine
Cronin	James	New York
Dart	Evan	Maine
Dutremble	Jason	Maine
Evanilla	Johnathan	Maine
Fallon	Peter	Maine
Ferdinand	William	Maine
Fitzgerald	Betsy	Maine
Fleming	Richard	New Hampshire
Friedrich	Tony	Maryland
Gallahue	Benjamin	New Hampshire
Hildreth	Carle	Maine
Hillier	Bryce	Maine
Hunter	Zandri	Maine
Johnson	Tom	Maine
Kingston	Jack	Massachusetts
Kleiner	Don	Maine
Lamy	Jared	New Hampshire
Landry	Aaron	Maine
Mohlin	Pete	Maine
Newman	Thomas	North Carolina
Opsatnic	Levi	Maine
Pappas	Thomas	Maine
Patterson	Cheri	New Hampshire
Phillips	Chris	New Hampshire
Poston	Will	Maryland
Roach	Eric	New Hampshire
Rubner	Cody	Florida

Last Name	First Name	State
Rudman	Patrick	Maine
Sarcona	Tony	Maine
Sawyer	Ian	Maine
Schaefer	Kyle	Maine
Spendley	Paul	New Hampshire
Sullivan	Kevin	New Hampshire
Temple	Colin	Massachusetts
Tirado	Lou	Maine
Vavra	Taylor	Maine
Wallace	Capt. Eric	Maine
Ware	Megan	Maine
Whalley	Ben	Maine
Williams	Brian	New Jersey
Willsea	Flynn	Maine
Young	robert	New Hampshire
Zobel	Renee	New Hampshire

ASMFC Staff: Toni Kerns, Tracey Bauer

Atlantic Striped Bass Draft Addendum I for Public Comment

Atlantic States Marine Fisheries Commission
January 9, 2023
Portsmouth, NH

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Name	Company/Organization	City, State
Ritchie White	CCANH	Rye NH
Scott Klose	Bye Polar Fishing	Bedford NH
Scot Calitri	ORCA	Durham, NH
Dylan Carney	13 Mile Fly Co	Dover, NH
Michael Toole	Plum Island Surfcasters	Strafford, NH
Nicu Martin	NFC	Litchfield NH
Joe Forrestall	NFC	Alstead NH
Derek Cummings		Portsmouth NH
Joshua Dionne		S. Berwick ME
Matt Larkin		Newmarket, NH
Tom Brightman		Dover, NH
Doug Grout		Sunapee NH
DJ Lovett		Nottingham NH
Peter Whelan		Portsmouth NH
James Shanley	NFC	Portsmouth, NH
Jared Kane	NFC	Milton Mills, NH
JENNIS ATTSOH	ASMFC	NEWMARKET NH
~~Stanley~~		
Stephen Collins		Portsmouth, NH.
Rob Wofchuck		Brentwood, NH
JORDAN CHICHESTER		SOUTH BERWICK, ME

Atlantic Striped Bass Draft Addendum I for Public Comment

Atlantic States Marine Fisheries Commission
January 9, 2023
Portsmouth, NH

-- PLEASE PRINT CLEARLY –

Name	Company/Organization	City, State
Ben Chlenowski		RYE NH

Massachusetts Public Hearing
Striped Bass Draft Addendum I
December 19, 2022 – Webinar

Public Attendees: 48
Hearing Officers: Mike Armstrong (MADMF)
ASMFC Staff: Emilie Franke, James Boyle

37 attendees participated in live polling and/or provided comments, including comments on behalf of the Cape Cod Salties Fishing Club (CCS), Rhode Island Saltwater Anglers Association for the MA sector (RISAA-MA), Stellwagen Bank Charter Board Association (SWBCA)

Poll

Option A	29
Option B	2
Option C	2
Option D	1
Option E	3

Polls/Commenters from

MA	28
Other	9 (ME, NY, CT, FL)

29 people (including CCS, RISAA-MA) support status quo Option A: no transfers permitted for the following reasons:

- The stock is still overfished.
- The stock is starting to improve and allowing transfers would increase mortality, which is contrary to the rebuilding plan that is an important part of Amendment 7.
- Allowing transfers would have unintended consequences as quota changes each year; allocations should be fair and equitable in the first place.
- There is a risk of concentrating harvest in certain areas if transfers are allowed; there could be unintended consequences for different breeding stocks.
- There is only a 79% chance of rebuilding and there are many scenarios where we won't achieve that goal.
- Allowing transfers would put more pressure on the commercial sector.
- The striped bass stock is fragile and we are approaching the rebuilding deadline.

2 people support Option B: transfers permitted with overfished conservation tax.

- No verbal comment provided.

2 people support Option C: transfers permitted except no transfers if overfished.

- No verbal comment provided.

1 person supports Option D: Board discretion on transfers with overfished conservation tax.

- No verbal comment provided.

3 people support Option E: Board discretion on transfers except no transfers if overfished.

- No verbal comment provided.

Other comments included:

- A SWBCA Board member noted that most comments opposing transfers are coming from recreational anglers.
- The surfcasting community has spent a lot of time working on improving catch and release mortality in the fishing community.

Massachusetts Public Hearing
Striped Bass Draft Addendum I
December 19, 2022
Webinar

Last Name	First Name	State
Adams	Mike	Massachusetts
Armstrong	Mike	Massachusetts
Audet	Jerry	Massachusetts
Avila	Jason	Massachusetts
Ayer	Matt	Massachusetts
Bannon	Mark	Massachusetts
Batsavage	Chris	North Carolina
Boghdan	Kalil	Massachusetts
Boland	Collins	Massachusetts
Bravo	Peter	Connecticut
Castano	Raymond	Massachusetts
Clark	Dean	Massachusetts
Cloutier	Germain	Maine
Creighton	Jack	Massachusetts
Cullen	James	Massachusetts
Cummings	Derek	New Hampshire
Dello Russo	Joe	Massachusetts
Delzingo	Capt. Mike	Massachusetts
Dresser	Winslow	Massachusetts
Fallon	Peter	Maine
Fetterman	Jacob	New York
Frenje	Johan	Massachusetts
Friedrich	Tony	Maryland
Gordon	Jesse	New York
Henrich	Georgette	Massachusetts
Hoffman	William	Massachusetts
Holden	Brendan	Massachusetts
Hughes	Ian	Massachusetts
Jewkes	James	Massachusetts
Johns	Caroline	Massachusetts
Jones	Kevin	Massachusetts
Kane	Raymond	Massachusetts
Mauck	Capt. Parker	Massachusetts
McKiernan	Daniel	Massachusetts
Meserve	Nichola	Massachusetts
Petracca	Timothy	Utah

Last Name	First Name	State
Pinkus	Will	Massachusetts
Poirier	Anthony	Massachusetts
Poosikian	Craig	Massachusetts
Prodouz	William	Massachusetts
Rubner	Cody	Massachusetts
Savino	Robert	Massachusetts
Schofield	Austin	Massachusetts
Schwond	Peter	Massachusetts
Shukis	Alex	Massachusetts
Sikorski	David	Maryland
Sullivan	Tamer	Massachusetts
Sylvestre	Capt. George	Massachusetts
Temple	Colin	Massachusetts
Thiebault	Kristen	Massachusetts
Tighe	John	Massachusetts
Ungerland	Jon	Massachusetts
Vespe	Greg	Massachusetts
Webb	Anna	Massachusetts
Whalley	Ben	Maine
White	Kyle	Massachusetts
Williams	Al	Massachusetts
Woods	Michael	Rhode Island
Zlokovitz	Erik	Maryland

ASMFC Staff: Emilie Franke, James Boyle

Rhode Island Public Hearing
Striped Bass Draft Addendum I
December 14, 2022 – Webinar

Public Attendees: 16
Hearing Officers: Jason McNamee (RIDEM)
ASMFC Staff: Emilie Franke, Tracey Bauer

11 attendees participated in live polling and/or provided comments, including comments on behalf of the Rhode Island Saltwater Anglers Association (RISAA), Backcountry Hunters and Anglers (BHA), and American Saltwater Guides Association (ASGA)

Poll

Option A	11
Option B	
Option C	
Option D	
Option E	

Polls/Commenters from

RI	9
Other	2 (ME)

11 people (including RISAA, BHA, ASGA) support status quo Option A: no transfers permitted for the following reasons:

- Increasing fishing mortality is contradictory to rebuilding striped bass, and we don't want to derail the rebuilding effort.
- If fishing mortality increases, the probability of rebuilding by 2029 will decrease and the rebuilding timeline will extend.
- The rebuilding plan is already on a razor's edge with a thin margin of error, and any increase in mortality is risky.
- The stock is still overfished, so now is not the time to maximize harvest.
- Recovering striped bass and protecting the fishery long-term is most important.
- The options that intend to provide guardrails would still increase fishing mortality.
- The Addendum VI assumption of underutilization must remail valid, and transfers would violate that assumption.
- If, through transfers, one state can harvest way more striped bass than other states, that might impact the striped bass in that area; for example, if quota ends up in a state where striped bass have not been heavily harvested in the past, there could be bigger consequences that intended.

- If the Board wants to address broader issues with the commercial quotas, the Board should reassess the allocations first.

Other comments included:

- The figure showing the percent quota utilization is misleading since it does not show the percent of quota that was re-allocated to the recreational sector (NJ quota), which is about 9% of the quota. The figure should more clearly show how much quota is re-allocated to the recreational sector and how much quota is in states that don't have commercial fisheries.

Rhode Island Public Hearing
Striped Bass Draft Addendum I
December 14, 2022
Webinar

Last Name	First Name	State
Bertoline	Sue	New York
Blanchard	Kurt	Rhode Island
Calagione	Sam	Rhode Island
Cloutier	Germain	Maine
Finnegan	Owen	Connecticut
Friedrich	Tony	Maryland
Halavik	Byron	Rhode Island
Hittinger	Rich	Rhode Island
Jenkins	Peter	Rhode Island
Kalil	Chris	Rhode Island
Lengyel Costa	Nicole	Rhode Island
McManus	Conor	Rhode Island
McNamee	Jason	Rhode Island
Newman	Thomas	North Carolina
Poston	Will	Maryland
Spicer	Ken	Rhode Island
Tiska	Carl	Rhode Island
Vespe	Greg	Rhode Island
Whalley	Ben	Maine
Woods	Michael	Rhode Island

ASMFC Staff: Emilie Franke, Tracey Bauer, Toni Kerns, Madeline Musante

New York Public Hearing
Striped Bass Draft Addendum I
December 7, 2022 – Kings Park, NY

Public Attendees: 21
Hearing Officers: Jim Gilmore (NYDEC)
ASMFC Staff: Emilie Franke

21 attendees participated in a show of hands/or provided comments, including comments on behalf of the New York Coalition on Recreational Fishing (NYCRF) and American Saltwater Guides Association (ASGA)

Show of Hands

Option A	21
Option B	
Option C	
Option D	
Option E	

Attendees from

NY	21

21 people (including NYCRF and ASGA) support status quo Option A: no transfers permitted for the following reasons:

- Allowing transfers would increase removals and jeopardize the 2029 rebuilding plan.
- Increasing harvest is not acceptable while in a rebuilding period; harvest should not be maximized at this time.
- Rebuilding success hinges on maintaining a low fishing mortality rate, and intentionally increasing commercial harvest goes against that.
- The rebuilding plan already has a small margin of error.
- Allowing transfers would add risk and uncertainty to the rebuilding plan, especially considering recent low recruitment.
- The stock is still overfished and this action is being considered at the wrong time; it is contrary to any progress being made following Amendment 7.
- Amendment 7 public comments were overwhelmingly in support of conservative management.
- Commercial reductions for Addendum IV and Addendum VI were taken off the commercial quota, not off harvest levels, and Addendum VI assumed the same level of quota underutilization.
- The Board has rejected quota transfers twice in the past.

- The original issue was quota for just one state (Delaware); now this addendum is much broader and could lead to harvesting all unused quota and unintended consequences.
- The safeguards presented in the alternative options are not adequate. For example, the conservation tax should apply to every transfer to address the size discrepancy, not just those that happen when the stock is overfished. And in addition to no transfers when the stock is overfished, no transfers should be permitted when overfishing is occurring.
- Two commenters noted that if Option A is off the table, Option E (Board discretion with no transfers when overfished) would be the 'least bad' second choice.

Other comments included:

- The use of conservation equivalency should be stopped.

Atlantic Striped Bass Draft Addendum I for Public Comment

Atlantic States Marine Fisheries Commission
December 7, 2022
Kings Park, NY

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Name	Company/Organization	City, State
ROSS SQUIRE	NYCRF	Centerport, NY
Paul Dixon	ASGA	East Hampton NY
CHARLOS WITTEK		W. Babylon, NY
Craig Cantelmo	VANSTAAL	Cutchogue, NY
MARK SEDOTTI		SAG HARBOR NY
Matt Broderick	The Fisherman Mag	Medford, NY
Jim Levison	ASGA	SAG Harbor NY
Dominic DeFlumeri	DBS Surfcasting	Massapequa Park, NY
Joseph Aiello		Huntington NY
Dylan Jewell	All Island Surfcasters	Shirley N.Y.
ART Boyd	ALL ISLAND SURFCASTERS	SAYVILLE NY
Steve Withum	For-Hire/Comm.	Elwood NY
Luyen Chou	Rec angler	East Hampton, NY
Susan Bertolin	ASGA	Floral Park, NY
Tom McKelvey		Floral Park, NY
Kerry Heffernan	Chef/Rec Angler	New York NY
Mike Dean	Manhattan to Montauk	East Quogue, NY
Adam Cooperstock	Rec angler	Merrick, NY
John Seifert	Rec. Fish Hatchery	Smithtown NY
DAVE FLANAGAN	FORMER	ST JAMES, NY
Vinny Catalano	for hire	Greenport, NY

New Jersey Public Hearing
Striped Bass Draft Addendum I
December 20, 2022 – Webinar

Public Attendees: 34
Hearing Officers: Joe Cimino (NJDEP)
ASMFC Staff: Emilie Franke, Tina Berger

25 attendees participated in live polling and/or provided comments, including comments on behalf of the Jersey Coast Anglers Association (JCAA).

Poll

Option A	23
Option B	1
Option C	
Option D	
Option E	1

Polls/Commenters from

NJ	16
Other	9 (ME, NH, MA, NY)

23 people (including JCAA) support status quo Option A: no transfers permitted for the following reasons:

- The stock is still overfished and transfers would go against rebuilding the stock.
- Rebuilding depends on maintaining a low fishing mortality rate, and transfers would increase commercial landings while trying to rebuild the stock.
- Transfers have not been supported by the Board in the past.
- The focus should be rebuilding the stock as quickly as possible.
- Management should strive for a higher than 78% probability of rebuilding the stock, and transfers would decrease that probability.

1 person supports Option B: transfers permitted with overfished conservation tax.

- No verbal comment provided.

1 person supports Option E: Board discretion on transfers except no transfers if overfished.

- No verbal comment provided.

Other comments included:

- Conservation equivalency should be eliminated; continuing CE seems like an intentional loophole in Amendment 7 despite overwhelming public opposition to CE.
- Fishery has been sporadic and is not doing well coastwide.
- Make striped bass a gamefish.
- The New Jersey bonus program collects important striped bass data that should be used.

New Jersey Public Hearing
Striped Bass Draft Addendum I
December 20, 2022
Webinar

Last Name	First Name	State
Araujo	Jovaun	Massachusetts
Archer	Colin	New Jersey
Barbato	Carmine	New Jersey
Bertoline	Sue	New York
Bogan	Raymond	New Jersey
Brust	Jeffrey	New Jersey
Camarata	Joe J.	New Jersey
Cantelmo	Craig	New York
Carr	Michael	New Jersey
Catalano	Vincent	New York
Celestino	Michael	New Jersey
Cimino	Joe	New Jersey
Cloutier	Germain	Maine
Corbett	Heather	New Jersey
Cudnik	Greg	New Jersey
Cummings	Derek	New Hampshire
DePersenaire	John	New Jersey
Emerson	Clay	New Jersey
Friedman	Justin	New York
Friedrich	Tony	Maryland
Gary	Martin	Virginia
Haasz	Steve	New Jersey
Haertel	Paul	New Jersey
Harrison	Brendan	New Jersey
Harrison	Brendan	New Jersey
Kameen	Paul	Pennsylvania
Koch	Greg	New Jersey
Kosinski	Thomas	New Jersey
Lynch	David	Massachusetts
ONeill	Tyler	Delaware
Papciak	John	New York
Petersen	Daniel	Massachusetts
Poston	Will	Maryland
Rubner	Cody	Massachusetts
Taylor	Doug	New Jersey
Walsifer	Peter	New Jersey

Last Name	First Name	State
Whalley	Ben	Maine
Williams	Capt Brian	New Jersey
Woods	Michael	Rhode Island
Zorzi	Ken	New Jersey

ASMFC Staff: Emilie Franke, Tina Berger

Delaware Public Hearing
Striped Bass Draft Addendum I
December 15, 2022 – Hybrid: Webinar and Dover, DE

Public Attendees: 18
Hearing Officers: John Clark (DENREC)
ASMFC Staff: Emilie Franke, Madeline Musante, Toni Kerns

16 attendees provided comments, including comments on behalf of the American Saltwater Guides Association (ASGA)

Comments

Option A	2
Option B	12
Option C	
Option D	2
Option E	

Commenters from

DE	16

2 people (including ASGA) support status quo Option A: no transfers permitted for the following reasons:

- The stock is in a rebuilding period and allowing transfers would increase harvest at the wrong time.
- The recreational slot has saved fish from the recreational sector and is contributing to the increase in spawning stock biomass; these fish were saved in order to rebuild by 2029, not to be killed before they can spawn.
- There should be no additional take as the stock rebuilds, especially take of larger striped bass.

12 people support Option B: transfers permitted with overfished conservation tax.

- All those in support of Option B are commercial fishermen.
- Support for allowing transfers as Delaware has been seeking more quota for some time.
- Option B is the only option that benefits Delaware in the near-term.

2 people support Option D: Board discretion on transfers with overfished conservation tax.

- Some oversight would be a good thing.
- However, oversight should not be excessive; for example, would not be supportive of the criteria that would not allow a state request a transfer until 90% of its quota is harvested.

Delaware Public Hearing
Striped Bass Draft Addendum I
December 15, 2022
Hybrid: Webinar and Dover, DE

In-Person Attendees: enclosed sign-in sheet

Webinar Attendees:

Last Name	First Name	State
Friedrich	Tony	Maryland
Logan	Kenneth	Delaware
Pangman	Kelsey	Delaware
Parrott	Eric	Delaware
Poston	Will	Maryland
Satterfield	Paul	Delaware
Stangl	Michael	Delaware
Townsend	Wes	Delaware

ASMFC Staff: Emilie Franke, Toni Kerns, Madeline Musante

Atlantic Striped Bass Draft Addendum I for Public Comment

Atlantic States Marine Fisheries Commission
December 15, 2022
Dover, DE

-- PLEASE PRINT CLEARLY –

Name	Company/Organization	City, State
Shirley Donovan	Waterman Commercial	Dover, De.
Leonard Voss	Commercial Waterman	Smyrna DE.
Zach Voss	Commercial	Smyrna DE
Robert Pinsonski	Commercial fisherman	Dover De
Tyler O'Neill	ASGA	Hockessin, DE
Brian Heffelfinger	Commercial	Smyrna, DE
Lee Thomas	Commercial	Port Penn
Ron Virdin	//	Smyrna
Jeremy Virdin	Commercial	Leipsic
Jordan Gillam	Commercial	Bowers
Vernon Gillam	Commercial	Bowers
Tom Hendricks	Commercial	Bowers
Margaret Conroy	DNREC	

Maryland-Virginia-Potomac River Fisheries Commission-District of Columbia
Public Hearing
Striped Bass Draft Addendum I
January 5, 2023 – Webinar

Public Attendees: 29
Hearing Officers: Mike Luisi (MDDNR), Pat Geer (VMRC), Marty Gary (PRFC), Danny Ryan (DCDOE)
ASMFC Staff: Toni Kerns, Caitlin Starks, Madeline Musante

20 attendees participated in live polling and/or provided comments, including comments on behalf of the Annapolis Anglers Club (AAC) and Chesapeake Bay Foundation (CBF)

Poll

Option A	15
Option B	
Option C	1
Option D	
Option E	4

Polls/Commenters from

MD	6
VA	4
Other	10 (ME, MA, NY, NJ, FL)

15 people (including AAC, CBF) support status quo Option A: no transfers permitted for the following reasons:

- The stock is still overfished and recruitment has been low for the past few years.
- Any transfer would likely be large fish that are important to the spawning stock biomass.
- There is only a 78% chance of meeting the rebuilding deadline, so it seems inappropriate to change limits and still be able to meet the rebuilding deadline.
- Prefer changing allocations instead of allowing transfers.
- Stock productivity is already uncertain due to climate change, low recruitment, etc.

1 person supports Option C: transfers permitted except no transfers if overfished.

- No verbal comment provided.

4 people support Option E: Board discretion on transfers except no transfers if overfished.

- No verbal comment provided.

Maryland-Virginia-Potomac River Fisheries Commission-District of Columbia
Public Hearing
Striped Bass Draft Addendum I
January 5, 2023
Webinar

Last Name	First Name	State
Batsavage	Chris	North Carolina
Catalano	Vincent	New York
Cloutier	Germain	Maine
Deem	Jeff	Virginia
Friedrich	Tony	Maryland
Gary	Martin	Virginia
Geer	Pat	Virginia
Gillingham	Lewis	Virginia
Haile	Kayla	Maryland
Hogan	Sean	New York
Holtz	Jacob	Maryland
Hornick	Harry	Maryland
Humphrey	Bob	Maine
Kelly	Brian	Massachusetts
Koller	Stan	Virginia
LeMense	Julia	New York
Luisi	Michael	Maryland
Lynch	David	Massachusetts
Madsen	Shanna	Virginia
McCrickard	Alex	Virginia
McGilly	Joshua	Virginia
McMenamin	Kevin	Maryland
Miller	Roy	Delaware
Moore	Chris	Virginia
Musick	Susanna	Virginia
Newberry	Capt. Robert	Maryland
Nolan	Dave	Virginia
Owens	Ronald	Virginia
Poston	Will	Maryland
Pride	Bob	Virginia
Roach	Matthew	Maryland
Rubner	Cody	Florida
Ryan	Daniel	Maryland
Shoultz	Matthew	Maryland
Sikorski	David	Maryland

Last Name	First Name	State
Stoehr	Joel	New York
Whalley	Ben	Maine
Williams	Brian	New Jersey
Williams	Al	Massachusetts
Woodruff	Frederick	Maine
Woods	Michael	Rhode Island
Yarworth	Rudolph	Maryland
Zlokovitz	Erik	Maryland

ASMFC Staff: Toni Kerns, Caitlin Starks, Madeline Musante

North Carolina Public Hearing
Striped Bass Draft Addendum I
December 8, 2022 – Webinar

Public Attendees: 11
Hearing Officers: Chris Batsavage (NCDENR)
ASMFC Staff: Emilie Franke, James Boyle

7 attendees participated in live polling and/or provided comments including the American Saltwater Guides Association (ASGA)

Poll

Option A	6
Option B	1
Option C	
Option D	
Option E	

Polls/Commenters from

NC	2
Other	5 (ME, CT, MD)

6 people (including ASGA) support status quo Option A: no transfers permitted for the following reasons:

- Allowing transfers would increase mortality at a time when the stock is rebuilding.
- We should be doing everything possible to rebuild the stock to hopefully support striped bass eventually returning to NC at the southern end of the stock.
- The rebuilding plan is on a razor's edge and there are concerns about 2020 data.
- Increasing quota utilization would decrease the buffer between commercial landings and the full quota, which would reduce the margin for error in rebuilding the stock.
- Striped bass are managed differently along the coast so there are risks with transfers.
- This issue has grown from just focusing on Delaware to the entire coast.
- The fishery is mostly catch and release and should be managed as such.

1 person supports Option B: transfers permitted with overfished conservation tax for the following reasons:

- The commercial sector has relatively low harvest and discards.
- Striped bass is a profitable fish but North Carolina has not had them for ten years, so other states should be able to use the quota.
- The commercial fishery is accountable with a payback mechanism in place so it will not cause overfishing.
- The reason overfishing is occurring is recreational discards.

North Carolina Public Hearing
Striped Bass Draft Addendum I
December 8, 2022
Webinar

Last Name	First Name	State
Batsavage	Chris	North Carolina
Bryand	Michael	Maine
Cloutier	Germain	Maine
Friedrich	Tony	Maryland
Fuda	Tom	Connecticut
Lowman	Brooke	North Carolina
McGilly	Joshua	Virginia
Meyers	S	Virginia
Mulvey-McFerron	Owen	North Carolina
Newman	Thomas	North Carolina
Poston	Will	Maryland
Roller	Tom	North Carolina
Whalley	Ben	Maine
Williams	Scott	North Carolina

ASMFC Staff: Emilie Franke, James Boyle, Madeline Musante

Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

MEMORANDUM

TO: **Atlantic Striped Bass Management Board**

FROM: **Emilie Franke, FMP Coordinator**

DATE: **January 17, 2023**

SUBJECT: **Public Comment Summary for Draft Addendum I: Ocean Commercial Quota Transfers**

The following is an overview of all comments received by ASMFC on Draft Addendum I to Amendment 7 of the Atlantic Striped Bass Fishery Management Plan as of January 13, 2023 (closing deadline) regarding ocean commercial quota transfers.

A total of 1,979 written comments were received on Draft Addendum I from individual comments, organizations, and form letters. A total of 30 organizations submitted written comments. A total of 1,190 comments were received through six form letters[1]. The remainder of comments (759) came from individual comments including from private anglers, charter captains, commercial fishermen, and concerned citizens.

Eight public hearings were held for twelve jurisdictions from December 7, 2022 through January 9, 2023. Five hearings were conducted via webinar only: Massachusetts, Rhode Island, New Jersey, Maryland-Virginia-Potomac River Fisheries Commission-District of Columbia, North Carolina. Two hearings were conducted in a hybrid format with attendees participating via webinar and in-person: Delaware, Maine-New Hampshire. One public hearing was conducted in-person only: New York. Live polls or a show-of-hands vote were used at most hearings for the proposed options.

193 individuals (not including state staff, ASMFC staff, or Commissioners/Proxies) attended the hearings, and some of these individuals attended/participated in polls at multiple hearings.

The following pages include tables summarizing how many comments were received and how many comments were in support of each option proposed in Draft Addendum I. There is also a list of other topics commonly raised in the comments. The summary tables are followed by the letters and emails sent by organizations, form letters with total submissions count, and individual comment letters and emails. The public hearing summaries and attendee lists are provided as a separate attachment included in the 2023 Winter Striped Bass Board main meeting materials.

[1] Form letters (3 or more of the same comment) include comments stating support for an organization's comments; however, if the commenter provided additional comments/rationale related to management beyond the organization's or letter's comments, then it was considered an individual comment.

Table 1. Total Comments Received and Hearing Attendees

Number of written comments received by individuals, organizations, and form letters, and number of people who attended and participated in the polls/provided comments at each public hearing.

Written Public Comments Received		
Individual Comments		759
Form Letters		1,190^
Organizations		30
TOTAL		1,979
Public Hearing	**# Public Attendees***	**# Poll Participants/ Commenters****
Maine-New Hampshire	61	49
Massachusetts	48	37
Rhode Island	16	11
New York	21	21
New Jersey	34	25
Delaware	18	16
Maryland-Virginia-PRFC-DC	29	20
North Carolina	11	7
TOTAL	*238**	*186***

^ 6 different form letters received.

Some people attended multiple hearings.* ***193 unique public attendees* *attended the public hearings. Public attendees do not include state staff, ASMFC staff, or Commissioners/Proxies.*

*** Some individuals and organizations participated in polls at multiple hearings and/or provided verbal comments at multiple hearings.*

Table 2. Number of Comments in Support of Each Option

Number of written and public hearing comments in support of each option.
For each public hearing, the table notes where poll participants/commenters were from: in-state or from a different state.

	Option A. No transfers	**Option B. Transfers allowed, with overfished tax**	**Option C. Transfers allowed, except no transfers when overfished**	**Option D. Board discretion transfers, with overfished tax**	**Option E. Board discretion transfers, except no transfers when overfished**	**Comments Unrelated to Options**	
Individual	731	9	0	0	1	18	
Form Letter	1,190						
Organization	29				1		
Written Total	**1,950**	**9**	**0**	**0**	**2**	**18**	
Hearings						*In-State*	*Out-State*
Maine-New Hampshire	48		1			*43*	*6*
Massachusetts	29	2	2	1	3	*28*	*9*
Rhode Island	11					*9*	*2*
New York	21					*21*	
New Jersey	23	1			1	*16*	*9*
Delaware	2	12		2		*16*	
MD-VA-PRFC-DC	15		1		4	*10*	*10*
North Carolina	6	1				*2*	*5*
Hearing Total	**155**	**16**	**4**	**3**	**8**		

The vast majority of commenters favored the status quo Option A (no transfers permitted). The most common rationale was concern about expanding harvest and increasing fishing mortality at a time when the stock is rebuilding, still overfished, and experiencing poor recruitment. Commenters noted that management shouldn't focus on maximizing harvest; it should focus rebuilding the stock. Comments noted that allowing quota transfers would jeopardize stock rebuilding.

Several comments supporting Option A referred to the Board's past decisions to not allow quota transfers, as well as the potential for transfers to violate the Addendum VI reduction assumptions. Some comments noted that allowing transfers would be in conflict with stakeholder input supporting conservation during the Amendment 7 process. Some comments noted if states are not harvesting their full quotas, that indicates the stock is not doing well and extra quota should not be transferred/harvested by another state.

Of the alternative Options B, C, D or E, Option B (transfers permitted with overfished tax) had the most support. Many commenters in support of Option B noted they are commercial fishermen. Commenters noted that quota transfers allow for the efficient use of commercial quota. They noted the small impact of striped bass quota transfers on the overall fishery, noting the commercial fishery is small relative to the recreational fishery. Commenters also noted the commercial fishery has accountability measures in place with payback for any overages. Comments also noted that transfers would help avoid regulatory discards in states that fill their quota, and noted the benefits of quota transfers used for other species.

Those in favor of Option D (Board discretion with overfished tax) noted that some Board discretion on transfers would be beneficial, but cautioned against too much oversight and overly restrictive transfer criteria. Those in favor of Option E (Board discretion except no transfers when overfished) noted that Option E would provide maximum oversight by the Board and would support caution during rebuilding, while still benefitting states seeking transfers after filling their quota early in the season.

Additional Topics Raised in Comments

Commenters raised additional topics, including:

- Concern that commercial fisheries are removing large breeders and the importance of protecting large spawning females.
- Concern about ongoing conservation equivalency programs (CE) and support for ending current CE programs.
- The commercial sector should have the same regulations (e.g., size limits) as the recreational sector.
- Concern about the potential for a future moratorium if the stock does not recover.
- Support for ending commercial harvest and making striped bass a gamefish (recreational only).
- Concern about menhaden harvest in the Chesapeake Bay.
- Concern about impacts from commercial gill nets.

Written Comments were submitted by the following groups and organizations:

American Saltwater Guides Association

American Sportfishing Association

Annapolis Anglers Club

Backcountry Hunters and Anglers:

- New England Chapter
- New York Chapter

Berkeley Striper Club (NJ)

Cape Atlantic Striper Club (NJ)

Cape Cod Salties Sportfishing Club

Center for Sportfishing Policy

Chesapeake Bay Foundation

Coastal Conservation Association, National

Congressional Sportsmen's Foundation

Fish Hawks Saltwater Anglers Club (NJ)

Fun Under Boats Dive Club (NJ)

Hartford Surf Fishing Club (CT)

Hi-Mar Striper Club (NJ)

Jersey Coast Anglers Association

Maine Association of Charterboat Captains

Native Fish Coalition:

- Connecticut Chapter
- Maine Chapter
- Massachusetts Chapter
- New Hampshire Chapter
- New York Chapter

New Jersey Council of Diving and Clubs

New York Coalition for Recreational Fishing

North Fork Anglers Fishing Club (NY)

Plum Island Surfcasters (MA)

Theodore Roosevelt Conservation Partnership

Virginia Anglers Club

Virginia Saltwater Sportfishing Association

Note: The following organizations provided comments at the public hearings only and are included in the public hearing comment count:

- *Rhode Island Saltwater Anglers Association*
- *Stripers Forever*

Written Comments were submitted via the following form letters:

American Sportfishing Association (1,054)

Coastal Conservation Association (44)

Form Letters from unknown sources:

- Form Letter 1 (49) *[recreational anglers]*
- Form Letter 2 (37)
- Form Letter 3 (3)
- Form Letter 4 (3)

Emilie Franke

From: kevin@annapolisanglersclub.com
Sent: Friday, January 13, 2023 9:56 PM
To: Comments
Cc: Kevin
Subject: [External] Striped Bass Draft Addendum I

Categories: Auto Replied

Dear Ms. Franke,

On behalf of over 700 Members of the Annapolis Anglers Club, we appreciate the opportunity to provide comments to the Atlantic States Marine Fisheries Commission regarding Draft Addendum 1 to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan. We oppose allowing commercial quota transfers and urge the Board to support Option A (status quo).

The Atlantic Striped Bass Fishery Management Plan (FMP) has never allowed commercial quota transfers between jurisdictions. As the addendum highlights, the Board previously considered allowing commercial quota transfers in Amendment 5 (1995) and Amendment 6 (2014). However, the Technical Committee raised concerns that commercial quota transfers had the potential to increase removals at a time when the resource needed further conservation to achieve FMP goals and population rebuilding.

The 2022 Atlantic Striped Bass Stock Assessment update concluded the population is still overfished, but not experiencing overfishing with a relatively good probability of achieving rebuilding if fishing mortality is maintained at its current level. The rebuilding projections operate under the assumption that commercial quota utilization will remain unchanged, and the allowance of quota transfers would violate that assumption jeopardizing rebuilding probability. Although the Technical Committee was not tasked to formally comment on this proposed action, their previous concerns still stand considering the resource is overfished and maintaining fishing mortality at current levels is paramount to achieving the FMP's 2029 rebuilding deadline.

We encourage the SBMB to manage the Striped Bass Fishery with a bias towards recovery and sustainment of the Striped Bass Spawning Mass and reverse course from a past bias of achieving maximum yield.

Sincerely,

Kevin Mcmenamin
President: Annapolis Anglers Club
745 Rolling View Drive
Annapolis, MD 21409
(410) 340-5030 Mobile
kevin@annapolisanglersclub.com

January 13, 2023

Emilie Franke
ASMFC Fishery Management Plan Coordinator
1050 North Highland Street, Suite 200A-N
Arlington, Virginia 22201

Dear Ms. Franke,

On behalf of America's 7.5 million striped bass anglers and the sportfishing industry, we appreciate the opportunity to provide comments to the Atlantic States Marine Fisheries Commission regarding Draft Addendum 1 to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan. We oppose allowing commercial quota transfers and urge the Board to support Option A (status quo).

The Atlantic Striped Bass Fishery Management Plan (FMP) has never allowed commercial quota transfers between jurisdictions. As the addendum highlights, the Board previously considered allowing commercial quota transfers in Amendment 5 (1995) and Amendment 6 (2014). However, the Technical Committee raised concerns that commercial quota transfers had the potential to increase removals at a time when the resource needed further conservation to achieve FMP goals and population rebuilding.

The 2022 Atlantic Striped Bass Stock Assessment update concluded the population is still overfished, but not experiencing overfishing with a relatively high probability of achieving rebuilding if fishing mortality is maintained at its current level. The rebuilding projections operate under the assumption that commercial quota utilization will remain unchanged, and the allowance of quota transfers would violate that assumption, jeopardizing rebuilding confidence. Although the Technical Committee was not tasked to formally comment on this proposed action, their previous concerns still stand considering the resource is overfished and maintaining fishing mortality at current levels is paramount to achieving the FMP's 2029 rebuilding deadline.

We realize that to ensure the health and abundance of Atlantic striped bass in the future, immediate and difficult management decisions must be made. The long-term health of the striped bass population is our top priority, and the recreational fishing community has made many sacrifices to ensure successful rebuilding. Therefore, we do not support allowing commercial quota transfers at this time because that will increase commercial removals and jeopardize rebuilding this valuable iconic public resource.

Sincerely,

Michael Waine
Atlantic Fisheries Policy Director
American Sportfishing Association

Jeff Angers
President
Center for Sportfishing Policy

Ted Venker
Conservation Director
Coastal Conservation Association

Chris Horton
Senior Director of Fisheries Policy
Congressional Sportsmen's Foundation

John Gans
Northeast Field Representative
Theodore Roosevelt Conservation Partnership

AMERICAN
SALTWATER GUIDES ASSOCIATION
BETTER BUSINESS THROUGH CONSERVATION

January 12, 2023

Emilie Franke
FMP Coordinator
1050 N. Highland Street
Suite 200 A-N
Arlington, Virginia 22201

RE: Draft Addendum I to Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass

Dear Ms. Franke,

Thank you for the opportunity to comment on Draft Addendum I on commercial quota transfers for striped bass. The American Saltwater Guides Association (ASGA) represents conservation-minded fishing guides, private anglers, and fishing-related businesses that value abundant and sustainably managed fisheries. The health of the striped bass stock is critical to our members' businesses, as striped bass are the lynchpin-fishery in the Northeast and Mid-Atlantic. While we generally try and focus on issues relating to the recreational sector, we strongly oppose Draft Addendum I, to allow commercial quota transfers, at this time, based on historic precedence, threats to rebuilding, and the associated uncertainties. Therefore, ASGA supports Option A: Commercial quota transfers are not permitted.

Commercial quota transfers are not a new idea at the Atlantic States Marine Fisheries Commission (ASMFC) or in the striped bass management plan, for that matter. Draft Addendum I identifies two such examples when quota transfers were considered in the striped bass fishery—Amendment 5 (1995) and Draft Addendum IV to Amendment 6 (2018). Those actions were rejected by the Striped Bass Board "to focus efforts on rebuilding the stock" and over "concerns that transfers had the potential to increase harvest at a time when harvest reductions were needed," respectively. Both of those precedents for rejecting commercial quota transfers hold true today, as the stock remains overfished, in a rebuilding plan, and must maintain a low fishing mortality rate for the near future.

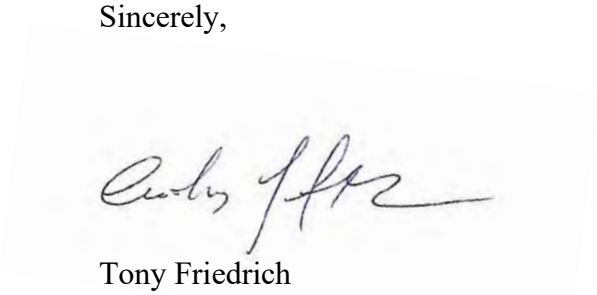
Successfully rebuilding this stock by 2029 is our number one priority, and we contend that allowing voluntary commercial transfers would jeopardize that outcome. The primary concern is that increasing commercial quota utilization, which historically has gone underutilized by more than 25%, will increase fishing mortality at a time when maintaining low fishing mortality levels is paramount for rebuilding. In addition, allowing commercial transfers would violate assumptions made during the Addendum VI reductions. Furthermore, the Addendum VI reductions were not realized by the commercial sector in the Chesapeake nor in the ocean; the reduction was taken from the quota, not the harvest. Since the commercial sector does not maximize quota in a normal year, the required reductions across the sectors were not equitable. As an example, the 2018 commercial ocean harvest, before the 2019 Addendum VI reductions, is almost identical to the 2021 harvest. The recreational community, while accounting for the

majority of removals, is doing its part to recover striped bass by achieving required reductions. The commercial community is not meeting these reductions. ASGA chose to not make this an issue in previous management actions, but we can no longer ignore these shortcomings in management with the potential implications of Draft Addendum I.

Allowing commercial quota transfers would inject additional uncertainties into striped bass management. Another substantial concern of ours is the fact that transferring x pounds of quota from one state to another is not necessarily an equal pound-pound transaction due to the patchwork of commercial regulations comprising the coastwide management unit.[1] Therefore, a potential transfer could have an unintended effect on a specific segment of the striped bass population—again, this concern is heightened by the fact that the stock is in a rebuilding plan.

Had this action been a one-off transfer of quota from North Carolina to Delaware, we most likely would have supported it. However, we cannot support Draft Addendum I based on the above reasons. Additionally, we do not wish to see the striped bass stock subject to the "horse-trading" that we can't help but suspect would become a possibility should voluntary commercial quota transfers be allowed. ASGA strongly supports Option A, no commercial transfers. Thank you for your consideration of this comment and please reach out if you have any questions.

Sincerely,



Tony Friedrich
Vice President and Policy Director
American Saltwater Guides Association
Tony@saltwaterguidesassociation.org

[1] ASMFC. November 1. PDT Updates to Draft Addendum I on Quota Transfers for Board Review. http://www.asmfc.org/files/Meetings/2022AnnualMeeting/AtlantStripedBassBoardSupplemental.pdf

Berkeley Striper Club
PO Box 9
Seaside Park, NJ, 08752

Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201

Dear Ms. Franke,

Thank you for considering this public comment about **Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan** offered on behalf of the more than 100 members of the Berkley Striper Club.

The Berkley Striper Club supports **Option A (status quo): Commercial quota transfers are not permitted** in Draft Amendment I to Amendment 7.

The spirit and mandate of Amendment 7 reflects the overwhelming public preference to rebuild the Atlantic Striped Bass stock as quickly as possible and not later than 2029. We believe that consideration of this Addendum at a time when Striped Bass Spawning Stock Biomass (SSB) is below target and experiencing historically low recruitment reflects bad faith by members of the commission to allow increased harvesting of Atlantic Striped Bass in the service of limited special interests. We expect options that allow quota transfers will increase the withdrawals and impair rebuilding.

Established in 1966, the Berkeley Striper Club is one of the largest and most active surf-fishing clubs in New Jersey and we take the preservation of Striped Bass stocks seriously. While our home waters are primarily around Seaside Park, New Jersey, our members fish for Striped Bass as far north as Maine and as far south as North Carolina and as far west as Santa Cruz, Ca. The Berkeley Striper Club seeks to promote and protect recreational fishing interests, while safeguarding our natural resources. Our club cares deeply about the health of the Atlantic Stiped Bass and we invest our time and resources to protect them.

Our public position on this question is consistent with the positions we took in the past. Our club supported more forceful measures to reduce striped bass mortality and increase female Striped Bass Spawning Stock biomass in 2013 and 2019. We were disappointed that the Commissions adopted solutions that only had a 50% chance of success. We were not surprised to learn that Atlantic Striped Bass were overfished since 2013 and the half measures put in place did not succeed.

In April 2022, our club again responded to a request for public input to Draft Amendment 7 of the Atlantic Striped Bass Interstate Fisheries Management Plan reflecting our continuing support for conservation, our preference for abundant stocks, and a level of dissatisfaction with actions over the last decade that allowed healthy stock fall to its the present over-fished state. Our preference was for options that compel the Commission to act quickly and forcefully. We preferred enforceable measures that carry a high level of certainty (certainty substantially better than coin-flip) to restore the Atlantic Striped Bass to good health in the shortest period of time. We oppose options that allow the Board discretion for inaction when the science indicates that action is

required.

Our club was briefly encouraged by the commission's action on Amendment 7. We now encourage the members of the commission, especially those from the State of New Jersey and even the commissioner who is member of the Berkeley Striper Club, to keep faith with the public and fulfill their mandate to act as stewards for the official state saltwater fish. Reject measures that will weaken Amendment 7 and support efforts to return the Atlantic Striped Bass stock to robust health as quickly as possible.

Thank you again for your kind consideration.

Very Respectfully,

John Kravchak

President
Berkeley Striper Club

BACKCOUNTRY HUNTERS AND ANGLERS
NEW ENGLAND CHAPTER
NEW YORK CHAPTER

January 12, 2023

Via Email: comments@asmfc.org

Atlantic Striped Bass Management Board
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201
Attn: Emilie Franke
Fishery Management Plan Coordinator

Re: New England BHA Comments on Draft Addendum 1 to Striped Bass Amendment 7

Backcountry Hunters & Anglers (BHA) seeks to ensure North America's outdoor heritage of hunting and fishing in a natural setting. As a component of this mission, BHA supports management policies that ensure abundant populations inhabit our public lands and waters and are accessible to the hunters and anglers who choose to pursue them.

During the development of Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan the New England and New York Chapter Leadership Boards of BHA advocated with two principles in mind – to recover the Striped Bass fishery as soon as reasonably possible, and to implement policies that ensure target levels are maintained long-term after recovery. Because little time has elapsed since the adoption of Amendment 7 and the state of the fishery has changed minimally, although our understanding of today's fishery has been enhanced by the acceptance of the November 2022 Stock Assessment, we still consider these principles our top priorities.

While we understand, to a degree, the desire by some managers to utilize the totality of the ocean region's commercial quota and/or increase their proportional share we are concerned both with the timing of the proposal before us now, as well as the long-term likelihood of proposed changes to protect the fishery. As a result, **we urge the Striped Bass Board to select Option A – status quo** and will detail our concerns further below.

Near-Term Transfer Options (B & D)

According to the November 2022 Stock Assessment the Striped Bass fishery remains overfished, with the current female SSB approximately 24% below the threshold and 39% below the target set in Amendment 7. By including conservation-minded options in Amendment 7 in May 2022 the Striped Bass Board seemed committed to recovering the fishery's abundance to target SSB by 2029 – and this was urged overwhelmingly and celebrated by the interested public.

The 2022 Stock Assessment Update Report also outlines probabilities for recovery under different fishing mortality (F) scenarios (Table 10). While the odds of achieving target SSB by 2029 should current F be maintained seem positive there is no guarantee that fishing mortality levels will remain constant. One

trend is clear in Table 10, and that is that if F were to increase than the odds of successfully achieving target SSB by 2029 – a commitment the Striped Bass Board made – decrease.

Because of their inclusion as potential options in Addendum 1 it is clear that some members of the Striped Bass Board seek to claim unused commercial quota in the near term, and we are concerned that should Option B or Option D be selected a mechanism would exist to circumnavigate future public input and facilitate such utilization either by Board action or without Board approval at all. Successful efforts to secure quota transfers would undoubtedly result in increased fishing mortality, and in the near term such efforts would subsequently extend the recovery timeline and reduce the chances of achieving target SSB by 2029.

Stock Status Restriction on Transfer Options (C & E)

As slightly more restrictive approaches, Options C & E propose limiting the transfer of commercial quota based on stock status. Specifically, they state that "transfers would not be permitted when the stock is overfished", or in other words when the stock's abundance is below the SSB threshold. During times when the Board is required to rebuild the stock due to either of the SSB triggers being tripped, which is currently the case, Amendment 7 requires the stock be rebuilt to target SSB, not the relatively lower threshold SSB that designates the stock overfished.

As a result, when an overfished stock is being recovered a period necessarily exists when the stock is no longer overfished but has not yet achieved target SSB. During this period we feel that the Board's focus should remain on the final stages of recovery rather than facilitating increased fishing mortality, so we do not feel that the additional restrictions posed in Options C & E adequately protect the fishery or facilitate recovery when doing so should be the top priority.

In conclusion, our concerns with Options B, C, D, and E make status quo the only option that we support. We respectfully urge the Striped Bass Board to prioritize recovering the fishery as soon as reasonably possible, and implement policies that ensure target levels are maintained long-term after recovery, by selecting Option A.

Thank you for the opportunity to provide input, and for your consideration of our comments.

Sincerely,

Michael Woods

Chair, New England Chapter Board
Backcountry Hunters and Anglers

And the undersigned Chapter Leadership Boards:

New England Chapter Board
(Connecticut, Maine, Massachusetts,
New Hampshire, Rhode Island, Vermont)
newengland@backcountryhunters.org

New York Chapter Board
newyork@backcountryhunters.org

Emilie Franke

From: Cape Atlantic Striper Club <capeatlanticstriperclubllc@gmail.com>
Sent: Friday, January 13, 2023 10:19 PM
To: Comments
Subject: [External] Draft Addendum 1 to amendment 7

Categories: Auto Replied

Good evening, on Behalf of Cape Atlantic Striper Club, I would like to say we do not support any change to amendment 7. Any transfer of commercial quota, will potentially be detrimental to the goal of rebuild by 2029. With historically low spawns year after year, we must do whatever is necessary to rebuild this stock. And giving a state unused commercial quota, is the exact opposite of that.
So, we oppose addendum 1 and are in favor of Status Quo. Any questions or concerns, please feel free to respond to this email. Thank you

Dean Danenhower
President, Cape Atlantic Striper Club

Emilie Franke

From: P. Jonathan Ungerland <pjungerland@gmail.com>
Sent: Wednesday, December 21, 2022 3:10 PM
To: Comments
Cc: Jack Creighton; Guido DiPietro
Subject: [External] Striped Bass Draft Addendum I -Attention Emilie Franke

Categories: Auto Replied

To the respected directors and staff of the Atlantic States Marine Fisheries Commission -

The Cape Cod Salties Sportfishing Club - a committed membership of approximately 300 informed individuals on Cape Cod and in the broader New England region, concerned with sustainable enjoyment of our environment and ongoing educational engagement with community - formally submits the following in response to the ongoing hearings pertaining to the proposed Striped Bass Addendum I to ASMFC policies.

As expressed verbally by the Trustee of our Board of Directors (Jack Creighton) during the 12/19 public hearing on the topic, and pursuant to the formal vote of our membership on 12/12/22 regarding the proposed amendment, *our club opposes Striped Bass Draft Addendum I and supports "Option A" discussed during th 12/19 meeting (status quo, do not allow for transfer of commercial quota between states).*

For the benefit of the staff and directors of ASMFMC, the following are representative of *some* of the informed perspectives and concerns of our club:

- It is our club's understanding MA did not meet its assigned striped bass quota for two of the last three years, and in those two years the percentage of quota realized was in the low 50th percentile range, which would lead us to believe that there was not an "abundance" of striped bass within our waters - abundance being the stated federal objective and measure for species management.
- Further, public data combined with firsthand experiential immersion in and exposure to the species and stocks in the fishery would lead us to believe the 'young of year' fish numbers were down in Maryland and low in NY, which is demonstrably not good for mid and long term prospects of the stock.
- Further, with the midsize of 35” for striped bass in MA, every fish commercially harvested and sold translates to the loss of a breeder; which, again, our club concludes would negatively impact the fisheries long term goals for abundance and ASMFC's targeted 2029 fishery management metrics.
- Finally, while we recognize this is a tangential matter related more to the recreational perspective, we would simply point out that, due to the current slot limits within our fishery for the striped bass species, many fish kept by recreational fishermen are also breeders (thus compounding the total annual impact on the fishery). The conclusion being, any amendment to policy which contributes to commercial harvesting of additional breeders is destructive to the near and long term established metrics of the fishery.

In closing, we're supremely confident the ASMFC and its talented resources were already aware of these data points and likely share many of the perspectives we have offered. Nonetheless, we figured it might be valuable for our club to document the perspective of engaged and informed citizens, utilizers, and stewards serving and recreating in the fishery.

Respectfully,
Jon Ungerland
President, Cape Cod Salties Sportfishing Club
303-916-0428

CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

January 13, 2023

Emilie Franke
Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200A-N
Arlington, VA 22201

RE: Comments on Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan

Submitted via email only to: comments@asmfc.org

Dear Ms. Franke:

On behalf of the Chesapeake Bay Foundation (CBF), we wish to provide the following comments on the Atlantic States Marine Fisheries Commission's (ASMFC) Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan (FMP). CBF is the largest conservation organization dedicated solely to saving the Chesapeake Bay. Our motto, ***Save the Bay***, defines the organization's mission and commitment to reducing pollution, improving fisheries, and protecting and restoring natural resources such as forests, wetlands, and underwater grasses. CBF represents more than 300,000 members who support the wise management of the region's living resources with a particular focus on striped bass.

CBF recently released its *2022 State of the Bay Report* which, since its inception, has included striped bass as an indicator species used to help judge the overall health of the Chesapeake Bay. In this report, we noted that although conservation measures have reduced mortality to appropriate levels, the population is still considered depleted and Chesapeake Bay recruitment has been considered average at best.

It is likely that factors such as climate change are already affecting recruitment, habitat availability, and the range of striped bass. Like many species, striped bass populations seem to be moving northward as waters warm. ASMFC has seen ample evidence of this as North Carolina has not reported any ocean harvest since 2012 and the state recently reduced harvest in the Albemarle Sound and Roanoke River management areas. In the Chesapeake Bay, low recruitment numbers have led to ASMFC using a low recruitment scenario for management decisions moving forward. Historically, above average recruitment conditions for striped bass have coincided with cooler water conditions and ample rainfall.

The transfers contemplated by Addendum I would likely increase the harvest of large fish that are especially important to a healthy spawning stock given the low recruitment observed

in recent years. ASMFC staff have noted that allowing quota transfers such as those contemplated by Addendum I could undermine the success of conservation measures included in Addendum VI.

Therefore, Option A–Status Quo is the most appropriate path forward for Addendum I. The most recent stock assessment update for striped bass indicated that fishing mortality rates must remain at or below current levels in order to have a high probability of achieving rebuilding success by the 2029 deadline. Any increase in fishing mortality rates, including those that would likely result from allowing quota transfers, puts rebuilding of the striped bass stock in jeopardy. Given the status of the potential changes in the range of the stock, it would be more appropriate that ASMFC consider a reallocation process when the stock is considered rebuilt instead of moving forward with Addendum I.

Thank you for your consideration of these comments on Draft Addendum I. CBF hopes that these comments are helpful in the deliberations by the Board. We know that all stakeholders are very focused on restoring this iconic species and have seen hope in the management actions that have been taken thus far.

Sincerely,

Chris Moore
Senior Regional Ecosystem Scientist

Allison M. Colden, Ph.D.
Maryland Senior Fisheries Scientist

cc: Alison Prost, Vice President, Environmental Protection & Restoration, CBF
Peggy Sanner, Virginia Executive Director, CBF
Josh Kurtz, Maryland Executive Director, CBF

Emilie Franke

From: Marc Sherry <marcandlori@gmail.com>
Sent: Wednesday, January 11, 2023 11:04 AM
To: Comments
Subject: [External] Transfers Of Striped Bass

Categories: Auto Replied

The Atlantic States Marine Fisheries Commission (ASMFC) and Atlantic Coastal States from Maine to North Carolina have scheduled hearings to gather input on **Addendum I to Amendment 7** to the Atlantic Striped Bass Interstate Fishery Management Plan (FMP). The Addendum considers allowing voluntary transfers of striped bass ocean commercial quota between states that have ocean quota.
Allowing the transfer of unused commercial quota from one state to another will result in many more stripers being killed at a time we are trying to rebuild the stocks.

Therefore, the Fish Hawks Salt-Water Anglers Club which is 170 member strong, located in Lacey Township Supports Option A - (status quo), Commercial quota transfers are NOT permitted.

Mickey Sherry
Political Advocate
Fish Hawks
mickeysherry@gmail.com

Frank L. Macalik
525 Lakewood Road
Neptune, New Jersey, 07753

January 4, 2023

Emilie Franke, FMP Coordinator
1050 N. Highland St, Suite 200 A-N
Arlington, VA 22201

Striped bass management program addendum 1, amendment 7 comments:

Dear Ms. Franks,

I represent FUB (Fun Under Boats) dive club located in Monmouth County, New Jersey. We are a group of local SCUBA divers that dive New Jersey reefs, rock piles, and Inlets regularly and, we dive year-round.

I was on the 12/20 conference call and I must admit, I got the feeling there is more to this request than was discussed. Based on the data reported, striped bass stocks are overfished. In addition, as reported we only have a 79% chance of full stock recovery by the 2029 deadline. So, why are we discussing quota increases for any group? I understand New Jersey had an exceptional year for striped bass fishing. But, one good year should not relax our long-range plan to rebuild striper stocks. We think we need to maintain our original management plan. Therefore, our position is option A (status quo) let's continue to build the striped bass fishery and meet the 2029 deadline.

Sincerely yours,

FM

Frank Macalik
Frankmacalik@gmail.com
732-754-5345

Emilie Franke

From: Judith Vann <vanns@att.net>
Sent: Thursday, January 5, 2023 11:02 AM
To: Comments
Subject: [External] Hartford Surf Fishing Club Comment - Oppose Commercial Transfer of Quota

Transfer of Commercial Striped Bass Quotas - Addendum I of Amendment VII

The Hartford Surf Fishing Club is opposed to any transfer of commercial quota and therefore recommends Option A (status quo): Commercial Transfer of Quota Not Permitted.

Despite ASMFC's latest assessment showing striped bass harvests below model target levels and projected full recovery by 2029, the increased commercial harvest this transfer would allow is inconsistent with the increased protection needed at this time. Therefore, the Hartford Surf Fishing Club opposes said allowance and again chooses Option A (status quo): Commercial Transfer of Quota Not Permitted.

The decline in striped bass at the beginning of this century that has continued for almost two decades suggests that striped bass harvests and recruitment are very difficult to assess despite ASMFC best models and data collection efforts. The resulting current overfished population is likely to remain below fully recovered for many more years especially with low productivity being more of the norm. Furthermore, it is concerning that ASMFC allows significant commercial and recreational harvests of juvenile stripers from the Chesapeake Bay spawning population. Such low productivity would suggest that further protection of this population is necessary around these critical spawning and juvenile striper nursery habitats. Such efforts would likely show significant population gains and be beneficial to all interests up and down the Atlantic coast.

Respectfully,

Hartford Surf Fishing Club, Steve Higgins, President; Chris Vann, Conservation Chairman

sent 1/5/2023

HI-MAR STRIPER CLUB INC.

P.O. BOX 126 • MIDDLETOWN, NJ 07748

January 4, 2023

Ms. Emilie Franke
FMP Coordinator 1050 N. Highland St. Suite 200 A-N
Atlantic States Marine Fisheries Commission
Arlington, VA 22201
Email: comments@asmfc,org

Subject: Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan

Ms. Emilie Franke:

The Hi-Mar Striper Club of Middletown/Highlands, New Jersey is submitting the following comment to the Draft Addendum which considers allowing the voluntary transfers of Striped Bass ocean commercial quota between states that have ocean quota. The 52 members of the Hi-Mar Striper Club are opposed to allowing the transfer of unused commercial quota from one state to another. Allowing the transfer of unused commercial quota from one state to another will result in the killing of more Striped Bass and is counter-productive to the Striped Bass Management Plan which is intended to rebuild the stocks of Striped Bass.

The Hi-Mar Striper Club supports and endorses Option A (maintaining status quo) – Commercial Quota transfers are not permitted. Thank you for this opportunity to submit this comment.

Stephen M. Machalaba
Vice-President, Hi-Mar Striper Club
Email: smachalaba@aol.com

cc. J. Bastos, President
P. Brindley, Secretary
T. Devine, Treasurer

Jersey Coast Anglers Association
Working for Marine Recreational Anglers
1594 Lakewood Road, Unit 13, Toms River, NJ 08755
TEL.: 732-506-6565 - FAX: 732-506-6975

1/8/23

ASMFC Striped Bass Board,

The Jersey Coast Anglers Association is composed of approximately 75 fishing clubs throughout our state. Allowing the transfer of unused commercial quota from one state to another will result in many more stripers being killed at a time we are trying to rebuild the stocks. Though overfishing is not occurring, the stocks are overfished. Recruitment has been poor in recent years and yet while recreational fishermen have been forced to establish slot limits, commercial fishermen are allowed to harvest the larger breeders. That is counterproductive! Many of the clubs who belong to JCAA have members who are avid striper fishermen. They hold an an element of distrust towards our fisheries managers and even considering transfers at a time like this has further raised their ire. Therefore, the **Jersey Coast Anglers Association supports Option A - (status quo) Commercial quota transfers are not permitted.** JCAA urges you do the right thing by rejecting any transfers.

Sincerely,

Paul Haertel

JCAA Striped Bass Committee Chairman

January 12, 2023

Emilie Franke
FMP Coordinator
1050 N. Highland St., Suite 200 A-N
Arlington, VA 22201

Re: Striped Bass Draft Addendum 1

Dear Ms. Franke and members of the Striped Bass Board:

On behalf of the members of the Maine Association of Charterboat Captains [MACC], thank you for the opportunity to comment on the ASMFC Draft Addendum 1 to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan.

We're urging board members to select Option A, the status quo, not permitting transfer of ocean commercial quota.

The 2022 Stock Assessment Update found that the stock remains overfished. While we're encouraged by the finding that overfishing is no longer occurring, now is not the time to risk the progress we're seeing by increasing the commercial harvest.

The ASMFC Draft Document For Public Comment states:

Allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum 6 in 2020. During the Addendum 6 process, the Technical Committee noted the reduction in commercial quota would achieve the necessary reduction in commercial removals only if the commercial fishery performs as it has in the past. This assumption may be violated if the transfer of commercial quota in the ocean region is permitted.

The Board did not approve the use of transfers in Amendment 5 (1995) in order to focus efforts on rebuilding the stock. During consideration of Draft Addendum IV to Amendment 6, the Technical Committee raised concerns that transfers had the potential to increase harvest at a time when harvest reductions were needed, which contributed to the Board not approving transfers under Addendum IV (2014).

Some supporters of Ocean Quota Transfers point out that striped bass are the only Commission managed fishery with state-by-state commercial quotas that does not allow for the voluntary transfer of commercial quota or quota reconciliation. There is no quota transfer permitted because the Board has twice decided that this management tool didn't fit this fishery. The importance of striped bass to recreational and for-hire anglers and associated businesses all along the East Coast make this fishery unique and it should continue to be managed on it's own merits.

Multiple members of the Striped Bass Board have acknowledged significant concerns regarding the credibility of the board over the past couple of years. We believe the Board has made tangible progress with Amendment 7 but that process is ongoing and far from complete. The Board has established a history of making the prudent decision on Ocean Quota Transfers and should do so again.

Some of Mike Armstrong's comments at the fall Board meeting provide critical context to the current state of this fishery, which should be considered in making the decision about this addendum.

- We're talking about a multi-billion dollar fishery.
- MRIP Landings were up significantly this year.
- Stocks don't collapse overnight but with 4 years of low recruitment we're close to that point.

Allowing Ocean Quota Transfers is an admitted attempt to avoid the more difficult debate regarding quota reallocation. Given the importance of this fishery, its current status, and recent recruitment trends, we can't afford to take shortcuts with striped bass. The Board has previously made responsible, appropriate decisions about Ocean Quota Transfers under both Amendment 5 and 6. We urge the Board to make the same decision as we begin to rebuild this fishery under Amendment 7.

Thank you again for considering our input.

Sincerely,

Capt. Peter Fallon

President, Maine Association of Charterboat Captains
207-522-9900
pfallon@mainestipers.com

Native Fish Coalition
NativeFishCoalition.org
CT@NativeFishCoalition.org

January 2023

Sent via electronic mail

RE: Striped Bass Addendum I

I am writing on behalf of the Connecticut Chapter of Native Fish Coalition to comment on Striped Bass Draft Addendum I.

Native Fish Coalition (NFC) is a nonpartisan, grassroots, donor-funded, all volunteer, 501(c)(3) national non-profit organization dedicated to the conservation, preservation, and restoration of wild native fish. We currently have state chapters in Alabama, Connecticut, Georgia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Vermont, Virginia, and West Virginia representing members, partners, volunteers, supporters and followers.

The Connecticut Chapter of Native Fish Coalition is concerned that any potential increases in mortality will have negative impacts on the current striped bass stock rebuilding process. As such, we express our support of Option A in Draft Addendum I to the Striped Bass Fishery Management Plan. Commercial transfers would unquestionably increase mortality, something that should be avoided during the rebuilding period. These quotas should remain unchanged as a conservation measure.

Sincerely,

Rowan Lytle, Chair, Connecticut Chapter of Native Fish Coalition

CC: NFC National Board
NFC Connecticut Board

Native Fish Coalition
NativeFishCoalition.org
MA@NativeFishCoalition.org

January 2023

Sent via electronic mail

Atlantic States Marine Fisheries Commission
1050 N Highland St., Suite 200 A-N
Arlington, VA 22201

Subject: On Addendum I, NFC supports Option A

Dear Atlantic States Marine Fisheries Commission,

I am writing on behalf of the Massachusetts Chapter of Native Fish Coalition to express our support for continuing to prohibit the transfer of striped bass commercial quotas, relative to Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan. NFC supports "Option A (status quo): Commercial quota transfers are not permitted," because we believe it is inappropriate to maximize commercial striped bass harvest while the population is still deemed overfished.

Native Fish Coalition (NFC) is a nonpartisan, grassroots, donor-funded, all volunteer, 501(c)(3) national non-profit organization dedicated to the conservation, preservation, and restoration of wild native fish. We currently have state chapters in Alabama, Connecticut, Georgia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Vermont, Virginia, and West Virginia representing members, partners, volunteers, supporters and followers.

While the November 2022 Striped Bass Stock Assessment showed that recent regulations have helped reduce overfishing, the stock is still vulnerable and continues to be overfished, as evidenced by the Female Spawning Stock biomass (SSB) remaining below target thresholds. Compared to recreational harvest, commercial harvest disproportionally affects these larger, spawning age fish. Now is not the time to maximize commercial harvest by allowing the transfer of commercial quotas.

The Striped Bass Fishery Management Plan has never historically permitted the transfer of commercial quotas between jurisdictions. Transfer of commercial quotas would increase the harvest of spawning age females, putting future stock recruitment at risk. The Board should continue to proceed cautiously with managing the Atlantic striped bass fishery at time when it remains overfished and vulnerable to future decline.

Sincerely,

Robert Dalton Jr., Chair, Massachusetts Chapter of Native Fish Coalition

CC: NFC National Board
NFC Massachusetts Board

Native Fish Coalition
NativeFishCoalition.org
ME@NativeFishCoalition.org

January 9, 2023

Sent via electronic mail

Atlantic States Marine Fisheries Commission
1050 N Highland St., Suite 200 A-N
Arlington, VA 22201

Subject: On Addendum I, NFC supports Option A

Dear Atlantic States Marine Fisheries Commission,

I am writing on behalf of the Maine Chapter of Native Fish Coalition to support prohibiting the transfer of striped bass commercial quotas, relative to Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan. The Maine chapter of Native Fish Coalition supports Option A, transfers are not permitted, because maximizing commercial harvest is harmful to the population while it is overfished.

While the November 2022 Striped Bass Stock Assessment shows recent regulations helped reduce overfishing, the stock continues to be overfished, as evidenced by the Female Spawning Stock biomass (SSB) remaining below target thresholds. Compared to recreational harvest, commercial harvest disproportionally affects these larger, spawning age fish. Now is not the time to maximize commercial harvest by allowing the transfer of commercial quotas.

The Striped Bass Fishery Management Plan has never historically permitted the transfer of commercial quotas between jurisdictions. Transfer of commercial quotas would increase harvest of spawning age females, putting future stock recruitment at risk. The Board should continue to proceed cautiously with managing the Atlantic striped bass fishery at time when it remains vulnerable to future decline.

Native Fish Coalition (NFC) is a nonpartisan, non-profit organization dedicated to conservation, preservation, and restoration of wild native fish. We currently have state chapters in Alabama, Connecticut, Georgia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Vermont, Virginia, and West Virginia. All our chapters are very concerned with native species recovery and advocate for science-based decisions to support natural resources restoration efforts.

Sincerely,

Tom Johnson, Chair, Maine Chapter of Native Fish Coalition

CC: NFC National Board
NFC Maine Board

Native Fish Coalition
NativeFishCoalition.org
NH@NativeFishCoalition.org

1/4/2023

Sent via electronic mail

Atlantic States Marine Fisheries Commission
1050 N Highland St., Suite 200 A-N
Arlington, VA 22201

Subject: On Addendum I, NFC supports Option A

Dear Atlantic States Marine Fisheries Commission,

I am writing on behalf of the New Hampshire Chapter of Native Fish Coalition to express our support for continuing to prohibit the transfer of striped bass commercial quotas, relative to Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan. NFC supports "Option A (status quo): Commercial quota transfers are not permitted," because we believe it is inappropriate to maximize commercial striped bass harvest while the population is still deemed overfished.

Native Fish Coalition (NFC) is a nonpartisan, grassroots, donor-funded, all volunteer, 501(c)(3) national non-profit organization dedicated to the conservation, preservation, and restoration of wild native fish. We currently have state chapters in Alabama, Connecticut, Georgia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Vermont, Virginia, and West Virginia representing members, partners, volunteers, supporters and followers.

While the November 2022 Striped Bass Stock Assessment showed that recent regulations have helped reduce overfishing, the stock is still vulnerable and continues to be overfished, as evidenced by the Female Spawning Stock biomass (SSB) remaining below target thresholds. Compared to recreational harvest, commercial harvest disproportionally affects these larger, spawning age fish. Now is not the time to maximize commercial harvest by allowing the transfer of commercial quotas.

The Striped Bass Fishery Management Plan has never historically permitted the transfer of commercial quotas between jurisdictions. Transfer of commercial quotas would increase the harvest of spawning age females, putting future stock recruitment at risk. The Board should continue to proceed cautiously with managing the Atlantic striped bass fishery at time when it remains overfished and vulnerable to future decline.

Sincerely,

Nick Martin, Chair, New Hampshire Chapter of Native Fish Coalition

CC: NFC National Board
NFC New Hampshire Board

Native Fish Coalition
NativeFishCoalition.org
NY@NativeFishCoalition.org

January 6, 2023

Sent via electronic mail

Atlantic States Marine Fisheries Commission
1050 N Highland St., Suite 200 A-N
Arlington, VA 22201

Subject: On Addendum I, NFC supports Option A

Dear Atlantic States Marine Fisheries Commission,

I am writing on behalf of the NY Chapter of Native Fish Coalition to express our support for continuing to prohibit the transfer of striped bass commercial quotas, relative to Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan. NFC supports "Option A (status quo): Commercial quota transfers are not permitted," because we believe it is inappropriate to maximize commercial striped bass harvest while the population is still deemed overfished.

Native Fish Coalition (NFC) is a nonpartisan, grassroots, donor-funded, all volunteer, 501(c)(3) national non-profit organization dedicated to the conservation, preservation, and restoration of wild native fish. We currently have state chapters in Alabama, Connecticut, Georgia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Vermont, Virginia, and West Virginia representing members, partners, volunteers, supporters and followers.

While the November 2022 Striped Bass Stock Assessment showed that recent regulations have helped reduce overfishing, the stock is still vulnerable and continues to be overfished, as evidenced by the Female Spawning Stock biomass (SSB) remaining below target thresholds. Compared to recreational harvest, commercial harvest disproportionally affects these larger, spawning age fish. Now is not the time to maximize commercial harvest by allowing the transfer of commercial quotas.

The Striped Bass Fishery Management Plan has never historically permitted the transfer of commercial quotas between jurisdictions. Transfer of commercial quotas would increase the harvest of spawning age females, putting future stock recruitment at risk. The Board should continue to proceed cautiously with managing the Atlantic striped bass fishery at time when it remains overfished and vulnerable to future decline.

Sincerely,

Scott Daskiewich, Chair, NY Chapter of Native Fish Coalition

CC: NFC National Board
NFC NY Board

NEW JERSEY COUNCIL OF DIVERS AND CLUBS
526 S. Riverside Drive
Neptune, NJ 07753
www.scubanj.org

RECEIVED JAN 06

Draft Addendum 1 to Amendment 7 To the Striped Bass Interstate Fishery Management Plan - Comments

12/30/22

Emilie Franke, FMP Coordinator
1050 N. Highland St, Suite 200 A-N
Arlington, VA 22201

Dear Ms. Franks,

The NJ Council of Divers and Clubs (NJCD&C), previously the NJ Council of Diving Clubs, is currently an organization of 14 sport diving clubs and a number of individual member divers. Although only a tiny percent of Striped Bass are taken by spear compared to hook and line or commercial fishermen, Sport divers and spearfishermen have a keen interest in the proper management and conservation of this apex sport fish.

It is my understanding that Striped Bass are under a 10-year rebuilding program that still has a number of years before the stock is considered rebuilt in the ocean region. As stated in the proposal, "Allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reduction taken under Addendum VI in 2020 (p. 11)". The NJCD&C feels it would not be prudent to allow the commercial fishery to expand its take of striped bass in nearby states by taking advantage of unused quota in those states. This would slow the rebuilding effort and defeat the goal of rebuilding the stock as quickly as possible.

Although the Addendum states that it applies only to the commercial quota in the ocean region, it would definitely impact the recreational fishery. On page 11 of the Addendum, the statement is made "when developing CE proposals to reallocate to a state recreational fishery, states can specify reallocation of all or part of commercial quota not sent to recreational fishery may be used for commercial quota transfers; any portion of the state's commercial quota that is not reallocated to the recreational fishery may be used for commercial quota transfers" In other words, for those states that reallocated to the recreational fishery (sport fish only) , states are being encouraged to reallocate only a portion of the commercial quota so excess or unused quota could be grabbed back by the commercial fishery in nearby states.

Quite truthfully, I have reservations about allowing commercial vessels from another state to enter NJ waters and scoop up Striped Bass, since Striped Bass tend to swim close to the surf and jetties, and enter estuaries, bays, and rivers. The definition of the ocean area in the Addendum 1 includes these areas. Although the Addendum states the commissioner of the donor state must approve, I'm concerned some of the implications of this may not be understood. It is not appropriate for the ASMFC to try and undo a state's decision to treat Striped Bass as a sport fish only. Therefore, the NJCD&C selects Option A (status quo): Commercial quota transfers are not permitted.

Respectfully

jf2983182@msn.com

Jack Fullmer

Legislative Committee Chairman

Emilie Franke

From: Rich Strzepek <basshook@optonline.net>
Sent: Friday, January 13, 2023 1:29 PM
To: Comments
Subject: [External] Striped Bass Draft Addendum 1 to Amendment 7: Commercial Quota Transfer

Categories: Auto Replied

Dear Commission:

Since striped bass stock is overfished: I support option a, status quo, no commercial transfer

I am the Secretary of the 47 member North Fork Anglers Fishing Club and submit this comment letter on behalf of myself and all members of the Club.
Please consider this comment email as 47 votes for option a, status quo, no commercial transfer.

Richard E Strzepek, Secretary – North Fork Anglers Fishing Club
Southold Town, NY

December 4, 2022

Ms. Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington VA. 22201

Dear Emile,

I am writing on behalf of the New York Coalition for Recreational Fishing (NYCRF), a non-profit organization representing over 2,000 anglers. After reviewing Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan we are concerned that the Board is considering an amendment that would result in the increased harvesting of striped bass at a time when the fishery is:

- still in a rebuilding phase
- still classified as overfished
- experiencing historically low recruitment.

According to the current management rebuilding plan, fishing mortality must remain at or below F=0.17. The NYCRF has concerns that Addendum I could jeopardize the 2029 rebuilding plan which is already operating under a small margin of error. The Draft Addendum and the ASMFC recognize this fact when it states on page 10 **"Allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum VI in 2020."**

Addendum I is being introduced at the wrong time. The NYCRF would be open to considering such a proposal at a time when the 2029 rebuilding plan has proven successful but not now. As a result we select **Option A (status quo): Commercial quota transfers are not permitted.**

If the Board determines that commercial quota transfers must be permitted, of the remaining options the only option that should be considered is Option E: Limited Board discretion commercial quota transfer provision based on stock status.

The public comments during consideration of Amendment 7 were overwhelming clear in recommending conservative fisheries management measures. Until the striped bass fishery is successfully rebuilt by 2029 and is not overfished, the transfer of commercial quota transfers between states should not be permitted.

I appreciate your time and consideration.

Sincerely,

Ross Squire
President, NY Coalition for Recreational Fishing

PLUM ISLAND SURFCASTERS

Established 1957

Emilie Franke

Atlantic States Marine Fisheries Commission

1050 N. Highland Street, Suite 200 A-N

Arlington, VA 22201

Dear Emilie,

Please find the following comments representing the membership of the Plum Island Surfcasters (PISC), a 560 member North Shore Massachusetts fishing club, input on Amendment 7 Addendum 1. The PISC is a non-profit sportfishing club committed to developing best practices in good sportsmanship, education, techniques and conservation for future generations.

The Plum Island Surfcasters membership support **Option A: Commercial quota transfers are not permitted.**

This option was selected because addendum 1 adds more complications and unknowns to the management of striped bass. The complications we see relate to the differences in commercial size limits, changing status of spawning stock biomass, and unseen effects of allowing increased targeting of schooling large breeders through transfer to states when these schools are located.

Sincerely

Michael Toole

toolemf@hotmail.com

Legislation Representative

Plum Island Surfcasters

P.O. Box 1585

Newburyport, MA 01950

January 13, 2023

Emilie Franke
ASMFC Fishery Management Plan Coordinator
1050 North Highland Street, Suite 200A-N
Arlington, Virginia 22201

Dear Ms. Franke,

On behalf of the members of the Virginia Anglers Club (VAC), thank you for the opportunity to provide comments to the Atlantic States Marine Fisheries Commission regarding the Draft Addendum 1 to Amendment 7 of the Atlantic Striped Bass Interstate Fishery Management Plan. Many of our members are passionate striper anglers, as are the majority of the 7.5 million striped bass anglers nationwide. We, along with scores of sportfishing groups and a large percentage of the recreational fishing industry stand united in strongly opposing the plan to allow commercial quota transfers. We urge the ASMFC's Striper Board to support Option A (*status quo*).

In the past few years, there has been encouraging progress to rebuild the striper population. In fact, the 2022 Atlantic Striped Bass Stock Assessment update released last fall concluded that while the striper population remains overfished it is not experiencing overfishing. That could mean we could achieve our rebuilding goals within the estimated timeline ***if*** fishing mortality remains at its current level. Changes to the commercial quota, however, would jeopardize the rebuilding effort.

Moreover, the Atlantic Striped Bass Fishery Management Plan (FMP) has never allowed commercial quota transfers between jurisdictions. Expert biologists and recreational anglers are concerned that commercial quota transfers could potentially increase removals at a time when the striper population needs more conservation, not less. Now is not the time to let up on conservation efforts that are working.

Stripers are the Chesapeake's most popular sport fish, and the recreational fishing community writ large has made many sacrifices in recent years to try and stem the decline of stripers. Some might say this is a difficult management decision – our opinion, however, is that the only choice is to do what is right to ensure the health and abundance of this very popular and valuable gamefish. That is why we do not support allowing commercial quota transfers.

Respectfully,

Captain Mike Ostrander
President
Virginia Anglers Club

Captain Chris D. Dollar
Conservation Director
Virginia Anglers Club

Virginia Saltwater Sportfishing Association, Inc (VSSA)
3419 Virginia Beach Blvd #5029
Virginia Beach, VA 23452
www.ifishva.org

January 6, 2023

Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street,
Suite 200 A-N
Arlington VA. 22201

Re: Subject: Striped Bass Draft Addendum I

The Virginia Saltwater Sportfishing Association (VSSA) opposes four of the five options contained in Draft Addendum I. Striped bass are overfished and in a rebuilding period. Maintaining Fishing Mortality at the current, or lower level, is paramount to returning striped bass to healthy levels in the timeline required.

It simply doesn't make sense to provide a mechanism that would allow any increase in the Striped Bass harvest as long as this fishery remains overfished or overfishing is occurring.

Accordingly, of the five options presented in Draft Amendment I, the only Option VSSA could support is Option E that would allow the board limited discretion on transfers of Ocean quota *"except transfers would not be permitted when the stock is overfished (i.e., below the SSB threshold)."*

Respectfully,

John Bello

Chair – Government Relations Committee

Cc: Patrick Gear - VMRC

ASA Form Letter submitted by 1,054 individuals

Emilie Franke

From: [redacted]
Sent: Friday, January 13, 2023 12:26 PM
To: Comments
Subject: [External] Support Option A on Striped Bass

Categories: Auto Replied

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

[redacted]

CCA Form Letter submitted by 44 individuals

From: [redacted]
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 9:01:40 PM

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

Sen from Mail for Windows

Form Letter 1 submitted by 49 recreational anglers

Emilie Franke

From: [redacted]
Sent: Saturday, December 10, 2022 9:07 AM
To: Comments
Subject: [External] Subject: Striped Bass Draft Addendum I

Categories: Auto Replied

Striped Bass Draft Addendum I

I am a recreational angler from the state of <INSERT STATE HERE>. I'm writing to express my preference for the options being proposed in Draft Addendum I to the Striped Bass Fishery Management Plan. I prefer option A - status quo, no commercial transfers. Any of the other options are likely to increase mortality at a time when the stock is rebuilding. Thank you.
Sincerely,
[redacted]

Form Letter 2 submitted by 37 individuals

[redacted]

RECEIVED JAN 10 [redacted]

04 January 2023

Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201

Dear Ms. Franke,

Thank you for considering my public comment about **Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan.**

I support **Option A (status quo): Commercial quota transfers are not permitted** in Draft Amendment I to Amendment 7.

I support rebuilding the Atlantic Striped Bass stock ***as quickly as possible*** and not later than 2029.Quota transfers have the potential to increase the withdrawals and impair rebuilding because the Striped Bass Spawning Stock Biomass (SSB) is below target and experiencing historically low recruitment. I am not in favor of action that increase removals or reduce the chances for the quickest possible recovery.

Thank you again for your kind consideration.

[redacted]

Form Letter 3 submitted by 3 individuals

Emilie Franke

From: [redacted]
Sent: Sunday, January 8, 2023 8:28 AM
To: Comments
Subject: [External] Striped Bass Draft Amendment 1

Categories: Auto Replied

Dear ASMFC,

I am a saltwater fishing guide and angler living in and operating from [redacted].

I have been following the activities of the ASMFC with particular interest in the amendments and proposals that relate to Striped Bass management. I am VERY concerned by the data suggesting that in many recent years Striped Bass have not been reproducing in sustainable numbers, as well as the determination that Striped Bass stocks are currently overfished.

Anglers, both recreational and commercial, and the ASMFC have a responsibility to ensure that Striped Bass populations are abundant now and in years to come. Future generations have the right to expect that Striped Bass populations are being managed responsibly now.

I am writing this note in **OPPOSITION TO THE PROPOSAL TO ALLOW THE TRANSFER OF UNUSED COMMERCIAL STRIPED BASS QUOTAS BETWEEN STATES.**

The Striped Bass populations need to be rebuilt to sustainable levels and providing ways to increase the taking of fish is illogical. The ASMFC should establish fair and responsible commercial quotas and not alter them unless science suggests they should be changed. *Adding complexity to the management of the commercial quotas will make a complicated situation more complicated. Do it right and keep it simple so everyone can easily understand the issues and the impacts of the quotas.*

THE STRIPED BASS STOCK IS STILL OVERFISHED AND REBUILDING SUCCESS HINGES ON MAINTAINING LOW FISHING MORTALITY RATES WHILE POOR RECRUITMENT PERSISTS, PURPOSEFULLY INCREASING COMMERCIAL LANDINGS IS NOT RATIONAL AND THE BOARD SHOULD OPPOSE THIS ACTION.

Respectfully,

[redacted]

Form Letter 4 submitted by 3 individuals

From: [redacted]
To: Comments
Subject: [External] Addendum I
Date: Friday, January 13, 2023 2:24:54 PM

To whom it may concern,

I, [redacted], am a resident of _[redacted]. I am emailing you in regards to the public comment for Striped Bass Addendum I due tonight, Jan 13, 2023, at 11:59 PM. I support Option A (no commercial quota transfers).

Respectfully, [redacted]

Christfried Arfsten
44 Clubhouse Drive
Rocky Point, NY 11778-9585

Ms. Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington VA. 22201
Dear Emile,

Subject; Addendum 1 of Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan

1/2/2023

Dear Ms. Franke:
I am responding to Addendum 1 of Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan to allow the transfer of unused or unneeded commercial striped bass quota to other states that wish to land more fish that would otherwise not be allowed under the current management plan.

The current state of the fishery shows that striped bass are overfished, Addendum 1 would allow transfers among any costal state which could lead to a meaningful increase in fishing mortality. This idea of transfers between states is counter intuitive to the current state of the fishery. I'm opposed to any potential increase in fishing mortality. The target date of 2029 to have the fishery rebuilt will be jeopardized and the continuation of the low recruitment raises serious concerns about potentially increasing striped bass harvest at this time.

After the long and arduous process of putting together Amendment 7 to improve the regulatory process of conserving the fishery and restoring it to a rebuilt status, at this time I can only support Option A: No commercial transfers permitted.

If the Commission decides that a quota transfer should be permitted, only Option E allowing the management board broad discretion to permit or prohibit interstate quota transfers.

In summary my option is that Option A, the status quo of no transfers be permitted. If that is not what the board wants the Option E is the only other alternative that I can support. Thank you for your time and consideration of my thoughts.

Sincerely,

Christfried Arfsten

We now face another attempt by a small group of part time commercial Striped Bass fisherman to manipulate the Atlantic States Marine Fisheries Council for a short-term economic benefit of a few commercial fisherman. Transfer of quotas to the commercial sector must not be allowed.

- Most of our NH fish were reared and will spawn (if we let them…) in states with significant commercial fishing. This includes Maryland, Delaware, Virginia, and New York. We want these fish spawning and returning year after year, not killed for $2 a pound.
- Our NH visiting Striped Bass pass through Massachusetts waters to get here. The Massachusetts commercial fishery specifically targets the large breeding females (over 35”). Striped Bass are tagged after they are brought to the dealer. There is no way to be certain that these were ocean caught or harvested in rivers and bays such as the Merrimack, Annisquam, or the bays and rivers along Vineyard Sound.

- Very few fishermen make their full time living from harvesting Striped Bass commercially. The over slot fish we release in NH and Maine are directly targeted by the Massachusetts commercial fishery. There are several other states doing the same thing. The slot limit is not universal
  - The practice of ‘high grading’ causes excessive mortality and waste.
  - A recreational bass generates far more economic value than a dead commercial bass. The Southwick Study if interested in details.
  - The greater question is that jurisdictions like DC and NY have done exhaustive testing on the contaminates in striped bass. NY has a maximum commercial size of 38” based on science that says fish larger than that are loaded with PCB’s. NY is now conducting further testing on striped bass to include PFAS contamination. Those results should be shocking. DC has put a total consumption ban on eating any size striped bass. Correct me if I am wrong here but striped bass migrate, right? How do the fish in Massachusetts magically avoid PCB’s found in the Hudson and Potomac? These contaminates build up over time. Our bet is that a fish over 40” is probably not safe for anyone to eat. So, why is this still being done? Will we ever have a real slot limit?

- We have experienced ‘local abundance’ for Striper Bass and forage such as Menhaden which gives the false impression of overall health of the Striped Bass population on the east Coast.
- I join my colleagues in the ASGA in requesting that the Atlantic States Marine Fisheries Commission take no action which will increase the quota for any sector, especially the commercial sector.
- Thank You, Captain Robin Calitri, Seacoast Fly Fishing

Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington VA. 22201

To whom it may concern,

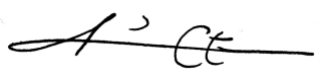
In response to the proposed addendum to Amendment 7 of the Atlantic Striped Bass Fishery Management Plan, I—a concerned citizen of Rhode Island and recreational angler—vehemently urge the ASMFC to maintain the status quo and choose Option A, barring the interstate transfer of commercial quotas. Frankly, considering the 2022 stock assessment, dwindling recruitment numbers, and the species' migratory nature, I cannot fathom the transfer of commercial quota having any effect other than increasing the overall mortality rate. Like Option A, other choices recognize that the Atlantic Striped Bass fishery remains subject to overfishing; however, only Option A appears to prevent a seemingly impending moratorium on the species. In its own words, the ASMFC echoes this, providing that "[a]llowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken…in 2020."

Despite being commercial, these quotas aren't like those in sales or other forms of business. As opposed to a goal expected to be met or exceeded, these quotas are akin to a cap, implemented to conserve the exitance of a wavering species. We should strive to underutilize the total allocation and have consistently done so in recent years, resulting in tangible change in the state of the species. Considering this progress, it appears diametrically opposed to the underlying purpose of such conservation efforts to permit a state that consistently fails to utilize its entire allotment to transfer the remaining quota to regions that use theirs in its entirety yearly. Were commercial allocations fully utilized, the ASMFC recognizes that "commercial harvest would be

higher than estimated…and states may not maintain the desired commercial reduction [sought]." In no way is this conservation.

Regarding the alternatives to Option A, it is evident that none of them provide sufficient safeguards against stock depletion. Option B comes the closest, providing a state can transfer its unused quota subject to an overfishing tax; however, in the same breath, it permits such a transfer without limitations and to be made under the parties' terms. Such unfettered, unregulated transactions run afoul of the goals of more than three decades of conservation efforts. Similarly, the ASMFC recognizes that Option C, which places minimal limitations on transferring commercial quotas when the stock is overfished, will not "provide near-term relief to states seeking additional quota." Options D and E place the oversight of such quota transfers in the hands of a board; however, both fail to address the fact that any quota transfer to a state that consistently fulfills its allotment will increase overall mortality. Accordingly, because any transfer of commercial quota in our overburdened fishery will defeat almost forty years of conservation efforts, I urge the ASMFC to adopt Option A and prohibit the transfer of commercial harvest quotas for the sake of the species' survival. We must hold our commercial fishing industries to as high of a standard as we do recreational anglers.

Sincerely,



Andrew Blackstone Colton

Emilie Franke, FMP Coordinator
1050 Highland Street, Suite 200-A-N
Arlington, VA 22201

December 14, 2022

RECEIVED DEC 2 0 2022

To the Striped Bass Management Board

Re: Striped Bass Draft Addendun I

I am a 79 year old Coast Guard licensed captain with residences in Washington, DC and Westerly, RI. I have been fishing and spearfishing for striped bass since the 1950s. I am an active member of CCA and RISAA, and a long time supporter of Save the (Narragansett) Bay and the Chesapeake Bay foundation. I care deeply about the quality of our coastal waters and just as deeply about the health and fecundity of our striped bass.

I write to urge adoption of the proposed Option A, status quo, no commercial transfers. In my considered judgment, any of the other options is likely to increase striped bass mortality at a time when the stock is supposed to be rebuilding.

Yours truly,

Ken Cooper

Captain Ken Cooper
6306 30th Street, NW
Washington, DC 20015

19 Rock Ridge Road
Westerly, RI 02891

I, Lawrence H Voss Sr, endorse

Option B Transfers permitted (with overfished conservation tax) of the Striped Bass Draft Addendum 1.

I, James W. Regan Jr, endorse Option B Transfers permitted (with overfished conservation tax) of the Striped Bass Draft Addendum 1.

Date: 20230113
Re: Striped Bass Draft Addendum 1

Ms. Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201

Dear Ms. Franke,

I am writing in **strong support** of **Option A: (Status Quo) Commercial quota transfers are not permitted** - as part of the proposed Addendum 1 to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan.

To meet the goals of the current rebuilding plan, mortality must remain at or below F=0.17. A quota transfer system is likely to increase mortality, doubtless add uncertainty to the fishery management plan, and quite probably lengthen the rebuilding process – if not render the plan moot.

To be clear:
I support Option A: Status Quo.

Thank you for your consideration.

Sincerely,

Mark Eustis
Managing Partner

2790 Spring Lakes Drive, Davidsonville, MD 21035-1237 • 703-283-8938 info@greyowlanalytics.com

December 29, 2022

Subject: Striped Bass Addendum I

To whom it may concern,

My name is Johan Frenje and I am born and raised in Sweden, and fishing has been a big part of my life since I was 4 years old. I came to the Boston area in the late 90's for work and a couple of years later I discovered the incredible striped-bass fishery in New England. I am a passionate fly fisherman who cares deeply about our striped-bass fishery.

Regarding the Striped Bass Addendum I, I vote for 'Option A (status quo): Commercial quota transfers are not permitted'. My motivation for this is the following. It seems to me the management of the striped-bass fishery is about maximizing short the term commercial harvest rather than the longevity of the fishery. In my opinion, the proposal of transferring commercial quotas between states is simply designed to increase harvest, which is not aligned with Amendment 7 that is about rebuilding the stock by 2029. Given the 79% chance of rebuilding the stock by 2029, which is clearly a highly uncertain number that is based on a limited data set, it makes no sense to me to push through this addendum of quota transfers.

Johan Frenje
Beverly, MA

Center for Ecological Economic and Ethical Education

Post Office Box 946
Ipswich, MA 01938

Phone: (978) 356-2188 (w) or 617-605-3150 (c)
email: ecologicaleconomics@yahoo.com

31 December 2022

RE: FBJ Comments on the Atlantic Striped Bass FMP Draft Addendum 1 to Amendment 7

Emilie Franke
Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200A-N
Arlington, Virginia 22201

Sent by email to: comments@asmfc.org
(with subject line: **FBJ Comments on ASB FMP Draft Addendum 1 to Amendment 7)**

Dear Ms. Franke:

I am writing you today with my reactions to the Atlantic Striped Bass Draft Addendum 1 to Amendment 7 of the Atlantic Striped Bass (ASB) Fisheries Management Plan (FMP).

This Atlantic Striped Bass fishery, by your own calculations, is currently overfished with an SSB that is below both its threshold and target levels. Furthermore, the commercial fishery for this species is specifically targeting only the largest female spawners that provide the greatest contribution to reproduction. This Draft Addendum 1 to Amendment 7 of the ASB FMP, however, proposes an effective *increase* in the commercial harvest of this species.

I write to express my adamant opposition to allowing any interregional or interstate commercial quota transfers in the ASB fishery. Consequently, I ask you to support **Option A (status quo): Commercial quota transfers are not permitted** as the final recommendation on this matter by the ASMFC.

Please give us anglers a reason to restore the faith we've lost in the fisheries management system of this country, instead of continuing to undermine and thus erode this valuable and revered fishery by recommending, endorsing and accepting such measures as exemplified by this latest ASMFC proposal to serve commercial fishing interests!

Thank you for your attention.

Most sincerely and respectfully,

Frederic B. Jennings Jr., Ph.D.
President, CEEEE

January 10, 2023

Emilie Franke
Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street
Suite 200A-N Arlington, Virginia 22201

Dear Ms. Franke,

I hope this letter finds you well. I'm going to start off by saying I'm going to be straight forward and try to make some points and give you a background of where I am coming from and what I have seen personally. My name is Mike Milillo; I am currently 30 years old. I was born and raised on long island and currently live on long island. I have been surf fishing for bass since I was about 8 years old, my father got me into the sport.

Now in these past 22 years I have seen the population of bass dramatically change before my eyes, and not for the good. When I was a kid to a young teen all I could think about is how I can't wait to have similar memories with future kids of mine like my father and myself have. Unforturnaley in my later teens and early twenties to now I have come the bleak realization that hopefully I'm going to be lucky enough to still be able to fish for bass when I'm in my 60's.

In any event, I support the option A (status Quo)

Sincerely,

Mike Milillo
36 Vassar Street
Garden City, NY 11530

William A. Muller
183 Oakside Drive
Smithtown, N.Y. 11787

Subject: Striped Bass Draft Addendum I.

Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland St, Suite 200 A-N
Arlington VA 22201

Dear Ms. Franke;

I'm writing to you to state my opinion on Draft Addendum I.

I was somewhat perplexed to learn that the commission decided to take no action at a recent meeting in spite of the fact that the striped bass fishery remains overfished. To me, the argument presented in the statement proffered circular reasoning. It seems to me, that logically, additional restrictions are warranted while the fishery remains overfished.

In this respect, there seems to be **no logic in allowing commercial quota transfers** since the fishery remains overfished. Perhaps the real problem resides with the size of the quotas in that they may simply be too high given the reality that the fishery remains overfished. Further, if the stated goal of the new amendment is to protect the occasional large year class, then quota transfers seem to undermine that goal. In my opinion we should take every opportunity to add to the population, rather than simply seek ways to achieve harvest goals.

I am also disappointed in the size of the slot (28-35 inches). This slot size does not seem to be consistent with the idea of protecting a large year class. In the management of species using slot sizes, both in salt and freshwater, the slot sizes generally cover a smaller percentage of a fish's life. If the commission really wants to protect the occasional large year class, then the slot should be four or five inches thus allowing a greater number of fish from a good year class to escape beyond the slot. Perhaps 32 to 36 inches would make more sense and protect more fish while at the same time be more appealing to for-hire users. Rather than be content that we are on target to hit a rebuilding target, we should use all opportunities to get there faster should those opportunities arise.

I support Option A Status Quo. Transfers **not** permitted

Yours truly

William A. Muller, Ph. D.

Arthur C. Romaine
27 Audubon Avenue
PO Box 862
Bridgehampton NY 11932

Date: January 9, 2023
TO: ASMFC Board
Subject: Striped Bass Draft Addendum 1

I am writing to you regarding Addendum 1 to the Amendment 7 policy document on Atlantic striped bass and wish this letter be submitted into the record of public comment.

Amendment 7 represents a step forward for striped bass conservation, and sets a decent foundation for the upcoming rebuilding plan. It has started to address challenges with the management of Atlantic striped bass through a comprehensive update of the management strategy that had seriously failed to account for recent declines in stock abundance. In effect this amendment now instructs the ASMFC Board to take action to rebuild the stock to healthy sustainable levels as its top priority.

Conservation equivalency (CE) was and remains one of the most controversial aspects of striped bass management, and was certainly one of the most hotly debated topics in Amendment 7. The single most important reform was the ASMFC Board's decision to define "conservation equivalency" in Amendment 7 the same way that it is defined in your Charter: "Any conservation equivalency measures adopted by a state must have the same conservation impact, ***in that state,*** as the standard, coastwide measures." While that result is seemingly mandated by the Charter, the ASMFC Board had previously chosen to ignore the Charter's language, and permitted states to adopt allegedly conservation equivalent measures which only achieved the coastwide, and not the state-specific, reduction.

The fact that Amendment 7 has been completed does not mean that the Atlantic striped bass debate is over. Some issues were likely to

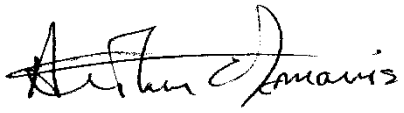
resurface and, despite the clear language of the management plan and before the ink was even dry, the ASMFC Board proposed a change to the rules for the benefit of special interests.

Introducing intrastate commercial quota transfers will make it more difficult to successfully manage the Atlantic coast striped bass fishery. What is the ASMFC's underlying motivation for such a motion? Is it in line with the board's charter and objectives? I have been unable to locate a single, clear, definable, and *enforceable,* answer to my question after considerable hours spent researching the question.

Clearly the ASMFC has deemed the Atlantic striped bass overfished, clearly reproduction is down, and clearly the ASMFC has a specific charter intended to guide their actions when a fishery is deemed overfished. **The only logical decision regarding Addendum 1 is Option A: maintain the status quo and not introduce any intrastate commercial quota transfers (while Striped Bass are deemed overfished or experiencing overfishing).**

Thank you for your time.

Sincerely,



Arthur C. Romaine

I have fished from the shore and occasionally from boats in the northeast for fifty years, so I believe I have a fair benchmark from which to compare. I remember the Peconic weakfish tournament, not to mention catching all the weakfish you wanted at night from marina piers on the Connetquot River. I remember Quincy Massachusetts flounder fishing. On a good day you could almost sink the rental boats with flatties. And of course, not that long ago you could catch all the bluefish your arms and shoulders could handle from anywhere on Long Island. The bass fishing purists used to lament they couldn't get their lures through the blues down to the bass. They must have finally mastered that skill because I no longer hear that complaint.

But more than any of the above, I remember Montauk; the Surfcasting Capital of the World. I have home videos from the early nineties through early two thousands showing massive school after school of bass and blues, hundreds of boats chasing and casting into the boiling water, countless surf fisherman in an east to west skirmish line as far as the eye could see. Even cod, at one time were so thick they could be caught from the beach in the Winter. All of it, gone.

Admittedly any look back to me or my friends fishing youths, and at the quantity of fish we kept and the mishandling of those released, shows we were infected with the common ignorance towards any conservation appropriate to that time. Arrogant stupidity talked me into thinking the great fishing would last forever. After all, this is the ocean.

But how in the hell did you, the ASFMC, think that was sustainable?

The entire inshore fishery is now on life support and radical conservation, no make that radical last ditch rescue measures, are needed. Instead, the ASFMC is mulling whether to just pull the plug altogether with a vote on amendment #1 to addendum #7. A loophole, so a species not far from the point of no return can be further harvested, helping them reach that point where even with a moratorium, like the cod, there is no coming back. Bravo

I don't believe the ASFMC has ever shown that they are capable of formulating plans for the sustainability of any of the inshore species, and the data going back decades confirms that. The American eel, cod, herring, shad, weakfish, bluefish, flounder, striped bass, and just about every inshore species the ASFMC so-called protected has tanked. Global warming? Habitat loss? Or the inarguable inability or unwillingness to keep up with the technological advances of both the commercial and recreational fishing communities and enact policies with the best interests of the particular species first, which is also in the best interests of both fishing groups and everyone else's in the long term.

If the inshore ocean, which greatly affects the offshore biosystem, and ultimately us, is to have any chance of averting the mass extinction event that is dead ahead, either the ASFMC present leadership must start to exhibit some serious leadership, or step down. Maybe NOAA, again based purely on ASFMC's track record and the cold hard numbers, should rethink this organizations usefulness and come up with (rather quickly) a new game plan. Maybe then, just maybe, whatever organization that might replace ASFMC will actually do what they are paid to do, which for starters is care.

But nothing will happen, and in roughly ten to twenty years all those species I've listed and many more will be gone, so shit, yeah I vote for option A, though doing so gives me no pleasure. It just makes me feel part of a bad joke.

iFishMD.com

Sport Fishing Charters

January 13, 2023

Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200A-N
Arlington, Virginia 22201

Re: Striped Bass Addendum 1

Dear Striped Bass Board,

As a Maryland-based licensed professional fishing guide and sales representative for a recreational fishing boat manufacturer, I recognize that the economic value of sport fishing is derived from anglers taking trips and trips are driven by angler success and abundance. Given that striped bass are vastly the most desired fish in our natural resource that drives the sport fishing industries in our state, I offer OPPOSITION to the Striped Bass Addendum 1 for the following reasons:

1. Striped Bass remain overfished and are currently in a rebuilding phase
2. We do not need actions that would only ensure mortality levels are maximized under Amendment 7 until the stock is rebuilt
3. Should the striped bass board move forward with Addendum 1 would solidify the public perception that the ASMFC does not look after the resources entrusted to them to manage.

It is clear that the ASMFC striped bass board has continually failed to manage the resource in an efficient and effective way, which has resulted in reaching an overfished status despite a full recovery after the moratorium. The fact that quota transfers from state to state to ensure mortality remains at the highest levels allowed while the species is still classified as overfished only solidifies this perspective. The board would only continue to fail sport fishing industries by potentially hurting the rebuilding process that has been so fought for so hard.

Sincerely

Capt. Greg Shute,
Maryland Fishing Guide FGR202
Independent Sales Rep for Judge Yachts

Carl Tiska
24 Van Zandt Ave
Newport RI 02840
carl.tiska@gmail.com

December 4, 2022

Emilie Franke
FMP Coordinator
1050 N. Highland St., Suite 200 A-N
Arlington, Virginia 22201

Dear Members of the Atlantic Striped Bass Board,

I am a recreational kayak angler in Rhode Island with a focus on harvesting, cooking, and eating my catch. While I principally target demersal species, I enjoy fishing for striped bass as well.

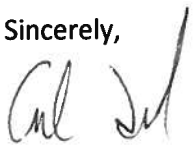
I strongly believe that striped bass should be managed for abundance, and I provided comments stating such through your public comment process for Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass earlier this year. I was very pleased with the approved Amendment Seven and look forward to the increased striped bass abundance as the new measures take effect.

I was disappointed to recently learn that conservation equivalency will be maintained while the striped bass stock remains overfished. I would strongly recommend that you submit addend Amendment 7 to prohibit conservation equivalency while the striped bass stock remains overfished.

Additionally, in the interest of increasing striped bass abundance, I strongly oppose the current draft Addendum I to Amendment 7 (Commercial Quota Transfers in the Ocean Region) and recommend that you select Option A (status quo): Commercial quota transfers are not permitted.

I thank you for your work in managing striped bass and for the opportunity to provide feedback through your public comment process.

Sincerely,



Carl Tiska

To: Atlantic States Marine Fisheries Commission

comments@asmfc.org

Dear Commissioners,

I am writing to support the status quo with regards to striped bass- **Commercial quota transfers are not permitted.**

My family and friends have been fishing the waters of the Great Bay Estuary since the mid-nineties, and SO appreciate the recreational value of the Striped Bass. The fact that it can be caught from a boat or the shore makes it accessible to everyone. It's really the fish that has kept my kids interested in the sport- it's just so much fun to catch!

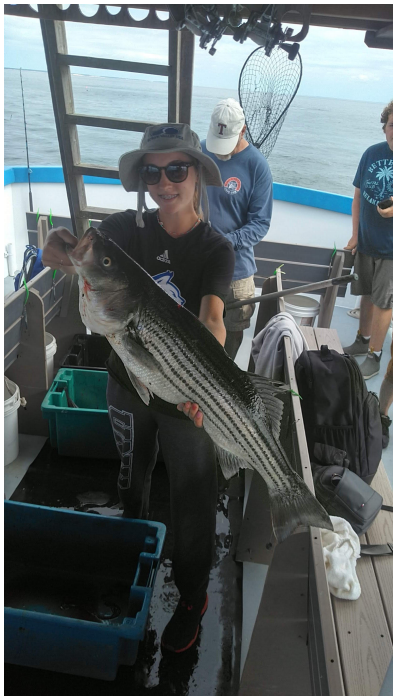
I've read the Southwick Study and believe it's conclusions, including the statement:

If the striped bass fishery were so managed, any future harvest levels would produce greater returns for coastal economies and the national economy, because as this report explains, fish captured by the recreational sector are far more valuable on a per pound basis than when harvested commercially.

See https://www.southwickassociates.com/wp-content/uploads/2011/10/Striped_Bass.pdf

Our 3 sons and daughter (now 15 years old) grew up on the water and learned the importance of conserving our natural resources. They understood that releasing a breeder would allow it to spawn and produce more fish for future seasons, like an investment. How disappointing it would be for them to learn that their investment was allowed to be harvested for short-term gain on a dinner plate.

Please take action to reduce commercial striper fishing, not increase it. Don't give in to pressure from commercial fishing business interests. Today's recreational fishers as well as future generations will appreciate that you did the right thing.



Sincerely,

Steve Weglarz, Jr.

19 Cedar Point Rd.

Durham, NH 03824

1075 Tooker Avenue
West Babylon, NY 11704
December 7, 2022

Emile Franke, Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201

Dear Ms. Franke:

Below find my comments on the *Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan* ("Addendum I").

Addendum I, if adopted in any of its proposed forms, would inevitably increase striped bass fishing mortality. Such increase is inappropriate at a time when the striped bass stock is overfished, would make it more difficult to rebuild the female spawning stock biomass by the 2029 deadline, and could threaten the striped bass recovery.

I ask that the Atlantic Striped Bass Management Board (Management Board) select Option A, status quo.

Support for my position is provided below.

I

Allowing interstate transfers of commercial quota will increase fishing mortality at a time when the striped bass stock is struggling to rebuild by the 2029 deadline.

Commercial striped bass landings are constrained by both the overall annual commercial allocation and by individual state allocations. Because states may not transfer unused striped bass quota to another state, and because a number of states with striped bass quota have had no commercial striped bass landings over the past decade, commercial striped bass landings have fallen far short of the coastwide commercial striped bass quota. For the ten years between 2012 and 2021, commercial fishermen have, on average, landed only 66.6% of their coastwide quota; the 76% landed in 2021 represented the highest percentage of quota landed in the 10-year time series.[1]

Information provided in Addendum I makes it clear that the states holding commercial striped bass quota fall into two general categories, one being the active harvesters (Massachusetts, Rhode Island, New York, Delaware, Maryland, and Virginia), which typically catch over 80%, and quite often well over 90%, of their annual state quotas, and the non-harvesters which, either because they have outlawed commercial striped bass harvest (Maine, New Hampshire, and Connecticut) or because striped bass are legally out of the reach of their commercial striped bass fishermen (North Carolina), have no commercial

[1] *See* Atlantic States Marine Fisheries Commission, *Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan*, November 2022, p. 10

landings at all. New Jersey, which has reallocated commercial quota to its recreational sector, stands some between those two groups, having no commercial landings, but nonetheless using commercial quota in a way that would render it unavailable for transfer.[2]

Should any of Addendum I's options B through E be adopted, and states that currently have no commercial landings transfer their entire quotas to other states, annual commercial striped bass landings could increase by anywhere between 30% (if the 76% of quota landed by the harvesting states in 2021 is representative of future fishery performance) to 50% (if the 66.6% ten-year average of quota landed is a more accurate representation of what would, otherwise occur).

Any such increase would raise the overall fishing mortality rate and reduce the likelihood that the spawning stock biomass will be fully restored by 2029.

That is not an acceptable outcome.

It is particularly troubling that the Management Board knows that the current prohibition on interstate transfers of commercial quota arose out of concerns that such transfers could hamper rebuilding, yet nonetheless decided to move forward with Addendum I.

During the August 2021 Management Board meeting, after Patrick Geer, the Administrative Proxy for Virginia, asked why such transfers were prohibited, Robert Beal, Executive Director of the Atlantic States Marine Fisheries Commission (ASMFC), responded that

> my recollection is that they were not allowed while we were, even before my time the Board was trying to rebuild the striped bass stock. Then once it was rebuilt, the Board sort of felt comfortable with not allowing transfers. Part of it had to do with where those fish came from.
>
> If you move fish from North Carolina to Maine, well North Carolina to Massachusetts, that's probably the farthest commercial quotas. You know with that impact differentially, where those fish came from and the spawning populations and that sort of thing. But again, most of it is a holdover from the rebuilding days of the early '90s.[3]

Mr. Beal's recollection was confirmed by Roy Miller, the Governor's Appointee from Delaware, who stated,

> I just wanted to confirm what Bob [Beal] said regarding the history of the process. We were in a rebuilding mode from the 1980s until the mid-1990s. This is from someone who was there during that time. It carried over into the restoration of the coastwide stock, and even the Delaware stock in the mid-1990s. It's just something that we haven't dealt with since then, so those transfers when we were in a rebuilding mode no

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[2] *Ibid.*

[3] Atlantic States Marine Fisheries Commission, *Proceedings of the Atlantic States Marine Fisheries Commission Atlantic Striped Bass Management Board, August 3, 2021*, comments of Robert E. Beal, p. 43

> one wanted to consider transfers. Once the stock was declared restored, the subject hadn't come up again until very recently.[4]

It is notable that both Mr. Beal and Mr. Miller explained that the Management Board found it inappropriate to permit interstate transfers of quota during a period when the stock was rebuilding, because *the stock is in a rebuilding period right now*. The ban on interstate transfers of commercial quota the last time that the stock was overfished is just as appropriate today.

Interstate transfers of commercial quota should not be allowed.

II

The concessions made in Options B through E, intended to address situations in which the stock is overfished, are largely illusory, and provide insufficient protection to the striped bass resource.

Options B and D would allow interstate transfers of commercial quota even when the striped bass stock is overfished. The only concessions such options would make to the stock's overfished status is to impose a 5% "conservation tax" on the receiving state, so that such state might land only 95 pounds of striped bass for every 100 pounds of quota transferred. That is not a sufficient safeguard.

As Amendment I clearly states,

> If quota transfers are permitted, quota would be transferred pound-for-pound from the donor state to the receiving state. There would be some inherent uncertainty associated with transfers occurring between states that harvest different size fish due to multiple factors, including variability in striped bass size distribution along the coast and state management programs (different size limits, gears, seasons)...Several adjustments have been made to commercial size limits over time resulting in changes commercial quota [sic]. Stated more simply, ***a pound of striped bass commercial quota is not equal across all states***.[5] [emphasis added]

Given that the biological impact of transferring a pound of striped bass commercial quota may differ depending upon the identity of the donor and receiving states, the "conservation tax" intended to address such uncertainty should not merely be levied when the striped bass stock is overfished; should the Management Board make the unfortunate decision to allow interstate transfers of commercial quota, the conservation tax should be applied to every such transfer.

However, ***when the stock is overfished, no transfers at all should be allowed***.

Yet even Options C and E, which would prohibit the interstate transfer of commercial quota, do not provide adequate safeguards. Both options would allow such transfers even if the female spawning stock biomass was badly depleted and continuing to decline, so long as the spawning stock biomass threshold hasn't been breached. By contributing to the fishing mortality rate, such transfers could increase the likelihood that an already depleted stock will slip below the biomass threshold. In that

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[4] ASMFC, Proceedings August 3, 2021, comments of Roy Miller, p. 44

[5] ASMFC, Draft Addendum I, pp. 11-12

respect, Option E appears to be the slightly preferable option, as it would provide the Management Board with the opportunity to prohibit transfers that Option C would allow as of right. Still, the fact that the Management Board could prohibit transfers in an effort to protect a badly stressed stock does not ensure that it would do so.

Because none of Options B, C, D, or E provide adequate safeguards to protect the striped bass stock, Option A remains the preferable option.

III

Options B through E would permit the coastal commercial fishery to escape its obligation to reduce fishing mortality, and instead permit overall commercial landings to increase substantially, and so transfer the burden of rebuilding and conserving the striped bass resource to other sectors.

Addendum IV to Amendment 6 to the Atlantic Striped Bass Interstate Fishery Management Plan (Addendum IV), adopted in 2014, and *Addendum VI to Amendment 6 to the Atlantic Striped Bass Interstate Fishery Management Plan* (Addendum VI), both introduced management measures intended to reduce fishing mortality by 25% and 18%, respectively.

Recreational management measures were designed to reduce fishing mortality based on anglers' actual landings, as estimated by the Marine Recreational Information Program. However, the supposed reductions in commercial fishing mortality were applied not to commercial landings, but to commercial quota, and because actual landings were well below quota in both cases, did not successfully achieve the desired mortality reductions.

In 2015, the first year that the measures adopted pursuant to Addendum IV were in place, commercial landings were only reduced by 19%, not the hoped-for 25%,[6] and commercial striped bass landings for the years 2016-2018 exceeded the 2015 level.[7] Thus, throughout most of the years when the Addendum IV measures applied, the commercial fishery failed to achieve the target 25% reduction.

To date, the commercial striped bass fishery's performance pursuant to Addendum VI is arguably worse. While its 17% reduction in 2020[8], the first year that Addendum VI's management measures applied, nearly achieved such addendum's 18% goal, such conservation gains were largely nullified in 2021, when commercial landings increased by 18%.[9]

The commercial fishery's performance under both Addendum IV and Addendum VI demonstrates that efforts to reduce commercial fishing mortality merely by reducing the quota, rather than by calculating a new quota based on actual commercial landings, are almost certain to fail. Permitting interstate

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[6] Atlantic States Marine Fisheries Commission, *Review of the Interstate Fishery Management Plan for Atlantic Striped Bass (Morone saxatillis) 2015 Fishing Year*, August 2016, p. 6

[7] ASMFC, Addendum I, p. 10

[8] Atlantic States Marine Fisheries Commission, *Review of the Interstate Fishery Management Plan for Atlantic Striped Bass (Morone saxatillis) 2020 Fishing Year*, August 8, 2021, p. 7

[9] Atlantic States Marine Fisheries Commission, *Review of the Interstate Fishery Management Plan for Atlantic Striped Bass (Morone saxatillis) 2021 Fishing Year*, August 2, 2021, p. 8

transfers of commercial quota will only render such efforts even less effective, and lead to the very real possibility that, instead of seeing a decrease in commercial fishing mortality pursuant to the Addendum VI measures, such mortality will actually increase when compared to the 2019 baseline.

The Management Board was made aware of that fact as early as its October 2014 meeting, when it considered adding a provision that permitted interstate transfer of quota to Addendum IV. Charlton Godwin, then the Chair of the Atlantic Striped Bass Technical Committee, stated that

> The technical committee recommends taking the harvest reductions from the 2013 total commercial harvest and let the board reallocate as they see fit. Relative to the relative to the [*sic*] commercial quota transfer, the technical committee is concerned that at a time when we're needing to take reductions, ***if the present reductions are taken from Amendment 6 quota instead of the 2013 level of harvest, allowing commercial transfers in conjunction with that could have to potential to increase harvest***. The technical committee also wants to point out that if transfers are used, conservation equivalency would need to be maintained between states if they have different size limits.[10] [emphasis added]

While the Management Board failed to heed such advice with respect to taking the commercial harvest reductions from actual landings rather than from quota, it did demonstrate overwhelming opposition to a motion that would have allowed interstate transfers of commercial quota, voting it down with 1 jurisdiction in favor, 15 opposed.[11]

The same factors that came into play in 2014 still exist today, although today, the striped bass stock's condition is arguably worse. Allowing the interstate transfer of commercial quota, when needed reductions were taken from quota rather than from actual commercial landings, would again have the potential to increase harvest.

Since overall fishing mortality must be constrained to or below the fishing mortality target of F=0.17 if the striped bass stock is to have at least a 50% probability of rebuilding by 2029,[12] any increase in fishing mortality attributable to the coastal commercial sector will have to be offset by further reductions in fishing mortality being imposed on other sectors of the fishery.

The burden of striped bass recovery should be equally shared by every sector of the fishery. Taking actions likely to result in one sector increasing its landings, and so forcing other sectors to shoulder additional restrictions to compensate for such increase, is clearly inequitable.

For this reason, too, the interstate transfer of commercial quota should not be allowed.

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[10] Atlantic States Marine Fisheries Commission, *Proceedings of the Atlantic States Marine Fisheries Commission Atlantic Striped Bass Management Board October 29, 2014*, comments of Charlton Godwin, p. 23

[11] *Ibid.*, pp. 65-66

[12] Atlantic States Marine Fisheries Commission, *2022 Atlantic Striped Bass Stock Assessment Update Report*, November 2022, p. 7

IV

Permitting the interstate transfer of commercial quota is likely to lead to some state fishery managers liberalizing commercial striped bass regulations in order to take advantage of such newly available quota, another factor likely to lead to increased fishing mortality.

Apart from their duties as administrative appointees to the Management Board, in which role they establish annual commercial quotas, state fisheries managers arguably have a responsibility to set regulations that allow their states' fishermen to catch whatever quota the Management Board has adopted.

We have seen fishery managers in the two states which have, by far, the largest coastal commercial quotas take such actions in the recent past.

Massachusetts' commercial striped bass fishermen receive more striped bass quota than do fishermen in any other coastal state. When it became clear that those fishermen were unlikely to fill their quota for the 2020 season, the state made a mid-season change to its commercial fishing regulations in an effort to increase quota utilization.[13]

New York receives the second-largest allocation of coastal quota, more than twice the fish awarded to any other coastal state. After its commercial fishermen landed a mere 45% of their striped bass quota in 2019,[14] New York expanded its commercial slot limit from 28 to 38 inches to 26 to 38 inches,[15] to provide such fishermen a better opportunity to utilize the available quota, in part by targeting fish in the 2015 year class that had not yet reached 28 inches in length. Such effort was successful, as New York's quota utilization increased to 83% in 2020 and 98% in 2021.[16]

Given such past actions, it is not unlikely that such states, along with other states that utilize substantially all of their coastal commercial striped bass quotas, will seek to benefit their local fishermen by seeking to obtain unutilized quota from other states, and adjusting state regulations to allow them to do so. Such efforts would sharply increase the likelihood that virtually all of the coastal commercial quota will be utilized, increasing fishing mortality while decreasing the likelihood that the striped bass stock will be rebuilt.

Prohibiting the interstate transfer of commercial quota will prevent such scenario from occurring.

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[13] Massachusetts Division of Marine Fisheries, Press Release, "DMF to Make In-Season Adjustments to 2020 Commercial Striped Bass, Black Sea Bass and Summer Flounder Limits," August 24, 2020

[14] ASMFC, Addendum I, p. 10

[15] 6 NYCRR 40.1(i)

[16] ASMFC, Addendum I, p. 10

V

Addendum I has morphed from a modest management measure intended to remedy an alleged inequity borne by a single state to a far broader document permitting the wholesale interstate transfer of commercial quota.

Amendment I arose out of Delaware's contention that its current commercial striped bass quota was inequitable. After the Management Board rejected a motion that would have included a review of states' commercial quotas into *Draft Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass*, Delaware held additional conversations with ASMFC staff. As noted in a memorandum from Toni Kearns, ASMFC's Interstate Fishery Management Program Director, to the Management Board,

> At the May 2021 Board meeting, the motion to include the commercial allocation issue in Draft Amendment 7 failed for lack of a majority. Many Board members recognized that Delaware has raised this issue for several years now and Delaware asserts their current allocation is not equitable...
>
> The Board Chair requested staff from the Commission and the State of Delaware prepare options and timelines for how this issue could be addressed moving forward. In response to the request, Commission staff and Commissioners from the State of Delaware prepared this memorandum for Board discussion at the August meeting...[17]

Such memorandum went on to discuss four options to address Delaware's purportedly unfair allocation, only one of which contemplated the interstate transfer of commercial quota. Although the transfer option in the memorandum was arguably applicable to multiple states, the original intent was to effectively limit such transfers to Delaware, as evidenced by the comments of John Clark, Delaware's Administrative Proxy, who observed,

> ...thanks to Emilie and Toni for working with us to develop these options. Tried to keep it very simple, and tried to look for a option [sic], you know as Emilie pointed out, the first option there is voluntary transfers. We are not trying to do a full reallocation everywhere, because we know how fraught that process would be. Just looking to get more in the simplest way possible here.
>
> We also understand that there might be some concern with just voluntary transfers, because it could end up with more questions of states asking for transfers that maybe they don't really need, or what have you. We added some criteria...I'm sure if anybody who has read through it saw that really ***the only state that would qualify under all three criteria would be Delaware***. Some of the performance measures I put in there, or

[17] Memorandum from Toni Kearns, ISFMP Director, to the Atlantic Striped Bass Management Board, dated July 26, 2021

the criteria we put in there, also demonstrate just the small scale of the fishery in Delaware.[18]

Mr. Clark's comments sum up Addendum I's biggest problem: The document has gone far beyond its original intent. The right way to address Delaware's concerns is with a reallocation of commercial quotas, that would grant that state's fishermen a larger share of the catch. Such allocation could be done most simply by figuring out how much additional poundage Delaware ought to receive, and then deducting such poundage from the commercial quotas of the other coastal states, in direct proportion to each state's share of the commercial quota.

However, that isn't a practical alternative, because it is too "fraught;" that is, no state wants to tell its commercial fishermen that it voluntarily ceded a share of their quota to fishermen in another state. So to avoid a drawn out allocation debate, Delaware suggested a voluntary interstate transfers of commercial quota but, recognizing that permitting unrestricted quota transfers would raise other issues, suggested criteria that, as a practical matter, rendered Delaware the only likely recipient of transfers, and also made it likely that any such transfers would be small, given the size of Delaware's fishery.

Unfortunately, the Management Board decided not to include such restrictive criteria in any of Addendum I's options, and thus created a likelihood that Addendum I, if adopted by the Management Board, could increase coastwide commercial landings by at least 30%.

The above-quoted documents make it clear that was not the original intent of Addendum I. Thus, the Management Board should reject Addendum I, and provide additional quota to Delaware by more appropriate means, if it believes that such action is needed.

VI
Summary

Addendum I would inevitably lead to a substantial increase in commercial striped bass fishing mortality. Any such increase is inappropriate at a time when the stock remains overfished and is struggling to rebuild by the 2029 deadline. For that reason, as explained in more detail above, selecting Option A, status quo, is the only acceptable course for the Management Board.

Thank you for considering my thoughts on this matter.

Sincerely,

Charles A. Witek, III

[18] Atlantic States Marine Fisheries Commission, *Proceedings of the Atlantic States Marine Fisheries Commission Atlantic Striped Bass Management Board August 3, 2021*, comments of John Clark, p. 42

From: dan feeney
To: Comments
Subject: [External] Striped bass amendment I
Date: Saturday, December 24, 2022 9:50:51 AM

Consideration of allowing any increase in commercial striped bass harvest or transfer is insane. Closing commercial striped bass fisheries is what should happen.
You should be ashamed to call yourself fisheries managers.
You seem to bungle the management of every species you work on.

Sent from my iPhone

From: Nick Murray
To: Comments
Cc: James Gilmore
Subject: [External] Striped Bass Addendum I
Date: Saturday, December 24, 2022 8:01:57 AM

Hello

I am a fisherman and a resident of New York. I want to voice my support for option A of striped bass addendum 1.

I do not support allowing state commercial quota transfers because it would lead to increased harvest at a critical time when the striped bass is overfished. Amendment 7 was a step in the right direction. Please keep the goal of rebuilding the stock in focus.

Thank you

Sincerely

Nick Murray

Sent from afield

From:	John Field
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Saturday, December 24, 2022 7:42:09 AM

Dear ASMFC board members,

Please vote for Option A (status quo): Commercial quota transfers are not permitted.

Best,

John Field
Weston, CT

From: Peter robertson
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Saturday, December 24, 2022 6:09:44 AM

To whom it may concern,
I support option A for Addendum I, to keep the status quo for commercial striped bass harvest. The reason the commercial harvest do not reach their quota is because there isn't enough striped bass to harvest.
Thank you, Peter Robertson

Sent from my iPad

From: doanbill (null)
To: Comments
Subject: [External] Striped bass draft addendum 1
Date: Friday, December 23, 2022 7:31:17 PM

I support option A. There should be no commercial transfer of unused quota of striped bass. Striped bass are still being overfished both commercially and recreationally. The striped bass population needs to be allowed to grow substantially.

Sincerely,
William Doan

From: DOUG KISBY
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Friday, December 23, 2022 6:30:03 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery. I oppose any increase for commercial fishing. We are just starting to get back to somewhat normal numbers, why the increase for commercial fishing? Does not make any sense.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

DOUG KISBY
4 11th St
Ocean City, NJ 08226
Dougkisby@yahoo.com

From: Edward DeLorenzo
To: Comments
Subject: [External] ort Option A on Striped Bass
Date: Friday, December 23, 2022 4:30:09 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery. I oppose allowing commercial quota transfers because it will jeopardize rebuilding the striped bass population and its iconic fishery by the 2029 rebuilding deadline.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Edward DeLorenzo
153 Brook Ave
Staten Island, NY 10306
Edcdelo@yahoo.com

From: g.georgetthenrich@comcast.net
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Friday, December 23, 2022 4:11:02 PM

Sirs and madams:

My name is Georgette Henrich and I am the president of the Plum Island Surfcasters, a recreational fishing club of over 500 members based on Plum Island, Newburyport, MA. For years we have seen the decline of striped bass as well as other species from local waters due to over fishing and mismanagement of the fisheries. I speak for myself that if quotas as allowed to be transferred through Striped Bass Addendum 1 there will be little chance if none that striped bass stocks will be revived. With overfishing and climate change, we need to conserve the species and allowed it to have time to recover if we are ever going to see a future in that fishery. Allowing states to transfer their quotas to other states so that their quotas can be exceeded only hurts the species from coming back in strong numbers. If states cannot reach their quotas, then that should be the end of it- they don't make their quotas.

In closing, I do not want to the see the transfer of quotas. We must stay the course to see what will happen in the next few years before making any decisions that we will soon regret. No transfers- period.

Regards,

Georgette Y. E. Henrich

President, Plum Island Surfcasters sm, Inc.
Founded 1957

"Plum Island Surfcasters sm will strive to be a highly respected leader in sportfishing, committed to developing best practices in good sportsmanship, education, techniques and conservation for future generations"

65 years and going strong. Dedicated to preserving the tradition of sportfishing while practicing conservation. Check us out: www.plumislandsurfcasters.org

From: Daniel Umstead
To: Comments
Subject: [External] Commercial transfer permit
Date: Friday, December 23, 2022 1:55:07 PM

Hello,
Out of State fisherman here from Butler, Pennsylvania and "I support Option A, No commercial transfer permitted. Love visiting the Jersey Shore and fishing for striped bass.
Dan umstead, Butler Pa.

From: Richard Fleming
To: Comments
Subject: [External] Amendment 1
Date: Friday, December 23, 2022 1:44:27 PM

Dear ASMFC Members,

At a time when it's imperative to work to rebuild the striped bass population, it doesn't make sense to me to take broad steps to maximize the commercial harvest, especially before more stock assessment data become available. I feel equally as strongly about proactive management of the larger recreational harvest, but one crucial distinction is that the commercial harvest allows over-slot harvesting, which further reduces our breed stock. Both recreational and commercial segments need to work now toward building and sustaining our striped bass population.

I'm writing to support Option A on this amendment, "Commercial quota transfers are not permitted."

Best,
Richard K. Fleming
P.O. Box 515
Freedom, NH 03836
Rfleming4@gmail.com

R

From: David Luongo
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Friday, December 23, 2022 1:20:09 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery. This is no time to be changing quotas and management plans. Recruitment is low and harvests are high. We had a good year in Massachusetts, why spoil the increased activity? This proposed increase and sharing of quotas is ABSOLUTELY UNACCEPTABLE. No angler would support these changes. I am appalled that this is even up for consideration. The proposed changes leave the fishery at risk for overfishing and increasing mortality. I see what impact commercial fishing has on the fishery every year. Violators abound, dead fish floating away from the hundreds of boats chasing a few fish as many boats high grade. We cannot increase this activity.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input. Feel free to call or email me if you would like more information. I am an avid angler out of Plymouth MA and have an educational background in marine biology. My occupation is a firefighter and EMT.

Sincerely,

David Luongo
30 Brightside Ln
Forestdale, MA 02644
unleashedff248@gmail.com

From: Paul Sullivan
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, December 23, 2022 1:18:22 PM

Hello,

This email provides my comments on Striped Bass Draft Addendum I.

The draft addendum, if implemented, would maximize striped bass harvest within conducted stock assessments. Given that the boom/bust striped bass stocks have negatively impacted both recreational and commercial interests over the last 50 years, the proposed addendum will continue the unacceptable boom/bust cycle. Given the unavoidable "rear view mirror" perspective of stock assessments, regulations should err on the side of protecting stocks and not promote maximum harvest. Given that commercial harvest has a significantly greater impact than recreational harvest on breeding populations and future stocks, maximizing commercial harvest as proposed in Addendum I will perpetuate the boom/bust cycle.

Striped Bass Addendum I is ill considered and should NOT be adopted.

Paul Sullivan
603.325.0920 cell

From: David Slater
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, December 23, 2022 11:57:14 AM

To Whom it Concern,

I am writing today to express my concern regarding commercial transfer of striped bass quotas. Allowing these transfers seems to be the opposite of what we must be doing. The value of these fish isn't limited to commercial harvest. Recreational anglers value these fish because generations of families fish together, fishing is a means to reduce stress and anxiety, and it creates substantial revenues for small businesses. Please stop the transfer of commercial quotes.

Warmest Regards,

David Slater

From: Peter Laurelli
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Friday, December 23, 2022 11:30:05 AM

Dear FMP Coordinator Franke,

As a striped bass angler who has watched continuous degradation of a species under the "management" of the ASMFC, I support rebuilding the striped bass population and its iconic fishery and for your commission to adhere to its mandate.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Peter Laurelli
1 Morningside Pl
Norwalk, CT 06854
peter.laurelli@gmail.com

From: Ken Thomas
To: Comments
Subject: [External] STRIPED BASS DRAFT ADDENDUM I
Date: Friday, December 23, 2022 10:27:34 AM

I SEE NO REASON NOT TO GIVE THE COMMERCIAL FISHERMAN THERE FAIR SHARE OF THE QUOTA. THE RESOURCE SHOULD BE USED FAIRLY BETWEEN ALL PARTY'S. THIS IN FIGHTING BETWEEN RECREATIONAL AND COMMERCIAL FISHERMAN NEEDS TO STOP. THERE NEEDS TO BE MIDDLE GROUND OTHERWISE WE ARE POLARIZING THE FISHING RULES JUST THE WAY THE POLITICS OF OUR COUNTRY ARE AND THAT HAS BEEN GETTING US NOWHERE. EVERYONE NEEDS TO LOOK AT BOTH SIDES OF THE COIN AND ADDRESS EACH OTHERS CONCERNS. DO WHAT'S FAIR FOR ALL!!

From: Dave Flood
To: Comments
Subject: [External]
Date: Friday, December 23, 2022 7:53:38 AM

Commercial quota transfers for Striped Bass should NOT be permitted.

David Flood
13 Mirador Ct,
Toms River, NJ 08757
201-232-1982

From: Ronald Meza
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Friday, December 23, 2022 12:40:02 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input. Do the right thing for a change to restore this fishery. Commercial operations like Omega have no business operating in New York!

Sincerely,

Ronald Meza
741 Stratmill Rd
Binghamton, NY 13904
ronaldmeza10@gmail.com

From: Ron Shamaskin
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 22, 2022 9:55:10 PM

I am OPPOSED to the proposal that allows increased commercial stripped bass fishing in the Chesapeake Bay. Allowing for more commercial fishing in an area that is stressed and beastly under serving recreational fishing is wrong. Please vote against this proposal. Thank you.

Ron Shamaskin

From: John Connelly
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Thursday, December 22, 2022 8:20:08 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

Support Option A you asshole. Go an spend some more money on Venezuela's gay community. Or another museum project. But leave the fish alone.

Sincerely,

John Connelly
25-5 Jacksonville Rd
Towaco, NJ 07082
johnaconnelly3@gmail.com

From: Wesley Esser
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Thursday, December 22, 2022 7:20:02 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.
As a result, it is not time to be considering management changes that expand harvest.
Therefore, I support option A (status quo) commercial quota transfers are not permitted.
I would also support a ban on commercial fishing for striped bass altogether as well as a catch and release policy for sport fishing,
Thank you for considering my input.

Sincerely,

Wesley Esser
8 Clipper Cir
Sandwich, MA 02563
vpodha5@aol.com

From:	Al Williams
To:	Comments
Cc:	Emilie Franke; Michael Armstrong
Subject:	[External] 'Striped Bass draft addendum 1'
Date:	Thursday, December 22, 2022 6:21:22 PM

To: ASMFC Striped Bass board members and Mass DMF Director and advisory commission members.

From: Al Williams / Gloucester, Mass.

I fish for Striped Bass both commercially and recreationally in Massachusetts state waters. I have been actively involved in this fishery for many years.

I remotely attended the Massachusetts virtual public hearing held on 12/19/22 regarding the potential for transfers of striped bass quota.

I favor Option 'E' from the list presented during the public hearing.
Option 'E' would only allow a transfer at board discretion and with any attached criteria that they deemed appropriate. No transfers allowed if the stock is overfished.

I favor this option because it offers maximum oversight and control of all quota transfers. Quota transfers have offered opportunity with other species, and would clearly be a benefit when a state has exhausted its base quota early, as Massachusetts did in 2022.
But there is continued need for prudent caution and scrutiny with all actions pertaining to Striped Bass if the rebuilding target of 2029 is to be met.

That you for consideration of my comments:

Al Williams
Gloucester, Mass.

From: John Walsh
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Thursday, December 22, 2022 6:20:09 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.
It would be absolutely ridiculous to continue to monkey with these regulations at a time when evidence shows that are working to rebuild the stocks.

Thank you for considering my input.

Sincerely,

John Walsh
800 South Dr
Brick, NJ 08724
ajwalsh53@hotmail.com

From: Robert Donaldson
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Thursday, December 22, 2022 3:30:54 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permittedby .

I am really disappointed in some of the decisions made the Atlantic States Marine Fisheries Commission and the VMRC here in Virginia and their handling of the stocks. Please just leave it as it is for couple more years and then perform a re-assessment at that time.

Thank you for considering my input.

Sincerely,

Robert Donaldson
6042 Old Hickory Fork Rd
Hayes, VA 23072
tarpon05@gmail.com

From: Lance Lascari
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 22, 2022 8:42:44 AM

I want to go on the record in support of Option A, maintaining the status quo.

Regards,

Lance
(Native Fish Coalition NY chapter member)

Lance Lascari // RFdude.com LLC
lance@rfdude.com
271 Edgemoor road, Rochester, NY 14618 USA
+1.585.857.9338

From: Sean Hesse
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Thursday, December 22, 2022 8:40:09 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Once again the government is serving the internet of preferred industry while ignoring the needs of nature and the individual. This only leads me to believe there must be certain special interests involved here. You will be decimating the population of fish giving me less of an opportunity to catch them all so they can be sold to me by industry. Commercial fishing already has lower limit and is responsible for overfishing yet the little guy has to pay for it and has less of a chance to procure his own food for his family. Do the right thing for the fish and the people Thank you for considering my input.

Sincerely,

Sean Hesse
124 Springtime Ln W
Levittown, NY 11756
s.hesse0092@gmail.com

From: John Caccamese
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Thursday, December 22, 2022 6:30:04 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

None of the recent proposals or decisions around the management of menhaden or striped bass seem to be consistent with what science and nature are telling us. They seem to be driven more by market forces, which seems to be the surest way to help these co-dependent fisheries to crumble.

Thank you for considering my input.

Sincerely,

John Caccamese
8111 Ruxton Crossing Rd
Towson, MD 21204
jcaccamese@ymail.com

From: James Runfola
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Wednesday, December 21, 2022 7:23:31 PM

To Whom It May Concern:

My name is James Runfola and I am a resident of Moorestown, New Jersey. I support Option A, "no commercial transfer permitted."

Thank You,
James Runfola

From: joe franckowiak
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Wednesday, December 21, 2022 4:47:37 PM

Hi. I support option A, No commercial transfer permitted. Thanks for your consideration.

Joe Franckowiak
236 North 4th Street
Surf City, Nj 08008

From:	William Yingst
To:	Comments
Subject:	[External] Commercial Quota Transfers for Striped Bass
Date:	Wednesday, December 21, 2022 3:48:36 PM

I am offering a comment for Option A of this Draft Document, stating that Commercial Quota transfers should NOT be permitted.

Thank you

William Yingst
116 Cormorant Drive
Swansboro, NC 29584
(352)562-2934

From:	Michael Prestegord
To:	Comments
Subject:	[External] Striped Bass Fishery
Date:	Wednesday, December 21, 2022 1:45:09 PM

I support Option A, No commercial transfer permitted

Michael Prestegord

OFFICE: 215.441.4444 x112
DIRECT: 215.259.6334
CELL: 215.630.0440
mprestegord@vizirocks.com
Address: 882 Louis Drive
Warminster, Pa. 18974

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From: Eric Moore
To: Comments
Subject: [External] Striped BAss Draft Addendum I
Date: Wednesday, December 21, 2022 1:42:44 PM

I support Option A, No commercial transfer permitted.

Eric Moore
Tabernacle NJ

Sent from my iPhone

From: cnastasi33
To: Comments
Subject: [External] Striped Bass ocean commercial quota transfer between States
Date: Wednesday, December 21, 2022 12:44:22 PM

I strongly oppose the transfer of any Striped Bass quotas between any States.
States are separate from one another for many reasons including, but not limited to,
Individuality and Geographic differences.
Transferring of quotas is a money grab and a complete contradiction of why we have individual state quotas to begin with.
Striped Bass stocks will also be further hampered from making a recovery.
Thanks Chris Nastasi

Sent from my Verizon, Samsung Galaxy smartphone

From: Joe Aletta
To: Comments
Subject: [External] Striped Bass Draft Addendum
Date: Wednesday, December 21, 2022 9:35:55 AM

ASMFC,

My name is Joseph Aletta and I live and fish in New Jersey. I support Option A, No commercial transfer permitted. Thank You.

Joe Aletta

From: Tim Jones
To: Comments
Subject: [External] Striper quota transfer
Date: Wednesday, December 21, 2022 8:51:55 AM

Good morning I'm a recreational fisherman for striped bass on cape cod. And I've seen first hand what the destruction of the fishery looks like via commercial fishing especially. It makes absolutely no sense to kill big breeding fish to sell for Pennies. Plus it depletes the stock for future generations. They're much more valuable as a game fish honestly. Comm striper fishing should be banned honestly. And this transfer would make things a lot worse than it already is. Please do not pass this act it would be a disaster. Thanks for your time.

From: James Suleski
To: Comments; stripercomments@gmail.com
Subject: [External] Striped bass addendum I
Date: Wednesday, December 21, 2022 6:55:00 AM

Greetings,

I am writing to oppose the notion that now is the tome to fully exploit commercial striped bass harvest. While recreational angling makes up most of the harvest, as I understand it there are a number of things influx currently during this early fragile striped bass recovery. The majority of striped bass recruitment as I understand it comes from the Chesapeake bay. Here biological dead zones caused by the Susquehanna river pollution, high temperatures caused by climate change and competition for forage/predation with the proliferating threat of invasive blue catfish are wild cards. When you have most of your striped bads recruitment eggs in the chesapeake basket and you don't yet fully understand the interplay between emerging threats it seems reckless to try to maximize any form of harvest.

Lets give these fish some cushion incase they need all of it. We all know how much financially , ecologically, and socially they mean to the entire east coast. Their in shaky recovery and we should reflect that in our management.

-James Suleski
6094051415

From:	Tim Scattergood
To:	Comments
Subject:	[External] Striped BAss Draft Addendum I
Date:	Wednesday, December 21, 2022 5:52:19 AM

Timothy D. Scattergood
729Graisbury Ave. Haddonfield NJ 08033

I support Option A, No commercial transfer permitted.

Best,

Tim Scattergood

From: Edward Borg
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Tuesday, December 20, 2022 11:01:54 PM

To the Striped Bass Management Board,

I am a licensed commercial fisherman from New York State. In regard to Striped Bass Draft Addendum I, I am in favor of Option B: General commercial quota transfer provision (with overfished conservation tax). Option B with the 5% conservation tax upon transfer should address the goals and objectives of the reductions taken under Addendum VI in 2020, and will keep fishing mortality low enough to have the stock rebuilt by 2029. Thank you for your consideration.

Sincerely,

Edward Borg

From:	Chris Kiss
To:	Comments
Subject:	[External] Support Option A on Striped Bass
Date:	Tuesday, December 20, 2022 9:20:08 PM

Dear FMP Coordinator Franke,

Fish for sea robins and dog fish. Leave the striped bass alone and don’t fuck everything up for everyone. Shit is finally getting better for them so don’t ruin it now

Sincerely,

Chris Kiss
2 Higby Dr
Meriden, CT 06450
kissch44@gmail.com

From: Bill LeConey
To: Comments
Subject: [External] Striped bass draft addendum I
Date: Tuesday, December 20, 2022 7:48:34 PM

Option A - no commercial transfer of unused quota

Bill LeConey

Sent from my iPhone

From: Pasquale Nicolia
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 7:20:03 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support option A (status quo) commercial quota transfers are not permitted.

Striped bass fishing is a pastime that has been enjoyed for generations and should be for generations more. We need to help rebuild the striped bass population, not destroy it.

Thank you for considering my input.

Sincerely,

Pasquale Nicolia
118 Old Pine Rd
Narragansett, RI 02882
pnicolia@gmail.com

From: Anthony Stradone
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 5:50:09 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Size limits and catch limits should be consistent along the Atlantic seaboard.

Thank you for considering my input.

Sincerely,

Anthony Stradone
31 Courtland Dr
Narragansett, RI 02882
anthonystradonejr@cox.net

From: Paul Kameen
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 5:40:02 PM

Dear FMP Coordinator Franke,

As a striped bass researcher, and angler, I support rebuilding the striped bass population and its iconic fishery. I am currently writing my bachelors thesis on stripped bass and I believe the data does not indicate that populations are stable enough commercial quota transfers of striped bass.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Paul Kameen
107 Sproul Rd
Dingmans Ferry, PA 18328
kameeb@icloud.com

From: Coleman Komishane
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 4:10:09 PM

Dear FMP Coordinator Franke,

To whom it may concern,

The increase of viable/fertile spawning Striped Bass is necessary to promote sustained health of the North Atlantic fishery. The present law proposes to decimate this fraction of Striped Bass, which would have an outsized effect in lowering spawning Striped Bass numbers. Taken together, this effect compounds and accelerates the demise of this loved/commercially important species.

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Coleman Komishane
5 Eaglehead Rd
Manchester, MA 01944
colemankomi@gmail.com

From: Spencer Bode
To: Comments
Subject: [External] Support Option B on Striped Bass
Date: Tuesday, December 20, 2022 3:50:03 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support using out allocated quota efficiently for maximum capital gain.

The Striped Bass Fishery Managements plan sets the quota thus we should allow the properly permitted individuals harvest it and not leave any uncaught fish.

As a result, it is time to make management changes that expand harvest due to 400,000 lbs being leftover in ocean quota. Representing 2 million dollars as dock prices avg 5$. Therefore, I support option B. Allowing states to transfer unused quota.

Thank you for considering my input.

Sincerely,

Spencer Bode
20 Prospect Ave
North Kingstown, RI 02852
spencerbode17@gmail.com

From: Tom Bilodeau
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 3:30:02 PM

Dear FMP Coordinator Franke,

My family and many others in MA have always fished for Bass. We have seen the populations change rapidly over 5 to 10 year periods. It is frustrating to follow the recreational restrictions that are so strict and watch the commercial guys kill so many more fish.

The recreational side is a huge economic boost in terms of bait shops, hotel rentals, and general tourist money. I feel like politicians overlook how expensive a hobby striped bass fishing can be, we don't need more commercial fishing when it risks the populations we have and makes it so that we need these very strict recreational limits with size caps.

Sincerely,

Tom Bilodeau
320 Powder Mill Rd
Concord, MA 01742
bilodeau50@aol.com

From: Alex Dee
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 2:50:03 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan is currently doing wonders for our community. I commercial bass myself to pay for my college costs and other expenses/bills. This past season I have never seen so many giant bass in schools of near tens of thousands every single day of the season. Off the cape, south shore, boston, and even the north shore was exceptional. Keep doing what you guys are doing because it is obviously working. The people crying to oppose commercial striped bass don't know whats actually going on out on the water. I have been doing this commercial bass fishery since 2017, it quite literally has improved each year. One thing we should do is only give permits to people with a certain amount of pounds sold per season. Make it 2,000 pounds a season to keep a license. There is way too many boats fishing every single day. The recreational fleet is also extremely out of control on closed days killing fish with gut hooked trebles. This fishery is a staple in our state and its a freedom we need to fight for.

Thank you for considering my input.

Sincerely,

Alex Dee
30 Arborway Dr
Scituate, MA 02066
alexd12@icloud.com

From: Alex Puskar
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 1:50:08 PM

Dear FMP Coordinator Franke,

As a striped bass angler in RI, I support rebuilding the striped bass population and its iconic fishery. The results are just starting to show in block island sound. But it's wayyyy to soon.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are

Sincerely,

Alex Puskar
221 3rd St
Newport, RI 02840
a.puskar@icloud.com

From: Kevin Granfield
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 1:40:04 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted. These fish have taken so much abuse over the years, and it hurts me to see the commercial fishing industry try to pressure them and find loopholes at every turn to make a profit. We need to be mature and think about the long game here.

Thank you for considering my input.

Sincerely,

Kevin Granfield
40 Bayview Rd
Mashpee, MA 02649
kwgranfield@comcast.net

From: Noah Lamperti
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 1:30:11 PM

Dear FMP Coordinator Franke,

As an avid striped bass surfcaster and tackle shop employee, I support the conservation of striped bass and the end of commercial fishing for this species.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Noah Lamperti
1 Main St
Harwich, MA 02645
nlamperti16@gmail.com

From: michaelhaugheywoolston@gmail.com
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Tuesday, December 20, 2022 1:15:38 PM

Dear Commission,
It appears that new rules are being considered that will allow sharing of the quota for striped bass. It would seem that this rule change will benefit certain multi-state commercial fishing enterprises, by maximizing the catch across multiple states. However, according to most objective marine scientists, the current bass stocks are already substantially overfished. Why would the ASMFC, which represents the best interests for all users of the fishery, even consider increasing the yield, when the best way to rebuild the fishery is to allow it to rebound? Isn't the healthy rebuilding of the fishery stocks important to all users? This addendum seems to be driven by short sighted greed. The fact that the commission would even consider this revision and its disregard for fisheries science, smacks of conflict of interest and kowtowing to commercial short sighted profit motives. I speak for many, when I say that this addendum strives boldly in exactly the wrong direction, and we are left to wonder why? It seems like we can be so shortsighted in managing these resources. In decades past, we decimated the stock through a long series of poor management decisions. This resulted in a broad moratorium on the striped bass fishery, which severely impacted both commercial and recreational interests. Once the stocks rebounded, however, the shortsighted management resumed, and we are headed the wrong way yet again! There is a great deal more at stake here than maximizing this year's tonnages, and the price of fish. Please reject this initiative.

Respectfully,

Michael Haughey
Concerned Fisherman

From: philip
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Tuesday, December 20, 2022 1:14:32 PM

I do not support allowing voluntary transfer of striped bass ocean commercial quota transfers between states.

I do support Status Quo.

Thank you,

Philip Welsh
240 117th St
Stone Harbor, NJ 08247

From: Anthony Baratta
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 1:10:09 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Frankly, I was appalled at the suggestion of transferring rights when we in MD are under strict conservation restrict. I urge you not to adopt the transfer approach.

Thank you for considering my input.

Sincerely,

Anthony Baratta
377 Deer Dr
Lusby, MD 20657
ab2@psu.edu

From: Will Clark
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 12:40:02 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

It is time to stop viewing the great American gamefish from the lens of a dollar sign. They are worth far more to the culture of New England alive than they are dead. Let's keep this stock of fish healthy enough to pass the sport on for generations to come.

Thank you for considering my input.

Sincerely,

Will Clark
3 Lake Rd
Gloucester, MA 01930
wcclark710@gmail.com

From: Evan Belanger
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 12:00:09 PM

Dear FMP Coordinator Franke,

As a long time striped bass angler who has seen the population decline over the many years, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Evan Belanger
5 Pine Tree Rd Apt B
Nantucket, MA 02554
evanbelangerr@gmail.com

From: Kenneth Vera
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 12:00:05 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Personally, I believe commercial harvesting should be stopped and recreational fishing for striped bass should be limited to catch and release only. We need to give this fishery time to rebuild and grow before chipping away more at these stocks. Party boats and charters are also a big part of the diminish of striped bass population. Here in NJ we have tons of party boats leaded with 40-50 guys keeping one to two fish each, twice a day per boat.

Thank you for considering my input.

Sincerely,

Kenneth Vera
968 Linden Ave
Brick, NJ 08723
kenvera92@gmail.com

From: Ted Laquidara
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 12:00:03 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

I work at a bait and tackle shop as well as operate a charter business in Rhode Island. The striped bass alone plays a huge role in the tackle industry as well as Northeast charter captains.
Thank you for considering my input.

Sincerely,

Ted Laquidara
37 Hoxsie Ave
Charlestown, RI 02813
basketman237@aol.com

From: Nicholas Favata
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 11:50:05 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

Without this fish the northeast fishery as we know it today would be a unrecognizable shell of what it used to be. As a 4th generation striper fisherman in the state of NJ, we need to do more to ensure the protection and preservation of this fish.

The striped bass is a staple and frankly it fuels the economy along the coast here in NJ as thousands flock to our beaches each year to pursue this fish.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Nicholas Favata
21 N 9th St
Kenilworth, NJ 07033
nfavata@live.com

From: Benjamin Masse
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 11:30:09 AM

Dear FMP Coordinator Franke,

Of all the times to start trying to further overfish the striped bass population you've chosen the worst possible time. Population is at a critical mass and there are strict rebuilding plans already in place. How can you possibly in good conscious consider instituting a sneaky policy that will increase harvest size.

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Benjamin Masse
16 Reservoir Ave
Rehoboth, MA 02769
bmasse10@gmail.com

From: Jeffrey Boswell
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 11:30:09 AM

Dear FMP Coordinator Franke,

The striped bass fishery is overfished yet we continue to face illogical and detrimental propositions such as transferring quota. Enough with this!!
In Massachusetts our commercial anglers were not able to catch their quota in past seasons so what did we do… give them more days to catch them!! If they couldn't catch the fish, that should have been a clear signal of an issue, but instead we go the other direction. Please put the resource first for once, and stop taken action that will further harm it.

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted

Thank you for considering my input.

Sincerely,

Jeffrey Boswell
12 Winter St
Plymouth, MA 02360
Boswell204@gmail.com

From: Brad Valalik
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 11:10:07 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

There are too many regulations on the rod and reel fisherman and not enough on the commercial harvest.

Thank you for considering my input.

Sincerely,

Brad Valalik
24 Queach Rd
Branford, CT 06405
bradvalalik@gmail.com

From: David Kennedy
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, December 20, 2022 7:40:03 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

It is important the ASMFC recognize economic benefit of supporting a healthy recreational fishery in your management decisions. This is a shared resource and commercial fishing operations benefit at a cost to all of us.

Thank you for considering my input.

Sincerely,

David Kennedy
3101 Ulster Ct
Annapolis, MD 21403
kennedy.david1@att.net

From: Antoni Athanasopoulos
To: Comments
Subject: [External] Striped Bass
Date: Monday, December 19, 2022 9:47:37 PM

Dear ASMFC,

I am Antoni Athanasopoulos, writing on behalf of the New York Coalition for Recreational Fishing (NYCRF), a non-profit organization representing over 2,000 anglers. I have been a recreational striped bass fisherman for as long as I can remember. I fish often out of Beverly, MA

After reviewing Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan we are concerned that the Board is considering an amendment that would result in the increased harvesting of striped bass at a time when the fishery is:

still in a rebuilding phase

still classified as overfished

experiencing historically low recruitment.

According to the current management rebuilding plan, fishing mortality must remain at or below F=0.17. I have concerns that Addendum I could jeopardize the 2029 rebuilding plan which is already operating under a small margin of error. The Draft Addendum and the ASMFC recognize this fact when it states “Allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum VI in 2020.”

Addendum I is being introduced at the wrong time. I would be open to considering such a proposal at a time when the 2029 rebuilding plan has proven successful but not now. As a result we select Option A (status quo): Commercial quota transfers are not permitted.

If the Board determines that commercial quota transfers must be permitted, of the remaining options the only option that should be considered is Option E: Limited Board discretion commercial quota transfer provision based on stock status.

The public comments during consideration of Amendment 7 were overwhelming clear in recommending conservative fisheries management measures. Until the striped bass fishery is successfully rebuilt by 2029 and is not overfished, the transfer of commercial quota transfers between states should not be permitted.

I appreciate your time and consideration.

Antoni
--
Antoni Athanasopoulos
Boston, MA | T. (978) 578-2005

From: Jacob Fetterman
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Monday, December 19, 2022 5:53:40 PM

To whom it may concern,

I am writing in regard to Addendum I. There should be only 1 option:

Option A (status quo): Commercial quota transfers are not permitted.

To do anything else would be nonsensical when striped bass stock is in severe need of recovery, and it would result in increased harvest of breeder fish in states where there is no commercial slot.

Please do better.

Best,
Jacob A. Fetterman

From: Christopher Kline
To: Comments
Subject: [External] My support for Option A on Striped Bass
Date: Monday, December 19, 2022 5:20:08 PM

Dear FMP Coordinator Franke,

With regards to the recent proposal to allow commercial quote transfers for striped bass, please register my firm disagreement with this proposal, because I believe it would significantly harm our ability to rebuild the striped bass population along the entire east coast of the United States.

Instead, I support option A (status quo) and DO NOT support commercial quota transfers.

Thank you for your time and for registering my concerns.

Sincerely,

Christopher Kline
44 Forbes Hill Rd
Quincy, MA 02170
kline.christopher@gmail.com

From: Jack Kingston
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Monday, December 19, 2022 3:55:58 PM

Hi,

If we allow states to transfer unused commercial quotas then more pressure will be on the highest concentration of large fish. This is not a sustainable strategy for management of a population.

We shouldn't be making people feel entitled to income from fish they don't have. That is a slippery slope.

There should be no change to the commercial quota transfer rules.

Option A (no change - commercial quota transfers not be permitted)

Let's try to be sensible about this and maybe the bass won't die off again.

Thanks,

Jack Kingston
Boston MA

Sent from my iPhone

From:	Emilie Franke
To:	Comments
Subject:	FW: Re: Thank you for attending Striped Bass Draft Addendum I Webinar Public Hearings
Date:	Monday, December 19, 2022 2:08:04 PM

From: Greg F Vespe <vespe.risaa@gmail.com>
Sent: Friday, December 16, 2022 7:26 AM
To: G2W
Subject: [External] Re: Thank you for attending Striped Bass Draft Addendum I Webinar Public Hearings

Thank you for holding the hearing and allowing comment. In addition to my comments made on behalf of the Rhode Island Saltwater Anglers at the RI hearing regarding the proposal to allow Commercial Striped Bass quota transfer among states, I would also like to add that on a personal level I agreed with the comments made during the hearing about the slide showing NJ as 0% use of commercial allocation and then factoring in that 0% into the overall equation for % commercial catch utilized as being poorly constructed.

While it may be factually correct - its feels an awful lot like the slide was put together based on a leading agenda and comes across a "lawyer speak" type written verbiage. Its misleading at best.
I am not advocating for it to be factored in at 100% even if the quota is fully utilized by the rec side, but rather it (NJ) simply shouldn't be factored in at all into the math period . If you want to portray to the public a accurate vision that actually represents what s happening . Intentional or not, slides like that that are part of the reason for distrust and hesitancy on the public to participate in the process so I would ask you to please be more vigilant about not only of being "factually correct' slides but also as to whether something is designed to clearly favor a position and might be better represented in a more neutral way.

With all respect,

Greg Vespe
Executive Director
RISAA

On 12/15/2022 8:01 PM, Webinar Staff 1 wrote:

> We hope you enjoyed our webinar.
>
> Please send your questions, comments and feedback to: g2w@asmfc.org.

From: Timothy Begin
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Monday, December 19, 2022 1:59:14 PM

Hello, I am email with comments regarding the Striped Bass Management Plan, Amendment 7, addendum 1.

My comments are below:

1.) I do not support commercial quota transfers of any kind and therefore I support Option A in addendum 1, which would not permit commercial quota transfers.

2.) This is a general comment that I hope the AMFC board will read and perhaps think about as they move forward with regards to striped bass. For most of the time that I've followed and participated in the fisheries management process, I've given the AMFC board the benefit of the doubt. This is because I understand that being a public servant is a thankless Job that most of the time requires people make tough decisions with little resources and little thanks. But the actions the board has taken following the approval of Amendment 7 have really disappointed me and have caused me to loose all faith that the board is looking out for the public interest and for the good of the striped bass fishery. Following the approval of Amendment 7, drafts of the striped bass stock assessment were released, and when the final assessment was released it turned out that the model indicated that stripers were no longer over fished and that no regulatory changes were needed. This should have a been a happy finding for all anglers but what that actually meant was that current conservation equivalency (CE) measures could be left in place. Now CE was a hot button topic during the amendment process and there was overwhelming public support to put strict guard rails on CE. When it was brought to the attention of the board during a recent meeting that due to the lack of regulatory changes, many very unpopular CE measures would remain in place the board stated, they had no interest in an addendum to Amendment 7. Cut scene to a few weeks later, the board has proposed addendum 1, which will help maximize the commercial quota, kill more striped bass and is extremely unpopular with the public. So apparently the board does in fact have an interest in an addendum but it just so happens that it's extremely unpopular with the general public and seems to be in service of special interest groups, not the good of the fishery. The board's recent actions are the proverbial straw that broke the camels back for me. The lack of respect they have shown the public and anglers like me since Amendment 7, is not far and not excusable. As I stated above, up until this point I was one of the reasonable people, who respected the board members as public servants stuck between a rock and a hard place, but I no longer believe the board to be participating in these management processes in good faith. I do hope some of the board members read this statement and take it into account as they make future decision.

Thanks for your time.
Tim Begin

781-635-8430

From: Lenny Rudow
To: Comments
Subject: [External] In Support Option A Comment
Date: Monday, December 19, 2022 1:20:09 PM

Dear FMP Coordinator Franke,

Supporting quota transfer essentially amounts to saying "Oops we didn't harvest enough, we'd better let someone else kill and sell those fish." Fish that didn't get caught didn't survive due to any lack of fishing effort, and handing them over to people in other areas could also have significant localized adverse affects.

This is not a good time consider management changes that expand harvest. Therefore, I support option A (status quo), commercial quota transfers not permitted.

Thank you for considering my input.

Sincerely,

Lenny Rudow
4101 Shoreham Beach Rd
Edgewater, MD 21037
lenny@fishtalkmag.com

From: William Dunnavant
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Monday, December 19, 2022 11:30:07 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels. Have we not learned anything from our history of mismanaging this valuable resource?

As a result, it is NOT the time to be considering management changes that expand commercial harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

William Dunnavant
129 Sound Dr
Atlantic Beach, NC 28512
rustyd01@Gmail.com

From: Emilie Franke
To: Comments
Subject: FW: [External] Striped Bass Management
Date: Monday, December 19, 2022 11:09:46 AM

Emilie Franke | Fishery Management Plan Coordinator
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201
Phone: 703.842.0716 | Fax: 703.842.0741
efranke@asmfc.org | www.asmfc.org

From: Robert Beal <Rbeal@asmfc.org>
Sent: Monday, December 19, 2022 11:09 AM
To: 'Thomas Trickett' <ttrickett751@gmail.com>
Cc: Emilie Franke <EFranke@asmfc.org>
Subject: RE: [External] Striped Bass Management

Good Morning Mr. Trickett,

Thanks for taking the time to send your comments on Striped Bass Addendum I. We will provide your comments to the Striped Bass Management Board as they consider approval of the Addendum early next year.

Regards,
Bob Beal

From: Thomas Trickett <ttrickett751@gmail.com>
Sent: Monday, December 19, 2022 10:15 AM
To: Robert Beal <Rbeal@asmfc.org>
Subject: [External] Striped Bass Management

It's hard for me to understand why the commission would even consider allowing states to share Striped Bass allocations. If a state didn't get their quota, it was probably because the fish were not there. Sharing the quota with another state could jeopardize the rebuilding process that the fishery is in. Don't bow to the big dollar lobbies. Don't interfere with the Striped Bass 2029 rebuilding deadline.

Sincerely,

Thomas H. Trickett

From: Daniel Cataldo
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Monday, December 19, 2022 10:30:03 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

Increasing the potential take by commercial anglers is not the right thing to do while trying tie replenish stocks. The commercial fisherman are already decimating the breeding stick and this will only worsen the problem.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Daniel Cataldo
53 Fearing Rd
Hingham, MA 02043
dcataldo@eatonvance.com

From: Edward Knight
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Monday, December 19, 2022 10:20:04 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

Having spent years fishing the Chesapeake Bay for the species, I can attest that the stock of the fishery is is dismal shape. The fish that I do see are skinny, small and not in a healthy shape. The commercial quota should be reduces, per the reduction in the angler quota.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Edward Knight
2211 Oak Water Ct
North Chesterfield, VA 23235
fishedsart@gmail.com

From: James Johnson
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Monday, December 19, 2022 10:10:09 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery. This year for the first time in 20 years I experienced two trips with a Rick Hall charter boat where we caught no stripers. Even the Captain said that that was a first for him.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

James Johnson
14 Dempsey Dr
Newark, DE 19713
jimj24@gmail.com

From: Sean McNamee
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Monday, December 19, 2022 9:10:08 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

PERSONALLY, IF YOU WANT MORE CAUGHT, LET THE SPORTSMAN KEEP 2 INSTEAD OF ONE

Thank you for considering my input.

Sincerely,

Sean McNamee
15 S Elm St
Wallingford, CT 06492
seancpa@iconn.net

From: Christopher Thompson
To: Comments
Subject: [External] Striped Bass Draft Addendum
Date: Sunday, December 18, 2022 12:25:58 AM

Please advocate for option A, Status Quo- No commercial Transfers.

Chris Thompson
Sent from my iPad

From:	Frank Ciccone
To:	Comments
Subject:	[External] Option A (status quo): Commercial quota transfers are not permitted.
Date:	Saturday, December 17, 2022 8:20:16 PM

I am advocating for Option A: no quota transfers. Thank you

Frank

Mobile: 617-849-0365

From:	W. Brice Contessa
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1
Date:	Saturday, December 17, 2022 6:39:59 PM

Good Day...

I'm writing to voice my concern about Striped Bass Draft Addendum 1. Interstate quota transfer flies in the face of public sentiment coast wide regarding Striped bass management strategy. We need to manage for lower mortality at this time and all this addendum will do is increase it. Please adopt option A, status quo and do not allow commercial transfers. We're running out of time to act to preserve this most vital fishery. I'm hopeful the council will make the right decision. Thank you for your time and consideration in this matter.

Respectfully...

Brice Contessa
www.marthasvineyardoutfitters.com
(508)962-7959

From: Tom Routliffe
To: Comments
Subject: [External] Striped Bass Draft Addendum
Date: Saturday, December 17, 2022 10:48:02 AM

Dear Emilie Franke,

I myself, along with numerous fellow salt water anglers, totally oppose allowing states to transfer unused ocean commercial quotas of striped bass. QUOTA TRANSFERS MUST NOT BE PERMITTED!!!

Thank you.

Tom Routliffe
90 Little Comfort Way
Wakefield, RI 02879

From:	Matthew DiPentima
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I--Option A
Date:	Friday, December 16, 2022 12:19:58 PM

Dear Striped Bass Management Board,

I am a recreational angler from New York. I'm writing to express my support for Option A (no commercial transfers) for the Draft Addendum I to the Striped Bass Fishery Management Plan. The other options will increase Striped Bass mortality at a time when the stock is in desperate need of rebuilding.

Sincerely,

Matthew DiPentima

From:	George Sylvestre
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Thursday, December 15, 2022 2:13:18 PM

Dear Sir or Ma'am,

The currently proposed Addendum I to Amendment 7 of the Striped Bass Management Plan makes absolutely no sense to me and I am at a loss as to why this being raised and why its being raised now. I realize I'm just a lowly fly fishing guide, but based on my understanding the addendum not only goes against the available science, it goes against common sense as well. Can't we just let the fishery recover to full health before we take actions that compromise the recovery? I'll be attending the Massachusetts public hearing on 19DEC22 and voicing my opinion that commercial quota transfers not be permitted.

You've (mostly) listened and heard comments from the public in the past, for that you deserve credit. Please listen again on Addendum I and avoid making what could be a very costly error for the fishery.

Thank you,

Captain George Sylvestre, CCI
https://sylvestreoutdoors.com/
7814888642

Sylvestre Outdoors is a veteran owned, family operated fly casting instruction and guided fly fishing service. We encourage catch and release fishing (our striped bass trips are catch and release only)

From: bill_oconnor@mediacombb.net
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 15, 2022 9:43:04 AM

In my view, this flies in the face of conservation of a species that is already in trouble.
I do not want to see this quota sharing adopted.

Bill O'Connor
31238 Mohican Dr.
Dagsboro, DE 19939

From: Keith Daniels
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 15, 2022 6:58:06 AM

To the Striped Bass Management Board,
I am a recreational angler from Massachusetts. I'm writing today to express my preference for the options being proposed in Draft Addendum I to the Striped Bass Fishery Management Plan. I prefer option A – status quo, no commercial transfers. If the professional fishermen can not harvest the quota in their state then the fishery can not support the quota as a whole. Any of the other options will obviously increase mortality at a time when the stock is rebuilding. Thank you.
Sincerely,
Keith Daniels
redpuppis@aol.com

From: Paul Spadavecchia
To: Comments
Subject: [External] Striped bass draft addendum 1
Date: Wednesday, December 14, 2022 10:04:15 PM

I would like to choose option 1 status quo
Thank you
Sent from my iPhone

From: Frank Bryer
To: Comments
Subject: [External] Striped bass conservation
Date: Wednesday, December 14, 2022 6:14:54 PM

If the striped bass are overfished ,why would we want other states to come in and decimate them more. Again greed over common sense

From: Irene Sabatelli
To: Comments
Subject: [External] Fw: Striped bass Draft Addendum I
Date: Wednesday, December 14, 2022 4:06:40 PM

Sent from the all new AOL app for iOS

Begin forwarded message:

On Wednesday, December 14, 2022, 1:40 PM, Irene Sabatelli <telli1948@aol.com> wrote:

> Dear Emilie,
>
> I am writing to you today regarding the above Addendum.
>
> As an avid sports fisherman for over seventy plus years, I am adamantly opposed to granting the states the ability to transfer quotas. This will ultimately result in the culling of more striped bass.
>
> The striped bass population is dangerously low. Therefore, we should not be considering culling the striped bass. In my opinion this will make a bad situation worse.
>
> We need to have sound management decisions so that we can continue to enjoy sports fishing while saving our striped bass population.
>
> Thank you in advance for your attention to this matter,
>
> Sincerely,
>
> Paul Sabatelli
> Brooklyn, NY
>
> Sent from the all new AOL app for iOS

From: Dean Pesante
To: Comments
Cc: jasson.mcnamee@dem.ri.gov
Subject: [External] Striped bass Draft addendum
Date: Wednesday, December 14, 2022 3:10:05 PM

To The ASFMC. I am writing to support option B for commercial striped bass transfer.

I am a commercial gill netter in Rhode Island. While fishing within our normal fisheries for Bluefish, Dogfish, Scup, Black Seabass and Bonito there is a unavoidable bycatch of striped bass. Current regulations and limits force us to discard these fish wasting the resource.

The transfer of commercial striped bass quota ito Rhode Island could greatly help to prevent these regulatory discards allowing us to land these fish instead of wasting the resource.

This would be beneficial to the fishermen, the public making striped bass more available at a reasonable price. It would also give management a more realistic view of the number of fish being caught.

The striped bass stocks are very healthy and abundant here in Rhode Island waters. Please help us to utilize and not waste this valuable resource.

Thank You. Dean Pesante. F/V Oceana

From: Dean Lamont
To: Comments
Subject: [External] Striped bass ademdem
Date: Wednesday, December 14, 2022 3:10:04 PM

I am a fishing guide in nc and fish the Roanoke river for Stripers and Shad
Our keeper season was reduced to 1-fish per day for four days last year .
I agree with the need to reduce the morality numbers but do not agree that commercial fishermen be allowed to have a larger quota. More needs to be given to increase the bio mass of Stripers inside the ocean in nc.
The Stripers in nc seem to grow to about 25” and then disappear. There are some breeders in the 20 to 30 lb range. But few
My thought is that the smaller fish escape the nets down in the sound but the larger fish are harvested mostly shipped out of state.
I also promote the idea of less time , if any to use bait only on circle hooks.
It is very easy to catch Stripers on jigs and flies.
There are some guides that only fish with artificials.
I sincerely hope we reject the explanation of the commercial stripe bass season and Quoto.
Capt Dean Lamont
919-414-2452
Sent from my iPhone

From: Thomas Cody
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Wednesday, December 14, 2022 12:55:15 PM

Dear Commissioners,

I am writing to comment on Striped Bass Addendum I. I support **Option A (not permitting commercial quota transfers).** I hope that the council will honor the wishes of so many of its stakeholders and prioritize rebuilding the stock rather than rushing to exploit the resource before it is fully rebuilt. The stock is still being overfished and I am deeply concerned that the stock will not be rebuilt by 2029 if the council does not take more precautions. I love this fishery and hope to share it with my two young children. I was able to enjoy excellent striped bass fishing as a child because of the rebuilding efforts of the 1980s and 1990s and hope that the council will continue that legacy rather than allow all of its hard work to be erased in one generation. Thank you for your time and consideration.

Best,
Thomas Cody

From: John
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Wednesday, December 14, 2022 5:49:17 AM

To the Striped Bass Management Board,

I am a recreational angler from the United Kingdom. For the last 18 years my friends (usually 10 or so of us) and I have come to the USA to fish Cape Cod in June. We typically stay for 2 weeks or more and some return in late September for the fall run. Whilst we are not US citizens, we love the striper fishing and the Cape Cod area especially so feel very invested in the striped bass fishery. You are so fortunate to have this striped bass fishery on your doorstep. It is a precious resource and it would be a crime to over exploiting it (again) just so a few commercial fisherman can cash in.

I am therefore writing to express my preference for option **A - status quo, no commercial transfers** - in *Draft Addendum I* to the Striped Bass Fishery Management Plan. The EU and UK have allowed the trading of quotas across numerous species and it has been a complete disaster for stocks. So I applore you not to make the same mistakes. This at a time when striped bass stocks are under severe pressure and stocks are a shadow of what they were.

Yours Sincerely,

John Taylor
Johrtaylor@ntlworld.com

11 Hunnels Close,
Fleet,
Hampshire, GU526YR
UK

From:	Davisturnitup
To:	Comments
Subject:	[External] Transfer of Striper Quota
Date:	Tuesday, December 13, 2022 5:24:36 PM

Why is this even being brought up or considered with the state of the striped bass status being classified as overfished already and being overfished now. I cannot understand the reasoning why the ASMF would even ask something that would be detrimental to any overfished resource especially in North Carolina where striped bass has been closed for the last few years.

Fred Davis
221 Normandy Drive
Wilmington, N.C. 28412

From:	Ned Bean
To:	Comments
Subject:	[External] Option AA for Striped Bass Addendum 1: Keep Status Quo (No commercial transfers)
Date:	Tuesday, December 13, 2022 4:02:25 PM

Hello ASMFC.
John Bean, Edgartown, MA. I am a recreational fisherman, and I recommend that the ASMFC adopt Option A for Striped Bass Draft Addendum 1, which is to keep the status quo (no commercial quota transfers).

Sincerely,

John Bean
Edgartown, MA

From: Dennis Young
To: Comments
Subject: [External] Striped bass addendum 1
Date: Tuesday, December 13, 2022 2:06:44 PM

Im an angler from Connecticut, im writing because i prefer the status quo, option A. I believe sharing quotas brtween states will increase mortality while the stock is trying to rebuild.
Dennis Young
Dyoungct@yahoo.com

Sent from my iPhone

From:	George Brencher
To:	Comments
Subject:	[External] Proposed Addendum to Striped Bass Fishery Management Plan
Date:	Tuesday, December 13, 2022 1:01:37 PM

I am a recreational angler from Connecticut. I'm writing to express my preference for the options being proposed in Draft Addendum I to the Striped Bass Fishery Management Plan. I prefer option A - status quo, no commercial transfers.
This feels like the best option for limiting mortality and allowing stocks to rebuild. If states have quotas available for transfer, it is probably because there weren't adequate stocks to fill their quota. Allowing another state to use that quota to further deplete the pressured stocks doesn't make sense to me under the circumstances.
Thank you for considering my input.
George Brencher
Killingworth, CT

From: Mark Brown
To: Comments
Subject: [External] Striped Bass Draft Addendum
Date: Tuesday, December 13, 2022 12:59:22 PM

Hello,

I'm a 68 year old recreational angler living in Massachusetts,and I would like to see you adopt Draft 1 that does not allow for commercial transfers of quota. I've lived thru the ups and downs of the fish's number, and we need to do everything we can to bring the numbers up.

Thanks for everything you do.

Regards

Mark Brown

Sent from my iPhone

From: Todd Forrest
To: Comments
Cc: Rep. Melissa Ziobron; Justin Davis; ROBERT LAFRANCE; Sen. Craig A. Miner
Subject: [External] Striped Bass Draft Addendum 1
Date: Tuesday, December 13, 2022 12:23:05 PM

Dear Ms. Franke:

I am writing to comment on the proposed Addendum I to Amendment 7 to the Interstate Fishery Management Plan for the Atlantic Striped Bass. I am a recreational angler who lives in Connecticut and have a strong interest in the long-term health of this remarkable shared resource. I am strongly opposed to any addendum that would increase the harvest of striped bass. **Therefore, I am in favor of Option A: no commercial quota transfer.**

I find it remarkable that the Atlantic States Marine Fisheries Commission would even consider an increase to the harvest of striped bass given the history of striped bass management, the science that the Commission itself presented during the development of Amendment 7 (and in the Draft Document for Public Comment for Addendum I), and the unequivocal support of the vast majority of stakeholders for the implementation of measures that would increase the long-term abundance of striped bass.

The Draft Document states that the problem Addendum I is trying to solve is that some states are prevented from harvesting more striped bass because of an antiquated commercial quota system that was based on poor science. At the same time, the Draft Document indicates that only 2 states (Massachusetts and Maryland) filled their quota in 2021. The Draft Document does not even entertain that existing commercial quotas may be too high given the alarming reduction in striped bass populations since the stock was deemed rebuilt in 1995. Instead, it provides a mechanism to give fish that states voluntarily return to the coastwide fishery through the disuse of commercial quotas to states that do not seem interested in contributing to the long-term health of striped bass.

It is surprising that ASMRC would entertain an increase in commercial harvest given that the data on striped bass presented in the Draft Document do not support ***any*** increase in the harvest of striped bass. The document states that according to the most recent stock assessment, striped bass spawning stock biomass is below both the target and threshold, recruitment in 2020 and 2021 were below average, and the striped bass population has only a 78.6% chance of being rebuilt by 2029. At best, this modest improvement in the outlook for striped bass should be taken as an indication that recently strengthened regulations are beginning to work and should not be relaxed. At worst, this is a woeful number based on uncertain and imprecise data and should not be used to benefit the few at the expense of the many. Given climate change, pollution, disease, increased recreational fishing effort, and many other factors that impact striped bass health, it seems that we should gather a lot more data before we make any decision to increase the harvest of striped bass.

While I am grateful for the work that the ASMFC does on behalf of our shared resource, I am alarmed that the Commission would consider an addendum that is clearly in conflict with the position the majority of stakeholders expressed during the development of Amendment VII. An abundance of striped bass benefits us all.

Sincerely,

Todd Forrest
Ridgefield, Connecticut

From:	peter leary
To:	stripercomments@gmail.com; Comments
Subject:	[External] Striped bass Addendum I
Date:	Monday, December 12, 2022 6:57:01 PM

Hello ASMFC Striped Bass Board Members,

I choose option A

My name is Peter Leary, I am a 26 year old Striper surf/fly angler who primarily fishes around Western Long Island and NYC, but spend multiple days a year in Rhode Island, New Jersey, Massachusetts and Maine chasing these great fish. Striped bass are a huge part of my life as well as many others who dedicate so much time and effort (Money) into this pursuit.

Option A: No Transfers of Commercial quotas

CE has been a great tragedy in Striped Bass management. We need to protect these fish and hold all stake holders accountable. This fish is most economically viable as a game fish, me and many others spends loads of money pursuing these fish for recreation. If I want to eat fish I target other species. Commercial fishing needs to be better regulated across all states. Big breeders need to be protected every where across the coast for the slot to actually work. Anyway let's get our act together and act on behalf of the overwhelming majority of stakeholders that live and breath this fishery.

In sustainable abundance we trust,
Peter Leary

From: Dom Cuzzilla
To: Comments; Dom CUZZILLA
Subject: [External] Striped Bass Addendum 1
Date: Sunday, December 11, 2022 7:04:10 PM

To Whom it May Concern

Regarding this Addendum, I prefer Option 1. Status Quo.

Thank you for your consideration.
Dominick J. Cuzzilla
1083 Hessian Avenue
West Deptford NJ 08093

From: Otto Munz
To: Comments
Subject: [External] Striped bass draft addendum I
Date: Saturday, December 10, 2022 5:49:07 PM

I choose option 1. I DO NOT AGREE with sharing quotas.

From: HARVEY YENKINSON
To: Comments
Subject: [External] Striped bass amendment
Date: Saturday, December 10, 2022 3:56:45 PM

Option one, status quo, allowing no transfer is the only reasonable selection. With the stock still in need of rebuilding this option prevents adding additional harvest of fish beyond a state's allocated quota. States without commercial striped bass fisheries did so realizing the importance of conserving the species and its importance to the recreational sector. Allowing transfers would allow political pressure from the commercial sector to try to persuade the state's that do not allow a commercial harvest, to initiate a transfer. Fisheries are managed much better with science than politics

Dr Harvey Yenkinson
AP member MAFMC
Founder South Jersey Artificial Reef Association
Chairman emeritus Pa chapter RFA

Sent from my iPhone

From: Dorothy Elliott
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Saturday, December 10, 2022 1:55:54 PM

I oppose any increase in the commercial catch of stripped bass. This past year has been the lowest catch for myself and fellow recreational fisherman. This past summer and fall I caught no small stripped bass the the creeks of the eastern shore. This indicated the large numbers are not present additional the overfishing of menhaden reduces the forage of stripped bass and many other species for recreational anglers. When the stripped bass where abundant schools could be seen all over the bay with flocks of birds. Recreational anglers contribute much to the economy but seem to have not say in the limiting of commercial enterprise.
Dorothy Elliott.

Sent from my iPad

From:	Chris Vassallo
To:	Comments; stripercomments@gmail.com; MICHAEL LUISI; robert.t.brown@shopcove.net; LYNN FEGLEY; Russell Dize; Del. Dana Stein; davidsikorski@ccamd.org
Subject:	[External] Striped Bass Addendum I
Date:	Saturday, December 10, 2022 1:41:48 PM

ASMFC Commissioners,

Please see my comments below in reference to the public comments for the Draft Addendum I (Commercial Quota Transfers in the Ocean Region) to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan:

I strongly encourage the ASMFC to select Option A (status quo): Commercial Transfers are not permitted. With the current low recruitment numbers in the Chesapeake Bay, there should not be an increase of any kind, in the regulations allowing the commercial fleet to harvest more striped bass. Reviewing the percentages of ocean commercial landings in 2020 and 2021, even with the reduction of commercial quotas, the ocean commercial landings increased. States allowing commercial harvest actually filled 78 percent of their quota in 2020 and 96 percent of their quota in 2021, when you remove the states who have chosen conservation. Allowing quota transfers from one state to another only encourages the harvesting states to harvest more striped bass. The increase is especially alarming, after the Technical Committee raised concern during the consideration of Draft Amendment IV to Amendment 6. This shows irresponsibility by the commercial industry and they should not be encouraged to harvest more striped bass.

As a layman, I read the information in Addendum I to show as an upward trend in ocean harvest, - of the fish that spawn in the Chesapeake Bay; and a three year decrease in recruitment (2020, 2021, 2022). It causes me to wonder if they are directly related. When I have observed the numbers of fish that I catch and release, in my local tributary to the Patuxent River, decrease over the last three years and my observations correlate with the stock assessments, it causes alarm. I understand that my observations are qualitative and are not science based. Regardless of my layman status and non-science based assessments, please consider my comments and observations, and select Option A (status quo): Commercial Transfers are not permitted.

Thank you for hearing my comments,

Chris Vassallo
Saint Leonard, Maryland

From: jps0886@gmail.com
To: Comments
Subject: [External] Re: Striped Bass Draft Addendum I
Date: Saturday, December 10, 2022 1:19:38 PM

Dear Emilie,

Over the years I have written the ASMFC and in some years the governors of each of the states up and down the east coast in the hope that my 45 years of surf fishing experience and concerns are taken into consideration. Given this latest opportunity to express my concerns, I strongly opposed granting the states the ability transfer quotas which will result in the culling of more striped bass. Due to the current status of the fishery, we should not be looking for ways to cull more striped bass and instead should be doing quite the opposite.

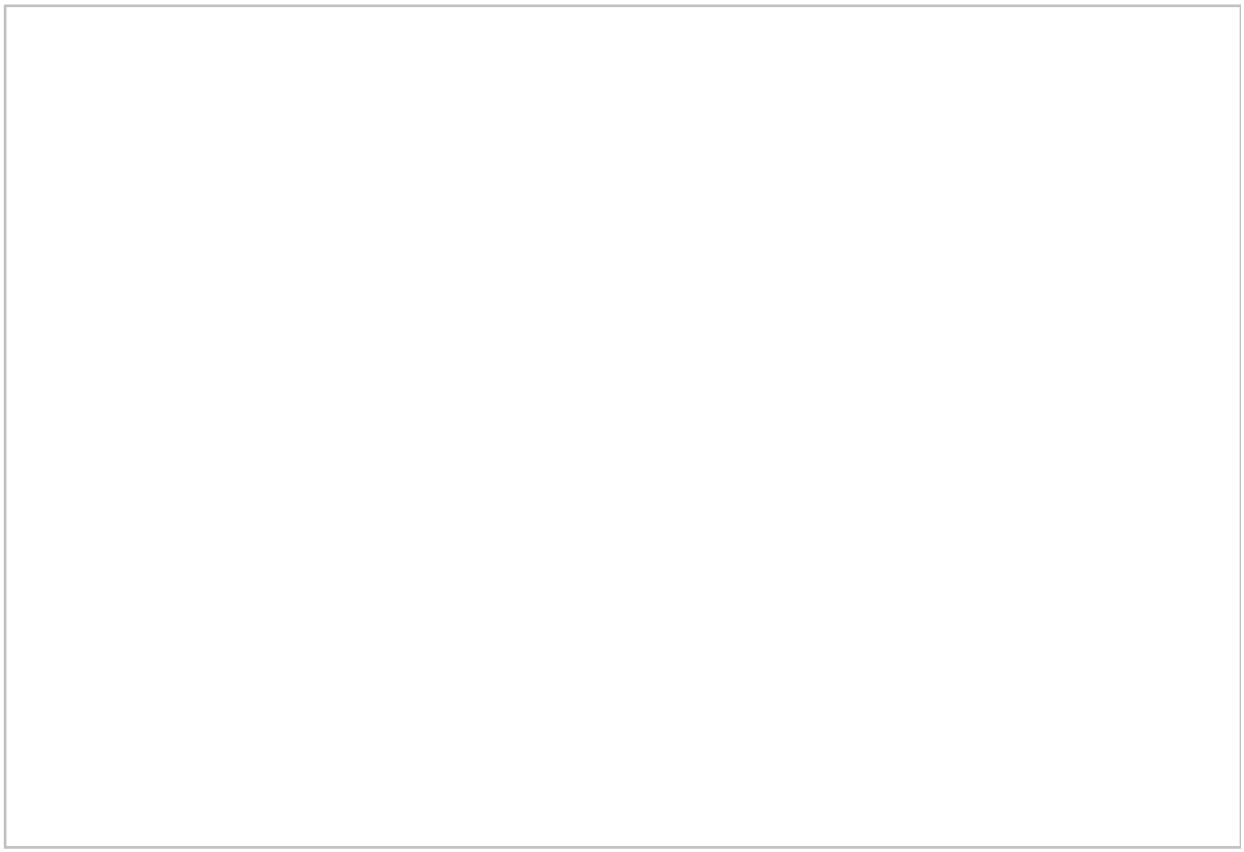
This year my experience fishing for striped bass was certainly better than last year but that is not saying much. Last year was one of the worse seasons I could remember, and this dates back to the 80s. At least then we had plenty of large bluefish to keeps us occupied. As we know, both the striped bass and bluefish have been overfished for years which as a result had equated into the abysmal fishing I have been experiencing for a number of years now. I'm sure some will say this is the best season they ever had. As a matter of fact, a few years ago I received a response from a fishery manager up north stating the same thing which was refuting the letter I had written to his governor. My reply was a health fishery is one that is spread up and down the east coast and not one that is confined to a few geographic locations or one that is an abbreviated season. A few months later the ASMFC released their findings which had coincided with mine. The striped bass were overfished and experiencing overfishing, hence more restrictive measures were adopted.

Another concern of mine is the very poor recruitment coming out of the Chesapeake. The past 4 years have been well below average. This hasn't happened since the 80s which ended up turning into much more restrictive measures for all to follow in order for the striped bass to come back. We should consider ourselves lucky they did. My greatest concern is that we hit a point of no return where there is no undoing the harm we have already done.

I knew years ago when they went to the 2 @ 28" that we would eventually find ourselves in the same predicament and sure enough, we did. My only surprised is that it didn't happen sooner. Since we cannot count every single striped bass in the ocean, nor is it needed to make sound management decisions, we should not be looking to cull more striped bass. For those that say otherwise, up until later this Fall my beaches on the south shore of Long Island and those in NJ, were void of life. When the numbers of striped bass rebounded in the 90s, I was literally catching striped bass in the bay nearly all summer long. Fishing in my local waters should pick up around Labor Day and right now that isn't happening until nearly November. That's a very strong indicator of the striped bass population challenges we are currently having.

Please feel free to reach out to me with any questions.

Thanks,
James Sabatelli
Massapequa Park, NY 11762.



From:	O Leyva
To:	Comments; Emerson Hasbrouck; Maureen Davidson; James Gilmore
Subject:	[External] Striped Bass Draft Addendum I
Date:	Saturday, December 10, 2022 10:14:34 AM

I am writing to comment on Draft Addendum to Amendment 7. I am writing in support of Option A Status Quo. I am extremely disappointed the ASMFC is even considering the idea of voluntary transfer quotas. If Option A is somehow unacceptable to the Board, I would reluctantly support Option E but do so with great hesitation. This is not the time to make changes that could potentially increase harvests. I appreciate the board's work on Amendment 7. Let's not weaken efforts to rebuild the stock, choose Option A.

Othon Leyva
Brooklyn NY

From: Timothy Reichheld
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Saturday, December 10, 2022 9:23:30 AM

Dear ASMFC Commissioners,

First off, I want to thank you for the countless hours you have put into working to develop a rebuilding plan for striped bass. I know your time and effort has been substantial. That said, as a public shareholder I can't help but feel discouraged by the lack of willingness for the Board to listen to what the public is asking of them. This is especially in regard to Conservation Equivalency which we overwhelmingly asked to be repealed when the stock is deficient.

My only hope is that the public's comments on Addendum 1 will be better received and taken into consideration. Please consider ***Option A*** as the best course of action to protect our fisheries. Now is not the time to increase commercial harvest rate or transfers. Our focus needs to be on protecting this iconic fish for future generations instead of on short term monetary gains.

As an aside, the slot limit and commercial harvest discrepancy should be reviewed and amended. The whole point of the slot limit is to protect larger breeding fish which are now being killed by commercial harvest. The logic here is questionable.

Thanks again and please listen to what the majority of the public is desperately asking of you.

Sincerely,
Dr. Timothy Reichheld

From: willyv62@gmail.com
To: Comments
Subject: [External] Striped bass addendum 1
Date: Friday, December 9, 2022 6:44:36 PM

I write in opposition of the plan to distribute infilled commercial striped bass quotas to other states. Current striped bass population reports suggest this is not a good idea. If anything commercial and recreational harvests should be less
William Vranos

Sent from my iPhone

From:	Fred Everett
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, December 9, 2022 6:43:11 PM

Dear ASMFC (Atlantic Striped Bass Management Board),

I was shocked when I discovered Draft Addendum I is being reviewed by the Board. This was a terrible idea when first proposed in 2014.....when the striped bass population was in a far better shape than today. The Board rejected this Addendum in 2014 and I certainly expect it to do the same in 2023 when the Atlantic Striped Bass population is currently in trouble with low replenishment/stock numbers.

My feelings regarding this Addendum below:

1. Option A: Leave as is: Continue prohibition of interstate commercial quota transfers. Since the Atlantic Striped Bass population is deemed overfished, this is the ONLY a reasonable decision any Board Member should support.

2. Option E: The best, bad choice: Prohibit quota transfers when stock deemed overfished. This option should not be acceptable to anyone who cares about Atlantic Striped Bass, but provides leeway in the future if the striped bass population is no longer overfished....if that ever happens again.

Options B, D, and C are frankly appalling to me. Why would anyone on the board ever be okay with TRADING this amazing resource on the open market…..I write that as a statement, or a rhetorical quest if you will.

Atlantic Striped Bass should be respected. I am an angler/resident of a beach community. Fishing for these amazing fish is a lifestyle for me, I expect the board to share in my respect for the Atlantic Striped Bass …by NOT approving any of these options.

Regards,
Fred Everett

From: Scott Hood
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, December 9, 2022 4:00:42 PM

Please accept my opposition Draft Addendum I.

Let's all use some common sense ... PLEASE ... Striped bass remain overfished and this in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires REDUCING or at least maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

This is where common sense needs to be used and acted upon. Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

Thank you.

Scott Hood

Oklahoma IGFA representative

From: jeff brown
To: Comments
Subject: [External] Striped Bass Regulations/Comments
Date: Friday, December 9, 2022 11:11:31 AM

Good morning,

I am writing in regards to both current and potential future striped bass regulations as the NJ fall migration winds down.

This season, as most have witnessed, has produced some spectacular striped bass action. It is my hope that more strict regulations are added, such as COMPLETELY closing down fishing on known striped bass spawning grounds, to preserve this fishery for generations to come.

What legally happens along the Chesapeake, Delaware and Hudson River spawning grounds, Spring after spring can be seen as nothing but detrimental to a successful future of the striped bass stocks. How can stocks be rebuilt AND protected if we allow the slaughter of the most prime breeders year after year. Understanding that fish greater then 38” must be released, the stress that is put on these larger bass during the spawn cannot be overlooked.

The slot fish makes the most sense to protect the species, but more needs to be done preserve the species we all know and love.

Hopefully this brief email is received and read.
This is a fish I hope to see rebuilt to what it was 20years ago.

Thank you,
Jeff Brown

From: Richard Bertoli
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, December 9, 2022 8:59:58 AM

Emilie Franke
FMP Coordinator
1050 N. Highland Street
Suite 200 A-N
Arlington, Virginia 22201

Ms. Franke,

I would like the committee to strongly consider shutting down the commercial fishery for striped bass and making this treasured recreational resource a game fish. The economic value of striped bass as a sportfish so far outweighs its commercial value that allowing the non-fishing public access to this food source via commercial sales should be prohibited.

Thank you.

--
Rich Bertoli
(646) 284 5568

From:	Ben Whalley
To:	Comments
Subject:	[External] Striped Bass Addendum I Comments
Date:	Thursday, December 8, 2022 11:47:42 PM

Hello--
My name is Ben Whalley, I am a full-time fly fishing guide in Maine. As you know Maine sits on the northern fringe of the striper migration, and from my viewpoint any negative shifts in the population Maine is amplified. This past year we saw a fair share of slot limit fish but much less in the younger year classes. This is concerning to me since good spawns are few and far between due to low biomass and more importantly the uncontrollable variables as a result of nature (such as salinity and temperature). Since we cant control those we should try to control the variables we can.

For that reason, I am in support of Option A (status quo - no commercial transfer of striped bass permitted) because allowing commercial quota transfers would increase mortality at a time when we are focused on rebuilding the stock by 2029. Allowing commercial quota transfers between states to me would do the exact opposite of what is needed at this point and not what the overwhelming majority of the public want. We need to manage for abundance and with the population still overfished we need to take the precautionary approach.

Thank you for allowing the public to comment both at the hearings/written and for taking them into consideration when deciding on the path forward.

Thank you for your time.

Captain Ben Whalley
www.benwhalleyfishing.com
207-274-8782
@benwhalleyfishing

From: Bill Henault
To: Comments
Subject: [External] commercial quota
Date: Thursday, December 8, 2022 7:37:31 PM

This is absolutely the dumbest thing u can do to a struggling fishery..pretty much only thing needed to be said

From:	Michael Brangwynne
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Thursday, December 8, 2022 6:42:31 PM

Hello,

I am a Massachusetts resident and recreational striped bass fisherman. I am in favor of Option A. I do not think commercial quota transfers should be permitted.

I do not support measures that would increase commercial harvest during a time when the stock is rebuilding. Thank you.

_____-

Mike Brangwynne

From: William Ford
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 8, 2022 5:01:19 PM

Obviously it will create over fishing in certain areas

Sent from my iPhone

From: Ron Shamaskin
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 8, 2022 4:25:35 PM

I strongly oppose the non-action the VMRC has taken, and urge you to reconsider your position. Decreasing adult mortality in Virginia waters will aide in getting the stripped bass population back to sustainable levels for both commercial and recreational use.

Thank you.

Ron Shamaskin
124 Finial Ave
Richmond, Va. 23226

From: Capt. Lindsay Fuller
To: Capt. Lindsay Fuller; Comments
Subject: [External] Comments on Striped Bass Draft Addendum #1
Date: Thursday, December 8, 2022 4:00:54 PM

Please be advised that I have operated charter and private recreational fishing boats from Beach Haven, NJ, and Long Beach Island since 1955.

At this time, the quantity of fish catchable within New Jersey State Limits barely supports the local charter fishing industry and its accompanying recreational fishing activities here on Long Beach Island.

Even a minor transfer of quota to the commercial sector would wipe out the charter and recreational industries immediately following approval of such quota transfers!

I recommend that no Striped Bass transfer to Striped Bass commercial quota be permitted whatsoever!

Perhaps your organization should focus more on rebuilding the forage fish populations available that would support both the Striped Bass and Bluefish populations to rebuild to support those non-commercial industries.

Capt. Lindsay Fuller
F/V June Bug
Beach Haven, NJ
609-685-2839

From:	Joey Adams
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Thursday, December 8, 2022 3:19:26 PM

Hello,

I am an angler from Massachusetts. I'm writing to express that I STRONGLY prefer **Option A - STATUS QUO, NO COMMERCIAL TRANSFERS** in the Draft Addendum I to Striped Bass Fishery Mgmt Plan.

The stock is rebuilding upon the success of the current policies. We cannot rob Peter to pay Paul -- any other option is likely to increase mortality.

Thank you,
Joey Adams
Boston, MA

From: James Jewkes
To: Comments
Subject: [External] Striped bass quota addendum
Date: Thursday, December 8, 2022 12:30:50 PM

I am a recreational striped bass fisherman from Massachusetts and I'll make this short after seeing our commercial striped bass quota go unfilled for three years straight. This year the quota gets filled because of extra days added only tells me the fish are in big trouble not to mention you say we have a slot limit NO we don't, recreational fishermen have a slot limit but then the commercial guys strip fish away from the mature spawning stocks. It is wrong that the ink wasn't even dry before trying to shove more crap down our throats.

I'm a huge no for commercial quota transfers

James Jewkes
430 Salem st
Woburn Ma 01801

Sent from my iPhone

From: John Papciak
To: Comments
Subject: [External] Draft Addendum 1 Comments on Transfer of Striped Bass Commercial Quota
Date: Thursday, December 8, 2022 9:11:11 AM

Dear ASMFC Associate,

Thanks for the opportunity to comment.

From all the communication and evidence I've seen, public comments overwhelmingly favored an approach leading to the quickest recovery of striped bass.

Carve outs for conservation equivalences of schemes to transfer quotas will just frustrate and slow the process. I find it highly unusual that the Commission would even consider such a measure as we still need to restore the stock.

Thanks, John
516.647.0032

From: Ken Webber
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Thursday, December 8, 2022 8:55:11 AM

I encourage ASMFC to reject this proposed amendment.

This amendment is akin to conservation equivalency which allowed states to violate the spirit of ASMFC stock management recommendations.

We are already seeing the adverse impact that conservation equivalency had in past years. The stock continues to be declining with low recruitment indicating that the decline will continue.

Much of the decline is due to commercial harvesting of large breeding fish.

Allowing states to transfer their unused commercial quota to other states would increase the harvest of breeding fish and contribute to further declines in recruitment.

The accelerated stock decline due to increased commercial fishing will eventually require drastic action to support stock recovery.

I encourage ASMFC to adopt policies that will lead to a sustainable striped bass fishery.

Sincerely,

Ken Webber
Attleboro, MA

From: Michael Carr
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Wednesday, December 7, 2022 7:54:49 PM

To the Atlantic States Marine Fisheries Commission:

To put it simply and directly, I am very troubled by the continued cycle of progress then regression that this committee continues to undertake. You are the keepers of the public trust, and it has become very clear that many of you do not seem to have the public's interest at heart in your decision-making.

Option A is the only answer! COMMERCIAL QUOTA TRANSFERS SHOULD NOT BE PERMITTED.

It seems ludicrous that we even have to type these words out. It is beyond my comprehension why we continue to have to convince you that the striped bass are in trouble. Scientists say it. We, the people actually fishing say it. And your own stock assessments say it! Why then would you ever consider the notion that we should kill more fish?

While many of you may think that you are acting in the best interests of the commercial industry and creating or sustaining jobs and profits, the truth of the matter, backed by every worthwhile scientific study in the field, is that striped bass are on the precipice of overfishing to the point of annihilation. We are not going to get a second bite at this apple. With the effects of climate change and the intense pressure on the breeding stock, we may be looking at a future without striped bass all up and down the eastern coast. Think about that. Think about every beach town, shanty bar, oyster shack, pier tackle shop, and sunset restaurant on the east coast then think about how those towns were built. People came there to fish. People came there to commune recreationally with the sea. If we wipe out striped bass, we endanger communities that were built on recreational angling and boating. This would be a catastrophic economic decision. In the name of profits now, you're jeopardizing the futures of societies built by and for recreational fishing and boating. The commercial fisherman will have a pretty hard time selling their fish to empty communities despite the machinations and false promises of the corporate fishing interests.

The other striking point to keep in mind is that striped bass over 30 inches are so riddled with parasites and PCBs in most areas that most of these fish are unfit for human consumption. Commercial interests don't like to talk about it, but it is absolutely the case proven time and time again by the scientific community. Maine and New York have major advisories against consumption. Other states have similar measures in place. So, who then can and should be eating this fish? The answer really is no one.

Keep your promises. Do the work that you're paid to do. Striped bass are the most important resource to Northeast fishing. Killing more fish is criminal. Do the right thing. Keep corporate interests out of your work and listen to science.

Respectfully Submitted,

Michael Carr
New Jersey

From: Dominick Pucci
To: Comments
Cc: Megan Ware; Emilie Franke
Subject: [External] Striped Bass Draft Addendum I
Date: Wednesday, December 7, 2022 6:01:08 PM

To the ASMFC Atlantic Striped Bass Management Board:

I find myself at a loss for words when I discovered that Draft Addendum I is being reviewed by the Board. This was a horrible idea when it was first proposed in 2014, at a time when the striped bass population was in a far better situation than it is today. The Board had the good sense to reject this Addendum in 2014 and I expect them to do the same in 2023, especially in light of the precarious position of the Atlantic Striped Bass population is currently in.

Here are my feelings regarding this Addendum, prioritized.

1. Option A - *Status quo* which will continue to prohibit interstate commercial quota transfers. For Atlantic Striped Bass, an OVERFISHED population, this is the ONLY decision that a reasonable Board Member can support..

2. Option E - is the "Best, Bad Choice", that prohibits quota transfer when the stock is overfished. This option should not be at all acceptable to anyone who truly cares about Atlantic Striped Bass, but can give the Board a little leeway in the future IF the striped bass population is no longer being overfished.

I will not comment regarding Options B, D, and C as they are odious abominations, turning this noble fish to chattel being traded in a Third World Bazaar. This fish deserves far more respect than that and expect the Board to respect it by not approving any of these unacceptable options.

Yours truly,
Dominick L Pucci, Ph.D.
Pemaquid, Maine

From:	Jesse Gordon
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Wednesday, December 7, 2022 5:19:49 PM

Hello,

My name is Jesse Gordon and I am a recreational fisherman from NY.

I would like to take this opportunity to state that I wholeheartedly object to any and all portions of Addendum 1 that would allow the transfer of unused quota between States.

Simply put, such a practice will increase overall striped bass mortality. Given the fact that the stock is overfished and at the beginning of its rebuilding period, more fishing mortality is the last thing that the stiped bass population needs!

Assuming that the goal of amendment 7 is to rebuild the stock from an overfished condition, I am shocked that the ASMFC would even consider addendum that increases mortality. Such an addendum is counterintuitive to the amendment it appends.

This is not the first time that such a plan has been contemplated by the ASMFC and Bob Beal, the ASMFC's Executive Director has noted, it is a practice that has historically been rejected during stock rebuilding periods. I encourage the ASMFC to adhere to this pecident.

Inasmuch as it is a generally accepted principal that in quota managed species, that regulations should be designed so that the quota is met but not exceeded, I would propose that in lieu of allowing states to transfer unused quota, that the quotas simply by lowered to figures that will allow for sustainability and rebuilding of the fishery.

Thank you,
Jesse Gordon

Jesse Gordon
Gordon & Petkos LLP
5 Columbus Circle
Suite 710
New York, NY 10019

Telephone: (212) 765-8600
Facsimile (212) 765-7887

From: Matthew Robertson
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Wednesday, December 7, 2022 1:54:11 PM

Dear ASMFC Board,

On the issue of Striped Bass Addendum I, I believe that Option A is our best option to continue to meet the objectives of rebuilding the stock by 2029 and for the longer term future of striped bass.

In previous reviews on the status of the commercial allocation, as noted in 2.2.1.2., no changes were made when the stock was considered "overfished" and I believe we should maintain the current allocation until we see what the regional distribution of striped bass will look like when the stock is rebuilt. While other options under Addendum I would allow the transfer when the stock is not overfished, the other options do not address the varying size limits in each state. The disparity in harvests reduces the effectiveness of the slot limits and their intended goal to protect breeding females across the coast. With the recent years of below average recruitment, we need to protect the larger females that will drive the rebuilding we need by 2029.

Thanks,

Matt Robertson

From: Timothy Donnelly
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Wednesday, December 7, 2022 11:48:12 AM

Dear Ms. Franke:

Thank you for the opportunity to provide comments to the Striped Bass Draft Addendum I

I strongly support Option A (status quo) to Striped Bass Draft Addendum I.

I am a recreational angler on Cape Cod and have been an active striped bass fisherman by shore, kayak and boat for almost 10 years, all of those years with primarily artificial lures. Except for one or two bass a year, I am a C&R fisherman. I have improved my C&R practices as more information was available to me online and in various publications.

Over that time period I have watched the striper stocks decline and I believe Amendment 7 should help restore the fishery. While not perfect, from my perspective it balances many competing interests.

The transfer of commercial striped bass quota can only result in more dead "high quality breeder" fish at a time we need to achieve the exact opposite. I empathize with commercial fishermen trying to make some portion of their living harvesting stripers. However, no one wins if the fishery is under a moratorium and I personally believe we are inching (or perhaps yarding?) in that direction.

Thank you for your time and efforts on this matter.

Sincerely,

Tim Donnelly
West Dennis, MA

From:	dennis mitchell
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I preference
Date:	Wednesday, December 7, 2022 9:57:12 AM

I'm an avid catch and release striped bass fisherman from Pennsylvania who primarily fishes in New Jersey. Regarding Draft Addedndum 1 to the FMP I prefer option A, status quo with no commercial transfers allowed. With the stock currently rebuilding it would be irresponsible to select another option as it would increase mortality. Thank you.

Dennis Mitchell
d.r.mitchell@comcast.net

From: Manly Parks
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Wednesday, December 7, 2022 9:41:10 AM

> I am a recreational Angler from Pennsylvania who regularly fishes the Chesapeake Bay and Atlantic Ocean. I practice careful catch-and-release of striped bass, taking perhaps one or two fish a year for table fare. I strongly support option A (status quo—no commercial transfers) among the options currently under consideration for the Draft Striped Bass Fishery Management Plan. None of the other options provide the necessary protection to critical striped bass stocks.
>
> The adoption of a commercial transfer plan for striped bass quotas is madness. As someone who grew up on Maryland's Eastern Shore in the 1970s and early 1980s, I have lived through the near total collapse of the core striped bass stocks in the Atlantic once. Only a total moratorium saved these iconic fish.
>
> We are currently facing another critical moment for striped bass stocks. Let's learn our lesson from the near-disaster of my childhood. We don't need to—and should not—have a system that is designed to exploit striped bass stocks to the absolute maximum degree.
>
> Manly Parks
> Wallingford PA

From: Pat Myers
To: Comments
Subject: [External] Striped Bass Management Plan
Date: Wednesday, December 7, 2022 8:34:27 AM

I'm a recreational angler in Maryland and i STRONGLY call on the commission to adopt Option A of the proposed Striped Bass Managment Plan. Quota's are quota's for a reason. I don't wasn't slow fishing in Virginia or Delaware waters to mean commercial operations can take more bass from the Chesapeake waters in MD. That makes no sense at all and will completely decimate the stock of fish on the east coast.

Thank you.

Pat Myers
Pasadena MD
Magothy River Boater and fisherman

From: Frank Muher
To: Comments
Subject: [External] Striped Bass Draft Addendum
Date: Wednesday, December 7, 2022 7:57:20 AM

I am a recreational angler from Maryland. I'm writing to let you know that I prefer Option A - status quo, no commercial transfers.

The other options will likely increase mortality.

Thank you,

Frank Muher

From: Jared Makowski
To: Comments
Subject: [External] Addendum 1 comments
Date: Wednesday, December 7, 2022 6:41:39 AM

Dear Emilie and friends, I am writing because the transfer of commercial permits should not be allowed between states as proposed in addendum 1. Frankly I'm concerned that your group would even propose something as ridiculous as this when we are trying to rebuild stocks. It makes your group look like they have no backbone and no idea how to stand up for a species that needs your help. I also feel like you need to list your qualifications next to your profiles on your web site. I think the public should be able to see who has any environmental or conservation backgrounds on the board or who got the job because their dad had a friend. Also the whole commercial fishing for striped bass is a joke. We should give the striped bass gamefish status. The commercial guys can get real jobs like every other hardworking fisherman out there. It's abusive and corrupt to deplete natural resources for profit. Don't allow your organization to be part of this vicious cycle.
Thanks for your time
God bless
Jared Makowski

From: Noah Bressman
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Tuesday, December 6, 2022 8:35:21 PM

Dear ASMFC,

I am a recreational and competitive angler from the state of Maryland, as well as a fish biology professor at Salisbury University. I am writing to express my preference for the options being proposed in Draft Addendum I to the Striped Bass Fishery Management Plan. I prefer option A - status quo, no commercial transfers. Any of the other options are likely to increase mortality at a time when the stock is rebuilding, leading to further depletion, as well as a reduction in the predators that feed on menhaden like striped bass, osprey, and dolphins. This decline would then lead to a decline in recreational fishery and tourism quality, leading to a decline in revenue for these industries, which would then likely lead to the loss of many Marylanders' income and jobs, all to benefit one foreign company at the expense of millions of folks like me.

Thank you.

Sincerely,
Dr. Noah Bressman, PhD
Assistant Professor of Physiology
Salisbury University
Fish Biology, Biomechanics, Functional Morphology, and Behavior
Noahbressman.wixsite.com/noah
He/him/his

From: Mark Switlick
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Tuesday, December 6, 2022 7:29:40 PM

Dear ASMFC,

I am a life long Marylanders of 56 years and remember the stories of the abundant fish population. I also I remember as a kid the time when the striped bass season was closed. I recently took up recreational striper fishing on the Chesapeake.

I am writing to express my preference for the options being proposed in Draft Addendum I to the Striped Bass Fishery Management Plan. I prefer option A - status quo, no commercial transfers. Any of the other options are likely to increase mortality at a time when the stock is rebuilding.

Please do not open this delicate fishery to those that may have over fished theirs and possibly damage the Rockfish population of the Chesapeake Bay. As we know it is by far the most important in allowing this species to survive.

Thank you for your time.

Sincerely,
Mark Switlick
mdswitlick@gmail.com

From:	Home Appeal Remodeling
To:	Comments
Subject:	[External] Commercial fishing
Date:	Tuesday, December 6, 2022 7:20:29 PM

I Am a recreational angler from Maryland. I'm referencing the proposed addendum to the striped bass management plan. Please choose option A. No commercial transfer of quotas. The striped bass population is already at 50%. Thank you,

Aaron Lamoureux
Homeappealremodeling1@gmail.com

From: Gindy Feeser
To: Comments
Subject: [External] Rockfish Draft Addendum Input
Date: Tuesday, December 6, 2022 7:13:02 PM

To Whom it May Concern:

I am a recreational angler from Virginia. I'm emailing to express my recommendation regarding the options being proposed in Draft Addendum I to the Striped Bass Fishery Management Plan.

As a conscientious angler, my recommendation is option A - status quo, enabling no commercial transfers. Any of the other options are likely to increase mortality at a time when the stock, which is in a vulnerable state, is rebuilding.

Thank you for allowing the public to comment on this important matter.

Regards,
Gindy Feeser

--
Gindy Feeser
gindy.feeser@gmail.com
571-228-9161

From: Nick Verducci
To: Comments
Subject: [External] Draft Addendum 1 transfer
Date: Tuesday, December 6, 2022 6:57:55 PM

To whom it may concern,
I will be brief on my opinion on this matter. The notion that sharing the commercial quota between states as a way to preserve the striped bass fishery is absurd. Do not approve this measure.

Thank you
Nick Verducci
Marmora, NJ

Sent from my iPhone

From: steven hasselbacher
To: Comments
Subject: [External] Striped bass draft addendum 1
Date: Tuesday, December 6, 2022 6:22:50 PM

My name is Steven hasselbacher, an avid recreational angler. I am in support of option A. Status quo. I do not believe states should be allowed to transfer quotas.
Sent from Yahoo Mail on Android

From: Christian Moscicki
To: Comments
Subject: [External] Option A for Striped Bass Draft Addendum 1
Date: Tuesday, December 6, 2022 2:27:46 PM

To Whom it may Concern: My name is Christian Moscicki and I am a surfcaster from New York's Suffolk County.

As it pertains to the proposed Draft Addendum I to the Striped Bass Fishery Management Plan: I would like to indicate my STRONG support for option A (no commercial transfers; status quo).

Respectfully, I thought the goal of the CE measure was to avoid this sort of subjective application of rules and quotas? Why does the committee continue to entertain and explore loopholes aimed at taking **more** striped bass from the population when, by your own guidelines, we should be in a period of rebuilding the stock? I do not understand how/any scenario through which Delaware (or any other state) taking bass that other states did not is a good thing for the fishery.

Sincerely,
Christian Moscicki

From: Koch, Gregory E
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Tuesday, December 6, 2022 10:49:46 AM

Public

Dear ASMFC folks,
Addendum I is an attempt to maximize the COMMERCIAL HARVEST OF STRIPED BASS by allowing states to transfer unused commercial quota. I am not in favor of this addendum when we are trying to rebuild the fishing stocks.

Kind regards,
Greg Koch
Westfield, NJ

From:	Steve Culton
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1
Date:	Monday, December 5, 2022 6:01:58 PM

To The Striped Bass Management Board:

My name is Steve Culton and I am both a recreational angler and guide from the State of Connecticut. In regards to Draft Addendum 1 to the Striped Bass Fishery Management Plan, my vote is for Option A (status quo, no commercial transfers). I cannot fathom why, when we are trying to rebuild a stock, we would ever consider an option geared toward harvesting more striped bass.

Thank you,

Steve Culton
271 Congdon Street
Middletown, CT 06457

From: Robin Mueller
To: Comments
Cc: stripercomments@gmail.com
Subject: [External] Re: Striped Bass Addendum 1
Date: Monday, December 5, 2022 1:36:51 PM

Re: Striped Bass Addendum 1

To Whom it May Concern,

As a resident of New York State - I do not support Draft Addendum I to Amendment 7. While I strongly support commercial fishing, but I strongly oppose increasing the total harvest of striped bass from commercial fisherman. We have seen data that shows evidence of three (3) consecutive poor spawning seasons in the Chesapeake.

In this year alone, I have seen dozens and dozens of dead striped bass washed ashore that are a direct result of poor fishing and conversation efforts, as well as other marine life such as seals, and Atlantic Sturgeon that I attribute to the gil netting, a "tradition" that should be outlawed given the state of our current fisheries.

Increasing their quota - and the quota of other commercial fisherman via Addendum I, would only have a negative impact on the striped bass stock replenishment.

It does not require an expert to see that this is not the time to increase potential harvest. I am ambitious about the plan to rebuild the stock by 2029 - now is not the time to deviate until future data suggests otherwise.

Robin Mueller, Suffolk County, NY

Robin L. Mueller
Director of Photography
FAA Certified Drone Pilot
+1/ 917.907.1187
Instagram: robinlmueller
www.robinmueller.Com

From:	Michael Melford
To:	Comments
Subject:	[External] Striped bass draft addendum I
Date:	Monday, December 5, 2022 10:41:44 AM

Dear Sir or Madam,

I write in as a recreational striped bass angler very concerned that you are considering commercial
transfers of striped bass at a time when you should be applying all your efforts to rebuild the SSB by 2029.
Many of us question what numbers (F) you feel it will take to rebuild! What guardrails are in place after four
very poor YOY indexes from Maryland? Catch and Release is not merely a game we are playing with striped
bass! We are doing it for a reason and promoting safe release practices until this stock is rebuilt.

The economic benefit to each state recreationally is much more important than the ASMFC tends to think. Why
would a management team be more concerned with commercial consumption of a species that is still over
fished?

I choose Option A in Addendum I. No transfers. It's bad enough that CE is still on the table. That idea has
been an utter failure. Please stop kicking the can do and what you were hired to do.

Thanks,

Michael

Michael Melford
5510 Heather Dr. SW
Rochester, MN
55902

(860) 303-8221

www.michaelmelford.com
@michaelmelford

From:	Andrew Ciok
To:	Comments
Subject:	[External] Striped Bass
Date:	Monday, December 5, 2022 10:29:20 AM

Gentlemen:
After almost 60 years of saltwater fishing from boat and shore, amendment to allow transfer of striped numbers from State to State is the most ridiculous proposal I have ever heard. Well, maybe next to having a fluke slot from 17" to 17.99" and one over 18" which ranks a close second.
Why not just throw out all regs across the board and let everyone do what they want!
Andrew Ciok

From:	Phillip Sheffield
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Monday, December 5, 2022 9:38:30 AM

Dear Sir or Madam,

I write in as a recreational striped bass angler very concerned that you are considering commercial transfers of striped bass at a time when you should be applying all your efforts to rebuild the SSB by 2029. Many of us question what numbers (F) you feel it will take to rebuild! What guardrails are in place after four very poor YOY indexes from Maryland? Catch and Release is not merely a game we are playing with striped bass! We are doing it for a reason and promoting safe release practices until this stock is rebuilt. The economic benefit to each state recreationally is much more important than the ASMFC tends to think. Why would a management team be more concerned with commercial consumption of a species that is still over fished?

I choose Option A in Addendum I. No transfers. It's bad enough that CE is still on the table. That idea has been an utter failure. Please stop kicking the can do and what you were hired to do.

Best regards,

Phillip F. Sheffield
12 Nauyaug Point Road
Mystic, CT. 06355

From: paulh7891@gmail.com
To: Comments
Subject: [External] Addendum 1 comment - no commercial quota transfers!
Date: Sunday, December 4, 2022 11:06:01 AM

Commissioners,
Addendum 1's proposal to allow commercial quota transfers is a terrible idea at a time when we all are in agreement that the stock needs rebuilding. No commercial quota transfers should be allowed.

I have fished recreationally for stripers since the mid 1990s. While I have always been predominantly a catch and release fisherman, I respect commercial fishermen. However, expanding striper harvest is the wrong thing to do at this time.

Allowing transfer of commercial catch quota will shift even more commercial fishing into the stripers' spawning grounds and spawning season. Exactly the wrong move after years of bad to marginal spawns.

This is especially important in light of the fact that Amendment 7 - which looked like a big step in the right direction- actually contains escape clause language that allows states to continue conservation equivalency. That's a travesty. I missed that issue and the final comments period. I don't intend to let that happen again.

Finally, pushing a comment period for a significant addendum like Addendum 1 between Thanksgiving and Christmas is not in the public interest, to put it as charitably as possible. I'm sure you and your staffs work hard and are trying to do the right things under difficult, competing pressures. This move does yourselves a disservice, as it is potentially damaging to the Commission's credibility as an objective body.

No commercial quota transfers!

Respectfully,

Paul Heinold
Alexandria, Virginia
(703)585-9885

Sent from my iPhone

From: Captain J Moore
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, December 2, 2022 10:12:31 PM

Dear ASMFC,

This correspondence is to request your consideration to NOT permit transfers of commercial quotas for striped bass.

Much can be, and has been said regarding the striped bass, and I pray that the day will come when this commission recognizes the true value of the striped bass to coastal communities (constituents) and embraces the philosophy of conservation and stock rebuilding.

The value of maintaining a healthy fish population needs little detail to highlight the direct value, but also, a healthy fishing environment draws tourism and an increase in visitors is beneficial to all businesses (as evidenced with a history of tarpon in the southeast).

A vibrant, coastal environment, demonstrates both a direct and indirect value to coastal communities, and there is little doubt that a swimming bass carries more longitudinal value than a harvested fish.

My hope is that this commission will embrace a broader longitudinal perspective with conservation in mind regarding the striped bass population in the Northeast.

Let's collectively find a way to put the health of our marine environment in parallel with the economic success of our coastal communities and benefit both through a strong stance on conservation.

Thank you for your consideration in this matter and feel free to reach out at any time.

Capt. Jason Moore, PhD
Island Fly
https://www.islandfly.net
979-471-5803

--
Thanks,

Capt. J. Moore PhD

From:	Justin Friedman
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, December 2, 2022 2:25:36 PM

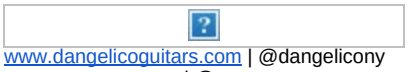
Hello,

As a lifetime resident of New York state — I do not support Draft Addendum I to Amendment 7. While I do support commercial fishing, I do not believe it to be fair to increase the total harvest of striped bass from commercial fisherman. We have seen data that shows evidence of 3 consecutive poor spawning seasons in the Chesapeake. In the last few years, I have bore witness to the gill net boats that populate my local beaches in Suffolk County. In this year alone, I have seen dozens and dozens of dead striped bass washed ashore, as well as other marine life such as seals, and Atlantic Sturgeon that I attribute to the gil net fisherman. Increasing their quota — and the quota of other commercial fisherman via Addendum I would only have a negative impact on the striped bass stock replenishment.

This is not the time to increase potential harvest. I am ambitious about the plan to rebuild the stock by 2029 — now is not the time to deviate until future data suggests otherwise.

Thank you.

--
Justin Friedman
Director, Artist Relations & Marketing



www.dangelicoguitars.com | @dangelicony
www.suprousa.com | @suprousa
www.pigtronix.com | @pigtronix

From: Craig Jordan
To: Comments
Subject: [External] Striped bass comment
Date: Friday, December 2, 2022 1:37:45 PM

Transferring the commercial quota to states is a terrible idea. Can the ASMFC, for once, put the health of this fishery at the forefront of their agenda? Why must we always fight you guys to not make decisions that further imperil this fishery?

Preserve this fishery. Do not transfer the commercial quota.

Craig Jordan
New Jersey

Sent from my iPhone

From:	Joel Stoehr
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Friday, December 2, 2022 12:03:04 PM

Dear ASMFC,

thank you for taking the time to review my comments:

Regarding the Draft Addendum 1 to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan.

Under section 3.1 Option for Allowing the Voluntary Transfer of Ocean Commercial Quota:

I wish to make it very clear that I support Option A (status quo): Commercial quota transfers are not permitted.

In my opinion, allowing commercial transfers undermines any progress we can make towards rebuilding the spawning stock biomass of striped bass.

I'm not a scientist, I'm just a passionate striper fisherman and I would love to see this fishery managed for abundance.

Please take my comments into consideration,
thank you for your time.

Joel Stoehr

--
Joel Stoehr
Director BFA Product Design
Assistant Professor of Design
School of Constructed Environments
Parsons School of Design
http://www.joelstoehr.art

From: John Tighe
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, December 2, 2022 11:49:21 AM

Dear Commission members,

Any plans to allow the transfer commercial quotas will be extremely detrimental to the striped bass fishery.

It is the job of commission to be the protectors of this fish and not to cede to the efforts of special interests or big business.

Please realize that the striped bass fishery is in danger and needs your help. Your decisions will either help it recover and thrive or will seriously endanger it. Allowing commercial quota transfers would, without question, endanger this prize fishery!

Commercial quota transfers should NOT be permitted!

Please choose: **Option A (status quo): Commercial quota transfers are not permitted.**

Thank you.

John Tighe
Ioswich, MA.

--
Regards,

John

JFTighe2@gmail.com

From:	Peter robertson
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, December 2, 2022 7:59:16 AM

To whom it may concern,
I am a recreational striped bass fisherman and we need to do everything we can to save this fishery. Please do not increase the commercial quota, that would be devastating to the striped bass population. The fishery has been in decline for well over 10 years, the time for corrective action is now.
Thank you,
Peter Robertson

Sent from my iPad

From: Tom Fuda
To: Comments; Justin Davis
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, December 2, 2022 7:11:53 AM

To: Atlantic States Marine Fisheries Commission - Striped Bass Management Board

I am writing to express my preference for the options being proposed by Draft Addendum I to Amendment 7 of the Striped Bass Fishery Management Plan. I am a recreational angler from the state of Connecticut. My preference is **Option A (status quo): Commercial quota transfers are not permitted**. I feel that Options B, C, and D would be extremely detrimental to the ongoing effort to rebuild Striped Bass stocks to target levels by 2029. In Figure 4 of the Draft Addendum, we can see there has been a significant underage between commercial quota and commercial landings (anywhere from 50 to 24 percent under quota). I feel that this underage has had the beneficial side-effect of serving as a buffer against management uncertainty. Any option that allows transfers is likely to shrink this gap between quota and harvest. More complete utilization of quota means more dead fish and higher mortality at a time when any increase in mortality puts the rebuilding plan in jeopardy. The only other option I can support would be Option E, because it prohibits transfers while the SSB is below the threshold (overfished). Thank you.

Sincerely,

Thomas Fuda
Shelton, CT

From: Harry Burton
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 1, 2022 10:11:16 PM

I am very much opposed to the above addendum.
Sincerely,
Harry Burton

Sent from my iPhone

From:	Vin Bresnaider
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Thursday, December 1, 2022 7:03:33 PM

Ms. Franke:

I write to you today to voice my support for **Option A (status quo)** with regard to Striped Bass Draft Addendum I. As a recreational angler residing on Long Island, NY, striped bass have been my primary target species from both shore & boat for the past 30+ years. I have unfortunately witnessed firsthand the decline of the striped bass fishery in recent years & am hopeful that the measures included in Amendment 7 will help restore the striper stocks. However, allowing any transfer of commercial striped bass quota can only result in more dead striped bass at a time we're looking to achieve the exact opposite.

Thank you for your consideration!

Regards,
Vin Bresnaider
Merrick, NY

From:	john herrick
To:	Comments
Subject:	[External] Striped bass proposed addendum 1
Date:	Wednesday, November 30, 2022 10:47:11 AM

Emily,

Based on the information provided, I would vote to update policy from the 1970's data framework and allow transfers. Option B would be my vote with option D being a second choice. With both though I'm stuck on the wording of:

That is, the amount over the final quota (that state’s quota plus any quota transferred to that state) for a state will be deducted from the corresponding state’s quota the following fishing season.

Thank you for your time,

John Herrick

From:	Michael Poulopoulos
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Tuesday, November 29, 2022 9:19:32 PM

Hello.

As a member of the Public who commented on Draft Amendment VII, I'd like to offer comments on the Striped Bass Addendum I to the final Amendment VII.

Option A, which prohibits quota transfers, is the most preferable option, as it solidifies stock rebuilding efforts across all states.

The remaining four options, which allow quota transfers under varying circumstances, are not desirable, and may place the rebuilding efforts at risk.

It should be noted that if the Management Board finds Option A unacceptable, Option E is the possibly the least potentially damaging option.

Thank you very much for your time and efforts.

Stay well,

- Mike

Michael Poulopoulos
332 Roaser Road
Sand Lake, NY 12153

poulopoulosmike@gmail.com
Instagram: @michaelrpoulopoulos

From: Barry Woods
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Tuesday, November 29, 2022 8:37:48 AM

Dear Ms Franke and fellow ASMFC Commissioners-

Thank you for the opportunity to provide comment on this proposed addendum allowing states to voluntarily shift their commercial quota to other states.

I strongly oppose this proposal in light of the findings the Commission has made that the stocks are overfished and urge the Commission to maintain the status quo under Option A..

Allowing shifting of quota will make assessing the status and furthering recovery of the stocks all the more difficult. The idea that a state that has been unable to reach its quota can shift its remaining quota to another state is a sleight of hand that does not take adequate account of the actual state of the fishery. The Commission has created an immensely complicated, politically fueled set of management tools and this is but another example of it evading responsibility for the stock's recovery. This language as a note to Option C is the closest expression of the truth I could easily find-*Given the current overfished status of the stock, this option would not provide near term relief to states seeking additional quota.* Stated alternatively, the intent behind Addendum 1 is only about providing certain states with relief from the quota they agreed upon and which was allocated according to this Commission's processes. If a state has excess quota because of an inability to satisfy it, wouldn't the Commission's efforts be better placed to assess why this happened and what it indicates about the health of the stock, rather than shift unmet quota?

This Commission's highest and best purpose should be to actually manage the fishery to ensure its sustainable population rather than add patchwork regulations to address individual state's needs for "relief". Five years of poor YOY recruitment will make this truth self-evident over the next few years.

Sincerely,
Barry Woods

From: Peter Martinez
To: Comments
Subject: [External] Strip Bass Limits
Date: Monday, November 28, 2022 12:07:52 PM

Lower the number of commercial licenses issued per state.

Add more law enforcement to monitor boat docks and recreational fishing.

I have been on a boat dock watching boats come in, unload, and go back out fishing, all commercial.

Adding a slot limit also should be applied to commercial fishing.

Recreational fishing is limited to one fish per day and a slot limit but commercial doesn't have the same rules.

Just my opinion

From:	Emilie Franke
To:	Comments
Subject:	FW: [External] DRAFT ADDENDUM I TO AMENDMENT 7 TO THE ATLANTIC STRIPED BASS
Date:	Monday, November 28, 2022 11:27:35 AM

From: Jason MacLean <jmaclean13@gmail.com>
Sent: Monday, November 28, 2022 11:17 AM
To: Emilie Franke <EFranke@asmfc.org>
Subject: [External] DRAFT ADDENDUM I TO AMENDMENT 7 TO THE ATLANTIC STRIPED BASS

Hi
my name is Jason MacLean, I'm 37 years old and live in Taunton, Massachusetts and have been fishing falmouth, Tiverton, and fall river for ~12 years.

I'm against allowing the transfer of commercial fishing quotas to fisheries. Here are my justifications below.

1) I know allowing the transfer it's allowed with Bluefish and Black sea bass...in just 12 years I have seen my # of what is considered a trophy size fish decrease every year. ~10years ago i could catch approximately 2 trophy black sea bass per outing in falmouth and a handful of trophy blue fish in falmouth every year. Now I'm lucky to catch 1-2 trophy black sea bass a season or 1 trophy bluefish per season. We fish every weekend in Falmouth June-August. personally if we are having a hard time catching good fish, perhaps too many are being taken from the fishery.
The recreational limit of bluefish was dropped from 10 to 3 and the fishery still has not improved. Now we want to send our quotas for striped bass to other fisheries so more can be taken out... this does not make sense to me. if our fishery isn't getting better for bluefish and sea bass why would we want to implement the same policy for striped bass.

2) a few years ago MA dropped its striper catch limit from 2 fish to 1. The fishery got better...then the fishery implemented a size restriction from >28" to >28" & <35" and last year was the best striped bass fishing i have ever had. (the previous year the commercial stripers failed to meet its quota).

3) Our prized fishery needs to be protected for future generations. I would rather see striped bass farmed for food than more wild fish sold to fish markets. I believe the commercial striper fishermen should follow the same rules as the recreational folk for 10 years. Then reassess the fishing situation.

4) in falmouth alone where recreational anglers are struggling to catch fish that meet the minimum keep requirements. you can catch fluke, seabass, bluefish, all day long...most are too short to keep. We used to meet our 3 fishermen limit over a day of fishing...now with 3 fishermen actively fishing we struggle to get a 2 man limit. we haven't caught a 1 man limit of fluke in a long time.

I'm not sure what the answer is...but anything that allows for more migratory fish to be harvested

commercially seems wrong. if another state exceeds the limit in 2022, in my opinion their limit should be dropped in 2023 to allow the fishery to recover. if a state struggles to meet its limit in 2022 perhaps that's a sign something is not going well.

Thank you for reading my reply.
I hope we can find a solution that is better for commercial & recreational...if less fish are caught, the price will go up which should help the commercial guys in the long run. Rich folks dont care about the cost of a fish dinner.

cheers
-Jason MacLean

Emilie Franke

From: JACKSON, GREGORY D GS-12 USAF AMC 436 CES/CENMP <gregory.jackson.1@us.af.mil>
Sent: Thursday, December 22, 2022 3:25 PM
To: Comments
Cc: Johnclark@delaware.gov
Subject: [External] Striped Bass Draft Addendum 1

I am a commercial hook & line (H&L) fisherman in Delaware and support Option B. It may be noted Delaware commercial H&L fisherman only received a quota of ~55 lbs/fisherman/year for the past 3 years, not the 200 lbs listed in one of the tables.

From: Edward Purcell
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Wednesday, January 4, 2023 8:23:21 PM

To whom it may concern:

I am writing to plead with you to implement Option A (status quo): Commercial quota transfers are not permitted in regard to Addendum 1. By your own research striped bass are being overfished and this past year was not a strong breeding year for striped bass. If the commercial quota is not being met, it would be irresponsible and reprehensible to transfer quotas and kill more breeder sized striped bass.

Please implement Option A (status quo) and do not transfer commercial quotas.

Sincerely,

Edward Purcell
15 Sassawanna Road
Rutland MA 01543

From:	G2W
To:	Comments
Subject:	Fw: [External] Commercial quotas
Date:	Wednesday, January 4, 2023 8:05:38 PM

From: Peter Walsifer <peterjwalsifer@gmail.com>
Sent: Wednesday, December 21, 2022 8:32 PM
To: G2W
Subject: [External] Commercial quotas

Good Evening

My vote would be a, status quo and not allow for the transfer of quotas. The fact a state has hit their limit means these quotas are working as planned. Changing those limits to harvest more fish is backwards to the overall goal of stock rebuild. Thank you.

Peter Walsifer
Neptune NJ

Sent from mobile

From: G2W
To: Comments
Subject: Fw: [External] Striper and Winter flounder
Date: Wednesday, January 4, 2023 8:05:27 PM

From: steven haasz <upfrontbaitandtackle@yahoo.com>
Sent: Thursday, December 22, 2022 8:29 AM
To: G2W
Subject: [External] Striper and Winter flounder

Raritan bay sandy hook area has been doing very well with stripers why can't we change rule to 1 fish 28 and above to allow people to keep there trophy fish
I under stand that the population of fish has declined but the amount of fish has been increasing
Some of the legal size fish are eating our other game fish from weakfish,snapper blues,fluke,flounder,and even baby striper
When is winter flounder webinar
We should be aloud more than 2 fish
4 or 5 people would fish for them again

Sent from Yahoo Mail on Android

From: Kermit Barthol
To: Comments
Subject: [External] Striped bass
Date: Wednesday, January 4, 2023 3:09:30 PM

Barrington Rod and Reel opposes the commercial transfer of striped bass quota

Sent from my iPhone

From: Christian Martin
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Wednesday, January 4, 2023 2:08:07 PM

To Whom It May Concern,
I am writing this letter to express my opinion regarding Striped Bass Addendum. **I endorse Option A (status quo) which means that commercial quota transfers would not be permitted.** We cannot afford to increase commercial harvest at the same time as we attempt to rescue the striped bass population. It just doesn't make any sense. It also seems far too early to start messing with Ammendment 7 which hasn't even had a chance to make an impact since being accepted last season. As I've said in earlier letters on this subject, if you are having more and more trouble catching the same amount of fish due to a dwindling population, the answer is NOT to find ways to kill more of them. That is how one would proceed if they were trying to eradicate a species, not maintain a cash crop like fish. It doesn't even make sense from a commercial point of view. Only people with a short-term, exploitative interest in striped bass could see a benefit to squeezing out more harvest. Who, interested in the conservation of stripers, would reply that the best way to respond to a drop in striper population is to kill more stripers? I believe the answer is clear in regard to Addendum I. Status quo is the only reasonable option.
Thank you for your time,
Christian Martin

From:	Norm Staunton
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Wednesday, January 4, 2023 12:52:25 PM

To the esteemed Commissioners of the Striped Bass board-

Very simple, no long explanation in this letter. I am writing only to ask for your support for ONLY Option 1: Status Quo: PLEASE, do not allow commercial striped bass quota transfer.

Thank you for your time. Please, do what is right for the fish and the fishery and recreational fisherman and uphold your own decisions from the Amendment 7 process.

Sincerely,

Norm Staunton

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From: Ronald Criel
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Wednesday, January 4, 2023 12:51:12 PM

Hello,

I oppose the commercial transfer of striped bass quota.

Thank you
Ron Criel
Point Pleasant Beach, NJ

Sent from my iPad

From: Dan
To: Comments
Subject: [External] Stripers
Date: Wednesday, January 4, 2023 9:58:27 AM

I oppose the transfer of Stripers for commercial use.!!!!!! Dan MCGIVNEY
Sent from my iPhone

From:	John Spero
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Wednesday, January 4, 2023 9:22:38 AM

In the matter of:

Allowing the transfer of unused commercial quota from one state to another...

I oppose the commercial transfer of striped bass quota.

From: freeportd
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Wednesday, January 4, 2023 8:28:36 AM

Please please please do NOT go forward with Addendum I to Amendment 7. Commercial quota transfers will harm a species that has too many factors working against its recovery. Please don't do this.

Thank you
Charles Soule (NH)

From: Richard Grein
To: Comments
Subject: [External] ASMFC addendum 1 comment
Date: Tuesday, January 3, 2023 7:08:08 PM

January 3, 2023
Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington VA. 22201

Dear, Emilie Franke

I am a recreational fisherman on Long Island. I have raised my children to catch and respect our marine resources including the striped bass. I would love to see them grow to teach their kids the same.

Unfortunately I was unable to make the public meeting in Kings Park this past DEC 7th. It is my understanding that at this time the striped bass
1- Is still in a rebuilding phase
2- Still being over fished
3-Still at historically low recruitment levels.

With this being the case. I feel allowing the commercial quota to be transferred would jeopardize the currant rebuilding plan. By adding a fourth obstacle to it, and increasing the harvest of striped bass. This addendum should be shelved until the current plan has completed in 2029 successfully.

Sincerely yours,
Richard Grein

Sent from my iPhone

From: Alex McCrickard
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Tuesday, January 3, 2023 2:50:03 PM

Option A (status quo): Commercial quota transfers are not permitted.

I would like to see the ASMFC pursue a status quo approach and not allow commercial quota transfers across states. Allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum VI in 2020 in addition to the goals and objectives of rebuilding the fishery by 2029 per Amendment VII. The current status of the stock is "Overfished." I think we need to stay the course and proceed with caution while watching the stock and recruitment very carefully. The fact of the matter is we have had 4 years in a row of poor recruitment. Recruitment success is largely driven by environmental parameters which are out of our control. Why would we take a risk now and allow increased commercial harvest of fish when future recruitment success is unknown? In the past 5 years, the ocean quota for commercial striped bass harvest used about 65% of the 2.4 million pound quota. Allowing commercial quota transfers could bring us closer to a maximized quota, potentially adding over a half a million pounds or more to the commercial harvest. Let's not forget that the stock is "overfished." We should not allow an addendum that could increase harvest just because the fishery is not currently experiencing "overfishing." Lets put the fish first and stack the odds even higher in the favor of rebuilding the fishery by 2029!

Alex McCrickard
410-905-0099

From: Surdel, Dave
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Tuesday, January 3, 2023 2:14:52 PM

To the ASMFC:

After reviewing Draft Addendum 1, I am contacting you to support Option A (status quo): Commercial quota transfers are not permitted.

Addendum 1 is another attempted resource-grab by the commercial sector. The ASMFC should not continue to entertain such proposals that have the potential to further degrade the already over-fished striped bass stock. Thousands and thousands of recreational anglers like myself would like to see ASMFC take a conservation-minded approach to rebuilding the striped bass stock ASAP. Restoration deadlines have already been missed and it's unlikely the stock will be rebuilt by 2029 if you continue to entertain proposals that favor the commercial sector, such as Draft Addendum 1.

Please start managing the striped bass for the good of the general public. The focus needs to be on restoring an abdundant fishery, not helping to maximize profits for a small group of commercial fishermen.

Thank you,

Dave Surdel
6 Bayberry Rd.
Acton, MA 01720

From: david bixby
To: Comments
Cc: david bixby
Subject: [External] Striped Bass Addendum I
Date: Tuesday, January 3, 2023 11:48:25 AM

ASMFC:

Please support Option A (status quo): Commercial quota transfers are not permitted.

It is incomprehensible to me that we even allow commercial taikings of striped bass. Any attempt to transfer commercial quotas should not be allowed.

Thank you.

David Bixby

Chatham, MA

Albany, NY

From: paschwind@comcast.net
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Tuesday, January 3, 2023 9:57:36 AM

Hi Emilie, Please note typo correction in the date. I am an old guy, but not quite that old. Peter

I am a commercial Stripe Bass fisherman from Massachusetts. I have been fishing for Striped Bass since the late 1940's. I attended the virtual meeting the other night. I am strongly in favor of option B.
Comments:
The trading of unused quota between States in other fisheries is common practice and it seems very reasonable that practice be allowed with Striped Bass.

Currently if we go over the quota in one year that gets subtracted from the next years quota, but if we are under we do not get to add that unused quota to the next years quota. Doesn't seem fair.

In good fishing years, we have around 20 commercial days. This is a very short season. Any increase in our States quota would be greatly appreciated.

I noticed a paranoia from the comments the other night by all the recreational interests. The commercial fisherman are blamed for the overfishing and the decline we saw in the 90',s. However with the advent of better data (interviewing fisherman with salt water licenses) it is clear the recreational segment is responsible for the large majority of harvested/dead discards. According to the information provided @ 25% of the commercial quota is not used. If we could utilize 50% of that quota the net result would be a 1.5% increase in the total harvest. (commercial harvest 12% of the total, 12% increase in the commercial harvest would mean @ 1.5% increase in the total harvest {12 x .12 =1.44%}).

This increase in available quota would be of great help to the commercial fisherman with small impact to the fishery.

Current data indicates the fishery is improving and anecdotal testimony supports that. I have never seen the large number of schools of Bass as I saw this year. Fish ranging from 20 to 34.5 inches. One day I trolled for 5 miles in a straight line looking for commercial fish. Fishing two lines I had a fish on almost continuously. I believe that there were schools for another 2 or 3 miles (boats there were in solid fish)

Tight lines,

Capt. Pete Schwind
paschwind@comcast.net
978-314-8988

From:	RomanAround5246
To:	Comments
Subject:	[External] Increase Striper Commercial Limit
Date:	Monday, January 2, 2023 5:18:53 PM

Hi Emilie,

Is the council crazy? We are still in the rebuilding phase so why would we even consider this?? I say No!! Thank You.

Sincerely,

Roman Dudus

From: Dean Clark
To: Comments
Subject: [External] Comments on ASB FMP Draft Addendum 1 to Amendment 7
Date: Monday, January 2, 2023 4:22:30 PM

Emilie Franke, Fishery Management Plan Coordinator, Atlantic States Marine Fisheries Commission

Subject: Comments on ASB FMP Draft Addendum 1 to Amendment 7

1) Under the present management model now in effect, ASMFC data shows the Atlantic stocks of striped bass only having a 79% chance of being "fully restored" by the ASMFC target date of 2029.

2) Knowing this fact - facing a 21% chance of failure - it is counter intuitive that the Board would even consider increasing F.

3) Allowing Q transfers puts an additional 345 thousand pounds of "currently protected" striped bass at risk of being harvested.

4) All transfers and all CEs should be eliminated in order to give the scientists any hope of controlling F.

5) These and many other realities make Option A the only quasi-responsible choice….. all other options lead to an even greater risk of failure.

6) Given the precarious status of the stocks any decision otherwise would be P.R. suicide for the Board and the ASMFC.

7) Voting against Option A would be another missed opportunity to save and conserve striped bass – the most popular and economically valuable east coast "game fish".

8) Please do the right thing and support option A and the elimination of CEs.

Thank you,

Dean Clark, 596 Franklin St., Duxbury, MA 02332, 508 769-9765

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"The only gifts we can receive are the ones we give away"

From: Nathan Hill
To: Comments
Subject: [External] Please Don"t raise quotas on Striped bass!
Date: Monday, January 2, 2023 6:25:41 AM

To whom it may concern,

Striped bass are a highly valuable game fish, perhaps the most recreationally valuable gamefish in the Northeast. It has been proven that striped bass are more valuable when released to be caught again, than they are when caught once and sold at market. Please make the right economic and envirionmental choice in decreasing, not increasing the quota on striped bass!

Thank you for listening,

Nate Hill

From:	Joseph Puchalski
To:	Comments
Subject:	[External] I strongly object to the proposed Addendum 1 of Amendment 7.
Date:	Sunday, January 1, 2023 5:11:05 PM

I strongly object to the proposed Addendum 1 of Amendment 7.
There should be no transfer of unused commercial quotas.
This resource needs to be protected now. Expanded harvests are inappropriate and irresponsible.
Thank you for your consideration,

Joseph Puchalski
Easton, CT

From: Michael
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Sunday, January 1, 2023 1:47:26 PM

Hello all,

I am greatly concerned about the rebuilding of the stripe bass stocks in relation to addendum 1. I am against any ruling that will inhibit the rebuilding of stock. As seen in Asia, Japan and China have decimated there fishing stocks by over harvesting commercially and there nothing left for them to harvest on a sustainable level.

I do understand the need to make a living. However, I see what has happened with other commercial fisheries along the Atlantic coast and I see addendum 1 as a problem to rebuilding the stripe bass stock.

Regards,

Michael Sicilia

Sent from my iPad

From:	Ronald Meza
To:	Comments
Subject:	[External] Quota transfers
Date:	Sunday, January 1, 2023 1:27:24 PM

If anyone can harvest fish over 35”, we are not in a slot. Period…end of sentence. We are not protecting breeders because one sector can still harvest them.
Allowing quota transfers is analogous to punching holes in a dam to hold back a disaster! It is a backdoor and backroom deal to get around holding EVERYONE accountable and to the same standards to achieve the recovery of this fishery.
Option A (status quo): Commercial quota transfers are not permitted!!!
Thank you for your attention in this matter.

Ronald Meza

From: fdefinis@verizon.net
To: Comments
Subject: [External] Proposed Addendum 1, to Amendment 7
Date: Sunday, January 1, 2023 1:09:25 PM

I am strongly opposed to the proposed Addendum 1 to Amendment 7 to allow transferring unused quotas to other states. A state may fail to reach its quota for any number of reasons—weather, changing migratory patterns, changing bait profile, fuel prices, labor shortages or just plain bad luck to name a few. When this occurs, we should view it as a victory for the fish as there will be more fish to spawn and also to be caught in subsequent years by commercial and recreational fishermen alike. Addendum 1 seeks to maximize the total allowable catch (TAC), instead of accepting natural regional and yearly fluctuations in the harvest.

Addendum 1 does nothing to help the commercial fishermen who failed to reach their quota except for perhaps some tacit quid pro quo—e.g. "*You give us your striped bass this year and we'll give you our bluefish next year".* At the same time, it puts added pressure on the fish stocks. For a species such as striped bass that needs protection, this is the wrong approach. While the striped bass is not classified as "over fished" at this time, we know that the Young-of-Year index is less than a third of historical norms. When we consider all the scientific data, it makes no sense to go through gyrations that promote harvesting more striped bass.

This is not an issue of commercial vs. recreational fishing—it is a matter of using common sense to preserve this important species for the benefit of all. This species is too important and too fragile for this type of action at this time.

Fred DeFinis
Middletown RI

From: Andrew Tenney
To: Comments
Subject: [External] Public Comment addendum 1
Date: Sunday, January 1, 2023 12:30:46 PM

Hello ASMFC,

As an avid surfcaster and lure builder I feel it is my duty to provide my comment on the current state of regulations. I have seen a large decline in the quantify of stripers catchable from shore. I support option A with no transfer of Quotas for commercial fishing. I strongly believe this fish is so much more valueable to the community as a whole when treated as a sport fish and not table fare. It's just too fun to catch and not good enough to eat. We should be reducing commercial Harvest by any means we can in my opinion to save the striped bass for the many decades to come!

Happy new year!

Andrew C Tenney
18 Bogastow Brook rd.
Sherborn, MA

From:	Brian Sittlow
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Sunday, January 1, 2023 12:16:09 PM

ASMFC,

I am disappointed to hear that there is consideration of making Commercial Harvest Quotas transferable between jurisdictions. Striped bass are receiving too much pressure across all sectors to allow for more harvest - anywhere. Quotas should NOT be transferable.

I support: ***Option A (status quo): Commercial quota transfers are not permitted.***

Please continue your efforts to IMPROVE the Striped Bass stock.

All the best,

Brian Sittlow

Westerly, RI

USA

From:	John
To:	Comments
Cc:	info@saltwaterguidesassociation.org
Subject:	[External] Striped Bass Amendment 1
Date:	Sunday, January 1, 2023 11:38:47 AM

Ladies& Gentlemen,

I am in favor of Option A of the amendment to maintain the existing commercial quotas.

Thank you,

John Stanchfield

From: Dave Prockop
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Sunday, January 1, 2023 11:06:43 AM

Dear sir or madam,

Please take this note as a vote strongly in favor of Option A on Striped Bass Addendum I that is currently being considered.

Any other option - maximizing commercial harvest to take full advantage of quotas - would directly undermine all ongoing efforts to preserve the striped bass population. If commercial quota transfers were allowed, then the only way to preserve the population would be to lower the quotas. That would, no doubt, take years to do and during those years, the population could be dramatically reduced, in a way that would take many years (and more extreme measures) to recover from.

It would simply make no sense to say that we're trying to support the striped bass population and then pass a regulation that dramatically increases the annual commercial harvest. Please do not allow the transfer of commercial quotas.

With thanks for your consideration,

Dave Prockop
Providence, RI

From: Jim Zabilansky
To: Comments
Subject: [External] Commercial Quota Transfer - Option A
Date: Sunday, January 1, 2023 10:23:18 AM

At a time when it's imperative to work to rebuild the striped bass population, it doesn't make sense to take broad steps to maximize the commercial harvest, especially before more stock assessment data become available. Proactive management of the larger recreational harvest is vital, but one crucial distinction is that the commercial harvest allows over-slot harvesting, which further reduces our breed stock. Both recreational and commercial segments need to work now toward building and sustaining our striped bass population.

I'm writing to support Option A on this amendment, "Commercial quota transfers are not permitted."

Regards,
James Zabilansky

From: Paul Spendley
To: Comments
Subject: [External] Addendum 1 to Amendment 7
Date: Saturday, December 31, 2022 5:00:47 PM

Commissioners,

With regard to the Subject Addendum, there is only one option to support - *Option A (status quo): Commercial quota transfers are not permitted.*

The data you have provided in the November report indicates that while the Striper breeding biomass is trending positively, it has not yet reached proscribed thresholds and is a long way from achieving the published target. While the overfishing graph provided does reflect a positive trend, this is not a data point to be considered while the SBB is still so far from threshold and target. There is no reason to allow commercial quota transfers at this time. Your own study graphs indicate that premature changes before trends are consistently positive and goals targets are achieved will endanger the biomass and negatively impact all of the diligent management efforts taken thus far to achieve SBB targets.

Please do not allow commercial quota transfers at this time.

Paul Spendley
NH Recreational Fishing Licence-holder

From: William Hoyerman
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Saturday, December 31, 2022 2:51:10 PM

Hello

Please don't allow commercial quota transfers or continuation of CE. I beg that you vote for Option A: Commercial quota transfers are not permitted. Status Quo.

Please this means very much to me.
Sincerely,
Bill
Bill Hoyerman LSP.
781/799-9506
Sent from my iPhone
Senior Project Manager
Civil & Environmental Consultants, Inc.
31 Bellows Road, Raynham, MA 02767
direct 774.409.2711 **office** 774.501.2176 **mobile** 781.799.9506
www.cecinc.com

From: Robert Daly
To: Comments
Subject: [External] Striped bass
Date: Saturday, December 31, 2022 5:32:16 AM

I oppose states to share striped bass quotas with other states

From: Matthew Fontaine
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Friday, December 30, 2022 7:00:03 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.
After putting a slot limit in place you want to do this?

Thank you for considering my input.

Sincerely,

Matthew Fontaine
17 Amy Ln
Uxbridge, MA 01569
MATTFISHSMELL@GMAIL.COM

From: Lou Raymond
To: Comments
Subject: [External] Striped bass addendum 1
Date: Friday, December 30, 2022 2:12:02 PM

I support option A { status quo } transfers are not permitted. We really need our breeders .

From: James LAMPHEAR
To: Comments
Subject: [External] commercial transfers
Date: Friday, December 30, 2022 1:47:11 PM

I am a tad bit confused, your board says that rebuilding the striper stocks are your most important job but at the same time you suggest allowing commercial fishermen to transfer their quotas. My understanding of this measure is it will allow said fishermen to take more of the large females IE: the breeders. So I guess my question is how do you achieve your objective when the commercial fishermen are the ones KILLING the striped bass population.

THANK YOU

James Lamphear

From: William Rothermel
To: Comments
Subject: [External] Striped BAss Draft Addendum I
Date: Friday, December 30, 2022 11:49:15 AM

I support Option A, No commercial transfer permitted.

--
William "Bill" Rothermel

Medford NJ 08055

From: Harry Rothermel
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, December 30, 2022 11:47:55 AM

I support Option A, No commercial transfer permitted.

Thank you

Harry Rothermel
Medford, NJ

From: Russ Kline
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, December 29, 2022 3:48:54 PM

I prefer option A-no commercial transfer of unused quota

From: John Swanson
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Thursday, December 29, 2022 1:40:09 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Recreational anglers were required this year to use circle hooks when bait fishing for Striped Bass to increase survival rates when fish are released that are above or below the slot limits. Now, AFMSC proposes to increase commercial harvest quota's, so once again, recreational fisherman are being targeted to save the bass so the commercial interests can kill them. Commercial netters are killing Striped Bass and all other by-catch by the millions of pounds. You can't sell or eat lobbyist dollars when the fish are gone again. Just because recreational anglers don't organize and contribute to political coffers like commercial guys do, we spend billions of recreational fishing dollars in these Atlantic states, and we care about the heath of the fishery.

Thank you for considering my input.

Sincerely,

John Swanson
227 Dickens Ct
Cherry Hill, NJ 08034
jswanz@verizon.net

From: Thomas Lee
To: Comments
Subject: [External] No to commercial fishing
Date: Thursday, December 29, 2022 8:27:55 AM

I would like to say option A is the best choice! No commercial fishing it's going to wipe out a fraction of the population that took over 20 years to build. Don't let commercial fishing ruin the stocks just like everything else

From: Tim Mugherini
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Wednesday, December 28, 2022 10:10:53 AM

Dear Management Board

I am writing to you in a plea to not support quota transfers for commercial striped bass. I feel strongly that maximizing short term commercial harvest rather than the longevity of the fishery and industry is short sighted and absurd given the boards goal to rebuild by 2029.

Consequently, Option A (no change - commercial quota transfers not be permitted) is the only option that seems appropriate.

Thank you for your time and consideration

Tim Mugherini
Plymouth MA
857-928-2428

--
Tim Mugherini

From: abe pearson
To: Comments
Subject: [External] Striped bass addendum 1
Date: Wednesday, December 28, 2022 9:49:25 AM

As a recreational angler for striped bass I strongly support option A (status quo) to not permit transfers of commercial quotas.

The striped bass is the fish that got me into fishing! I have only been fishing for a few years now but I would like to fish for them for a long time to come and I believe that can't happen without strong regulations against their harvest.

I support option A and I would support further restrictions for commercial and recreational harvest so the population has a chance to rebound and ultimately sustain itself.

Thanks for your consideration,
Abram Pearson

Sent from my iPhone

From:	Kenshwartz
To:	Comments
Cc:	stripercomments@gmail.com
Subject:	[External] Striped Bass regulations
Date:	Wednesday, December 28, 2022 9:32:37 AM

TWIMC,
I am a recreational angler based in Massachusetts on Buzzards Bay. I striper fish around Cape Cod, the Islands, SE Mass and far eastern RI.
It seems to me, given the scientific data—- being used somewhat to decide how to protect the species— cannot, for sure, be wholly reliable(and possibly indicate the species is in better shape , relatively, than it really is) then in the face of the anecdotal evidence being overwhelmingly indicative of a vast reduction in shear numbers over the last few years or so, that the only prudent coa is to error on the side of conservation…no other strategy makes sense, long term, for either the commercial or recreational interests.
Consequently, whether deciding on methods such as commercial quota swapping or other methods, it seems to me, the only sensible action is the action that will best protect the stock for at least the next few years.
Best,
Ken S.
E - kenshwartz@gmail.com

Sent Ken Shwartz iPad

From: Joe Lentini
To: Comments
Subject: [External] Striped bass addendum 1
Date: Tuesday, December 27, 2022 5:30:58 PM

As someone who has fished for striped bass on the coast of Maine, New Hampshire, and Massachusetts, for decades, I am appalled at your potential plan to increase the allowable commercial harvesting of striped bass.
I want to be clear that I support option A, (status quo): commercial quota transfers not permitted.
Many of us remember the last time striped bass were harvested almost to oblivion. Do not do that again.

Joe Lentini

Joe Lentini
Lentini@roadrunner.com
603-662-7024

From: Marc Quenzer
To: Comments
Subject: [External] Striped bass
Date: Tuesday, December 27, 2022 12:07:54 PM

Here are a few picture spanning from New Jersey to Maryland. This is against what I committed on and is not managing for abundance like 90 percent of the public comment you received in the new amendment. The southern states are still using CE. Which I thought would be eliminated? We have one good year class right now and you are dropping the ball with these new regulations. Get rid of CE. We be one coast wide regulation for one stock of fish that migrates up and down the north east.

From:	Martin Barth
To:	Comments
Subject:	[External] Oppose Increases to Striped Bass Commercial Harvest
Date:	Tuesday, December 27, 2022 8:30:09 AM

Dear FMP Coordinator Franke,

I do not support allowing state commercial quota transfers because that will likely lead to an increase in harvest at a time when the striped bass population is overfished and in a strict rebuilding plan.

Sincerely,

Martin Barth
10 Hellbrook Ln
Ulster Park, NY 12487
martinbarth@ccimail.com

From: Edward A DeSanto
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Monday, December 26, 2022 3:50:10 PM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

It should actually be designated a sport fish with no commercial harvest

Sincerely,

Edward A DeSanto
235 Tennyson Rd
Warwick, RI 02888
desantoea@yahoo.com

From:	Bob Olsen
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Monday, December 26, 2022 9:32:26 AM

Seriously? Recreational fishermen are releasing "over the slot fish" - as we should - while you want to allow commercial harvest of these same fish. You pretend to want to rebuild the stock. Show us you are serious.

I support Option A on this amendment, "Commercial quota transfers are not permitted."

Bob Olsen
1612 Shaw Mansion Rd, Waterbury Center, VT 05677

From: Steve Pitts
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Monday, December 26, 2022 9:18:06 AM

Hi
I am a recreational angler from the UK and I travel to the US (Mass & Maine) to fish for stripers with several friends.

We spend thousands of dollars in the state on accomodation, food, refreshments, fishing guides, fuel, car rental, fishing tackle etc. and at every opportunity tell other UK and EU anglers that they should visit to experience the striper fishing.

I am writing to ask you to accept option 1 as proposed in the Draft addendum to the Striped Bass Fishery Management Plan and decide against commercial transfers.

Here in the UK we are currently undergoing our own consultation for a Bass Fishery Management Plan and part of that will hopefully encourage our fishery managers to curb the commercial excesses which have lead to the depletion of our bass stocks.

If the striper stocks are allowed to go the same way, it will not be worth us coming to fish, so we hope that the status quo will prevail and the striper fishery continue to flourish.

Yours in hope
Steve Pitts
Life-long angler and striper fanatic

From: Luke Kozak
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfers
Date: Monday, December 26, 2022 9:13:31 AM

Dear ASMFC,

I am a recreational angler from the UK . I'm writing to express my preference for the options being proposed in Draft Addendum I to the Striped Bass Fishery Management Plan. I prefer option A – status quo, no commercial transfers. Any of the other options are likely to increase mortality at a time when the stock is rebuilding.

If the US stocks are further depleted, it is unlikely that I will travel to the US to fish for this amazing species. This will mean a negative impact on the economy built around recreational angling for Striped Bass. Please don't go the way of the UK where we are fighting for the survival of our Sea Bass!

Thank you.

Sincerely,

Luke Kozak - 07791 607969

From: Rui Coelho
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Monday, December 26, 2022 8:48:13 AM

Dear ASMFC

Sending you my request to consider both as an individual and as president of GBTU. For the Striped Bass Addendum I, I strongly support Option A (status quo): Commercial quota transfers are not permitted, because there is no place for such an addendum while the Striped Bass stock is recovering and rebuilding.

Sincerely,

Rui Coelho
President
Greater Boston Chapter of TU
617-285-1665

From:	Eric
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Monday, December 26, 2022 6:58:50 AM

This should be really easy with everything that anglers have heard over the last five years of how the overall population has been down for striped bass and the stock needs to be rebuilt. I have fished the last 5 years for striped bass and caught numerous fish but have not kept a single fish that I was able to bring home for dinner. If the stock is so bad that we have a very slim chance of bringing anything home this is not the right time to be trying to increase commercial harvest on the stock. The potential of increased harvest on this stock at a time right after a 5-year reduction for recreational and commercial anglers is ridiculous. The only option that should be considered is option one. Bottom line is protecting the stock first

Thanks,

Eric Ludwig

From: Charles Hughes
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Sunday, December 25, 2022 3:20:09 AM

Dear FMP Coordinator Franke,

STOP THE GREEDY BASTARDS FROM DESTROYING OUR NATURAL RESOURCES AND THAT INCLUDES YOURSELVES AND THE PIECE OF SHIT POLITICIANS WHO GET LOBBIED WITH BRIBES TO SIGN THEIR REQUESTS THEY HAVE RAPED AND SOLD OFF EVERY EDIBLE OCEAN FISH AND MOLLUSK TO THE POINT WHERE IT WILL TAKE YEARS TO RETURN TO MAKE A COMEBACK TO SUSTAINABLE NUMBERS AND THATS NOT COUNTING THE OTHER SEA CREATURES KILLED BY THE NETS THEY USE OR THE CORAL REEFS THEY USE THEM NEAR I HAVE PERSONALLY WITNESSED MAJOR GROCERY STORES DISCARD VAST AMOUNTS OF UNSOLD SEAFOOD INTO THE TRASH STOP ALLOWING THESE CORPORATIONS FROM RECEIVING OUR FEDERAL TAXES AND INCENTIVES FOR THIS BARELY REGULATED MARKET AND REPLACE THE OFFICIALS IN OFFICE THAT HAVE STOOD BY IDLY AND WATCHED

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Charles Hughes
3209 Baring St
Philadelphia, PA 19104
charleshughes284@gmail.com

From: JOHN GIBBONS
To: Comments
Subject: [External]
Date: Thursday, January 12, 2023 11:49:14 PM

I oppose transferring recreational striped bass quota to commercial quota.
John Gibbons

Sent from my iPhone

From: Tony Moutinho
To: Comments
Subject: [External] Stripes bass
Date: Thursday, January 12, 2023 11:16:43 PM

To whom it may concern . I understand there is a vote pending on commercial striped bass quota.

I oppose transferring any unused quota or any quota changes between states.

This species needs to be protected from commercial over- fishing

Tony Moutinho
2

From:	Andrew Friedman
To:	Comments
Cc:	Andrew Friedman; Tony Moutinho
Subject:	[External] Striped Bass Draft Addendum
Date:	Thursday, January 12, 2023 10:14:23 PM

To whom it may concern
I strongly oppose the commercial transfer of striped bass quota.

Dr Andrew Friedman

From: Scott Brassard
To: Comments
Subject: [External] Striped bass
Date: Thursday, January 12, 2023 9:10:47 PM

Good Afternoon,

I just wanted to write an email and voice my support for Option A. I have fished for stripers in both NH and MA for the last 25 years and I now get to bring my son out enjoying an incredible resource. I want him to be able to enjoy the same experience when he has his own son. Striped bass have already been overfished and there is no reason to add additional pressure to an already reduced stock. Let's give them a chance to recover.

Thank you,
Scott Brassard

Sent from my iPhone

From: Ervin Ray
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 12, 2023 8:57:47 PM

Hello,

I am reaching out as a recreational Striped Bass fisherman actively trying to contribute to rebuilding the stock.

I would like you to know myself and many other anglers OPPOSE THE COMMERCIAL TRANSFER OF STRIPED BASS QUOTA.

Best,

Ervin Ray

From: Matt Jacobus
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Thursday, January 12, 2023 8:12:27 PM

To the Advisors and Board members of the Atlantic States Marine Fisheries Commission,

My name is Matthew Jacobus and I am an avid Striped Bass fisherman living on the North Shore of Massachusetts. I last wrote during the Amendment 7 comment period, and I was very happy that many protective measures passed that will help protect this valuable natural resource. Despite the passing of this amendment, I remained dismayed at the state of the fishery and the prospects for the future, with four consecutive Chesapeake spawns among other factors, remain bleak. But, hey, at least some steps were being taken in a positive direction.

Late this fall, I was taken aback by word of an amendment that began to circulate that would permit Commercial quota transfers of Striped Bass. I cannot understand how this measure could even be considered given the uncertainty surrounding the ability of the Striped Bass stock to recover and rebuild; and, regardless of any uncertainty, harvesting more breeder size striped bass certainly cannot help the rebuilding effort, especially given the already poor recruitment in the Chesapeake bay. There is simply no place for an amendment like this in the current environment and I hope that this amendment is not seriously being considered.

With the possibility of amendments like this being passed now or in the future, I'm starting to think my boys (now 3 and 7) won't have a chance at Striped Bass fishing like it was in the heyday of the early 2000's. I implore you all to take this rebuilding project seriously so that recreation and commercial fisherman alike can stop focusing on rebuilding/recovery and the potential demise of the most important game fish on the East Coast.

Support: Option A (status quo): Commercial quota transfers are <u>not</u> permitted.

- Matthew Jacobus (Marblehead, MA)

From: Matt Boutet
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Thursday, January 12, 2023 8:09:54 PM

I'm writing today to voice support for Option A.

At a time where the situation for striped bass is as precarious as it is, it's alarming to me that the ASMFC is even considering a proposal to increase landings. I was disappointed in where things wound up with "conservation equivalences" and this is more of the same - attempts to increase the striper harvest at a time when the population is on the brink of disaster.

Please, for my kids' sake - stop trying to kill more bass and start working towards ensuring there will be something left to fish for in 10 years.

Matt Boutet
Biddeford, ME

From: Mark
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Thursday, January 12, 2023 8:01:52 PM

Hello,

My name is Mark Hoffman and I am a recreational striped bass angler. For Striped Bass Addendum 1, I would like to see you all choose Option A and not allow the transfer of commercial quotas between states.

Thank you for your time,

Sent from my iPhone

From: Germain Cloutier
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Thursday, January 12, 2023 7:51:09 PM

Hello,
I support Option A. No Commercial Quota Transfers.
Due to the fact the striped bass is overfished, there have been Several bad spawning years in a row and we will be heading in the wrong direction. This implementation could cause more harvest numbers and severely decrease the chances of reaching the rebuilding plan by 2029. I hope the ASMFC does what's right for the species and Supports Option A.

Thank you,
Germain Cloutier

From: Brendan Richards
To: Comments
Subject: [External] Subject Line: Striped Bass Addendum I
Date: Thursday, January 12, 2023 7:33:23 PM

Dear ASMFC,

I am writing you to voice my opinion for options regarding Addendum 1 to Ammendment 7.

I am strongly in favor of:

Option A (status quo): Commercial quota transfers are not permitted

F must stay below .17, and creating more opportunities to kill fish does not help reach this end.

Only leaving live fish in the ocean contributes to achieving this goal. Jury rigging the extant regulations in the name of killing more fish is therefore inconscionable.

The fact that certain geographical areas are struggling to meet their quota while others can is evidence of a depleted striper stock spread thin. By transferring quotas, what remains of the stock will get no respite from commercial fishing mortality.

As such, I say no to commercial quota transfers. I assure you that countless others agree, and I implore you to take our prudence to heart. It is your duty to rebuild the striped bass stock, placating to commercial special interest at the expense of conservation and common sense is an abdication on your part. Please do not falter.

Thank you and sincerely,

Brendan Richards

From:	Chris Roller
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Thursday, January 12, 2023 7:08:08 PM

Hello -

I support Option A (status quo): Commercial quota transfers are not permitted for the Striped Bass Addendum I. The fishery is in dramatic decline, and I believe that conservation actions should be taken to ensure the longevity of this beloved game species. I am a life-long angler, and have witnessed first-hand the species' decline - particularly over the past few years.

Best regards,

Chris

Chris Roller

From: Matthew Risser
To: Comments
Subject: [External] Striped Bass Draft Addendum I, Commercial Quota Transfers
Date: Thursday, January 12, 2023 6:17:48 PM

To whom it may concern at the ASMFC,
As an avid fisherman for striped bass in many of the states represented in ASMFC, I would like to voice my opposition to commercial quota transfers between states. I spend thousands of dollars in NJ, NY, MA and MD to enjoy the pursuit of these amazing fish, and they are worth far more to everyone as a source of recreation than as a commercial catch. I understand there is a commercial entity that has traditionally relied on striped bass as source of income, but everyone can reap the benefits of a striped bass population managed for abundance rather that for maximum kill.

So much has been done already to stop the downward trend in the striped bas population. I urge you to continue to chose caution in managing this wonderful fish.

Thank you,
Matt Risser

129 Micklitz Dr
Pottstown, PA 19464

From:	Andrew Demopoulos
To:	Comments
Subject:	[External] AGAINST commercial transfer of striped bass.
Date:	Thursday, January 12, 2023 5:50:56 PM

I am against the commercial transfer of striped bass quota. During a time when we are trying to get the stock of fish back to where it was, practicing catch and release, this transfer of commercial quota seems unethical and unprofessional. These fish serve a purpose that is much greater than being a meal.

Regards.

From: fmsprinkel@gmail.com
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 12, 2023 4:48:16 PM

I oppose any increases in striped bass harvest by both recreational and especially commercial fishermen

Sent from my iPhone

From: Stephen D"Angelo
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Thursday, January 12, 2023 4:02:53 PM

Hello,

My name is Stephen D'Angelo, and I am a recreational striped bass angler. For Striped Bass Addendum 1, I would like to see you all choose Option A and not allow the transfer of commercial quotas between states.

Thank you for your time,

Stephen

From: Michael Mershack
To: Comments
Subject: [External] Striped Bass Amendment
Date: Thursday, January 12, 2023 3:58:03 PM

Hello, wanted to write voicing my support for Option A, and strongly in opposition to commercial quotas being transferred.

Thanks for your time,

Mike

From:	Matthew Mychack
To:	Comments
Subject:	[External] Striper Amendment 1
Date:	Thursday, January 12, 2023 3:55:29 PM

Hey, just writing to voice my support for Option A, and vehemently in opposition to the transfer of commercial quotas.

If you can pitch in a catch and release restriction starting tomorrow, that'd be good too :)

Thanks,

MM

From: Ryan Gorman
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Thursday, January 12, 2023 3:54:20 PM

Good Afternoon,

My name is Ryan Gorman, I am a Registered Maine Guide and recreational striped bass angler. For Striped Bass Addendum 1, I would like to see you all choose Option A and not allow the transfer of commercial quotas between states.

These transfers would likely increase the commercial mortality for striped bass at a time when harvest reductions are needed to promote the rebuilding of the striped bass population.

Please choose Option A and do not allow the transfer of commercial quotas. Thank you for your time.

Sincerely,
Ryan Gorman
Rgorman97@gmail.com

From: Alan Lindberg
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Thursday, January 12, 2023 3:53:57 PM

Hello,

My name is Alan Lindberg and I am a recreational striped bass angler. For Striped Bass Addendum 1, I would like to see you all choose Option A and not allow the transfer of commercial quotas between states.

Thank you for your time,

Alan Lindberg
Gray Maine

From: Alec Salisbury
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Thursday, January 12, 2023 3:36:16 PM

Hello,

My name is Alec and I am a recreational striped bass angler. For Striped Bass Addendum 1, I would like to see you all choose Option A and not allow the transfer of commercial quotas between states.

Thank you for your time,

--

Alec Salisbury
Photographer/Video Content Creator

- 2073738458
- alec@alecsalisbury.com
- www.alecsalisbury.com

From:	matt c
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Thursday, January 12, 2023 3:18:52 PM

Hi,

I strongly oppose the transfer of striped bass quota. If the commercial quota is not met for one state, then that is a blessing. I would not then want another state fulfilling the rest of that quota. That would guarantee the quota is met every single year. That would be ridiculous.

Regards,

Matt C.

From: Ben Freeman
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Thursday, January 12, 2023 2:46:16 PM

As a business that relies on striped bass, we want Option A

R Benjamin Freeman
Trident Fly Fishing
Main: (888) 413-5211

From: levi opsatnic
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Thursday, January 12, 2023 2:33:25 PM

My name is Levi Opsatnic and I'm a recreational striped bass angler who fishes all over the Atlantic coast, but mostly in Maine, Massachusetts, and New York. I see incredible value in the striped bass fishery and find maintaining its health is paramount. As far as Draft Addendum 1 goes, I am urging you all to please do the right thing and choose Option A and not allow the transfer of commercial quotas between states.

Thank you for your time in reading my comments,

Levi Opsatnic

From: David Butler
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 12, 2023 2:09:26 PM

Please make Rock fish a game fish and not commercial harvest

Sent from my iPhone

From:	Keyen Farrell
To:	Comments
Subject:	[External] PLEASE REJECT Addendum 1 to Amendment 7
Date:	Thursday, January 12, 2023 1:49:01 PM

To whom it may concern:

The adoption of Amendment 7 gave me a glimmer of hope in the ASMFC's ability to put the interests of the majority above the interests of a few.

PLEASE, PLEASE do not embrace the status quo by adopting Addendum 1 to Amendment 7.

We are digging out from a hole we shouldn't have gotten into in the first place, and the same rationale used for no quota transfers when the stock was in
rebuilding mode from the 1980s until the mid-1990s apply today.

I have great respect for those who make a living from the water and support sustainable quotas that are fully utilized. The bottom line is Addendum 1 to Amendment 7 will increase striped bass mortality, and the stock is nowhere near being able to sustain an increase in mortality. This addendum is totally at odds with the good common-sense measures adopted in the rebuilding plan under Amendment 7. No measure that increases fishing mortality should be considered before the stock is declared fully rebuilt. Only once the stock rebuilding plan has hopefully succeeded by the end of this decade should a new conversation be started about changes to commercial quotas that increase mortality.

Keyen Farrell
Brooklyn, NY

From:	Derek Cummings
To:	Comments
Subject:	[External] Addendum 1 - Public Comment
Date:	Thursday, January 12, 2023 1:33:38 PM

Hello, my name is Derek Cummings & I'm a resident & recreational fisherman in New Hampshire.

I am strongly opposed to any sort of commercial quota reallocations as proposed in Addendum 1. I am in favor of Option A, status quo. The ASMFC took 1 step forward in Amendment 7 in regards to the reduction of conservation equivalency, a few short months later…. The ASMFC took 2 steps back with this "Commercial Equivalency" proposal.

There is **no commercial quota reallocation** that results in an increase or abundance in striped bass stock, or a higher percentage of rebuilding the stock by 2029. The status of breeding biomass is still overfished & is directly & negatively impacted by commercial transfers. Especially by our neighbors in Massachusetts with 33% of coastwide commercial allocations.

The future of our fishery is at stake in the next decade. This is my retirement plan on the line. This addendum does not make sense for the fishery at this time & I am hopeful that ASMFC representatives will continue to advocate for conservation & manage this species for abundance. Thank you.

- Derek Cummings

From: Joseph Mogavero
To: Comments; Emilie Franke
Subject: [External] Striped Bass Addendum I
Date: Thursday, January 12, 2023 1:28:41 PM

January 12th, 2023

Emilie Franke
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington VA. 22201

Dear Emilie Franke,
I'm a recreational fisherman who has spent his entire adult life fishing from the Long Island shores and surrounding waters. Over the last decade or more, I've experienced a decline in the number of striped bass landed each season. As I'm sure you are aware, the 2022 Stock Assessment Update found that the Striped Bass stock remains overfished. It is for these reasons I support **Option A (status quo): Commercial quota transfers are not permitted.**

Thank you for taking my comments into consideration.

Best regards,
Joe Mogavero
Smithtown, NY

From: Ron Jensen
To: Comments
Subject: [External] striped bass draft addendum 1 option A
Date: Thursday, January 12, 2023 1:10:37 PM

Sent from Mail for Windows

From: Patrick Rudman
To: Comments
Cc: Megan Ware
Subject: [External] Striped Bass Addendum I
Date: Thursday, January 12, 2023 1:00:04 PM

To Whom it may concern,

My name is Patrick Rudman, owner of Old Maine Outfitters, and an avid recreational striped bass angler in Maine. I'm writing today to vote for "**Option A (status quo): Commercial quota transfers are not permitted".**

Honestly, I'm shocked and disappointed that this is even a question. The commission has acknowledged these transfers were not taken into consideration when developing the rebuilding plan for striped bass, and yet even with that unknown and that it could potentially make us fail at the already slim chance we rebuild the stock in 10 years, we are still having a vote on it? When the public demanded that CE be removed after we discovered the loophole, the board said no, but now that there is an opportunity for states to horsetrade and kill more bass the board says ok?? This is beyond disappointing.

The public was beyond clear during the public comment meetings that they do not want this. If the ASMFC approves this change, I'm pretty confident they will lose all credibility with the public, even after the big wins this year.

Please do not let this happen and convince other state representatives to do the same.

Thank you.

--

Patrick Rudman
www.oldmaineoutfitters.com

From:	Sammy Calagione
To:	Comments
Cc:	Jason E. Mcnamee; JOHN CLARK; Mike Stangl; meganware124@gmail.com
Subject:	[External] Striped Bass Addendum I Comments _ Calagione
Date:	Thursday, January 12, 2023 12:53:56 PM

Good Afternoon ASMFC,
I am reaching out with my unique perspective on the striped bass fishery to comment in support of maintaining the status quo of not permitted commercial quota harvests.
I've been lucky enough to interact with the striped bass fishery in many different regions both as a recreational angler and for-hire captain. I grew up in Lewes, Delaware, fishing the Delaware bay and the New Jersey coastline. Attending college in Providence, I explored the Narragansett bay and south county beaches of Rhode Island in search of striped bass. My girlfriend lives in Scituate, Massachussets, where I've spent time throwing flies around the south shore. Most recently, I've called mid-coast Maine home, guiding full time on the mud flats and salt rivers. In fishing these various points along the bass' migration route, I've been able to see how different regulations can impact the fishery in profound ways (the no-bait, no harvest regulations of the Kennebec river have made it one of the best spots in the world to striper fish), informing my desire to maintain the current regulations on quota-transfers.
Some states' have tried harder than other to conserve their resource and I do not think those who have driven the bass from their waters should be monetarily rewarded. Sure, striped bass stock assessments have shown the population is in good standing of late, but the recent recruitment is so bad (we must assume this until better data emerges from breeding sites outside the Chesapeake), our responsibility is to give these fish a chance, not maximize harvest for a few individual's profit. If anything, there should be a review of the quota numbers entirely.

Sincerely,
Sam Calagione
Sawyer Island Angling - Southport, ME
Fin and Feather Outfitters - North Kingstown, RI

From: Ron Jensen
To: Comments
Subject: [External] striped bass addendum 1
Date: Thursday, January 12, 2023 12:43:18 PM

Sent from Mail for Windows

Keep striped bass status quo no voluntary transfer

From: bahaa el din
To: Comments
Subject: [External] Striped bass draft addendum I
Date: Thursday, January 12, 2023 12:13:59 PM

I oppose the commercial transfer of striped bass quota and voting for option A

Bahaaeldin Ahmed
100 W Elizabeth Ave, Linden, NJ 07036

From: Rdputney
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 12, 2023 11:49:54 AM

Please accept my approval of the VA draft

From: gliddonm@aol.com
To: Comments
Subject: [External] Striped bass draft amendment 1
Date: Thursday, January 12, 2023 11:45:29 AM

I strongly oppose the commercial transfer of quota between states. We are trying to rebuild stocks and this will have a significant impact.

M. Gliddon, Lawrenceville, NJ

From:	Austin Brice
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Thursday, January 12, 2023 11:34:21 AM

I am a recreational angler from New York, and I primarily fish the south shore of Long Island. The Atlantic striped bass fishery is a very important fishery. Given the history of the stock we need to take measures to insure its survival and sustainability.

With regard to the options being considered for Addendum 1, I am writing to express my support for Option A (status quo): commercial quota transfers are not permitted. All other options would increase mortality at a time when the stock is rebuilding.

Sincerely,

Percy Brice III

From:	Michael Griffith
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Thursday, January 12, 2023 11:18:26 AM

I'm a Commercial Fisherman and I oppose any actions by the ASMFC that would increase the Commercial or Recreational catch of Striped Bass.

Cap'n Mike
Chic's Beach Rental & Fishing
757-687-9093
www.chicsbeachrentalandfishing.com

From: John Parbst
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Thursday, January 12, 2023 10:49:41 AM

Atlantic Marine States Fisheries Council:

I am a recreational angler from Long Island, New York, and an avid striped bass fly angler. While I travel and fish to some degree all over Long Island, my primary fishing and “home water” is the central north shore in the Stony Brook to Port Jefferson area.

During the striped bass season from spring to fall, I would estimate I am on the water with my fly rod a solid five days a week. I am lucky, I know, to have access to, and a quality fishery, a short walk from my home in addition to varied, quality water to fish all within a short bicycle ride or drive.

While I would call myself a serious and active striped bass angler, nearly 100% of my angling time is spent practicing catch-and-release fly fishing. In short, I do what I can to both enjoy and preserve this resource.

The Atlantic striped bass fishery is important to me for two primary reasons.

First, for me on a personal level having access to a quality and vibrant fishery gives me a healthy, outdoor activity to pursue on a nearly daily basis throughout the season. I do all of my fly fishing from shore, so chasing striped bass means walking long stretches of beach, interacting with fellow anglers, and enjoying the beauty of our coastline.

Keeping with this personal connection to the fishery, I spent years teamed up with my kids chasing these same fish. The good times and laughs we shared during that time are too many to count, but easy to remember. And both of my kids, now adults, still return home to fish for striped bass with me. This resource is a family tradition for us.

The second reason this fishery is important to me is I know, as an educator and long-time outdoor enthusiast, that a healthy striped bass fishery is critical to the well-being of the overall marine environment. I spend many hours on the water during the fishing season not fishing with my fly tethered tight to my rod, simply watching the water to see all that unfolds.

Many evenings this past season I sat on a beach and watched a striped bass blitz unfold right in front of me, with charging bass chasing bunker right up onto the sand. Down the way, horseshoe crabs dig holes for eggs while plovers pick along the shoreline. Offshore, sharks wait for a meal. All of this is connected and important, and a healthy striped bass population is a critical link in this chain.

From experience and observation, this is a critical time to make decisions about Atlantic striped bass populations.

With regard to the options being considered by your organization for Addendum 1, I

am writing to express my support for Option A (status quo): commercial quota transfers are not permitted. All other options would increase striped bass mortality at a time when the stock is rebuilding.

Sincerely,

John Parbst

johnparbst@yahoo.com

From: Freeman
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 12, 2023 10:42:55 AM

As a recreational fisherman, I am opposed to an increase in commercial harvest of stripe bass. This only makes sense.
In addition, it is irresponsible that charter boats can catch and keep more than a recreational fisherman—this leads to increased mortality.
Thank you,
Freeman Jones

From:	John Giannini
To:	Comments
Subject:	[External] Striped Bass Management
Date:	Thursday, January 12, 2023 10:39:21 AM

Gentlemen:

I urge you to abandon plans to allow transfer of commercial strped bass quota between states. As you know striped bass stocks are under constant pressure from both commercial and recreational interests putting this great resource in ever-increasing peril. This past season (2022) has shown a glimmer of hope that stocks are recovering. Please don't allow exploitation of this great game fish by commercial interests to undo progress that has been made in the management of this fishery.

Respectfully,
John P. Giannini, P.E. (Ret.)

From:	Ron Hoff
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1
Date:	Thursday, January 12, 2023 10:23:13 AM

I oppose the commercial transfer of striped bass quota. The striped Bass stocks are supposed to be rebuilt not harvested. Please do what's right for the Striped Bass.

Ronald Hoff
806 E. Chester St
Long Beach, NY 11561

From: Bill Wainger
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 12, 2023 10:20:56 AM

I am opposed to increasing the limits on commercial limits for stripped bass. I have fished the Bay for well over 50 years and the catch rate has decreased for the last 5 years or so. It is clear from my empirical observations that we currently are in a period of very significant decline. We nee Striped bass to be placed in a meaningful rebuilding period.

Furthermore, the most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels. While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is terrible and well below the assumed average being used in the assessment. Per the stock assessment, recruitment in Maryland is the strongest driver of the coast wide population. Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

I want my grandchildren to enjoy fishing for rock fish as I have, my father did and my children do. Please do not continue to foster a program which will lead to the extinction of striped bass

William Wainger

From: frybacki@outlook.com
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 12, 2023 10:13:06 AM

I oppose the commercial transfer of striped bass quota.

Francis Rybacki

From: Flynn Willsea
To: Comments
Subject: [External] Striped bass draft addendum 1
Date: Thursday, January 12, 2023 8:16:20 AM

To whom it may concern,

My name is Flynn Willsea I'm a recreational fly angler from the coast of maine. Pursuing Striped bass is a passion of mine. I have an immense amount of respect for every fish I come in contact with because I know they had to run a gauntlet of rec and commercial anglers, seals, sharks ect… just to get to me. In the future (hopefully near future) I plant to start my own guide service targeting striped bass, but in order to do that there of course has to be fish to catch. For these reasons I am in favor of option A status quo, no transfers of commercial quotas. It makes absolutely no sense to me why this is even being entertained by a board who is supposed to be doing what they can to save the species from total collapse. We need to protect the large female breeders and their reproductive habitat. Recruitment is low, mortality high, allowing the option for states to give unused quota to another state is ridiculous and counterintuitive.
Please don't screw up my future career plan. Make stripers a game fish.

Cheers

From:	Timothy Petracca
To:	Comments
Subject:	[External] Striped Bass Draft Addendum
Date:	Wednesday, January 11, 2023 4:22:45 PM

Hello, I attended the MA open meeting. Thank you and it was informative. After considering all inputs, I oppose any state quota transfers... period.
Thank you for the opportunity to provide input.
Tim Petracca

--
Timothy J. Petracca, Sr.
435-901-0831
tim.petracca@gmail.com

From: Richard Kuhlman
To: Comments
Subject: [External] Striped Bass Addendum No I
Date: Tuesday, January 10, 2023 10:30:37 PM

As a recreational fisherman who is concerned about Striped Bass' recent past status of being overfished and current status of overfished, I completely disagree with the ability to transfer quota allocations. Especially at a time when it is extremely important to rebuild the stock of a highly migratory fish.

Recreational fisherman are doing their part by accepting shorter seasons, reduced creel limits and other limitations. It is not unreasonable to expect unused quota amounts to remain in the stock to rebuild an overfished fishery for future harvest.

Richard Kuhlman
Annapolis, MD
443-515-7217

From: Bob Preble
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Tuesday, January 10, 2023 9:11:57 PM

I support Option A (status quo): Commercial quota transfers are not permitted for Addendum 1.

I am a recreational fisherman from NH who has been fishing for stripers in the Maine, NH and MA waters since the early 1990s. I've been through some very bad runs in the early years, some unbelievably great runs for a number of years, and now I've been seeing the decline in this fishery for a number of years. It's incredibly frustrating to see stock struggle after it took so long to rebuild it in the first place. I would really like to see my grandkids and their kids have some of the great fishing I've experienced in the future

I can't see how any option other than option A will support the goal of restoring the stock this decade. The stock is currently over-fished. The commercial segment targets larger fish (the breeding females), so more spawning aged fish will be removed from the population. The reallocation of commercial allotment will not add up to more fish, but rather less. We need to be as conservative as possible until the stock is recovered. Now is not the time to risk the progress that's been made.

Sincerely,
Bob Preble
Hampstead, NH

From: Emilie Franke
To: Comments
Subject: FW: [External] Striped Bass Addendum 1
Date: Tuesday, January 10, 2023 7:54:40 PM

-----Original Message-----
From: Richard Booth <reelhapy1@gmail.com>
Sent: Tuesday, January 10, 2023 1:23 PM
To: Emilie Franke <EFranke@asmfc.org>
Subject: [External] Striped Bass Addendum 1

I am writing to support Addendum 1- Option A (status quo) so commercial transfers are not permitted.

At this I also feel it is important to support phew 10 yr. Building Plan adopted in 2021 for the future of striped bass.

Thank you Capt. Richard E, Booth of Reel Happy Fishing Charters on the Hudson River in New York. Address P.O. Box 932, Cairo, NY 12413

From: Gray Lincoln
To: Comments
Subject: [External] Addendum I in Support of Option A
Date: Tuesday, January 10, 2023 7:30:49 PM

To Whom it May Concern,

My name is Gray Lincoln and I am an avid fisherman frequenting the waters between Portsmouth, NH and Kennebunkport, ME. I'm reaching out in regards to Addendum I to voice my support for Option A (maintaining status quo) to continue a ban of commercial transfers.

I was lucky to learn how to fish for stripers on Cape Cod with my late grandfather, and would like to be able to hand the same tradition down to my grandchildren when the time comes. Allowing a commercial harvest of breeding females to jeopardize the health of the stock for everyone else is unacceptable. I hope the right decision will be made to ensure a bright future for striped bass that we can all enjoy.

Thank you for your consideration,

Gray Lincoln
30 Cate St. Unit 21
Portsmouth, NH 03801

From: Jules
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Tuesday, January 10, 2023 7:09:29 PM

Hello Commissioners,

I'm in favor of Option A (Status Quo) - Transfers Not Allowed.

As an avid recreational angler, primarily fishing the NYS marine coastal district, I have seen a troubling decline in the Striped Bass fishery. I don't believe now is the appropriate time to be advocating for, proposing, or implementing any measures that seek to maximize harvest - regardless of sector. I've participated in, and attended many Striped Bass public hearings over the past few years. Two main takeaways from my attendance at these Striped Bass management hearings: One, is that the public overwhelmingly wants this species managed for abundance and diversity of age class. Two, the public is overwhelmingly frustrated with the need to keep communicating the same message through an often overwhelmingly confusing process to combat what seems like a never-ending effort to kill more fish. One doesn't need to be clairvoyant to know that this request for comment will return results with over 90% in favor of Option A. Thank you for your time and consideration.

Best regards,

Julien Frank

From: adam mastrangelo
To: Comments
Subject: [External] Striped bass draft addendum I
Date: Tuesday, January 10, 2023 2:03:15 PM

My letter:

Dear Coordinator Franke:

Please accept this message in support of Option A “status quo” as outlined in proposed Addendum I to Atlantic Striped Bass Amendment 7.

Recently, multiple consecutive years of poor recruitment, well below one third of the historic average, should be seen as particularly concerning for the future of the striped bass population. The effects of these years of alarmingly low YOY data will certainly be observed in the spawning stock biomass within the next 3-4 years. The best thing we can do for the future of both the commercial and recreational industries is rebuild the stock. Any measures, like quota sharing, that will increase the number of fish harvested are counterproductive to the goal of rebuilt stock by 2029. If a state is not utilizing its allocated potion of the quota, it is, at least in major part, due to a lack of the availability of commercial sized fish. Following the schools of fish with donated quota will put undue stress on an already depleted spawning population. Commercial and recreational fishing can coexist with a healthy stock and a stable population. Extremely weak young of the year data for four consecutive years is not an indication of a stable population. The most recent 2022 stock assessment update predicts a 78.6% chance of our current regulations successfully rebuilding the stock by 2029. The Commission should first observe a rebuilt population before entertaining any new measures that would result in greater fish mortality in either the commercial or recreational fisheries.

Respectfully submitted,

Captain Adam Mastrangelo

From:	jmanteiga@aol.com
To:	Comments
Subject:	[External] Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan Commentary
Date:	Tuesday, January 10, 2023 1:33:24 PM

To whom it may concern,

In an effort to protect stripers, especially breeders that are currently over fished, I recommend Option A – Commercial Quota transfers are not permitted.

Thanks,
John Manteiga

From: Steve Huebner
To: Comments
Subject: [External] Striper Bass Draft Addendum 1
Date: Tuesday, January 10, 2023 12:51:26 PM

Greetings,

I am asking you to **keep Option A** for this addendum and DO NOT permit the transfer of commercial quotas on striped bass. This would be a disaster to the beloved resource.

Striped bass are again in serious trouble and are FAR more valuable as a recreational resource than as a food resource for commercial harvest.

Thank you,

Steve Huebner, Hampton, NH

From: Joe Webster
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Tuesday, January 10, 2023 11:28:52 AM

Dear ASMFC,

I am writing to voice my opinion (and the opinion of anyone who wants to have a striped bass fishery in the future) that you should keep option A (status quo) and absolutely DO NOT permit the transfer of commercial quotas.

Joe Webster

From:	Rob Wofchuck
To:	Comments
Subject:	[External] Striped Bass - I support Option A on Addendum 1 (Status Quo)
Date:	Tuesday, January 10, 2023 11:15:48 AM

Dear ASMFC, thank you for all your efforts to protect the striped bass and other species. I appreciate all your efforts. I am a recreational fisherman in New Hampshire and the highlight of my summer is fishing for striped bass. I grew up in New Jersey with my dad taking me out for stripers and have been fishing for them ever since off the coasts of New York, Massachusetts, New Hampshire and Maine. I recall the 1980s when we could not fish for them at all or at least not catch any if they were there. Please do not change anything that will lessen the success to rebuild the population.

The 78% probability of rebuilding the population by 2029 seems on the low side to me to begin with. While I understand the commercial part of the impact on the population is only 12% and the surplus quotas are small, it seems like the taking of any extra fish will have an impact on the success rate. Furthermore, since it appears that states like MA target the larger breeding fish, the impact does not seem like it will be linear but exponential. Every one large female fish taken could remove hundreds or thousands of fish over the next 5 to 10 years. I understand the current modeling to assume that the commercial quota is not fully used so certainly there will be a negative impact if quotas are transferred.

I urge you to keep the status quo and not allow quotas to be transferred. Please do everything to protect this magnificent species. Thank you.

Respectfully submitted,
Robert Wofchuck
Brentwood, NH

From: Brian Kendall
To: Comments
Subject: [External] Support Option A on Striped Bass
Date: Tuesday, January 10, 2023 11:10:03 AM

Dear FMP Coordinator Franke,

As a striped bass angler, I support rebuilding the striped bass population and its iconic fishery.

As a recreational angler, I practice and advocate for the safe handling and care for these fish. I use single, barbless hooks, never bait, and I "keep 'em wet." Killing these fish only benefits a small number of well-leveraged people. We don't need these fish as a food source. Saving these fish is an economic benefit for many more people. The ecological benefit is obvious as well; these fish have a key position in the food chain.

The Striped Bass Fishery Management Plan has a strict 2029 rebuilding timeline, and the 2022 stock assessment showed the highest likelihood of rebuilding requires maintaining fishing mortality at current low levels.

As a result, it is not time to be considering management changes that expand harvest. Therefore, I support option A (status quo) commercial quota transfers are not permitted.

Thank you for considering my input.

Sincerely,

Brian Kendall
41 Lynch Rd
Lebanon, CT 06249
ebrkrules@yahoo.com

From: Fred Kretchman
To: Comments
Subject: [External] potential changes to striper fishing regs...
Date: Tuesday, January 10, 2023 8:35:16 AM

I've been a striper fly fisher for over 30 yrs. in Maine and N.H. I've seen changes in the size and numbers of stripers returning to our local waters every year… They are smaller fish on average, and not nearly as plentiful as they were even 5-10 yrs. ago. Because the migrating fish we see each year come from the Chesapeake bay, (which is already being over-fished for bait fish as well as stripers), I believe it is wise to reduce the number of commercially caught fish- not allow increased harvesting. It is my understanding that commercially caught fish that are over 35" are over 80% females, and if so, why shouldn't we protect them with lower commercial quotas? With all the pressure on our existing fisheries, we should support efforts to improve the stripers habitat, protect their bait sources, and promote the catch-and-release policies to will ensure better populations of stripers for our future generations. It doesn't make sense to allow states to manipulate their commercial harvesting to increase the numbers of stripers (especially breeding females) taken.
I support REDUCING the commercial fishing limits along the Eastern Seaboard.
Thank you for reading this,
Fred Kretchman
Kittery Point, Maine

From:	DAVID BEATTIE
To:	Comments
Subject:	[External] Commercial quota transfer
Date:	Tuesday, January 10, 2023 6:20:17 AM

Council members,
Based on the current status of the spawning stock and the very low YOY numbers, I fell
it would be beyond unacceptable to allow an increase in commercial harvest at this time, which
in effect a transfer would allow. These great game fish are far too valuable as a public resource
to be over harvested, when protection is available and currently underway.
Thank you,
Dave Beattie
NH

From:	greg barnes
To:	Comments
Subject:	[External] Public comments on transfer of commercial quota for striped bass
Date:	Monday, January 9, 2023 9:27:38 PM

With part of my livelihood based on the recreational fishery of striped bass, I would ask that you keep option A, please do not allow the transfer of commercial quotas.
Thank You
Greg Barnes

From: Gabriel Klaff
To: Comments
Subject: [External] Support for Option A (Status Quo) on Addendum I
Date: Monday, January 9, 2023 9:21:02 PM

Good Evening ASMFC,

I hope this finds you well. I am writing to express my support for Option A on Addendum I.

I started fishing for striped bass with my father at a very young age in the waters of Long Island Sound around Fairfield, CT. Although I moved around a great deal while serving in the Coast Guard, I settled on the Seacoast of New Hampshire where I have been ecstatic to be fishing for striped bass again from my kayak in the waters of Great Bay. Although my father passed at a young and untimely age, I carry those fishing memories with me throughout the year. They are as clear and impactful as the day they were made.

Seeing the data about dramatic shifts in the striped bass population over the 30-plus years in which I've known enough to pay attention tells me everything that I need to know about this issue. It is critical for us to work collectively to preserve this precious resource for future generations of recreational sport fishermen to enjoy and celebrate.

Please consider the significant, negative impacts that placing additional targets on the backs of striped bass by allowing commercial quota transfers could have on the experiences of future fishermen who haven't even had the chance to know the joy of this pursuit yet.

Thank you in advance for your consideration and stay well.

Respectfully,
Gabriel Klaff
Exeter, NH

From: Benjamin Gallahue
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Monday, January 9, 2023 8:17:59 PM

Hello,

I am writing to comment on Striped Bass Addendum I. I strongly support **Option A (Status Quo): commercial quota transfers are not permitted.**

As a deeply passionate recreational angler I have enjoyed devouring any and all material I find on striped bass fishing. This includes fishing spots, tactics, techniques, and increasingly over the past few years conservation.

The east coast's most beloved fish is in trouble, and it seems that the most important people put in place to protect these very fish are betting on its demise. Overwhelming support of scrapping CE was met with a clear effort to find and exploit loopholes while ASMFC turned a blind eye.

While this was a clear hit to those conservation minded fishermen & women, we took the hit and ran with the small wins we had in Amendment 7. Now, not even a year later, we are in the same spot with commercial fishing quotas.

This amendment should have been for the reevaluation of CE, not for another opportunity to lower the chance we have to rebuild the stock by 2029. It is insulting and simply disrespectful to those that have given so much time to attend and comment on these hearings.

Though we are upset that our voices were not heard clear enough, I do understand the pressures the ASMFC is under. Recreational fishermen, although they account for the vast majority of striped bass mortality, are not the end all be all of influence on fisheries management. All we ask is that ASMFC keeps the overwhelming support of Option A in mind when making their final decision on Addendum I.

Thank you for your time, and I appreciate all the work the ASMFC do to manage fisheries across the east coast.

Thank you,
Ben Gallahue

From: Eric Roach
To: Comments
Subject: [External] Comment: Striped Bass Draft Amendment 1
Date: Monday, January 9, 2023 7:41:07 PM

Preference: Option A (status quo)

To whom it may concern,

Due to the current, overfished state of the striped bass stock it would not make sense to allow ocean quota transfers.

I understand that the allowed ocean quota is not being fully realized (and has trended downwards), but I also understand that the 78.6% probability of the stock being recovered by 2029 is based on the fact that the commercial fishery quota is currently not being fully realized. I would not like to see any measures that allow the ocean quota to increase landings, less it negatively affect the estimated rate of the stock's recovery.

Thank you for your time and attention.

Eric Roach
Seabrook, NH

From: Ian Sawyer
To: Comments
Subject: [External] Option A: commercial quotas
Date: Monday, January 9, 2023 5:27:32 PM

I fully support option A: commercial quota transfers are not permitted.

Commercial fishing for striped bass is an abomination. These fish need to be protected and I don't think they should be harvested at all until the fishery is back to healthy levels that would allow for a sustainable harvest.

Thank you,
Ian Sawyer
Registered Maine Tidewater Guide
IG @allagashninja207

From: Duncan Barnes
To: Comments
Subject: [External] Striped Bass Amendment 1
Date: Monday, January 9, 2023 3:04:42 PM

As a longtime angler who supports conservative management of our striped bass resource, I support Option A (Status Quo) and oppose any commercial quota transfer.

Duncan Barnes
bardunc@gmail.com

From: Rich Collins
To: Comments
Subject: [External] Striper Regulations
Date: Monday, January 9, 2023 2:07:17 PM

- On Addendum I, support Option A (status quo): Commercial quota transfers should not be permitted.

Striped bass are in decline, a management plan is in place to work toward an increase in numbers by 2029 – why allow commercial fishermen more opportunities to erode the growth pattern even more just for more profit?

Please protect our striped bass populations as best as possible.

Rich Collins
Owner, Thirst Productions
(603) 799-2198
Thirstproductions.com
rich@thirstproductions.com

From: jazz4brazo
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Monday, January 9, 2023 1:13:25 PM

I am writing in support of Option A (status quo) w.r.t. commercial quota transfers NOT being permitted!!

Supporting increased commercial fishing quotas targeting breeding sized Striped Bass while such stock is recovering and rebuilding is an unsound travesty not to mention the economic impact it would have the recreational sport fishery.

Respectfully,
Pierre Brazeau
Portsmouth NH

From: Lani Hummel
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Monday, January 9, 2023 12:55:12 PM

I oppose any increase in the commercial striped bass harvest -- including a proposed plan to allow the transfer of uncaught commercial quota among states which have an Atlantic ocean striped bass commercial fishery -- while the population remains overfished and in a rebuilding phase.

The best way to rebuild the Atlantic striped bass population is to maintain fishing mortality at current levels. Continuing this strategy is particularly important at this time given Maryland's current low recruitment trend which is the strongest driver of the coast-wide population.

I lived through the Atlantic striped bass moratorium. It was an awful experience. I loved it and suffered an ugly withdrawal. I don't ever want to experience that again!

Thank you for the opportunity to submit comments,

Lani Hummel
Annapolis, MD

From:	Chris Chan
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1
Date:	Monday, January 9, 2023 12:27:29 PM

Dear ASMFC,

I am an avid saltwater recreational angler and moor a boat on the Westport River in southeastern Massachusetts.

I am interested in Striped Bass and other recreational fish management. The data are highly supportive of the conclusion that in many recent years Striped Bass are not reproducing sustainably and that overfishing is both contributory and damaging.

The ASMFC needs to ensure that Striped Bass populations are abundant now and in years to come and all of us share in this responsibility. Managing Striped Bass populations responsibly now is a long-term necessity.

I am in ***STRONG AND DETERMINED OPPOSITION TO THE PROPOSAL TO ALLOW THE TRANSFER OF UNUSED COMMERCIAL STRIPED BASS QUOTAS BETWEEN STATES.***

The Striped Bass populations need to be restored to sustainable levels and providing ways to increase the taking of fish is counterproductive. In the long run it is also economically damaging to commercial fisherman as well as recreational as it is clear that global sustainability is the solution to economic success for all fisheries. The ASMFC should establish responsible commercial quotas, addressing both current needs as well as future sustainable economic and environmental needs and not alter them unless science suggests they should be changed. *Adding complexity to the management of the commercial quotas will make a complicated situation more complicated. Do it right and keep it simple so everyone can easily understand the issues and the impacts of the quotas.*

The Board should oppose this action and ensure that it is acting on behalf of our commercial and recreational anglers and even more so on behalf of its responsibility to the fishery. They are charged with environmental optimization on behalf of their constituents which translates into economic protection, livelihood protection, and responsible ecosystem management.

Very Truly Yours,

Christopher Chan
AIA
LEED AP
Home Energy Rating System Associate

CHAN MOCK ARCHITECTS
165 Amory Street

Cambridge, MA 02139

cchan@chanmockarchitects.com
T 617 576 2508 **F** 617 547 8699
chanmockarchitects.com
Follow us on LinkedIn and facebook

From: legmaker@gmail.com
To: Comments
Cc: stripercomments@gmail.com
Subject: [External] Decrease commercial striped bass fishing
Date: Monday, January 9, 2023 11:39:25 AM

We now face another attempt by a small group of part time commercial Striped Bass fisherman to manipulate the Atlantic States Marine Fisheries Council for a short-term economic benefit of a few commercial fisherman. Transfer of quotas to the commercial sector must not be allowed.
• Most of our NH fish were reared and will spawn (if we let them…) in states with significant commercial fishing. This includes Maryland, Delaware, Virginia, and New York. We want these fish spawning and returning year after year, not killed for $2 a pound.
• Our NH visiting Striped Bass pass through Massachusetts waters to get here. The Massachusetts commercial fishery specifically targets the large breeding females (over 35”). Striped Bass are tagged after they are brought to the dealer. There is no way to be certain that these were ocean caught or harvested in rivers and bays such as the Merrimack, Annisquam, or the bays and rivers along Vineyard Sound.
• Very few fishermen make their full time living from harvesting Striped Bass commercially. The over slot fish we release in NH and Maine are directly targeted by the Massachusetts commercial fishery. There are several other states doing the same thing. The slot limit is not universal
• The practice of ‘high grading’ causes excessive mortality and waste.
• A recreational bass generates far more economic value than a dead commercial bass. The Southwick Study if interested in details.

• Im requesting that the Atlantic States Marine Fisheries Commission take no action which will increase the quota for any sector, especially the commercial sector.
• Thank You,
Chris Phillips
Durham, NH

Sent from my iPhone

From:	Wade Hinson
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Monday, January 9, 2023 10:50:26 AM

Dear Sirs,

I am the Chief of the Piscataquis, Wade Edward Hinson. I was wondering, how the panel envisions this affecting the rights of the Piscataquis under our treaty (an International, Federal and State but primarily a Defense Department Treaty)?

Thank you,
Wade Edward Hinson

From: INFO
To: Comments
Subject: [External] Addendum 1, Option A
Date: Monday, January 9, 2023 10:22:45 AM

Hi Folks,

I want to express my support for Option A on Addendum 1.

The science and previous asmfc discussions show that Striped Bass are being overfished.

I also believe that letting commercial fishers kill stripers over 35” is detrimental to the health of the striped bass population. The recreational fishers have agreed willingly to let these fish go so that they made continue to breed. It makes no sense that commercial fishers can kill them.

The health of the striped bass fishery is very important to our business. The Southwick Study showed that a healthy recreational striped bass fishery is far more profitable for many types of businesses than a commercial fishery could ever hope to be.

Thank you for taking the time to read this email.

Sincerely,

Jim Bernstein
Eldredge Bros. Fly Shop
PO Box 69
1480 US Route 1
Cape Neddick, ME 03902
(207) 363-9269
(877) 427-9345
e-mail: info@eldredgeflyshop.com
website: WWW.eldredgeflyshop.com

From: Rick Drew
To: Comments
Subject: [External] ASMFC - PUBLIC COMMENT - Addendum 1 to the Amendment 7 - Striped Bass
Date: Monday, January 9, 2023 9:39:16 AM

Dear ASMFC Board Members,
January 9th , 2023

I am writing you regarding addendum 1 to the Amendment 7 policy document on Atlantic Striped Bass. Please submit this letter into the record of public comment.

Recent stock assessment, detailed scientific research and abundant public comment have led your board to deem Atlantic Striped Bass stocks as overfished. My understanding is that this determination instructs your board to take action to rebuild the stock to healthy sustainable levels as its top priority.

In addition to the Striped Bass fishery being deemed overfished, recent young of year surveys have shown that reproduction of Striped Bass in the Cheasapeake Bay region is under performing historic averages and current target goals. It is a dismal prognosis at best.

The combination of these two factors tells us that the Striped Bass fishery is in trouble. In order to craft a successful management strategy for future years we must focus on rebuilding breeding stocks and the abundance of Striped Bass.

Currently, conservancy equivalency guidance which varies from state to state and liberal take regulations for commercial fishermen in certain states like NY, make this process extremely difficult to accomplish. For example, if you are trying to protect a key year class of fish, why would you lower the minimum size limit for take? After lengthy conversations with NY State marine biologist whom clearly stated that protecting the 2015-year class of Striped Bass was a top priority. NY elected to lower the minimum size limit for commercial harvesting down to 26 inches, which as we all know, is before Striped Bass reach breeding maturity. How do you rebuild abundance when you reduce the stock of fish before they reach breeding maturity. Perhaps what was most troubling is the fact that the 2015 class of Striped Bass were reaching an approximate length of 26 inches when this change was made. Clearly, scientific guidance from the New York State Marine biology team was ignored during this process. We have developed extensive knowledge on striped bass biology

and it needs to be applied for the greater good of the public's trust. Special interest groups should not trump the charter of the ASMFC.

Currently, my home state of NY is struggling to fund and field adequate enforcement within its marine bureau. As a result, we do not have accurate field information on illegal take (ie. poaching, both rec and commercial) or mortality from aggressive commercial fishing activities like fixed position gill netting and trawling/dragging. I will say that from numerous first hand field accounts (observations), still photography and drone videos that I have catalogued, the visuals are horrifying. We are truly steering-managing the striped bass fishery in New York State from a series of assumptions and dated algorithms. While we have no credible field documentation on poaching or mortality in my home state of NY, accounts from my friends in neighboring states indicate that this situation may be worse for them.

I have participated in NYS DEC quota transfer meetings, which focused on moving quota around on a calendar basis rather than a geographic basis, and the driving force was maximizing take and price. While these are important to a fisherman's bottom line, they cannot be done at the expense of a given fisheries overall well-being. It is not a sustainable course of action for anyone, certainly not the current Striped Bass Fishery. You should not move quota to times of the year that would conflict with breeding activities within a given region particularly when a fishery is deemed overfished or experiencing overfishing. Moving quota around geographically can have a similar effect as breeding may take place at different times of year for a given species that is found across a broad geographic range. This happens to be the case with striped bass. The venerable potpourri of take regulations makes accurate measurement of take and management of the fishery extremely difficult. Introducing intrastate commercial quota transfers will make it more difficult to successfully manage our priceless Atlantic Coast Striped Bass Fishery.

Many marine biologists and other subject matter experts would consider three years of consistent data supporting a change in the designation of a fishery status change from overfished to an acceptable level of breeder biomass to be a minimal threshold. The aggressive and somewhat hurried introduction of addendum 1 has many people confused by the ASMFC actions and are questioning their objectives? What is the underlying motivation for such a motion? Is it in line with the board's charter and objectives?

Clearly Striped Bass are deemed overfished and reproduction is down, the ASMFC has a specific charter which is intended to guide their actions when a fishery is deemed overfished. Given these three key factors the only logical decision regarding Addendum 1 is to maintain the status quo and not introduce any intrastate commercial quota transfers at this time (I.e. while Striped Bass are deemed overfished or experiencing overfishing).

Please contact me at your convenience with any questions.

Sincerely,

Rick

Richard P. Drew II
2 Powder Hill Lane
East Hampton, NY. 11937
Cell: 631-903-0951
Email: rpdrew@hotmail.com

From:	busk prescott
To:	Comments
Subject:	[External] Amendment 7, Addendum 1 - Comment on Striped Bass Commercial Quota Transfer
Date:	Sunday, January 8, 2023 9:42:39 PM

Hello,

The purpose of this communication is to express extreme opposition to the potential impact that allowance of Commercial Harvest Quota transfers between States as articulated in Addendum 1 to Amendment 7.

In order to meet the goal of rebuilding the Striped Bass Stock by 2029, it is essential that the harvest of Striped Bass up and down the Atlantic Coast be minimized by both Recreational and Commercial fishermen through the balance of this decade. The net effect of allowance of
Commercial Harvest Quota transfers between States would maximize the Commercial harvest at precisely the wrong time. In order to protect the breeder stock, it is imperative that Commercial fishermen also be required to strictly adhere to the same 28" - 35" slot limit required of Recreational fishermen.

Bass fishermen alike must remain committed to continue rebuilding the fishery stock based upon guidelines outlined in Amendment 7 to preserve this species of fish for the current and future generations.

Please take this as my formal request to say NO to Commercial Harvest Quota transfers between States.

Thanks,
Prescott Busk

Sent from my iPhone

From:	Donald Williams
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1
Date:	Sunday, January 8, 2023 7:36:00 PM

Dear Sir/Madam.

I have been fishing for striped bass for the last 62 years in Massachusetts and Rhode Island.

As you well know, the data suggest that in many recent years Striped Bass have not been reproducing in sustainable numbers. Striped Bass stocks are currently overfished.

I WRITE IN OPPOSITION TO THE PROPOSAL TO ALLOW THE TRANSFER OF UNUSED COMMERCIAL STRIPED BASS QUOTAS BETWEEN STATES.

Such a proposal is absurd on its face. Increasing the commercial harvesting of striped bass only serves the short term self interests of commercial fishers in states that would receive such re-allocations. The breeding stock will be further decreased. My gut tells me that those commercial interests will subsequently seek higher quotas to maintain the higher incomes they will enjoys from harvesting more striped bass as a result of quota reallocations. The proposal is simply not in the best interests of the fishery.

Stop the insanity!

Regards,

Don Williams

Donald C. Williams
Health Care Consultant
P.O. Box 345
Adamsville, RI 02801
401-623-0930
dclaytonwilliams@yahoo.com

From: zach bob
To: Comments
Cc: stripercomments@gmail.com
Subject: [External] Striped Bass Regulations
Date: Sunday, January 8, 2023 7:20:51 PM

Hello,
I am writing to put my effort behind increasing conservation of striped bass by reducing the recreational harvest. Studies show they are overfished as is, and it seems crazy to add more commercial harvest by allowing for the transfer of commercial quotas.

For addendum 1 I support option A, not allowing the transfer of commercial quotas.

Recreational bass in New Hampshire have to pass through intense commercial fishing. Recreational fish generate more money then commercial bass. A dead commercial bass over 35” is an added pressure on an already overfished resource.

Please protect our access to bass in NH by limiting commercial fishing.

Sincerely,
Zach Wiggin

From: Ed Bailor
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Sunday, January 8, 2023 6:46:40 PM

Please lower the commercial stripped bass limit and do not allow any netting of stripped bass, pound nets or other at all. No netting of S bass.

Inspector Ed Bailor
USCP retired

From:	matthew larkin
To:	Comments
Subject:	[External] Addendum 1 support for option A
Date:	Sunday, January 8, 2023 5:20:35 PM

I am writing on Addendum 1 to support Option A (status quo): Commercial quota transfers are not permitted regarding stripped bass management. I grew up fishing the shores of Long Island NY spending countless days running up and down the beach chasing stripped bass. I now live up the coast in NH and still spend countless days Pershing stripped bass. As my methods for recreational fishing have changed and evolved over the years so has my understanding of the species and the requirements needed to sustain a healthy population. The science shows that this species is currently being overfished and supports that greater conservation efforts are needed. What's not needed is more harvest. In addition the financial gain to the commercial fishery by allowing quota transfers is far out weighed by the economic impact of recreational anglers that would be affected by increased overfishing. Back when I was in NY I loved to catch an keeper and bring it home to my parents cook up as years went by I began setting personal limits at two fish a year, then one, then to only catch and release which I have been practicing for over 5 years. I have a degree in Environmental and Resource Economics and work in natural resource management. Please do more and to help reduce the continued overfishing.

Regards,

Matt Larkin
189 New Road
Newmarket, NH 03857
--

Matthew Larkin

189 New Road

Newmarket, NH 03857

(631) 335-3933

larkin.matthew1@gmail.com

From: Frank Bryer
To: Comments
Subject: [External] Striped bass
Date: Sunday, January 8, 2023 3:41:24 PM

Why don't we end all commercial fishing for striped bass. That will end all of this insanity.

From:	robert nolte
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Sunday, January 8, 2023 2:10:08 PM

To whom it may concern,
The stiped bass fishery in the Chesapeake Bay is in decline. Me and friends have targeted striped bass on the bay for about 20 years.
Specifically in the last 10 year period the amount of striped bass small medium and large have declined. The last 2 years we have seen very few schools of baby rockfish. There are some fish in the 10 to24 inch class available but the schools have gotten smaller and smaller. We once had a really good fishery on the bay and it is slipping away every year. I target striped bass with artificial lures 99% of the time along with practicing catch and release 99% of the time.
Several friends I fished with over the years have given up and taken on other hobbies due to how hard it can be at times to catch stripers. Maybe that is your goal to have less fisherman. There are many things going on right now in our society that make no sense and this one is so visible it must be intentional. I do not recommend increasing the catch limits on striped bass at this time. My recommendation would be to follow the red fish example moving forward.
Thank You, Robert Nolte

From: Chris Roach
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Sunday, January 8, 2023 1:58:09 PM

January 8, 2023

Hello ASMFC,

I am writing to you, because I am concerned about a proposal to allow states to transfer unused commercial harvest quotas to other states that have already maximized their own commercial harvests.

With all due respect, this does not make sense for an agency that is responsible for the stewardship of responsible fishing regulations.

It would appear that the reason states with unused commercial harvest quotas wanting to transfer those to another state, that has already maximized their own commercial quotas, is because they have over fished their state's waters. Since having over fished their waters, they now wish to over fish other states waters. This is irresponsible, if not criminal.

Your agency has a responsibility to protect fisheries and this proposal flies directly in the face of that responsibility. I do not see how anyone, with good conscience, could support this proposal. It is nothing more than an act of greed with absolutely no consideration to the well being of the stripe bass population.

Consequently, I strongly oppose the proposal, as do my fellow fishermen whether the be recreational or professional.

I thank you for your time and careful consideration.

Warm Regards,
Christopher L. Roach
904-689-6890
Roach1776@gmail.com

From: Jonathan Gertler
To: Comments
Subject: [External] Striped Bass Draft Amendment 1
Date: Sunday, January 8, 2023 10:07:31 AM

Dear ASMFC,

I am a scientist by training and an avid saltwater angler from Westport Massachusetts.

I follow the activities of the ASMFC with particular interest in the amendments and proposals that relate to Striped Bass management. The data are highly supportive of the conclusion that in many recent years Striped Bass are not reproducing sustainably and that overfishing is both contributory and damaging.

All anglers look to the ASMFC to have primary responsibility to ensure that Striped Bass populations are abundant now and in years to come and all of us share in this responsibility. Managing Striped Bass populations responsibly now is a long-term necessity.

I am writing this note in ***STRONG AND DETERMINED OPPOSITION TO THE PROPOSAL TO ALLOW THE TRANSFER OF UNUSED COMMERCIAL STRIPED BASS QUOTAS BETWEEN STATES.***

The Striped Bass populations need to be restored to sustainable levels and providing ways to increase the taking of fish is counterproductive and illogical. In the long run it is also economically damaging to commercial fisherman as it is clear that global sustainability is the solution to economic success for all fisheries. The ASMFC should establish responsible commercial quotas, addressing both current needs as well as future sustainable economic and environmental needs and not alter them unless science suggests they should be changed. *Adding complexity to the management of the commercial quotas will make a complicated situation more complicated. Do it right and keep it simple so everyone can easily understand the issues and the impacts of the quotas.*

The Board should oppose this action and ensure that it is acting on behalf of our commercial and recreational anglers and even more so on behalf of its responsibility to the fishery. They are charged with environmental optimization on behalf of their constituents which translates into economic protection, livelihood protection, and responsible ecosystem management.

Respectfully,

Jonathan P Gertler MD

photo-logo

JONATHAN P. GERTLER, MD

Managing Partner, CEO

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web: www.bblsa.com **email:** jgertler@bblsa.com
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From: Ron Moore
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Sunday, January 8, 2023 9:55:12 AM

Good morning,

As I have read through addendum I, I am appalled to hear that this addendum is nothing more than a way for commercial fishing of stripped bass to further put the fishery in jeapordy. All this addendum will due is allow states to transfer unused quota to take the most fish possible, putting this species in a virtual head lock. I have been a recreational fisherman for striped bass for nearly 25 years now. The regulations keep getting more strict, yet I read about stuff like this and it down right makes me angry. It continually puts the responsibility on the recreational fisherman to support the conservation of a struggling species, that in turn the commercial fishing sector takes advantage of. The fact that the commercial fishing sector does not have the same slot limits as recreational fisherman proves that. In my opinion, there should be no commercial fishing of striped bass allowed until the population has been brought back to par, and there should be more effort spent on the massive amount of poachers, both recreational and commercial. The transfers of commercial quota should not be allowed whatsoever. If we want to see the species flourish, we must practice a strict conservation to ensure future generations get to enjoy fishing for striped bass just as I have. Just my two cents.

Ron

From: Samuel Rice
To: Comments
Subject: [External] public comments on transfer of commercial quot
Date: Saturday, January 7, 2023 9:32:58 PM

Keep Option A (status quo) and DO NOT permit the transfer of commercial quotas.

From:	Jason Avila
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Saturday, January 7, 2023 6:33:12 PM

ASMFC Board,

My name is Jason Avila. I am resident of Massachusetts and a recreational fisherman. Any changes to the current rules for Commercial Quota Transfers can only result in greater fish mortality which is completely against the intentions of Amendment 7 and will make it more difficult to rebuild the stock by 2029. The most recent stock assessment is trending in the right direction, but I feel the numbers are still within the margin of error for a failure to rebuild. Any action taken by this board to encourage a rise in (f) is unacceptable.

Therefore, I support Option A (status quo) – Commercial quota transfers not permitted.

Thank you for the consideration,

Jason Avila
73 Dr. Braley Rd.
E. Freetown MA 02717

From: joylenmad@aol.com
To: stripercomments@gmail.com; Comments
Subject: [External] Striped Bass addendum I.
Date: Saturday, January 7, 2023 4:47:42 PM

I am writing in regard to the upcoming ASMFC Draft Addendum I to Amendment 7.
As an avid catch and release surfcaster for over 30 years I feel that any changes to Amendment 7 is not wise and that selecting Option A (status quo) is a no brainer.
In my opinion and what I experienced over the last few years is that the fishery is in trouble and you messed with it enough.
If not only for guys like me but for the next generation of fishermen and the economy of our Island, let it be.

.Sincerely
Lenny Ferro
103 Stevenson Street
Lynbrook, N.Y. 11563
(516) 596-0735

From: Ken Moeller
To: Comments
Subject: [External] Public comments on transfer of commercial quota
Date: Saturday, January 7, 2023 9:55:31 AM

ASMFC, please keep Option A and DO NOT permit the transfer of commercial quotas. Transferring the commercial quota would be detrimental to an already fragile fishery.

Thank you,
Ken Moeller

Sent from Mail for Windows

From: Greg Jewell
To: Comments
Subject: [External] Striped bass Addendum 1
Date: Saturday, January 7, 2023 9:05:09 AM

Sent from my iPhone
I am against the transfer o the Striped bass quotas between states Here we are trying to rebuild the stocks and an absurd idea such as this is floated. Where is the common sense?
C Gregory Jewell DVM

From: David Berez
To: Comments
Subject: [External] transfer of commercial quotas
Date: Friday, January 6, 2023 7:23:13 PM

Dear Sir/Madam,

This is just NUTS. Every report says striped bass are overfished. Transferring leftover quotas just continues the killing. Could not be anything dumber. DO NOT permit the transfer of commercial quotas!

David Berez

P. David Berez
65 Elm Street
Camden, Maine 04843
207-236-4911

From:	Joe Busk
To:	Comments
Subject:	[External] Amendment 7, Addendum 1 - Comment on Striped Bass Commercial Quota Transfer
Date:	Friday, January 6, 2023 4:25:00 PM

Hello,

The purpose of this communication is to express extreme opposition to the potential impact that allowance of Commercial Harvest Quota transfers between States as articulated in Addendum 1 to Amendment 7.

In order to meet the goal of rebuilding the Striped Bass Stock by 2029, it is essential that the harvest of Striped Bass up and down the Atlantic Coast be minimized by both Recreational and Commercial fishermen through the balance of this decade. The net effect of allowance of Commercial Harvest Quota transfers between States would maximize the Commercial harvest at precisely the wrong time. In order to protect the breeder stock, it is imperative that Commercial fishermen also be required to strictly adhere to the same 28" - 35" slot limit required of Recreational fishermen.

Rather than being driven by local or individual self interest; State Fishery Managers, and Commercial & Recreational Striped Bass fishermen alike must remain committed to continue rebuilding the fishery stock based upon guidelines outlined in Amendment 7 to preserve this species of fish for the current and future generations.

Just say NO to Commercial Harvest Quota transfers between States.

Thank You,

Joe Busk
Scituate, MA

From: James Shanley
To: Comments
Subject: [External] On Addendum 1, Support Option A
Date: Friday, January 6, 2023 2:14:42 PM

Atlantic State Marine Fisheries Commission
1050 N Highland St., Suite 200 A-N
Arlington, VA 22201

Dear Atlantic State Marine Fisheries Commission,

I am writing to express my support for continuing to prohibit the transfer of striped bass commercial quotas. I believe that striped bass continue to be overfished, and allowing the transfer of unmet commercial quotas would be detrimental to the effort to rebuild this important fishery.

Sincerely,

James G Shanley
170 McKinley Rd
Portsmouth, NH 03801

From: Bob Campbell
To: Comments
Subject: [External] Striped Bass Addendum I to Amendment 7
Date: Friday, January 6, 2023 1:51:16 PM

I am writing to ask the Commission to adopt Option A (status quo) disallowing commercial quota transfers.

I'm currently a New Jersey resident, but lived for considerable lengths of time, decades, in Massachusetts and Connecticut and New York State. I've surf fished from Plum Island to Wellfleet, from Watch Hill and Old Saybrook to Milford and Norwalk, Hampton Bays to the Hudson, and now the Jersey Shore, from the early '80s to now.

So I've witnessed close up our striper cycles. The data, and direct observation and catch rates, clearly point now to a severe downturn. What will our response be? To do everything possible for the health and sustaining of the fishery? Or short-term steps compromising that goal again.

Stripers should be designated a no-keep gamefish, for the obvious economic payback of recreational fisherpersons' expenditures in communities all along the Atlantic states, if not for the sake of preserving this national treasure. A treasure already under attack by a menhaden harvesting industry bent on maximum destruction of striper forage stocks, and reluctance to meaningfully limit or eliminate commercial harvests.

Please do the right thing here, now, as a great many of us citizens, not just fisherpeople, are hoping you'll do. Thank you.
Robert Campbell
Holmdel, New Jersey

From:	Toby Frey
To:	Comments
Cc:	information@ccamd.org
Subject:	[External] Striped Bass Draft Addendum
Date:	Friday, January 6, 2023 10:28:19 AM

ASMFC Board,

Everybody acknowledges the Striped Bass population is in a precarious position, young of year numbers down , flawed MRIP numbers, (which we continue to use vs funding research on new technology)...why in the world would anybody even consider an amendment that could allow greater harvest of the species...INSANE!!!

I oppose the idea of swapping quotas....I OPPOSE the Amendment !!!!

Sewell "Toby" Frey
‹*)))))›››{
Toby Frey
103 Third St.
Oxford, MD 21654
410-725-1781
Coastal Conservation Assoc. MD Board Member
MD Tidal Coastal & Recreational Fisheries Committee
MD Sport Fishing Advisory Commission
Mid Shore Fishing Club
Cambridge Skeet Club
Salt Strong Insider
Secret Dove Club

From:	Lanedave7
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 6, 2023 10:12:01 AM

Emilie Franke
FMP Coordinator
1050 N. Highland St., Suite 200 A-N
Arlington, VA 22201

I support Option A - (Status Quo) Commercial quota transfers are NOT PERMITTED.

Respectfully,
David Flood
13 Mirador Ct.
Toms River, NJ 08757
848-238-7567

From: kris magnotti
To: Comments
Subject: [External] Addendum 7
Date: Friday, January 6, 2023 8:53:21 AM

To those who can make a difference,
My name is Kris Magnotti I'm a resident of Seaford in Nassau County for the last 20 and an avid Surfcaster. I'd like my voice heard as I would like to see the future of the striped bass in a place my now 7 year old son may enjoy as he matures. I am in support of Option A -(status quo NO transfers allowed). I stress that given the state of stock and the ongoing rebuilding efforts, it would NOT be in the interest of the public or the fish to actively maximize harvest in any sector at this time. Please take care of these fish as it's not just a hobby for myself, my family, and my community it's a life long passion that can NOT be replaced.
Thank you for your time
Kris

Sent from my iPhone

From: rweiss@maine.rr.com
To: Comments
Subject: [External] Public comments on transfer of commercial quota
Date: Friday, January 6, 2023 8:26:30 AM

Dear Sirs,

I am a sport fly fisherman in the state of Maine. Over the years the striped bass fishery has declined drastically. I urge you to keep Option A (status quo) and DO NOT permit the transfer of commercial quotas.

Thank you

Robert Weiss

From: Tim Morgan
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 6, 2023 7:13:39 AM

I oppose any weakening of restrictions on the harvest of striped bass in the Chesapeake Bay. Scientific data shows that the population of bass is still recovering if not declining. My personal experience fishing for stripers confirms that conclusion. This fish drives enormous economic activity and must be protected now to sustain those benefits for the long term.

All the best,

Tim

Timothy G Morgan
474 Whitfield Rd
Cardinal, VA 23025
571.215.6944

Sent from my iPad

From: Joseph McGurrin
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 9:22:28 PM

I am opposed to the new Draft Addendum I. Controlling fishing mortality is the only immediate action we can take to help restore striped bass to abundant levels. With the many uncertainties in the recent striped bass stock assessment, now is not the time to allow any actions that could increase the harvest of striped bass. This latest Addendum I that promotes commercial quota transfers shows that the ASMFC remains unwilling to face up to the serious decline in striped bass populations. Instead of looking at measures to mollify current commercial and recreational participants in the fishery, the ASMFC needs to be looking at management measures to cut fishing mortality beyond the recent reductions in case the overly optimistic stock recovery scenario fails to materialize.

From: Garysalontai
To: Comments
Subject: [External] Striped bass addendum one
Date: Thursday, January 5, 2023 6:46:46 PM

I am opposed to the commercial transfer of striped bass quotas as they will only cause overfishing, right as the striped bass stocks are starting to get back to where they belong.
Thank you, Gary Salontai.
Sent from my iPhone

From: fmsprinkel@gmail.com
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 6:10:18 PM

I oppose any change to increase striped bass catch limits

Sent from my iPhone

From:	Ron Shamaskin
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Thursday, January 5, 2023 5:44:42 PM

I oppose any action that increases mortality of striped bass. Allowing increased commercial harvesting will deplete the population so that recreational fishing becomes impossible.

Ron Shamaskin

From: John Winston Read
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 5:35:26 PM

I oppose any increases in striped bass quotas… anyone who saltwater fishes knows that striped bass are in decline and are already under tremendous pressures..that will only increase as our climate continues to warm…

Sent from my iPhone

From:	Crae Ramsey
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Thursday, January 5, 2023 5:33:59 PM

Good evening-
I typically do not opine during public comment periods, but as a life long recreational angler from mid Atlantic region, I feel the need to weigh in on this one. I remember the late 1980's striped bass moratorium well and continue to ask myself why after so much effort we seem to be back where we started.

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

Best regards

Crae Ramsey
Mobile 202.669.0084

From: Albano, Albert
To: Comments
Subject: [External] Striped Bass FMP Amendment 7 Addendum 1 - Public Comment
Date: Thursday, January 5, 2023 3:14:23 PM

Ms. Franke,

In Section 2.2.1.2 of the Public Information document, with respect to past consideration of quota transfers, it states that "During consideration of Draft Addendum IV to Amendment 6, the Technical Committee raised concerns that transfers had the potential to increase harvest at a time when harvest reductions were needed, which contributed to the Board not approving transfers under Addendum IV (2014)." Now, per the 2022 Stock Assessment Update, the stock remains overfished yet is no longer experiencing overfishing in the terminal year (2021). So, it would seem that just because overfishing did not occur in 2021 (one year!), this attempt to increase the harvest of bass has been brought back to light. Seriously?

Later in the PID, there is another line that states: "Allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum VI in 2020." This leads the reader to wonder "what the heck is going on here?" Was the ASMFC not serious about restoring the striped bass population and fishery when they promulgated Amendment 7?

ASMFC should have discarded this proposal immediately. It should have never even been presented to the public for comment.

My selection is Status Quo. No transfer of Quotas.

Thanks,

Albert Albano
601 Chester Road
Sayville, NY 11782

From: fmsprinkel@gmail.com
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 2:57:00 PM

I oppose any actions that remove any stripped bass from any Atlantic coast or inland waters.

Sent from my iPhone

From: Corinne Green
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 1:57:06 PM

Do not allow commercial striped bass quotas to be used/transferred to other states. If you are going to allow only 1 fish per via recreational fisherman in Virginia due to issues with striped bass, WHY would you allow this????

Corinne Green
Mechanicsville, Va

Sent from my iPhone

From: Michele Kohler
To: Comments
Subject: [External] Fwd: MY OPINION: Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 1:21:51 PM

---------- Forwarded message ---------
From: **Michele Kohler** <nokofarm@gmail.com>
Date: Thu, Jan 5, 2023 at 1:17 PM
Subject: MY OPINION: Striped Bass Draft Addendum I
To: <comments@asfmc.org>

I OPPOSE the Commercial Transfer of Striped Bass Quota.

Respectfully ,

Michele Koehler

From: Karen Noe
To: Comments
Subject: [External] Stripped Bass Draft Addendum I
Date: Thursday, January 5, 2023 1:16:50 PM

I oppose the transfer of Stripped Base quotas.

From: jill Lorenz
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 8:33:08 AM

Emilie Franke,
I support Option A – (status quo). I am opposed to any commercial transfer of Striped Bass quota.
Jill Lorenz

From: bscintraclub@optonline.net
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Thursday, January 5, 2023 8:31:25 AM

To whom it may concern,
I support Option A – (status quo). I am opposed to any commercial transfer of Striped Bass quota.
Marc Lorenz

From: Craig Lorenz
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Thursday, January 5, 2023 8:30:19 AM

To whom it may concern,
I support Option A – (status quo). I am opposed to any commercial transfer of Striped Bass quota.
Craig Lorenz

Craig Lorenz
19 Morton Dr.
Lavallette, NJ, 08735

Emilie Franke

From: Peter Mohlin <pmohlin@gmail.com>
Sent: Tuesday, January 10, 2023 8:53 PM
To: Comments
Subject: [External] Striped Bass - Amendment 7, Addendum 1 Comments
Attachments: Draft Amendment 7 Comments from Maine Rec Fisherman.pdf

Categories: Auto Replied

Dear ASMFC,

I am a recreational fisherman that lives in and fishes for stripers in Maine. I am writing to you today in support of Option A - Status Quo regarding
commercial striped bass quota transfers.

Allowing the transfer of commercial quota for a species that is overfished, in any way, shape, or form, is wrong. How can we expect an overfished species to recover if states are allowed to harvest more of that species?

Less than a year ago I submitted comments on Draft Amendment 7 via email, advocating to limit the use of Conservation Equivalency and for closures of spawning areas, specifically. I have attached those comments for reference. The vast majority of the folks who commented on the Amendment 7 draft supported these conservation-minded approaches, and now, 10 months later, we are fighting against proposed regulation that could potentially reduce the stock even further.

Please consider Option A - Status Quo to prevent the transfer of commercial striped bass quota.

Thank you very much for your time. And thank you for the informative public hearing webinar I attended last night, January 9th.

Sincerely,
Pete Mohlin

From: Ken Wolf
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:06:57 PM

I oppose increased harvest of striped bass . We need to manage this species more conservatively to encourage its long term health. Thank you.

Kenneth D Wolf

Ken Wolf
636 magothy view dr
arnold , md 21012
cell (443) 280 – 1691
kwolfsden@gmail.com

From: Ben Scott
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 2:06:21 PM

Dear ASMFC,

I would like to thank you for the opportunity to comment on Draft Amendment I to Amendment 7.
I strongly support Option A (status quo): *Commercial quota transfers are not permitted.*

Addendum I can not be approved! You must work towards the rebuilding plan rather than against it. The damage Addendum I would have (if approved) would be irreversible, and catastrophic.

I ask the Board to recognize the value and importance of this fish when it is alive and in abundance. The importance of this species cannot be overstated. Striped Bass must be restored to abundance and we will no longer tolerate failure. I ask the Board to not be misled by the few outspoken critics and misguided people who oppose Striped Bass conservation measures. Striped Bass are the most important fish in our waters and need to be treated and managed with the utmost respect. You can not allow commercial quota transfers.

Striped bass are at the core of the East Coast's recreational fishing community and economy, and all eyes are on the Striped Bass Board as you decide the fate of the ASMFC's flagship species. Please take this opportunity to position this treasured species for recovery and long-term success.

Thank you,
Ben Scott

From: BILL HALLMAN 215 512 9314
To: Comments
Cc: stripers@stripersforever.org
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 2:04:36 PM

We in the mid atlantic and Northeast ask: Please do not support any Commercial catching of Striped Bass.

Support: Option A (status quo): Commercial quota transfers are not permitted.

The striped bass is the most important fish in the Recreational fishery and we support and respectfully request your support of the federal status of SPORT FISH of the Striped Bass.

From:	William Smith
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, January 13, 2023 2:02:11 PM

I support Option A (status quo): Commercial quota transfers are not permitted.
Enough is enough! The netters will destroy all that the sport guys have worked for this padst decade.

Martin V Smith, Major,USAF (Ret)
Sea Bright, NJ

From: Derrin Fund
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:02:08 PM

I oppose any increase in catch limits for striped bass. Scientists have shown fish stocks are significantly depleted. Limiting the number of fish taken by commercial fishermen will help enable reproduction rates to increase and restore the fishery.
Respectfully,
Derrin Fund
Annapolis

From: Troy Jubb
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:01:39 PM

I oppose the draft addendum.

Sent from my iPhone

From: Jesse King
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:01:36 PM

I oppose the increase of striped bass. The stock is still recovering!

Thank you,
Jesse King

Sent from my iPhone

From: Lawrence Singmaster
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 2:00:38 PM

Support: Option A (status quo): Commercial quota transfers are not permitted.

There is no place for such an addendum while the Striped Bass stock is recovering and rebuilding. We need much more time to allow for rebuilding the striped bass stock.

L. Singmaster
Cape Cod

From: Bill Harward
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:59:39 PM

I oppose any Increase in commercial harvest quantities to allow adequate time for the stock to be more replenished.

William E Harward III

Sent from my T-Mobile 5G Device
Get Outlook for Android

From: Jerome Holter
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:58:47 PM

There is no possible justification for increasing commercial limits. I fish the bay on a bi- weekly basis and have personally seen the decline in our bays great resources.

Recreational fishermen love the Chesapeake , and for the most part do all they can to preserve this great gift of nature.

If the Bay was your child , wouldn't you do all things necessary to nurture and protect your own.

We(You)have been given the responsibility to protect our own great resource. Step and protect what is our duty to preserve.

Jerome Holter

Sent from my iPhone

From: Calvert, Tom
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:58:46 PM

I am opposed to Striped Bass Draft Addendum I. The fish stock needs less pressure to recover from overfishing. I do not want to see a repeat of the Chesapeake Bay Striped Bass Moratorium from the 70's/80's.

Tom Calvert
Recreational Angler

From: Frank Morrison
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:56:02 PM

OPPOSE

Thank you, Frank Morrison

From:	Chuck Shenberger
To:	Comments
Subject:	[External] Striped bass commercial quota status
Date:	Friday, January 13, 2023 1:54:55 PM

I support option A, status quo, no commercial transfer

Chuck Shenberger
Pennsylvania
--
Charles M. Shenberger Plastering Inc.

Personal email- cshenberger3163@gmail.com

Business email- cmsplaster@comcast.net

Office phone- 610 942 7310

Cell phone- 215 839 2643

From:	tricotrout
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1
Date:	Friday, January 13, 2023 1:54:10 PM

Dear Sir and/or Madam:

My name is Timothy Perry and I am a recreational angler from Staten Island, NY. I am primarily a shore based angler that fishes in Staten Island, New York as well as New Jersey beaches from Sandy Hook to as far south as Belford Beach. I fish for many different saltwater species but I especially enjoy fishing for Atlantic striped bass in the surf with a fly rod.

With regard to the options that are being considered for Addendum 1, I would express my support for Option A to keep the status quo and NOT PERMIT commercial quota transfers. All other options would negatively impact the rebuilding Atlantic striped bass stocks by increasing mortality.

Submitted for your consideration,

Timothy Perry
Tricotrout@gmail.com

From:	Feini Yin
To:	Comments
Subject:	[External] Striped bass commercial quota transfer
Date:	Friday, January 13, 2023 1:50:27 PM

Hello,

I support option a, status quo, no commercial transfer.

Name: Feini Yin

State: New Jersey

--
Feini Yin
Strategist and Storyteller
Pronouns: they/them

FISHADELPHIA | Community Supported Fishery
W: www.fishadelphia.com **E**: feini@fishadelphia.com **P**: 908.745.9768

From: Albert Perrino
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:50:25 PM

The clear overview remains that the Striped Bass is overfished and requires continued forceful action to decrease mortality. Any action that decreases that focus, like the proposed adjustment of the commercial catch by location is not warranted at this time. When the stock is clearly increasing further consideration may be warranted.

Sent from my iPad

From:	Glenn Dixon
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 1:48:24 PM

Dear Committee members,

As a fisherman that has lived in Maryland and fished the Chesapeake Bay and off shore all of my life, I beg you to oppose Addendum 1 to Amendment 7 of the Atlantic Striped Bass Management Plan. In my opinion, as well as that of others I associate and fish with, the commercial quota should be left as it is until the Striped Bass stocks are no longer in decline and the young of the year recruitment rates show improvement.

PLEASE VOTE AGAINST ADDENDUM 1

Capt. Glenn Dixon

From: jesse.gustafson@unlimitedsir.com
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 1:48:14 PM

To Whom it may concern:

I support option A, status quo, no commercial transfer.

Respectfully,
-Jesse Gustafson
Boston, Massachusetts

Jesse Gustafson
Sales Team Leader
Unlimited Sotheby's International Realty
1334 Beacon Street
Brookline, MA 02446
Direct: 617-642-4787
Email: jesse.gustafson@UnlimitedSIR.com
JesseGustafson.com
See my Linked In Profile HERE

From: Samantha Santoro
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 1:48:02 PM

Hello - as a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

Please do what you know is right in your hearts and do not allow for more killing of this very vulnerable fish.

Thank you.

From: paul olleroma.com
To: Comments
Subject: [External] Striped Bass addendum I
Date: Friday, January 13, 2023 1:42:59 PM

Sirs,

As a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

Please do what you know is right in your hearts and do not allow for more killing of this very vulnerable fish.

Thank you

Paul Amorello
330 3rd St S Unit 702
St. Petersburg, FL 33701

From: Jackie Amorello
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 1:42:19 PM

Hello - as a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

Please do what you know is right in your hearts and do not allow for more killing of this very vulnerable fish.

Thank you.

From: Kurt Karwacky
To: Comments
Cc: Megan Ware; Patrick Keliher
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 1:42:01 PM

ASMFC,
I am in favor of management targeting the rebuilding of Striped Bass stocks. I am again disappointed in the ASMFC. The board has clearly shown that they don't have the Striped Bass or the public's desires in mind when making management decisions. Addendum I should never have become an option and does not help the rebuilding of the Striped Bass stocks.

I am in favor of:

Option A (status quo): Commercial quota transfers are not permitted

Kurt Karwacky
Brunswick, Maine

From: eliot jenkins
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 1:41:59 PM

I am out on the water everyday in the summer months in Ipswich Ma. I am a striper fishing guide and I am opposed to any commercial fishing for these magnificent fish. I am also opposed to killing them recreationally. The fishing has become steadily worse in the last 15 yrs. And I support the most stringent catch & release practices on these fish. Please do not expand the take on commercial bass fishing. It's the worst for protecting big breeding bass.

Thanks

Eliot Jenkins
Greasybeaksflyfishing.com
541-868-6356

From: Andrew McDonald
To: Comments
Subject: [External] striped bass quota transfer
Date: Friday, January 13, 2023 1:41:48 PM

I support option A, status quo, no transfers.

Signed,

Andrew McDonald, Connecticut

From: Robert Davis Jr
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:41:29 PM

Don’t increase catch. All I know
, it is tough to catch a legal fish theses days.

Sent from my iPad

From:	Grigoriy Losyev
To:	Comments
Subject:	[External] striped bass quota transfer
Date:	Friday, January 13, 2023 1:40:23 PM

---

i support option a. status quo no transfers.

Grigoriy Losyev MA

From: Deron Simpson
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:40:05 PM

I oppose allowing commercial quota transfers and urge the Board to support Option A (status quo).

Regards,

Deron Simpson

Office 410-902-0357
Mobile 443-744-0667

www.signalsdefense.com

From:	Scott Larson
To:	Comments
Subject:	[External] Striped Bass commercial quota transfer
Date:	Friday, January 13, 2023 1:38:50 PM

I support option A, status quo, no commercial transfer.

Scott Larson
Plymouth, MA

From: Tyler Harper
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 1:38:23 PM

To Whom It May Concern,

My name Is Dr. Tyler Harper. I'm an assistant professor of Environmental Studies at Bates College in Maine and, more importantly, I am a diehard surfcaster. I am writing to voice my support for option A: maintaining the status quo with no commercial transfer.

The idea of a commercial transfer is patently nonsensical at a moment when our striped bass stocks are imperiled in a way not seen in decades. In addition to the abundance of scientific evidence pointing to a decline, my fellow fishermen up in Maine have all noticed the drastic reduction in small, sub-20" stripers. Of the hundreds and hundreds of stripers I caught this year, I landed fewer than two dozen fish under 20". The lack of small stripers is profoundly concerning from a conservation standpoint, and was one of the key warning signs during the previous collapse. The red flags are here: we need to act.

As both a professor or Environmental Studies and as an angler, I know that if we are going to avoid a moratorium, we need to do everything we can to reduce striped bass mortality. Allowing commercial transfers does the opposite of that and I sincerely hope you will heed the advice of the many anglers writing to you to voice their opposition to that proposal.

Thank you for your important work. I realize that your job is not easy, and is often thankless.

Tyler
--
Tyler Austin Harper, Ph.D.
Assistant Professor of Environmental Studies
Bates College
Lewiston, Maine 04240
Pronouns: he/him/his

From: Michael Pochettino
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:36:02 PM

As a recreational angler on the Chesapeake Bay, I am opposed to this addendum. It is clear that Striped Bass populations are still depressed relative to a decade ago, and given this indisputable fact, there is no rationale that could justify an increased harvest that will only benefit a few people at the expense of slowing the rebuild of the overall stock.

Sincerely,
Michael Pochettino

Sent from my iPhone

From: Fletch1951
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 1:34:31 PM

I am totally opposed to increasing by any means commercial striped bass harvest. This is a reckless and irresponsible policy being proposed. The commercial targeting of striped bass needs to be eliminated to allow stock to rebuild.

From: Tom Doyle
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 1:33:56 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

There is no place for commercial quota transfers while the Striped Bass stock is recovering and rebuilding. The data shows it as does the naked eye to us fisherman on the front lines. This fishery is much more valuable when the numbers are up and everyone along the coast is getting fish. Like it was after the last moratorium - fishing was excellent. That is no longer the case.

thank you for your consideration,
Tom Doyle
Concerned Angler

From: Mathew Demikat
To: Comments
Subject: [External] Striped bass fishing quota
Date: Friday, January 13, 2023 1:33:18 PM

I support option a, status quo, no commercial transfer.

Mathew

From: Mark Phillips
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 1:32:21 PM

Hello,
In regards to Striped Bass Amendment 7 Addendum 1, I support Option A (status quo): Commercial quota transfers are not permitted.

Mark Phillips

From: Kendall Keer
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 1:32:08 PM

I support option a, status quo, no commercial quota transfer

Kendall Keer
New Jersey

Sent from my iPhone

From: Andrew Parsons
To: Comments
Subject: [External] Quota
Date: Friday, January 13, 2023 1:31:42 PM

I support option A, status quo, no transfers.
Andrew Parsons, Maine

Sent from my iPhone

From: John Lefeber
To: Comments
Cc: Dan Mckiernan; Raymond Kane; Sarah.Peake@mahouse.gov; Sarah Ferrara
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 1:31:37 PM

Hello ASMFC,

My name is John Lefeber. I am an avid angler here in Massachussetes and a lover of the Striped Bass.

I am deeply troubled to have to write to you, yet again, to fight for Striped Bass conservation.

I would like to add my comment on Addendum 1 around Commercial Quota Transfers. I beg you to select Option A (Status Quo).

Option A (status quo): Commercial quota transfers are not permitted.

I do not need to remind you that public trust for the ASMFC is at an all time low. If you need to ask yourself as to why, these types of actions are your answer. Only a matter of months ago, Amendment 7 passed with the vast majority of public comments being in favor of conservation and limiting mortality. ASMFC then backdoored CE as an option based on flawed stock data from 2020 and 2021. Then say that there is no appetite for an addendum AND THEN introduce an addendum to increase fishing pressure through Commercial Quota Transfers. That is why people do not trust you or the process which you own and follow.

Allowing for any level of quota transfers will only hurt our ability to help stock levels (which are teetering) and will only continue to prove to the public that the process cannot be trusted.

We are in a pivotal moment where we can either fast track the recovery of Striped Bass or fast track public disdain for ASMFC and lack of trust in the process.

Not selecting Option A will only hurt our ability to recover our Striped Bass fishery. Option A is our only way the future has a sustainable Striped Bass population.

Thank you,
John Lefeber

From: JOHN JELLISON
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 1:31:22 PM

To whom it may concern:

I support option a, status quo, no commercial transfer.

Thank you.

John Jellison

From: Mark Zaucha
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:29:40 PM

I oppose any change increasing stripper harvest. We need to increase spawning & recruitment of young.

Sent from my iPad

From:	Mike Sjoholm
To:	Comments
Subject:	[External] Striped Bass Quota Transfer
Date:	Friday, January 13, 2023 1:28:53 PM

Hi –

I am writing to let you know that I support Option A, Status Quo - NO Transfers ….

Best,

Michael S. Sjöholm
New York State

From:	Steven Brennan
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, January 13, 2023 1:28:24 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Members of the AFMFC,

The transfer of striped bass quotas in the face of the need to rebuild the stock runs contrary to the mission and to common sense. A quota transfer all but guarantees that the maximum number of striped bass will be taken. This is no way to allow an overfished population to recover.

Please disallow the transfer of striped bass quotas and choose Option A, the maintenance of the status quo.

Thank you very much for your time and consideration.

Best regards,

Steve Brennan

From: Amanda Witte
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:27:05 PM

Hello,

Please accept my opposition Draft Addendum I. I'm an avid angler, Maryland resident, and mom. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels. I want to ensure the fishery remains stable so my son can grow-up fishing striped bass, and his kids, and so on - it's intrinsic to Maryland culture, economic success, and life.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment. As responsible anglers, we do everything we can to decrease striped bass mortality in the water, and on the boat. Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

Sincerely,

Amanda Witte

From: Fengler, Nicholas
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 1:26:09 PM

To Whom it may concern:

I support option a, status quo, no transfers.

Sincerely,
Nicholas Fengler (Long Island, New York)

From: martinfarber
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 1:23:16 PM

I support Option A (status quo): Commercial quota transfers are not permitted.
Allowing any increase in the harvesting of these fish would appear to be counterproductive.

Thank you,
Martin Farber

From: Stanley Cebula
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:23:13 PM

I am against striped bass draft addendum 1. Please vote no. No additional increases or transfers should occur until the menhaden catches in the southern bay and ocean are addressed. There is not enough food for striped bass in this area to allow an increase in harvests

From: Ryan Willis
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:21:31 PM

I oppose addendum 1 of the proposed striped bass regulations. We need to fight harder to save the breed for future generations.

Ryan Willis

From: bhald70383@aol.com
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 1:20:19 PM

I support option A, status quo, no commercial transfer.

Byrne Haldeman
34 Rosalind Rd
Brick NJ 08724

From:	Chris Morgan
To:	Comments
Cc:	CCA Maryland
Subject:	[External] Striped Bass Limits
Date:	Friday, January 13, 2023 1:17:44 PM

Hello,

I live in Southern Maryland and fish the Chesapeake Bay and its tributaries regularly. I remember the stiped bass moratorium of the last century and I fear that we will return to that if immediate action is not taken to limit the harvest of commercial fisheries, including the overharvesting of Atlantic Menhaden. In addition I propose a slot size be imposed on Striped Bass as is done on Red Drum.

Thank you,

Chris Morgan

19484 Pristine Way

Drayden, MD 20630

From: Chris
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:17:06 PM

Opposed to increase limits ,
Here is a novel idea :
Ban chumming for stiped bass the last 2 weeks of July & 1st 2 weeks of August
Might not see undersized dead fish floating in the bay

From: Robert Krueger
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:15:47 PM

Sent from my iPhone
Oppose.

From: Paul Spinola
To: Comments
Subject: [External] Quota Transfer
Date: Friday, January 13, 2023 1:14:21 PM

I support option A , status quo, no transfers.

Paul Spinola
Massachusetts

Get Outlook for Android

From: John Perrone
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 1:13:49 PM

Hi my name is John Perrone from MA I support option A , status quo, no commercial transfer
Thank you

Sent from my iPhone

From: LAWRENCE METZGER
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 1:12:56 PM

I select option A

Status quo
No commercial transfer
Larry Metzger
732-740-3867

Sent from my iPhone

From: Mike Parks
To: Comments
Subject: [External] Striped bass fishing quota
Date: Friday, January 13, 2023 1:11:13 PM

I oppose the commercial transfer of striped bass fishing quota.
Thank you..
Mike Parks New Jersey

From: Michael Hurley
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 1:10:53 PM

Hello,

As a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

Please do what you know is right in your hearts and do not allow for more killing of this very vulnerable fish.

Thank you,
Michael Hurley

__
Michael J. Hurley
Michael.Hurley57@gmail.com

From: Fred Gers
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:09:27 PM

It’s crazy to even think about transferring quotes when trying to rebuild. If this is being proposed by a scientist we need their qualifications checked

Sent from my iPhone

From: William May
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:07:43 PM

This resource needs to recover more for the near future.

Sent from Mail for Windows

From: Harold Fries
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 1:07:10 PM

To whom it may concern,

I support option a, status quo, no commercial transfer

Harold Fries
21 Oraton Dr
Cranford, NJ 07016

Sent from my iPhone

From: Jamie Clough
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:05:20 PM

I whole heartedly oppose any increase in the striped bass harvest..
As a guide I see the killing first hand..
I practice proper catch and release all year and only occasionally kill a fish..
I remember how it used to be and I see how the population is being destroyed today..
Unfortunately I live in the kill state Maryland where killing is the norm
For once do what's right for the fish and not what the killers want..
If they have their way they would kill these fish Into oblivion and blame the recreational fisherman..
Capt Jamie Clough
Eastern Shore Light Tackle Charters

From: Matty Bauer
To: Comments
Subject: [External] Striped Bass Transfer Quota
Date: Friday, January 13, 2023 1:05:16 PM

To whom it may concern,

I support option A, status quo, no transfer.

Thank you,

Matt Bauer, Tiverton, RI

Sent from my iPhone

From: Bradford Burns
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 1:03:58 PM

I have been fishing for striped bass for 60 years. I can tell you that the general trend since about 2000 has been down. Yes there have been some very good periods, but they get fewer and fewer. We have no large stripers at all compared to what we had 25 years ago, and the number of smaller stripers is just a shadow of what is was in the 1990s. On top of that we have had some extremely poor YOY counts that aren't really in the system yet. Nothing should be done which in any way has even the potential to increase mortality.

I support Option A (status quo): Commercial quota transfers are not permitted.

From: Harold Fries
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 1:03:51 PM

To whom it may concern,

I support option a, status quo, no commercial transfer

Sent from my iPhone

From: Robert DeSantis
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 1:02:52 PM

I am strongly opposed to any increase in the striped bass fishery. In fact, I feel that a moratorium is in order.

I have fished the Bay for over 50 years and I've seen the good and the bad. The sad part about limits and laws is that some sportsman as well as professional captains and commercial fisherman, against their own long term interests, ignore them. They continue to keep undersized fish and exceed catch limits. That is why I am in favor of a moratorium.

But the striped bass is so important to the Bay on so many levels, risking their continued decline is shortsighted. Ultimately, it is bad for all fisherman, bad for the health of the Chesapeake watershed, and shows a lack of commitment on the part of those tasked with being stewards of this magnificent resource.

Robert DeSantis
Severna Park

From:	TERRENCE LYONS
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, January 13, 2023 1:02:31 PM

I support Option A (status quo): Commercial quota transfers are not permitted. If one area is not meeting its quota that in itself indicates that there could be a problem with the fishery.

Thank You For Your Consideration.

Terrence Lyons
312 Central St.
Foxboro, MA 02035

From:	David Kiser
To:	Comments
Subject:	[External] NO transfer of quota!
Date:	Friday, January 13, 2023 1:01:39 PM

I firmly support **option A**, no transfers of quota and maintain the status quo!

David Kiser, New Hampshire

From: Eric Malone
To: Comments
Subject: [External] Striped bass quote transfer
Date: Friday, January 13, 2023 12:59:21 PM

I support Option A, status quo, NO QUOTA TRANSFERS.

I would also like to add that suggesting such a ridiculous, short sighted idea while the stock is overfished is complete and selfish lunacy by the Board that goes against all earlier public comments where an overwhelming majority of anglers expressed interest in MORE CONSERVATION not more harvest.

Eric Malone
New York

From: J T
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:59:18 PM

To whom it may concern:

I do not support the idea of commercial quota transfer. I support option A, no commercial transfer. Let's do whats best for our striped bass population.

Sincerely
John Tombros
188 Oak St, Pembroke, MA 02359

From: Rick Hickox
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:59:02 PM

To whom it may concern,

I support Option A, status quo with no commercial transfer.

thank you,
Rick Hickox
Gloucester, MA

From: shawn gibson
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 12:58:42 PM

To whom it may concern,

I oppose the transfer of commercial quota between states. It is ridiculous to even consider such a change during a stock rebuild.

Sincerely,

Shawn Gibson

Wound Tight Sportfishing LLC
Reel Current Offshore LLC
Miss Lizzy Fishing Charters LLC
410-610-6283

From:	Bill Fiora
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Friday, January 13, 2023 12:58:18 PM

Greetings.

I am a Massachusetts-based recreational angler writing to express my support for Option A, which will extend the status quo and not allow for commercial quota transfers across states.

Sincerely,

Bill Fiora

From: jcabrera978@gmail.com
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 12:58:13 PM

I support option A, status quo, no commercial transfer.

Jonathan Cabrera, Massachusetts.

Sent from my iPhone

From: JPM
To: Comments
Subject: [External] Opposition to Addendum 1 - Striped Bass
Date: Friday, January 13, 2023 12:57:27 PM

I'm old enough to remember the moratorium and what caused it along with the results. I can't understand what you public servants are missing with regard to this situation. Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

From: Gregory McCrickard
To: Comments
Subject: [External] In support of Option A
Date: Friday, January 13, 2023 12:57:21 PM

I am a long time recreational fisherman who enjoys fly fishing for Striped Bass. Over the last many years I have seen the population crash, recover, and now crash again. Recruitment has been very poor the last few years. We are in danger of another bust in striper numbers.
Thus I support Option A:Status Quo/No Commercial Quota Transfers.
Let's save the population while we can.

Greg McCrickard
Ruxton, Md.

Sent from my iPhone

From: colin lennon
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 12:56:43 PM

The Striped Bass population is already overfished. There is no good reason for this to pass. As a recreational angler I agree with the current regulations put on the recreational folks. It is time for the commercial fisherman to do their fair share in the protection of Stripe Bass population.

I feel that if this addendum passes we run the risk of further hurting the Bass population to a point of no recovery. Let's make the right decision on this one.

Sincerely,
Colin Lennon

Sent from my iPhone

From: Toby Lapinski
To: Comments
Subject: [External] Commercial Quota Transfer - Striped Bass
Date: Friday, January 13, 2023 12:55:52 PM

My name is Toby Lapinski and I have been recreationally fishing for striped bass for nearly 40 years. I am a resident of Connecticut and fish for striped bass in Connecticut, New York, Rhode Island and Massachusetts waters. I support option A, status quo. While I am not opposed to commercial fishing as it stands, I am opposed to any transfer of commercial quota from state to state. Thank you.

From:	Tim Bubnack
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Friday, January 13, 2023 12:55:06 PM

Hello,

As a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

Please do not allow for more killing of this very vulnerable fish.

Thank you

From: john rowley
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:54:30 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Please keep the status quo, now is not the time to maximize commercial harvest.

Thank you,
John Rowley

From: John Weber
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 12:54:00 PM

Dear Sirs/Madams:

Please protect this species! If a quota is not caught, there is a strong argue between that is due to lack of fish which is have directly experienced over the past 10 years on the bay. Why then provide a means to again target and harvest those fish?

I am strongly against transferring any quotas and hope that you will do the right thing for the resource.

Thank you

John Weber

Sent from my iPhone

From: Simon Stacey
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 12:53:31 PM

Dear Atlantic States Marine Fisheries Commission,

I am writing to express my deep opposition to Draft Addendum I, which I do not believe adequately protects the region's vulnerable striped bass population. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

Yours sincerely,

Simon Stacey

From: John Ballance
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 12:52:38 PM

I oppose also.

J. H. Ballance Jr.

From: Oliver Murray
To: Comments
Subject: [External] Striped bass addendum I
Date: Friday, January 13, 2023 12:52:09 PM

Hello - as a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

please do what you know is right in your hearts and do not allow for more killing of this very vulnerable fish.

Thank you,
Oliver murray

Sent from my iPhone

From:	Will Hallett
To:	Comments
Subject:	[External] Stop the transfer of striped bass commercial quota
Date:	Friday, January 13, 2023 12:48:58 PM

Hello,

I am quickly writing this to comment that I support option a, the status quo of no commercial transfer. This transfer will no doubt lead to a lot more fish taken from our ocean. There is finally more and more people who realize that the striped bass stock isn't going too well right now and who want to see that turned around. Allowing a commercial transfer would be a big step in the wrong direction.

Thankyou William hallett

From: travis ricciarelli
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:48:41 PM

I support option a,
status quo, no commercial transfer

Travis Ricciarelli, Massachusetts

From: hunter.priebe8@gmail.com
To: Comments
Subject: [External] Support Option A - keep status quo
Date: Friday, January 13, 2023 12:46:58 PM

Hello - as a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

Please do what you know is right in your hearts and do not allow for more killing of this very vulnerable fish.

Thank you,
Hunter Priebe

From: Anthony Sarcona
To: Comments
Subject: [External] Public Comments: Amendment 7
Date: Friday, January 13, 2023 12:46:38 PM

To ASMFC Board,

As a recreational angler and guide in Maine, I would like to show my support for Option A: No Commercial Quota Transfers. The health of the striped bass fishery is clearly in a decline and changes need to be made to even attempt to rebuild it. Please listen to the majority voice of the public. Thank you.

Sincerely,
Tony Sarcona
Maine_Flyfish Guide Services

From: Monee Morrisette
To: Comments
Subject: [External] Striped Bass Comments
Date: Friday, January 13, 2023 12:45:03 PM

We boat and fish primarily on the rivers and bays of New Hampshire many days each year. Fishing for Striped Bass is included in almost every one of these outings.

As they are overfished, we need to protect them, not allow additinal killing.

I therefore support Option A - Status quo.

Thank You.

Adam Stewart
Durham, NH

Sent from my iPhone

From: William Parish
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:44:33 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Thank you,
Bill Parish
Orleans, MA

From: Justin Mangiante
To: Comments
Subject: [External] No transfer of quota
Date: Friday, January 13, 2023 12:44:21 PM

I support option A , no transfer and status quo

Justin mangiante, Rhode Island

Sent from my iPhone

From: AJ Carreiro
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:43:08 PM

As a former commercial fisherman, I support option a, status quo, no commercial transfer.

From: Foehring, Robert C
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:42:06 PM

I support option a, status quo, no commercial transfer.

Robert C. Foehring
3540 Charleswood Avenue
Memphis, Tennessee 38122

From: Frederick Thurber
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:41:29 PM

I cannot believe that you would even consider the Quota Transfer.

I support Option A (status quo): Commercial quota transfers are not permitted. Don't be swayed by short-term greed of the commercials.

Sincerely,

Frederick Thurber
South Dartmouth, MA

From: Shiko Boxman
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 12:37:22 PM

Support: Option A (status quo): Commercial quota transfers are not permitted.

Best,

YS Boxman

From: Shane Gibson
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 12:34:15 PM

I support option A, status quo, no commercial transfer
Shane Gibson, New Jersey

Sent from my iPhone

From: Jeffrey Amorello
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 12:34:12 PM

Hello - as a concerned recreational striped bass angler with the goal of striped bass abundance and rebuilding the fishery and striped bass stock by the 2029 target, I strongly support Option A (status quo): Commercial quota transfers are not permitted.

please do what you know is right in your hearts and do not allow for more killing of this very vulnerable fish.

Thank you,
Jeff Amorello.

From: jay Bonanno
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 12:32:51 PM

I Support Option A. Status Quo, NO COMMERCIAL TRANSFER!

Jay Bonanno
201-723-7844
jay.bonanno@gmail.com

From: Alex Duda
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 12:31:49 PM

To whom it may concern,

I support option a, status quo, no transfers.

Alex Duda
Massachusetts resident and licensed Saltwater fisherman

Sent from my iPhone

From: jasper giles
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 12:31:22 PM

I support option A, status quo, no transfers

Jasper Giles
Buckinghamshire, UK

From: Kyle Schaefer
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:31:05 PM

Hello:

I would like to submit comments on the Striped Bass Addendum 1 that is currently under consideration.

I am in favor of Option A: Status Quo

Thanks for the consideration.

Best,

Kyle Schaefer
US & WhatsApp - 603.969.3050
Bahamas - 242.451.8758
Soul Fly Lodge // Bahamas Flats || IG: @SoulFlyLodge
Soul Fly Outfitters // Maine Stripers || IG: @KyleSchaeferFlyFishing

From: Kevin LaCroix
To: Comments
Subject: [External] Stiped Bass Addendum I
Date: Friday, January 13, 2023 12:29:01 PM

In support of Option A, Commercial quota transfers should certainly not be permitted. This type of action would be detrimental to the stock of Striped Bass. There are a TON of un-reported methods of striped bass killing that is contributing to the lack of population.

At this point, it is obvious we need to rebuild the population and not do the opposite. Making Striped Bass a protected gamefish is truly the best way to go. The tourism alone that would be created from a flourishing Striper population would be worth way more than the commercial industry.

It is important we manage a declining fishery properly and before anything really drastic happens. Please be ahead of the decline and not be behind. Many of us support Option A and beyond !!

Sincerely,
Kevin LaCrox

Ps- I have spent my whole life respecting the ocean and its inhabitants, this is near and dear to me and many other people. WE MUST PROTECT OUR BELOVED STRIPERS.

From: Jacob Gross
To: Comments
Subject: [External]
Date: Friday, January 13, 2023 12:27:15 PM

Completely ban the harvest of striped bass. The stocks are low and still recovering. We need to do everything in our power to get the stock back to a healthy level.

From: Chase Porter
To: Comments
Subject: [External] stripe bass quota transfer
Date: Friday, January 13, 2023 12:27:09 PM

---

i support option A, status quo, no transfers

(chase porter, maine)

From: Chris MacClinchy
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:26:46 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

It is absolutely insane to allow commercial transfers while the striped bass are still recovering!!! Now is absolutely the wrong time to maximize the commercial quotas!

Regards,
Chris MacClinchy
Kennebunk, ME

Sent from my iPhone

From: Mike Randall
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 12:26:14 PM

I support option A, status quo, no transfers.

(Mike Randall, Maine)

Get Outlook for iOS

From: Craig Arms
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:24:37 PM

I support option a, status quo, no commercial transfer

Craig Arms, Massachusetts

From: Mike Evans
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 12:22:37 PM

I support option A, status quo, no transfers.

Mike Evans, Massachusetts

From: Evans, Michael
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 12:22:22 PM

I support option A, status quo, no transfers.

Mike Evans, Massachusetts

--
Mike Evans, M.Ed
Director of Auxiliary Programming
St. John's Prep
72 Spring Street
Danvers, MA 01923
p: (978) 624-1470 x270
e: mevans@stjohnsprep.org
w: stjohnsprep.org eaglesedgeprograms.org

From: Anthony Alessi
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:21:20 PM

I support option A, status quo, no commercial quota transfer!

Anthony Alessi - NYS

From: The Andersons
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:21:08 PM

I support Option A (status quo): Commercial quota transfers are not permitted. Does it not occur to the asmfc that the reason quotas are not being met is the lack of fish? You really can't be considering any commercial quota increases! I urge you to go with Option A or even better reduce the commercial quota until sustainable levels are achieved for at least a full breeding cycle.

Cordially,
Earl D. Anderson III

From: Dan Mayberry
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:19:58 PM

I support option A, status quo, no commercial transfer.

Thank you,
Daniel Mayberry
New York

From: Mark Seymour
To: Comments
Subject: [External] Option A
Date: Friday, January 13, 2023 12:19:16 PM

I'm writing to voice my support for Option A. It's the only one that makes sense.

Mark@fishhookvineyards.com

From: Bob Drapcho
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:16:57 PM

I support Option A (status quo): Commercial quota transfers are not permitted.
Please Please do not transfer the quotas. Striped Bass need the large females to spawn.
Instead of transferring quotas I urge you stop commercial fishing for stripers altogether. They should be declared a sport fish and are worth far more to the east coast as a sport fish! All the studies have proven this!!!
Please let this fish rebound to previous numbers so that my children and grandchildren can catch them. There is plenty of other seafood available other than stripers.

Thank You
Bob Drapcho
Greene,R.I.

From:	Kieran Alessi
To:	Comments
Subject:	[External] Striped bass commercial quota transfer
Date:	Friday, January 13, 2023 12:16:57 PM

Hi there,

Last email was formatted incorrectly, sorry:

I support option a, status quo, no commercial transfer

Name:
Kieran Alessi

State:
New Jersey

From: Frank Brady
To: Comments
Subject: [External] Bass
Date: Friday, January 13, 2023 12:15:40 PM

Option A please!
No commercial transfer of unused quota
Thank you
Frank Brady

Sent from my iPhone

From: epriovolos@lemekllc.com
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 12:15:21 PM
Importance: High

I support option A, status quo, NO TRANSFERS.

Thanks.

Evan Priovolos
Lemek LLC/Lemek Slower Lower LLC
443-552-0708

From: Paul PDA
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:14:58 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Only the slightest change in F greatly reduces the percent chance of bringing the SSB above the threshold and target. F changing from 0.1363 to 0.2013, resulting in a dramatic change in the percentage chance of getting the SSB above the threshold and target. We quickly go from a 96.7% probability of getting the SSB above the threshold to 59.4%. The probability of getting the SSB above the target goes from roughly 78.6% to a scary 30.5%.

From: Robert Huddy
To: Comments
Subject: [External] Striped bass commercial quota transfer comment
Date: Friday, January 13, 2023 12:12:47 PM

To whom is may concern

I am writing to express my support for option a, status quo, no commercial transfer between states.

I (and all the recreational fisherman I know) strongly believe that states being unable to fill their individual quotas is a strong indication that the striped bass fishery remains in a poor state and transferring quotas between states would only further decrease the state of the fishery.

Thank you for your consideration

Bob Huddy
38 Brookridge Drive
Avon CT 06001
860-673-0312

From:	Tom Brightman
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, January 13, 2023 12:11:13 PM

Hello:

I would like to submit comments on the Striped Bass Addendum 1 that is currently under consideration.

I am in favor of Option A: Status Quo

As Captain Peter Fallon so eloquently observed at the January 9th ASFMC webinar, "Now is not the time to risk the progress we have seen recently by increasing the commercial harvest. The ASMFC draft document for public comment states that 'allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum 6 in 2020.' […] During the Addendum 6 process, the technical committee noted that the reduction in the commercial quota would achieve the necessary reduction in commercial removals only if the commercial fishery performs as it has in the past. This assumption may be violated if the commercial transfers in the ocean region are permitted."

Additionally, any decision other than Option A: Status Quo would endanger the steps for rebuilding the striped bass stock, especially the breeding females (currently Overfished), that is at the core of Striped Bass Amendment 7. It makes no sense to allow expanded access to harvesting large breeding age females, when they are critical to the success of stock rebuilding efforts.

Further, these large bass are also the ones that typically accumulate many toxins, making them unfit for human consumption in many cases.

To reiterate, I am in favor of choosing Option A: Status Quo.

Thank you for your time in reviewing and considering these comments.

Tom

Tom Brightman
1 Clearwater Drive
Dover, NH 03820

From: Jack Foell
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 12:10:34 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

From: Michael Amelang
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:09:36 PM

I support option A, status quo,No commercial transfer.

Michael Amelang
Ocean Link Inc.
1 Maritime Drive
Portsmouth, R.I. 02871
p. 401-683-4434
f. 401-683-3388

From:	John Steele
To:	Comments
Subject:	[External] Striped Bass Commercial Quota Transfer
Date:	Friday, January 13, 2023 12:08:52 PM

To Whom It May Concern,

I support Option A: status quo, no commercial transfer. The striped bass need a break.

Respectfully,

John Steele
Bourne, Massachusetts 02532

From: Andrew Kirby
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:08:50 PM

I support option A, status quo, no commercial transfer.

Thank you,

Andrew kirby

Sent from my iPhone

From: Emmons Whited
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 12:08:33 PM

I support option A, status quo, no transfer

John Whited, Maine

From:	Andy Boynton
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, January 13, 2023 12:07:57 PM

Greetings....

I am an avid sports fisherman and want to preserve the future of striped bass fishing for all!

I support Option A (status quo): Commercial quota transfers are not permitted.

The striper population is recovering and rebuilding. Let's keep the momentum going.

Thank you, Andy Boynton

Andy Boynton
John and Linda Powers Family Dean
Carroll School of Management
Boston College
140 Commonwealth Avenue
Chestnut Hill, MA 02467

boyntona@bc.edu
617-552-8420 (p)
617-552-8738 (f)

From:	Mark Brozek
To:	Comments
Cc:	saltyflyroddersofny@gmail.com
Subject:	[External] Striped Bass Draft addendum I
Date:	Friday, January 13, 2023 12:06:24 PM

To whom this may concern,

I am a recreational angler from NY, and I primarily fish in LI Sound, and on the south shore of Long Island The Atlantic striped bass fishery is important to me because I feel the Stripped Bass fishery remains at risk.

With regard to the options being considered for Addendum 1, I am writing to express my support for Option A (status quo): commercial quota transfers are not permitted. All other options would increase mortality at a time when the stock is rebuilding.

Sincerely,

Mark Brozek
Huntington, NY
Brozek.mark@gmail.com

From:	Gene Dorney
To:	Comments
Subject:	[External] Striped Bass Commercial Quota Transfer
Date:	Friday, January 13, 2023 12:02:27 PM

To whom it may concern,

I support "Option A", status quo, no commercial transfer.

Thanks,
Gene Dorney
Massachusetts

From: Emmons Whited
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 12:02:05 PM

I support option A, status quo, no transfers.

Emmons Whited, Maine

From: Matthew Coolidge
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 12:00:46 PM

I support choice A - no change, no commercial transfer

Matt Coolidge. Boston MA

From:	Mariusz Pajecki
To:	Comments
Subject:	[External] Striped bass commercial quota transfer
Date:	Friday, January 13, 2023 11:59:48 AM

Dear ASMFC,

I support option a, status quo, no commercial transfer.

Regards,

Mariusz Pajecki, Massachusetts.

From: Anthony Pizzella
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:59:48 AM

To whom it may concern,

I support option A, status quo, no transfers.

At a time when the population is overfished, and there have been poor spawns for roughly the past decade, no effort should be made to maximize striped bass harvest. These quota transfers explicitly increase the number of fish harvested and are in direct opposition to any goals of rebuilding the stock.

Thank you for your time
Anthony Pizzella, Maine

From: Brendan Pembroke
To: Comments
Subject: [External] Striped Bass Transfer Quota
Date: Friday, January 13, 2023 11:58:24 AM

To whom it may concern,

I support option A, status quo, no transfer.

V/R,

Brendan Pembroke - Duxbury, MA

From:	Robert Voltaggio
To:	Comments
Subject:	[External] Striped Bass Commercial Quota Transfer
Date:	Friday, January 13, 2023 11:57:27 AM

I support option a, status quo, no commercial transfer.

Robert Voltaggio
New York

--

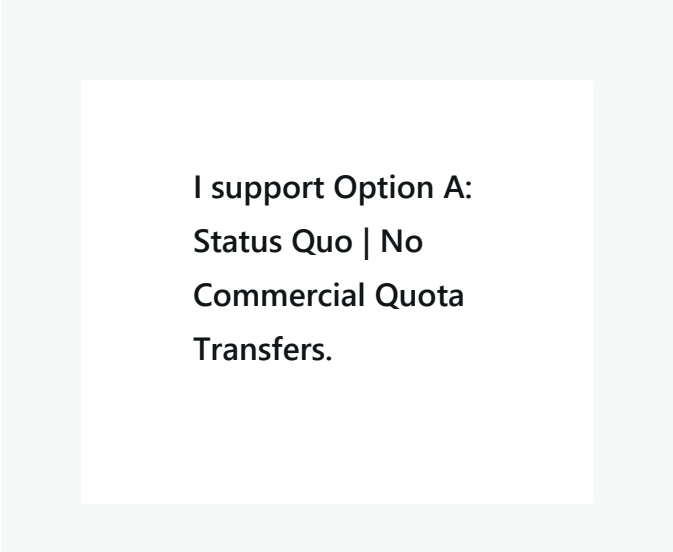
Robert Voltaggio
EVP Revenue, Planning & Operations

347-751-4877
warnerbrosdiscovery.com

From: steven foceri
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 11:57:17 AM

I support option a, status quo, no commercial transfer. If you really want to do something, go stop the illegal poaching nets off shagwon in MTK and all the illegal fish being poached from NY state and County Parks
-SF

From: John Kaufmann
To: Comments
Subject: [External] Public comment
Date: Friday, January 13, 2023 11:56:57 AM



Sent from my iPhone

From: V Santa Maria
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 11:56:34 AM

: I support option a, status quo, no commercial transfer

Vincent Santa Maria
New Jersey
Get Outlook for iOS

From:	John Yemma
To:	Comments
Subject:	[External] Striped Bass Commercial Quota Transfer
Date:	Friday, January 13, 2023 11:54:59 AM

Dear ASMFC:
I support Option A, status quo, no commercial transfer.

This is John Yemma from Boston Massachusetts.

Thank you,
John
--
John Yemma
j.yemma42@gmail.com
508.843.0085 mobile

From: Zach Malfa-Kowalski
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 11:54:36 AM

I support option a, status quo, no commercial transfer

Thank you,

Zach Malfa-Kowalski
240 Usquepaugh Road
West Kingston, Rhode Island

From: Richard Hutchins
To: Comments
Subject: [External] Striped bass regulations
Date: Friday, January 13, 2023 11:53:08 AM

From everything that I have read on this matter, I am not in favor of commercial quota transfers. I would also like to see the commercial catch reduced even more.
I do a lot of fly fishing from shore in NH and ME and the numbers were way down this year. A lot of the smaller fish never showed up like they have in prior years.
I never keep any legal size fish as I feel it gives more of them a chance to make it to bigger size and reproduce more times.
This fishery is too good to see it crash again, so let's do everything we can to protect this valuable resource.
Thank you,
Richard T. Hutchins
603-970-0760

Sent from my iPhone

From: Anna
To: Comments
Subject: [External] Striped Bass
Date: Friday, January 13, 2023 11:52:23 AM

Our family and friends fish for Striped Bass and boat all around New England.

Striped Bass are overfished and there are fewer small fish while commercial interests continue to kill the large breeding females.

I support Option A - Status quo as I want to continue fishing for Striped Bass and want my kids to be able to do so in the future.

Thank You.

Anna Stewart
Durham, NH

Sent from my iPhone

From: Chris Law
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:51:01 AM

I support Option A, Status Quo, No Transfers.

Christopher Law - New York.

Thank you for your time,
Chris

From: Marcin Romanczyk
To: Comments
Subject: [External] Striped Bass Commercial Status Quota Transfer
Date: Friday, January 13, 2023 11:50:11 AM

I support option A, status quo, **NO commercial transfer.**

Marcin Romanczyk
New York
--

Marcin Romanczyk DPM, AACFAS
Board Certified Podiatrist

LongIslandSolePodiatry@gmail.com

From: Grimes, Patrick S. (Student)
To: Comments
Subject: [External] Striped Bass quota transfer
Date: Friday, January 13, 2023 11:49:09 AM

I support option A, status quo, no transfers.

Patrick Grimes, NJ

Get Outlook for iOS

From: Tim Carey
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 11:46:09 AM

I support option a, status quo, no commercial transfer.
Thank you
Tim Carey
Windham CT

From: Jerry Audet
To: Comments
Cc: JERRY AUDET
Subject: [External] striped bass commercial quota transfer
Date: Friday, January 13, 2023 11:45:44 AM

I support option A, status quo and no transfer of commercial quota of striped bass
Jerry Audet
Douglas, MA

--
Jerry Audet
Freelance Writer, Editor, Photographer
indeepoutdoorsmedia@gmail.com
www.indeepoutdoors.com

From: Monee Morrisette
To: Comments
Subject: [External] Striped Bass
Date: Friday, January 13, 2023 11:45:12 AM

To whom it may concern,

Our family spends dozens of days on the water in New Hampshire, Massachusetts and Rhode Island. Fishing and related activities continue to be our largest pastime expenditure.

The Striped Bass stock is unhealthy and variable. No big fish one year, fewer small fish, etc.

We cannot continue to kill them at this rate. Endangering the large breeding females cannot continue.

Please exercise Option A - Status quo and move to protect this critical fishery.

Thank you,
Monee

From: Tom Staugaitis
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 11:44:50 AM

I oppose the commercial transfer of striped bass quota.

Tom Staugaitis
732-266-7313
staugaitis@aol.com

From: Matt Mattera
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 11:42:22 AM

I support **option A**, status quo, **no commercial transfer**.

Matthew Mattera
New York

From: Brendan Holden
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 11:39:05 AM

I support Option A, status quo, no commercial transfer.

Thank you,

Brendan Holden
Massachusetts

Sent from my iPhone

From: Eric Spicer
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 11:37:41 AM

I am writing this email in support of option A (status quo): Commercial Quota Transfers are not permitted.
The potential to increase commercial harvests in states that have spawning or stock-rebuilding opportunities should not be allowed or should be studied further. The impacts of Amendment 7 need to be realized before changes are made.
Thank you
Eric Spicer
The Saltwater Edge
Customer Acquisition and Retention
TheSaltwaterEdge.com
eric@saltwateredge.com
(802)-380-0957

From: Ryan Norell
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:36:39 AM

I support option A, status quo, no transfers.

Ryan Norell, NY

From: Connor Lynch
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:36:23 AM

I support option a, status quo, no transfers.

Connor Lynch
Maryland

Sent from my iPhone

From: Pat Fin
To: Comments
Subject: [External] Striped bass commercial quota transfrer
Date: Friday, January 13, 2023 11:35:49 AM

I support option a, status quo no commercial transfer

-Patrick Finucane
Rhode Island

From: Josh Cohn
To: Comments
Subject: [External] I support Option A: Status Quo | No Commercial Transfers
Date: Friday, January 13, 2023 11:35:26 AM

To the commission,

I am a Washington DC, based angler and I support Option A: Status Quo | No Commercial Transfers.

If a quota isn't met by one state as the fish leave those waters, that should not mean an increased harvest somewhere else. Natural variability is what protects species like striped bass, and variability year-over-year in the success of a commercial fishery should be treated like recreational fishermen treat a blown out river, zero catch days are zero catch days. Just the way it goes.

--
Josh Cohn
(202) 689-4196 | Joshccohn404@gmail.com

From: Gabriel Montemuro
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:35:15 AM

I support Option A.

Status Quo, no transfers.

Very truly yours,
Gabe Montemuro
(PA)
--
--
Gabe Montemuro
215-906-1438

From: Vasilios Siklas
To: Comments
Subject: [External] Striped bass transfer quota
Date: Friday, January 13, 2023 11:35:02 AM

I support option A
Status quota , no transfer
What are we thinking trying to kill more and allowing transfers ?!
Vasilios siklas
Long Island, Ny
Thank you

Sent from Yahoo Mail for iPhone

From: Kevin Touhey
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 11:33:52 AM

I support option A, status quo, no transfers.
Kevin Touhey
Massachusetts

From:	Joe Gugino
To:	Comments
Subject:	[External] Option A: Status Quo | No Commercial Quota Transfers.
Date:	Friday, January 13, 2023 11:33:31 AM

Hello,

Thank you in advance for recording this comment to the record.

“ **Option A: Status Quo | No Commercial Quota Transfers.”**

Thank You,

— Joe Gugino
Winthrop, MA
--

Joe Gugino
29 Billows St.
Winthrop, MA 02152
(860) 402-5903

From:	James Goodhart
To:	Comments
Subject:	[External] Striped bass management
Date:	Friday, January 13, 2023 11:32:13 AM

Dear Managers,

The striped bass population is not doing well. We are in a rebuilding phase and all management efforts should be in line with the rebuilding effort. I support Option A: Status Quo / No Commercial Quota Transfers.

Best,

James

Capt. James C.Goodhart
Shadowcaster Charters
56 Boardman St.
Newburyport, MA 01950
(978) 463-7755
www.shadowcastercharters.com

From: Zachary Whitener
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 11:32:11 AM

Good morning,

I am writing to comment my support for Option A, Status Quo for Addendum I. Transfer of commercial quotas would only be to allow more harvest of a fish that is newly on a tenuous track for recovery.
Thank you for your time.

Zach Whitener
Captain and Guide
Anadromous Adventures Guide Service, LLC
Freeport, ME

From: Nicholas Dalimonte
To: Comments
Subject: [External] Striped Bass quota transfer
Date: Friday, January 13, 2023 11:31:47 AM

I support option A, status quo, no transfers

--
Nicholas Dalimonte-Massachusetts

From: Brian Cloutier
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 11:31:16 AM

I support option A; status quo, no commercial transfer.

Brian Cloutier
Beverly, MA

From: Justin Sorbo
To: Comments
Subject: [External] Commercial striped bass quota transfer
Date: Friday, January 13, 2023 11:28:29 AM

Hello,

I support option A, status quo, no commercial quota transfer.

Thank you for your time!

Best,

Justin Sorbo
540 Revere Beach Blvd
Revere, MA
--
Justin Sorbo, BS, CSCS, LMT

From: Peter
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 11:26:54 AM

I support option a, status quo, no commercial transfer.

Peter Walsifer

New Jersey

From: PAUL GALLO
To: Comments
Subject: [External] Striped Bass Draft Addendum1
Date: Friday, January 13, 2023 11:26:16 AM

I am a recreational angler from New York and I primarily fish Jamaica Bay, Rockaway beaches and Breezy Point. The Atlantic Striped Bass fishery is important to me because I believe that commercial quota transfers or any of the other options would destroy the sustainability of the Striped Bass. Commercial fishing operations already kill enough Striped Bass as well as the food that they eat to stay alive. Option A is the only choice. All the other options are only about the dollar sign.
Sincerely,
Paul Gallo
Sent from my iPhone

From: Alex Earley
To: Comments
Subject: [External] Option A
Date: Friday, January 13, 2023 11:26:12 AM

My name is Alex Earley and I am a recreational angler in CT. I support option A. Allowing the transfer of quotas is a horrible idea. You already have a commercial fleet of Rhode Island anglers traveling to mass and decimating the bass schools in the Boston Harbor.
Please do not encourage this behavior.

What are we doing???

-Alex

Sent from my iPhone

From: Matt Mailloux
To: Comments
Subject: [External] Striped Bass Quota Transfer - Opt. A
Date: Friday, January 13, 2023 11:24:47 AM

Hi,

I support Option A - no transfers, status quo.

I appreciate your consideration of this issue.

Sincerely,
Matt Mailloux
New Jersey

From:	Jim Simms
To:	Comments
Cc:	Dave Bixby; John Kaufmann
Subject:	[External] Commercial Quota Transfer
Date:	Friday, January 13, 2023 11:24:38 AM

As a recreational striped bass fisherman on Cape Cod, I'm dismayed by a quota transfer addendum for the commercial side of the harvest. Option A is the only approach that should be considered as the rebuilding process is implemented. The transfer of unused commercial quotas that target breeding females is inconsistent with rebuilding an overfished resource.

Thank you for the opportunity to present my viewpoint, and I anticipate that ASMFC will vote in favor of disallowing quota transfers.

Jim Simms

From: Stephen Rogers
To: Comments
Subject: [External] Addendum 1 striped bass
Date: Friday, January 13, 2023 11:24:27 AM

Dear Sir/Madam:

I am respectfully emailing you today to voice my opposition to the proposed idea of conservation equivalency (CE). CE is an absolutely illogical idea when our striped bass stocks are in trouble and need protection. CE DOES NOT PROTECT STRIPED BASS; rather, it represents a major obstacle to an effective rebuild. I am on the water very, very frequently, and I have seen the stark reality - there are no more big fish in our waters. It is frightening to see such a lack of size diversity in the stock. Obviously, something dramatic needs to happen in order to save the stripers for future generations. We all recognize this. CE will be a devastating blow.

Yours truly,

Stephen Rogers

From: Kristen
To: Comments
Subject: [External] Striped Bass Quota Tranfer
Date: Friday, January 13, 2023 11:24:06 AM

I support option a, status quo, no transfers

Thank you,
Kristen Ricci
Rhode Island

From: Noah Lamperti
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:19:47 AM

As a recreational angler from the state of Massachusetts, I support option a, status quo, no transfers.

Noah Lamperti

From: Blane Chocklett
To: Comments
Subject: [External] Amendment 1
Date: Friday, January 13, 2023 11:19:17 AM

I **support Option A: Status Quo | No Commercial Quota Transfers.**

Sent from my iPhone

From: Noah Ialongo
To: Comments
Subject: [External] Striped Bass quota transfer
Date: Friday, January 13, 2023 11:07:14 AM

I support option A, status quo, no transfers.

Noah Ialongo, Rhode Island

From: garrym
To: Comments
Subject: [External]
Date: Friday, January 13, 2023 11:07:11 AM

Striped bass addendum 1

Sent from my Galaxy

My name is Garrett Moore from Westbury New York I'm in favor option A, no change. Thank you.

From: Jay harrison
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:04:49 AM

Hello,

I support option A, status quo, no transfers

I feel that we should be doing everything possible to return the stock to a healthy population and I feel that option A is the best avenue to achieve this goal.

The stock is still overfished and should be heavily protected as such.

Thank you for your consideration of public comments.

Best,
Jay Harrison (Massachusetts)

From: Patrick Perrotto
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 11:04:37 AM

I support Option A, Status Quo-No Transfers.

As a recreational angler, I value the conservation of the striped bass. I feel it is too soon and not enough time has elapsed or data captured to support any other option.

Sincerely,

Patrick Perrotto
New Jersey

--

Patrick Perrotto
Patrick Perrotto Production Services LLC

908.309.8044
www.patrickperrotto.com
patrickperrotto@gmail.com

From: William Clark
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 11:03:56 AM

Hello,

I support **option A, status quo, no transfers.**

Will Clark
Massachusetts

From:	Roberto Fonzo
To:	Comments
Cc:	My Email
Subject:	[External] striped bass quota transfer
Date:	Friday, January 13, 2023 10:59:19 AM

To whom it may concern,

I support option A. Status quo, no transfers.

Please associate my name Roberto Fonzo member of stripersurfclub with this option.

Thank you,

Roberto

From: Shawn Bailey
To: Comments
Subject: [External] Striped Bass Quote Transfer
Date: Friday, January 13, 2023 10:58:27 AM

I fully support Option A, status quo, No transfer !

Thank you

Shawn Bailey
1248 Hartford pike
Scituate RI 02857
401-640-3617

From: Brian Russell
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:57:17 AM

I support option A, status quo, no transfers.

Brian Russell
Long Island, New York

From: Liam Brouillette
To: Comments
Subject: [External] striped bass quota transfer
Date: Friday, January 13, 2023 10:56:53 AM

I support option a, status quo, no transfers.

Sincerely,

Liam Brouillette

Massachusetts and New York resident

From: Jonathan Krahl
To: Comments
Subject: [External] Striped Bass Quote Transfer
Date: Friday, January 13, 2023 10:55:29 AM

Hello,
I support option A, status quo, no transfers.
Thanks,

Jon Krahl New Hampshire

--
Jonathan Krahl
Cell: (860) 416 - 2283

From: Jeff Bergeron
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:54:28 AM

I support option a, status quo, No transfers

Jeff Bergeron
Massachusetts

From: Jeff Bergeron
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:53:48 AM

I support option a, status quo, No transfers

Jeff Bergeron
Massachusetts

Jeff Bergeron
Project Executive

Plumb House INC.
MERIT SHOP BUILDS BEST
10 Commercial Way Milford, MA 01757
Office: (508)458-1500 **|** **Cell:** (508)294-7171
www.PlumbHouse.com

From: Ben Carlson
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:53:31 AM

I support option A, status quo, no transfers.

Ben Carlson

From: Timothy Wadman
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:53:15 AM

I support Option A, status quo, with no quota transfer.

Tim Wadman, Massachusetts

From: STEPHEN KNAPIK
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 10:52:18 AM

In regards to the Striped bass Addendum I

Option A (status quo): Commercial quota transfers are not permitted

We need to protect of fishery, we need to protect our Striped Bass along the ENTIRE Atlantic coast.

Stephen Knapik
Striper Surf Club
516-721-7595

From: Vox Mansilungan
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:49:30 AM

I support option A, status quo, no transfers.

In fact, I find it despicable to attempt to maximize the yield harvest of striped bass while their population is in steep decline. Do your job to protect our resources instead of padding your pockets.

Vox Dei Mansilungan
Missio Church- Director of Student Ministry
631.566.2198

From:	Michael Dooley
To:	Comments
Cc:	Megan Ware; Patrick Keliher
Subject:	[External] Striped bass quota transfer
Date:	Friday, January 13, 2023 10:48:59 AM

Good morning,

I am a recreational angler from Maine in support of option A, status quo, no quota transfers. Thank you- have a great weekend.

Mike Dooley

From: Frank Shea
To: Comments
Subject: [External] Striped bass quota
Date: Friday, January 13, 2023 10:46:49 AM

I support option A. Status quo, no transfers

Sent from my iPhone

From: Stephen Barone
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:46:45 AM

I support Option A, status quo, no quota transfers.

Stephen Barone - Massachusetts

Thank you

--
Stephen Barone
617-460-5611
stephenbarone2@gmail.com

From: Rocco IV
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:46:05 AM

I support option A, status quo, no transfers!

Thank you,

Rocco Risbara IV
Maine

From: Ron Jensen
To: Comments
Subject: [External] striped bass addendum 1
Date: Friday, January 13, 2023 10:45:13 AM

I am in support of option A status quo no transfer of commercial quotas

Sent from Mail for Windows

From: Todd Calitri
To: Comments
Subject: [External] Striped Bass Quotas
Date: Friday, January 13, 2023 10:44:46 AM

> On Addendum I, support **Option A (status quo): Commercial quota transfers are not permitted.**

Thank you,
Todd Calitri
267 Parker Mt Rd
Barrington, NH 03825
970 376 2157

From:	Matt Haeffner
To:	Comments
Subject:	[External] Striped Bass Quota Transfer
Date:	Friday, January 13, 2023 10:44:45 AM

To whom it may concern,

(And frankly, I think this should concern anyone in their right mind, fishermen/sportsmen or not.)

I SUPPORT OPTION A, STATUS QUO, **NO INTERSTATE TRANSFERS OF COMMERCIAL STRIPED BASS QUOTA.**

Can't believe this is even being considered. Conservation coastwide is of utmost importance, and these greed-driven fishing practices are beyond wrong. Do the right thing.

My name is Matthew Haeffner: Long Island, NY native now living in Cape Cod, MA.

Matt Haeffner
Assistant Editor
On The Water
707 Teaticket Highway, E Falmouth, MA 02536
508-548-4705 x226

From: Jim Murray
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:42:48 AM

I support option A, status quo, no transfers

James L. Murray
New York

From: Anthony Poirier
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:42:47 AM

Hello,

I support option A, status quo, no transfers.

Thank you,
Anthony Poirier
Westport, MA

From: Ron Jensen
To: Comments
Subject: [External] striped bass addendum 1
Date: Friday, January 13, 2023 10:41:10 AM

I support option A
Sent from Mail for Windows

From: Neal Hafner
To: Comments
Subject: [External] striped bass quota transfer
Date: Friday, January 13, 2023 10:41:01 AM

I support option a, status quo, no transfers

Neal Hafner, Pennsylvania

From: Michael Perrone
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 10:39:50 AM

In regards to Striped Bass Quota Transfer -

I support Option A, status quo, NO TRANSFERS

Thank you,
Michael Perrone

From: Jeff C
To: Comments
Subject: [External] Striped Bass Draft Addendum 1
Date: Friday, January 13, 2023 10:38:56 AM

ASMFC Board Members-

My name is Jeff Carson, and I am a recreation angler from New York. I am an avid striped bass angler, and I fish primarily in LI Sound and around the South Shore of Long Island with friends and family. I believe the fishery should be managed for abundance as that is the most equitable path for all stakeholders.

I am writing to express my support for Option A (status quo): commercial transfers are NOT permitted. All other options would increase mortality, and the stock is in a fragile position and needs time to rebuild.

Thank you for your consideration.

Sincerely,
Jeff Carson
jwcarson99@gmail.com

--
Jeff Carson
303.915.0730

From: mike C
To: Comments
Subject: [External] Transfer of quota
Date: Friday, January 13, 2023 10:36:56 AM

I support option A. No transfer. Wake up its moratorium time.

Get Outlook for Android

From: Scot Calitri
To: Comments
Subject: [External] Option A (status quo): Commercial quota transfers are not permitted
Date: Friday, January 13, 2023 10:36:53 AM

Thank you for the work you do trying to balance conservation and commercial interests. It can't be easy as economic pressures weigh while nearly every stock of fish continues to dwindle.

I have spent time in commercial fishing, commercial shellfishing and decades of sportfishing and strongly support **OPTION A (status quo)** - Commercial quota transfers are not permitted for Striped Bass.

At the most basic level, we have an overfished stock with low recruitment. Any additional commercial killing will further jeopardize the recovery plan.

Look at the trend charts. We are rapidly heading toward repeating the past sins of the late 70s and early 80s. **A recreational fish is many times more valuable than a dead commercial fish** fetching $2 / lb.

I'm not sure how well these are read, but if someone gets this far, **I would enjoy engaging with your team to help revise the process**. ASMFC has been around since the 1940s and although some minor wins have happened, the approach is all wrong.

Abundance maximizes the long term economic value of fisheries, insulates against climate change and buffers against one time weather events or "acts of god".

Let's change the model and celebrate future wins.

Option A please.

- Scot Calitri
970-390-4997
Durham, NH

From: Jmon 1
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:34:54 AM

I support option a, status quo, no transfers. John Robert.

From: Mitch Battista
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:33:42 AM

I support option a, status quo, no transfers.

Mitch Battista - Rhode Island

--
Mitch Battista

Coldwell Banker Residential Brokerage
132 Boston Post Rd
East Lyme, CT, 06333
Cell: 401-226-6124
Office: 860-739-6277
mitch.battista@cbmoves.com

From: Jacob Jaskiel
To: Comments
Subject: [External] Comment regarding striped bass quota transfer
Date: Friday, January 13, 2023 10:31:00 AM

To whom it may concern,

I am in support of Option A: Status Quo, no transfer of quotas.

The fishery is in a precarious position, and it is the responsibility of the ASMFC to act conservatively with the goal of maximizing biomass and revenue. Striped bass are worth more alive than dead, with thousands of anglers contributing to local economies, charter captains, and other small businesses. The commercial fishery is small relative to other more desirable food fishes, and should not be propped up by proposals such as this one. The emphasis should be placed on phasing out this nonviable commercial fishery and transitioning the very few commercial fishermen who rely solely (or in large part) on this fishery to others, and protecting striped bass as gamefish, much like Florida has done successfully with several species already. Thank you for your time.

Regards,
Jacob Jaskiel
PhD Candidate - Boston University Marine Program

From: Seth Fiola
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:30:58 AM

I support option A, status quo, no transfers.

Seth Fiola, Rhode Island

From: ncbucktails
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:29:12 AM

I support option A. Status quo, no transfers

Sent from my Galaxy

From: nikkizzoo13
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:28:44 AM

I support option A. Status quo, no transfers

Sent from my Galaxy

From: ngaines128
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:27:46 AM

I support option A. Status quo, no transfers

Sent from my Galaxy

From: Gordy Stanton
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:24:53 AM

Good Morning,

I support option a, stays quo, no transfers.

Sincerely,
Robert Stanton
Massachusetts

From: Brian Hayes
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 10:23:53 AM

I support option A. Status quo, no transfers

Sent from my iPhone

From: Christopher Pizaro
To: Comments
Subject: [External] Striped Bass Transfer Quota
Date: Friday, January 13, 2023 10:23:21 AM

I support option A, status quo, no transfers.

Regards,

Christopher Pizaro
New York State

From: davidouch92
To: Comments
Subject: [External] No transfer of quota
Date: Friday, January 13, 2023 10:22:40 AM

Sent from my Verizon, Samsung Galaxy smartphone

Hello,

I support option a, no transfers and status quo.

David Ouch Massachusetts

Sent from my Verizon, Samsung Galaxy smartphone

From:	Brent Flack-Davison
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 10:17:46 AM

To whom it may concern,

I am a recreational fly fisherman from NY, and I primarily fish in NYC harbor, Cape Cod, LI Sound, NJ Jersey and Long Island.

I spend a lot of money and time fishing for stripers in multiple states and something I share with my sons and core friends. With regard to the options being considered for Addendum 1, I am writing to express my support for Option A (status quo): commercial quota transfers are not permitted. All other options would increase mortality at a time when the stock is rebuilding. If the striped bass population collapses again, I will go fish and send my money elsewhere with good fishing.

Sincerely,

Brent Flack-Davison

brentfd@gmail.com

--
Brent Flack-Davison
(c) +1 202 550 3464
(e) brentfd@gmail.com

From: Conor McDonnell
To: Comments
Subject: [External] Option A: Status quo
Date: Friday, January 13, 2023 10:14:45 AM

Hello,

I am emailing to express my support for Option A: Status quo | No commercial transfers.

To truly conserve this fish population, unused quotas cannot be transferred, and the focus needs to be on protecting the fish.

Best regards,
Conor McDonnell

From: James Mcmanus
To: Comments
Subject: [External] Option A
Date: Friday, January 13, 2023 10:10:45 AM

I support Option A and like many others, feel that allowing commercial quota transfers would be a huge mistake.

James

From: Jordan Lang
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 9:50:23 AM

Hello,

I am a saltwater angler living in Kittery, ME and am writing in to share my comments on Addendum I as I was not able to make it to the hearing.

My unwavering opinion is that the Striped Bass are far more valuable as a recreational fish than they are for commercial harvest.

I oppose any legislature that will reduce the likelihood of rebuilding the stock. The fishery should be managed for abundance, especially when it comes to the large breeding females.

When it comes to Addendum I, **I support Option A: Status Quo. No transfers of commercial quotas.**

Thank you,
Jordan Lang

From: Albert Lykon Sr
To: Comments
Subject: [External] Striped Bass Draft Addendum
Date: Friday, January 13, 2023 9:49:28 AM

Please do not allow transfer of quota

Sent from my iPhone

From: mike downham
To: Comments
Subject: [External] Option A Status Quo
Date: Friday, January 13, 2023 9:27:14 AM

I support Option A Status Quo no commercial quota transfers. A path has been chosen to rebuild the stock, let's stick with it.
Michael Downham
Glassboro NJ
609-330-3815

From: deceiver64
To: Comments
Subject: [External] Commercial transfer
Date: Friday, January 13, 2023 9:24:42 AM

Vote no on the commercial transfer, striped bass stocks are in trouble. Sincerely, William A. Sistad

Sent from my T-Mobile 5G Device

From: japopopo@verizon.net
To: Comments
Subject: [External] Striped bass
Date: Friday, January 13, 2023 8:58:31 AM

I do not support commercial quota transfers. I support option A, status quo.

From: rcmuller@optimum.net
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 8:55:15 AM

I oppose the commercial transfer of striped bass quota. It will further deplete our recreational striped bass fishing opportunities.

Regards,

Bob Muller

From:	Paul Novello
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 8:33:21 AM

As a lover of surf fishing, and as a father who has passed on this passion to my children, I feel the need to provide my comments for this addendum (Addendum I to Amendment 7). I fully support responsible fishing, practicing all catch and release practices, as do my family. I am concerned with the health of the striped bass stock., as I want my childrens children to enjoy this sport. That being said, I support Option A, status quo. If you have any questions please let me know.

Paul Novello
Atlantic Saltwater Flyrodders
Jersey Shore Surfcasters

From: Aaron Gallusser
To: Comments
Subject: [External] STRIPED BASS Addendum I
Date: Friday, January 13, 2023 8:27:14 AM

Hello, my name is Aaron Gallusser. I'm from Islip, NY I'm in favor of Option A (Status Quo) - No Commercial Transfers Allowed; throughout my years of saltwater fishing practicing catch and release. I think it's imperative that we protect the Striped Bass species. For to many years we have seen an over harvest of this fishery without rebuilding the population. I would like my children and grandchildren to experience the same fishery that I have grown to love throughout the years.

Sincerely,
Aaron Gallusser

From: wahooslayer89@comcast.net
To: Comments
Subject: [External] Amendment 7 - Addendum 1
Date: Friday, January 13, 2023 8:12:38 AM

I support option A (status quo) - Commercial quota transfers are NOT permitted.

Sincerely,

Someone whom wishes the fishes will be around in abundance, much longer than our own lifetimes

From:	Comcast
To:	Comments
Subject:	[External] Striped bass draft amendment 1
Date:	Friday, January 13, 2023 6:24:55 AM

Gentlemen,
As a 50 year veteran of the striped bass fishery I am opposed to the transfer of quota between states.

“Striper Joe Kozic
Asbury Park Fishing Club

Sent from my iPhone

From: Dave Deo
To: Comments
Subject: [External] Stripe Bass
Date: Friday, January 13, 2023 4:26:17 AM

I strongly oppose the transfer of quota from state to state and agree with " option A " status quo

Thank you
--
David M. Deo
President

908-482-5647 Cell
908-756-0435 Office
908-756-3538 Fax
daved@rllandscaping.com

767 North Ave
Plainfield, NJ 07062

From:	James Boyle
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Friday, January 13, 2023 12:32:06 AM

Dear ASMFC, I feel that there should be no transfer of quota between states for striped bass. Option A (status quo): Commercial quota transfers are not permitted is the only option with the current state of the striped bass fishery.

American Saltwater Guides Association MA Board member
Capt. Jaime Boyle
PO Box 1534
Oak Bluffs MA, 02557
508-922-1749
boylermaker.com

Emilie Franke

From: Sean Tracey <sean@seantracey.com>
Sent: Friday, January 13, 2023 12:58 PM
To: Comments
Subject: [External] Striped Bass Addendum 1

Categories: Auto Replied

I support Option A (status quo): Commercial quota transfers are not permitted.
In fact, I wish there were NO commercial harvesting of Striped Bass, at all, as soon as possible.
Sean Tracey
Recreational Fisherman in NH

Sean Tracey

email: sean@seantracey.com
m.603/828-6010
o 603/427-2800, ext 110
visit us: seantracey.com

401 State Street, Suite 3
Portsmouth, NH 03801

SEAN TRACEY
ASSOCIATES

From: Geoff Lewis
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 7:20:40 PM

Hello,

I support option A, status quo, with no commercial transfer.

Geoff Lewis, Milton Massachusetts.

Thank you.

--
Geoff Lewis
75 Hinckley Road
Milton MA 02186
617-312-1351

From:	Kevin Williams
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 7:16:38 PM

Striped Bass are in bad shape in the Chespeake Bay. While anecdotal, any fisherman can tell you that the health of this fishery is and has been for some time in deline. I Oppose Increase in Commercial Striped Bass Harvest.

With the wild proliferation of Blue Catfish and continued stock surveys show a trending decline, let's protect the 2nd most important fishery in the bay.

Sincerely,

Kevin Williams

From: Christopher Farschon
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 7:15:19 PM

I support Option A (status quo): Commercial quota transfers are not permitted. As a for hire charter captain in NJ, please increase the number of available fish before opening more harvest. Catch and release is so much better for our local economy than a few more fish in a seafood market.

Thanks,

Capt. Chris Farschon
Fischon Charters
Avalon, NJ

From:	Jake Naso-Kushner
To:	Comments
Subject:	[External] Striped Bass Comments
Date:	Friday, January 13, 2023 7:05:30 PM

Dear ASMFC,

I support option A (status quo) - Commercial quota transfers are NOT permitted.

Sincerely,
Jake Naso-Kushner
North Kingstown, RI

From: scott jorgensen
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 7:03:32 PM

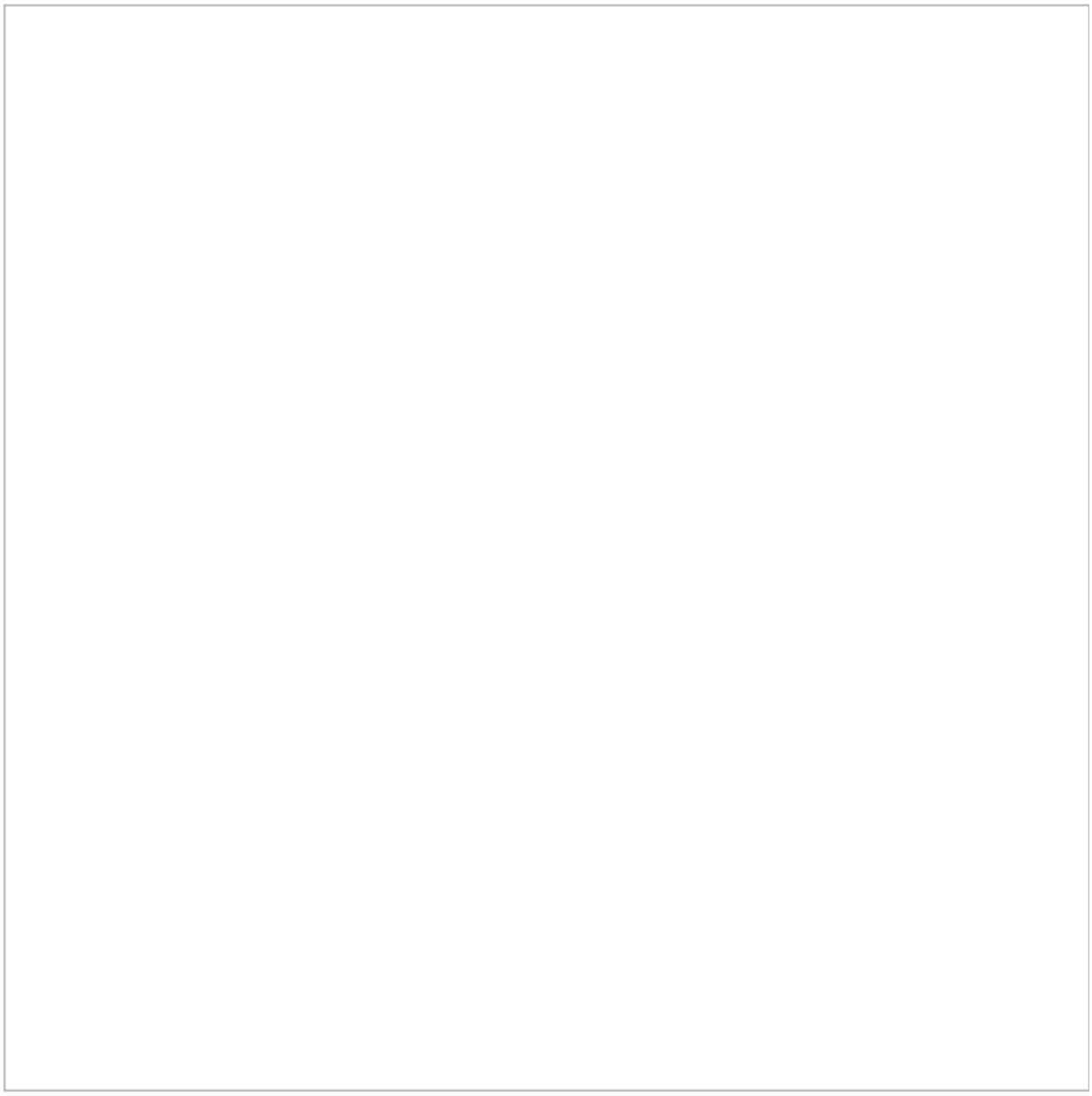
To Whom It May Concern,

My Name is Scott Jorgensen and I am a fly fisherman located in East Quogue, NY And I fish for striped bass all around the east end of long island. My love for the striped bass can not be expressed enough. I have been see a great decline in bass numbers in my area for the last 13 years and I am very concerned for the striped bass's future and fly fisherman like myself.

I am writing and giving my full support for option A : commercial quota transfers are NOT permitted .All other options would increase mortality at a time when stock is rebuilding.

Sincerely,
Scott Jorgensen

Scott Jorgensen
Jorgensen Estate Management Inc.
JorgensenEstate@yahoo.com
631-848-4614



From: Anthony Lopardo
To: Comments
Subject: [External] Striped bass transfer quota
Date: Friday, January 13, 2023 6:58:32 PM

To whom it may concern,

I support option A, no transfer

Best,
Anthony Lopardo - Monmouth County, NJ

From: Matt Dobbins
To: Comments
Subject: [External] No Commercial Quota Transfers
Date: Friday, January 13, 2023 6:55:43 PM

To whom it may concern

I fully support Option A: Status Quo | No Commercial Quota Transfers.

Captain Matt Dobbins

Tempus edax rerum
Time, devourer of all things

From: andrewhtaylor.me@gmail.com
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 6:52:51 PM

To Whom it May Concern,

I support option A, status quo. No transfers!

Andrew Taylor, Maine

Sent from my iPhone

From:	William Fox
To:	Comments
Subject:	[External] Striped Bass commercial quota transfer.
Date:	Friday, January 13, 2023 6:52:06 PM

I support option A, status quo, no commercial transfer.

William Fox Jr, Old Saybrook, Connecticut.

From: Brian Kelly
To: Comments
Subject: [External] Commercial Quota Transfers
Date: Friday, January 13, 2023 6:39:16 PM

To whom this may concern,

I am writing in to let you know I support,
Option A: Status Quo | No Commercial Quota Transfers.

I am concerned for the Striped Bass stock and removing more commercial harvest will be detrimental to the current Amendment 7 Stock Rebuild.

I am also aware of the threats recreational pressure as well as large party boats which have 16 anglers harvesting fish on a daily basis throughout the striper run as they migrate north and establish residency in Northern territories.

Thank you for your assistance.

Captain Brian Kelly

From:	James Macdonall
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 6:35:05 PM

I am a recreational angler from New Jersey, and I primarily fish the beaches of New Jersey. The Atlantic striped bass fishery is important to me because It provides the opportunity to catch large fish that provide good sport.

With regard to the options being considered for Addendum 1, I am writing to express my support for Option A (status quo): commercial quota transfers are not permitted. States that opt to prohibit commercial fishing for striped bass are straining commercial fishers who need to fish for other species. Those states accept the sacrifice their commercial fishers are making. By allowing the unused quota to move to another state the sacrifice of their commercial fishers is ignored. All other options would increase mortality at a time when the stock is rebuilding.

--
Jim MacDonall, PhD
Professor Emeritus of Psychology
Fordham University
jmacdonall@fordham.edu

From: David Schwenk
To: Comments
Subject: [External] Striped Bass draft addendum 1
Date: Friday, January 13, 2023 6:34:19 PM

I strongly oppose commercial transfer for striped bass quota. Please consider saving bass for future generations to enjoy both on a recreational level and for future commercial fishing.

Sent from Yahoo Mail for iPhone

From:	William Sands
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 6:27:14 PM

---

the striped bass stocks are already low in the chesapeake bay and local coastal waters,
In my opinion the catch limits should be lowered

I have been fishing in the bay since a kid in the 60' s with my dad.
the only time I have seen fishing this bad is PRE moratorium.
Let's not have to do that again.
W Sands

From: Hunter Zandri
To: Comments
Subject: [External] Striped Bass Transfer Quota
Date: Friday, January 13, 2023 6:20:58 PM

I support option A

From: Mark Bonvouloir
To: Comments
Subject: [External] Amendment 7
Date: Friday, January 13, 2023 6:17:04 PM

Option A !

Sent from my iPhone

From: Michael Walp
To: Comments
Subject: [External] Striped Bass Transfer Quota
Date: Friday, January 13, 2023 6:16:13 PM

To Whom It May Concern:

I'd like to voice my strong support for Option A - status quo with NO transfer.

Thank you,

Michael C. Walp
Westbrook, ME
207-450-5597

From: Andrew Garnitz
To: Comments
Subject: [External] Striped Bass Transfer Quota
Date: Friday, January 13, 2023 6:15:30 PM

I support option A, no transfer.

Thanks
Andy Garnitz - Marblehead Ma

Sent from my iPhone

From: christopher brown
To: Comments
Subject: [External] Commercial quota transfers ....
Date: Friday, January 13, 2023 6:14:38 PM

I absolutely support Option A Status Quo, No Commercial Quota Transfers
Thank you

From: Joshua Diner
To: Comments
Subject: [External] Commercial quota transfer
Date: Friday, January 13, 2023 6:13:00 PM

Hello - I do not support the commercial quota transfer. I support option A no transfer.

Thanks,
Joshua Diner

From: Anthony Stefanski
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 6:04:12 PM

I support option a, status quo, no commercial transfer

Anthony Stefanski, Massachusetts

From: Brian Madden
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 6:03:33 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Best regards,

Brian Madden
Plymouth, MA

From: PETER BRAVO
To: Comments
Subject: [External] Striped bass commercial quota transfer.
Date: Friday, January 13, 2023 6:00:05 PM

I support option A. Status quo. No commercial transfer

Thank you

Peter Bravo
Milford, CT.

Sent from my iPhone

From: Eugene Schwartz
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 5:59:51 PM

I'm an old guy, 81 next Aug. I remember as a kid my dad, and several other Baltimore buisnessmen fished with Jimmy Martini in the bay. I think his boat was the Mary Ellen an old bay fishing boat. I have pictures packed somewhere of dad coming home with these large canvas bags filled with "Rockfish" and trying to give them away. I say trying because folks didn't want to clean them and lots of fish went into the trash. Result, I had to suffer through years of no fishing for "Rock" because the fishery was on the verge of dying. It took years for it to come back some and folks were satisfied with 2 fish and catch and release. You have to think, when my father was fishing late 1940's to 1954 there weren't a lot of boat owners and folks fishing the bay.
I vote keep the catch levels and save the fishery. Also, think about trying to save the menhaden the bay while you are at it.

Gene Schwartz
formerly of Baltimore, MD

Now,
3425 Diamond Leaf Dr.
Vero Beach, FL 32966

PS, If you want I could probably find the old photos. I had promised years ago I would give them to Tocterman's but never did.

From: Lawrence Welcome
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 5:58:40 PM

I support Option A (status quo): Commercial quota transfers are not permitted.
Respectfully submitted by: Lawrence Welcome ((owner, Northbar Tackle LLC)
Thank you

From:	Dave Nolan
To:	Comments
Cc:	information@ccamd.org; "Robert Allen"; Rich Redler; "Dave Gedra"; Dave Antos
Subject:	[External] Striped Bass Draft Addendum I Comments
Date:	Friday, January 13, 2023 5:54:30 PM

Good Day and thank you for the opportunity to comment;

The overall quotas and limit changes in the addendum are unlikely to make material differences in the fish stocks for the recreational or commercial angler and there will likely be continued decline in striped bass stocks.

The fisheries management community needs to make significant changes in how they assess and manage fisheries on the Atlantic coast to bring about a change in the fishing environment. Some area to consider:

- Managing the fisheries as a dynamic system of multiple species
- Developing management techniques that are based on the interrelationships between forage stock (principally menhaden) and the other commercial species in the mid-atlantic region.
- Understanding that depleted forage stocks affects finfish as well as shellfish.
- Understanding that menhaden provide not only forage for finfish, but also, as filter feeders, help maintain water quality for shellfish.
- Dead zones can be reduced by improving water quality such as would be provide by increased menhaden stocks
- Managing menhaden within the Chesapeake Bay as a single quota instead of separately for VA and MD.
- Greatly reducing the menhaden quota to allow an improvement in forage stocks and water quality.
- Changing the management approach for striped bass to a slot size for both recreational and commercial anglers to protect breeder sized females.

Thank you for considering my comments.

Dave Nolan
Herndon, VA
Phone: (703) 282-3051
dj.nolan@verizon.net
==========

From: jtomici@optonline.net
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 5:44:29 PM

Dear ASFMC,

I support option a, status quo, NO commercial transfer.

Regards,
John Tomici
Southold, NY

From: Raymond Vrablic
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 5:42:37 PM

I've been fishing for Striped Bass 52 week's a year my entire life on the Chesapeake and on the coast. The fisheries is totally mismanaged from the pollution run off, Foreage fisheries being over fished and Striped bass themselves being mismanaged. You have commercial netting that goes on where more then half of the fish are dead by the time the watermen unload them discarding the dead one's that don't count toward their quota, to the fishermen catching hundreds of fish a day only to say they released them all but for someone as myself working above them can see so many die. Their actually killing more then someone keeping the limit. Then on top of all that you have the same people saying how bad of shape the fisheries are in only to day after day knowingly illegally Target and catch Striped Bass outside the EEZ zone just don't make sense! Why is there no hook size minimum let's say 8/0 and no trebble hook's to stop released fish mortality or does that not fit the agenda? Everything I've stated above is how bad Striped Bass are mismanaged and definitely are not able to sustain more pressure! People really need to step up! There need to be more done on shutting down the Omega ship destroying the Chesapeake and there should be a real effort put into tagging them!

Raymond Mel Vrablic III

From: Capt. Brian Coombs
To: Comments
Subject: [External] Addendum 1
Date: Friday, January 13, 2023 5:41:33 PM

To whom it may concern. I would like to show my support for option A : Status Quo, No commercial quota transfers.

Thanks!
Captain Brian Coombs

From: bobparkinson@hughes.net
To: Comments
Cc: oysterbob11@gmail.com
Subject: [External] Opposing Increase in Commercial Striped Bass Harvest
Date: Friday, January 13, 2023 5:39:41 PM

To Whom It Concerns,

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

I suggest that you put your efforts into farming stripped bass and let the wild fishery take its natural course without the continual antagonism of the commercial wild fishery.

Very respectfully,

Bob Parkinson

From: Peter J. Lefeber
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 5:39:14 PM

Hello ASMFC,

My name is Peter J. Lefeber. I am an avid angler from the State of Connecticut, and proud father of John F. Lefeber, who is self-styled as “The Greatest Fisherman in New England” which, although a bit quirky, could be true.

I would like to add my comment on Addendum 1 around Commercial Quota Transfers. I beg you to select Option A (Status Quo).

Option A (status quo): Commercial quota transfers are not permitted.

We are in a pivotal moment where we can either fast track the recovery of Striped Bass or continue the heavy pressure and slow decline of the species.

Not selecting Option A will only hurt our ability to recover our Striped Bass fishery. Option A is our only way the future has a sustainable Striped Bass population.

Thank you,

Peter J. Lefeber

Sent from my iPad

From: DICKSON YOUNG
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 5:38:22 PM

I have been an avid fisherman fresh and salt water for many years. Im now semi retired and living on the eastern shore. During the season i fish the Chester river and the bay almost daily. With few exceptions i have noted the decline in the health, quality and quantity of the rockfish i encounter. Measures should be taken to restrict, reduce or eliminate the catch of this fish to allow it to restore itself to a healthy population. I oppose the current proposed limits as simply not enough. Please take action if not now when??

Sent from my iPad

From: Rxscape Sportfishing
To: Comments
Subject: [External] Striped bass draft addendum 1 comment
Date: Friday, January 13, 2023 5:36:06 PM

Please support. Option A (status quo): Commercial quota transfers are not permitted.

From:	jeff tyser
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 5:34:42 PM

To whom it may concern,

I am a recreational fly angler from Massachusetts. I do most of my fishing on the Boston north and south shores, and Cape Cod. The Atlantic striped bass fishery is important to me because it supports numerous tackle shops, guides and other businesses in my state, as well as affording myself and countless others the opportunity to connect with nature and follow our passion.

Regarding the options that are being considered for Addendum 1, I am writing to express my support for Option A (status quo): commercial quota transfers are not permitted. I strongly believe that all other options will increase mortality at a critical time when the stock is rebuilding.

Sincerely,

Jeff Tyser

jefftyser@gmail.com

From: Chet Lubaczewski
To: Comments
Subject: [External] Striped bass draft addendum 1 comment
Date: Friday, January 13, 2023 5:32:57 PM

I vote for Option A (status quo): Commercial quota transfers are not permitted.

From:	mark
To:	Comments
Subject:	[External] Striped Bass Addendum I - Support of Option A (status quote)
Date:	Friday, January 13, 2023 5:31:08 PM

As a saltwater fisherman for stripped bass and a holder of a Massachusetts saltwater and sporting licenses I only support Option A (status quo): Commercial quota transfers are not permitted.

This is after reading your report and reviewing your figures, the Option A Status Quo , is the only long-term viable solution.

Mark Almeda

From:	David Price
To:	Comments
Subject:	[External] Striped Bass Commercial Quota Transfer
Date:	Friday, January 13, 2023 5:26:08 PM

Hello,

I'd like to summit my response to the ASMFC in regards to the commercial quota transfer on striped bass. I fully support option A. Which states no commercial transfer of striped bass which is status quo. I appreciate your time and consideration of my response. Thank You

Sincerely,

David Price
311 Laurel Blvd
Lanoka Harbor, NJ

From: seffy78
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 5:22:49 PM

I support option A, status quo, no transfer

Seth, New Jersey

From: Matt Bacchi
To: Comments
Subject: [External] Striped Bass Draft Addendum I to Amendment 7
Date: Friday, January 13, 2023 5:16:31 PM

I am a recreational angler from NY, and I primarily fish in Long Island Sound and around Montauk NY. The Atlantic striped bass fishery is important to me because they are an important natural resource to the entire US, and my favorite game fish to chase. As a recreational angler, I keep/kill zero fish because their stock is in decline, and your board has designated them as overfished.

In section 2.1 of the Draft Addendum document (on pg 2) you list a number of concerns in the problem statement that are simply one sided points of view. The commercial fishing sector involved in striped bass harvesting is continually attempting to increase their catch, all while the striped bass management board is tasked with REBUILDING THE STOCK. The facts are that there is evidence the population is overfished. This forces you as a board to rebuild the stock. Do not let these selfish interests distract you from your legally mandated task.

With regard to the options being considered for Addendum 1, I am writing to express my support for **Option A (status quo): commercial quota transfers are not permitted**. We must not increase mortality at a time when the stock is rebuilding.

Sincerely,
Matt Bacchi
mbacchi@gmail.com

From: Tom Kelly
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 5:13:52 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Sent from my iPhone

From: Daniel Drabkin
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 5:11:21 PM

To whom it may concern,

I support option a: status quo, no transfers.

Sincerely,

Daniel Drabkin
Marblehead, MA

From: Alan
To: Comments
Subject: [External] Commercial Quota transfers
Date: Friday, January 13, 2023 5:09:38 PM

Good afternoon , as a long time dedicated recreational Striped Bass fisherman…..

I writing to say that i absolutely Do not support the Commercial Quota transfer addendum that is is being considered….it foolish and short sighted to consider this addendum as we are trying to re-build Striped Bass stocks along the Atlantic seaboard. I support Option A…No commercial Quota transfers.

Alan Berger
Assistant Director
516-647-1391
bergersmac@gmail.com

From: Alfred Sargente
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 5:09:35 PM

To whom it may concern,

I am a recreational angler from Bronx, NY, and primarily fish in LI Sound and the south shore of Long Island. The Atlantic striped bass fishery is important to me because I have fished for stripers since I was a kid (I'm 64 now) and remember the good times and the bad times. Unfortunately, based on the most recent spawning numbers, it looks like we are heading for more bad times. That's why it's more important now than ever to do everything we can to protect striped bass stocks.

With regard to the options being considered for Addendum 1, I am writing to express my support for Option A (status quo): commercial quota transfers are not permitted. All other options would increase mortality at a time when the stock is rebuilding.

Sincerely,

Alfred J. Sargente, Esq.

asargente@gmail.com

From: Taylor Ingraham
To: Comments
Subject: [External] Opposing Commercial Transfers
Date: Friday, January 13, 2023 5:08:04 PM

Thank you for accepting my feedback on commercial transfers. I support Option A: Status Quo | No Commercial Quota Transfers.

Happy to discuss and thank you again,

Taylor Ingraham

Taylor Ingraham

From:	Gene Torrey
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 5:07:25 PM

To whom it may concern,

There should be no increase in the stripped bass fishery in the Chesapeake Bay or US East Coast for recreational or commercial fishing.

In fact, there should be a reduction in the take until such time as biologist not affiliated with the harvest industry or conservation special interests verify populations have returned to a sustainable level.

Gene

From: Mary
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 5:04:14 PM

Stop the attack on OUR natural resources.

Sent from my iPad

From: CHRIS GUAY
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 4:59:34 PM

Hi,

I support option A, status quo, NO QUOTA TRANSFERS.

I have been passionately fishing for striped bass for the last 4 years. I've spent thousands on equipment, charter services, and licenses to recreationally fish for striped bass from NJ to MA. I live in Florida but am planning a several month trip to fish for them with some other friends from other areas of the country who have never fished for them before. I love many fish species but none are as near and dear to me as stripers.

If you fail to rebuild these stocks by transferring quotas and allowing more harvest, it's only a matter of time until your failures become punishable by federal law under the Magnuson-Stevens Fishery Conservation and Management Act.

Think about that. A little more sacrifice now, for a lot less pain later on.

Regards,

Christopher Guay

From:	D Carver
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, January 13, 2023 4:58:40 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

This is so typical. I know there were a lot more fish this year than recent years. However, that is no the time to go ravaging gains made.
The Cod fishery is not a tiny fraction of what it once was. Cod was like... air. Then, it was popularized on many fronts and now.... if not tightly controlled, there would probably be none left. Not the quantity, nor the size.
So how about we hold off on pounding stripers back to the edge.. again.. and make for a great recovery, to a level where the striper population might just stand a chance of being supported, managed, maintained at truly healthy levels.
And for another sample of how to mismanage a fishery and recovery, look at salmon. And now, we are short on herring, mackerel are needing protection, and even bluefish, considered by so many to be undesirable, are showing up... or not showing up... to the game anywhere near where they were just a few years ago.
Wake the F.. up folks.
Leave something alone for a while and see where it can go. There are not "plenty of fish in the sea" any longer. But there are some that are more able to carry the pressure that is being put on stripers.
I would give up fishing for them, as much as I love to catch (and carefully release) them, if it would make the difference. But transferring the little successes that maybe occurred this year??? Good Grief Charlie Brown.

From: albert daddario
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 4:58:22 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Sent from my iPhone

From: debbie bennett
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 4:57:50 PM

I oppose any increase in the commercial striped bass harvest.

The striped bass population is currently overfished as it is rebuilding.

Please let the population rebuild and oppose this bill!

Respectfully submitted,
Deborah Bennett
2335 Cape Leonard Druve
St. Leonard, MD

From: Sean Hogan
To: Comments
Subject: [External] Striped Bass Quota Transfer - option A
Date: Friday, January 13, 2023 4:57:09 PM

I support option A along with the entire east coast, no quota transfer.

Sean

From: Steven Reardon
To: Comments
Subject: [External] Striped Bass commercial quota transfer
Date: Friday, January 13, 2023 4:52:54 PM

To whom it may concern.

My name is Steve Reardon from and I reside in CT. I am writing this to you to inform you that I support option A, status quo, no comercial transfer.

Thank you,
Steven Reardon

From: Ryan Horan
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 4:52:46 PM

I support option a, status quo, no commercial transfer.
Ryan Horan
Rhode Island

From: scott honse
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 4:50:59 PM

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels or lowering them.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning. If there is any consideration to allow the large stripe bass to not be fished I would recommend implementing these measures.

Thank you,

Scott Honse

From: Kyle Dancause
To: Comments
Subject: [External] Option A: status quo
Date: Friday, January 13, 2023 4:48:52 PM

The Striper stakeholders have spoken loud and clear through the amendment 7 process - rebuild the stock. Do right by the public you serve. Myself along with an overwhelming majority agrees to option A. No commercial quota transfers.

Thank you.

Kyle Dancause
South Portland, ME

Sent from my iPhone

From: stmatts@aol.com
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 4:47:39 PM

I am opposed to any increase in the quota at this time.

Jon W Abboud

From: Carpe Diem
To: Comments
Subject: [External] Striped bass commercial quota email transfer
Date: Friday, January 13, 2023 4:43:47 PM

I support option A, status quo, no commercial transfer

Joseph Cumella
Long Beach New York

From: Daniel Findorak
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 4:42:03 PM

I hope all is well. I support Option A, status quo - no commercial transfer

Thanks,

Dan Findorak - Connecticut

From: amughal aamdesignbuild.com
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 4:35:05 PM

Greetings—

I support option a, status quo, no transfers.

Amir Mughal
New York, NY

From: barmby@comcast.net
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 4:34:37 PM

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

Please make striped bass a game fish ASAP

Captain Scott Barmby

Rock on Fishing Charters

www.fishrockon.com

240-372-1864

From: main1pi
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 4:26:38 PM

Leave what few fish we have alone. Yes it will be painfull but it is not as bad a full blown ban on fishing like the 80's.

Sent from my Verizon, Samsung Galaxy smartphone

From: Ferdinand Cosentino
To: Comments
Subject: [External] Striped bass Quota Transfer
Date: Friday, January 13, 2023 4:25:30 PM

Dear ASMFC,

I support option A, status quo no transfers

Ferdinand Cosentino
New York

From: dylan perron
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 4:24:51 PM

I support option A, status quo, no transfers.

Thank you
Dylan Perron

Sent from my iPhone

From: Alex Kaye
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 4:23:36 PM

I support option A, status quo, no transfers.

Alexander Kaye, Maine

Get Outlook for iOS

From: dennis feliciano
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 4:22:28 PM

As an avid striped bass recreational angler I firmly support option a, status quo, no transfers.

Please maintain the status quo, option a, and do not allow transfers.

Thank you,

Dennis Feliciano, New York

From: robert young
To: Comments
Subject: [External] Addendum 1 - Vote for Option A
Date: Friday, January 13, 2023 4:22:09 PM

Dear Board Members of the ASMFC,

Please note that my email to you constitutes my opposition for striped bass quota transfers.

Please select Option A - Status Quo - No Commercial Quota Transfers.

Thank you for your time.

Best,

Robert Young
NH

Sent from my iPhone

From: Robert Flynn
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 4:18:05 PM

Please do not increase or transfer the allowable commercial catch quota for striped bass. Commercial quota should be decreased until the population is fully restored.

From:	Alec Griswold
To:	Comments
Subject:	[External] Public comment
Date:	Friday, January 13, 2023 4:16:25 PM

Dear ASMFC,

I s**upport Option A: Status Quo | No Commercial Quota Transfers. I am hopeful the council will listen to the public.**

Thank you,

Alec

Alec Griswold
pronouns:he/him
Executive Director
Elevate Youth
89 South Street, Suite 203
Boston, MA 02111
(o) 857.995.8050
(c) 410.627.8066
I.G. @elevate.youth.boston
www.elevateyouthoutdoors.org

From: Sam Herzig
To: Comments
Subject: [External] Striped Bass Addendum I, Comment
Date: Friday, January 13, 2023 4:12:16 PM

Hello ASMFC,

My name is Sam Herzig. I am an avid angler from the great State of New York.

I would like to add my comment on Addendum 1 around Commercial Quota Transfers. I beg you to select Option A (Status Quo).

Option A (status quo): Commercial quota transfers are not permitted.

We are in a **crucial** moment where we can either protect the recovery of Striped Bass or continue the heavy pressure and slow decline of the species. It is our duty and responsibility to protect our fisheries for future generations.

Not selecting Option A will only hurt our ability to recover our Striped Bass fishery. Option A is our only way the future has a sustainable Striped Bass population.

Thank you,

Sam

From:	Kevin Lesser
To:	Comments
Subject:	[External] Addendum One Comment
Date:	Friday, January 13, 2023 4:08:05 PM

Hello,

I strongly support option A: status quo, no commercial quota transfers on Striped Bass.

Thank you,

Kevin Lesser

From: Tony Pizzella
To: Comments
Subject: [External] Striped Bass Quota Transfer…
Date: Friday, January 13, 2023 4:07:50 PM

To whom it may concern,
I support Option A, status quo, no transfers.

Thank you,
Anthony Pizzella, Maine

From: Sam Azoulay
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 4:02:11 PM

I am opposed to the increased quota for striped bass. The fishery is strained. To buy quotas from other states is not logical. The catch should be reduced to save this fishery. Thanks Sam Azoulay

Sent from my iPhone

From: Nadine Pizzella
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 4:00:13 PM

To whom it may concern,

I support Option A: status quo, no transfers.

Thank you,
Nadine Pizzella, Maine

From:	Chris Andrianas
To:	Comments
Subject:	[External] striped bass quote transfer
Date:	Friday, January 13, 2023 3:58:41 PM

I support option a, status quo, no transfers.

Christopher Andrianas, Massachusetts

From: Hugh Kaplan
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:58:23 PM

Dear Asmfc,

Please don’t adopt the amendment raising the Rockfish quota. They are already overfished. - Hugh Kaplan, Montgomery County, MD

From: Jess Bucks
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:51:39 PM

---

opposed

Sent from Mail for Windows

From: Capt. Carle Hildreth
To: Comments
Subject: [External] Comments re: Addendum 1, Commercial Quota Transfers
Date: Friday, January 13, 2023 3:49:54 PM

To Whom It May Concern,
I am a striper fishing guide in Portland, Maine. I have been fishing recreationally for striped bass here for over 20 years and have been a full time guide for 11 of those years (5+ days a week on the water with clients). Fishing for stripers has been my main source of income and I have been willing to make changes in order to do my part in supporting sustainable fishery management. I have adjusted my business model to support conservation and responsible catch and release measures in order to keep this fishery sustainable. I do not harvest any stripers on my trips and my business has thrived. I submit this not to boast, but to acknowledge that the general public will support guides that are conservation minded.
Regarding the referendum at hand I do not see how commercial quota transfers have any place in the discussion of managing this fishery responsibly. It feels like greed at the expense of the fish. It also feels like there is an attempt to minimize the impact of harvesting additional spawning size biomass by stating it would be just a small percent of a small percent of overall harvest. ANY additional harvest of spawning size biomass is unacceptable at this point.
I have made several efforts over the years to change my business in order to adjust to conservation methods that I believe are necessary. I expect commercial striper fishermen to do the same yet in my opinion they do not. They continue to find loopholes and introduce ideas that are clearly selfish in nature and do not consider sustainability. The board has an obligation to strike down referendums that fail to promote good sense management. It has done this in the past and I hope its response is consistent regarding this nonsensical addendum.
For these reasons I support Option A (status quo):Commercial quota transfers are not permitted.
Regards,
Carle Hildreth
Portland, ME
--
Capt. Carle Hildreth
207-450-9428

From:	Toby Frey
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 3:49:02 PM

Dear ASMFC,

I have lived on the Chesapeake Bay for 80 years, I raised Striped Bass in Aquaculture during the 85-90 moratorium...Current management or lack thereof I believe is setting the stage for another moratorium and both recreational, charter & commercial fisherman will be the losers.

Please stop manipulating the laws to allow a greater catch...we need slot limits, equal rights for Recreational fisherman and charters...

The Chesapeake should be a separately managed area as it is our NURSERY...If you want to control a population, cull the females...Trophy seasons and allowing the keeping/killing of females (90% of stripers over 32" are females) is insane...

Lastly, allowing transfers of QUATAS is defeating any previous acts of conservation...It's time to make the hard decisions and do your assigned duties and protect the species...

Sewell "Toby" Frey
‹*)))))›››{
Toby Frey
103 Third St.
Oxford, MD 21654
410-725-1781
Coastal Conservation Assoc. MD Board Member
MD Tidal Coastal & Recreational Fisheries Committee
MD Sport Fishing Advisory Commission
Mid Shore Fishing Club
Cambridge Skeet Club
Salt Strong Insider
Secret Dove Club

From: Brad Curtin
To: Comments
Subject: [External] Striped bass addendum 1
Date: Friday, January 13, 2023 3:48:07 PM

In regards to addendum 1 my support is for option A: maintain status quo no transfer of commercial quota allowed.

Thank you,
Brad Curtin recreational angler from Massachusetts

From:	Doug Caplan
To:	Comments
Cc:	Dan Mckiernan; Raymond Kane; Sarah.Peake@mahouse.gov; Sarah Ferrara
Subject:	[External] Striped Bass Addendum I
Date:	Friday, January 13, 2023 3:47:02 PM

Hello ASMFC,

My name is Doug Caplan. I am an avid angler from Massachusetts. Fishing has been a way for me to enjoy the outdoors with family and friends my whole life, especially during the difficult times of the past few years. I am deeply troubled to have to write to you to fight for Striped Bass conservation.

I would like to add my comment on Addendum 1 around Commercial Quota Transfers. I beg you to select Option A (Status Quo).

Option A (status quo): Commercial quota transfers are not permitted.

We are in a pivotal moment where we can either fast track the recovery of Striped Bass or continue the heavy pressure and slow decline of the species.

Not selecting Option A will only hurt our ability to recover our Striped Bass fishery. Option A is our only way the future has a sustainable Striped Bass population.

Thank you,

Doug Caplan
dougacaplan@gmail.com
(717) 460-6239

From: william martin
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:46:47 PM

For heaven's sake, do the commercial interests have any sense of shared responsibility? I adamantly oppose the recently proposed draft addendum regarding striped bass quotas. Nothing could better illustrate the tragedy of the commons! We all, commercial and recreational fishermen must share the increased regulatory burden until the population of large breeding female striped bass materially and provably is increased to a sustainable and robust level. No more regulatory chicanery! Be responsible by better protecting the biomass and particularly the large females. What insanity allows us to target those fish in any season or to take the summer population of juvenile stripers on the Chesapeake?
William Martin Ph.D., Baltimore MD

Sent from my iPhone

From: Fred Meers
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:41:10 PM

I oppose any increased fishing for striped bass. God at $18/lb who can afford what the commercial interests are selling anyway. We don't need to reallocate uncaught quotas . I think we should have a moratorium for all.

Fred Meers

Sent from my iPhone

From: Warren Stern
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 3:40:41 PM

I support option a, status quo, no commercial transfer

Warren Stern, CT

From: gj.beidler@comcast.net
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 3:40:11 PM

Hello,

I support option a, status quo, no commercial transfer.

Thank you,
-Greg Beidler, PA

From: Kevin Ventriglia
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:37:55 PM

My name is Kevin Ventriglia and I support “option a - no commercial transfer of unused quota.” With the wind turbines in development, the last thing I want to see going on top of whales would be bass. We’re in a fragile time where surely even at the highest of positions people are aware that uncertainty is in the air, regardless of research findings. Better safe than sorry.

DO NOT TRANSFER COMMERCIAL UNUSED STRIPED BASS QUOTA. OPTION A

Kevin Ventriglia

From: Richard Howell
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 3:37:00 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

I an a qualified fisheries biologist and feel that the biology is taking second place to extreme lobbying with the proposed management of the species.

Richard Howell

20 Fells Road
Wellesley
Massachusetts
MA 02482
USA

Cell: 781-795-2131
howellrichardk@gmail.com

From: Colin Temple
To: Comments
Subject: [External] Striped Bass Draft Addendum 1 : comments
Date: Friday, January 13, 2023 3:35:48 PM

Good afternoon Emilie & ASMFC team,

I am writing this afternoon as a recreational fly angler located in Massachusetts, and a member of Plum Island Surfcasters & South Shore Fly Casters to express my absolute support for Option A, no commercial quota transfer.

This addendum is in direct conflict with the objective of Amendment 7 which seeks to rebuild the stock by 2029. ANY initiative that seeks to harvest more fish at this current point in time should be avoided.

Given the sensitivity of the rebuild plan to mortality assumptions it would be irresponsible to do anything that would put achieving the targets at risk.

So summarize my argument in as logical a way as possible; if you are wrong on the risks associated with harvesting more fish then we end up with a moratorium, and if I'm wrong we simply end up with a more abundant stock. With that as the basis for the argument, and given the current status of an overfished biomass I don't see how this Addendum is even a consideration worth discussing.

Thank you sincerely for your time.

Best regards,
Colin Temple

Sent from my iPhone

From: Andrew Collins
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:31:24 PM

Makes n sense at all to increase/maximize striped bass quotas at this time. I've been fishing for rock fish in the Bay for almost twenty years and the last five years have been horrible. I oppose any/all efforts to increase catch limits until we are back to levels of ten years ago.

Best regards,
Andy Collins
Leesburg, VA

From: Herb Keating
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:29:05 PM

I oppose Striped Bass Draft Addendum I. To maintain an increase the health of the population and keep the mortality rate low I strongly agree with opposing this addendum. Any increase in catch quotas will no doubt will reduce the future population

Respectfully
Herb Keating
30 year veteran Chesapeake Bay Fisherman
443-852-9684

Sent from my iPhone

From: THOMAS DOLAN
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:26:55 PM

Conservation ,
I have been fishing the Middle Chesapeake Bay Region for 25 years. I have witnessed the Rockfishing worsen tremendously. It's very sad.
Please act and fix it!
Captain Tom Dolan
Avid angler

Sent from my iPhone

From: Christian Halik
To: Comments
Subject: [External] Stripped bass quota transfer
Date: Friday, January 13, 2023 3:25:51 PM

I support option A, stratus quo no transfer

Christian halik

Massachusetts
Sent from my iPhone

From: Julia Gaff
To: Comments
Cc: Jerrygaff@yahoo.com
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:24:18 PM

Sent from Mail for Win

My wife and I are writing to oppose Draft Addendum 1 to Amendment 7 of the Striped Bass Management Plan. At a time when regulators have declared Stripers To be Overfished and regulations are focused on rebuilding the stock, this is no time to remove more from the spawning biomass. We need all the breeders we can retain in order to rebuild the stock. Thus far, recreational fishermen have agreed to reduce our harvest, and if special exception is made for commercial fishermen, that work counter to the best interests of both groups. Please do the right thing and keep the focus on rebuilding the stock instead of increasing the removal of breeding Stripers.

From: clutch putt
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:18:51 PM

I will pursue an election fund to remove anyone who votes in favor of this Addendum.

You vote for it and I will do everything within my resources to remove you from office

That is my pledge!
--
Jim

_____
Jim Smolen
jim@smolengroup.com

From: Sean Hughes
To: Comments
Subject: [External] Option A
Date: Friday, January 13, 2023 3:14:55 PM

I support option A as someone that fishes hard and cares to continue fishing!

Sean Hughes
Hughes & Cronin Public Affairs Strategies
455 Boston Post Rd, Ste 203 B
Old Saybrook, CT 06475
O: 860.346.7978 | C: 860.853.8748
Hughesandcronin.com

From:	Doug
To:	Comments
Subject:	[External] Striped bass comment
Date:	Friday, January 13, 2023 3:14:23 PM

I support Option A: Status Quo | No Commercial Quota Transfers.

Doug Alichwer
Sent from my iPhone

From: Frank Pitzi
To: Comments
Subject: [External] Option A (status quo): Commercial quota transfers are not permitted
Date: Friday, January 13, 2023 3:13:10 PM

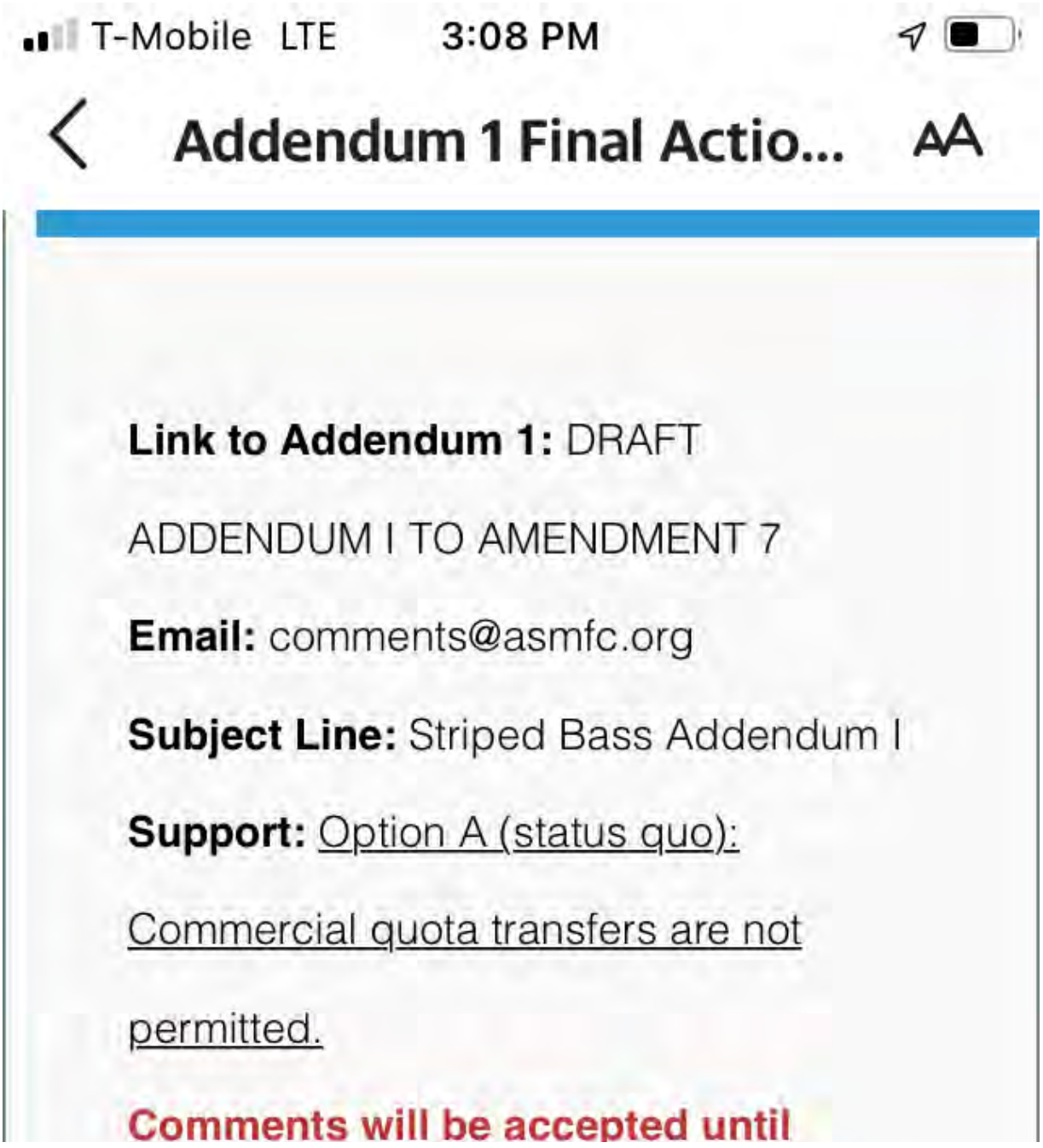
I support Option A

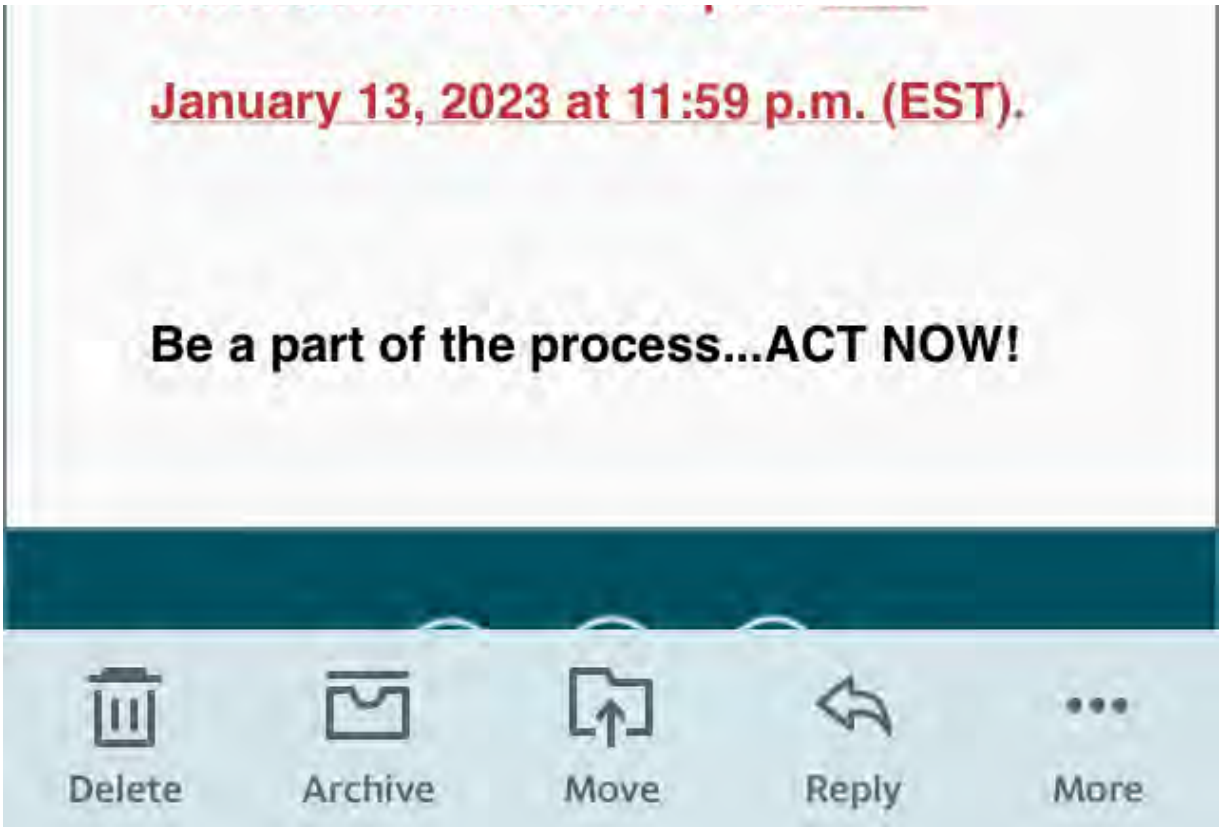
From: thoude3320@aol.com
To: Comments
Subject: [External] Draft addendum 1 to amendment 7
Date: Friday, January 13, 2023 3:12:30 PM
Attachments: IMG_3912.PNG

I support option A (status quo).
Please do NOT allow commercial transfer.

Thank you for your consideration.

Tom Houde
Recreational Angler





Sent from the all new AOL app for iOS

From: Zach Devaughn
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:11:29 PM

To whom it may concern,
I would respectfully ask that you DO NOT raise the quota for the harvest of Striped Bass. My family comes from commercial fisherman, but I do not see how it is sustainable to continue the catch as it is now. I love to catch and even eat these fish, however, I would like to make sure they are around for my children to enjoy as well.
Thank you for your time and consideration

Zachary DeVaughn
Peninsula Water Conditioning
443-735-7671

From: nhlombardi
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 3:10:20 PM

I support Opinion A, status quo, no transfers.

Please don't do this. Nantucket Sound waters are already depleted, myself and others around the Cape & Islands cannot afford to keep losing the money maker for our guide businesses. These larger fish are 15-20 years old. The biomass cannot meet the demand of the commercial and recreational harvest. Anyone who says otherwise is compromised.

Nicholas Lombardi,
Massachusetts

From: Robert Moore
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 3:07:55 PM

I support option A, status quo, NO TRANSFERS.

Bobby Moore, NY

From: Tyler Clark
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 3:03:14 PM

I am submitting this email to support option A in relation to striped bass Addendum 1. A transfer of commercial quotas is unacceptable given the low stock populations. The ASMFC is not properly managing this stock and further poor decisions will only compromise this vital resource. Keep the current regulations status quo.

-Tyler Clark

Sent from my iPhone

From: Tom
To: Comments
Subject: [External] Striped Bass Addendum I: VOTE OPTION A.....
Date: Friday, January 13, 2023 3:01:22 PM

To whom it may concern:

I am a recreational fisherman that boats in both the Long Island Sound and off Martha's Vineyard actively. I have experienced directly the incredible decline in striped bass over the last 10 years, and remain very concerned about how we manage the Atlantic fishery.

I believe it would be a huge mistake to allow the transfer of commercial quota's being contemplated in the addendum. I 100% believe that the only logical position is to support:

Option A (status quo): Commercial quota transfers are not permitted.

Please do not reverse course and further damage the striped bass fishery as it is just beginning to recover.

Thank You.

Thomas Wisniewski
917-885-2616

From: Jim Mize
To: Comments
Subject: [External] Addendum 1: Commercial Quota Transfers. Striped Bass
Date: Friday, January 13, 2023 3:00:49 PM

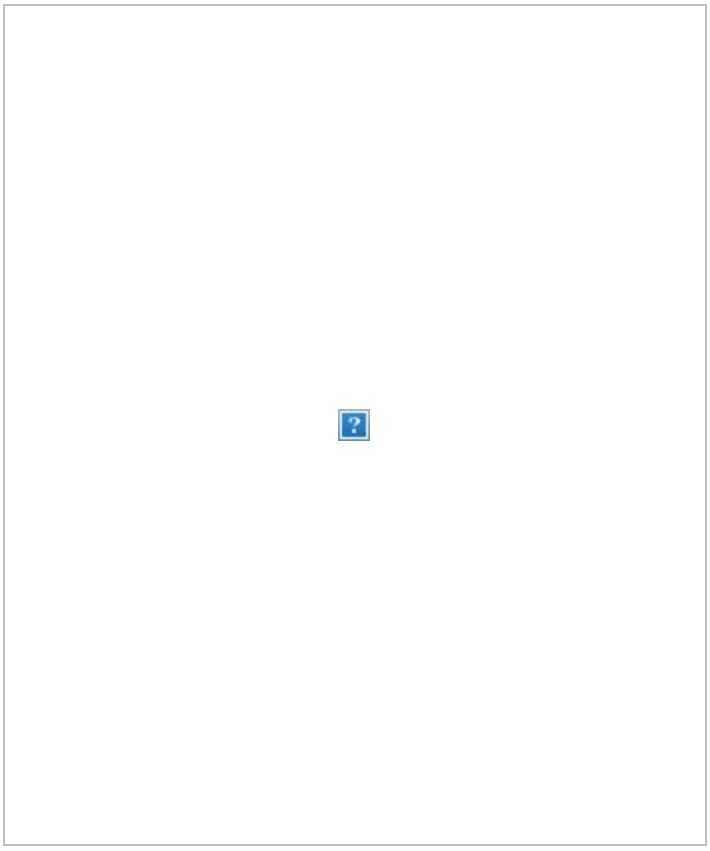
Good afternoon,

Thank you for allowing my input on this matter.

I support option A, status quo with no commercial transfer.

Thank you

Capt. Jim Mize
Northeast Bluefin Showdown
July 8-15, 2023
(603) 234-5932



From: John Detweiler
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 3:00:44 PM

To whom it may concern,

According to the 2022 Striped Bass Stock Assessment Update and from one that has fished the Chesapeake Bay for many years, the Striped Bass Stock remains woefully overfished. Rebuilding success hinges on maintaining low fishing mortality rates while poor recruitment persists. Purposefully increasing commercial landings is not a rationale thing to do and I respectively submit and request that the Board oppose this action.

Thank you,
John R. “Jack” Detweiler
717-215-3195

From:	Evan Dintaman
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 2:52:46 PM

Good Afternoon,

Yet again, here we are writing our public comments weighing in on a situation that should never have been up for debate. Public sentiment has been clear - we should be aggressively rebuilding the striped bass stock and not actively trying to pass addendums that work against those goals.

Nonetheless, I will write another email in hopes it is heard.

I strongly support Option A, status quo, no commercial transfers. This is the only logical and reasonable option given the current state of the striped bass stock.

Hopefully this is not another email that falls on deaf ears. Public faith in the board is low - it is time to stop and listen.

Thanks for your time,
Evan

From: Bert Olmstead
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:52:32 PM

Opposed

Sent from Yahoo Mail for iPhone

From:	D M
To:	Comments
Subject:	[External] Striped Bass Addendum 1
Date:	Friday, January 13, 2023 2:52:02 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Sent from Yahoo Mail on Android

From: Donald McDougall
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:49:51 PM

Dear Sir(s),

As a recreational angler in the Chesapeake Bay region, I urge you to not approve any changes to the commercial harvest of Striped Bass which will result in an increased harvest. The fishery is in poor shape. We must avoid contributing to the problem.

Thank you.

Donald McDougall
14280 Solomons Island Rd
Solomons MD 20688

Sent from my iPhone

From: Bran Dougherty-Johnson
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 2:46:56 PM

I support Option A, status quo, no transfers

Thank you,
Bran Dougherty-Johnson
NY

From: Daniel Lodato
To: Comments
Subject: [External] Striped Bass Quota Transfer- Strong Opposition
Date: Friday, January 13, 2023 2:45:35 PM

I am writing in strong and passionate opposition of the striped bass quota transfer. I am a recreational angler with 15 years experience fishing for striped bass and experienced first hand the huge decline in the species over the years.

All of the conservation efforts that people have been fighting so hard for will have all been for nothing if that passes. This would completely decimate the population when it is already extremely overfished and hurting and we will be right back in the 80's. It would completely break the hearts of the entire recreational fishing community.

The amount of commercial poaching that goes on behind the scene with understaffed law enforcement already accounts for loses that can not even seen in your metrics and then that on top of which these other states like DE and MD would extinct these precious fish and would be salivating at the mouth at thought of all the money they could make at the expense of a fish the entire northeast fishing industry and even town economies are based around, places like Montauk. I pray to god that this does not get passed so does everyone in the surfcasting community on long island NY. Please do the right thing! Thank you for your time.

From: Owen McKenna
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 2:45:02 PM

I support option A, status quo, no commercial transfer.

Owen McKenna
Massachusetts

From: Keegan Austin
To: Comments
Subject: [External] Option A
Date: Friday, January 13, 2023 2:43:58 PM

I support Option A, Status Quo, No transfers.

Keegan Austin (Maine)

From: Thomas Perkins
To: Comments
Subject: [External] I suuport Option A
Date: Friday, January 13, 2023 2:42:55 PM

As a Marylander who fishes for striped bass in Maryland, Maine, Massachuests and Connecticut I support Option A status Quo No Commercial Quota Transfers

Thank you,

Thomas

From: Jack Tanner
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:40:50 PM

Please don't pass this, stripers are already way overfished, it's only going to make it worse if we raise the quota. It used to be a lot more common to catch 20+ pound stripers especially in the upper Potomac and other rivers where the fish run but it is much more difficult nowadays. we need these big fish to make a comeback and that can only happen if the little ones survive.

Sincerely,
Jack Tanner

From: Bob Goetz
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 2:40:34 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Sent from Yahoo Mail on Android

From:	Ed Rakowski
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 2:39:03 PM

Since the Chesapeake Bay is critical to the survival of the East Coast Striped Bass population it is essential the we in Maryland be in the forefront of conserving this population. If we do not take the lead in controlling their harvest I fear a moratorium will again become necessary. We must learn from the mistakes of the past and not allow Stiped Bass stocks to be overfished.

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

Sincerely,

Edwin J. Rakowski

From:	Pete Moore
To:	Comments; information@ccamd.org
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 2:38:37 PM
Attachments:	image001.png

Hell no. This is ridiculous.

Pete Moore | Federal Client Manager
Mobile:. 410-279-1499
New email: pete.moore@optivfederal.com
www.optiv.com

OPTIV
Secure greatness™

From: Trenton Miller
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 2:38:07 PM

I support Option A. Status quo, no transfers.

Trenton Miller, Virginia

From: Bill Wahlers
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 2:38:00 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

From: Bert Olmstead
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:37:15 PM

Opposed!

Sent from Yahoo Mail for iPhone

From: Mark Dzindzio
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 2:36:24 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

From: Bert Olmstead
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:35:22 PM

Stop netting striped bass for commercial fishing. Reduce tonnage! Reduce fish limit for charters to 1 fish per person like recreational fishing that charters are categorized in.!! No brainer. Have Virginia New Jersey etc. follow set rules for same rules.!!

From: Kevin Howley
To: Comments
Subject: [External] Commercial Striped Bass Quota Transfer
Date: Friday, January 13, 2023 2:35:04 PM

I'm writing to opposed any commercial quota transfer for Striped Bass. I support the status quo.

From: Christopher Hallahan
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 2:33:59 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

Please respect what myself and thousands of other recreational anglers on MA know, we must protect our striped bass population.

Chris Hallahan
Ashland, MA

From: JD NOWA
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:32:57 PM

PLEASE, do not increase the Striped Bass commercial catch. They need time to rebuild their numbers.
Thanks John Nowakowski, Severn Md.

From:	R & T Strz
To:	Comments
Subject:	[External] FW: Striped Bass: Addendum 1 to Amendment 7: Transfer of Commercial Quota
Date:	Friday, January 13, 2023 2:27:39 PM
Importance:	High

Dear Commission:

My husband has been a surfcaster for striped bass for over 50 years and I want to see the striped bass stock replenished as quickly as possible . Therefore, I support option a, status quo, no commercial transfer

Patricia A Strzepek
Mattituck, NY 11952

From: Ben Horner
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 2:27:36 PM

Hello,

With the numbers provided in the last report I don't see any logic in allowing the transfer of commercial quotas. All that would do in further reduce the stock. Let's build the stock back to viable levels and then sustain those levels.

I support option A, status quo, no commercial transfer.

Regards,
Ben Horner
New Hampshire

From:	Fasolino, Umberto
To:	Comments
Subject:	[External] RE: Striped Bass: Addendum 1 to Amendment : Transfer of Commercial Quota
Date:	Friday, January 13, 2023 2:26:33 PM

Dear Commission:

I support option A: Status quo, no commercial transfer

Umberto Fasolino,
Cutchogue, New York

Regards,

Umberto

Umberto C. Fasolino, CFPS

2260 Duck Pond Road, Cutchogue, NY 11935
Phone +1 347 986 9117
umberto.fasolino@aig.com | www.aig.com

From: Duane Eggie
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 2:25:08 PM

What's wrong with you people? Your management operandi is suspect. I support Option A (status quo): Commercial quota transfers are not permitted. Do the right thing here. Increased commercial harvest supports the few and hurts the many!

Sent from my iPhone

From: Jim Tryforos
To: Comments
Subject: [External] Striped Bass Rules - Addendum 1
Date: Friday, January 13, 2023 2:24:34 PM

I support Option A: Status quo - No commercial quota transfers.

Thank you.

James Tryforos
11 Forest Rd
Glen Rock, NJ 07452

201-835-3831
--
Jim Tryforos
jimtryforos@gmail.com
201-835-3831

From: Ryan Carrier
To: Comments
Subject: [External] Commercial Quota
Date: Friday, January 13, 2023 2:22:03 PM

To whom it may concern:

I do not support the idea of commercial quota transfer. I support option A, no commercial transfer. Let's do whats best for our striped bass population.

Sincerely,
Ryan Carrier
Massachusetts

Sent from my iPhone 12 Max Pro 5G

From: Stefan Altenburger
To: Comments
Subject: [External] Striped bass Addendum I
Date: Friday, January 13, 2023 2:21:42 PM

Support: Option A (status quo): Commercial quota transfers are not permitted.

Best,
Stefan

Sent from my iPhone

From:	Jordan Rae
To:	Comments
Subject:	[External] Addendum 1 Comment
Date:	Friday, January 13, 2023 2:19:01 PM

Hello ASMFC,

My name is Jordan Nesi. I am an avid angler from CT.

I would like to add my comment on Addendum 1 around Commercial Quota Transfers. I beg you to select Option A (Status Quo).

Option A (status quo): Commercial quota transfers are not permitted.

We are in a pivotal moment where we can either fast track the recovery of Striped Bass or continue the heavy pressure and slow decline of the species.

Not selecting Option A will only hurt our ability to recover our Striped Bass fishery. Option A is our only way the future has a sustainable Striped Bass population.

Thank you,
Jordan Nesi

From: Andrew Connors
To: Comments
Subject: [External] Striped bass addendum 1
Date: Friday, January 13, 2023 2:16:35 PM

Please do NOT allow commercial transfers. We should be doing more to limit harvests whilst rebuilding the biomass stock.

Quite frankly, there should be a full moratorium enacted on the taking of striped bass for at least 5 years.

Thanks,

Andrew Connors
Chappaqua, NY

From:	Bagdonas, Alexander
To:	Comments
Subject:	[External] Striped Bass Addendum I
Date:	Friday, January 13, 2023 2:13:12 PM
Attachments:	image001.png

Hello ASMFC,

My name is Alex Bagdonas. I am an avid angler from Massachusetts.

I would like to add my comment on Addendum 1 around Commercial Quota Transfers. I beg you to select Option A (Status Quo).

Option A (status quo): Commercial quota transfers are not permitted.

We are in a pivotal moment where we can either fast track the recovery of Striped Bass or continue the heavy pressure and slow decline of the species.

Not selecting Option A will only hurt our ability to recover our Striped Bass fishery. Option A is our only way the future has a sustainable Striped Bass population.

Sincerely,

Alex

HUB

Risk & Insurance | Employee Benefits | Retirement & Private Wealth
Ready for tomorrow.

Alexander K Bagdonas
Senior Vice President - Financial Institutions

HUB International New England, LLC
600 Longwater Dr.
Norwell,MA 02061

Office: 781-792-3464
Mobile: 857-919-2681
Email: alexander.bagdonas@hubinternational.com

hubinternational.com

From: Jerry Leuters
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:12:38 PM

I am opposed to these reg changes and i also believe Striped Bass should not be commercially targeted.

Sent from my iPhone

From: Scott Snyder
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 2:11:42 PM

Striped bass are a unique resource to the Chesapeake Bay, and they need protection to prevent their demise. I have personally seen the fishery decline significantly over the last 10 years, and we need to drastically limit the harvest of this species to allow it to survive! Please drastically reduce the amount of Stripes Bass that can be harvested from Maryland waters - for both recreational, as well as commercial fisherman.

Sincerely,

-Scott Snyder
Annapolis, Maryland

From:	DAN EARLY
To:	Comments
Subject:	[External] Striped Bass
Date:	Friday, January 13, 2023 2:11:22 PM

Dear Atlantic States Marine Fisheries Commission -

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning. If there is any consideration to allow the large stripe bass to not be fished, I would recommend implementing these measures.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels or lowering them.

Thank you,

Dan Early
Vice President/Branch Manager
Long & Foster Real Estate, Inc.
The Annapolis Eastport Office
320 Sixth Street - 410-260-2801
dan@longandfoster.com

("Long & Foster") which requests that you wire funds or that you provide nonpublic personal information by unsecured return email, do not respond to the message. To protect yourself, immediately call your real estate agent or other contact at Long & Foster.

From: Leon Thompson
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 2:08:17 PM

Good Afternoon

I support Option A, status quo, no commercial transfer.

Sincerely
Leon Thompson Jr
Delaware

From: P B
To: Comments
Subject: [External] Striped Bass Commercial Quota transfer
Date: Friday, January 13, 2023 2:07:01 PM

I support option A. Status quo. No commercial trasfer.

Transfer of commercial quota would undoubtedly result in more fish being killed.

Sent from my iPhone

From: John Hayes
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 11:55:53 PM

Hello,

I am emailing today to voice my support for option a, status quo, no transfers.

Have a nice day,
John Hayes

From:	Nicholas Hine
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 11:52:48 PM

Dear Atlantic State Marine Fisheries Council:

I am a catch-and-release fly fisherman from New York City. I primarily fish on the east end of Long Island and Truro, MA. I'm writing because the Atlantic striped bass fishery is integral to recreational fly fishing on the east coast.

I understand that you are considering allowing the interstate transfer of commercial harvest quotas. With regard to the options being considered for Addendum 1, I am writing to express my support for Option A, i.e., the status quo, such that commercial quota transfers will not be permitted. All other options would increase Atlantic striped bass mortality at a time when the stock is rebuilding. As I'm sure you know, striped bass are overfished and spawning success has been far below average the last three years.

Tight lines,
Nicholas Hine
nicholasthine@gmail.com

From:	Eric Thies
To:	Comments
Subject:	[External] Draft Addendum I to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan - Submission of Public Comment = Maintain the Status Quo
Date:	Friday, January 13, 2023 11:44:06 PM

To: Ms. Emilie Franke

FMP Coordinator

1050 N. Highland St. Suite 200 A-N

Atlantic Marine States Fisheries Commission

Arlington, VA 22201

comments@asmfc.org

Dear Ms. Franke:

I am a recreational angler and private boater from New Jersey, and I primarily fish in Raritan Bay and along Sandy Hook, New Jersey.

The Atlantic striped bass fishery in New Jersey is very important to me because it provides quality family time that I can spend with my two sons, enjoying being together out on the ocean and pursuing an outdoor activity that we all love. I estimate that I spend about $15,000/year for bait, tackle, gas and boat upkeep recreationally fishing for just striped bass.

Regarding the options being considered for Addendum 1 (to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan), I am submitting my comments to express my support for **Option A** (maintain the status quo - Commercial Quota transfers are not permitted). All other options would increase mortality of this critical resource at a time when the striped bass fish stock is still rebuilding and would be counterproductive to the Striped Bass Management Plan. I would hate to lose the opportunity to enjoy quality recreational striped bass fishing with my family.

Thank you for your consideration of my comments.

Sincerely,

John Thies

56 Clydesdale Rd

Scotch Plains, NJ 07076

Latidude1@gmail.com

From:	Dave McGuffey
To:	Comments
Cc:	Dave McGuffey
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 11:37:39 PM

I oppose the Striped Bass draft addendum I.

As a recreational fisherman I've experienced the quality, size, and numbers of Striped Bass decline quite rapidly from 2002 when I bought a small boat and began fishing the Chesapeake Bay. The water quality has gone down, the summer algae blooms seem to be on the increase and I see more dead floating fish, especially around the fixed impoundment nets (Fyke nets I believe they are called). The fish seem thinner, and from what I read, it appears that Omega Protein is pulling too many bait fish from the Bay, leaving insufficient forage for the existing predator population (Striped Bass, Blues, and saltwater trout).

I oppose any change in regulations that would allow more Striped Bass to be removed from the population. I would like to see reduced allocations for both recreational and commercial fishermen. I would like to see longer summer black-outs where Striped Bass cannot be taken, or even targeted. I would also like to see a huge cut in the tonnage of Mendhaden that Omega Protein is allowed to remove from the Chesapeake Bay, and Atlantic Ocean out to 200 miles.

I say 'NO' to this addendum

Dave McGuffey
14003 Briarchip Ct.
Laurel, MD 2708
301.219.2586 // vz@mcguffeyfamily.com

From: Matthew Murphy
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 11:30:41 PM

Dear Members of ASMFC,

I respectfully submit the following comments to DRAFT ADDENDUM I TO AMENDMENT 7 TO THE ATLANTIC STRIPED BASS INTERSTATE FISHERY MANAGEMENT PLAN:

First, with respect to the proposed Addendum I to Amendment 7, I wish to be clear in my full-throated support of: **Option A (status quo): Commercial quota transfers are not permitted.**

Frankly, it is somewhat astonishing that we find ourselves here, little more than 1 year removed from the completion of the Amendment 7 process and already re-litigating what seemed to be some of the key aspects of Amendment 7, such as Commercial quota transfers, not to mention the loopholes of conservation equivalency currently being explored and exploited - by this body and certain subsets of its constituents (which is another issue for another time). As a careful, yet avid consumer of information around the policy making decision in this realm and an equally passionate participant in the striped bass fishery, I have observed the process from a distance and I have to say: This policy making process makes less than absolute zero sense. From a fisheries perspective, how can the decision-making body responsible for protecting and managing this critical resource - to both recreational and commercial stakeholders alike - even consider a notion that in its own words undermines the very goals that it has stated it has itself decided to set forth? The ASMFC draft document for public comment literally states that 'allowing quota transfers could increase utilization of the total ocean quota, which could undermine the goals and objectives of the reductions taken under Addendum 6 in 2020.' […] During the Addendum 6 process, the technical committee noted that the reduction in the commercial quota would achieve the necessary reduction in commercial removals only if the commercial fishery performs as it has in the past. This assumption may be violated if the commercial transfers in the ocean region are permitted."

So how, in the midst of (what at least on the surface appeared to be) a good faith effort by the Committee to take actions to rebuild and conserve the stock with Amendment 7, can the option of commercial quota transfers even be on the table at this stage? It seems so obvious that the stock of striped bass does not recognize our artificially constructed borders and so, efforts to enable maximal harvest in aggregate are a detriment to the whole of what has been for years now, a suffering stock. It is not lost on me nor others, the importance of the fishery as a commercial enterprise - and as a citizen and consumer I agree that it is important to be balanced when weighing options concerning the utilization of resources. However, if the Committee and those interests in favor of enabling absolute maximal harvest of the stock at this stage could only step back for a moment and see the long game: that a pie that increases in area benefits all the pieces of the pie and their claimants, perhaps we

could finally get out of our own way. That is to say, if we allow the rebuilding of the fishery and manage it for abundance, we will no longer be haggling over small parcels of dwindling or barely improving numbers of fish (and needlessly debating within the context of this body's purview as a result). It is somewhat ironic (and apparently lost on at least some) that it needs to be pointed out (apparently) that the advocates of options to enable the transfer of commercial quotas are ultimately working against their own self-interest, as the the proposed measures besides Option A continue to jeopardize the abundance and longevity of the fishery itself and our ability to enjoy the benefits of this resource for generations to come - both commercially and recreationally. This comes down to a common sense decision, and the pressures of an industry that is reacting against measures meant to serve their interest, which are meant to help restore an abundant and thriving, well managed fishery (wherein realizing commercial quotas is not a matter of maximizing the fish remaining but rather reaping the benefits of a bountiful resource), rather than recognizing the root cause of the issue should not win the day.

In conclusion, I strongly urge the Committee to select and approve Option A (status quo): Commercial quota transfers are not permitted, keeping in mind that fighting over maximizing the percentage of fixed area is small minded when weighed against the possibility of growing the area such that all stakeholders can enjoy the benefits of an abundant fishery.

Respectfully,
Matthew Murphy
Striped Bass Angler

From:	Edwin Rivera
To:	Comments
Subject:	[External] No Commercial Quota Transfer
Date:	Friday, January 13, 2023 11:21:57 PM

Hi,

I support option A: Status quo No Commercial Quota Transfers.

Thank you,

Edwin Rivera Jr.

From: paulyfish reeltherapy.com
To: Comments
Subject: [External] Striped bass
Date: Friday, January 13, 2023 11:10:48 PM

Please vote for Option A
NO transfer of commercial quota!
Thank you
Paul Eidman

Sent from my Verizon, Samsung Galaxy smartphone
Get Outlook for Android

From: Paul Shafer
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 11:08:35 PM

I support Option A (status quo): Commercial quota transfers are not permitted. I have been a conscientious angler for over 60 years. I live in Connecticut but have a house and boat on the New Jersey shore. I fish for strippers in both states. I have witnessed the striper moratorium of the 80's, the recovery of the 90's and the gradual deterioration over the past 15 years or so. We have witnessed recent tightening of restrictions in terms of bag limit and sizes since the stock has been challenged.

I release the vast majority if strippers that I catch. I also teach "intro to fishing " courses to new anglers and teach them to protect the resource and follow ethical handling for all fish they release. It seems counter productive and frankly inconceivable that a transfer of unused commercial quota to another state is in the best interest of strippers at this time as the resource is overfished. The leeway in the mortality rate Is razor thin and could easily fall below the desired overfishing threshold. Please do the right thing and choose Option A (status quo). Thank you.

Sincerely, Paul Shafer

From:	Conor Sheridan
To:	Comments
Subject:	[External] Striped bass quota transfer
Date:	Friday, January 13, 2023 10:59:05 PM

Dear ASMFC,

I support option A, no transfers. It is not an appropriate time to attempt maximize commercial yield.

Sincerely,
Conor Sheridan
Dedham, Massachusetts

From: stefanicksd@yahoo.com
To: Comments
Subject: [External] Striped Bass Commercial Quota Transfer
Date: Friday, January 13, 2023 10:56:33 PM

I support option A, status quo, no commercial transfer.

It is my belief that in a time when we are currently trying to rebuild the Stripes Bass stocks, we should not be trying to add new measures to maximize commercial harvest. Commercial and recreational anglers alike must work together and not be greedy when it comes to rebuilding the stock for this fish.

Scott Stefanick
Pennsylvania

From:	Joseph Atshan
To:	Comments
Subject:	[External]
Date:	Friday, January 13, 2023 10:46:28 PM

Hi,

I support Option A: Status quo | No Commercial Quota Transfers.

Thank you

From: Walker Dales
To: Comments
Subject: [External] Option A
Date: Friday, January 13, 2023 10:41:36 PM

I support Option A - status quo / no commercial quota transfers

Thanks
Walker

E: Walker.H.Dales@gmail.com
M: 912.484.4175

Sent from my iPhone

From:	Tim Regan
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1 Public Comment from Tim Regan
Date:	Friday, January 13, 2023 10:39:07 PM

Hi,
My name is Tim Regan and I live on the east end of Long Island, NY. I am writing to submit a public comment regarding the Striped Bass Draft Addendum 1. I am a NYS fishing guide, an outdoor writer and a wildlife cinematographer. My business is called South Fork Salt. The striped bass is one of the main protagonists in my life. This fish makes me money on the guiding and content creation fronts, and the challenge of targeting them with rod and reel in the surf every day provides me with a great sense of purpose and fulfillment. I spend thousands of dollars and hundreds of hours a year fishing for striped bass. When the quantity of fish in the water decreases, the massive economy built around the fish shrinks as well. Any proposals that could increase the number of fish being taken out of the water should be shut down.
Therefore, my position regarding Addendum 1 is that option A should be chosen. We should maintain the status quo, and commercial quota transfers should not be permitted.
Rebuilding this fishery to an abundant state should be the primary focus of the Commission. Do not consider taking more fish out of the water at this point.
Thank you
Sincerely,
Tim Regan
South Fork Salt

From: William Prodouz
To: Comments
Subject: [External] Striped Bass
Date: Friday, January 13, 2023 10:38:07 PM

I am commenting on Amendment 7.

Striped bass need all the help we can give them.

Tightest regulation possible. This is no time to get lenient.

Do not allow missed quotas to be transferred from state to state. There is a reason quotas are not met. It is because very good commercial fishermen cannot find fish to catch. Not due to lack of effort, but due to lack of fish.

In the long run if recreational fishermen have to give up days of effort to.cut potential mortality, so be it.

This is a shared commercial and recreational fishery and if catch must be limited to save it, so be it.

William Prodouz
Cape Cod Canal fisherman

Member of multiple fishing clubs

From:	Allison Schmidt
To:	Comments
Subject:	[External] amendment 7 addendum 1
Date:	Friday, January 13, 2023 10:34:24 PM

Dear Management Board

I am writing to you in a plea to not support quota transfers for commercial striped bass. I feel strongly that maximizing short term commercial harvest rather than the longevity of the fishery and industry is short sighted and absurd given the boards goal to rebuild by 2029.

Consequently, Option A (no change - commercial quota transfers not be permitted) is the only option that seems appropriate.

Thank you for your time and consideration

Leo Schmidt
Plymouth MA

From: John Higgins
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 10:32:12 PM

Sent from my iPhone for the health of the bay and to let the striped bass make a come back I am opposed to increased harvest

From: Michael Mulick
To: Comments
Subject: [External] Re: quota
Date: Friday, January 13, 2023 10:25:46 PM

Hi,

I support Option A: Status quo | No Commercial Quota Transfers.

Michael Mulick
Sent from my iPhone

From: Nick
To: Comments
Subject: [External] Striped bass transfer quota
Date: Friday, January 13, 2023 10:20:03 PM

To who it may concern,

I support option A, status quo, no transfer.

Best,
Nick

Sent from my iPhone

From: fishin4777@gmail.com
To: Comments
Subject: [External] Striped bass addendum 1
Date: Friday, January 13, 2023 10:10:56 PM

Hello I fully support Option A , There's no place for transfers when rebuilding the striped bass stock…. Thank you

Capt Vinny Catalano
631-766-1695
Longislandflyfishing.com
IG : @LONGISLANDFLYFISH

From: Jake Hardy
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 10:07:36 PM

Dear ASMFC,

After a backdoor CE technical exemption, why does the first addendum to Amendment 7 undermine rebuilding goals?

A: Status Quo | No Commercial Quota Transfers!

Sincerely, another severely disappointed and ignored stakeholder

Jake Hardy, NY

From: Brian O"Toole
To: Comments
Subject: [External] Support of option A
Date: Friday, January 13, 2023 9:58:52 PM

I support option A for no transfers of commercial quotas.
Sincerely,
Brian.

Sent from my iPhone

From: Bucktail@gmx.com
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 9:55:42 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

My logs show that I fished the NJ Surf 81 days in 2022…was shutout 24 of those days and had “visitations” from Marone Saxatilis 22 of those days…and every single Striper I landed was put back in the water…

I rigorously support continued conservation measures to sustain and grow the fishery.

Figuring out where and how to catch them, on what lures, gives me great joy, (a word that I don’t use too often!)… putting them back to go make more — gives me great satisfaction.

** THINK **

From: mccallp16
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 9:46:21 PM

Oppose the commercial transfer of striped bass quota.

Paul McCall

From: Stephen McKeown
To: Comments
Subject: [External] Option A
Date: Friday, January 13, 2023 9:35:17 PM

I support Option A: Status Quo | No Commercial Quota Transfers.

And also, great CE stickers
Sent from my iPhone

From:	Chouaib Hihi
To:	Comments
Subject:	[External] Striped Bass - Addendum I
Date:	Friday, January 13, 2023 9:32:41 PM

Hi,

I support Option A: Status quo | No Commercial Quota Transfers.

Thank you
Chouaib Hihi

Senior Advisor
Alexander Hamilton Society upenn chapter
www.hamsoc.org
University of Pennsylvania
Philosophy, Politics, and Economics | 2014

From: James Andrews
To: Comments
Subject: [External] Option A on Addendum 1
Date: Friday, January 13, 2023 9:27:21 PM

I support option option A for addendum 1 regarding striped bass management. Please protect this fishery

James Andrews, North Bellmore NY

From: Rock and Sand Charters Captain Aaron
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 9:24:00 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

From: J Miller
To: Comments
Subject: [External] Support of Option A
Date: Friday, January 13, 2023 9:22:22 PM

I'm writing to support Option A (Status Quo, no commercial quota transfers) on Addendum 1 to Striped Bass Management.

Regards,

Jim Miller
Endurance Charters
Babylon, NY 11702
631-745-4019

From: CJ Walsh, III
To: Comments
Subject: [External] Option A: Status Quo
Date: Friday, January 13, 2023 9:17:37 PM

Please do not allow transfer of commercial striped bass quota.

CJ Walsh, III
2134 Pine Street #5
Philadelphia, PA 19103-6575
484.437.8409
cjwalshiii@gmail.com
https://linktr.ee/cjwalshiii

From:	Graham Stephens
To:	Comments
Subject:	[External] Comments on Addendum I
Date:	Friday, January 13, 2023 9:12:41 PM

Hello,

I am an avid boat and surf fisherman from Massachusetts. I wanted to comment on Striped Bass Addendum I and encourage the board to vote for ‘Option A (status quo): Commercial quota transfers are not permitted’.

I believe that transferring commercial quotas between states would increase harvest at a time when both the commercial and recreational fisheries should be finding ways to reduce harvest/mortality of the most important game fish on the East Coast.
Smaller bass were again noticeably absent from the Boston area last season, and while we were lucky to have slot and large bass on menhaden for much of the summer, it was saddening to watch the commercial fleet decimate these wonderful schools of fish.

Thank you for your work and your efforts to end the overfishing of striped bass.

Graham Stephens

From: Brendan Byrne
To: Comments
Subject: [External] No Commercial Quota Transfer
Date: Friday, January 13, 2023 9:07:01 PM

We all have to make hard choices in our lifetime.

Do the right thing for the fishery, and future anglers - Option A on Addendum 1

Thank you
--

Brendan H. Byrne
BHByrne@GMail.Com

From: Joseph Alicino
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 9:05:28 PM

To whom it may concern,

I am in support of Option A, status quo, no commercial quota transfers.

Thank you for your time,

Joe Alicino

From: Jason Dutremble
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 9:04:05 PM

To whom it may concern,
I'm writing to let you know that I support Option A Status Quo - No Commercial Quota Transfers in regards to the Stripes Bass Addendum I.

Thank you,

Jason Dutremble
207-590-2690
Scarborough, ME

From:	David Flanagan
To:	Comments
Cc:	COMMENTS@SALTWATERGUIDESASSOCIATION.ORG
Subject:	[External] Addendum 1 to Amendment 7
Date:	Friday, January 13, 2023 8:58:05 PM

I am fully in support of Option A, status quo, NO commercial quota transfer.

I attended the meeting in NY at the Kings Park DEC office and there was not one person in attendance that was in favor of supporting the quota transfer.

As most of us pointed out, how could you promote more harvest in a time of rebuild. Clearly these quotas are not being filled because of a bigger issue.
Also, I feel based on the numbers, other than North Carolina (which hasn't filled ANY quota in the last 4 years) there isn't much room percentage wise to transfer, so why bother? North Carolina shouldn't even have a commercial fishery for striped bass when they can't even fill 1 percent of the quota. Take away North Carolinas numbers and your total percentages are significantly higher.

Thank you for your time.

- Capt. Dave Flanagan
North Island Fly LLC

From:	Molly Estreich
To:	Comments
Subject:	[External] Striped Bass Draft Addendum 1
Date:	Friday, January 13, 2023 8:57:35 PM

Hello,

My name is Molly Estreich and I'm a recreational striped bass angler in New York. I urge you to select Option A and not allow the transfer of commercial quotas at all.

Thank you for your time,

Molly

From: John Moy
To: Comments
Subject: [External] Striped Bass Addendum I
Date: Friday, January 13, 2023 8:50:40 PM

I support Option A: Commercial quota transfers are not permitted.

I am a recreational striped bass angler on Nantucket. At a time when we are rebuilding the striped bass population, we should NOT be trying to maximize the number of stripers that are harvested by the commercial fishermen. Also, when I read your assessment of the current striped bass population, I thought that your predictions for the future of stripers was overly optimistic.

John Moy
25 Eel Point Road
Nantucket, MA 02554
jmoy@ospf.org
617-784-1872

Sent from my iPad

From: stephen.moitoso@gmail.com
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 8:40:54 PM

Sent from my iPhone

From:	Herb Floyd
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 8:22:41 PM

Dear Emilie Franke,
My family and I appreciate the opportunity to provide comments to the Atlantic States Marine Fisheries Commission regarding Draft Amendment 1 to Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan. I fully oppose allowing commercial quota transfers and urge the board to support Option A (status quo). This transfer most certainly will allow an increase in the removal of more striped bass at a time when the resource needs much further conservation to achieve population rebuilding. Scientific evidence by Maryland's Department of Natural Resouces young of the year collection has fully documented a decline in their population.

I'm a native Maryland resident and lived through the declined striped bass population resulting in a moratorium in the mid 1980s and never want to see our precious state fish reach those catastrophic levels ever again. I'm a conservation minded recreational fisherman and have already done my part by reducing the number of striped bass my family and I harvest.

I realize that to ensure the health and abundance of Atlantic striped bass in the future, immediate and difficult management decisions must be made now. The long-term health of the striped bass population should be our top priority, and as I have already stated, the recreational fishing community has already made many sacrifices to ensure successful rebuilding. Therefore, my family and I do not support allowing commercial quota transfers at this time because that will increase commercial removals and certainly jeopardize rebuilding this valuable public resource.

Please, please do not approve this commercial quota transfer option.

Sincerely,

Herb Floyd Jr.

From: johnnym53@charter.net
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 8:21:22 PM

I strongly support Option 1, and hope the committee does too. My 9 year old granddaughter Ava caught

her 1st striper in the surf at Old Orchard Beach Maine, and loves to get out there and chase the

schoolies. I want her to have this chance for her entire life, and we must protect the breeders and

not transfer the unused quota. Thank you for listening.

John Meserve

508-523-9397

From: Scott Borawski
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 8:18:54 PM

I support Option A on Addendum 1 to Striped Bass Management.

Thank you
Scott Borawski
Sent from Scott

From: Alexander Colantonio
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 8:18:48 PM

I support option A - Status Quo, No Transfers

A transfer of quotas seems like the worst possible approach to management of striped bass, allowing them to be pursued to the last egg layer. Please do not transfer unused striped bass quotas to other states.

Thank you,
Alexande Colantonio

From: fisherking1979@aol.com
To: Comments
Subject: [External] Stripped Bass commercial quota transfer
Date: Friday, January 13, 2023 8:17:30 PM

I support a, status quo, no commercial transfer
Michael Cacici
New York

From: Ryan Duryea
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 8:15:38 PM

I support Option A (status quo): Commercial quota transfers are not permitted.

From: Frank DeBord Jr.
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 8:13:15 PM

I strongly oppose any increase in striped bass limits.

Frank DeBord

Sent from my iPhone

From: Peter Carlson
To: Comments
Subject: [External] Striped bass quota transfer
Date: Friday, January 13, 2023 8:10:38 PM

I support option A, status quo, no transfers.
Peter Carlson IV, New York

From:	Thomas Falco
To:	Comments
Subject:	[External] Addendum 1 Striped Bass
Date:	Friday, January 13, 2023 8:03:16 PM

Hello there,

My name is Capt Tom Falco, owner/operator of Jenny E Charters, a 6-pack charter on Long Island, NY.

I am committed to the rebuilding of the striped bass fishery, and therefore **I support Option A: Status Quo, no commercial quota transfer.**

I can't believe this is even on the table for discussion. I hope and trust that you will listen to the stakeholders and **go with Option A.**

Thank you for your attention,

Capt Tom Falco

From: Paul Haertel
To: Comments
Subject: [External] Draft Addendum 1 Striped Bass
Date: Friday, January 13, 2023 7:59:37 PM

I support option A status quo - no transfer of striped bass quota. Paul Haertel

From: Scott Geissler
To: Comments
Subject: [External] Striped Bass Quota Transfer
Date: Friday, January 13, 2023 7:57:40 PM

I support option A, status quo, no transfers.

Scott Geissler, Maine.

From:	David Zajano
To:	Comments
Subject:	[External] Oppose draft addendum 1
Date:	Friday, January 13, 2023 7:57:20 PM

Striped bass are currently overfished, it makes no sense to prioritize facilitating catching more striped bass over conserving an overfished stock. Prioritize rebuilding the stock.

Please accept my opposition Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning.

David P. Zajano

32 Glenbrook Drive

Phoenix, MD 21131

dzajano@verizon.net

From: scott carlson
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 7:55:49 PM

I am strongly opposed to addendum 1.

Sent from my iPhone

From: Gilbane, James M.
To: Comments
Subject: [External] I support option A no commercial quota transfers
Date: Friday, January 13, 2023 7:45:48 PM

I support option A the status quo and no commercial quota transfers.

Thank you.

Jim Gilbane

36 Berwick Pl., Rumford, RI weird p part of

Sent from my iPhone

From:	Tom Hollenshade
To:	Comments
Subject:	[External] Striped Bass Draft Addendum I
Date:	Friday, January 13, 2023 7:45:42 PM

Good evening,

Please accept my opposition to Draft Addendum I. Striped bass remain overfished and in a rebuilding period. The most recent stock assessment showed that the highest likelihood of achieving rebuilding targets requires maintaining fishing mortality at current levels.

While the stock assessment is using low recruitment assumptions to project the rebuilding timeline, the continued low recruitment trend in Maryland is below the assumed average being used in the assessment.

Controlling fishing mortality is the key to returning striped bass to levels that the public demands, and now is not the time to allow any increased harvest in striped bass, no matter the reasoning. Increase quotas for commercial fishing should no be allowed. It actually should be decreased.

Sincerely yours,

Thomas L Hollenshade

Sent from my iPad

From: James Gilbane
To: Comments; jgilbane@gilbaneco.com
Subject: [External] Support option A- status quo no commercial bass quota transfer
Date: Friday, January 13, 2023 7:43:31 PM

Our striped bass fishery is far too valuable to deplete for future generations not to be able to enjoy. Short term gains are not worth the long term stock damage. The fishery is not in a good place, and this evidence is backed by many different studies.

I support option A- keep status quo.

Thank you,
James Gilbane

From: Ronald McClain
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 7:41:04 PM

I oppose any increase in the commercial harvest of Striped Bass, particularly if there is any attempt to shift catch quotas between jurisdictions. All fishery biologists know that seasonal fluctuations affect the migration of Striped Bass. Therefore, well researched jurisdictional quotas should be maintained to allow market predictability and not prejudice those who rely on certain quotas for their livelihood.

From: rayottulich rayottulich.com
To: Comments
Subject: [External] Striped Bass Addendum 1
Date: Friday, January 13, 2023 7:36:40 PM

I support Option A (status quo): The fishery is already overfished.
Commercial quota transfers are not permitted.

Ray Ottulich

From: Dave Poe
To: Comments
Subject: [External] Striped Bass Draft Addendum I
Date: Friday, January 13, 2023 7:30:21 PM

I am opposed to increased limits on the striped bass fishery. The evidence is overwhelming that the striped bass remains overfished, and until we give the stocks a chance to rebuild, there should be no increase in the limits.

Sincerely,

David R. Poe

From: Robert Yacoub
To: Comments
Subject: [External] Striped bass commercial quota transfer
Date: Friday, January 13, 2023 7:24:46 PM

I support option A, status quo, no commercial transfer.

-Robert Yacoub
1 Lebanon Road
Scarsdale, NY 10583

Sent from my iPhone

From:	Jake Griffin
To:	Comments
Subject:	[External] North Carolinas public comment
Date:	Thursday, January 12, 2023 6:30:28 AM

Dear Commission,

I wish I could have presented this topic in person at a public meeting, however, our representative stated there wasn't enough interest for a public meeting to be held. As an active participant in the Ocean Beach Seine Fishery I have found myself in a bit of a pickle. I look to y'all for answers or insight as all emails and previous inquiries have been left open without an answer, hopefully you can help.

Our Seine Fishery occurs within state waters in the Atlantic Ocean, of which North Carolina is allotted an annual quota. After not having a commercial season in over 5 years our quota has been reduced from 480,000lbs to 295,000lbs. The recreational sector has had a daily (year round) bag limit of (1) fish 28-35 inches and has had this limit over the several years of which the commercial sector was left without a season.

So, this is my concern, why does North Carolina allow recreational harvest yet denies commercial opportunity? I understand the complexity of regulations but what is true and what is false?

If it were an issue at a federal level and due to low stock/abundances, North Carolina would be denied from participating in the fishery, all together, or shave a shorter season or other implements to the bag limit. Our state mimics Virginia with the recreational fishery having the bag limit of (1) fish in the "Coastal Area" made of state water in the Atlantic Ocean. Virginia has less Quota than North Carolina (114,000lbs, less than half of NC) yet has a commercial season starting January 16th - December 31st yet North Carolina is not given a single day for an opportunity to land and sell a Striped Bass.

Now, bringing it to a state level. After seeing a "healthy sign" of Striped Bass in the early spring (April) in the Beach Seine I started to make calls and send emails inquiring about the possibility of an opening. We used to land Striped Bass up until the last days of the season in April, which in later years would go until April 10th-15th. I got in touch with Charlton Godwin at the Elizabeth City DMF office. Conversation started off well as I told him about the Striped Bass I was releasing from the Seine and you could hear the excitement when he expressed how much he'd love to get some tags in them. It seemed to quickly sour as I hinted towards the possibility of opening the harvest. Later we talked and he asked about seeing tagged fish and if I'd mind if his crew could come tag, I agreed it would be good to work together. I proposed maybe being able to sell a few fish and find a solution that works for all: NCDMF to tag and obtain data on these fish, my crew to profit from selling a few, and those landings to go towards our quota that hasn't had landings in years. That idea was quickly snubbed out and he stated, "Maybe we can get you some compensation for tagging?". Tagging doesn't give North Carolina the landings it should show. I believe his concern and main reason for not opening the Atlantic season is based on the possibility of some of the Albemarle/Roanoke fish being caught in the ocean, how will we know if we don't utilize the potential data collection at hand? If data shows they are indeed A/R fish, how does Virginia get access to harvest these fish while North Carolina does not?

I'm not asking for an increase in quota or daily bag limits, I'm simply asking for a fair chance at what's been allotted to North Carolina's fishermen. This has become very confusing as we have quota on the table, but why are the fishermen being denied the opportunity? If North Carolina is to follow suit with the other Atlantic States, please see that they do so. If anyone can take the time to help me understand this, I am all ears.

Thank you,

Jake Griffin
fvfamilytradition@gmail.com

Atlantic States Marine Fisheries Commission

Executive Committee

February 1, 2023
8 – 9:30 a.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Introductions *(S. Woodward)*	8:00 a.m.
2.	Committee Consent • Approval of Agenda • Approval of Meeting Summary from November 9, 2022	8:05 a.m.
3.	Public Comment	8:10 a.m.
4.	CARES Act Update *(R. Beal/L. Leach)*	8:20 a.m.
5.	Discussion on Stipends for Legislator and Governors Appointee Commissioners *(R. Beal)*	9:00 a.m.
6.	Other Business/Adjourn	9:30 a.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

DRAFT MEETING SUMMARY OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

EXECUTIVE COMMITTEE

The Ocean Place Resort
Long Branch, New Jersey

November 9, 2022

For Review & Action by the Executive Committee February 1,2023

INDEX OF MOTIONS

1. Approval of Agenda by Consent (Page 1).

2. Approval of Meeting Summary from August 3, 2022 by Consent (Page 1).

3. On behalf of the Administrative Oversight Committee, move acceptance of the FY22 Audit. Motion by Joe Cimino. Motion passed unanimously (Page 1).

4. Adjourn by Consent (Page 2).

ATTENDANCE

Committee Members

Pat Keliher, ME
Cheri Patterson, NH
Dennis Abbott, NH (LA Chair)
Dan McKiernan, MA
Jason McNamee, RI
Justin Davis, CT
Jim Gilmore, NY
Joe Cimino, NJ
Kris Kuhn, PA
Roy Miller, DE (GA Chair)
John Clark, DE
Lynn Fegley, MD
Patrick Geer, VA
Kathy Rawls, NC
Mel Bell, SC
Erika Burgess, FL

Other Commissioners/Proxies

Chris Batsavage, NC
David Borden, RI
Lewis Gillingham, VA
Emerson Hasbrouck, NY
Doug Haymans, GA
Bill Hyatt, CT
Dee Lupton, NC
Chris McDonough, SC
Renee Zobel, NH

Staff

Bob Beal
Toni Kerns
Laura Leach
Tina Berger
Lindsey Aubart
Lisa Carty

Guests

Alan Bianchi, NC DENR
Jesse Bissette, NJ DEP
Jason Bochat, NYS DEC
Phil Coates
Roman Dudus
Jennifer Foss, NMFS
Angela Giuliano, MD DNR
Jay Hermsen, NOAA
Jesse Hornstein, NYS DEC
Rick Jacobson, US FWS
Carrie Kennedy, MD DNR
Adam Kenyon, VMRC
Kathy Knowlton, GA DNR
John Kravchak
Chip Lynch, NOAA
Derek Orner, NOAA
Brian Neilan, NJ DEP
Willow Patten DC DENR
Lucas Pensinger, NC DENR
Nicholas Popoff, US FWS
Will Poston, SGA
Jill Ramsey, VMRC
Jason Rock, NC DENR
Brandi Salmon, NC DMF
Chris Scott, NYS DEC
McLean Seward, NC DENR
Ethan Simpson, VMRC
Melissa Smith, ME DMR
Somers Smott, VMRC Beth Versak, MD DNR
Craig Weedon, MD DNR
Meredith Whitten, NC DENR
Joshua McGilly, VMRC
Brandon Muffley, MAFMC
Greg Wojcik, CT DEEP
Chris Wright, NOAA

CALL TO ORDER

The Executive Committee (EC) of the Atlantic States Marine Fisheries Commission convened November 9, 2022 in the Monmouth Ballroom at The Ocean Place Resort in Long Branch, New Jersey. The meeting was called to order at 8:02 a.m. by Chair Spud Woodward.

APPROVAL OF AGENDA

The agenda was approved, with the addition of reviewing the RISEE Act draft letter and a request for stipends for Legislative and Governor Appointee (L/GA) Commissioners.

APPROVAL OF PROCEEDINGS

The summary minutes from the August 3, 2022 meeting were approved as presented.

PUBLIC COMMENT

There was no public comment.

CONSIDERATION OF FY22 AUDIT

The FY22 Audit was reviewed by the Administrative Oversight Committee and forwarded to the Executive Committee with a recommendation for approval. "On behalf of the Administrative Oversight Committee, move acceptance of the FY22 Audit." Motion by Joe Cimino. Motion passed unanimously.

CARES ACT UPDATE

Mr. Beal and Mrs. Leach gave an update on the balances in the CARES and CAA cooperative agreements. In CARES there is projected to be about $55,000 unspent, which ASMFC will ask to re-budget to overhead for ASMFC. In CAA there is projected to be roughly $5 million remaining that will be available for states who need additional funds. Staff will prepare a spreadsheet for the Executive Committee showing what the proposed re-allocation could be for discussion at the Winter Meeting.

***DE MINIMIS* POLICY**

Ms. Kerns presented the draft De Minimis policy which was approved for consideration by the Policy Board.

NORTH ATLANTIC RIGHT WHALE FUNDS

Mr. Beal presented a proposed spreadsheet for allocation of the North Atlantic Right Whale funds. The EC discussed the spending strategy. The EC agreed to the proposed allocation. The four northern states will develop individual spend plans and staff will work with the states from Connecticut through Maryland to develop and submit one combined spend plan. Mr. Orner (NOAA) noted they are ready to review the spend plans and plan to turn them around within 1-2 weeks after submission.

CONSERVATION EQUIVALENCY

Ms. Kerns presented a summary of the progress on updating the Conservation Equivalency (CE) process. The CE Workgroup has responded to all of the questions from the Policy Board and the responses were approved for review by the Management & Science Committee.

RISEE ACT LETTER

Mr. Beal presented a letter drafted in support of the "Reinvesting In Shoreline Economies and Ecosystems Act of 2021" (RISEE), noting if passed, 37.5% of the money generated through off-shore energy would be dedicated to the states and 12.5% will also be available through competitive grants. The EC approved the letter of support be forwarded to the Policy Board for action.

OTHER BUSINESS

Mr. Abbott raised the question of providing a stipend to the L/GA Commissioners for their volunteer service to ASMFC. Mr. Abbott's suggestion focused on providing stipends for participation in meetings beyond the four quarterly meeting weeks and joint meetings with the Mid-Atlantic Council, noting this work is more than should be required of a volunteer.

Staff was directed to look at the Council process and develop a proposed options for review at a future EC meeting.

FUTURE ANNUAL MEETINGS

The future annual meeting schedule is:
Beaufort, North Carolina 10/14 – 19/23; 2024 - Maryland; 2025 - Delaware; 2026 - Rhode Island; 2027 - South Carolina; 2028 – Massachusetts; 2029 – Pennsylvania; and 2030 – Georgia.

ADJOURN

The Executive Committee adjourned at 9 :45 a.m.

Atlantic States Marine Fisheries Commission

American Eel Management Board

February 1, 2023
9:45 – 11:15 a.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(P. Edwards)*	9:45 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from October 2021	9:45 a.m.
3.	Public Comment	9:50 a.m.
4.	Review and Consider 2022 Benchmark Stock Assessment and Peer Review Report for Management Use and Respond If Necessary **Possible Action** • Presentation of Stock Assessment Report *(S. Eyler)* • Presentation of Peer Review Report *(J. Flowers)* • Consider Acceptance of Benchmark Stock Assessment and Peer Review Report for Management Use • Consider Management Response *(if necessary)*	10:00 a.m.
5.	Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year (*C. Starks*) **Action**	11:00 a.m.
6.	Elect Vice-Chair **Action**	11:10 a.m.
7.	Other Business/Adjourn	11:15 a.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details.

MEETING OVERVIEW

American Eel Management Board
February 1, 2023
9:45 – 11:15 a.m.
Hybrid Meeting

Chair: Phil Edwards (RI) Assumed Chairmanship: 10/21	Technical Committee Chair: Troy Tuckey (VIMS)	Law Enforcement Committee Representative: Rob Beal (ME)
Vice Chair: Vacant	Advisory Panel Chair: Mari-Beth DeLucia (TNC)	Previous Board Meeting: October 21, 2021
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, PRFC, VA, NC, SC, GA, FL, D.C, NMFS, USFWS (19 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from October 2021

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Review and Consider 2022 Benchmark Stock Assessment and Peer Review Report for Management Use and Respond If Necessary (10:00-11:00 a.m.) Possible Action

Background

- The 2022 Benchmark Stock Assessment for American Eel was evaluated through the Commission's external peer review process in late 2022. The peer review panel endorsed the assessment as the latest and best information available on the status of the coastwide American eel stock for use in fisheries management (**Briefing Materials**).
- The stock assessment tried several new approaches for American eel that were suggested in past stock assessments including a delay-difference model, further exploring a traffic light analysis and surplus production models, and developing an egg-per-recruit model. Numerous trend analysis approaches or tests were also included in the report. The stock assessment subcommittee and peer review panel concluded that until sufficient data are available at an appropriate scale that encompasses the range inhabited by American eels to support more complex model-based assessments, abundance indices and index-based methods are the best tool for guiding management decisions.
- To determine stock status and develop catch advice the SAS used an approach called I_{TARGET}, an index-based method that needs only catch and abundance information.

Because the average index of yellow eels is below both the index target and threshold, American eels are *overfished and have likely been experiencing overfishing* in the last few decades and the coastwide cap should be significantly lowered from the current cap of 916,473 pounds.

Presentations

- Presentation of Stock Assessment Report by S. Eyler
- Presentation of Peer Review Report by J. Flowers

Board Actions for Consideration

- Consider Acceptance of Benchmark Stock Assessment and Peer Review Report for Management Use
- Consider Management Response *(if necessary)*

5. Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year (11:00-11:10 a.m.) Action

Background

- State compliance reports were due September 1, 2022.
- The Plan Review Team reviewed state reports and compiled the annual FMP Review (**Briefing Materials**).
- In 2021, New Hampshire, Massachusetts, Pennsylvania, District of Columbia, Georgia, and Florida requested continued de minimis status for their yellow eel fisheries. Florida does not qualify due to the state landings in 2021 exceeding 1% of the coastwide yellow eel landings. All other states that applied for de minimis of the yellow eel fishery meet the de minimis criteria.

Presentations

- Overview of the American Eel FMP Review by C. Starks

Board Actions for Consideration

- Accept FMP Review and state compliance reports for the 2021 fishing year
- Approve *de minimis* requests

6. Elect Vice Chair (11:10-11:15 a.m.) Action

Background

- Phil Edwards' term as Chair will end in October 2023.
- The Vice Chair seat is currently vacant**.**

Board Actions for Consideration

- Elect Vice Chair

7. Other Business/Adjourn

American Eel

Activity level: Low

Committee Overlap Score: Low

Committee Task List

- Spring 2023: Review preliminary yellow eel landings
- July 2023: review of Maine's aquaculture proposal
- September 1st: Annual compliance reports due

TC Members: Troy Tuckey (VIMS, TC Chair), Jordan Zimmerman (DE), Ingrid Braun (PRFC), Ryan Harrell (GA), Kimberly Bonvechio (FL), Bradford Chase (MA), Robert Atwood (NH), Sheila Eyler (USFWS), Chris Wright (NOAA), Caitlin Craig (NY), Todd Mathes (NC), Patrick McGee (RI), Jennifer Pyle (NJ), Danielle Carty (SC), Keith Whiteford (MD), Gail Wippelhauser (ME), Tim Wildman (CT), Mike Porta (PA), Kevin Molongoski (USGS), Mike Wicker (USGS), Kirby Rootes-Murdy (ASMFC)

SAS Members: Sheila Eyler (USFWS, SAS Chair), Laura Lee (NC), John Sweka (USFWS), Troy Tuckey (VIMS), Jason Boucher (NOAA), Matt Cieri (ME), Keith Whiteford (MD), Kristen Anstead (ASMFC), Caitlin Starks (ASMFC)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

AMERICAN EEL MANAGEMENT BOARD

Webinar
October 21, 2021

These minutes are draft and subject to approval by the American Eel Management Board.
The Board will review the minutes during its next meeting.

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ATTENDANCE

Board Members

Pat Keliher, ME (AA)
Renee Zobel, NH, proxy for C. Patterson (AA)
Ritchie White, NH (GA)
Nichola Meserve, MA, proxy for D. McKiernan (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Phil Edwards, RI, proxy for J. McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Matt Gates, CT, proxy for J. Davis (AA)
Sen. Craig Miner, CT (LA)
Rob LaFrance, CT, proxy for B. Hyatt (GA)
John Maniscalco, NY, proxy for J. Gilmore (AA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Asm. Houghtaling (LA)
Kris Kuhn**,** PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Lynn Fegley, MD, proxy for B. Anderson (AA)
Russell Dize, MD (GA)
Pat Geer, VA, proxy for S. Bowman (AA)
Shanna Madsen, VA, proxy for B. Plumlee (GA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Jerry Mannen, NC (GA)
Bill Gorham, NC, proxy for Rep. Steinburg (LA)
Ross Self, SC, proxy for P. Maier (AA)
Malcolm Rhodes, SC (GA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Dan Ryan, DC, proxy for J. Seltzer
Marty Gary, PRFC
Chris Wright, NMFS
Mike Millard, USFWS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Troy Tuckey, Technical Committee Chair

Staff

Bob Beal
Toni Kerns
Laura Leach
Lisa Carty
Maya Drzewicki
Tina Berger
Kristen Anstead
Emilie Franke
Chris Jacobs
Jeff Kipp
Dustin Colson Leaning
Savannah Lewis
Kirby Rootes-Murdy
Sarah Murray
Caitlin Starks
Deke Tompkins

Guests

Karen Abrams, NOAA
Max Appelman, NOAA
Travis Atwood
Pat Augustine, Coram, NY
Greg Bailey
Alan Bianchi, NC DENR
Jason Boucher, NOAA
Rob Bourdon, US FWS
Jeff Brust, NJ DEP
Thomas Burrell, PA F&B
Peter Clarke, NJ DEP
Margaret Conroy, DE DFW
Heather Corbett, NJ DEP
Lennie Day
Justin Davis, CT (AA)
Mari-Beth DeLucia, TNC
Sheila Eyler, USFWS
Cynthia Ferrio, NOAA
Lewis Gillingham, VMRC
Michael Ginex
Robert Groskin, Teaneck, NJ
Sonny Gwin
Hannah Hart, FL FWC
Helen Takade-Heumacher, EDF

These minutes are draft and subject to approval by American Eel Management Board.
The Board will review the minutes during its next meeting.

Guests (continued)

Jaclyn Higgins, TRCP
Carol Hoffman
Kyle Hoffman, SC DNR
Jesse Hornstein, NYS DEC
Asm. Eric Houghtaling, CT (NJ)
Bill Hyatt, CT (GA)
Mike Luisi, MD DNR
Chip Lynch, NOAA
Dan McKiernan, MA (AA)
Steve Minkkinen, US FWS
Allison Murphy, NOAA
Steve Meyers
Lindsey Nelson, NOAA
Josh Newhard, US FWS
Willow Patten, NC DENR
Bill Post, SC DNR
Sara Rademaker, Am. Unagi
Jill Ramsey, CMRC
Tara Scott, NOAA
Somers Smott, VMRC
David Stormer, DE DFW
John Sweka, USFWS
Rustin Taylor
Marek Topolski, MD DNR
David Vantine
Megan Ware, ME DMR
Keith Whiteford, MD DNR
Horace Wynn
Sarah York, NOAA
Darrell Young
Jordan Zimmerman, DE DFW
Erik Zlokovitz, MD DNR

The American Eel Management Board of the Atlantic States Marine Fisheries Commission convened via webinar; Thursday, October 21, 2021 and was called to order at 11:43 a.m. by Chair Lynn Fegley.

CALL TO ORDER

CHAIR LYNN FEGLEY: Welcome everyone to this meeting of the American Eel Management Board. My name is Lynn Fegley. I am the Administrative Proxy for the state of Maryland, and happy to be your Board Chair today. I think we're going to have a pretty quick meeting. We do have two action items on the agenda, which will require a motion, so please be ready for that.

APPROVAL OF AGENDA

CHAIR FEGLEY: With that we'll just start with Approval of the Agenda. Is there anybody that has any proposed modifications to the agenda? If you do, please raise your hands.

MS. TONI KERNS: I have no hands, Lynn.

CHAIR FEGLEY: Okay, we will consider the agenda approved by consent.

APPROVAL OF PROCEEDINGS

CHAIR FEGLEY: Moving on to the Approval of Proceedings. The last meeting was in May of 2021, and those proceedings were in your materials. Does anybody have any corrections or edits needed for the May proceedings? If you do, please raise your hand.

MS. KERNS: I have no hands, Lynn.

CHAIR FEGLEY: Great, then we will consider the proceedings approved by consent.

PUBLIC COMMENT

CHAIR FEGLEY: Moving on to Public Comment. I know we have one person on the books. Toni, is there anybody else you are aware of besides Ms. Rademaker, who wants to make comment?

MS. KERNS: I am not aware of anybody, but I'll just give folks an opportunity to raise their hand. If you're not familiar with this webinar, you just need to click on the hand icon, and your hand will be raised when the red arrow is pointing down. Any other hand besides Sara's.

CHAIR FEGLEY: Okay, I was just going to say let's move on with Sara, and then if anybody raises their hand in the meantime, we'll address it when she is done, so take it away, Sara.

MS. SARA RADEMAKER: Hi everyone, I'm Sara Rademaker. I'm the President and Founder of American Unagi, and I've been growing glass eels with aquaculture for the last seven years. You all have continued to support this effort with your approval of the aquaculture quota the last three years, and part of success and ability to grow is in large part due to the aquaculture quota. It's not just the quota itself, it demonstrates that there is support within the eel management plan for the development of domestic aquaculture, and builds confidence in the future of the fishery. That confidence has helped us with putting together 10-million dollars for the build out of our new aquaculture facility in Maine, and it's also with our growth has meant more year-round jobs aquaculture processing engineers and sales that have become connected to this seasonal fishery. But there are some other great benefits I just wanted to take the opportunity to quickly share with you that we're seeing from connecting aquaculture with this fishery.

We've worked with university researchers to provide samples to help development of eDNA testing. That is where you can grab a sample of water and detect if eels are present, and even get an idea of population numbers. This will be huge with improving fisheries management in the future. We've also set eels out for some behavioral research.

We supplied eels to engineering companies that are developing these fish passage turbines that will be eel friendly, and we've created better awareness of eels with our customers and the

general public, sharing how the efforts of Maine harvesters and the regulations that they work with, distinguish our eels from the rest of the world, and really highlight this incredible species.

The aquaculture program clearly has benefits from direct local economic development, down to these kinds of opportunities to assist in fisheries management technology developments, and fish passage for the species to general public support of eels. I'm guessing that our success will certainly lead to more growth of aquaculture in the U.S. in the years to come.

With that growth and the overall benefits, it can bring to the U.S. communities, management and our species, that you all will continue to support the aquaculture program, and even consider expansion of the overall glass eel quota in the future. I just wanted to share that update and some of the stuff that we've been working on with you all so, thanks for the time.

CHAIR FEGLEY: Excellent, thank you, Sara, and I'll say I did enjoy the video that was distributed with our materials, so thank you very much for that. Any more public comment, Toni?

MS. KERNS: I don't have any other hands raised. Spud, I don't know if your hand was raised to unmute you, but I've done that, or if you had something to comment on. Looks like not, Lynn, we're good to go.

CONSIDER EXTENSION OF MAINE'S GLASS EEL QUOTA FOR 2022-2024

CHAIR FEGLEY: Moving along, this is our final action, and this is a requirement of Addendum V, where we are going to have to consider extending Maine's Glass Eel Quota for 2022-2024, so I will send this over to Kirby for background.

MR. KIRBY ROOTES-MURDY: Great, thanks, Lynn. Just sort of a quick presentation for the Board. As a refresher, Addendum V, which was approved in 2018, set Maine's glass eel quota at 9,688 pounds. What this Addendum did was set it in place for three years, 2019 through 2021, and it outlined that prior to Year 4, 2022, that the Board would revisit their quota.

The language we had in the Addendum allows the Board to extend the glass eel quota at the current level for an additional three years, up through 2024. I will note that setting the quota at a higher level would require an addendum. The current Board action for consideration today, the Board should consider whether to extend Maine's glass eel quota at 9,688 pounds for up to an additional three years. It would end in 2024. I'll take any further questions at this point.

CHAIR FEGLEY: Okay, any questions for Kirby?

MS. KERNS: Just giving it a second, I have no hands, Lynn. Pat Keliher.

CHAIR FEGLEY: All right, go ahead, Pat, please.

MR. PATRICK C. KELIHER: To help move things along I do have a motion.

CHAIR FEGLEY: Excellent, go ahead.

MR. KELIHER: I would move to extend Maine's glass eel quota at its current level of 9,688 pounds for an additional three years.

CHAIR FEGLEY: Okay, we have a motion on the board, can I get a second for that, please?

MS. KERNS: I have Eric Reid.

CHAIR FEGLEY: Okay, thank you, Mr. Reid. All right, is there any discussion on this motion?

MS. KERNS: You have Pat and then Tom Fote.

CHAIR FEGLEY: Okay, Pat Keliher, go ahead.

MR. KELIHER: I forgot to put my hand down, but I can certainly give further justification if there are any questions.

CHAIR FEGLEY: All right thank you, then let's go to Tom Fote.

MR. THOMAS P. FOTE: I've been sitting on a lot of climate change presentations from NOAA, since I sit on MAFAC also, and since I get to triple dip in basic presentations. One of the things I've noticed in the presentations is that the Gulf Stream is slowing down because of the ice that is coming off of Greenland. Instead of being 5.5 miles an hour it's down to 4.5 miles an hour.

Since basically eels and a number of species basically use the Gulf Stream for their transportation of the young when they come around, has NOAA looked into the fact that this might be affecting the runs, the tide might be different? What do we expect in the long run? Has anybody done any research? I asked that question the other day from New Jersey and they didn't have an answer, so I'm asking it here.

CHAIR FEGLEY: Yes, I don't know the best person of equipped to answer that. I know that there has been a lot of research on the mechanisms that the eels use to get from the Sargasso Sea and transit the Gulf Stream and reach our shores. I don't know, Kristen, is that something you can address?

DR. KRISTEN ANSTEAD: It isn't something we're directly looking at the Gulf Stream in particular. But assessing the impacts of any climate change or environmentally related things that we can in that assessment is one of our TORs.

CHAIR FEGLEY: Oh, perfect. All right, well thank you for that. Okay, well do we have any other comments on this motion before we take action?

MS. KERNS: John Clark.

CHAIR FEGLEY: Go ahead, John.

MR. JOHN CLARK: A question for Pat. I was just curious as to how the glass eel market has been holding up these last few years, if the price has still been as high, and also, based on what Sara Rademaker said, are you expecting more eel farms in Maine, and if so, what will happen when you are using the full 200-pound aquaculture quota?

CHAIR FEGLEY: Pat, do you want to respond to that?

MR. KELIHER: Sure, thanks for that question, John. We did have a dip in the overall price in 2020 at the beginning of the issues around COVID. That price quickly rebounded for the 2021 season, and I believe the overall value of the fishery was back towards its 20-million-dollar mark. Things do look good from that perspective.

As far as the growth of the aquaculture industry, certainly Sara has set the bar. I can't say enough good things about how Sara has approached her business and her growing market, her interaction with the industry. We have had on occasion other individuals who have talked to us about the need for eels. We actually open it up for almost a prospective bid process, to see if there are others out here who are interested in that quota.

Sara is well aware that if we do see that, that could impact the amount that she would receive, but to date other than some preliminary conversations with people who are showing some level of interest, we've had no others come to the table, and to my knowledge there is nobody else that has come forward with any business plans in the near term. I think a lot of it will depend on, probably where the benchmark stock assessment goes, and where we as a Board go in future years.

CHAIR FEGLEY: Are there any other questions, comments, or discussion around this motion?

MS. KERNS: I have no hands, Lynn.

CHAIR FEGLEY: Okay, then I'm going to go ahead and read it into the record. We have a

move to extend Maine's glass eel quota at its current level, 9,688 pounds for an additional three years, 2022-2024. It's a motion by Mr. Keliher, and second by Mr. Reid. I think this is a final action, and I think I'm going to start the easy way and just ask if there is any opposition to this motion. If you are opposed, please raise your hand.

MS. KERNS: I have no hands, Lynn.

CHAIR FEGLEY: Great, then we can consider this motion approved by consensus. Thank you very much for that.

CONSIDER MANAGEMENT PLAN REVIEW AND STATE COMPLIANCE FOR THE 2020 FISHING YEAR

CHAIR FEGLEY: Okay, so moving on, the next agenda item is to Consider Management Plan Review and State Compliance for the 2020 Fishing Year. I'll hand that back over to Kirby.

MR. ROOTES-MURDY: I'll try to go through this quickly, since we are running a little bit behind in our scheduled time for this meeting. I'm going to just give an overview of each section in the FMP review, status of the species stock status, status of the fishery, state compliance and PRT recommendations.

As this Board is aware, Addendum V was approved in 2018, and a coastwide cap policy that the work group helped draft that Addendum was presented to the Board and approved by the Board in 2019. For the 2020 fishing season, two aquaculture proposals were submitted and approved in 2019, so this is hopefully a reminder for the Board ofitsapproval of the North Carolina proposal, which straddled both 2019 and 2020, and then Maine had their proposal approved as well.

For those plans, they didn't harvest any glass eels. In Maine, my understanding is that the the lack of harvest was due to COVID-19 pandemic, and in North Carolina, while they encountered glass eels, they did not harvest them. The other important thing to note is that for any states that harvest over 750 pounds of glass eel, you must implement a life cycle survey. Maine started that survey in 2016, and in 2019 moved the survey for all stages yellow and young of year from the Cobbosseecontee Stream to the West Harbor Pond.

In terms of stock status there hasn't been any change since the 2017 update, and Kristen will give probably a brief update for this to the Board. We're going to have a benchmark assessment scheduled to be completed next year in 2022. For the status of the fishery, commercial landings were initially presented to this Board back in the spring.

I will note that we had a slight increase in those numbers with preliminary data hadn't changed. It still remains at a time series low at 259,362 pounds. That's a 51 percent decrease from 2019, and no surprise, the Mid-Atlantic States or jurisdictions, Maryland, PRFC and Virginia account for 78 percent of the harvest.

Maine, in terms of the glass eels landed 9,652 pounds, under their quota, and South Carolina landings are confidential as well. In terms of recreational harvest, because of the error associated with the estimates, harvest estimates are no longer collected and presented in their state compliance reports annually. In terms of our regulations, there haven't been any changes, and I will just note for the Board, we have those broken out by life stages. That first slide shows those glass eel regulations again.

There were no noted issues with those regulations implemented by the states. For the yellow eel fishery, just as a reminder. These are the regulations we have in place, and there were no changes implemented by any of the states. There were no noted issues with those regulations based on the compliance reports. Similar to the silver eel life stage, no known changes based on the state compliance report. The PRT noted there were no issues with silver eel regulations, based on the review of state

compliance reports. In terms of other management measures, we have the aquaculture plan that I noted before.

I'm going to, in the next slide just outline what Maine did. The continuation of their aquaculture plan for 2021, which the Board approved last year, and as it was noted earlier this summer, that was conducted this year and about 138.23 pounds were harvested under that plan. As the Board got in that e-mail, there is an approval now based off of the e-mail vote for Maine to continue that aquaculture plan for 2022.

For each life stage, based on the preceding two years of data, the average commercial landings are less than 1 percent of the coastwide. Then a state can try and qualify for the de minimis. New Hampshire, Massachusetts, Pennsylvania, District of Colombia, Georgia and Florida requested de minimis status for the yellow eel fisheries, and based off of their landings information they have met those criteria.

In terms of the Plan Review Team recommendations, the group notes the Board should consider state compliance notes that are in the FMP, simply around dealer reports, primarily that and other states that don't have those inner regulations also do not have either known harvest or dealers in their state, and that's why they are not running into any issues.

In terms of the recent yellow eel harvest, this has likely been due to the market demand as we noted based off of industry feedback back in the spring, and that it will likely continue into the future until that market demand changes. The PRT also asked the Board reevaluate the requirement states provide us, as to what percentage of harvest is going to food versus bait.

You know this is really a guestimate that the states are able to do it at best each year, and that this information doesn't really inform our current management measures. The PRT noted that this may be just an unhelpful piece of information that the states are trying to estimate. In terms of other recommendations, the PRT had said this last year and I'll just say this again that states should continue to work with Law Enforcement Agencies and provide information of illegal harvest when available.

That New York should try to separate out yellow and silver eel landings where possible. PRT notes that based on the location of the silver eel landings that those are generally distinguishable, but request some more clarity on that data, and the states should quantify upstream and downstream passage and provide information to the TC for evaluation.

The last item for this Board is to consider approval of the FMP review and state compliance reports for the 2020 fishing year and de minimis requests from New Hampshire, Massachusetts, Pennsylvania, District of Colombia, Georgia and Florida for the yellow eel fishery. I'll take any questions, thank you.

CHAIR FEGLEY: Thank you, Kirby, great presentation. Do we have any questions?

MS. KERNS: I have Roy Miller.

CHAIR FEGLEY: Roy, go ahead.

MR. ROY W. MILLER: Thank you, Madam Chair. Kirby, looking at Figure 1 in the compliance report. The last two years appear to be the lowest landings on the record since '98, with a downward trend since 2011. Not to put you on the spot, but do you think that is largely in response to market demand decline, or is there something else going on there, that came up perhaps during the PDT review?

MR. ROOTES-MURDY: There was nothing else that came up during the PDT review. You know we've heard from industry regarding the decline in landings. They attribute it primarily to market. They've indicated they don't think availability has gone down. You know in terms of trying to draw a signal out from the state surveys, note it varies across the states.

But in what we have to go off is what is reported, so outside of the commercial information, you know it is the fishery independent data that we use to estimate availability. It's important to note that this resource is still depleted based on the stock assessment update, and that we have habitat that has been cut off for the species range, at least on the Atlantic coast that we've been able to document. It's going to be considered as part of the assessment.

CHAIR FEGLEY: You know we did have a conversation about that at our last meeting, and that the markets have been very, very poor. There really is no place, that people are having trouble selling eels. Anecdotally the fishermen in the Bay area are saying that there are a lot of eels out there, and it looks like we might have some pretty positive survey results for 2021. But that stock assessment is going to be pretty important next year. Any other questions for Kirby?

MS. KERNS: I have no hands raised, Lynn.

CHAIR FEGLEY: Okay, so given that, would somebody be willing to put forward a motion?

MS. KERNS: Waiting for a hand. Pat Keliher.

CHAIR FEGLEY: Thank you, Pat, go ahead.

MR. KELIHER: I would move to approve the American Eel FMP Review and State compliance report for the 2020 Fishing Year and de minimis request from New Hampshire, Massachusetts, Pennsylvania, the District of Colombia, Georgia, and Florida for their yellow eel fisheries.

CHAIR FEGLEY: Excellent, can I have a second?

MS. KERNS: Spud Woodward.

MR. A.G. "SPUD" WOODWARD: I second that.

CHAIR FEGLEY: Thank you, Spud, we now have a motion on the board. Is there anybody who wants to discuss around this motion?

MS. KERNS: I have no hands.

CHAIR FEGLEY: Okay, is there any opposition to this motion?

MS. KERNS: I have no hands in opposition.

CHAIR FEGLEY: That's great, and I guess I am going to go ahead and read it into the record, because I did not do that. **This is approved by consensus, and it is a motion to approve the American Eel FMP Review and state compliance reports for the 2020 Fishing Year, and de minimis requests for New Hampshire, Massachusetts, Pennsylvania, District of Colombia, Georgia, and Florida for their yellow eel fisheries**. Thank you very much for that, and we'll just move straight along for our Stock Assessment Update, and Kristen, take it away.

PROGRESS UPDATE ON 2022 BENCHMARK STOCK ASSESSMENT

DR. ANSTEAD: The last time I gave a progress report to the Board was in May, and at that time I discussed some of the challenges we were having modeling eel, and that we were going to bring our issues to the Assessment Science Committee, who were having a call just a couple weeks after that Board meeting.

Just as a reminder, our main challenges that we brought to the ASC were that most methods are not appropriate for the species, due to its unique life history and its range, and that comprehensive data to support model development coastwide doesn't really exist. We requested input from the ASC on whether or not there were other approaches we could try, in addition to the ones I talked about in May, with the Board as well as ASC, and also if they were supportive of us continuing with the benchmark instead of kind of defaulting back to an update.

We had a good discussion with ASC. Ultimately, they supported us continuing to chip away at this benchmark assessment. You know we have done quite a lot of work, and we would lose all that if we defaulted to an update. With that said, there are clearly still challenges for eel, and the ASC did say if we continue to develop the kinds of things that we were working on at that time, and couldn't figure it out, that we could bring it back to the ASC, and that they would form sort of a sub-group, and do a multiday workshop with us to discuss it. It is noted that about four or five members of our stock assessment subcommittee actually sit on the ASC already, so we will have to do some work to try to find other members to participate in that, if that is the route that we go.

We have continued to develop this benchmark. Over the summer and the fall the assessment team has continued to work on some of the modeling. We've actually made some promising progress on the delay-difference model. It does seem to be producing biomass estimates and exploitation rates that we as a committee find probably reasonable.

But with that said, some of the inputs to that model are maximum age, parameters from a growth model and a weight/length relationship. As you all know, that can be really challenging for eel, so we've sort of developed it with an average eel in mind, but that eel doesn't really exist. The growth parameters can vary wildly along the coast, and across the state from fresh water to ocean, not even to talk about how they vary between the sexes. We're struggling with what we would do with this model, if we can get it to a place that we're comfortable with.

It is some progress, but also some challenges. We will continue to discuss our other trend analyses, we have an egg per recruit model, and just some other tools that can hopefully get us something that can provide management advice. We also have our collaboration with USGS, who is developing a habitat model.

I think this is probably the right time to talk a little bit to Tom Fote's question about environmental variables. The TORs we have for that are to explore possible impacts of environmental change on life history characteristics, as well as consider the consequences of environmental factors on the estimates of abundance or relative abundance indices derived from the surveys.

We have these environmental data to standardize the indices. We also tried to use some of that data in a habitat model that we kind of borrowed from menhaden, that allows you to make predictive estimates about what would change for eel if salinity or temperature varied by this many degrees or parts per thousand in the future.

That model didn't really work, and similarly USGS has kind of struggled with how to get some of that into their model, so some data issues. But we kind of abandoned that model, our habitat model with those environmental variables, but USGS is continuing their habitat model. Those are sort of kind of the routes we've been thinking for trying to address these TORs.

Some of it might end up being qualitative instead of quantitative, but we will do our best. Finally, I'll just touch on our timeline. Our original timeline has us bringing the assessment to peer review early next summer or fall, and then to the Board at annual meeting in 2022. Thus far we're on schedule, so I can take any questions.

CHAIR FEGLEY: Great, thank you for that, Kristen. It's just an incredible amount of work, and it sounds like you guys are really covering the bases, and I'm very happy to hear about that collaboration with USGS. Hopefully you guys will get a product that will be useful, and provide some additional information for us. Are there any questions?

MS. KERNS: First, I have Tom Fote, and then followed by Chris Wright, and then one more after that.

CHAIR FEGLEY: Okay, go ahead, Tom.

MR. FOTE: Now that I've finished with the Gulf Stream, how about the Sargasso Sea? I understand that we're basically losing some of it, and with the rate of storms going through, how bad is looking up the Sargasso Sea? We really don't know the real-life cycle. We've never seen an eel spawning in the Sargasso Sea. Are we looking at research with all these drones and everything that follows hurricanes, and maybe look to see what is happening in the Sargasso Sea in NOAA?

CHAIR FEGLEY: Kristen, do you have any insight on that? Great question.

DR. ANSTEAD: Yes, you have a lot of good questions about this today, Tom. We have not specifically looked at the Sargasso Sea. I think that would fall under our kind of more general literature search, and it's certainly something I will write down and bring to the Stock Assessment Subcommittee as something to consider.

As you know, eel has a lot of kind of periphery committees as well, where we also have constant dialogue with Canada, as well as the Sargasso Sea Commission. We participate in their annual meetings, where many different countries get together and kind of compare notes. We can also revisit our notes from that from last year, and see if there is anything that we can bring through to the assessment, at least in a literature form.

CHAIR FEGLEY: Thanks for that. The Sargasso Sea Commission, you know it is interesting to tune into their meetings and get that more global perspective. Any other questions for Kristen. I'm sorry, was it Chris Wright next? Go ahead, Chris.

MR. CHRIS WRIGHT: I was just curious, did the stock assessment folks look at anything happening in Canada? I guess you had looked at the literature, from what you just responded to Tom's question. But do they do a stock assessment up there that we could get any kind of indicators from?

DR. ANSTEAD: Yes, they do stock assessments up in Canada, and it's just a different process. Theirs are more region based. We do not have a formal collaboration with them for this assessment, but a couple of their DFO scientists have been attending all of our calls, and they chime in as needed. While we're not using their data, we will pull in for some figures, probably some of their indices and their landings. But it is not a formal collaboration, but we are in communication.

MR. WRIGHT: Okay, thank you, because it would be curious whether or not any of their indices would be helpful for our exercises, we don't have full coverage along the coast.

DR. ANSTEAD: Yes, I'll note that we have more indices and fishery independent data than they do, kind of across all of their different provinces. Our time series are a little bit longer, so they have been a little bit hard to compare, but certainly DFO made an effort a couple years ago to standardize more of their indices, and then analyze them in a way that is consistent with our benchmark. But there wasn't quite as much success in that as we hoped. But we are still talking about that, and hopefully we can, in the future, fold sort of our indices into each other assessments.

CHAIR FEGLEY: Anybody else?

MS. KERNS: We have one member of the public, Erik Zlokovitz, hope I said that right, Erik.
CHAIR FEGLEY: Erik Zlokovitz, go right ahead, but please keep it quick, we're running behind.

MR. ERIK ZLOKOVITZ: Hey guys, sorry, I accidently unmuted myself, I didn't have any comments. Sorry.

CHAIR FEGLEY: No worries, thank you so much. All right, well I think that was the last item on our agenda. I do believe that this is my last meeting as Chair.

CHAIR FEGLEY: I want to thank you all, it's been a pleasure, and I believe it is Phil Edwards from Rhode Island who will be taking over. I'm looking forward to take his leadership.

ADJOURNMENT

CHAIR FEGLEY: With that, is there any other business that needs to come before the Board?

MS. KERNS: I have no hands.

CHAIR FEGLEY: Is there any opposition to adjourning this meeting?

MS. KERNS: I see no hands.

CHAIR FEGLEY: All right, consider ourselves adjourned, and have a wonderful afternoon, everyone.

(Whereupon the meeting convened at 12:18 p.m. on Thursday October 21, 2021.)

To: The American Eel Board
Chairman Phillip Edwards III

Jan 10,2023

RE: Maine's Elver Quota

The Maine Elver Fishermen's Association has been working in good faith with The State of Maine DMR and NGO, such as Downeast Salmon Federation, Maine Rivers, Alewife Harvesters of Maine, and the Center for Coastal fisheries. Working on dam removal projects to help opening up more spawning habitat for American Eels, River Herring and Salmon.
We would like to work with the TC on how you would us to get you more information, and what format you would like to use. To be able to get credit to increase Quote as stated in Addendum IV and V. See attachment A.
The Maine Elver Fishermen Association hope that the TC and the stock assessment committee would use the combine knowledge of the men and woman who know the river systems, to help gather information. To aid with the stock enhancement of American Eel and other species. Thank you for considerate this request

Sincerely,

Darrel Young

Darrel Young
Founder
Maine Elver Fisherman's Association
PO Box 35
Ellsworth, ME 04605
1-207-460-3677
ayoung@1972.40@gmail.com

Attachment A

Addendum IV

Glass Eel Harvest Allowance Based on Stock Enhancement Programs Any state or jurisdiction can request an allowance for commercial harvest of glass eels based on stock enhancement programs implemented after January 1, 2011. Examples of stock enhancement programs include, but are not limited to, habitat restoration projects, fish passage improvements, or fish passage construction. Fish passage projects may focus on upstream or downstream passage or both. Stock enhancement programs must show a measurable increase in glass eel passage and/or glass eel survival. Harvest shall not be restricted to the basin of restoration (i.e. harvest may occur at any approved location within the state or jurisdiction). Harvest requests shall not exceed 25% of the quantified contribution provided by the stock enhancement program.

Addendum V

• Glass Eel Harvest Allowance Based on Stock Enhancement Programs: Any state or jurisdiction can request an allowance for commercial harvest of glass eels based on stock enhancement programs implemented after January 1, 2011, subject to TC review and Board approval. Provisions of the stock enhancement program include: demonstration that the program has resulted in a measurable increase in glass eel passage and/or survival; harvest shall not be restricted to the basin of restoration (i.e. harvest may occur at any approved location within the state or jurisdiction); and harvest requests shall not exceed 25% of the quantified contribution provided by the stock enhancement program. See Addendum IV for more detail on specific stock enhancement program examples.

ASMFC Stock Assessment Overview: American Eel

Introduction

This document presents a summary of the 2022 benchmark stock assessment for American eel. The assessment was evaluated and endorsed by an independent panel of scientific experts through the Atlantic States Marine Fisheries Commission (ASMFC) external peer review process. The 2022 assessment is the latest and best information available on the status of the coastwide American eel.

Management Overview

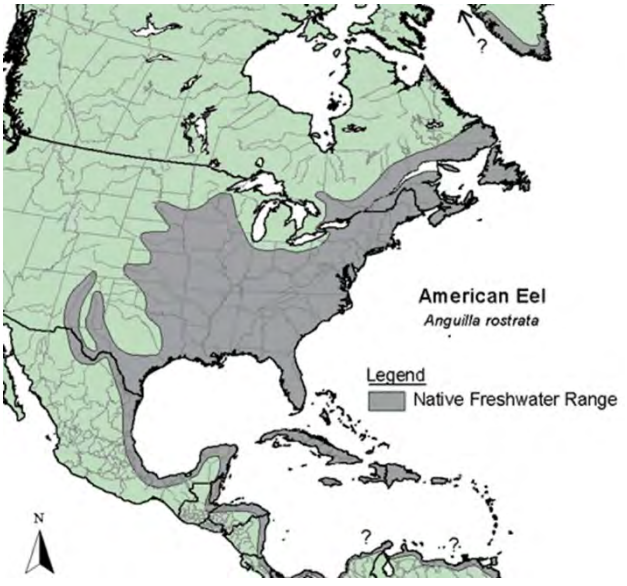
American eels are managed by ASMFC along the Atlantic coast from Maine to Florida. The American Eel Fishery Management Plan (FMP) was approved in November 1999, and has been modified through five addenda. The goal of the FMP is to conserve and protect the American eel resource to ensure ecological stability while providing for sustainable fisheries. Each state is responsible for implementing management measures within its jurisdiction to ensure the sustainability of the American eel population that resides within state boundaries.

Since 2001, the FMP has required all states and jurisdictions to implement an annual young-of-year (YOY) abundance survey with biological sampling in order to monitor annual recruitment. Commercial regulations vary by state but also include a 9-inch minimum size limit with the exception of Maine and South Carolina which maintain glass eel fisheries. Currently, Maine has a glass eel quota of 9,688 pounds and the coastwide quota for yellow eel is 916,473 pounds. Management action is initiated if the yellow eel coastwide cap is exceeded by 10% in two consecutive years. If the management trigger is exceeded, only those states accounting for more than 1% of the total yellow eel landings will be responsible for adjusting their measures. In addition, all states and jurisdictions are required to establish a minimum recreational size limit of 9 inches and a recreational possession limit of 25 eels per person per day, and no more than 50 per day for party/charter employees for bait purposes. Recreational anglers are not allowed to sell eels without a state license.

What Data Were Used?

The American eel assessment used both fishery-dependent and -independent data collected through state, federal, and academic research programs.

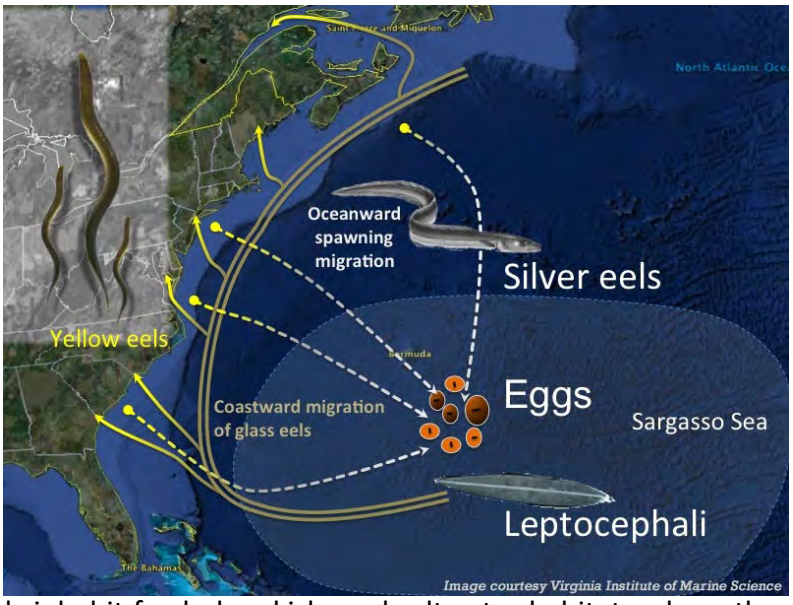
Map of the range of American eel (NatureServe 2006)



Life History

American eels are catadromous, spending most of their life in freshwater or estuarine environments, then traveling to the ocean as adults to reproduce and die. Sexually maturing eels migrate to spawning grounds located in the Sargasso Sea, an area of the western Atlantic Ocean east of the Bahamas and south of Bermuda. The Gulf Stream then transports and disperses larval eels, called leptocephali, along the eastern coast of Central and North America. Because all mature adult fish from the entire

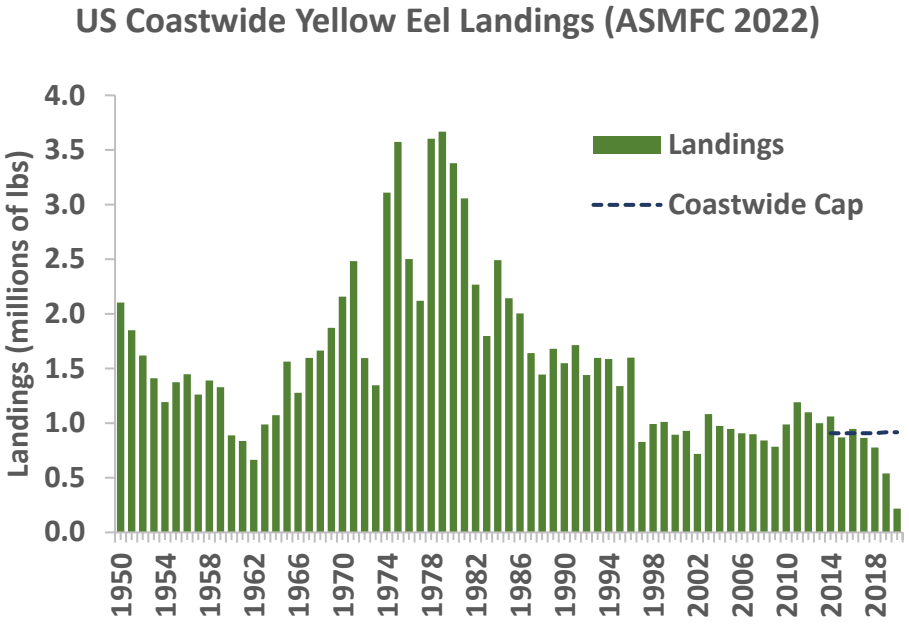
range come together in one place to reproduce, the American eel population is considered a panmictic (single) stock. American eels from Canada to Brazil comprise this single stock, although the benchmark stock assessment only includes the coastal and state waters from Maine to the Atlantic coast of Florida.



American eels have several life stages: leptocephali (larval eel), glass eel, elvers, yellow eel, and silver eel. Leptocephali metamorphose into glass eels as they migrate toward land. Glass eels develop into a pigmented stage, or elvers, as they move into brackish or freshwater. Usually by age two, small, pigmented eels make the transition into the yellow eel stage. Yellow eels inhabit fresh, brackish, and saltwater habitats where they feed primarily on invertebrates and smaller fishes. Sexual maturity can occur any time between 8 and 24 years of age depending on the location along the coast. When yellow eels start to sexually mature, they begin a downstream migration toward the Sargasso Sea spawning grounds. During this migration, yellow eels metamorphose into the adult silver eel phase, undergoing several physiological changes. Adult silver eels spawn in the Sargasso Sea during winter and early spring, after which they die.

Commercial Data

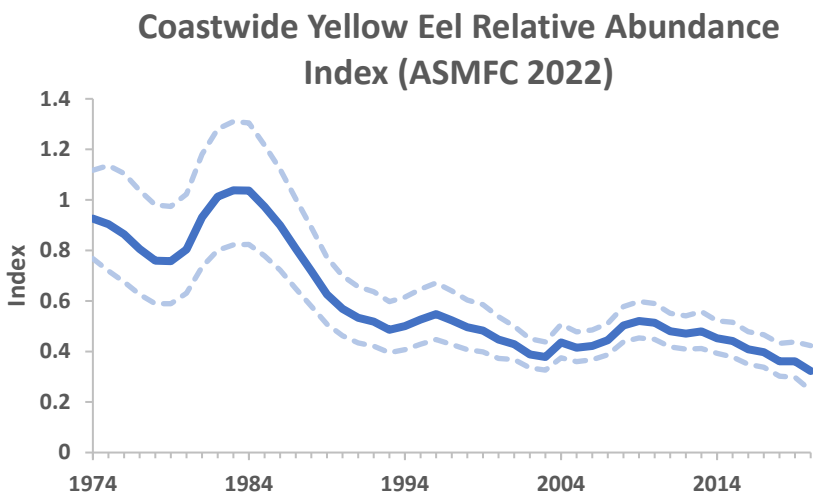
Along the US Atlantic coast, all life stages are subject to fishing pressure although the degree of fishing varies. Glass eel fisheries are permitted in Maine and South Carolina. Yellow eel fisheries exist in all Atlantic coast states and jurisdictions with the exception of Pennsylvania and the District of Columbia. Yellow eel landings in the US are primarily from the Mid-Atlantic portion of the range. Eel pots and traps are the most commonly used gear; however, weirs, fyke nets, and other fishing methods are also used. American eels are harvested for food, bait, and export markets. From 1950 to 2020, American eel landings ranged from over 3 million pounds in the 1970s and early 1980s to around 1 million pounds or less since the late 1990s. In 2020, landings were at a time series low of approximately 218,000 pounds, likely due to fishing restrictions associated with the COVID-19 pandemic and possibly due to changes in market demand.



American eel recreational harvest and release data is collected by the Marine Recreational Information Program, formerly the Marine Recreational Fishery Statistics Survey. There is very high error and low precision

associated with the estimates due to the limited number of American eels that have been encountered during the survey, which primarily focuses on coastal rather than inland fishing. Available information indicates that few recreational anglers directly target American eel.

American eel landings in the inland portion of the US are unquantified. There are some records of American eel landings in the Gulf of Mexico, but landings for that region have been negligible for the last two decades. Landings in Canada are well-documented, but landings in Mexico, Caribbean, and Central and South America are not.



Fishery-Independent Surveys

The 2022 stock assessment developed 25 young-of-year (YOY), 10 elver, and 14 yellow eel surveys for use as indices of abundance based on the number of years surveyed, survey design, appropriateness of gear used for catching eel, and frequency of eel catches. Several other data sources were used to characterize length-, age-, and sex-structure of the population. Survey data were statistically standardized to account for factors that affect catchability of eels (e.g., temperature, salinity, river flow rates). Survey data were analyzed separately and then combined to create coastwide YOY, elver, and yellow eel indices for potential use in trend analyses and modeling approaches.

In addition to developing YOY indices from the state-mandated surveys, the stock assessment investigated the YOY biological data (e.g., pigment stage, length, weight) for trends within or between sites. The average length of YOY eels increases from south to north along the coast, where Maine records the largest and Florida records the smallest average YOY eels. Otherwise, there was a lack of trends in the biological data within and among sites. Therefore, the stock assessment recommends not requiring the collection of biological data as part of YOY surveys going forward to relieve the sampling burden on the states.

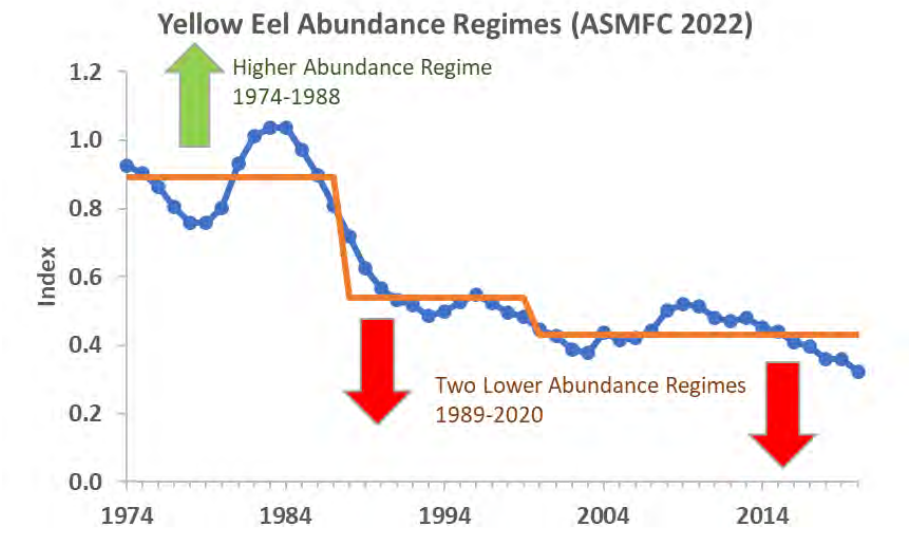
How Were the Data Analyzed?

Despite the landings data and large number of surveys available for use in this assessment, the American eel stock is still considered data-poor. From a biological perspective, much is still unknown about the species. Information is limited about their abundance, status at all life stages, and habitat requirements. Widely varying life history traits along the coast and between freshwater and ocean habitats and American eel's large distribution from Brazil to Canada have complicated attempts to quantitatively model and assess this species over several stock assessments. No overfishing determination has been made based on the analyses performed during any of the previous stock assessments. The 2022 stock assessment has not resolved these issues despite investigating numerous new tools and methods.

Modeling approaches

The stock assessment tried several new approaches for American eel that were suggested in past stock assessments including a delay-difference model, further exploring a traffic light analysis and surplus

production models, and developing an egg-per-recruit model. Numerous trend analysis approaches or tests were included in the report such as a multivariate auto-regressive state-space model, regime shift analysis, power analysis, Mann-Kendall test, and index-based methods. The most promising modeling approach was the delay-difference model and associated reference points, but the Stock Assessment Subcommittee (SAS) did not find the model appropriate for management use because of data limitations. Because comprehensive data to describe sex composition, maturity, and growth throughout its range does not exist, the delay-difference model was developed based on primarily Chesapeake Bay data. However, eel in other parts of the US range are known to have different life history parameters and thus the model should not be used for coastwide management.



The challenge of developing an analytical model for eel is not unique to the US. Increasingly other countries, such as New Zealand and Canada, have explored habitat-oriented assessments for their eel species. During the development of the 2022 assessment, ASMFC partnered with the US Geological Survey to conduct a pilot assessment of the ability to use a GIS-based habitat analysis to inform eel stock assessments. The initial assessment focused on the Chesapeake and Delaware Bay watersheds because those regions have the most data. Similar to other approaches, data limitations restricted the development and use of this approach but it still may prove to be a useful tool going forward.

In the assessment, the SAS concluded that until sufficient data are available at an appropriate scale that encompasses the range inhabited by American eels to support more complex model-based assessments, abundance indices and index-based methods are the best tool for guiding management decisions.

Management Tool

Because a statistical model could not be developed for the species to determine stock status or give management advice, the SAS explored several index-based methods that were developed, simulation tested, and peer reviewed in a recent Northeast Fisheries Science Center research track assessment (NEFSC 2020). At that review, 14 different index-based methods were presented for giving management advice in cases when a statistical model cannot be developed or when there is a strong retrospective pattern in the data and model. Additionally, NEFSC provided guidance on which methods are appropriate for various scenarios, such as when a stock is thought to be in good condition or if it needs rebuilding. The SAS considered several approaches and selected one called I_{TARGET}, an index-based method that needs only catch and abundance information. I_{TARGET} compares an average index value in the last few years to a reference period. A target abundance is developed by multiplying the average index by some multiple greater than 1 to allow for rebuilding, such as 1.25 or 1.5. A threshold is also developed by multiplying the index target by 0.8. Catch advice is then based on the average catch over the reference period and adjusted by comparing the current average index to the target index.

To apply I_{TARGET} to the American eel stock, the SAS used the coastwide yellow eel index and the time series of yellow eel catch from 1974 to the present. Based on the regime shift analysis, the SAS selected a reference period of 1974-1988, a time period when yellow eels were at a higher abundance than recent years. By comparing the average catch to the reference period, the recommended catch would have been lower than the observed landings or the current coastwide cap for nearly the whole time series.

While the Peer Review Panel endorsed the use of I_{TARGET} for developing management advice for eel down the road, members of the panel concluded that it is not ready for management use. To be used in management, the Panel recommended that the approach be simulation tested through the development of a management strategy evaluation and in consultation with stakeholders.

What is the Status of the Stock?

The stock is at or near historically low levels due to a combination of historical overfishing, habitat loss, food web alterations, predation, turbine mortality, environmental changes, toxins and contaminants, and disease. Since 2005 when the first ASMFC stock assessment was developed for American eel, no overfishing or overfished determination could be made. Based on several trend analyses, the stock was considered depleted in the 2012 and 2017 assessments.

For this assessment, a delay-difference model was explored and associated reference points were developed, but the SAS did not recommend it for management use. Instead, the SAS used I_{TARGET} to determine stock status and to develop catch advice. Because the average index of yellow eels is below both the index target and threshold, the SAS proposed that American eels are overfished and have likely been experiencing overfishing in the last few decades and the coastwide cap should be significantly lowered from the current cap of 916,473 pounds. Because the I_{TARGET} method was not approved for management use by the Peer Review Panel, neither was the stock status determined using that method. The Review Panel believes it is more appropriate to consider the American eel stock to be in a “depleted” rather than “overfished” state. The Panel noted that this is a qualitative term used only as a descriptor and not as a determination of status. Therefore, the overfished and overfishing status of American eel remains unknown and the stock is considered to be depleted from historic levels.

Data and Research Needs

The American Eel SAS and Technical Committee agree that the research recommendations from the previous two assessments (ASMFC 2012, 2017) remain important. The 2022 assessment outlines several data and research needs that would improve the next benchmark assessment. Many of the recommendations are focused on data and research that would improve future efforts to apply a habitat-based model, for example, evaluating how the use and availability of inland habitats has changed through time. Other recommendations would improve all future modeling approaches such as characterizing length, weight, age, and sex along the Atlantic coast. Throughout all assessments for American eel, it has been noted that assessing only a portion of the species range (i.e., coastal Maine through Florida) is not as meaningful for a panmictic species and the assessments recommend collaborating with scientists and agencies, inland and international, to consider a range-wide assessment in the future.

Glossary

Catadromous: adjective describing a fish that lives most of its life in freshwater then returns to saltwater to spawn

Delay-Difference Model: a variation of a biomass dynamic model that includes biological parameters, can be fitted directly to time series data, and accounts for changes in growth and recruitment over time

Management Strategy Evaluation: a process used by fisheries scientists and managers that involves using simulation modeling to compare different harvest strategies to achieve management objectives

Panmictic: referring to a fish whose mature individuals migrate to the same place to spawn from across the fish's entire geographic range

Regime Shift Analysis: a change in the ecosystem or time series detected by an analysis that may compare the most recent value to the mean of the time series for the current regime to identify potential change points or may use a cluster analysis to determine groups of years with similarities

Young-of the-year (YOY): an individual fish in its first year of life; for most species, YOY are juveniles

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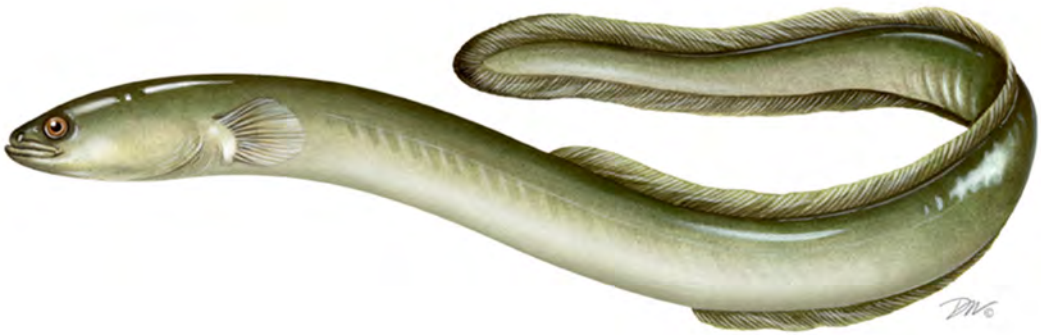
Atlantic States Marine Fisheries Commission

2022 American Eel Benchmark Stock Assessment Report



Draft for Board Review
February 2023

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Atlantic States Marine Fisheries Commission

American Eel Benchmark Stock Assessment

Prepared by the
ASMFC American Eel Stock Assessment Subcommittee

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The Atlantic States Marine Fisheries Commission thanks all of the individuals who contributed to the development of the American eel stock assessment, specifically the ASMFC American Eel Technical Committee and Stock Assessment Subcommittee members who developed the consensus stock assessment report as well as the Atlantic Coastal Cooperative Statistics Program staff Heather Konell for validating landings. Thank you to the Stony Brook University's Chen Laboratory for providing the raw data and analysis for the Hudson River Estuary Monitoring Program. Thank you to Aman Kohli at the Virginia Institute of Marine Science for her contributions to the natural mortality and disease sections of the report. The SAS is grateful for the feedback throughout the assessment from Trey Mace at Maryland Department of Natural Resources. Thank you to Kirby Rootes-Murdy for his contributions to the stock assessment before leaving his job at the Commission. Thank you to Nicholas Walker, Ben Gressler, Kevin Krause, Kelly Maloney, and Alex Haro for their contributions to the USGS habitat analysis for American eel. And thank you to Robby Maxwell at the Louisiana Department of Wildlife and Fisheries for providing the information about the Gulf States' American eel fisheries.

EXECUTIVE SUMMARY

The purpose of this assessment was to evaluate the current status of American eels along the US Atlantic coast.

Landings

Along the US Atlantic coast, all life stages are subject to fishing pressure and the degree of fishing varies. Glass eel fisheries are permitted in Maine and South Carolina. Yellow eel fisheries exist in all Atlantic Coast states and jurisdictions with the exception of Pennsylvania and the District of Columbia. American eels are harvested for food, bait, and export markets. From 1950 to 2020, American eel landings ranged from over 3 million pounds in the 1970s to early 1980s to around 1 million pounds or less since the late 1990s. In 2020, landings were at a time series low of approximately 218,000 pounds, likely due to fishing restrictions associated with the COVID-19 pandemic. There has been a coastwide cap on yellow eel landings and a glass eel quota for Maine since 2014.

Recreational harvest and release data for American eel is collected by the Marine Recreational Information Program (MRIP), formerly the Marine Recreational Fishery Statistics Survey. There is very high error and low precision associated with the estimates due to the limited number of American eels that have been encountered during the survey. Available information indicates that few recreational anglers directly target American eel.

Indices of Relative Abundance

The abundance indices developed and used in this assessment are more robust and better defined than previous assessments. State-mandated young-of-year (YOY) surveys have been in operation for twenty years or more in some cases. From Maine to Florida, 25 surveys from were developed into individual indices of relative abundance and then combined into a coastwide YOY index using a multivariate auto-regressive state-space (MARSS) model. There was a declining trend in coastwide YOY abundance from 1987-2020.

There were 10 elver indices developed from multiple surveys from Maine to Virginia that were combined into a coastwide index using the MARSS model. The coastwide index indicated no trend in elvers from 1999-2020.

There were 14 yellow eel indices developed from multiple surveys from New Hampshire to South Carolina that were combined into a coastwide index using the MARSS model. There was a declining trend in coastwide YOY abundance from 1974-2020.

In addition to developing YOY indices from the state-mandated surveys, the stock assessment investigated the biological data (e.g., pigment stage, length, weight) for trends within a site or between sites. There was a trend in length where average lengths increased with latitude, but the differences in sampling gear used among the surveys may have confounded the results. Otherwise, there was a lack of trends in the biological data within and among sites and the stock assessment recommends not requiring YOY biological data collection going forward.

Modeling Approaches

This stock assessment tried several new approaches for American eel that were suggested in past stock assessments including a delay-difference model, further exploring a traffic light analysis or a surplus production model, and developing an egg-per-recruit model. Several additional trend analysis approaches were included in the report. Additionally, the US Geological Survey conducted a pilot assessment of the ability to use a GIS-based habitat analysis to inform eel stock assessments. The stock assessment subcommittee also explored several index-based methods for determining stock status and providing catch advice.

Stock Status

From a biological perspective, much is still unknown about the species. Information is limited about their abundance, status at all life stages, and habitat requirements. No overfishing determination has been made based on the analyses performed during any of the previous stock assessments. Widely varying life history traits along the coast and between freshwater and ocean habitats and American eel's large distribution from Brazil to Canada have complicated attempts to quantitatively model and assess this species over several stock assessments. This stock assessment has not resolved these issues despite investigating several new tools and methods.

For this assessment, a delay-difference model was explored and associated reference points were developed, but ultimately the stock assessment subcommittee did not find the model appropriate for management use. Instead, the SAS used an index-based method to determine stock status and develop catch advice. Based on the index-based method used in this assessment, American eels are overfished and have likely been experiencing overfishing in the last few decades and the coastwide cap should be significantly lowered from the current cap of 916,473 pounds to 200,000-300,000 pounds.

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TERMS OF REFERENCE

For the 2022 ASMFC American Eel Benchmark Stock Assessment

Board Approved June 2020

Terms of Reference for the American Eel Assessment

TOR1. Define population structure based on available data. If alternative population structures are used in the models (e.g., coastwide, regional, sub-regional or estuary-specific), justify the use of each population structure.

American eels are a panmictic species with a single spawning stock based on genetic research (Section 2.1). American eels in this assessment include the portion of the stock from Maine to the Atlantic coast of Florida with no regional substructure.

TOR2. Characterize precision and accuracy of fishery-dependent and fishery-independent data used in the assessment, including the following but not limited to:

- **a. Provide descriptions of each data source (e.g., geographic location, sampling methodology, potential explanation for outlying or anomalous data).**
- **b. Describe calculation and potential standardization of abundance indices. Consider the consequences of environmental factors on the estimates of abundance or relative indices derived from surveys.**
- **c. Discuss trends and associated estimates of uncertainty (e.g., standard errors).**
- **d. Justify inclusion or elimination of available data sources.**

Fishery-dependent data for American eel are available for the commercial yellow (Section 4.1) and glass eel fisheries (Section 4.2). There is also data available to characterize the recreational fishery (Section 4.3), although this data is likely not comprehensive and estimates have large associated errors. The assessment also describes available landings data from Canada, the Gulf of Mexico, Mexico, Dominican Republic, and Cuba as well as eels exported from the US annually (Sections 4.4-4.7). For each fishery, a description of the fishery, data collection program, landings, and potential data limitations have been provided.

Over 80 fishery-independent surveys were reviewed by the stock assessment subcommittee (SAS) for the development of young-of-year (YOY), elver, or yellow eel relative abundance indices. Surveys that met the criteria developed by the SAS for evaluating available data were developed into indices of relative abundance for American eel (Section 5.1). All surveys were standardized using a variety of statistical models and environmental covariates. Individual survey designs and methods, biological and environmental sampling description, statistical model used, and abundance index trends are described for each survey used in the assessment (Sections 5.2). Coastwide indices by stage were developed using two different methods: a Multivariate Auto-Regressive State-Space (MARSS) model (Section 6.1) and Conn (2010; Section 6.2). While the trends were consistent between the two methods, the SAS preferred the MARSS model and that was used for the majority of modeling approaches. The Conn was maintained in the report for methods that needed a longer time series.

TOR3. Develop models used to estimate population parameters (e.g., *F*, biomass, abundance) and biological reference points, and analyze model performance.

- **a. Briefly describe history of model usage, its theory and framework, and document associated peer-reviewed literature. If using a new model, test using simulated data.**
- **b. Describe stability of model (e.g., ability to find a stable solution, invert Hessian)**
- **c. Clearly and thoroughly explain model strengths and limitations.**
- **d. Justify choice of CVs, effective sample sizes, or likelihood weighting schemes.**
- **e. If multiple models were considered, justify the choice of preferred model and the explanation of any differences in results among models.**

Several methods were developed for this assessment from simple trend analyses to statistical models. For analyzing the fishery-independent indices of relatively abundance for trends, a Multivariate Auto-Regressive State-Space model (MARSS; Section 6.1), the methods of Conn (2010; Section 6.2), a power analysis (Section 6.3), Mann-Kendall tests (Section 6.4), a regime shift analyses (Section 6.5), and a traffic light analysis (Section 6.6) were explored. Index-based methods were also developed in order to provide managers catch advice for setting the coastwide harvest cap for yellow eels (Section 6.10). For models that can produce population parameters and biological references points, an egg-per-recruit model (Section 6.7), two surplus production models (Section 6.8), and a delay-difference model (Section 6.9) were explored. For each model and method discussed, a background of the analysis, configuration, and results are provided in the stock assessment report. The stock status and conclusions sections of the report (Sections 7 and 8) discuss the differences between the results and justification for the recommended management tool for American eel, the index-based method I_{TARGET}.

TOR4. Characterize uncertainty of model estimates and biological or empirical reference points.

Ultimately this stock assessment was not able to produce population estimates or reference points based on the statistical models developed (e.g., surplus production, delay-difference model). Uncertainty was examined in the results of the various approaches by considering each data source during model development and performing sensitivity runs when possible.

TOR5. Perform sensitivity and retrospective analyses.

- **a. Perform sensitivity analyses for starting parameter values, priors, etc. and conduct other model diagnostics as necessary.**
- **b. Assess magnitude and direction of retrospective patterns detected, and discuss implications of any observed retrospective pattern for uncertainty in population parameters (e.g., *F*, SSB), reference points, and/or management measures.**

Each model developed explored a range of starting values and data sources when possible. The final tool used in the assessment for giving management advice explored several alternative scenarios to evaluate the uncertainty in the advice (Section 6.10). A retrospective analysis was

not done for any of the models, but the index-based method recommended for giving catch advice did compare the advice the method would have given each year to the landings.

TOR6. Recommend stock status as related to reference points (if available). For example:

a. Is the stock below the biomass threshold?

b. Is *F* above the threshold?

The SAS developed reference points for the delay-difference model in order to determine stock status (Section 6.9.4) but is not recommending this approach because of multiple concerns with the application of that model. Instead of using the delay-difference model, the SAS proposes that the index-based method I_{TARGET} method should be used to both determine stock status and provide catch advice for American eels. Using this methodology, the target biomass would be set at the three-year average of the MARSS index associated with I_{TARGET} and which corresponds to a B_{TARGET}. The threshold would be set at the three-year average of the MARSS index associated with the $I_{THRESHOLD}$ using the base case for both the reference period and the $I_{TARG\ MULT}$ (Section 6.10).

Based on the results of the I_{TARGET} method, the stock would be considered overfished since the current three-year average of the MARSS index (0.348) is below the $I_{THRESHOLD}$ (0.882). This result is in line with other methods (e.g., Conn index, MARSS index, regime shift analysis, delay-difference model, Mann-Kendall Test) that also show the stock as depleted or experiencing downward trends in the abundance data. While the American eel stock is overfished, the SAS was unable to determine if overfishing was occurring. However, it can be inferred that the stock is experiencing overfishing since the catches have been well above the recommended removals. Therefore, the SAS suggests that American eels likely have been experiencing overfishing in the last few decades based on the I_{TARGET} method and supported by additional methods explored in this assessment.

TOR7. Other potential scientific issues:

a. If traditional assessment models cannot be used due to data limitations, consider other novel approaches to assess the stock and provide advice to managers such as habitat modeling, data limited models, or trend analyses.

b. Evaluate new information on life history such as characterizing length, weight, age, and sex structure, distribution, spawning, or maturation. Explore possible impacts of environmental change on life history characteristics.

The challenges of using traditional stock assessment models for American eel was documented in the previous stock assessments (ASMFC 2012, 2017) and this stock assessment. The Introduction (Section 1) outlines the challenges of modeling and assessing eel, both in the US and internationally. Several modeling approaches from trend analyses to assessment models were attempted for this report (Section 6). Ultimately the SAS is recommending an index-based approach, I_{TARGET}, for determining stock status and for setting catch advice (Section 6.10 and 7) which is a novel approach developed by the Northeast Fisheries Science Center for data-poor situations (NEFSC 2020).

Another novel approach investigated during this stock assessment was a habitat model developed in collaboration with scientists from the US Geological Survey (USGS; Section 3.1). For the assessment, USGS conducted a pilot assessment of the capability to employ geographic information systems (GIS) –based habitat analysis to potentially inform American eel stock assessments. Like other methods in the assessment, data quantity and quality posed a challenge for this modeling effort.

The life history section of the assessment was updated to incorporate and describe new research since the last assessment (Section 2). Additionally, a growth meta-analysis and a bootstrapping approach for estimating growth parameters was developed from all available data (Section 2.5). Environmental covariates were used in index standardization when that data was available (Section 5). Additionally, the habitat description (Section 3) describes several new studies about the influence of the Gulf Stream on American eel recruitment and the effects of dam removal throughout its range.

TOR8. Develop detailed short and long-term prioritized lists of recommendations for future research, data collection, and assessment methodology. Highlight improvements to be made by next benchmark review.

Research recommendations from ASMFC 2012 and 2017 remain important, but the SAS compiled a list of research recommendations for this assessment that are specific to what could improve the next stock assessment (Section 9). Research recommendations are broken down into future research and data collection and assessment methodology.

TOR9. Recommend timing of next benchmark assessment and intermediate updates, if necessary relative to biology and current management of the species.

The SAS recommends an update be considered in five years and a new benchmark be considered in ten years. This is the assessment schedule that American eel has been on in recent years and should be maintained.

TOR10. If a minority report has been filed, explain majority reasoning against adopting approach suggested in that report. The minority report should explain reasoning against adopting approach suggested by the majority.

No minority report was filed.

Terms of Reference for the American Eel Peer Review

TOR1. Evaluate the definition of the stock structure used in the assessment.

TOR2. Evaluate the thoroughness of data collection and the presentation and treatment of fishery-dependent and fishery-independent data in the assessment, including the following but not limited to:

a. Presentation of data source variance (e.g., standard errors).
b. Justification for inclusion or elimination of available data sources.
c. Consideration of data strengths and weaknesses (e.g., temporal and spatial scale, gear selectivities, aging accuracy, sample size).
d. Calculation and/or standardization of abundance indices.

TOR3. Evaluate the methods and models used to estimate population parameters (e.g., *F*, biomass, abundance) and biological reference points, including but not limited to:

a. Evaluate the choice and justification of the preferred model(s). Was the most appropriate model (or model averaging approach) chosen given available data and life history of the species?
b. Evaluate model parameterization and specification (e.g., choice of CVs, effective sample sizes, likelihood weighting schemes, calculation/specification of M, stock-recruitment relationship, choice of time-varying parameters, plus group treatment).
c. Recommend best estimates of stock biomass, abundance, and exploitation from the assessment for use in management, if possible, or specify alternative estimation methods.
d. If multiple models were considered, evaluate the analysts' explanation of any differences in results.

TOR4. Evaluate the methods used to characterize uncertainty in estimated parameters. Ensure that the implications of uncertainty in technical conclusions are clearly stated.

TOR5. Evaluate the diagnostic analyses performed, including but not limited to:

a. Sensitivity analyses to determine model stability and potential consequences of major model assumptions.
b. Retrospective analysis.

TOR6. Evaluate stock status determination and reference points used by the assessment.

a. Recommend stock status determination from the assessment, or, if appropriate, specify alternative methods/measures.
b. Evaluate the choice of reference points and the methods used to estimate them.

TOR7. Evaluate the incorporation of new information stock or attempts at novel approaches to assess the stock.

TOR8. Review the research, data collection, and assessment methodology recommendations provided by the TC and make any additional recommendations warranted. Clearly

prioritize the activities needed to inform and maintain the current assessment, and provide recommendations to improve the reliability of future assessments.

TOR9. Recommend timing of the next benchmark assessment and updates, if necessary, relative to the life history and current management of the species.

TOR10. If a minority report has been filed, review minority opinion and any associated analyses. If possible, make recommendation on current or future use of alternative assessment approach presented in minority report.

TOR11. Prepare a peer review panel terms of reference and advisory report summarizing the panel's evaluation of the stock assessment and addressing each peer review term of reference. Develop a list of tasks to be completed following the workshop. Complete and submit the report within 4 weeks of workshop conclusion.

1 INTRODUCTION

American eels *Anguilla rostrata* are a challenging species to conserve, assess, and manage for a number of reasons. During its lifespan, American eels navigate through and reside in a wide range of habitats, from the oceanic waters of the Sargasso Sea to the brackish waters of coastal estuaries and the inland freshwater river systems. Throughout this journey, American eels inhabit areas under a myriad of management authorities, from international to multiple federal, state, and local governments. Life history characteristics such as late age of maturity and a tendency to aggregate during certain life stages further confound conservation efforts. These life history traits along with their large distribution from Brazil to Canada have complicated attempts to quantitatively model and assess this species over several stock assessments (ASMFC 2006a, 2006b, 2012, 2017a). This stock assessment has not resolved these issues despite investigating several new tools and methods. A delay-difference model was explored and associated reference points were developed, but ultimately the Stock Assessment Subcommittee (SAS) did not find the model appropriate for management use. Modelling and producing reference points for this species is not currently possible, nor will it be in the foreseeable future. Instead, the SAS used an index-based method to determine stock status and develop catch advice. Based on that approach, the SAS finds that the American eel stock is overfished and likely experiencing overfishing. A data-poor management tool is offered in this stock assessment for setting future harvest levels.

The challenges of assessing and managing eels are not unique to the Atlantic states' portion of the stock. Issues with comprehensive data collection, spatially variable life history parameters, habitat fragmentation due to dams, large geographic range, climate change, parasites, and inability to find an appropriate model for producing reference points are universally acknowledged by other countries that have eel populations, e.g., Japanese eels *Anguilla japonica* (Kaifu 2019), European eels *A. anguilla* (ICES 2013), and the longfin eels *A. dieffenbachii* and shortfin eels *A. australis* in New Zealand (Hoyle 2016). Several of these other countries or international bodies have come to similar conclusions as this SAS. Recently, New Zealand abandoned an analytical stock assessment for their stocks and suggested proceeding with habitat-oriented assessments which will not produce stock parameters (Cairns et al. 2022). An International Council for the Exploration of the Sea (ICES) Working Group on Eels (WGEEL) conducts stock assessments for European eels and their most recent report also outlines many of the same challenges as the US and acknowledges that their reliance on recruitment indices does not define which direction or action needs to be taken to recover the stock (ICES 2021a). Additionally, an ICES workshop focused on the future of eel advice, reviewing assessment options, provided a recommendation that focused on habitat consideration similar to New Zealand's recent work (ICES 2021b). Fisheries and Oceans Canada (DFO) attempted to use quantitative methods to determine stock status but could not, instead relying on trend analyses like the US assessments (Cornic et al. 2021).

This stock assessment tried several new approaches for American eel that were suggested in past stock assessments including a delay-difference model (Section 6.9), further exploring a traffic light analysis or a surplus production model (Section 6.6 and 6.8), and developing an egg-per-recruit model (Section 6.7). Additionally, USGS conducted a pilot assessment of the ability

to use a GIS-based habitat analysis to inform eel stock assessments (Section 3.1). The SAS took a critical look at the abundance indices used for American eel and made some revisions, including using two new methods for developing composite indices (Conn 2010; Holmes et al. 2018). The abundance indices developed and used in this assessment are more robust and better defined than previous assessments.

In order to provide the American Eel Management Board (Board) with a tool for setting an annual coastwide cap for yellow American eel harvest, the SAS is offering an index-based assessment method. Index-based methods were recently tested as management tools using an operating model (NEFSC 2020). The SAS evaluated several of these methods for use in setting a harvest control rule for American eels using a time series of landings and the available abundance indices (Section 6.10). Reference points were also developed for the delay-difference model to help inform stock status (Section 7), but ultimately the SAS did not recommend using these for management. The SAS evaluated the nearly 20 years of state-mandated young-of-the-year (YOY) surveys and made recommendations about their usefulness and where effort could be reduced (Section 5.4). The SAS, in collaboration with the Technical Committee (TC), made several research recommendations. The next benchmark should be initiated if some of these recommendations are accomplished or if there is a promise of a new management or modeling tool for American eels. In the meantime, the abundance indices and index-based methods can help guide the Board in setting appropriate harvest levels for the species.

1.1 Management Unit Definition

American eels are a catadromous species that historically occurred in all major rivers from Canada through Brazil. The management unit for American eels under the jurisdiction of ASMFC includes that portion of the population occurring in the territorial seas and inland waters along the Atlantic coast from Maine to Florida.

1.2 Regulatory History

The Board first convened in November 1995 and finalized the Fishery Management Plan (FMP) for American Eel in November 1999 (ASMFC 2000a). The goal of the FMP is to conserve and protect the American eel resource to ensure ecological stability while providing for sustainable fisheries. The FMP requires all states and jurisdictions to implement an annual YOY abundance survey to monitor the annual recruitment of each year's cohort (ASMFC 2000a, 2000b). In addition, the FMP requires a minimum recreational size and possession limit and a state license for recreational fishermen to sell American eels. The FMP requires that states and jurisdictions maintain existing or more conservative American eel commercial fishery regulations for all life stages, including minimum size limits. Each state is responsible for implementing management measures within its jurisdiction to ensure the sustainability of its American eel population.

In August 2005, the Board directed the American Eel Plan Development Team (PDT) to initiate an addendum to establish a mandatory catch and effort monitoring program for American eels. The Board approved Addendum I at the February 2006 Board meeting.

In January 2007, the Board initiated a draft addendum to increase the escapement of silver American eels to the spawning grounds. In October 2008, the Management Board approved Addendum II, which placed increased emphasis on improving the upstream and downstream passage of American eels. The Board chose to delay action on management measures in order to incorporate the results of the 2012 stock assessment.

In August 2012, the Management Board initiated Draft Addendum III with the goal of reducing mortality on all life stages of American eels. The addendum was initiated in response to the findings of the 2012 benchmark stock assessment, which declared the American eel stock along the US East Coast as depleted. The Board approved Addendum III in August 2013.

Addendum III requires states to reduce the yellow American eel recreational possession limit to 25 eel/person/day with the option to allow an exception of 50 eel/person/day for party/charter employees for bait purposes. The recreational and commercial size limit increased to a minimum of 9". Eel pots are required to be constructed with a minimum of ½" by ½" mesh size. The glass American eel fishery is required to implement a maximum tolerance of 25 pigmented American eels per pound of glass American eel catch. The silver American eel fishery is prohibited in all states from September 1st to December 31st from any gear type other than baited traps/pots or spears. The addendum also set minimum monitoring standards for states and required dealer and harvester reporting in the commercial fishery.

In October 2014, the Board approved Addendum IV. The addendum was also initiated in response to the 2012 American Eel Benchmark Stock Assessment and the need to reduce mortality on all life stages. The Addendum established a coast-wide cap of 907,671 pounds of yellow American eels, reduced Maine's glass American eel quota to 9,688 pounds (2014 landings) and allowed for the continuation of New York's silver American eel weir fishery in the Delaware River. For yellow American eel fisheries, the coast-wide cap was implemented starting in the 2015 fishing year and established two management triggers: (1) if the cap is exceeded by more than 10% in a given year, or (2) the coast-wide quota is exceeded for two consecutive years regardless of the percent overage. If either one of the triggers are met, then states would implement state-specific allocation based on average landings from 1998–2010 with allocation percentages derived from 2011–2013.

In August 2018, the Board approved Addendum V. The Addendum increased the yellow American eel coastwide cap starting in 2019 to 916,473 pounds to reflect a correction in the historical harvest data. Further, the Addendum adjusted the method (management trigger) to reduce total landings to the coastwide cap when the cap has been exceeded and removed the implementation of state-by-state allocations if the management trigger is met. Management action is initiated if the yellow American eel coastwide cap is exceeded by 10% in two consecutive years. If the management trigger is exceeded, only those states accounting for more than 1% of the total yellow American eel landings will be responsible for adjusting their

measures. Additionally, the Addendum maintains Maine's glass American eel quota of 9,688 pounds. The Board also slightly modified the glass American eel aquaculture provisions, maintaining the 200-pound limit for glass American eel harvest but adjusting the criteria for evaluating the proposed harvest area's contribution to the overall population consistent with the recommendations of the Technical Committee.

1.3 Petitions for ESA Listing

In response to the extreme declines in American eel abundance in the Saint Lawrence River-Lake Ontario portion of the species' range, the ASMFC requested that the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) conduct a status review of American eels in 2004. The ASMFC also requested an evaluation of a Distinct Population Segment (DPS) listing under the Endangered Species Act (ESA) for the Saint Lawrence River/Lake Ontario and Lake Champlain/Richelieu River portion of the species range, as well as an evaluation of the entire Atlantic coast American eel population. A preliminary status review conducted by USFWS determined that American eels were not likely to meet the requirements of DPS determinations; however, the USFWS initiated a coastwide status review of the American eel in coordination with the NMFS and ASMFC. At this same time, two private citizens submitted a petition to the USFWS and NMFS to list American eels under the ESA.

In February 2007, the USFWS announced the completion of a Status Review for American eel (USFWS 2007). The report concluded that protecting American eels as an endangered or threatened species was not warranted. The USFWS did note that while the species' overall population was not in danger of extinction or likely to become so in the foreseeable future, the American eel population has "been extirpated from some portions of its historical freshwater habitat over the last 100 years… [and the species abundance has declined] likely as a result of harvest or turbine mortality, or a combination of factors."

In 2010, the Center for Environmental Science Accuracy and Reliability filed a petition to the USFWS to consider placing the American eel on the endangered species list. The proposal was based on new information that had become available since the last status review. In September 2011, the USFWS published a positive 90-Day Finding, which stated that the petition contained enough information to warrant conducting a status review (USFWS 2011).

In 2015, the USFWS announced that the American eel population is stable and protection under ESA was not warranted although the agency did recommend continuing efforts to maintain healthy habitats, monitor harvest levels, and improve river passage (USFWS 2015). Conversely, the International Union for the Conservation of Nature (IUCN) listed the American eel as "Endangered" on the Red List in 2014 (Jacoby et al. 2014). While this has no legal implications, it is an important metric and the ASMFC remains committed to closely monitoring this species and making management adjustments as necessary.

1.4 Assessment History

1.4.1 Previous stock assessments

In 2005, a stock assessment for American eels was conducted by the ASMFC and reviewed by a panel of independent experts (ASMFC 2005). The Peer Review Panel recognized sufficient shortcomings with the assessment to warrant additional action prior to its use for future technical and management purposes (ASMFC 2006a). The 2005 stock assessment was not accepted by the Board; therefore, the stock status of American eels was deemed unknown by the ASMFC.

Following the rejected stock assessment, the American Eel SAS and TC were tasked with reviewing the recommendations from the peer review advisory report and recommending a follow-up plan. Subsequently, a report was issued in October of 2006 containing updated datasets and the short-term analyses suggested by the review panel (ASMFC 2006b).

The 2012 benchmark stock assessment represented the most recent work performed by the ASMFC to ascertain stock status since 2006 (ASMFC 2012). Analyses and results indicated that the American eel stock had declined and that there were significant downward trends in multiple surveys across the coast. It was determined that the stock was depleted but no overfishing determination could be made based on the analyses performed. The 2012 benchmark was updated in 2017 and maintained the depleted status (ASMFC 2017a).

1.4.2 Summary of previous assessment models

Several modeling approaches were explored in the 2012 benchmark including a suite of models used by ICES (Study Leading to Informed Management of Eels or SLIME), surplus production models (both age-structured and catch-free), traffic light analysis (TLA), and depletion-based stock reduction analysis (DB-SRA). The SLIME model was deemed inappropriate to the needs of the ASMFC for managing American eels since it was designed to meet northeast Atlantic-specific management requirements (i.e., provide estimates of escapement). Several trend analyses were done including a power, Mann-Kendall, and Manly analyses as well as autoregressive integrated moving average models (ARIMA).

1.4.3 Previous peer review comments

The surplus productions models did not find stable solutions and the TLA produced results that were difficult to interpret. Therefore, surplus production models and the TLA were not endorsed for management use by the Peer Review Panel in 2012, although the Panel did suggest that the TLA be explored in the next assessment to incorporate more data. The Panel noted that ARIMA is sensitive to the first data point in the time series and they suggested that trends be interpreted with caution. ARIMA was not used for developing reference points for American eel management but was one of the trend analyses used to draw general conclusions about the status of the stock. The Peer Review Panel endorsed the DB-SRA model for assessing

American eels but had a number of concerns about the model and ultimately was not comfortable using it to develop reference points or determine stock status without further refinements. Specifically, the Peer Review Panel's criticisms of the DB-SRA were that the underlying production function may not be appropriate for the species, there was no consideration of stock dynamics in the marine stage or full range of American eels, it assumed there was negligible error in catch data, and that there was uncertainty in the input parameters and the magnitude of resulting biomass and fishing mortality estimates.

1.4.4 Previous stock status

The data evaluated in the 2012 assessment provided evidence of a neutral or declining abundance of American eels in the US in recent decades. All three trend analysis methods (Mann-Kendall, Manly, and ARIMA) detected significant declining trends in some indices over the time period examined. The Mann-Kendall test detected a significant declining trend in 6 of the 22 YOY indices, 5 of the 15 yellow eel indices, 3 of the 9 regional trends, and the coastwide yellow-phase abundance index. No overfishing determination could be made based on the analyses performed. Trend analyses and DB-SRA results indicated that the American eel stock declined in recent decades and the prevalence of significant downward trends in multiple surveys across the coast is cause for concern. Therefore, the stock status was determined to be depleted.

The trend analysis results in the 2017 update were consistent with the ASMFC 2012 results, with few exceptions. Compared to ASMFC 2012, there were more significantly downward trends in indices as indicated by the Mann-Kendall test and similar results for the ARIMA. This trend analysis and stable low landings support the updated conclusion that the American eel population in the assessment range remained depleted.

2 LIFE HISTORY

American eels are found from the southern tip of Greenland, Labrador, and the northern Gulf of St. Lawrence in the north, south along the Atlantic and Gulf coasts of North America and eastern Central America to the northeast coast of South America, and into the inland areas of the Mississippi and Great Lakes drainages (Tesch 1977). The American eel is regarded as a single, panmictic breeding population. American eels are found in a variety of habitats throughout their life cycle, including the open ocean, large coastal tributaries, small freshwater streams, and lakes and ponds. They are opportunistic feeders that will eat, depending on their life stage, phytoplankton, zooplankton, insects, crustaceans, and fish. Individuals grow in freshwater or estuarine environments for anywhere from 3 to 30 or more years before maturing and returning to the ocean as adults to spawn and die.

American eels are confronted with many environmental and human-induced stressors which affect all life stages and may reduce survival. Since all anthropogenic eel mortality is pre-spawning, reproduction can be reduced by these cumulative pressures. Commercial harvest occurs at all American eel life stages (glass, elver, yellow, and silver). Blockages and

obstructions that limit upstream migration of American eels have reduced habitat availability and limited the range of the species. Dams may also limit or delay downstream movements of spawning adults. Additionally, downstream mortality may be caused by hydroelectric facilities by impingement or turbine passage. Freshwater habitat degradation resulting in reduced food productivity increases mortality of the freshwater life stages. Predation by fish, birds, and mammals can impact eel populations during all life stages. The non-native swim bladder parasite, *Anguillicoloides crassus*, can decrease swimming ability and reduce the silver American eel's ability to reach the spawning grounds. Contaminants also may reduce the reproductive success of American eels because they have a high contaminant bioaccumulation rate (Couillard et al. 1997). Oceanographic changes influencing larval drift and migration may reduce year-class success. American eel, as a panmictic species, could be particularly vulnerable to drastic oceanic variations. An understanding of the requirements of the American eel's different life stages is needed to protect and manage this species.

2.1 Stock Definitions

The American eel is a panmictic species, with a single spawning stock that reproduces in the Sargasso Sea. American eel larvae (leptocephali) are broadly dispersed by ocean currents along the Atlantic coasts of northern South, Central, and North America. Genetic research indicates that there is no reproductive isolation of American eels migrating from the Atlantic Coast (Avise et al. 1986; Wirth and Bernatchez 2003; Cote et al. 2013; Bonvechio et al. 2018). Further, any genetic differentiation is a result of natural selection upon a particular cohort within a geographic area rather than actual genetic differences within the species (Pavey et al. 2015).

2.2 Migration Patterns

American eels may travel thousands of miles in their lifetime. They are a catadromous fish that spawn in the Sargasso Sea, and the larvae drift on ocean currents until they reach the eastern seaboard of North America. Young American eels actively swim upstream to reach estuarine and freshwater habitats, sometimes hundreds of miles upriver. The young American eels spend between 3 and 30 or more years in estuarine or freshwater habitats before maturing and migrating back downstream and to the Sargasso Sea to spawn. Since the 2012 assessment, oceanic tracking of silver American eels from Canada has been conducted, suggesting that migration to the Sargasso Sea occurs along the edge of the Continental Shelf and then through deeper waters from Canada directly to the spawning grounds (Beguer-Pon et al. 2015; Beguer-Pon et al. 2017).

2.3 Life Cycle

American eels undergo six distinct life stages. The life cycle begins when the eggs hatch and leptocephali (larvae) are carried by ocean currents from the spawning grounds in the Sargasso Sea. The prevailing currents along coastal areas disperse the leptocephali, which metamorphose into glass eels on the continental shelf. Glass eels move toward inland areas and become pigmented elvers before or during their entry into coastal estuaries. Elvers and

yellow American eels settle in habitats ranging from estuaries to far upstream freshwater reaches. American eels reach the silver stage at maturity and return to the Sargasso Sea, where they spawn and die.

2.4 Age

2.4.1 Ageing Workshops and Recommendations

A workshop on ageing and sexing American eels was held by the ASMFC in 2001 (ASMFC 2001). The workshop's goals were to present current knowledge to the TC on techniques for ageing and sexing that could be used by states to collect data for future stock assessments. The workshop concluded that acceptable methods for sexing American eel are gonad squash and histology. For ageing, embedding and sectioning or grinding and polishing were preferred techniques for processing and reading otoliths. These methods became accepted by the ASMFC and are described by Liew (1974), Chisnall and Kalish (1993), and Oliveira (1996). At that time, neither a sample exchange was performed nor was there any calculation of ageing bias or precision between agencies and laboratories ageing the species.

Age data were available for the 2012 assessment from otolith samples from Delaware Division of Fish and Wildlife and Maryland Department of Natural Resources, as well as some research studies (see Appendix 3 Table 1 in ASMFC 2012). Concerns raised from both the Workshop on Ageing and Sexing American Eel (2001) and the benchmark stock assessment (2012) regarding the ages of American eels were that analyses indicated age is a poor predictor of length, age samples from estuarine populations may not be representative of freshwater populations, current biological sampling may not provide sufficient spatial coverage, and there is the possibility that during metamorphosis the otolith reabsorbs material and causes discrepancies for ageing (McCleave 2008). As more age data are collected by agencies and labs along the Atlantic coast and efforts are being made to collect data to eventually support an age-based model, the TC recommended organizing a sample exchange for American eel agers.

An exchange of American eel otoliths from various states along the Atlantic coast was completed in May 2017 (ASMFC 2017b). The exchange had participation and samples from Maine to Florida and included whole (both (1) loose whole otoliths and (2) mounted and polished whole otoliths) and sectioned otoliths, many as paired samples. Analysis from the exchange indicated systematic bias and a lack of precision in age readings as well as low agreement between readers both within lab and between states. Varying levels of experience, lack of familiarity reading whole otoliths, identifying the first and last annulus, and knowing when to round ages based on annulus count, catch date, and margin codes were all identified as potential reasons for the low agreement. The agers requested an in-person workshop to compare methods, establish a preferred method and ageing protocol, and discuss an ageing timeline for American eels.

In January 2018, American eel agers met for an in-person workshop to compare protocols, make age determinations as a group, establish a preferred method for processing and ageing

American eel otoliths, and discuss an ageing timeline. The participants of the workshop agreed that loose whole otoliths should not be used for ageing American eels; rather, only whole otoliths that have been mounted and polished or sectioned otoliths should be used. Adding a drop of water to sectioned or whole otoliths did improve readability for some samples and may be used. Staining or dyeing the sectioned otoliths with Toluidine Blue did not significantly increase readability despite it being the historical standard for processing sectioned otoliths (Oliveira 1996). Readers concluded that given the extra processing time it required, it did not offer a large enough benefit to continue using it. Additionally, it seemed to hamper the reading of the historical samples and may require them to be reprocessed and re-stained in order to make them readable. The most agreement in ages occurred when workshop participants examined the paired section and whole (mounted and polished) otoliths together. Recognizing that is not a feasible way to do production ageing, it should be considered at least for training purposes for new readers.

There were several issues the participants identified that led to age reading discrepancies. Double banding or splitting of annuli did not occur in all samples, but it did appear on many samples and readers should be conscious of not over-counting. Following a complete annuli around the otolith can help determine if it is a single or split annuli. Over-sanding or sectioning samples too thin also resulted in over-counting and should be avoided. Participants also noted that for older aged samples (>7 years), sometimes annuli on the edge were lost on whole mounted samples as compared to the paired section. Properly sanding the mounted otolith did improve readability, but readers may want to consider an age cutoff for when whole otolith reading may not be appropriate and samples should be sectioned for age determination.

The ageing timeline for American eel developed by the Gulf and Atlantic States Marine Fisheries Commissions ageing manual was reviewed by the agers at the workshop (Figure 1). After evaluating samples from along the coast during this workshop, readers suspected that the time of annulus deposition varied latitudinally and that there was not enough information coastwide to establish this in a comprehensive way.

2.4.2 Age Data

Age data were supplied for this assessment from the commercial pot fisheries in New Jersey, Delaware, Maryland, and Georgia (Table 1). Maryland also supplied some ages collected from a fishery-independent survey. Sample sizes varied from state to state and most ages were supplied by Maryland, where whole otoliths are used for ageing rather than sectioned otoliths like other states. Most ages were between 2–6 years old (Figure 2).

2.4.3 South Carolina Ageing Project

Following ASMFC 2017, South Carolina Department of Natural Resources (SC DNR) noted that both the YOY and yellow American eel surveys in their state had significant downward trends in relative abundance. In response to these findings, biologists in the state reviewed the research recommendations in the assessments and noted that one of the most critical data needs was to

"conduct intensive age and growth studies at regional index sites to support the development of reference points and estimates of exploitation." To begin to address this data gap in their waters, SC DNR obtained a grant to complete a project to collect and process histological and otolith samples. From 2012–2018, SC DNR processed 1,141 gonad histological samples to determine sex and maturity stage and 1,081 paired whole and sectioned otolith samples to determine age. Life history information was also summarized to characterize American eels in South Carolina waters including length, weight, life stage, *A. crassus* infection, maturity stage, and age. The project's final report was provided to the SAS (SC DNR 2020).

The SC DNR group found no ageing bias for sectioned otoliths but did find bias for whole otolith readings. Similarly, there was precision and reproducibility of age estimates using sections but not for whole otolith samples. When comparing the samples to each other, the two methods were not comparable. SC DNR found the sectioned otoliths to be the superior hard part for age determination and developed an ageing method translation table to convert whole otolith ages into sectioned otolith ages.

2.5 Growth

Growth rates are highly variable for American eels across their range and within the same watershed. American eels tend to grow more quickly in the southern portion of their range compared to the north, and females tend to grow more quickly than males (Jessop 2010). Male maximum size is the same throughout their distribution (Jessop 2010); however, female American eels reach a larger maximum size in the northern portion of their range compared to the south (Jessop 2010). American eel length varies widely for a given age and sex for individuals in the same watershed, so length-at-age relationships for American eels are unreliable (ASMFC 2017).

2.5.1 Growth Meta-Analysis

2.5.1.1 Methods

Biological data for American eels was compiled from a number of past and ongoing research programs along the Atlantic coast and classified into one of the six geographic regions used in the assessment. These data, updated through 2020, were used to model both the length-weight and age-length relationship for American eel. The relation of length in millimeters to weight in grams was modeled using the allometric length-weight function. Length-weight parameters were estimated by region, sex, and for all data pooled together. The analysis of the residual sum of squares (ARSS) method was performed to compare the length-weight curves among regions and between sexes (Chen et al. 1992; Haddon 2001). The ARSS method provided a procedure for testing whether two or more nonlinear curves are coincident (i.e., not statistically different). Values were considered statistically significant at $\alpha < 0.05$.

Linear regression was used to model the relation of age in years to length in millimeters by region, sex, and for all data pooled together. A test for coincident regressions was applied to

test for differences in the regressions among regions and between sexes (Zar 1999). Values were considered statistically significant at $\alpha < 0.05$. The age-length relationship for American eels was also described through the von Bertalanffy model, which is given by:

$$L_t = L_\infty \left[1 - e^{-K(t-t_0)}\right]$$

where L_t is length-at-age t, L_∞ is the theoretical asymptotic average length (if $K > 0$), K is growth rate at which the asymptote is approached, and t_0 is the hypothetical age at which length is zero. Model fits were first evaluated based on convergence status; models that did not successfully converge were removed from consideration for the associated dataset.

2.5.1.2 Results

The length-weight analysis consisted of 81,830 American eels across all six geographic regions, 7,249 identified by sex. The length-age analysis included 20,577 samples across all regions, including 6,507 identified by sex. The Chesapeake Bay and Delaware Bay/Mid-Atlantic Coastal Bays regions were the source of more than 73% and 76% of the length-weight and length-age biological samples, respectively. The length-weight model successfully converged and parameters estimated for each of the six regions, by sex, and for all data pooled (Table 2; Figure 3). The results of the ARSS indicated that there were statistically significant differences in the length-weight relationship between at least two regions ($F_{10, 81,816}$, $P < 0.001$). Parameter estimates were very similar in five of the six regions with the exception of Southern New England; however, length-weight data from this region consisted solely of samples from Marine Recreational Fisheries Statistics Survey (MRFSS). Due to weights being estimated in the MRFSS survey and an extremely small sample size (N=166), length-weight parameters in the Southern New England region should be evaluated with extreme caution. Except for Southern New England, American eels from the South Atlantic exhibited slightly higher weights at length compared to the remaining regions. The results of the ARSS indicated sex-specific significance between estimated length-weight parameters ($F_{2, 7,245}$, $P = 0.027$; Table 2). These results were somewhat expected due to the drastically different growth history strategies for male and female American eels.

The parameters estimated from the linear regression of length on age for the various dataset configurations are presented in Table 3. There are statistically significant differences in the age-length relation among regions based on the results of the test for coincident regressions ($F_{10, 20,565}$, $P < 0.0001$). The final parameter estimates suggested distinct differences in growth patterns between the northernmost regions (Hudson River, Southern New England, Gulf of Maine) and the southernmost regions (Del Bay/Mid-Atlantic Coastal Bays, Chesapeake Bay, South Atlantic; Table 3; Figure 4). All three southernmost regions exhibited extremely similar growth patterns based on the linear regression. Growth estimates by region largely followed a latitudinal pattern, where the greatest lengths at age were estimated for the South Atlantic and the slowest lengths at age were estimated for the Gulf of Maine. The test for coincident regressions also detected significant differences in the age-length regressions between sexes

($F_{2, 6,503}$, $P < 0.0001$). The results suggested the rate of growth in length with age is faster in females than in males (Table 3; Figure 5).

Parameters were estimated from the von Bertalanffy model to further examine the age-length relationship of American eels by region and by sex (Table 4; Figure 6). The model failed to converge for the Southern New England region and for males. Although differences in growth estimates between the northernmost and southernmost regions were not as apparent with the von Bertalanffy model compared to the linear regression analysis, there were clear latitudinal differences in estimated length at age by region. Estimates of length at age were the greatest among all regions for the South Atlantic from ages 2–11 years and the Chesapeake Bay from ages 12–18 years. Estimates of length-at-age were the smallest for the Gulf of Maine ages 2–16 years.

Significant variation in length at age and a broad overlap in lengths across multiple age groups were observed in the data even within a regional analysis (Figure 7–Figure 13). Pooled data for all regions amplified these variations in length at age. These analyses confirm the relationship between age and length for American eels is not well defined and that age is a poor predictor of length for American eels. Ageing error and uncertainty around ageing estimates may also play an additional role in the weak relationship between length and age.

2.5.2 Bootstrap Estimation of von Bertalanffy Age-Length Growth Parameters

Because the results of the growth meta-analysis indicated that there was significant variation in length at age, the SAS struggled with what values to use in the modeling approaches, specifically the coastwide delay-difference model. Growth model parameters are needed for the delay-difference model, which is coded for von Bertalanffy growth parameters but could potentially be expanded to accommodate a different growth model if needed. The growth data was explored and ultimately the SAS recommended setting up a bootstrapping routine to take a specified number of samples at each age regardless of where the data were collected geographically. The SAS noted that there was some sex data available, but the delay-difference model was developed for both sexes and therefore the bootstrapping estimation of von Bertalanffy growth parameters was not done by sex.

2.5.2.1 Method

Parameters from the von Bertalanffy age-length growth model were estimated using standard bootstrapping techniques (Efron and Tibshirani 1993). Ages in the available age-length data ranged from age 0 (primarily from the YOY data) to age 37 and the number of lengths available at each age was variable (Table 5). The working group decided to only include in the bootstrap analysis those ages that had a minimum of 30 lengths. This excluded ages older than 21 years.

Bootstrapping was used to construct 1,000 bootstrap replicates of the data by randomly sampling the data with replacement at each age. The von Bertalanffy age-length growth model was fit to each bootstrap sample to estimate L_∞, K, and t_0. The median value for each

parameter was computed over all bootstrap estimates. The analysis was performed in R (version 4.1.1, R Core Team 2021).

2.5.2.2 Results

The median values of the bootstrap parameter estimates were L_∞ equal to 452.7 mm, K equal to 0.4864, and t_0 equal to -0.3349 (Figure 14). These values are used in the delay-difference model (Section 6.9).

2.6 Reproduction

The sex of American eels can be determined by gross morphological examination. Differentiation between sexes occurs in the yellow eel stage of American eels and maturity at length varies by sex and latitude and males mature at a smaller size and younger age (Jessop 2010). Sex ratios by location are also variable with males found more commonly in downriver sites and females more common in upriver sites, but the mechanism for sex determination has not been established. Field studies suggest that sex determination may either be driven by density dependence or that females more typically migrate upstream (Roncarati et al. 1997; Krueger and Oliveira 1999; Davey and Jellyman 2005; Cote et al. 2015). Oliveira and McCleave (2000) found that yellow eels >400 mm and silver eels >425 mm were exclusively female. The fecundity of female American eels is directly related to size (Jessop 2018). American eels are thought to spawn in the Sargasso Sea during late winter through spring, but spawning has never been observed. Several silver American eels have been tracked from Canada to the Sargasso Sea and arrival at the spawning grounds occurred in January and February for American eels that were tagged and released in October (Beguer-Pon et al. 2017). It is unknown if American eels have paired or group spawning. Because no spent American eel has ever been documented, it is assumed that American eels are semelparous.

2.7 Natural Mortality

Very little is known about the natural mortality of American eels. Since American eels are highly fecund, natural mortality is likely very high, particularly during the early life stages. American eel survival is likely impacted by changes in oceanographic conditions, predation, and the spread of the non-native swim bladder nematode *Anguillicoloides crassus*. Estimates of natural mortality are often obtained through indirect measures, such as estimating total mortality and subtracting fishing mortality to obtain natural mortality estimates or linking natural mortality to life history characteristics (e.g., Lorenzen 1996; Hewitt and Hoenig 2005). For European eel, Bevacqua et al. (2011) developed a relationship between eel body mass, water temperature, stock density, and sex from 15 European populations to estimate natural mortality and such models may help provide estimates of natural mortality for American eels. Generalized depletion models have also been used to provide estimates of natural mortality for American eel elvers in Nova Scotia (Lin and Jessop 2020).

American eel early life stages are likely highly impacted by changes in oceanographic conditions that affect both survival and transportation to the coast of North America (ASMFC 2012; Miller

et al. 2015; ASMFC 2017). Jessop (2020) found that the elver fishery in Nova Scotia has occurred earlier in recent years suggesting that warming sea surface temperatures and a northward shift in the Gulf Stream may result in shorter migration periods and earlier arrival in continental waters.

Predation on American eels is a source of natural mortality (ASMFC 2012; ASMFC 2017). Several studies examined the diet of blue catfish *Ictalurus furcatus* in the Chesapeake Bay and have shown a relatively small percentage of stomachs contained American eels (Schmitt et al. 2017; Schmitt et al. 2019a, 2019b); however, the large population size of blue catfish in Chesapeake Bay Rivers could result in considerable numbers of American eels being consumed each year. Additional predation by flathead catfish *Pylodictis olivaris* has also been documented (Schmitt et al. 2017).

Given their life history, American eels are likely to have a high rate of predation, particularly at young ages and smaller sizes. Glass eels, elvers, and even smaller yellow American eels are likely preyed upon by estuarine and freshwater fishes, birds, and other organisms. Despite this, few sources of diet data contain records of American eels in the stomachs of predators. The NEFSC (Northeast Fisheries Science Center) food habits database contains only six individuals found in the stomachs of smooth dogfish *Mustelus canis*, spiny dogfish *Squalus acanthias*, haddock *Melanogrammus aeglefinus*, and goosefish *Lophius americanus* for 1973–2020. While this is unsurprising given that the food habits database is collected during the off-shore NEFSC bottom trawl survey, Nelson et al. (2003) reported no American eels in the stomachs of striped bass *Morone saxatilis* during their research. Likewise, investigations during the menhaden ecological reference points project (SEDAR 2020) found little evidence of American eel consumption after surveying multiple studies on striped bass, bluefish *Pomatomus saltatrix*, spiny dogfish, and weakfish *Cynoscion regalis* diet data; however, Walter and Austin (2003) suggested that American eels composed 3% by weight of the diets of striped bass in the mesohaline portions of Chesapeake Bay for large striped bass (>710 mm) and low (1%–2%) but detectible amounts in other areas of the Bay for other sizes. This suggests that current diet studies in more coastal or lower estuarine habitats may be missing the low but consistent contribution of American eels to the diet of predators. Further research on the importance of American eels to the diet of upper estuarine systems and lower freshwater habitats is suggested.

The non-native swim bladder nematode, *A. crassus*, may be reducing American eel survival during the yellow and silver eel life stages (see ASMFC 2012, 2017). Location is observed to be a key factor influencing nematode prevalence. In American eels collected from Hannacroix Creek, a tributary of the Hudson River, New York in 2009, *A. crassus* infections were present in all size classes with an infestation rate of 49.7% (Waldt et al. 2013). Large American eels had a significantly higher incidence of parasite infection than medium or small eels, and the highest incidence of empty stomachs was observed in American eels with the highest incidence of parasite infestation (Waldt et al. 2013). In Canada, nematode prevalence levels were 7.9% in New Brunswick and 0.7% in Nova Scotia in 2008–2009 (Campbell et al. 2013); however, a different study reported an overall prevalence of 46% in 2009 to 2010 from Nova Scotia (Denny

et al. 2013). Prevalence of *A. crassus* in American eels in the St. Lawrence River watershed has been reported to increase since 2014 to approximately 30% in recent years (Pratt et al. 2019). Two American eel samplings at Conowingo Dam, Maryland in 2012 estimated nematode prevalence to be 32% and 46% (Minkkinen and Park 2014). Later studies have found a higher prevalence at Conowingo Dam on the Susquehanna River ranging from 54 to 62.5% (Normandeau Associates 2018, 2021). From 2011–2013, parasite prevalence in South Carolina ranged from 29% to 58%. (Hein et al. 2014, 2016) with season significantly impacting only larval prevalence (Hein et al. 2014). In different regions of Florida, 0%–78% of American eels were infected with the swim bladder parasite from 2014 to 2016 (Bonvechio et al. 2018). In contrast to the high prevalence seen in many areas, Kwak et al. (2019) did not find any of the 120 American eels they examined in the Caribbean Island of Puerto Rico during 2015–2016 to be parasitized by *A. crassus.*

Warshafsky et al. (2019) quantified nematode prevalence, abundance, intensity, and swim bladder damage in various life stages of the American eel in the lower Chesapeake Bay in 2015 in relation to season of capture, river system, and total length. They found glass eels had a much lower infection prevalence (3.2%), mean abundance per eel (0.047 ± 0.009), and mean infection intensity (1.46 ± 0.195) as compared to elvers and yellow eels (prevalence was 59.2%, mean abundance per eel was 1.51 ± 0.061, and mean intensity per infected eel was 2.44 ± 0.072). A weak positive correlation was observed between nematode abundance and swim bladder damage. Also, the survival probability of disease-positive eels was estimated to be lower (0.76) compared with disease-negative eels.

2.8 Incidental Mortality

Incidental mortality, caused by anthropogenic activities other than harvest, can be attributed to habitat alterations and restrictions as well as mechanical and chemical injuries. Inland habitat alterations and restrictions come primarily in the form of barriers to upstream migration for American eels. These can either be physical (dams) or chemical (areas of poor water quality) factors that limit habitat use by American eels. This compression of range through habitat restrictions may increase the level of predation mortality or contribute to density-dependent effects on growth or reproductive success. Mechanical and chemical injuries and mortality can occur during migration through or at hydroelectric turbines, navigation locks, industrial and municipal water intakes, chemical barriers, and contaminants. Impingement, entrainment, and turbine operation, such as at dams, locks, and power plants, can result in high rates of mortality. Poor water quality, such as low dissolved oxygen, drastic salinity changes, chemical spills, point source releases, and non-point source releases can cause incidental mortality and reduced reproductive success of American eels. These issues are described in more detail in the 2012 and 2017 assessment documents (ASMFC 2012, 2017).

Recent studies have further documented that providing upstream passage or removing dams can increase American eel populations in rivers (Turner et al. 2018) but those benefits can be negated by migratory delays and mortality caused by turbines in rivers with hydroelectric projects (Eyler et al. 2016; Mensinger et al. 2021). Sweka et al. (2014) found that the upstream

passage of American eels had to consider the cumulative survival of downstream migrating adults in systems where turbine mortality can occur to provide any benefits to the population. If the downstream passage did not meet a certain "break-even threshold", then upstream passage negatively impacts the population versus no passage at all.

2.9 Bycatch

Little data exist to document the bycatch of American eels in other fisheries. Only two individuals were recorded in the NEFOP (Northeast Fisheries Observer Program) as bycatch over the entire program since 2003 (Micah Dean, MA DMF, personal communication). This is unsurprising, as the focus of the NEFOP data collection program tends to be off-shore fisheries in federal waters, whereas American eels tend to be more abundant in coastal estuarine and freshwaters. Fisheries in state waters, particularly pots and gill nets, are more likely candidates for having American eel bycatch; however, without a comprehensive database combining various at-sea monitoring programs run by the individual states, investigations into this possibility were not feasible during the timeframe of this assessment.

3 HABITAT DESCRIPTION

A detailed review of American eel habitat requirements can be found in the Atlantic Coast Diadromous Fish Habitat document (Greene et al. 2009). Habitat needs are summarized in ASMFC's habitat factsheet for American eels and descriptions by life history stage can be found in Section 3 of ASMFC 2012.

Briefly, American eels exhibit a highly complex catadromous life cycle and are found in marine, brackish, and freshwater habitats (Adams and Hankinson 1928; Facey and LaBar 1981; Helfman et al. 1984; Facey and Van Den Avyle 1987). Habitat types used by different phases of American eels include open ocean, estuaries, rivers, streams, lakes (including land-locked lakes), and ponds (Facey and Van Den Avyle 1987). American eel habitat associations and requirements vary by life stage. After hatching in winter and spring in the Sargasso Sea, larval American eels passively migrate to the continental shelf along the east coast of North America where they metamorphose into glass eels (Greene et al. 2009). After developing pigment (becoming elvers), some American eels start migrating upstream into freshwater while others remain in coastal rivers and estuaries. Upstream migration may continue throughout the yellow phase as well and yellow eels are known to migrate between fresh and brackish habitats. During maturation, silver American eels migrate downstream to the ocean and return to the Sargasso Sea to spawn before dying (Haro and Krueger 1991).

Whereas several factors have likely contributed to the decline of American eels across their range, barriers such as dams have been a major factor in habitat fragmentation that restricted American eel's access to various habitats. There have been many efforts to remove dams to improve passage over the last few decades. The effects of dams and the benefits of removals on American eels are well documented, but studies since the last stock assessments (ASMFC 2012, 2017) continue to describe the effects of the dams on impeding movements of American

eels and document population increases or expanding habitat use following a dam's removal. A recent study in New York's Bronx River showed that upstream areas had decreased abundance of American eel compared to downstream sites, with abundance decreasing rapidly above the first dam on the river (Camhi et al. 2021). Following the removal of the Embrey Dam on the Rappahannock River in Virginia, American eel abundance significantly increased in headwater streams (Hitt et al. 2012). Similarly, yellow American eel abundance increased in the Mill River in Massachusetts following barrier removal (Turner et al. 2018). Further, Hitt et al. (2012) documented that dams can influence American eel abundance up to 150 river kilometers upstream from the dam. For the dams that remain in place, such as hydroelectric, American eels are sometimes able to move above dams but then can experience injuries and mortality when they migrate downstream. Sweka et al. (2014) evaluated if passing American eels upstream of dams leads to reduced reproductive output from a river with hydroelectric facilities. Using an egg-per-recruit (EPR) model applied to the Susquehanna River, Sweka et al. (2014) found that if American eels were passed upstream of multiple dams then a minimum cumulative downstream passage survival had to be achieved for the upstream passage to be beneficial. Without achieving that level of survival, upstream passage results in a lower EPR when compared to no passage.

Since the publication of the last stock assessments for American eel (ASMFC 2012, 2017), there have been a couple of publications about the influence of the Gulf Stream on American eel recruitment. Rypina et al. (2014, 2016) used models to show how ocean circulation can affect how American eel larvae reach the coastal nursery habitats. The success of larvae reaching nursery habitats is significantly affected by the Gulf Stream since it is an obstacle that needs to be crossed in order to reach coastal habitats. Typically, the Gulf Stream flows from Florida northward to Cape Hatteras where it separates from the coast and moves toward the open ocean, although in some years it separates north of Cape Hatteras, in what is called "overshoot" events. Eddies often break off from the Gulf Stream near the separation point and flow toward the coastline, helping to carry larvae to nursery grounds. Rypina et al. (2014, 2016) found that American eel larval success rates were higher when the Gulf Stream had an overshoot event and that eddies played a large role.

3.1 USGS Habitat Analysis

At the request of and in partnership with the ASMFC, the USGS conducted a pilot assessment of the capability to employ geographic information systems (GIS) -based habitat analysis to potentially inform American eel stock assessment analyses. While initially limited to the relatively data-rich Chesapeake Bay and Delaware River watersheds, the pilot project reviewed previous habitat assessment studies on American eels and closely related eel congeners in other parts of the world, assembled tidal and non-tidal occurrence and abundance records for the study region, assessed occurrence records for modeling suitability, gathered appropriate GIS-based environmental predictor datasets, and tested statistical modeling of occurrence and abundance based on GIS predictors. The USGS identified 10,286 inland and 63,812 tidal eel records suitable for spatial distribution modeling. Additionally, useful predictor GIS datasets, including river network fragmentation from dams, connectedness to the ocean, stream

temperature and substrate, watershed land use and pollution sources, and other spatial data were identified and assembled from available sources for modeling. Results demonstrate that using these data, reliable spatial models of American eel occurrence, particularly for the period from 1995–2019, can be constructed from existing data, and dependent on data availability, models of abundance can also be reliably produced in a fashion that considers zero-inflated survey data. As with many previous studies, the major factors influencing American eel distribution continue to be large-scale network fragmentation from dams; however, due to the limited availability of historical data of sufficient quantity and quality, it is difficult to assess the historical restriction on habitat availability and use from past dam construction. Instead, models are largely limited to assessing current habitat use, but moving forward it may be possible to inform American eel population restoration efforts from fishway construction and dam removal. A full description of the data and analysis explored will be available as a USGS Open File Report (OFR) series in fall 2022.

4 FISHERY-DEPENDENT DATA SOURCES

4.1 Commercial Yellow Eel Fishery

4.1.1 Description of Fishery

The yellow life stage of the American eel has been the primary target of US eel fisheries in both historical and modern periods. Yellow eels are harvested for use as bait in other fisheries and for food both domestically and internationally as part of an export market (Section 4.5). The use of harvested American eels for bait in other fisheries is not well described, although it does not appear to have been common before the 20th century nor had the relative importance of food markets. In recent years, American eels have been used as bait in the recreational fisheries for striped bass, cobia, and catfish.

The dominant gear for targeting yellow American eels in the US has been baited pots (Figure 15). The use of in-river weirs and fykes to capture spring movements of yellow American eels has not been a widespread practice but has provided important local fisheries in some regions. The contributions of both spear and other non-pot fisheries have been minor relative to overall US American eel harvests and are incidental in contemporary fisheries.

American eels currently support commercial fisheries throughout their range in North America, with significant fisheries occurring in the US Mid-Atlantic region and Canada. These fisheries are executed in riverine, estuarine, and ocean waters. In the US, commercial fisheries for glass eel/elvers exist in Maine and South Carolina and a silver eel weir fishery exists in New York's Delaware River, whereas yellow eel fisheries exist in all states and jurisdictions with the exception of Pennsylvania and the District of Columbia.

4.1.2 Data Collection

The earliest detailed account of US eel fisheries was provided by Goode (1884) for the period of 1877 to 1880. Historical commercial landings data from 1888 to 1940 were transcribed from online US Fish and Fisheries Commission Annual reports. Since 1950, most landings information on the East Coast has been collected by NOAA Fisheries through dealer and/or fisherman reporting under a state-federal cooperative program. All historical NOAA Fisheries data are now housed at Atlantic Coastal Cooperative Statistics Program (ACCSP) data warehouse.

The most reliable landings for American eels are from 1998 through the present. Commercial yellow American eel landings for each state were validated through ACCSP for 1998–2020. Inconsistencies between landings in the ACCSP data warehouse and annual compliance reports were resolved as part of the validation process. The data from 2020 are considered preliminary.

4.1.3 Data Caveats

NOAA Fisheries data collection is focused on species that are managed exclusively or jointly at the federal level, although information is also collected on species that are managed at the state level. Other caveats associated with these data are discussed at the following website: https://www.fisheries.noaa.gov/commercial-landing-data-caveats. Because American eels are managed by the states and are not a target species for the NOAA Fisheries, landings may be underreported in the historical record (pre-1998). In addition, at least a portion of commercial American eel landings typically come from non-marine water bodies. Even in states with mandatory reporting, these requirements may not extend outside the marine district, resulting in a potential underestimate of total landings. Despite concern about the level of under-reporting, the committee felt that reported landings were indicative of the trend in total landings over time.

In both federal and state landings reports there may be misreporting of other eel species (e.g., conger eel) as American eels either due to data entry mistakes or lack of species-specific reporting requirements. The committee has vetted the data where possible to eliminate known cases of misreporting by species; however, an unknown amount of American eel landings used in this assessment may actually be other species of eel; therefore, marine landings of American eels in some areas and years may be over-reported.

4.1.4 Yellow Eel Landings

Commercial yellow eel landings for the 1900s through 1950 should be used with caution since there are several data caveats associated with the historical records (Section 4.1.3). While the 1950–1998 yellow eel landings record is more comprehensive than pre-1950 landings, there are still many caveats with their use and they should also be used with caution. Again, historical landings (pre-1998) cannot be validated. State-by-state landings from 1998–2020 were validated through ACCSP and state partners (Table 6), although some states have confidential landings due to the rule of three, e.g., there are not more than three harvesters within a state.

Beginning in 1950, landings were at two million pounds and began to decline through the 1960s to almost half a million pounds (Table 7; Figure 16). Landings began to increase again through the 1960s to the time series highs in the 1970s and 1980s of over 3.5 million pounds, although those landings cannot be validated. Beginning in the early 1980s, commercial yellow eel landings began a steady decline through the terminal year. In 2020, all states saw their landings decline and 2020 was the lowest coastwide landings since 1950. The Advisory Panel (AP) met and provided feedback that the decline in landings for 2020 was primarily market demand; demand for wild-caught American eels from the US for European food markets has decreased in recent years due to increased aquaculture in Europe. Additionally, demand for domestic bait decreased from 2019 to 2020 due in part to COVID-19 restrictions. A smaller proportion of landings traditionally goes to the domestic bait market, and the AP indicated that it does not anticipate landings to increase significantly from current levels in the near future.

4.1.5 Commercial Catch-per-Unit-Effort

Commercial yellow eel catch-per-unit-effort (CPUE) was available in some states but following a review of these data they were not considered indicative of trends in the stock as a whole. Fishery-dependent CPUE is almost exclusively composed of positive trips only. Trip reports with zero eels caught are rare because most agencies do not require reports of zero catches. Several states did provide a commercial CPUE in their data submission and those are included in this assessment in Appendix A but were not used in any analyses.

4.2 Commercial Glass Eel Fishery

4.2.1 Description of Fishery

Glass eel fisheries along the Atlantic coast are prohibited in all states except Maine and South Carolina. In recent years, there has been an increase in the demand for glass eel due to the high value and concerns over population levels of European and Japanese eels, as well as tighter restrictions on the export of European eel. Harvest by dip net or fyke net has increased as the average market price has risen to over $1,000 per pound since 2012, with peaks exceeding $2,000 per pound (Figure 17). Since the implementation of Addendum IV (ASMFC 2014), Maine's glass eel quota has been set at 9,688 pounds (a 17.5% reduction from the 2014 quota). In 2020, preliminary landings indicate that 9,652 pounds of glass eels were sold for a value of $5.1 million ($525 per pound).

4.2.2 Data Collection

Maine has a daily dealer report/swipe card program. There is a tribal permit system in place for some Native American groups. In South Carolina, only fyke and dip nets are permitted for the glass eel fishery. Dealer/harvester reports are made monthly on trip tickets.

4.2.3 Glass Eel Landings

South Carolina's glass eel landings are confidential because of the rule of three but are reported annually in the FMP Reviews as being less than 750 pounds since 2015. Maine's glass eel landings have fluctuated through time from just over 1,000 pounds in 2004 to over 20,000 pounds in 2012 (Figure 17). Since the 2015 fishing season, Maine has had a glass eel quota of 9,688 pounds that has not been exceeded.

4.3 Recreational Fisheries

4.3.1 Description of Fishery

Studies and reports that summarize US American eel fisheries provide little information on targeted recreational American eel fisheries (Bigelow and Schroeder 1953; Fahay 1978; Lane 1978; and Van Den Avyle 1984). The practice of spearing or gigging American eels buried in the mud during winter is an eel fishing method that was developed for subsistence fishing but came to have both commercial and sportfishing appeal in the 19th century until recently. American eels are encountered over much of their US range by recreational anglers as bycatch. Van Den Avyle (1984) reported that no major sport fishery for American eels occurred in coastal rivers of the South Atlantic Bight, but incidental catches were made by anglers in estuaries and rivers. Despite the incidental nature of eel hook-and-line catches, the Marine Recreational Information Program (MRIP) does encounter enough observations to generate catch estimates that indicate widespread and common presence as a bycatch species.

4.3.2 Data Collection

The MRIP is designed to provide annual and bi-monthly estimates of marine recreational fisheries catch and effort data. Information on commercial fisheries has long been collected by the National Marine Fisheries Service (NMFS); however, data on marine recreational fisheries were not collected in a systematic manner by NMFS until implementation of the Marine Recreational Fishery Statistics Survey (MRFSS) in 1979. The purpose of the MRFSS was to provide regional estimates of effort and catch from the recreational sector. Importantly, the National Research Council (NRC) identified under-coverage, inefficiency, and bias issues within the MRFSS survey and estimation methodologies (NRC 2006). These deficiencies spurred the development of the MRIP as an alternative data collection program to the MRFSS. The MRIP is a national program that uses several component surveys to obtain timely and accurate estimates of marine recreational fisheries catch and effort and provides reliable data to support stock assessment and fisheries management decisions. The program is reviewed periodically and undergoes modifications as needed to address changing management needs. A detailed overview of the program can be found online at https://www.fisheries.noaa.gov/topic/recreational-fishing-data.

The MRIP uses three complementary surveys: (1) the Fishing Effort Survey (FES), a mail survey of households to obtain trip information from the private boat and shore-based anglers; (2) the

For-Hire Telephone Effort Survey (FHTES) to obtain trip information from charter boat operators; and (3) the Access Point Angler Intercept Survey (APAIS), a survey of anglers at fishing access sites to obtain catch rates and species composition from all modes of fishing. The data from these surveys are combined to provide estimates of the total number of fish caught, released, and harvested, the weight of the harvest, the total number of trips, and the number of people participating in marine recreational fishing. In 2005, the MRIP began at-sea sampling of headboat (party boat) fishing trips.

The APAIS component was improved in 2013 to sample throughout the day (24-hour coverage) and remove any potential bias by controlling the movement of field staff to alternative sampling sites. The MRFSS allowed samplers to move from their assigned site to more active fishing locations but could not statistically account for this movement when calculating estimates. The MRIP implemented the FES in 2018 to replace the Coastal Household Telephone Survey (CHTS) due to concerns of under-coverage of the angling public, the declining number of households using landline telephones, reduced response rates, and memory recall issues.

Creel clerks collect intercept data year-round (in two-month waves) by interviewing anglers completing fishing trips in one of four fishing modes (man-made structures, beaches, private boats, and for-hire vessels). Intercept sampling is separated by wave, mode, and area fished. Sites are chosen for interviewing by randomly selecting from access sites that are weighted by estimates of expected fishing activity. The intent of the weighting procedure is to sample in a manner such that each angler trip has a representative probability of inclusion in the sample. Sampling is distributed among weekdays, weekends, and holidays.

The FES mail survey employs a dual-frame design with non-overlapping frames (1) state residents are sampled from the United States Postal Service computerized delivery sequence file (CDS) and (2) non-residents are individuals who are licensed to fish in one of the target states but live in a different state and are sampled from state-specific lists of licensed saltwater anglers. Sampling from the CDS uses a stratified design in which households with licensed anglers are identified prior to data collection. The address frame for each state is stratified into coastal and non-coastal strata defined by geographic proximity to the coast. For each wave and stratum, a simple random sample of addresses is selected from the CDS and matched to the addresses of anglers who are licensed to fish within their state of residence. Non-resident anglers are sampled directly from state license databases. The sample frame for each of the targeted states consists of unique household addresses that are not in the targeted state but have at least one person with a license to fish in the targeted state during the wave.

The FES mail survey collects fishing effort data for all household residents, including the number of saltwater fishing trips by fishing mode (shore and private boat). The FES is a self-administered mail survey, administered for six two-month reference waves annually. The initial survey mailing is sent one week prior to the end of the reference wave so that materials are received right at the end of that wave. This initial mailing is delivered by regular, first-class mail and includes a cover letter stating the purpose of the survey, a survey questionnaire, a post-paid return envelope, and a $2 cash incentive. One week after the initial mailing, a follow-up

thank you and reminder postcard is mailed via regular first-class mail to all sampled addresses. For addresses that could be matched to a landline telephone number, an automated voice message is also delivered as a reminder to complete and return the questionnaire. Three weeks after the initial survey mailing, a final mailing is delivered to all addresses that have not yet responded to the survey.

Fish that are available during APAIS interviews for identification, enumeration, weighing, and measuring by the interviewers are called landings or Type A catch. Fish not brought ashore in whole form but used as bait, filleted, discarded dead, or are otherwise unavailable for inspection are called Type B1 catch. Finally, fish released alive are called Type B2 catch. Type A and Type B1 together comprise harvest, while all three types (A, B1, and B2) represent total catch. The APAIS interviewers routinely sample fish of Type A catch that are encountered. Fish discarded during the at-sea headboat survey are also sampled. The headboat survey is the only source of biological data characterizing discarded catch that are collected by the MRIP; however, this number has been negligible (eight American eels from headboat discards between 2005 and 2019). The sampled fish are weighed to the nearest five one-hundredth (0.05) of a kilogram or the nearest tenth (0.10) of a kilogram (depending on the scale used) and measured to centerline length.

4.3.3 Data Caveats

The low precision associated with the recreational fishery statistics is due to the limited numbers of American eels that have been encountered during surveys of recreational anglers along the Atlantic coast. These limited numbers are partly due to the design of the MRFSS/MRIP survey, which does not include the areas and gears assumed to be responsible for the majority of recreational fishing for American eels. As such, the recreational fishery statistics for American eels provided by MRIP should be interpreted with caution.

4.3.4 Recreational Harvest and Discards

Annual recreational harvest (Type A + B1) of American eels have exhibited high inter-annual variability in terms of both numbers and weight from 1981 through 2019, averaging around 136,000 American eels per year (Table 8; Figure 18). The estimates of recreational harvest for American eels are associated with high uncertainty as PSE values for both numbers and weight typically exceeds 50% (Table 8). Estimates of live releases (Type B2) have been less variable and more precise, averaging around 223,000 American eels per year from 1981 to 2019 (Table 8; Figure 18).

The high uncertainty associated with the estimates of recreational harvest for American eels is partly due to the rarity with which they are encountered during APAIS interviews. Between 1981 and 2019, there were over three million intercepts conducted along the Atlantic coast and, in the time period, less than one-half of one percent encountered American eels (Table 9).

4.3.5 Recreational Catch-per-Unit-Effort

An index of relative abundance for American eels was developed using MRIP data by Kahn (2019). The SAS decided not to adopt this index or expand this work for the benchmark due to many of the caveats listed in Section 4.3.3. First, the low number of American eels encountered by MRIP and the low precision make it inappropriate as an abundance index. Second, MRIP is designed to characterize recreational fisheries, such as striped bass *Morone saxatilis*, bluefish *Pomatomus saltatrix*, and weakfish *Cynoscion regalis*, as noted by Kahn (2019). The gears and areas where the survey operates are not consistent with those that encounter American eels. For instance, MRIP does not sample in freshwater where a large proportion of the population occurs. Additionally, MRIP targets rod and reel fisheries which are not typically used to capture American eels. A third concern relates to the fisheries-dependent nature of the index. Most stock assessment models assume that the population index is proportional to abundance. In order for this to be true, effort must be random with respect to the distribution of the population and catchability must be constant over space and time. Fishery-dependent CPUE indices are notoriously biased partly due to the non-random distribution of fisheries activity over time and space. Finally, several multi-species fisheries-independent surveys operate along the Atlantic coast that reliably encounter American eels and can be used to characterize the population. A fisheries-independent index of abundance that catches fewer than 0.014 American eels per trip, as Kahn's index does, would not be considered for use in any modeling approach (see section 5.1 for criteria).

4.4 Gulf of Mexico

A small portion of US landings are attributed to the Gulf of Mexico. Landings records in this region were historically collected by the NOAA Fisheries but have been administered by the Gulf States Marine Fisheries Commission since 1985 (D. Bellais, GSMFC, personal communication). Between 1950 and 1999, landings in the Gulf of Mexico ranged between approximately 200 pounds in 1994 and 28,000 pounds in 1985 (Figure 19). Landings reported since 1999 have been negligible and are confidential (R. Maxwell, LA DWF, personal communication; Fisheries Information Network https://data.gsmfc.org/apex/public). Fahay (1978) reported total US landings of American eels during 1955–1973 with minor landings registered from the US Gulf of Mexico region during about half of those years but never exceeded 1% of total US landings. Note that the Gulf States (including western Florida) are under the jurisdiction of the Gulf States Marine Fisheries Commission and are not subject to ASMFC-led interstate fisheries management.

4.5 Export Data

Domestic imports and exports of live American eels from the US are tracked by the US Fish and Wildlife Service in the Law Enforcement Management Information System (LEMIS). The database contains import and export data from 1998 to present. Exports of live American eels from the Atlantic coast ranged from 2,447 to 605,273 pounds (1,110 to 274,547 kilograms) per year from 2000 through 2018 and the majority of exports in recent years have been of US origin

(Figure 20). Life stage and number of American eels are not reported in this database and some portion of the exports consist of glass eels. Because of the wide range of American eel weights, depending on life stage, it is not possible to compare US exports to commercial landings for either yellow or glass eels (Thomas Leuteriz, LEMIS, personal communication).

4.6 Canada

4.6.1 Range

In historic times, American eels likely occupied all coastal and freshwater draining into the Atlantic coast of Canada, to the limit of drainage basins or impassible natural barriers (Cairns et al. 2013; Cairns 2020). This is termed the plausible historic range (Figure 21). Major barriers preventing upstream eel passage are Muskrat Falls on the Churchill River in Labrador, Caron Falls on the Saguenay River and Shawinigan Falls on the Saint-Maurice River, Quebec, and Niagara Falls on the Niagara River. The northern limit of known eel distribution is about 55ºN on the coast of Labrador (Cairns 2020). A substantial fraction of the American eel's plausible range in the St. Lawrence Basin is in New York State, Pennsylvania, and Vermont (Figure 21). The upper St. Lawrence Basin includes the two largest lakes in the species' range: Lake Ontario (between Canada and the US) and Lake Champlain (between New York and Vermont). These lakes formerly supported abundant American eel populations, which persisted for 70 and 140 years, respectively, after the first damming of their outlet rivers (Morin and Leclerc 1998; Verdon et al. 2003; Busch and Braun 2014; Cairns et al. 2022).

The current range has diminished from the plausible historic range due to artificial barriers to migration and decreased recruitment to the upper St. Lawrence system. The shrinkage of Ontario's habitat occupied by eels has been documented from historic records and indigenous and community knowledge (Mathers and Pratt 2011). Elsewhere in Canada, fine-scale habitat occupancy is generally less well documented.

The northern part of Maine drains to the Bay of Fundy through the Saint John River, which runs through New Brunswick (Figure 21). Water exiting northern Maine passes over Grand Falls (Grand Sault), a major waterfall on the Saint John in northwestern New Brunswick. NatureServe maps northern Maine as part of the eel range, although the supporting text does not cite data sources (Cairns et al. 2013).

4.6.2 Governance

American eel fisheries in Canada are governed by asymmetrical federalism. In the Atlantic Provinces (Newfoundland and Labrador, Nova Scotia, New Brunswick, Prince Edward Island), the federal Department of Fisheries and Oceans (DFO) manages fisheries through a regional structure consisting of the Maritimes Region (the Atlantic and Bay of Fundy drainages of New Brunswick and Nova Scotia), Gulf Region (Prince Edward Island and the Gulf of St. Lawrence drainages of New Brunswick and Nova Scotia), and Newfoundland and Labrador Region. In Ontario and Quebec, fisheries management authority is held by provincial governments. Both

federal and provincial governments have regulatory oversight over habitat and general environmental matters.

4.6.3 Fisheries

Fisheries landing data have been consistently gathered in Canada since the 1870s. Figure 22 (A) plots reported landings beginning in 1875. Three major humps in reported landings are evident: the late 1800s, the inter-war period of the 20th century, and the 1970s and 1980s. Landings from the St. Lawrence Basin are strong or dominant through all these humps. The largest component of St. Lawrence landings are out-migrating silver eels caught in large traps in the estuary of the river. Since the early 1990s, total reported landings for the study area have decreased sharply, with St. Lawrence landings declining faster than landings from other regions. The last reported landings from New York State occurred in 1997 and Ontario closed its American eel fishery in 2004. American eel landings in Quebec have steeply declined, in part because of commercial license buy-back programs.

In recent years, the southern Gulf of St. Lawrence, especially eastern New Brunswick and Prince Edward Island, have become the dominant contributors to Canadian American eel landings. Fisheries for glass eels/elvers are highly lucrative but contribute little to landings by weight. Glass eel/elver fisheries occur primarily on the Atlantic coast of Nova Scotia and to a lesser extent on the Bay of Fundy coast of New Brunswick. There is also a small glass eel/elver fishery with undocumented landings on the south coast of Newfoundland.

Figure 22 (B) plots range-wide reported landings for the American eels. Reported landings were highest at the end of the 19th century and the beginning of the 20th; however, it is difficult to gauge the accuracy of these early reports. Nearly all reported landings are from Canada or US Atlantic states, with a minor contribution from the Gulf of Mexico and the Caribbean. Nearly all landings in the St. Lawrence Basin were made in Canada and are therefore registered in Canadian statistics; however, a substantial fraction of American eels caught in Canada likely had spent time in US portions of the St. Lawrence system.

4.6.4 Status Evaluation

The main instrument that DFO Science Branch uses to formulate advice on the management of aquatic resources is the Canadian Science Advisory Secretariat (CSAS). Findings of CSAS workshops are web-posted as Research Documents and Science Advisory Reports. A second instrument, the Species at Risk Act (SARA), works through a body called the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). COSEWIC commissions status reviews of candidate species (or populations) at risk. Endangerment categories available to COSEWIC are Endangered, Threatened, and Special Concern. COSEWIC assessments are transmitted to the responsible department (DFO for aquatic species), and then to the federal cabinet for a decision on official listing. The decision may be to officially list the species as assessed by COSEWIC, reject the assessment, or send the file back for further study. The government may also

postpone a decision indefinitely. If the species is officially listed, certain automatic provisions of SARA come into effect, depending on the endangerment category.

COSEWIC assessed the status of American eels in Canada as a Special Concern in 2006 (COSEWIC 2006) and Threatened in 2012 (COSEWIC 2012). The Government of Canada has not decided on either assessment, which means that the species is not officially listed.

In 2009, a CSAS workshop reviewed progress toward achieving the management goal of reducing the mortality on American eels (DFO 2010). In 2013, a CSAS workshop examined the potential of American eel populations to recover. This produced an advisory report (DFO 2013) and detailed accounts of life history and status indicators (Cairns et al. 2013), mitigation options (Chaput et al. 2014a), threats (Chaput et al. 2014b), and habitat (Pratt et al. 2014). In 2019, CSAS workshops examined the quality of abundance indicators (Cairns 2020) and calculated standardized abundance indicators for series which met an adequate quality standard (Cornic et al. 2021). Most of these series measure yellow eel abundance. One of them is glass eels/elvers (East River Chester, Nova Scotia; Figure 21). Only one watercourse (the St. Lawrence River) possesses a series that measure the abundance of outgoing silver eels.

A further report from the 2019 workshops reviewed methods and options to support American eel population analysis (Cairns et al. 2021). Cairns et al. (2022), arising in part from the 2019 CSAS workshops, examines novel ideals and underused resources which may aid progress toward a range-wide American eel assessment.

Broadly speaking, the reports cited above review general issues of biology and conservation, including distribution, threats, demographic parameters, fisheries harvest, habitat, passage, and abundance indicators. Most reports concentrate on Canadian data, although Cairns (2020) and Cairns et al. (2021, 2022) attempt species-wide coverage. All abundance series sites are located within Canada; however, 6 of the 16 sites shown in Figure 22 are at locations in the St. Lawrence Basin where a substantial fraction of the American eels encountered would have occupied or passed through US waters. This means that these series should be considered international indicators, inferring abundance in waters of both Canada and the US.

No quantitative stock assessment has been attempted for the full Canadian segment of the American eel range; however, for the Maritimes Region (Atlantic and Fundy drainages of New Brunswick and Nova Scotia), spawner-per-recruit analysis has been used to generate biological reference points for elver fishing and turbine mortality (DFO 2019).

4.7 Eel Fisheries Outside the US and Canada

Because of the panmictic status of American eels, fisheries outside the jurisdiction of the United States are relevant to ASMFC management efforts, although they are not subject to management regulations implemented through the ASMFC. Brief descriptions of American fisheries at locations south of the United States are provided below for perspective on the activity at the southern end of the American eel's range. Information on commercial American

eel landings from south of the US were queried from the Fisheries Department of the Food and Agriculture Organization (FAO) of the United Nations website.

4.7.1 Mexico, Dominican Republic, and Cuba

Studies and reports that summarize the US American eel fisheries provide no information on commercial eel fisheries in Mexico or the Caribbean Islands other than mentioning that the American eel's range does extend to these regions (Bigelow and Schroeder 1953; Fahay 1978; Lane 1978; Van Den Avyle 1984). Annual landings between 1950 and 2019 are available by country and major fishing area from the Food and Agriculture Organization (FAO) of the United Nations Fishery Global Statistics Program of the Fisheries Data, Information, and Statistics Unit (FIDI) via online tables. Mexico, the Dominican Republic, and Cuba reported a small amount of landings (primarily from in-river fisheries) from 1975–2010, although there are several missing values or years of no landings (Figure 23). There was an increase in landings, or reported landings, for 2011–2012 from Mexico and the Dominican Republic. From 2013–2017, landings remained relatively high for the Dominican Republic but not Mexico. It is unknown whether these reports are comprehensive.

5 FISHERY-INDEPENDENT DATA SOURCES

5.1 Stock Assessment Subcommittee Criteria

The SAS established the following set of criteria for evaluating data sets and developing indices of relative abundance for American eels:

Time series: Ideally, the time series should be at least 10 years long.

Survey design: Surveys with statistical designs are preferred, such as surveys with random stratified sampling.

Gear: Surveys should operate with gear that is capable of catching American eel and to which American eel are available.

Temporal and spatial coverage: Only surveys that operate during a time and place where American eels are available for capture should be considered. Examining the precision or proportion of zero catches of American eels in a survey can be tools for evaluating this.

Methodology: Survey methodology should be consistent throughout the time series or changes should be able to be accounted for in the standardization process.

The SAS evaluated over 80 data sets for developing indices of abundance for American eels. After some preliminary analysis, several were rejected for various reasons as indicated in Table 10, and abundance indices were developed from the remaining surveys. Indices of abundance were developed by stage: YOY (Table 11), elver (Table 12), or yellow eel (Table 13). All surveys

were standardized by the SAS using R code developed by SAS member Laura Lee to consider a variety of statistical models, including generalized linear models (GLM), as well as zero-inflated models and nominal indices. Maps of the surveys were included when they were supplied by the data provider. The SAS discussed variables that should be included in the GLM standardization of YOY indices and decided to consider adding day of the year and day of the year squared as variables in the analysis in order to capture variables that influence the YOY run in addition to other variables (e.g., temperature, water level).

5.2 Surveys

5.2.1 Maine West Harbor Pond Survey

5.2.1.1 Survey Design and Methods

West Harbor Pond is the site of Maine's state-mandated YOY survey which has been in operation since 2001. The survey uses an Irish elver ramp and typically samples April through June depending on the run. During the run, gear is left to soak for 6–24 hours and checked 3–5 times a week.

5.2.1.2 Biological and Environmental Sampling

Biological sampling for YOY eel length, weight, and pigmentation of 60 samples is done once or twice a week. Water temperature, level, and discharge are collected as part of the survey.

5.2.1.3 Evaluation of Survey Data

West Harbor Pond Survey has 91% positive tows for American eels. GLMs were attempted for the West Harbor Pound data but the models had convergence issues. A nominal index was developed as was done for the 2012 benchmark. Length and pigment data were collected in the West Harbor Pond YOY survey. Mean length was consistent across years (Figure 24) and averaged 60.6 ± 3.6 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 25).

5.2.1.4 Abundance Index Trends

The index of YOY abundance at West Harbor Pond has varied throughout the time series with many lows and highs (Figure 26). In 2017, the survey experienced its highest YOY abundance in the time series, but the last few years have seen higher numbers similar to the first few years of the survey.

5.2.2 Maine Juvenile Finfish Beach Survey

5.2.2.1 Survey Design and Methods

This beach seine survey was initiated in 1979 on the Kennebec River between Augusta and Waterville at 14 sites and on the Androscoggin River at 6 sites (Figure 27). Deployment method changed in the years before 2000. The survey was designed to target alosines and striped bass, but it also encounters and records American eels. Sampling is conducted every other week from July to October at the permanent sampling sites. All fish are counted and the total length of ten of each non-target species is measured.

5.2.2.2 Biological and Environmental Sampling

No environmental data were collected as part of this survey. Length data on American eels were collected.

5.2.2.3 Evaluation of Survey Data

The survey was subset to the months of July–September when American eels are encountered. On average, American eels were caught in this survey with 18% positive seine hauls. Due to method changes in the early years of the survey, the time series was limited to 2000–2019. Additionally, the six JAB-SB sites were eliminated from the analysis since those sites rarely encountered American eels. A full model that predicted catch as a function of year, month, site, and day of the year was compared with nested submodels using AIC. The model including year, site, day of the year, and day of year squared with a negative binomial error structure was selected. Length data indicated that this survey catches mostly elvers (Figure 28).

5.2.2.4 Abundance Index Trends

The index was relatively stable through the early 2000s until it reached a peak of abundance in 2008 (Figure 29). The abundance of elvers was relatively low but stable in the early 2010s but increased to a high and stable abundance for 2016-2019.

5.2.3 New Hampshire Lamprey River

5.2.3.1 Survey Design and Methods

The Lamprey River YOY survey site is located near the fish ladder in Newmarket, New Hampshire, and has been monitored since 2001. A biologist from New Hampshire Fish and Game sets up the monitoring station each year in mid-April when the fish ladder is being opened for the river herring run and sampling for American eels occurs for approximately ten weeks. Attractant water flows from the freshwater above the dam down a hose to the elver ramp. American eels ascend the ramp by going through Enkamat and drop into a bucket. Sampling stations are monitored four times a week by department biologists.

5.2.3.2 Biological and Environmental Sampling

During sampling, water temperature, water level, discharge, gear condition, and moon phase are recorded. A subsample for pigmentation stage, length, and weight of 60 American eels is taken twice a week.

5.2.3.3 Evaluation of Survey Data

Length and pigment data were collected in the Lamprey River YOY survey. Mean length was consistent across years (Figure 30) and averaged 65.6 ± 15.4 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 31). A full model that predicted YOY catch as a function of year, water level, discharge, gear condition, day of the year, and day of the year squared was compared with nested submodels using AIC. The model including year, day of the year, and day of year squared with an offset for effort and a negative binomial error structure was selected.

5.2.3.4 Abundance Index Trends

The index was variable for several years in the 2000s with high values and others with nearly zero (Figure 32). YOY catch peaked in 2013 and has been variable since with a slight uptick in abundance in the terminal year of 2020.

5.2.4 New Hampshire Fish and Game Rainbow Smelt Fyke Survey

5.2.4.1 Survey Design and Methods

The New Hampshire Fish and Game Rainbow Smelt Fyke Survey began operating in the Squamscott and Winnicut Rivers in 2008 and in the Oyster River in 2010 (Figure 33). The survey is conducted in March and April and is a fixed-station design using fyke nets that are set below the head of the tide at the three rivers. The sites are sampled three times a week beginning at "ice-out," when the fyke nets can be placed in the river (usually early March) and lasts until the third week in April.

5.2.4.2 Biological and Environmental Sampling

During sampling, the catch is sorted by species. Rainbow smelt are counted and length, sex, and age are recorded. For bycatch, which includes American eels, species are counted and 25 lengths are recorded per species per sampling day. Water temperature, pH, specific conductivity, dissolved oxygen, and turbidity are recorded in addition to fyke net soak time (effort).

5.2.4.3 Evaluation of Survey Data

A spring (March–April) index of yellow eel abundance was developed from this survey. The index began in 2010 when all three sites were sampled and environmental data began to be collected. On average, American eels were caught in this survey with 26% positive tows. A full model that predicted catch as a linear function of year, month, water temperature, pH, turbidity, salinity, dissolved oxygen, and the river was compared with nested submodels using AIC. Nominal indices were also explored. Based on several diagnostics (AIC, dispersion, percent deviance explained, and resulting CVs), the model chosen was a negative binomial that included year, temperature, and river with an offset for effort. Length data indicated that this survey catches yellow eel (Figure 34).

5.2.4.4 Abundance Index Trends

The survey of relative abundance of yellow eel in New Hampshire showed relatively stable abundance throughout the time series (Figure 35). Abundance bounced around in recent years and was on the decline in the terminal year of 2020.

5.2.5 Massachusetts Jones River

5.2.5.1 Survey Design and Methods

The Jones River YOY survey site is located in Kingston, Massachusetts, and has been monitored since 2001. The survey uses a Sheldon trap and the sampling season targets ten weeks from the last week of March to the first week of June. The trap is set on a Monday and hauled Tuesday–Friday for four hauls each week.

5.2.5.2 Biological and Environmental Sampling

The survey records water temperature, water flow, moon phase, gear condition, and tidal amplitude. A subsample for pigmentation stage, length, and weight of 60 American eels is taken 2–3 times a week.

5.2.5.3 Evaluation of Survey Data

Length and pigment data were collected in the Jones River YOY survey. Mean length was consistent across years (Figure 36) and averaged 59.6 ± 4.0 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 37). A full model that predicted YOY catch as a function of year, water temperature, water flow, moon phase, gear condition, tidal amplitude, day of the year and day of the year squared was compared with nested submodels using AIC. The model including year and water flow with an offset for effort and a negative binomial error structure was selected.

5.2.5.4 Abundance Index Trends

The index of relative abundance was variable in the early part of the time series and peaked in 2001, 2003, and 2005 (Figure 38). The index declined through the late 2000s and has been stable and low through the terminal year of 2019 which was the lowest value in the time series.

5.2.6 Massachusetts Wankinco River Ramp Survey

5.2.6.1 Survey Design and Methods

The Wankinco River in Wareham, Massachusetts has been sampled for American eel since 2009 via a piped, gravity-flow eel ramp in April and May each year. The ramp is located in tidal waters below the dam and passes YOY eels with very few age-1+ eels.

5.2.6.2 Biological and Environmental Sampling

The survey records water temperature, air temperature, flood tide, moon phase, discharge, and gear condition. Lengths were collected but not provided for this assessment. Summary data were submitted and indicated that American eels caught in the survey are predominantly YOY.

5.2.6.3 Evaluation of Survey Data

GLMs were attempted for the Wankinco River Ramp Survey data but the models had convergence issues. A nominal index was developed for an index of relative abundance.

5.2.6.4 Abundance Index Trends

The relative index of YOY eel abundance began as low in the survey from the first year of 2009 through the 2010s (Figure 39). The index increased in 2018 to a time series high and decreased slightly in the terminal year of 2019.

5.2.7 Massachusetts Saugus River Ramp Survey

5.2.7.1 Survey Design and Methods

An eel ramp was installed on the first dam upstream of the Saugus Iron Works at 9.4 rm in the spring of 2007. Stream flow exits the head pond through a bottom opening sluice gate in the dam that is impassable for eels. The ramp tank catches of American eels were monitored by the Saugus River Watershed Council and the Lynn Water and Sewer Commission and represent a census of American eels passing over the dam. In most years of the time series, catches have been elver eels in the size range of 7 to <20 cm.

5.2.7.2 Biological and Environmental Sampling

The survey records water temperature, air temperature, flood tide, moon phase, discharge, and gear condition. Lengths were collected but not provided for this assessment. Summary data were submitted and indicated that American eels caught in the survey are predominantly elvers.

5.2.7.3 Evaluation of Survey Data

The data were subset to April–June when the survey most reliably caught American eels. During those months, the survey encountered elvers in 86% of sampling events. A full model that predicted catch as a linear function of year, month, water temperature, air temperature, flood tide, moon phase, discharge, and gear condition was compared with nested submodels using AIC. Nominal indices were also explored. Based on several diagnostics (AIC, dispersion, percent deviance explained, and resulting CVs), the model chosen was a negative binomial that included year and temperature with an offset for effort.

5.2.7.4 Abundance Index Trends

Relative abundance of elver eels in the Saugus River was variable in the beginning years of the survey (Figure 40). The index peaked in 2013 but then steadily declined to stable but low abundance through the terminal year.

5.2.8 Massachusetts Rainbow Smelt Fyke Net Survey

5.2.8.1 Survey Design and Methods

The Massachusetts Division of Marine Fisheries began monitoring anadromous rainbow smelt *Osmerus mordax* populations in 2004 using fyke nets at four coastal rivers and four additional rivers have been added since 2005. The spring fyke net monitoring occurs when resident yellow eels become active and are susceptible to capture as non-target bycatch. The fyke nets are set at mid-channel three nights a week from early March to the third week of May. The fyke net opening is a 4’ x 4’ box frame with 4’ x 4’ wings on both sides and the net mesh is ¼ inch delta.

5.2.8.2 Biological and Environmental Sampling

Diadromous fish are counted, measured, and released. Date, soak time, flood tide, tidal amplitude, moon phase, river discharge, water temperature, and air temperature are available from this survey.

5.2.8.3 Evaluation of Survey Data

Massachusetts Division of Marine Fisheries confirmed that the eels caught in this survey were yellow American eels although the biological data were not submitted. This survey was also

used in the 2012 benchmark as a yellow eel survey. The data were subset to April–May when the survey most reliably caught American eels. On average, American eels were caught in this survey with 46% positive tows. A full model that predicted catch as a linear function of year, month, water temperature, river discharge, moon phase, and river was compared with nested submodels using AIC. Nominal indices were also explored. Based on several diagnostics (AIC, dispersion, percent deviance explained, and resulting CVs), the model chosen was a negative binomial that included year and temperature with an offset for effort.

5.2.8.4 Abundance Index Trends

Relative yellow eel abundance began low in 2004 and 2005, increased through the late 2000s and early 2010s, and then decreased to one of the lowest abundances in 2014 (Figure 41). The index did increase in 2017 but then declined again except for a slight uptick in the 2019 terminal year.

5.2.9 Rhode Island Gilbert Stuart Dam Survey

5.2.9.1 Survey Design and Methods

Young-of-the-year American eels have been sampled at Gilbert Stuart since 2000 (Figure 42). This survey uses modified Irish elver ramps made of marine plywood and lined with filamentous plastic (Enkamat). The ramp at Gilbert Stuart is ten feet in length and is secured to the dam parallel to the existing fish ladder. The ramp allows juvenile eels to pass up and over a 53-inch high dam and into a collecting bucket. A steady stream of water is fed down the ramp using an electrical pump and spray bar. Gear is typically monitored for YOY eels from April–June.

5.2.9.2 Biological and Environmental Sampling

American eels collected at the site were counted, measured, and released above the dams. If daily collection exceeded 60 fish, measurements of individual lengths and weights were taken bi-weekly. Length was measured to the nearest 1 mm and weight to the nearest 0.01 g. The following physical data were recorded each time the gear was checked: dissolved oxygen, soak time, moon phase, water level, and temperature. The time of day and condition of gear were also noted.

5.2.9.3 Evaluation of Survey Data

Length and pigment data were collected in the Gilbert Stuart Dam YOY survey. Mean length was variable across years (Figure 43) and averaged 62.4 ± 16.4 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 44). For index standardization, one large tow (10,000 YOY eel) was eliminated due to convergence problems with the model. A full model that predicted YOY catch as a function of year, water temperature, water level, moon phase, gear condition, day of the year and day of the year squared was compared with nested

submodels using AIC. The model including year and temperature with an offset for effort and a negative binomial error structure was selected.

5.2.9.4 Abundance Index Trends

The relative abundance of YOY eel in the Rhode Island Gilbert Stuart Dam Survey was high in 2000, 2002, and 2011 but otherwise was low and stable (Figure 45).

5.2.10 Rhode Island Hamilton Fish Ladder Survey

5.2.10.1 Survey Design and Methods

Young-of-the-year American eels have been sampled at the Hamilton Fish Ladder in the Annaquatucket River since 2004 (Figure 46). This survey uses modified Irish elver ramp that is four feet in length and positioned at the base of the Hamilton dam next to the existing fish ladder. The ramp is gravity fed using stopper boards and PVC piping, thus does not need a power supply. Gear is typically monitored for YOY eels from April through late June or early July.

5.2.10.2 Biological and Environmental Sampling

American eels collected at the site stations were counted, measured, and released above the dams. If daily collection exceeded 60 fish, measurements of individual lengths and weights were taken bi-weekly. Length was measured to the nearest 1 mm and weight to the nearest 0.01 g. The following physical data were recorded each time the gear was checked: dissolved oxygen, soak time, moon phase, water level, and temperature. The time of day and condition of gear were also noted.

5.2.10.3 Evaluation of Survey Data

Length and pigment data were collected in the Hamilton Fish Ladder YOY survey. Mean length was variable across years (Figure 47) and averaged 56.5 ± 7.3 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 48). A full model that predicted YOY catch as a function of year, water temperature, water level, moon phase, gear condition, day of the year and day of the year squared was compared with nested submodels using AIC. The model including year, day of the year, and day of the year squared with an offset for effort and a negative binomial error structure was selected.

5.2.10.4 Abundance Index Trends

The relative abundance of YOY eel in the Rhode Island Hamilton Fish Ladder has been variable throughout its time series with notable highs in 2013-2014 and 2018 and lows in 2006, 2012, and 2016 (Figure 49). The terminal year of 2019 was the lowest abundance in the time series.

5.2.11 Connecticut Ingham Hill Survey

Connecticut Department of Energy and Environmental Protection (CT DEEP) began sampling for YOY eel using an Irish Elver Ramp at the Ingham Hill site, sometimes called Fishing Brook Eel Ramp, in 2007. The site is located 14 meters upstream of the head of tide and 3.6 river km upstream of the Long Island Sound (Figure 50).

5.2.11.1 Survey Design and Methods

The survey operates annually from about March 25th through July 4th. When operating, the survey gear is checked Monday through Friday except for holidays. The daily catch is sorted by size and weighed.

5.2.11.2 Biological and Environmental Sampling

Weekly, a total of 60 YOY eels are sampled for total length, weight, and pigment stage.

5.2.11.3 Evaluation of Survey Data

Length and pigment data were collected in the Ingham Hill YOY survey. Mean length was fairly stable across years (Figure 51) and averaged 57.5 ± 3.3 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 52). A full model that predicted YOY catch as a function of year, water temperature, water level, river discharge, gear condition, day of the year and day of the year squared was compared with nested submodels using AIC. The model including year and day of the year and day of the year squared with an offset for effort and a negative binomial error structure was selected.

5.2.11.4 Abundance Index Trends

The index of relative abundance of YOY eel in the Ingham Hill site increased from 2007–2012 and then decreased (Figure 53). The index rose again slightly, remained low through the mid-2010s, and then began a large increase through the terminal year of 2019.

5.2.12 Connecticut Farmhill River Electrofishing Survey

5.2.12.1 Survey Design and Methods

CT DEEP began sampling a 126 m-long section of the Farmill River in 2001. The sample site substrate is coarse sand and cobble. The Farmill River, a tributary of the Housatonic River with a 26 square mile watershed, is tidal freshwater at the sampling site in Shelton (Figure 54). There are no barriers to American eel migration between the sampling site and the ocean. This is an electrofishing survey that uses blocknets on the boundaries to prevent migration during sampling. The survey uses a three-pass depletion where each pass catch is counted and measured.

5.2.12.2 Biological and Environmental Sampling

All American eels captured are anesthetized, counted, and measured to the nearest mm, then released back into the sample site.

5.2.12.3 Evaluation of Survey Data

A population estimate is derived using maximum weighted likelihood by CT DEEP biologists and supplied to the SAS. As in previous years, raw data were not submitted for this survey and the SAS used the population estimates as supplied by CT DEEP.

5.2.12.4 Abundance Index Trends

Population estimates in the Farmill River for yellow eels varied from around 250 American eels for 2001–2012 (Figure 55). In 2015, the survey changed sites. Dramatic changes in the population estimate could be due to changes in the river's American eel population but more likely are due to the site change so the SAS decided to only use 2001–2014 for use in this stock assessment, even with the missing 2013 data point.

5.2.13 Connecticut Eightmile River Electrofishing Survey

5.2.13.1 Survey Design and Methods

CT DEEP began this electrofishing survey in Eightmile River in 2001 (Figure 54). The survey uses blocking nets on the boundaries to prevent migration during sampling. This survey uses a three-pass depletion where each pass catch is counted and measured.

5.2.13.2 Biological and Environmental Sampling

All American eels captured are anesthetized, counted, and measured to the nearest mm, then released back into the sample site.

5.2.13.3 Evaluation of Survey Data

A population estimate is derived using maximum weighted likelihood by CT DEEP biologists and supplied to the SAS. The raw data were not submitted for this survey and the SAS used the population estimates as supplied by CT DEEP.

5.2.13.4 Abundance Index Trends

Population estimates for yellow eels in the Eightmile River were variable but averaged around 30 American eels (Figure 56). The survey did not operate in 2004 and 2018–2019.

5.2.14 New York Hudson River Estuary Monitoring Program

5.2.14.1 Survey Design and Methods

The Hudson River Estuary (HRE) Monitoring Program has been run on behalf of several utility companies with power stations in the Hudson River Estuary since 1974. The Program consists of three different surveys. Data from the HRE Icthyopankton Survey were available in time for this assessment. The HRE Icthyopankton survey was designed to sample for YOY striped bass and follows a random sampling design that consists of paired Tucker trawl (targeting surface and channel) and epibenthic sled (targeting bottom) tows. The Hudson River is split into 13 sampling areas of equal volume and each area is divided into three strata (shoal, channel, bottom). The HRE survey is conducted primarily between March and October and collects approximately 100–200 samples per week depending on the season. The survey was discontinued in 2017 and the data are now housed by the Stony Brook University's Chen Laboratory which provided the raw data for this assessment.

5.2.14.2 Biological and Environmental Sampling

All American eels are measured and categorized by life stage (YOY vs. yearling or older). Date, water temperature, river mile, water volume, depth, day/night, and tidal stage were recorded. No raw biological data were provided for this assessment, but the stage categories were discussed with HRE biologists during the 2017 stock assessment update and were consistent with the eel designations used in the assessment. Like previous assessments, the stages were used from the data supplied.

5.2.14.3 Evaluation of Survey Data

Two indices were developed for this assessment: a YOY and a yellow eel index. For the YOY and yellow eel indices, a full model that predicted catch as a function of year, month, day of the year, and day of the year squared, river mile, water volume, water temperature, depth, and day/night was compared with nested submodels using AIC. For YOY, the model that included year, water temperature, river mile, and water volume with a quasi-Poisson error structure was selected because it produced the lowest AIC and the best model diagnostics. For yellow eel, the model that included year, water temperature, river mile, and water volume with a quasi-Poisson error structure was selected because it produced the lowest AIC and the best model diagnostics.

5.2.14.4 Abundance Index Trends

The YOY index began with relatively high abundance in 1974, decreased, and then peaked in 1980 (Figure 57). The index was at its lowest points through the 1980s and then began to increase in the 1990s. The index was mid-range and steady through the 2010s when it began to decrease again to a relatively low point in the terminal year of 2017. The yellow eel index began

with high relative abundance in the 1970s, decreased until 1980, peaked in 1984, and then steadily declined through the mid-2000s (Figure 58).

5.2.15 New York Carman's River Survey

5.2.15.1 Survey Design and Methods

The New York Department of Environmental Conservation Carman's River YOY Carman's River YOY survey began in 2000. The survey site is in the tidal portion of the Carman's River that flows through the Wertheim National Wildlife Refuge into Bellport Bay (Figure 59). The tidal portion of the river is 5.8 km. Glass eels are sampled with a fyke net that has been historically checked daily over an 8-9 week period during the spring (primarily March-April).

5.2.15.2 Biological and Environmental Sampling

The catch is sorted by species with glass eels distinguished from pigmented elvers. Environmental data collected include water and air temperature, tide stage, time of previous high tide, and the amount of the previous day's precipitation. Also, the condition of the gear during daily checks is noted, and the elapsed time between checks. A subsample of American eels is taken to a laboratory where lengths are measured and pigment stage assessed.

5.2.15.3 Evaluation of Survey Data

An index of abundance was developed for 2000-2019 for this survey. The proportion of positive catches was generally >80% throughout the time series. A negative binomial GLM was used to model catches. Although temperature data were available as a covariate, this was not included in the model because it was correlated with the year, and catches appeared to increase and then decrease as the day of the year increased. Thus the final model included day of the year and day of the year squared with an offset for effort. Effort was the time elapsed between checks of the fyke net.

The length of American eels collected in the Carman's River Survey averaged 64 ± 13 mm (± SD) and did not show any trend through time (Figure 60). Pigment stages of American eels showed some variation among years (Figure 61).

5.2.15.4 Abundance Index Trends

The relative abundance of YOY eels from Carman's River varied without trend from 2000-2019, but noticeable peaks in YOY occurred in 2002 and 2013 (Figure 62).

5.2.16 New York Hudson River YOY Survey

5.2.16.1 Survey Design and Methods

The NYSDEC Hudson River Estuary Program and National Estuarine Research Reserve support a citizen science American eel monitoring program within the Hudson River basin. This survey has taken place since 2008 and has expanded to include up to 15 sampling sites located on tributaries to the Hudson River (Figure 63). Fyke nets are deployed in each tributary and checked daily over approximately a six to eight-week period from February to May.

5.2.16.2 Biological and Environmental Sampling

All American eels that are caught in fyke nets are enumerated and classified as “glass eels” or “elvers.” Water temperature, air temperature, weather, and tide are collected at each site every day.

5.2.16.3 Evaluation of Survey Data

The six sites with the longest time series of data were selected for evaluation as an index of abundance. These included Black Creek, Fall Kill Creek, Furnace Brook, Hannacroix Creek, Miniceongo Creek, and Saw Kill Creek. Among these sites, greater than 80% of samples had positive catches of YOY eels throughout the time series. Effort was indexed as the time between daily checks of each net. A negative binomial GLM model was used to standardize catch data and the final form of the model included site, day of the year, day of the year squared, and an offset for logged effort. The time series used in the analysis began in 2010 when all six of the aforementioned sites began to be sampled and extended through 2020.

5.2.16.4 Abundance Index Trends

The relative abundance of YOY American eels in the Hudson River YOY survey showed an exponentially increasing trend from 2010–2020 (Figure 64).

5.2.17 New York Hudson River Juvenile Alosine Survey

5.2.17.1 Survey Design and Methods

The NYSDEC Juvenile Alosine survey targets YOY American shad in the freshwater portion of the Hudson River (> RM 54). Annual sampling covers 9 weeks, from July through October. The survey gear consists of a 30.5m x 3.05m seine with 1.6 cm mesh. The survey began in 1985 with a random selection of sites but transformed into a fixed site survey by 1985.

5.2.17.2 Biological and Environmental Sampling

Although catches of eels are enumerated in the Juvenile Alosine seine survey, very few of them have biological data taken on them. Environmental data collected at the time of sampling include tidal stage, water and air temperature, salinity, and cloud cover.

5.2.17.3 Evaluation of Survey Data

An index of yellow eel abundance was developed from this survey. The index began in 1985 when there was consistency in the stations sampled each year. American eels were collected in approximately 20% of seine hauls over the time series. A negative binomial GLM with covariates of year, station id, and temperature provided the best fit to the data based upon dispersion and significance of covariates.

5.2.17.4 Abundance Index Trends

The Hudson River Juvenile Alosine survey showed a rapidly declining trend in yellow eel relative abundance from 1985 through 1996. Relative abundance increased slightly in the early 2000s, but has since shown a gradual decline through 2019 (Figure 65).

5.2.18 New York Hudson River Juvenile Striped Bass Survey

5.2.18.1 Survey Design and Methods

The NYSDEC Juvenile Striped Bass seine survey targets YOY striped bass in brackish portions of the Hudson River (RMs 22 - 39). Annual sampling covers 6 weeks, from late August through mid-November. The survey gear consists of a 61m x 3.05m seine with 1.6 cm mesh. The survey began in 1979 with a random selection of sites but transformed into a fixed site survey by 1980.

5.2.18.2 Biological and Environmental Sampling

Although catches of eels are enumerated in the Juvenile Striped Bass seine survey, few of them have biological data taken on them. Environmental data collected at the time of sampling includes tidal stage, water and air temperature, salinity, and cloud cover.

5.2.18.3 Evaluation of Survey Data

An index of yellow eel abundance was developed from this survey. The index began in 1980 when there was consistency in the stations sampled each year. American eels were collected in approximately 15 - 20% of seine hauls over the time series. A negative binomial GLM with covariates of year, station id, and temperature provided the best fit to the data based upon dispersion and significance of covariates.

5.2.18.4 Abundance Index Trends

The relative abundance of yellow eels in the Juvenile Striped Bass seine survey peaked in 1982 and has shown a general declining trend since that time with occasional spikes in relative abundance (Figure 66).

5.2.19 New Jersey Little Egg Inlet Survey

5.2.19.1 Survey Design and Methods

The Little Egg Inlet YOY survey uses an ichthyoplankton net to collect YOY American eels during the months of January – May each year since 1992.

5.2.19.2 Biological and Environmental Sampling

No biological data on YOY were provided. Environmental covariates collected during plankton net tows included: discharge, salinity, and temperature. Effort was indexed as the volume of water sampled by a plankton net tow.

5.2.19.3 Evaluation of Survey Data

An index of abundance was developed for 1992 – 2015 for this survey. The proportion of positive catches was generally 60% throughout the time series. A negative binomial GLM was used to model catches. Although temperature data was available as a covariate, this was not included in the model because it was correlated with the year, and catches appeared to increase and then decrease as the day of the year increased. Thus the final model included day of the year, day of the year squared, salinity, and an offset for logged effort.

5.2.19.4 Abundance Index Trends

The relative abundance of YOY American eels from the Little Egg Inlet survey was variable across years, but there was an apparent overall decline (Figure 67).

5.2.20 New Jersey Patcong Creek Survey

5.2.20.1 Survey Design and Methods

The New Jersey Patcong Creek survey uses a fyke net to sample YOY American eels. The survey began in 1999 and samples YOY eels primarily during the late-winter and early-spring months (February – April).

5.2.20.2 Biological and Environmental Sampling

Length, weight, and pigment stage data are collected from a subsample of YOY eels captured by the survey. Environmental data collected at the time fyke nets are checked includes water temperature, water level, and discharge.

5.2.20.3 Evaluation of Survey Data

An index of abundance was developed for 1999 – 2020 for this survey. The proportion of positive catches was generally > 90% throughout the time series, but a low of ~ 50% occurred in 2010. A negative binomial GLM was used to model catches. Although temperature data was available as a covariate, this was not included in the model because it was correlated with the year, and catches appeared to increase and then decrease as the day of the year increased. Thus the final model included day of the year and day of the year squared.

Length, weight, and pigment data were collected in most years of the Patcong Creek YOY survey. Mean length was consistent across years (Figure 68) and averaged 58.54 ± 3.6 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 69).

5.2.20.4 Abundance Index Trends

The standardized index of relative abundance for the Patcong Creek YOY survey greatly varied across years with large increases in some years followed by abrupt decreases (Figure 70). Overall, there was no discernable trend in the time series of relative abundance.

5.2.21 New Jersey Delaware River Seine Survey

5.2.21.1 Survey Design and Methods

The Delaware River seine survey targets YOY striped bass in the summer through fall (June – October). The survey began in 1980 and uses a 100-foot long, 6-foot deep bagged beach seine with 0.25 inch mesh. The survey is conducted from rivermile 54.2 – 125.4 (Figure 71). From 1980 to 1986, stations were randomly selected each year, with a different number sampled each year. By 1987, the survey evolved into a sampling scheme that consisted of sixteen fixed stations. From 1980-1990, two hauls were performed at each station. In 1991, a sampling season from August through October was developed; using both fixed and random stations; concentrating fifty percent of the sampling effort on Region 2; and eliminating replicate samples. From 1991-1997, fixed and random stations were sampled. In 1998, 32 fixed stations were chosen to be sampled twice a month from July through October. This sampling plan has remained in effect since enacted. Sampling seasons have also varied over the years. From 1980-1987, sampling mostly occurred between August and October. Beginning in 1987, the survey began to routinely sample during the months of July through October. In 1998, the first year that sampling stations were all fixed, each station was sampled twice a month from July through October. In 2000, one round of sampling was added to the first half of November and

in 2002, one round of sampling was added during the second half of June. This plan remained in effect until 2016 when November sampling was cut from the project.

5.2.21.2 Biological and Environmental Sampling

The catch is sorted by species after each haul. Non-target species are counted and minimum and maximum lengths are recorded. DO, salinity, pH, water temp, and tidal stage are collected after each haul. Air temp, wind speed and direction, and wave height are recorded daily.

5.2.21.3 Evaluation of Survey Data

Because the survey had frequent changes, only catch data collected from 1998 and onward were used to develop a standardized relative abundance index. Also, data were filtered for those stations that were consistently sampled from 1998 – 2019. Overall, only about 10% of seine hauls in each year of the time series captured yellow eels. A negative binomial GLM provided the best fit to the data based upon AIC, dispersion, and significance of predictor variables. The final model included year, sampling station, and temperature.

5.2.21.4 Abundance Index Trends

The standardized relative abundance of yellow American eels in the Delaware River seine survey varied without trend (Figure 72).

5.2.22 Delaware Millsboro Dam Survey

5.2.22.1 Survey Design and Methods

The Delaware Division of Fish and Wildlife Millsboro Dam Survey began operating in 2000, twelve miles inland from the Indian River Inlet (Figure 73). The survey is conducted from February 1, or when water temperatures exceed 3^{o}C until the catch rate drops, usually in late March or April. The survey is a fixed station design using a fyke net set below the dam. The site is sampled Monday through Friday, then hauled out on weekends.

5.2.22.2 Biological and Environmental Sampling

During sampling, all American eels are counted volumetrically. A subsample of 60 individuals is taken twice a week and measured for length, weight, and pigment stage. Water temperature and river discharge are recorded in addition to fyke net soak time (effort).

5.2.22.3 Evaluation of Survey Data

A spring index of YOY eel abundance was developed from this survey. The index began in 2000 when sampling was started. On average, American eel were caught in this survey with 99.6%

positive tows. A full model that predicated catch as a function of year, day of the year, day of the year squared, and river discharge was compared with nested submodels using AIC. Day of the year and day of the year squared were substituted for temperature in the model. Nominal indices were also explored. Based on several diagnostics (AIC, dispersion, percent deviance explained, and resulting CVs), the model chosen was a negative binomial that included year, day of the year, day of the year squared, and river discharge with an offset for effort. Length data indicated that this survey catches YOY eel (Figure 74).

5.2.22.4 Abundance Index Trends

The index of relative abundance of YOY eel in Delaware showed relatively stable abundance throughout the time series, with a substantial increase in the mid-2010s (Figure 75). Abundance bounced around in recent years and was on the decline in the terminal year of 2020.

5.2.23 Delaware Juvenile Trawl Survey

5.2.23.1 Survey Design and Methods

The Delaware Division of Fish and Wildlife (DEDFW) operates two finfish trawl surveys—one for juvenile finfish and one for adult finfish. The DEDFW's Juvenile Trawl Survey has been monitoring juvenile fish and crab abundance in Delaware's inshore waters since 1980. Sampling for the Juvenile Trawl Survey is conducted monthly from April through October at 23 fixed sites in Delaware Bay, seventeen fixed sites in the Delaware River, and 12 fixed sites in Indian River, Indian River Bay, and Rehoboth Bay (Figure 76). At each site, the 19-m R/V *First State* tows a 4.8-m semi-balloon trawl with a 1.3-cm cod-end liner. Tows are made against the current for ten minutes. The DEDFW's Adult Trawl Survey was implemented in 1966 as a long-term fisheries-independent monitoring program to monitor the abundance of subadult and adult fish; however, the net used rarely caught eels, and the data is not included.

5.2.23.2 Biological and Environmental Sampling

For the Juvenile Trawl Survey, the catch from each tow is sorted by species, and individuals are measured and weighed. Ageing of eels captured at the Delaware River sites was begun in 2007. Water temperature, salinity, dissolved oxygen, cloud cover, and depth are recorded in addition to tow duration (effort).

5.2.23.3 Evaluation of Survey Data

An annual index of yellow eel abundance was developed from this survey. The index began in 1980 when sites were sampled and environmental data began to be collected. On average, American eel were caught in this survey with 20% positive tows. A full model that predicted catch as a linear function of year, month, water temperature, pH, turbidity, salinity, dissolved oxygen, and river was compared with nested submodels using AIC. Nominal indices were also

explored. Based on several diagnostics (AIC, dispersion, percent deviance explained, and resulting CVs), the linear models were rejected and a nominal index with delta distribution was chosen. Length data indicated that this survey catches yellow eel (Figure 77).

5.2.23.4 Abundance Index Trends

The index declined from a peak in 1982 through the late 1980s, increased through the early 1990s, and remained stable with inter-annual variation throughout the rest of the time series (Figure 78).

5.2.24 Pennsylvania Delaware River Area 6 Survey

5.2.24.1 Survey Design and Methods

Pennsylvania Fish and Boat Commission (PFBC) conducts electrofishing surveys at four fixed sites spread over 72 km of the Delaware River. Sites are located at Yardley (RKM 258), Point Pleasant (RKM 291), Upper Black Eddy (RKM 318), and Raubsville (RKM 330) (Figure 79). Sites have been sampled once annually in July or August from 1999–2020; however, the Upper Black Eddy and Raubsville sites were not sampled in 2000. At each site, six 50-meter sections of shoreline are electrofished for a total of 300 m of shoreline. The number of "pencil eels" (elvers) is counted within each 50-meter section since 1999, with the recording of yellow eels beginning in 2005.

5.2.24.2 Biological and Environmental Sampling

A count of eels is performed, with no other biological or environmental sampling conducted.

5.2.24.3 Evaluation of Survey Data

Two separate nominal indices were developed from the survey calculated from the arithmetic mean of counts, an elver eel index and a yellow eel index. On average, American eels were caught in this survey with 88% positive samples for elvers and 64% positive samples for yellow eels.

5.2.24.4 Abundance Index Trends

The elver eel index of abundance has remained stable throughout most of the time series, with a decrease in 2016 and lower numbers persisting through 2020 (Figure 80). The terminal year of 2020 was on the increase. The yellow eel index of abundance has remained stable throughout most of the time series, with a decrease from 2006 through 2008 and 2016 through 2020 (Figure 81). The terminal year of 2020 was on the decline.

5.2.25 Maryland Turville Creek Survey

5.2.25.1 Survey Design and Methods

Glass eel relative abundance is monitored at Turville Creek, near Ocean City, Maryland. An Irish elver ramp is used to capture migrating glass eels and has been in use since 2000. The trap is typically set in March and hauled in April, though the months that are sampled vary by year. The trap is checked several times each week.

5.2.25.2 Biological and Environmental Sampling

Subsamples of glass eels were returned to the lab each week for length (Figure 82) and weight measurements and beginning in 2007 pigment stage was also recorded (Figure 83). Soak time, water and air temperature, salinity, water level, and water discharge were also recorded.

5.2.25.3 Evaluation of Survey Data

A full model that predicted YOY catch as a function of year, water temperature, salinity, gear condition, day-of-the-year, and day-of-the-year squared was compared with nested submodels using AIC. The model including year, water temperature, day-of-the-year, and day-of-year squared with an offset for effort and a negative binomial error structure was selected.

5.2.25.4 Abundance Index Trends

The index was relatively stable throughout the time series, though the highest abundance was observed in 2019 (Figure 84).

5.2.26 Maryland Susquehanna River Conowingo Dam Survey

5.2.26.1 Survey Design and Methods

The US Fish and Wildlife Service Conowingo Dam Ramp Survey began operating on the Susquehanna River in 2008. The survey was taken over by the dam operator, Constellation, starting in 2016. The dam is located on the western shore of the mainstem of the Susquehanna River at river mile 10 in Maryland. The survey is conducted in the spring and summer between late May and early September. Samples are taken an average of three times per week. If there were less than 200 mL of elvers in the collection tank, all elvers were sedated and counted; however, if there were more than 200 mL of elvers in the collection tank, then 200 mL were sedated and individually counted, while the remaining elvers were enumerated volumetrically. Up to 25 individuals were randomly selected and measured for total length.

5.2.26.2 Biological and Environmental Sampling

During sampling, American eels are counted and length is recorded from at least one hundred elvers annually. Sampling of length data began in 2007, with an additional sampling of age and weight from 2017-2019. Water temperature, lunar phase, and river discharge are recorded in addition to fishing time (effort).

5.2.26.3 Evaluation of Survey Data

An index of elver eel abundance was developed from this survey. The index began in 2008 when counts of elver eels began. On average, American eel were caught in this survey with 97% positive catches. A full model that predicted catch as a linear function of year, month, water temperature, moon phase, and river discharge was compared with nested submodels using AIC. Nominal indices were also explored. Based on several diagnostics (AIC, dispersion, percent deviance explained, and resulting CVs), the model chosen was a negative binomial that included year, temperature, and river discharge with an offset for effort. Length data indicated that this survey catches elver eels (Figure 85).

5.2.26.4 Abundance Index Trends

The survey of relative abundance of elver eel in the Susquehanna River showed relatively stable abundance over the time series with a large increase in the mid-2010's (Figure 86). Abundance bounced around in recent years and was on the increase in the terminal year of 2020.

5.2.27 Maryland Sassafras River Survey

5.2.27.1 Survey Design and Methods

The primary objective of this study is to characterize the current population segment of American eels in the Sassafras River through a fishery-independent pot survey. This area was specifically chosen because it was previously sampled through a Maryland DNR fishery-independent eel pot study from 1998–2000. The survey was reinitiated in 2006 and is currently ongoing. This study provides the size and age structure, parasite infestation rates, and sex composition of eels in the Sassafras River, as well as a fishery-independent relative abundance index. The Sassafras River is located on the East Upper Chesapeake Bay near the head of the bay. The river is 22 miles long and the drainage encompasses approximately 97 square miles. Tides are diurnal with approximately 0.55 meters (1.8 feet) normal tide range. Salinities predominantly range from 0 to 3.

The Sassafras River eel pot study was replicated from 1998 field survey methods with slight modifications. In the current study, approximately 30 cylindrical pots with galvanized wire mesh of either 0.83 x 0.83cm (1/3" x 1/3") or 1.27 x 1.27cm (1/2" x1/2") were set in fixed locations on individual lines at depths ranging from 3–20 feet. Sample area totaled 8.7 river miles and divided equally between an 'upper' and 'lower' pot set (Figure 87). Since 2006, sampling has

occurred for 4-6 weeks from the middle of May to early June. 'Upper' and 'lower' pot sets were sampled on alternate weeks. The pots were baited with razor clams (*Tagellus plebius*) and soaked for 48 hours. In the 1998–2000 survey only 1/3" x 1/3" mesh pots were used and only a portion of the pots had a 1/2" x 1/2"escape panel installed. All 1/3" x 1/3" mesh pots used in the current study had the escape panel installed. Both menhaden (*Brevoortia tyrannus*) and horseshoe crabs (*Limulus polyphemus*) were used in addition to razor clams in the previous study. Sampling covered approximately 4.5 river miles and consisted primarily of the current study's 'upper' pot set. Sampling in 2000 only occurred on 2 days, both of which were in July.

5.2.27.2 Biological and Environmental Sampling

All captured eels were retained, euthanized by an ice slurry, clove oil, or MS 222 and measured to the nearest mm (Figure 88) and weighed to the nearest gram. Subsamples were taken for age, gonad, and swim bladder analysis.

5.2.27.3 Evaluation of Survey Data

A full model that predicted yellow eel catch (in pounds) as a function of year, water temperature, salinity, and bullheads was compared with nested submodels using AIC. The nominal model that included year was selected.

5.2.27.4 Abundance Index Trends

There is an increasing trend in the relative biomass of American eels caught in the survey over time from 2006 to 2019 (Figure 89).

5.2.28 PRFC Clark's Millpond Survey

5.2.28.1 Survey Design and Methods

Clark's Millpond (Coan River – Northumberland County) spillway is situated approximately one meter above the creek with a steady stream flow that requires a modified ramp extension to allow the eels to access the spillway. The Coan River empties into the Potomac River (Figure 90).

Irish eel ramps were used to collect eels Clark's Millpond. The ramp configuration successfully attracts and captures small eels in tidal waters of Chesapeake Bay. Ramp operation requires continuous flow of water over the climbing substrate and the collection device, and was accomplished through a gravity feed. Hoses were attached to the ramp and collection buckets with adapters to allow for quick removal for sampling. Enkamat^{TM} erosion control material on the ramp floor provided a textured climbing surface and extended into the water below the trap. The ramps were placed on an incline (15-45^{o}), often on land, with the ramp entrance and textured mat extending into the water. The ramp entrance was placed in shallow water (< 25

cm) to prevent submersion. The inclined ramp and an additional 4^{o} incline of the substrate inside the ramp provided sufficient slope to create attractant flow. A hinged lid provided access for cleaning and flow adjustments. The timing and placement of gear coincided with periods of peak YOY onshore migration. The gear was deployed and fished continuously typically from early March to late June each year.

5.2.28.2 Biological and Environmental Sampling

The entire catch of YOY eels and elvers was counted from each sampling event and at least 60 glass eels (if present) were examined for length, weight, and pigmentation stage weekly. All eels were counted and placed above the impediment, with any subsample information recorded, if applicable. Specimens less than or equal to ~ 85 mm total length (TL) were classified as YOY, while those greater than 85 mm TL were considered elvers. Water temperature, air temperature, wind direction and speed, and precipitation were recorded during site visits.

5.2.28.3 Evaluation of Survey Data

The proportion of YOY eels in each pigment stage varied across years (Figure 91). A full model that predicted YOY and elver catch as a function of year, water temperature, salinity, gear condition, day-of-the-year and day-of-the-year squared was compared with nested submodels using AIC. The model including year and water temperature with an offset for effort and a negative binomial error structure was selected for glass eels and the model including year, water temperature, day-of-the-year, and day-of-year squared with an offset for effort and a negative binomial error structure was selected for elvers.

Due to changes near the spillway that included scouring and a hard clay substrate, catches of glass and elver eels dropped to zero in 2014 and sampling at this location was terminated after 2016. The years of 2014-2016 were not included in the analyses or modeling approaches in the following sections.

5.2.28.4 Abundance Index Trends

Collection of the YOY eels at Clark's Millpond was low and variable over time and decreased to zero beginning in 2014 due to changes at the spillway (Figure 92). Elver eels showed a similar pattern with a decrease in catches in 2014 (Figure 93). This site is no longer sampled with the last year of effort occurring in 2016.

5.2.29 PRFC Gardy's Millpond Survey

5.2.29.1 Survey Design and Methods

Gardy's Millpond (Yeocomico River – Northumberland County) contains a spillway that drains through four box culverts, across a riffle constructed of riprap and into a lotic area of the Yeocomico River. The Yeocomico River empties into the Potomac River (Figure 90).

Irish eel ramps were used to collect eels Gardy's Millpond. The ramp configuration successfully attracts and captures small eels in tidal waters of Chesapeake Bay. Ramp operation requires continuous flow of water over the climbing substrate and the collection device, and was accomplished through a gravity feed. Hoses were attached to the ramp and collection buckets with adapters to allow for quick removal for sampling. Enkamat^{TM} erosion control material on the ramp floor provided a textured climbing surface and extended into the water below the trap. The ramps were placed on an incline (15-45^{o}), often on land, with the ramp entrance and textured mat extending into the water. The ramp entrance was placed in shallow water (< 25 cm) to prevent submersion. The inclined ramp and an additional 4^{o} incline of the substrate inside the ramp provided sufficient slope to create attractant flow. A hinged lid provided access for cleaning and flow adjustments. The timing and placement of gear coincided with periods of peak YOY onshore migration. The gear was deployed and fished continuously typically from early March to late June each year.

5.2.29.2 Biological and Environmental Sampling

The entire catch of YOY eels and elvers was counted from each sampling event and at least 60 glass eels (if present) were examined for length (Figure 94), weight, and pigmentation stage (Figure 95) weekly. All eels were counted and placed above the impediment, with any subsample information recorded, if applicable. Specimens less than or equal to ~ 85 mm total length (TL) were classified as YOY, while those greater than 85 mm TL were considered elvers. Water temperature, air temperature, wind direction and speed, and precipitation were recorded during site visits.

5.2.29.3 Evaluation of Survey Data

The proportion of YOY eels in each pigment stage varied across years (Figure 96). A full model that predicted YOY and elver catch as a function of year, water temperature, salinity, gear condition, day of the year and day of the year squared was compared with nested submodels using AIC. The model including year, water temperature, gear condition, day of the year, and day of the year squared with an offset for effort and a negative binomial error structure was selected for glass eels and the model including year, water temperature, day of the year, and day of the year squared with an offset for effort and a negative binomial error structure was selected for elvers.

5.2.29.4 Abundance Index Trends

There was a decrease in relative abundance of glass eels early in the time series and catches remained stable, but low thereafter (Figure 97). Relative abundance of elvers was low early in the time series but has risen in recent years (Figure 98).

5.2.30 Virginia Wormley Creek Survey

5.2.30.1 Survey Design and Methods

Irish eel ramps were used to collect eels at Wormley Creek. The ramp configuration successfully attracts and captures small eels in tidal waters of Chesapeake Bay. Ramp operation requires continuous flow of water over the climbing substrate and the collection device, and was accomplished through a gravity feed. Hoses were attached to the ramp and collection buckets with adapters to allow for quick removal for sampling. Enkamat^{TM} erosion control material on the ramp floor provided a textured climbing surface and extended into the water below the trap. The ramps were placed on an incline (15–45^{o}), often on land, with the ramp entrance and textured mat extending into the water. The ramp entrance was placed in shallow water (< 25 cm) to prevent submersion. The inclined ramp and an additional 4^{o} incline of the substrate inside the ramp provided sufficient slope to create attractant flow. A hinged lid provided access for cleaning and flow adjustments. The timing and placement of gear coincided with periods of peak YOY onshore migration. The gear was deployed and fished continuously typically from early March to late June each year.

5.2.30.2 Biological and Environmental Sampling

The entire catch of YOY eels and elvers was counted from each sampling event and at least 60 glass eels (if present) was examined for length (Figure 99), weight, and pigmentation stage (Figure 100) weekly. All eels were counted and placed above the impediment, with any subsample information recorded, if applicable. Specimens less than or equal to ~ 85 mm total length (TL) were classified as YOY, while those greater than 85 mm TL were considered elvers. Water temperature, air temperature, wind direction and speed, and precipitation were recorded during site visits.

5.2.30.3 Evaluation of Survey Data

The proportion of YOY eels in each pigment stage was fairly stable across years with the exception of 2009 (Figure 101). A full model that predicted YOY and elver catch as a function of year, water temperature, salinity, gear condition, day-of-the-year and day-of-the-year squared was compared with nested submodels using AIC. The model including year, water temperature, gear condition, day-of-the-year, and day-of-year squared with an offset for effort and a negative binomial error structure was selected for glass eels and the model including year, water temperature, day of the year, and day of year squared with an offset for effort and a negative binomial error structure was selected for elvers.

5.2.30.4 Abundance Index Trends

YOY eel relative abundance was variable over the time series with stable, but lower estimates in recent years (Figure 102). Elver eel relative abundance has been relatively stable over the time series with a peak observed in 2007 (Figure 103).

5.2.31 Virginia Bracken's Pond Survey

5.2.31.1 Survey Design and Methods

Irish eel ramps were used to collect eels at Bracken's Pond. The ramp configuration successfully attracts and captures small eels in tidal waters of Chesapeake Bay. Ramp operation requires continuous flow of water over the climbing substrate and the collection device, and was accomplished through a gravity feed. Hoses were attached to the ramp and collection buckets with adapters to allow for quick removal for sampling. Enkamat^{TM} erosion control material on the ramp floor provided a textured climbing surface and extended into the water below the trap. The ramps were placed on an incline (15–45^{o}), often on land, with the ramp entrance and textured mat extending into the water. The ramp entrance was placed in shallow water (<25 cm) to prevent submersion. The inclined ramp and an additional 4^{o} incline of the substrate inside the ramp provided sufficient slope to create attractant flow. A hinged lid provided access for cleaning and flow adjustments. The timing and placement of gear coincided with periods of peak YOY onshore migration. The gear was deployed and fished continuously typically from early March to late June each year.

5.2.31.2 Biological and Environmental Sampling

The entire catch of YOY eels and elvers was counted from each sampling event and at least 60 glass eels (if present) was examined for length, weight, and pigmentation stage weekly. All eels were counted and placed above the impediment, with any subsample information recorded, if applicable. Specimens less than or equal to ~85 mm total length (TL) were classified as YOY, while those greater than 85 mm TL were considered elvers. Only five years of pigmentation stage were available and therefore annual proportion of pigment stage was not analyzed. Water temperature, air temperature, wind direction and speed, and precipitation were recorded during site visits.

5.2.31.3 Evaluation of Survey Data

A full model that predicted YOY and elver catch as a function of year, water temperature, salinity, gear condition, day of the year and day of the year squared was compared with nested submodels using AIC. The model including year, water temperature, gear condition, day of the year, and day of year squared with an offset for effort and a negative binomial error structure was selected for glass eels and the model including year, water temperature, day of the year, and day of year squared with an offset for effort and a negative binomial error structure was selected for elvers.

5.2.31.4 Abundance Index Trends

There is a decreasing trend in relative abundance of glass eels at Bracken's Pond with zeros observed in 2016 and 2017 (Figure 104). Elver eels at Bracken's Pond were variable throughout the time series (Figure 105). The lack of glass eels at the site in 2016 and 2017 was the result of a change in habitat at the fixed location and as a result sampling was terminated at this location after 2017. The years of 2016-2017 were not included in the analyses or model approaches in the following sections.

5.2.32 Virginia Kamp's Millpond Survey

5.2.32.1 Survey Design and Methods

Irish eel ramps were used to collect eels at Kamp's Millpond. The ramp configuration successfully attracts and captures small eels in tidal waters of Chesapeake Bay. Ramp operation requires continuous flow of water over the climbing substrate and the collection device, and was accomplished through a gravity feed. Hoses were attached to the ramp and collection buckets with adapters to allow for quick removal for sampling. Enkamat™ erosion control material on the ramp floor provided a textured climbing surface and extended into the water below the trap. The ramps were placed on an incline (15–45°), often on land, with the ramp entrance and textured mat extending into the water. The ramp entrance was placed in shallow water (<25 cm) to prevent submersion. The inclined ramp and an additional 4° incline of the substrate inside the ramp provided sufficient slope to create attractant flow. A hinged lid provided access for cleaning and flow adjustments. The timing and placement of gear coincided with periods of peak YOY onshore migration. The gear was deployed and fished continuously typically from early March to late June each year.

5.2.32.2 Biological and Environmental Sampling

The entire catch of YOY eels and elvers was counted from each sampling event and at least 60 glass eels (if present) was examined for length, weight, and pigmentation stage weekly. All eels were counted and placed above the impediment, with any subsample information recorded, if applicable. Specimens less than or equal to ~85 mm total length (TL) were classified as YOY, while those greater than 85 mm TL were considered elvers. Only four years of pigmentation stage were available and therefore annual proportion of pigment stage was not analyzed. Water temperature, air temperature, wind direction and speed, and precipitation were recorded during site visits.

5.2.32.3 Evaluation of Survey Data

A full model that predicted YOY and elver catch as a function of year, water temperature, salinity, gear condition, day of the year and day of the year squared was compared with nested submodels using AIC. The model including year, water temperature, day of the year, and day of

year squared with an offset for effort and a negative binomial error structure was selected independently for glass eel and elver eel indices.

5.2.32.4 Abundance Index Trends

Relative abundance of glass eels was highest from 2001 to 2005 and 2010 to 2014 and low in other years (Figure 106). Elver eel abundance was relatively stable throughout the time series with a peak in 2003 (Figure 107).

5.2.33 Virginia Wareham's Pond Survey

5.2.33.1 Survey Design and Methods

Irish eel ramps were used to collect eels at Wareham's Millpond. The ramp configuration successfully attracts and captures small eels in tidal waters of Chesapeake Bay. Ramp operation requires continuous flow of water over the climbing substrate and the collection device, and was accomplished through a gravity feed. Hoses were attached to the ramp and collection buckets with adapters to allow for quick removal for sampling. Enkamat^{TM} erosion control material on the ramp floor provided a textured climbing surface and extended into the water below the trap. The ramps were placed on an incline (15–45^{o}), often on land, with the ramp entrance and textured mat extending into the water. The ramp entrance was placed in shallow water (<25 cm) to prevent submersion. The inclined ramp and an additional 4^{o} incline of the substrate inside the ramp provided sufficient slope to create attractant flow. A hinged lid provided access for cleaning and flow adjustments. The timing and placement of gear coincided with periods of peak YOY onshore migration. The gear was deployed and fished continuously typically from early March to late June each year.

5.2.33.2 Biological and Environmental Sampling

The entire catch of YOY eels and elvers was counted from each sampling event and at least 60 glass eels (if present) was examined for length, weight, and pigmentation stage weekly. All eels were counted and placed above the impediment, with any subsample information recorded, if applicable. Specimens less than or equal to ~85 mm total length (TL) were classified as YOY, while those greater than 85 mm TL were considered elvers. Only four years of pigmentation stage were available and therefore annual proportion of pigment stage was not analyzed. Water temperature, air temperature, wind direction and speed, and precipitation were recorded during site visits.

5.2.33.3 Evaluation of Survey Data

A full model that predicted YOY and elver catch as a function of year, water temperature, salinity, gear condition, day of the year and day of the year squared was compared with nested submodels using AIC. The model including year, water temperature, day of the year, and day of

year squared with an offset for effort and a negative binomial error structure was selected for glass eels and day-of-the-year, and day-of-year squared with an offset for effort and a negative binomial error structure was selected for elvers.

5.2.33.4 Abundance Index Trends

Glass eel relative abundance was low in the early part of the time series and exhibited a peak in 2011. Since 2011, relative abundance has been variable (Figure 108). Elver relative abundance increased from 2003 to 2016 and has decreased since (Figure 109).

5.2.34 VIMS Trawl Survey

5.2.34.1 Survey Design and Methods

The Virginia Institute of Marine Science (VIMS) Juvenile Trawl Survey was implemented in 1955 to monitor the seasonal distribution and abundance of important finfish and invertebrate species occurring in the Chesapeake Bay and its tributaries. The main objective of this survey is to develop indices of relative abundance to track year-class strength of target species. The survey sites and sampling frequency has not been consistent throughout the history of the survey (Tuckey and Fabrizio 2010). The survey currently employs a mixed design, incorporating both stratified random sites and fixed (historical mid-channel) sites. Prior to 1996, sampling occurred at fixed stations only and these were located generally in deep, mid-channel areas of the rivers. In 1996, random stations were added to the sampling frame in the rivers and account for about 63.3% of the stations sampled in any given year after 1996. The stratification system is based on depth and latitudinal regions in the bay (random stations), or depth and longitudinal regions in the tributaries (random and fixed stations). Each bay region spans 15 latitudinal minutes and consists of six strata: western and eastern shore shallow (4–12 ft), western and eastern shoal (12–30 ft), central plain (30–42 ft), and deep channel (>42 ft). Each tributary is partitioned into four regions of approximately ten longitudinal minutes, with four depth strata in each (4–12 ft, 12–30 ft, 30–42 ft, and >42 ft). Strata are collapsed in areas where certain depths are limited. In each tributary, fixed stations are spaced at approximately 5-mile intervals from the river mouths up to the freshwater interface. Fixed sites are assigned to strata based on location and depth. The stratified random sites are selected randomly from the National American Ocean Service's Chesapeake Bay bathymetric grid, a database of depth records measured or calculated at 15-cartographic-second intervals. The trawl gear configuration has been modified a number of times but was standardized in 1979. The various gear configurations have been compared through extensive sampling in order to standardize the catch rates associated with each gear combination. Currently, a trawl net with a 5.8-m head line, 40-mm stretch-mesh body, and a 6.4-mm liner was towed along the bottom for five minutes during daylight hours.

5.2.34.2 Biological and Environmental Sampling

At the completion of each tow, all fishes were identified to species, counted, and measured to the nearest millimeter (Figure 110) and water quality measurements were taken at the surface and bottom for temperature, salinity, dissolved oxygen, and depth.

5.2.34.3 Evaluation of Survey Data

Due to low catches of American eel at many sites sampled by the trawl survey, survey data strata were restricted to sites located in the James, York, and Rappahannock rivers (strata: 37, 38, 39, 40, 58, 59, 60, 61, 62, 77, 78, 79, 80, 81). Months were also restricted to April, May, and June when most eels were observed.

A full model that predicted yellow eel catch as a function of year (1955–2019), water temperature, salinity, and depth was compared with nested submodels using AIC. The model including year with an offset for effort and a negative binomial error structure was selected for the long time series.

An additional set of models were compared for a shorter time series (1996–2019) where sampling design and gear was consistent. A full model that predicted yellow eel catch as a function of year, water temperature, salinity, dissolved oxygen, and depth was compared with nested submodels using AIC. The model including year and salinity with an offset for effort and a negative binomial error structure was selected for the short time series.

5.2.34.4 Abundance Index Trends

Yellow eel indices were high from the late 1970s to the late 1980s (Figure 111). Many changes to survey effort, gear, and site selection occurred prior to 1996 raising concerns about the utility of the full time series. As a result, a shorter time series (1996–2019) was investigated when the sampling design and gear were standardized. The short time series shows a decrease in yellow eel relative abundance from the late 1990s to today (Figure 112).

5.2.35 VIMS Seine Survey

5.2.35.1 Survey Design and Methods

The Virginia Institute of Marine Science (VIMS) initiated a juvenile striped bass seine survey in 1967, but the survey was not conducted between 1973 and 1979 due to funding cuts. Funding was restored in 1980, and the survey has been conducted in every year since.

Sampling strategy has changed multiple times over the duration of the survey, with standardized methods being adopted in 1989. Since then, 40 stations are sampled biweekly from early July through mid-September (five rounds per year) using a 100-foot (30.5 m) seine net. Stations are located in the James, York, and Rappahannock Rivers (Figure 113). Data prior

to 1989 are not standardized and should therefore be considered with caution. However, data from years prior to the harvest increase observed in the 1970s are limited, making early years of the VIMS seine survey very important in characterizing the population during that time period.

5.2.35.2 Biological and Environmental Sampling

All American eels were measured for total length (Figure 114) and water temperature, salinity, depth, and Secchi depth was measured at each site.

5.2.35.3 Evaluation of Survey Data

VIMS Striped Bass Seine Survey data were subset to include months from June to September. In addition, fixed sites were restricted to stations that regularly encounter eels (stations: RA0037, RA0069, RA0065, RA0060, JA0051, JC0001, JC0003, YK0015, YK0021, YK0028, MP0052). A shorter and longer time series was investigated.

A full model that predicted yellow eel catch as a function of year (1967–2019), water temperature, salinity, and Secchi depth was compared with nested submodels using AIC. The model including year and salinity with a negative binomial error structure was selected for the long time series.

An additional set of models were compared for a shorter time series (1989–2019) where sampling design and gear was consistent. A full model that predicted yellow eel catch as a function of year, water temperature, salinity, and secchi depth was compared with nested submodels using AIC. The model including year and salinity with a negative binomial error structure was selected for the short time series.

5.2.35.4 Abundance Index Trends

Yellow eels in the VIMS Striped Bass Seine Survey full time series showed stable catches throughout the study period (Figure 115). The short time series showed a similar pattern with a peak index in 1997 and low, but stable values during the remaining years (Figure 116).

5.2.36 North Carolina Beaufort Bridgenet Icthyoplankton Sampling Program

5.2.36.1 Survey Design and Methods

The NOAA National Ocean Service laboratory in Beaufort, North Carolina, has been conducting bridge-based plankton sampling near Beaufort, North Carolina since 1985. Ingressing glass eels are often captured in the survey, providing an index of glass eel recruitment to the estuary. The survey samples once weekly at night during flood tide from a fixed platform on Pivers Island Bridge, Beaufort, North Carolina (Figure 117). The bridge spans a 40-m wide channel 1.5 km upstream from Beaufort Inlet. Beaufort Inlet is a principal connection between the back bays of

North Carolina's Outer Banks and the Atlantic Ocean in the region of Beaufort, North Carolina. The major systems near Beaufort Inlet include Bogue Sound, Core Sound, Newport River, and North River. Tidal range within the estuary is approximately 1 meter. Approximately 10% of the water entering Beaufort Inlet passes through the Radio Island—Pivers Island channel where sampling occurs.

Sampling is conducted using a 2-m^2 rectangular plankton net with 1-mm mesh. A flow meter is attached to the net to measure flow rates. Four replicate sets have been made at the surface (0–1m) during night time flood tides at weekly (1985 to 2001) or bi-weekly (2001 to present) intervals. Sampling is conducted from November to April in every year, with occasional sampling in May and October. Tow duration was approximately 5 minutes per tow during 1985 to 1997; since 1998 tows have been standardized to volume sampled (approximately 100 m^3) rather than tow duration.

5.2.36.2 Biological and Environmental Sampling

Ichthyoplankton is sorted by species and either measured (nearest mm) or counted; no weights are collected. Environmental data are collected and a flow meter is attached to the net to measure flow rates.

5.2.36.3 Evaluation of Survey Data

Mean length was fairly consistent across years (Figure 118) and averaged 51.9 ± 3.0 mm (± SD). Available covariates for the GLM framework included year, day of year, and water temperature. Tow duration was used as an offset in the GLM. The best-fitting model assumed a negative binomial distribution. Year, day of year, day of year squared, and water temperature were all found to be significant (dispersion = 1.4).

5.2.36.4 Abundance Index Trends

The standardized YOY index of relative abundance derived from the Beaufort Bridgenet Ichthyoplankton Sampling Program was variable without trend throughout the available time series (Figure 119). There is a peak that occurred in 1998, the highest relative abundance observed in the time series.

5.2.37 South Carolina Goose Creek Survey

5.2.37.1 Survey Design and Methods

Goose Creek is the site of South Carolina's state-mandated YOY survey, which has been in operation since 2000 (Figure 120). The survey uses a fyke net and typically samples from mid-February through mid-April depending on the run. During the run, gear is left to soak for 24–48 hours and checked 3–5 times a week.

5.2.37.2 Biological and Environmental Sampling

Biological sampling for YOY eel length, weight, and pigmentation of 60 samples is done once or twice a week. Water temperature, water level, and gear condition are collected as part of the survey.

5.2.37.3 Evaluation of Survey Data

Mean length was fairly consistent across years (Figure 121) and averaged 54.1 ± 2.9 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 122). Available covariates for the GLM framework included year, day, water temperature, water level, and gear condition. Time was used as an offset in the GLM. Water level was removed from consideration in the GLM as it was highly correlated with at least one other variable based on the results of the variance inflation factor analysis. The best-fitting model assumed a negative binomial distribution. Year and water temperature were found to be significant (dispersion = 1.0).

5.2.37.4 Abundance Index Trends

The standardized YOY index started out relatively low then jumped to a peak in the second year of the index time series in 2001 (Figure 123). The index then declined and increased to a second peak observed in 2005 and then decreased and remained low throughout the remainder of the time series.

5.2.38 South Carolina Rediversion Canal Aluminum Ladder Survey

5.2.38.1 Survey Design and Methods

The St. Stephen Dam is located on the Rediversion Canal on the Santee River in South Carolina (Figure 124). Experimental data were collected from 2003–2005 from February to March with both fyke nets and fish ladders. Beginning in 2006, year-round sampling began on two different experimental ladders: aluminum and corrugated. No sampling was done in 2008 due to river flow issues that made sampling difficult. From 2014 on, year-round sampling continued on the permanent aluminum eel ladder so the SAS agreed to use the aluminum ladder data instead of the corrugated ladder.

5.2.38.2 Biological and Environmental Sampling

Soak time, water temperature, river discharge, and gear condition were recorded for this survey. American eel lengths were also recorded.

5.2.38.3 Evaluation of Survey Data

Mean length was fairly consistent across years (Figure 125) and averaged 94.7 ± 18.0 mm (± SD). Available covariates for the GLM framework included year, water temperature, discharge,

and gear condition. Duration was used as an offset in the GLM. The best-fitting model assumed a quasi-Poisson distribution. Year, water temperature, and gear condition were found to be significant.

5.2.38.4 Abundance Index Trends

The American eel index developed from this survey is variable throughout the index time series (Figure 126). Peaks were observed in 2012 and 2018.

5.2.39 Georgia Altamaha Canal Survey

5.2.39.1 Survey Design and Methods

Beginning in 2001, a single, fixed-station sampling design was implemented for monitoring YOY eels in the Altamaha River. The Altamaha River is a man-made canal dug over 100 years ago (Figure 127). Sampling followed the methods provided by the ASMFC American Eel Technical Committee. The survey operated from January to March and fyke nets were staked out for the season and sampled two days a week. The survey was discontinued after 2013.

5.2.39.2 Biological and Environmental Sampling

Water temperature and gear condition were collected during sampling in addition to the required biological subsampling for lengths, weight, and pigments.

5.2.39.3 Evaluation of Survey Data

Mean length was fairly consistent across years (Figure 128) and averaged 52.4 ± 2.9 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 129). Available covariates for the GLM framework included year, day, water temperature, and gear condition. Time was used as an offset in the GLM. The best-fitting model assumed a negative binomial distribution. Year and day were found to be significant (dispersion = 1.0).

5.2.39.4 Abundance Index Trends

The relative YOY index developed from the Georgia Altamaha Canal Survey was highest in the first year of the survey and then sharply declined (Figure 130). The index remained low and without trend throughout the rest of the time series.

5.2.40 Georgia Hudson Creek Survey

5.2.40.1 Survey Design and Methods

Beginning in 2003, a single, fixed-station sampling design was implemented for monitoring YOY eels in the Hudson Creek, a small branch which feeds into the Doboy Sound system (Figure 127). Sampling followed the methods provided by the ASMFC American Eel Technical Committee. The survey operated from January to March and fyke nets were staked out for the season and sampled two days a week. The survey was discontinued after 2013.

5.2.40.2 Biological and Environmental Sampling

Water temperature and gear condition were collected during sampling in addition to the required biological subsampling for lengths, weight, and pigments.

5.2.40.3 Evaluation of Survey Data

Mean length was fairly consistent across years (Figure 131) and averaged 52.1 ± 3.6 mm (± SD). The proportion of YOY eels in each pigment stage varied across years (Figure 128). Available covariates for the GLM framework included year, day, water temperature, and gear condition. Time was used as an offset in the GLM. The best-fitting model assumed a negative binomial distribution. Year and water temperature were found to be significant (dispersion = 1.1).

5.2.40.4 Abundance Index Trends

Relative abundance of YOY American eel remained relatively low throughout most of the index time series with the exception of two peaks observed in 2005 and 2007 (Figure 133). A smaller peak was observed in 2003.

5.2.41 Florida Guana River Survey

5.2.41.1 Survey Design and Methods

The Guana River Dam is located in Northeast Florida (Figure 134). Sampling typically runs six to eight weeks from early January through February. The site is sampled four random nights per week with two dip net sweeps per side every 30 minutes on a night-time incoming tide.

5.2.41.2 Biological and Environmental Sampling

Water temperature, flood time, flood duration, tide height, and discharge are recorded as part of this survey in addition to biological sampling for American eel length, weight, and pigment stage.

5.2.41.3 Evaluation of Survey Data

Mean length was fairly consistent across years (Figure 135) and averaged 51.2 ± 2.9 mm (± SD). The proportion of YOY eels in each pigment stage varied across years but was dominated by stage zero and one (Figure 136). Available covariates for the GLM framework included year, day, water temperature, flood time, flood duration, tide height, and discharge. Soak time was used as an offset in the GLM. The best-fitting model assumed a negative binomial distribution. Year, day, and discharge were found to be significant (dispersion = 1.1).

5.2.41.4 Abundance Index Trends

The YOY American eel index peaked in the first year of the index time series and then declined and remained low through the most recent year of the survey (Figure 137).

5.3 Index Correlations

5.3.1 YOY Indices

Spearman's rank correlation coefficient, ρ, and the associated probability were calculated for all pairs of YOY indices to assess the degree of association among the indices. Indices were considered significantly correlated at $\alpha = 0.10$. Of the 300 comparisons, 38 were either significantly negatively and positively correlated (Table 14; Figure 138).

5.3.2 Elver Indices

Spearman's rank correlation coefficient, ρ, and the associated probability were calculated for all pairs of elver indices to assess the degree of association among the indices. Indices were considered significantly correlated at $\alpha = 0.10$. Of the 45 comparisons, 5 were statistically significant with 2 negatively correlated and 3 positively correlated (Table 15; Figure 139).

5.3.3 Yellow Eel Indices

Spearman's rank correlation coefficient, ρ, and the associated probability were calculated for all pairs of yellow eel indices to assess the degree of association among the indices. Indices were considered significantly correlated at $\alpha = 0.10$. Of the 91 comparisons, 17 were significantly correlated, both negatively and positively (Table 16; Figure 140). There were some significant correlations between the indices in the New York Bight and Mid-Atlantic and between Connecticut and New York indices but otherwise there were few significant correlations among yellow eel indices.

5.4 YOY Survey Analysis

Data from YOY American eel surveys (Table 11; Figure 141) were examined to determine if there were any latitudinal or temporal patterns in length measurements, pigment stages, or

abundance estimates. Multiple gear types were used to collect YOY eels and include dip nets (Florida), fyke nets (Delaware, Georgia, New Jersey, New York, South Carolina), Irish elver ramps (Connecticut, Maryland, Maine, New Hampshire, Potomac River Fisheries Commission, Rhode Island, Virginia), and Sheldon traps (Massachusetts) with some jurisdictions monitoring more than one site (Table 11). Sites were located from Maine to Florida, and there were no YOY monitoring sites in the Gulf of Mexico despite the presence of American eels in the region. Biological data were not collected at all sites and some years were missed resulting in varying numbers of sites with data available for the analysis.

5.4.1 Biological Characteristics

There were 128,112 YOY eels with length, weight, and pigment stage assessments across all sites and years. There was no obvious pattern in the relationship between lengths of YOY eels and the different pigment stages (Figure 142a). There was also no pattern evident between pigment stage and weights of YOY eels (Figure 142b) or between relative condition of YOY eels and pigment stage (Figure 142c). There does appear to be an increase in length with increasing latitude (Figure 143); however, the gear used to sample YOY eels varies across latitude and confounds some of the observations (e.g., Guana, Florida is the only site that uses dip nets to collect YOY eels and has the smallest observed sizes). It appears that sites from South Carolina (Goose Creek) and south are smaller on average and the northern two sites (West Harbor Pond, Massachusetts and Lamprey River, New Hampshire) tend to have the largest YOY eels (Figure 144). Sites ranging from Virginia (Wormley Creek and Gardy's Millpond) to Rhode Island (Gilbert Stuart Dam) have varying mean lengths with no clear pattern. Results from GAMMs with collection date as a random factor to account for the clustered nature of length observations from each site indicate a significantly smaller ($P < 0.001$) length in FL from all other sites (mean = 59.7 mm, SE = 9.6).

5.4.2 YOY Index Comparison

Young-of-the-year eel GLM-indices produced in this assessment were standardized (mean-centered) by site to allow direct comparisons since different gear were used along the coast. Sites were arranged along the x-axis by latitude (south to north) to visually assess if there were geographic patterns in recruitment (Figure 145). Overall, recruitment varies annually along the Atlantic Coast with only a few years showing localized regions where recruitment was high. Within a site (Figure 146), standardized GLM indices indicate some sites have periods of strong recruitment followed by periods of low recruitment (i.e., Jones River, Massachusetts) or the opposite with low recruitment in early years and higher recruitment in more recent years (e.g., Millsboro, Delaware); however, most sites show no clear pattern in recruitment over time. Analysis of the coastwide index of abundance for YOY American eels (calculated using the Conn Method, Section 6.2) showed no significant relationships with climatic drivers including the Atlantic Multidecadal Oscillation, North Atlantic Oscillation, or the Gulf Stream North Wall Index; however, it should be noted that there are only 20 data points for the time series and these observations occurred when the American eel stock is believed to be at a depleted level.

5.4.3 Recommendation

Given the lack of trends in pigment, length, and weight within and among sites, the SAS and TC recommend that the biological sampling requirement for YOY surveys be made optional. Additionally, no new YOY sites should be required to collect biological data as part of their compliance with the FMP. Many states indicated that they will continue to collect biological data voluntarily, but may reduce sample sizes as needed. Trends in the available biological data will be evaluated during the next stock assessment, or as needed, and biological sampling can be mandated again in the future. The FMP requirement to conduct an annual YOY survey should be maintained. States and jurisdictions should continue to annually monitor YOY eels and collect associated environmental data since abundance indices are important to continue throughout the range.

6 METHODS

6.1 MARSS

6.1.1 Background of Analysis and Model Description

A Multivariate Auto-Regressive State-Space (MARSS) model was used to analyze time series data from American eel fishery-independent surveys. The MARSS model incorporates both process and observation error using a linear combination of random walks. It can be used to determine a common long-term population growth rate among multiple time series assuming each time series represents the same population. The MARRS model can also be used to examine population structure and test hypotheses about whether multiple time series represent the same or different populations (Holmes et al. 2018).

6.1.2 Configuration

For American eels, MARSS models were fit to yellow, elver, and YOY indices using the R package MARSS. Because American eels along the east coast represent one panmictic population, a single model was fit to all surveys within a life stage. This assumes there is single underlying population growth rate across all surveys (U model = equal) and similar process errors across all surveys (Q model = diagonal and equal); however, there are likely differences in catchability across surveys due to differences in gear, physical habitat where surveys are conducted, and environmental covariates which would result unequal observation errors (R model = diagonal and unequal). The yellow MARSS model used 14 surveys; elver used 10 surveys, and YOY used 25 surveys. The yellow eel MARSS model began in 1974 with the Hudson River HRE survey being the longest survey; the elver MARSS model began in 1999 with the Delaware River Electrofishing survey having the longest time series; and the YOY MARSS model began in 1987 when both the Hudson River HRE and Beaufort surveys occurred. Abundance indices from all surveys were natural-log transformed before fitting MARSS models.

6.1.3 Results

Although MARSS model fits to yellow and YOY time series suggested a slightly declining population (Figure 147 and Figure 148), the 95% confidence intervals on population growth rate estimates overlapped 0 suggesting a stable population (Table 17). The model fit to the elver time series showed no change in population through time (Figure 149). Estimated population growth rates were -0.023 (95% CI: -0.058 – 0.012) for yellow eels, 0.007 (95% CI: -0.014 – 0.027) for elvers, and -0.010 (95% CI: -0.042 – 0.022) for YOY eels (Table 17). To compare the MARSS index of yellow eel abundance to each individual yellow eel index, the MARSS index model fit was scaled to each index and provided in Figure 150 - Figure 163.

6.2 Conn Method

6.2.1 Background of Analysis and Model Description

When several population abundance indices provide conflicting signals, hierarchical analysis can be used to estimate a single population trend. The abundance indices for American eel were combined into a coastwide composite index using hierarchical modeling as described in Conn (2010). This method assumes each index samples a relative abundance but that the abundance is subject to sampling and process errors. It can be used on surveys with different time series, but it does assume that indices are measuring the same relative abundance.

6.2.2 Configuration

Yellow, elver, and glass eel abundance indices for American eel were standardized to their means before being combined using the methods of Conn in R and WinBUGS. Each coastwide Conn index by stage was developed using all the surveys available for all years when at least two surveys were in operation (Table 11-Table 13).

6.2.3 Results

6.2.3.1 YOY

The hierarchical index developed for the coastwide relative abundance of YOY eels from 1987–2020 predicted a variable but stable index (Table 18; Figure 164). There was a moderate increase in the terminal year although the estimate had wide confidence intervals as not all individual YOY surveys provided 2020 data.

6.2.3.2 Elver

The hierarchical index developed for the coastwide relative abundance of elvers from 2000–2019 predicted a stable index with little variation (Table 18; Figure 165).

6.2.3.3 Yellow eel

The hierarchical index developed for the coastwide relative abundance of yellow eels from 1955–2020 predicted high abundance in the initial years, followed by relatively low abundance through the 1960s (Table 18; Figure 166). The index was variable but high through the 1970s and 1980s and then began to decline steadily through the 1990s. From the 2000s through present day, the index shows stable but low yellow eel abundance. There was a moderate decrease in the abundance of yellow eel in the terminal year.

6.2.3.4 Comparison with MARSS

For the years that the two composite index methods overlap, 1974–2020, the Conn and MARSS methods provide very similar trends in the data. The SAS preferred the MARSS method over the Conn, but the Conn index was maintained for analyses that required a longer time series.

6.3 Power Analysis

6.3.1 Background of Analysis and Model Description

Power analysis followed methods described in Gerrodette (1987) for both potential linear and exponential trends. A linear trend can be modeled as $A_i = A_1[1 + r(i-1)]$ and an exponential trend as $A_i = A_1(1+r)^{i-1}$ where A_i = the abundance index in year *i,* A_1 = the abundance index in year 1, and *r* = a constant increment of change as a fraction of the initial abundance index A_1. The overall fractional change in abundance over *n* years can be expressed as $R = r(n-1)$.

If α and β are the probabilities of a type 1 and type 2 errors respectively, the power of a linear trend (1 – β) assuming $CV \sim 1/\sqrt{A}$ can be determined by satisfying the equation

$$r^2 n(n-1)(n+1) \geq 12CV_1^2\left(z_\alpha + z_\beta\right)^2 \left\{1 + \frac{3r}{2}(n-1)\left[1 + \frac{r}{3}(2n-1) + \frac{r^2}{6}n(n-1)\right]\right\}$$

and the power of an exponential trend can be determined by satisfying the equation

$$[\ln(1+r)]^2 n(n-1)(n+1) \geq 12\left(z_\alpha + z_\beta\right)^2 \left\{\frac{1}{n}\sum \ln\left[CV_1^2(1+r)^{i-1} + 1\right]\right\}$$

where CV_1 is an estimate of the coefficient of variation of the survey. For each of the surveys, the median *CV* of the survey was calculated over the entire time series of the survey and used as an estimate of CV_1. Power was then calculated for an overall change (*R*) of ±50% over a 10 year time period (*r* = 0.056) for both a linear and exponential trend.

Power analysis was performed on all fishery-independent American eel surveys as a means to evaluate the precision of abundance indices.

6.3.2 Results

Median *CV*s of the surveys ranged from 0.01 to 0.48. Resulting estimates of power were a function of *CV*s with those surveys having low *CV*s having high power and those surveys having high *CV*s having low power. Power values ranged from 0.22 to 1.00 (Table 19). For all surveys, there is greater power to detect a decreasing trend compared to an increasing trend, which is a property of surveys whose $CV \sim 1/\sqrt{A}$. There was very little difference in power between linear and exponential trends. Although there was a large range in estimated power within each life stage, power tended to be highest for surveys assessing the yellow life stage.

The values of power presented in Table 19 can be interpreted as the probability of detecting a given linear or exponential trend of ±50% over a ten-year period if it actually occurs. These values do not reflect a retrospective power analysis and a survey with low power value may still be capable of detecting a statistically significant trend if given enough years of data.

6.4 Mann-Kendall Analysis

6.4.1 Background of Analysis and Model Description

The Mann-Kendall trend analysis is a non-parametric test for monotonic trend in time-ordered data (Gilbert 1987). The null hypothesis is that the time series is independent and identically distributed—there is no significant trend across time. The test allows for missing values and can account for tied values if present.

The Mann-Kendall test was applied to all YOY, elver, and yellow eel indices computed in this assessment. A two-tailed test was used to test for the presence of either an upward or downward trend over the entire time series. Trends were considered statistically significant at $\alpha = 0.05$.

6.4.2 Results

6.4.2.1 YOY Indices

The Mann-Kendall test detected significant trends in 6 of the 26 YOY indices evaluated (Table 20). Two of the indices with significant trends were found to be increasing and the four remaining significant trends were found to be decreasing.

6.4.2.2 Elver Indices

Of the nine elver indices evaluated, significant trends were detected in two (Table 21). One of the indices with significant trends was found to show decreases through time and one showed an increase over time.

6.4.2.3 Yellow Eel Indices

The Mann-Kendall test was applied to 15 yellow eel indices. The test detected statistically significant trends in seven of these indices (Table 22). Five of these indices were found to have significant decreasing trends and two were found to have significant increasing trends.

6.5 Regime Shift Analysis

The SAS explored two methods for detecting regimes in the American eel abundance data using the MARSS index.

6.5.1 Background of Analysis and Model Description

6.5.1.1 STARS

Sequential t-test Analysis of Regime Shifts (STARS) is a regime shift detection described in Rodionov (2004) and Rodionov and Overland (2005). STARS uses a series of sequential t-tests that compare the current, or most recent, value to the mean of the time series for the current regime to identify potential change points. A significantly different value indicates a potential regime shift, and the following observations are used to confirm this. Some methods for regime shift detection have difficulty detecting shifts near the end of the time series, thus shifts cannot be detected in a timely fashion. The STARS method was developed to address this problem. The analysis was done using the shift detection add-in version 3.2 in Excel (https://www.beringclimate.noaa.gov/regimes/help3.html).

6.5.1.2 RPART

Regime shifts in the American eel data were also detected using chronological clustering (Legendre and Legendre 2012). This method uses a clustering algorithm that divides the productivity time series into regimes where the clusters are chosen to minimize the sum of squares within the clusters. The analysis was run using the RPART package in R (Therneau et al. 2015). To determine how many clusters provided the best model for understanding the regimes for productivity, the tree was pruned based on accompanying plots from the analysis.

6.5.2 Configuration

The MARSS YOY, elver, and yellow eel abundance indices were tested using both STARS and RPART regime test methods. For STARS, a regime cut-off length of ten years was used although regimes shorter than ten years may still be detected by the analysis. A length of five years was also tested. Huber's h=2 was used for down-weighting outliers, although values from 1.345 to 6 were tested as sensitivity runs. A significance value of P=0.05 was used, although P=0.10 was tested as well. For RPART, nothing has to be specified before running the analysis, but trees are pruned based on outputs to determine how many splits there should be in the data.

6.5.3 Results

Both methods detected the same time periods for regimes in the American eel abundance index data. For YOY data, there were two regimes detected by both analyses: 1987-2002 (high YOY abundance regime) and 2003–2020 (low YOY abundance regime). There were also two regimes predicted in the yellow eel index: 1974–1988 (high yellow eel abundance regime) and 1989–2020 (low yellow eel abundance regime). No regimes were detected in the elver index time series. The YOY and yellow eel results are consistent with the previously used depleted determination, as both YOY and yellow eel stages are in low abundance regimes.

6.6 Traffic Light Analysis

6.6.1 Background of Analysis and Model Description

The TLA is a statistically-robust way to incorporate multiple data sources (both fishery-independent and -dependent) into a single, easily understood metric for management advice (Caddy 1998, 1999). It is often used for data-limited species or species that are not assessed on a frequent basis. The name comes from assigning a color (red, yellow, or green) to categorize relative levels of indicators on the condition of the fish population (abundance metric) or fishery (harvest metric). For example, as harvest or abundance increase relative to their long-term mean, the proportion of green in a given year will increase, and as harvest or abundance decrease, the amount of red in that year becomes more predominant.

The 2012 stock assessment (ASMFC 2012) used the TLA to summarize the trends in abundance indices, color coding them by region and year as 'green' (metric above 75th percentile), 'yellow' (between 25th and 75th percentile), and 'red' (below the 25th percentile of the data). This yielded complex spatial and temporal patterns in the indices that were difficult to interpret. The Peer Review Panel noted at that time that the TLA could be used to put the abundance indices in the broader context of trends in the environment (e.g., regional temperatures and salinities), the American eel's biology (e.g., growth, condition, and early life history) and loss of its habitat (e.g., dam construction). Ultimately, they did not recommend its use for managing American eels.

6.6.2 Configuration

The SAS re-explored that application of a TLA for this assessment using both the previous methods and a revised approach. As was done in the 2012 benchmark, the SAS used the TLA to summarize trends in the abundance indices, color coding them by 'green' (metric above 75th percentile), 'yellow' (between 25th and 75th percentile), and 'red' (below the 25th percentile of the data). This time, the data were not analyzed regionally and the Conn and MARSS YOY and yellow eel abundances were used instead of the composite indices used in the last assessment. The SAS also considered some other time series to address previous peer review comments including commercial landings, number of dams, and commercial mean length. The SAS ultimately decided not to use the commercial landings because other applications of the TLA

consider high landings to be good. Given the stock of American eel is depleted and there is a coastwide cap in place, the use of landings was not appropriate and thus this time series was removed from the TLA. The SAS explored a time series of dam construction for consideration of an indicator for American eels but ultimately could not find a comprehensive data set to use. Commercial lengths from the Chesapeake Bay region were used for the commercial mean length time series. Lengths were available from Delaware, Maryland, and Virginia from 1989 through the present (Figure 167) and comprehensive sex data were available from 2006 on (Figure 168 and Figure 169) but most of the sexed lengths were from Maryland.

Another application of the TLA was done that used a reference period to compare values to, similar to the approach used for Atlantic croaker and spot (ASMFC 2020a, 2020b). In general practice when applying this type of TLA, the green/yellow boundary is typically set at the long-term mean of the data series reference period (Halliday et al. 2001) of the indicator and the yellow/red boundary is set at 60% of the long-term mean, which would indicate a 40% decline from the series mean. Index values in the intermediate zone can be represented by a mixture of either yellow/green or yellow/red depending on where they fall in the transition zone. Since increasing proportions of red reflect decreasing trends away from the time series mean, the relative proportion of red of the indicator may offer one way of determining if any management response is necessary. A reference period is used to compare values to and the reference period should be from a time when the stock was considered to be in good condition. For American eels, the SAS agreed that the reference period should be in the 1970s or 1980s before the relative abundance numbers began to dramatically decrease.

6.6.3 Results

Using the TLA methods from ASMFC 2012, each time series was evaluated using the color coding of ‘green’ (metric above 75th percentile), ‘yellow’ (between 25th and 75th percentile), and ‘red’ (below the 25th percentile of the data). Both YOY and yellow eel indices indicated green values for the 1980s, changing to orange, then to red by the end of the time series (Table 23). Commercial mean length did not have any clear patterns through the years of available data.

To use the other TLA approach, a reference period is chosen that should be consistent for all the time series analyzed and be from a period of time when the stock was in a good condition. Therefore, the 1980s should be used as a reference period for American eels but using the 1980s as a reference period was problematic. Much of the available fishery-independent data does not go back that far. For example, YOY data only go back to 1987, at which point the population was already showing a decline. Additionally, length data from the Chesapeake Bay is not available from the early 1980s. Therefore, this approach was abandoned by the SAS.

6.7 Egg-per-Recruit

6.7.1 Background of Analysis and Model Description

An egg-per-recruit (EPR) model was developed for American eels to evaluate the relative effects of fishing mortality and to compare harvest strategies targeting yellow eel versus glass eel life stages. The model was based on the EPR model by Sweka et al. (2014) which evaluated the effects of downstream fish passage mortality on EPR in the Susquehanna River. Because life history parameters can vary for American eels along a watershed gradient, the SAS two sets of life history parameters were considered: 1) parameters for eels that remain in estuarine environments and 2) parameters for eels that migrate to inland waters prior to emigration to the sea for spawning.

Because American eels are semelparous and leave the system once mature, the number of females remaining within subsequent age classes in a river reach (estuary versus inland) is a function of natural mortality within the reach and the proportion that remain immature:

$$N_i = N_{i-1}(1 - \rho_{i-1}) \cdot e^{-M_{i-1} - F_{i-1} \cdot R_{i-1}}$$

where $N_{i,}$ is the number of females of age *i*, $\rho_{i,r}$ is the proportion of females that are mature at age *i*, $M_{i,}$ is the natural mortality of females of age *i*, F_i is the fishing mortality of females of age *i*, and R_i is the recruitment to the fishery of females of age *i*. Recruitment was a function of length at age and assumed values of 1.0 for ages that had lengths > 228.6 mm (9 inches) corresponding to the minimum length of yellow eels in the fishery under current management. The number of eggs produced by an age class of females is:

$$E_i = \rho_i \cdot \theta_i \cdot N_i$$

where θ_i is the fecundity of a female eel of age *i*. The total eggs-per-recruit is the sum of all eggs produced over all age classes divided by the number of initial recruits:

$$EPR = \sum_{i=1}^{n} E_i \Big/ N_0$$

6.7.2 Configuration

The model was parameterized using a combination of empirical data on American eel collected in the Susquehanna River and literature-derived values (Table 24). The growth rate for American eels that remain in the estuarine reach was equivalent to the mean growth rate observed in the Chesapeake Bay (72.5 mm/year; Fenske et al. 2010) and higher than American eels that migrated to the inland reach (38.5 mm/year). The growth rate for American eels in the inland reach was equivalent to growth rates from upstream areas in the Hudson River, NY

(Morrison and Secor 2003) and Shenandoah River, VA (Goodwin 1999). Maturity in each reach was modeled as a logistic regression function of length:

$$\rho_{i,estuary} = 1/\left[1 + e^{-(-10.43+0.02 \cdot L_i)}\right] \text{ and } \rho_{i,inland} = 1/\left[1 + e^{-(-13.83+0.02 \cdot L_i)}\right]$$

where *L* is the total length (mm) of a female American eel of age *i* in the estuarine or inland reach. The estuarine maturity schedule followed that of the general stock assessment model employed by the Atlantic States Marine Fisheries Commission (ASMFC 2012) and the inland maturity schedule was derived from maturity-at-size data from the Shenandoah River (Sheila Eyler, U.S. Fish & Wildlife Service, unpublished data). These two models assume American eels that remain in the estuary mature at a smaller size than those in inland waters. Fecundity was also modeled as a function of length (cm) and was the average of two published functions (Tremblay 2009; Barbin and McCleave 1997):

$$\theta_i = (308.32 \cdot L_i^{2.293} + 18.20 \cdot L_i^{2.964})/2$$

Natural morality of glass eels (age 0) was set to 3.91 while natural mortality for ages 1 and older was modeled as a function of weight at age (Lorenzen 1996; ASMFC 2012):

$$M_i = 0.492 \cdot W_i^{-2.88}$$

where $W_{i,r}$ is the weight of an age *i* eel and was estimated from a general weight-length equation (ASMFC 2012):

$$W_i = 3.44 \times 10^{-7} \cdot L_i^{3.27}$$

Natural mortality of eels in the estuary was assumed to be greater than in inland environments because eel predators in larger estuary waters are rarely found in smaller watersheds (Buckel and Conover 1997; Griffin and Margraf 2003; Walter and Austin 2003; Machut et al. 2007). Therefore, inland natural mortality was modeled by dividing the natural mortality by an assumed ratio of estuary-to-inland natural mortality (2.0) for each age/size class.

American eel EPR was evaluated for *F* ranging from 0 to 1.0 for both sets of life history parameters (estuarine and inland). When modeling a glass eel harvest strategy, the SAS assumed no fishing mortality occurred on eels greater than age 0. Conversely, when modeling a yellow eel harvest strategy, it was assumed that no fishing mortality occurred on age 0. These scenarios represented the extremes in potential harvest management strategies. The uncertainty in life history parameters for American eels was captured by conducting Monte Carlo simulations of EPR that allowed life history parameters to vary according to uniform distributions (Table 24) and 10,000 simulations were ran for each combination of harvest strategy (glass versus yellow) and location within a watershed (estuarine versus inland).

6.7.3 Results

American eel EPR declined with increasing values of *F*, but the decline was greater for a yellow eel fishery compared to a glass eel fishery (Figure 170). The relative decline in EPR with

increasing *F* was similar between estuary and inland regions for a glass eel fishery. This was expected because mortality due to the fishery was concentrated on a single initial age class and survivors are free from fishing mortality; however, increasing *F* had a much greater effect on a yellow eel fishery in the inland region compared to the estuary region. The reason for this disproportionate effect is because yellow eels in the inland region had slower growth rates and matured at later ages compared to the estuary, thus resulting in more years of potential harvest prior to emigration for spawning.

If a traditional *F* benchmark such as F_{40} (the fishing mortality required to maintain 40% of the unfished EPR) were chosen for American eels, the target *F* for glass eels would be approximately 0.90 (Figure 171). The same benchmark for yellow eels would be much lower at approximately 0.23 in the estuary and 0.06 in inland waters.

These results indicate a glass eel fishery could withstand a greater amount of fishing mortality than a yellow eel fishery. The reason for this disparity is the much greater natural mortality glass eels experience compared to yellow eels. The addition of fishing mortality to natural mortality at the glass eel stage has a much lower relative effect on total mortality compared to the addition of fishing mortality to natural mortality at the yellow eel stage.

6.8 Surplus Production Model

6.8.1 Background of Analysis and Model Description

Surplus production models combine the effects of recruitment, growth, and mortality into a single function and assume no size or age structure in the population. It requires a time series of fishery removals and one or more time series of CPUE from a survey. Surplus production models, both age-structured and catch-free, were developed for American eels during the 2012 benchmark stock assessment (ASMFC 2012) but were not used for developing reference points, determining stock status, or management. In 2012, various iterations of the model were attempted using regional and coastwide indices of abundance, but stable solutions could not be found.

For this assessment two types of surplus production models were explored; a typical biomass-based approach using ASPIC (Prager 1994) and a time-varying intrinsic growth surplus production (TVr) approach (Nesslage and Wilberg 2019).

Surplus productions models makes several assumptions including:

- There is no size or age structure in the population
- The population is closed
- The environment is constant
- Abundance indices are proportional to the true population

- Total catch is known without error
- The stock responds instantaneously to changes
- The intrinsic rate of increase (*r*) and carrying capacity (*K*) remains constant except for the TVr approach

The application of a surplus production model for American eels violates nearly every assumption. For example, it is known that American eels are one, panmictic population including American eels in inland waters, Canada, and the Caribbean; those regions are not included in this assessment and thus the population is not closed nor is the environment closed. While the landings from 1998–2020 represent validated data from Maine to Florida from ACCSP (see Section 4), historic landings are known to be incomplete and possibly inaccurate. Given the loss of American eel habitat through the damming of waterways, the carrying capacity of the population has likely been greatly reduced over time as noted in the previous stock assessment (ASMFC 2012) and is not expected to be constant throughout the time series. Surplus production models also do not perform well when the data represents a "one-way trip" or a constant decline in the time series without a period of recovery or contrast in the data. Both the landings and MARSS index suggest one-way trips over the years of 1974–2020 (Figure 172).

6.8.2 Configuration

6.8.2.1 Units

The surplus production model requires a time series of catch and one or more indices of abundance. Commercial yellow eel landings in pounds were used for the time series of catch. The abundance indices for American eels were all calculated in numbers, as were the aggregate coastwide MARSS yellow eel index. The Conn index was also tested since it provides a longer time series. The SAS discussed the best way to get the two inputs in the same units. Not all surveys used in the coastwide indices had comprehensive weight or length data that could be used to convert the 16 individual yellow eel surveys from numbers to pounds. The SAS concluded that a coastwide aggregate yellow eel index in MARSS or Conn in weight would likely have a similar pattern to that in numbers and that not enough data were available to do a meaningful conversion without borrowing data from other regions and sources. Therefore, the SAS explored converting landings into numbers and ACCSP provided conversion factors, where available. In the ACCSP data warehouse, conversion factors are used to standardize the reported quantity unit (e.g., pounds, numbers, bushels) into a common currency, usually pounds. Some American eel landings have been reported to ACCSP units other than pounds and therefore conversion factors are used to convert those to pounds, the unit traditionally used for American eel commercial landings. On average, the conversion factor was 0.96 pounds for one American eel. Therefore, the landings in pounds would roughly convert to a similar scale and pattern for landings in numbers. For exploring the application of a surplus production model for American eels, the SAS proceeded with the inputs in different units assuming that the trends would be fairly consistent once converted to a common unit.

6.8.2.2 Starting Values

The starting values for the surplus production model were calculated as follows:

1) B_1/K =0.5

2) MSY=1/2*Maximum Catch

3) K=10*Maximum Catch

4) q=Average Index Value/(2*Maximum Catch)

Where B_1 is initial biomass, MSY is maximum sustainable yield, K is carrying capacity, and q is catchability. Both MSY and K had minimum and maximum constraints of 1/8 and 8 times their values.

The initial runs of the ASPIC surplus production model produced warning messages and did not result in reasonable solutions (e.g., very low estimates of r, very high estimates of B_1) and the model was rerun with different iterations of the starting values from those described above in an attempt to find a stable solution. Additionally, different start years were attempted and using individual surveys instead of the coastwide aggregate yellow eel survey. For the TVr approach, starting values were set similarly to the ASPIC approach, with a total of two iterations. One iteration allowed for the intrinsic growth rate to vary, while the other allowed for the carrying capacity to vary.

6.8.2.3 Outputs

Both surplus production models estimated MSY and the associated MSY-based references points of B_{MSY}, the stock biomass associated with MSY, and F_{MSY}, the fishing mortality that maximizes the yield from the population. These absolute values are usually imprecise (Prager 1994) for the ASPIC approach since it requires good estimates of catchability (q). Relative biomass (B/B_{MSY}) and relative fishing mortality (F/F_{MSY}) can be used to determine overfishing and overfished status. Additionally, both iterations of the TVr approach failed to reach convergence in most attempts and when it did so tended to hit the constraining bounds outlined above.

6.8.3 Results

The surplus production model was run with the coastwide landings and MARSS yellow eel index for the years of 1974–2020. The results produced an error code in ASPIC indicating that the estimate of MSY was at or near the minimum bound and that the solution may be trivial. There were also convergence issues with the model. Inspection of the resulting estimates show low estimates of r and MSY and high estimates of initial biomass and K (Table 25). Previous estimates of K from the 2012 stock assessment were around 40 million pounds and was found

to be reasonable estimates by the Peer Review Panel. Likewise, the TVr approach produced unrealistic values of both *r* and *K* when those parameters were allowed to vary.

The ASPIC model was also run using the Conn index since it had a longer time series (1955–2020) and more contrast in the data and less of a one-way trip pattern. Similar to the run with the MARSS index, the solution for the ASPIC approach was reported to be trivial but conversely, the estimate of MSY was at or near the maximum bound. There were also convergence issues. The ASPIC model with the Conn resulted in more reasonable estimates for carrying capacity, but unreasonably high estimates of *r* given what is known about the life history of American eels (Table 25). Initial biomass and MSY were also estimated to be very large and relative fishing mortality was estimated at nearly zero.

Other iterations of both surplus production models were attempted using different starting values and bounds, indices of relative abundance, and start years. No runs for either approach produced results that were reasonable given what is known about American eels or did not have convergence issues or other error messages. Since the SAS agreed that the model likely is not appropriate for the species and too many assumptions were violated, further development of the surplus production model was abandoned.

6.9 Delay-Difference Model

6.9.1 Background of Analysis and Model Description

The delay-difference model is a variation of a biomass dynamic model that includes biological parameters, can be fitted directly to time series data, and accounts for changes in growth and recruitment over time (Hilborn et al. 1992). Biomass of age-structured populations are predicted directly from previous years' biomass and parameters for survival, growth, and recruitment (Deriso 1980; Schnute 1985, 1987; Fournier and Doonan 1987). A primary benefit of this approach is that simulation of age structure is not required, though the model is observation error only and does not estimate recruitment deviations.

The delay-difference model was used in the ASMFC's 2020 American shad benchmark stock assessment. During the peer review, it was recommended that future assessments using the delay-difference model should employ the version in the SAMtool package (Huynh et al. 2022) instead of the DLMtool package (Carruthers and Hordyk 2019) because it allows for a wider range of model options and outputs. Following that advice, the SAS used the delay-difference model in SAMtool to estimate biomass and fishing mortality of the coastwide American eel population.

6.9.2 Configuration

Delay-difference models can be conditioned on either catch or effort. When conditioned on catch, the model estimates a predicted index. When conditioned on effort, the model estimates predicted catch. Effort is calculated in the model as the ratio of catch and index. Then the

fishing mortality is set proportional to effort. In early discussions, the SAS made the decision to condition on effort rather than catch for two reasons. First, models conditioned on catch had lower convergence and provided unrealistic numbers (e.g., quadrillions of pounds of biomass estimates). The second reason, specifically in Delaware but perhaps in other places, is that catch after 2008 is not considered reflective of the population trends due to reduced fishing effort caused by the restriction of female horseshoe crabs as a bait. Despite those reasons, the SAS ultimately preferred conditioning the model on catch rather than effort given that the group has more faith in the time series of catch than the MARSS index for yellow eel. The preferred delay-difference model used for American eels is conditioned on catch.

Inputs into the model consist of a time series of relative total abundance, a time series of total annual catch, estimates of life history parameters: length at 50% maturity, maximum age, natural mortality, von Bertalanffy growth parameters (K, L_∞, t_0), and weight-length relationship alpha and beta parameters. The SAS explored a wide range of inputs for each parameter and decisions for selection of each major input is briefly discussed.

Initially, the SAS considered doing system-specific models similar to the approach used in the American shad stock assessment. A Chesapeake Bay-centered model was developed as a proof of concept, but many regions do not have data to support regional delay-difference models. It was recognized that identifying within system parameters would be just as challenging as coastwide parameters since American eel characteristics vary within a system too. Additionally, splitting the harvest between systems would add complications since the population is essentially one unit and the fishery is on both sexes across the coast. Due to these limitations, the SAS decided to develop a coastwide delay-difference model.

The SAS discussed a preference for a female-only model due to differences in size, growth, and maturity between the sexes however, it was acknowledged that sex-specific landings and indices were not available, requiring a model that is based on all sexes.

The SAS chose the yellow eel MARSS index as the preferred index of relative total abundance. Initial runs of the model evaluated the use of the YOY, elver, and yellow eel indices from both the MARSS and Conn (2010) approaches. Some SAS members had concerns about standardizing indices to their means when there are different time series lengths, as is the practice for Conn (2010), and therefore the group decided that the MARSS approach is slightly preferred over the Conn. Highest convergence from the MARSS indices occurred with the yellow eel index model runs. The YOY index was decided against inclusion since it provides a disconnect in life history stages since catch is of yellow eels.

While the time series of yellow eel harvest spans a longer period of time, the harvest from 1974 through 2019 was selected to coincide with the years of the abundance index.

Previous American eel stock assessments used natural mortality of 0.15 to 0.25. As there were no new studies to inform selection of natural mortality, the SAS chose to explore the same range of values. The preferred model uses a natural mortality of 0.15, which was selected due to higher rates of model convergence.

Reviewing the previous stock assessments and literature provided a range of maximum ages between 12 and 43 years. The SAS explored maximum ages of 12, 20, and 43 years, before settling on 12 years due to the younger age and higher abundance of male silver eels.

The SAS explored several variations of growth parameters. Initially, the model used values from the 2017 stock assessment update as a proof of concept. The SAS evaluated regional growth data but noted a lot of unreasonable L_∞ values including in the Chesapeake Bay. The SAS explored use of von Bertalanffy growth parameters that were assumed to represent the "average eel" (i.e., Chesapeake Bay region). When this approach was found to be insufficient, the SAS performed a bootstrapping approach for generating growth parameters pooled between the sexes and all areas, resulting in growth parameters of L_∞ = 452.7 mm, K = 0.4864, and t_0 = -0.3349.

No studies were available to inform the length at 50% maturity (L_{50}) across the coastwide population. The SAS began by exploring L_{50} as a percentage of L_∞. Once the growth bootstrapping analysis was performed (Section 2.5.2), the L_∞ from that analysis was used. Initial discussions suggested that L_{50} should be close to the value used for L_∞ given the life cycle of American eel and a value of 90% of L_∞ was used. Additional values from 50% to 90% of L_∞ were tested as well. The SAS decided that a value of 80% of L_∞ was most appropriate given the growth equation compared to the average size mature eels observed during state surveys.

In initial runs of the model, the model estimated the steepness value of the Beverton-Holt stock-recruitment relationship. The steepness parameter controls the response of stock productivity to changes in spawning biomass. The model estimated steepness at 0.9, but that value is more appropriate for a species like Atlantic menhaden *Brevoortia tyrannus* than a species with the life history of American eels. The SAS decided to fix steepness and explored a range of values from 0.2 to 0.9. A likelihood profile across steepness values indicated that a steepness of 0.3 or 0.4 was appropriate. After reviewing the available stock-recruitment literature, the SAS decided to use a steepness value of 0.35 for the preferred model run.

Another recommendation of the American shad peer review was the incorporation of an initial depletion value that would reflect the decrease in the population from historical values to the beginning of the model period (ASMFC 2020c). The SAS explored values of 1 (no depletion), 0.75, 0.5, and 0.25. Many of the top models favored the use of a value of "1" but it was noted that the stock was depleted from historic levels. The SAS looked to the USGS team to find an appropriate value given the substantial habitat loss by the 1990s. The USGS team indicated that their work (Section 3.1) on estimating the accessibility of the Chesapeake Bay to America eels showed that 71% of those waterways have no ocean access while 29% have ocean access. The takeaway was that 29% is an initial estimate of what is completely open without considering dam influences. The SAS explored this value as well, but eventually decided not to employ initial depletion. Use of an initial depletion value scales the population down to reflect the "known" decrease, but the SAS did not feel this added valuable information since any initial depletion value is an assumption and likely to be falsely interpreted as a known historical abundance of American eels. Since the model initiates in 1974 and many dams had been in

place decades before that, the SAS felt it was best to proceed under the assumption that the population had achieved a new equilibrium before the start of the model.

6.9.3 Results

Total commercial fishery catch (Figure 173A) and MARSS yellow eel abundance index were available for years between 1974 and 2019 (Figure 173B). The model-estimated abundance index was significantly smoothed compared to the MARSS yellow eel index, which fluctuated to a greater extent throughout the time series. Both the abundance index and catch displayed drastic declining trends across the time series (Figure 173A, B). Initial biomass (B_0) was estimated at 41.2 million pounds and decreased rapidly over the first twenty-three years of the run, then stabilized around 13.4 million pounds for the rest of the time period (Figure 173C). Fishing mortality during the first half of the time series generally exceeded 0.1, before dropping in 1997 and remaining below 0.1 for the remainder of the time series (Figure 173D).

6.9.4 Reference Points and Stock Status

The SAS chose overfished and overfishing reference points of 40% unfished biomass (B_{40}) and the fishing mortality (F_{40}) needed to sustain the population at B_{40}. B_{40} was deemed a more appropriate reference point rather than MSY because results from yield-per-recruit (YPR) analysis generated as part of the SAMtool delay-difference model did not show an asymptote or a decline in YPR with increasing fishing mortality. The European Union has specified a 40% escapement target for European eels from all rivers (EU 2007) and ICES suggested the use of a fishing mortality benchmark for European eels that preserved 50% of the spawning stock biomass (ICES 2001). The delay-difference model estimated the unfished biomass (B_0) was 45.89 million pounds and thus B_{40} would be 18.36 million pounds. F_{40} was determined by projecting the delay-difference model forward in a deterministic fashion and solving for the fishing mortality that maintained the population at B_{40}.

The underlying population dynamics model was:

$$B_t = s_{t-1}(\tilde{a}N_{t-1} + \rho B_{t-1}) + w_k R_t$$

$$N_t = s_{t-1}N_{t-1} + R_t$$

where *t* is time, *B* is biomass, *N* is abundance, *R* is recruitment, *w* is weight at the age *k* of 50% maturity.

$$\tilde{a} = W_\infty(1-\rho)$$

where W_∞ is the maximum weight of an individual.

$$\rho = \frac{w_a - W_\infty}{w_{a-1} - W_\infty}$$

where $a = k + 2$.

The model assumed a maximum length (L_∞) from a von Bertalanffy growth model of 452.7 mm (Section 2.5.2) to estimate W_∞ from a weight-length regression equation ($W = 0.00000000105 \cdot L^{3.22}$). Length at 50% maturity was set to 80% of L_∞, which corresponded to an age of 3.

Recruitment followed a Beverton-Holt relationship:

$$R_t = \frac{aB_{t-k}}{1 + \beta B_{t-k}}$$

$$a = \frac{4hR_0}{(1-h)B_0}$$

$$\beta = \frac{5h-1}{(1-h)B_0}$$

where h = steepness and was set to 0.35 as this provided the best fit of the delay-difference model to observed data.

The model started at B_0 = 45.89 million pounds and N_0 = 160.46 million individuals and was projected forward for 200 years to insure stability at a given level of fishing mortality. The fishing mortality needed to stabilize the population at B_{40} was then solved for and was F_{40} = 0.085 (Figure 174).

Comparing estimated F from the delay-difference model to the F_{40} reference point showed overfishing was occurring in the majority of years from 1974–1996. After 1996, there were some years where F_{40} was exceeded, but in recent years, annual estimates of F were less than F_{40}. Although, overfishing was not occurring in recent years, the population of American eels has been less than the B_{40} reference point since 1987 and continues to be overfished (Figure 175).

The estimated F from the delay-difference model averaged 0.077 from 1997–2019, which was lower than the F_{40} reference point of 0.085. Given the length of time that the average F has been below F_{40}, it is surprising that the estimated biomass from the delay-difference model has not shown an increase, but has remained at a low and stable level. This could indicate that factors in addition to fishing pressure (e.g., habitat loss) are also limiting American eel population growth.

The SAS had some reservations using the delay-difference model to manage the coastwide American eel stock. While the model was developed for an "average eel" there are no considerations in the model for the large differences observed in American eel size, growth, sex, and behavior along the coast or even between coastal and freshwater habitats. Also, combined sexes in the delay-difference model are likely problematic. As parameterized, the model uses biomass in year t-3 to estimate recruits in year t because the age corresponding to the length at 50% maturity would be age 3. If the majority of eggs are produced from females who mature at ages greater than age 3 (very likely for silver eels from inland waters), then the

structure of the model does not adequately represent the life history of the species. Managing based on a model for an average eel is probably not appropriate for the coastwide population.

6.10 Index-Based Methods

6.10.1 Background of Analysis and Model Description

Given the performance of the delay-difference model, the SAS began exploring other avenues for providing management advice. One promising avenue was to use index-based methods. A recent research track assessment conducted by the Northeast Fisheries Science Center (NEFSC) examined a number of different methodologies for providing catch advice in cases where a retrospective pattern in an age-structured assessment became problematic (NEFSC 2020).

NEFSC (2020) examined a plethora of different data-limited options in their management track assessment (Table 26). While their focus was on resolving and providing management in the face of age-structured assessments with diagnostic issues, the SAS used and examined some of these methods for American eels. Based on the data the SAS had in hand, as well as familiarity with the methods, the SAS explored the PlanB, Islope, I_{TARGET}, and Skate methods. The other methods required either age, known fishery selectivity, assumptions that fishing mortality should equal natural mortality, or some other data facet unknown for American eels (Table 26). Additionally, AIM (An Index Method) was explored for this assessment with unsatisfactory results since the data suggested a one-way trip and there was no relationship between a replacement rate and relative *F*.

After completing a preliminary analysis of PlanB, Islope, and Skate methods, the SAS found that each of the methods had issues and were providing very high estimates of removable biomass. Further, the Skate method relied on the index producing an effective fishing mortality which was then applied to biomass, which the SAS did not find appealing.

While NEFSC (2020) indicated that PlanB and ISlope were suited for stock rebuilding, they also indicated "The index-based methods that change the catch advice based on recent trends in the surveys (e.g., PlanB, ISlope, DLM) do not appear well suited to applying a reduction to the catch advice." Given these comments as well as a preliminary analysis that suggested high removals at what is likely a depleted stock (ASMFC 2017), the SAS focused on the I_{TARGET} method for providing management advice. Additionally, the SAS liked the feature of choosing the reference yeas as well as the target value given suggestions of a change in the carrying capacity of eels and the regime shift analysis (Section 6.4).

6.10.2 Configuration

Calculation of the I_{TARGET} method is fairly straightforward and is based on Carruthers et al. (2015). From Table 26;

$$C_{targ,y+1:y+2} = \left[0.5C_{ref}\left(\frac{\overline{I}_{5,y} - I_{thresh}}{I_{target} - I_{thresh}}\right)\right] \qquad \overline{I}_{5,y} \geq I_{thresh}$$

$$C_{targ,y+1:y+2} = \left[0.5C_{ref}\left(\frac{\overline{I}_{5,y}}{I_{thresh}}\right)^2\right] \qquad \overline{I}_{5,y} < I_{thresh}$$

Where C_{TARG} is the catch target or the management advice in a given year, C_{REF} is the average catch over the reference period, I is the index with $\overline{I}$ being the average index value (here over three years), I_{TARGET} being the index target, and $I_{THRESHOLD}$ as the index threshold. $I_{THRESHOLD}$ is defined in NOAA (2020) as 0.8 of I_{TARGET}. I_{TARGET} is defined further as the index average over the reference period times some multiple $I_{TARG\ MULT}$.

After discussions among the SAS, it was suggested to define the reference period as 1974 (the first year of the MARSS yellow eel index) to 1988 based on the regime change analysis (Section 6.4) as well as the fact this seemed to be a stable, if variable, point for both landings and index (Figure 176), affecting both the C_{REF} and the calculation of I_{TARGET}. Further discussions resulted in a modification of the method. As the MARSS index is already smoothed, a five-year average was replaced by a three-year average for calculations. The use of 0.8 for defining $I_{THRESHOLD}$ was retained, as there was no a priori reason to modify it.

There was, however, debate amongst the SAS as to the value of $I_{TARG\ MULT}$ which affects the calculation of I_{TARGET}. NEFSC (2020) used an $I_{TARG\ MULT}$ equal to 1.5, indicating that the average index value during the reference period represented one-half the biomass target. Another option was to set the $I_{TARG\ MULT}$ at 1.0, indicating that the average index over the reference period represented the biomass target for the population. In essence, setting the $I_{TARG\ MULT}$ to 1.5 was more conservative, while setting the $I_{TARG\ MULT}$ to 1.0 was less conservative.

Ultimately the SAS compromised on a $I_{TARG\ MULT}$ value of 1.25. This was in part due to the knowledge that since the reference period it is likely that the carrying capacity of the stock has declined due to habitat loss; however, this was balanced by the knowledge that fishing and exploitation and stock depletion have been occurring well before the reference period. Given this, the SAS was uncomfortable using a $I_{TARG\ MULT}$ of 1.0 or at 1.5. The choice of the $I_{TARG\ MULT}$ at 1.5, 1.25, and 1.0 are given as sensitivities.

6.10.3 Results

Results for the I_{TARGET} method using a reference period of 1974–1988, an $I_{TARG\ MULT}$ of 1.25, using a three-year average for the index, and 0.8 as a value to derive $I_{THRESHOLD}$ is given in Figure 177. Note using this configuration, recommended removals have always been below actual removals, often by a wide margin. This is further illustrated in Table 27, where the recommendations from the base case have never exceeded the actual removals, though the gap between recommended and actual has decreased in 2020.

As mentioned previously, a sensitivity was undertaken to examine different assumptions around $I_{TARG\ MULT}$ with both 1.0 and 1.5 examined (Figure 178) as expected the $I_{TARG\ MULT}$ had a large effect on the recommended removals (Table 27). It is notable that any of the assumptions around $I_{TARG\ MULT}$ produced recommendations that are generally far below the actual removals, except in 2020. Further, all estimates of recommended removals are far below the current catch cap (916,473 pounds) instituted by ASMFC.

7 STOCK STATUS

7.1 Current Overfishing, Overfished/Depleted Definitions

No overfishing determination could be made based on the analyses performed during the previous stock assessments (ASMFC 2012, 2017). From a biological perspective, much is still unknown about the species. Information is limited about their abundance, status at all life stages, and habitat requirements. According to the 2017 stock assessment update, the American eel population remains depleted in US waters. The stock is at or near historically low levels due to a combination of historical overfishing, habitat loss, food web alterations, predation, turbine mortality, environmental changes, toxins and contaminants, and disease. Trend analyses of abundance indices indicated large declines in abundance of yellow eels during the 1980s through the early 1990s, with primarily neutral or stable abundance from the mid-1990s through 2016.

7.2 Stock Status Determination

The SAS developed reference points for the delay-difference model in order to determine stock status (Section 6.9.4) but is not recommending this approach because of multiple concerns with the application of that model.

Instead of using the delay-difference model, the SAS proposes that the I_{TARGET} method should be used to both determine stock status and provide catch advice for American eels. Using this methodology, the target biomass would be set at the three-year average of the MARSS index associated with I_{TARGET} (1.103) and which corresponds to a B_{TARGET}. The threshold would be set at the three-year average of the MARSS index associated with the $I_{THRESHOLD}$ (0.882) using the base case for both the reference period and the $I_{TARG\ MULT}$ (Section 6.10).

The I_{TARGET} method does not lend itself well to defining exploitation-based reference points. Relative exploitation could be based on the ratio of realized catch divided by advised catch, with values greater than one defined as overfishing occurring. However, given the uncertainty in the MARSS index, as well as the use of a three-year running average within the I_{TARGET} method, the SAS was uncomfortable determining if eel was experiencing overfishing.

Based on the results of the I_{TARGET} method, the stock would be considered overfished (Figure 176-Figure 178) as the current three-year average of the MARSS index (0.348) is below the $I_{THRESHOLD}$ (0.882). This result is in line with other methods (e.g., Conn index, MARSS index,

regime shift analysis, delay-difference model, Mann-Kendall Test) that also show the stock as depleted or experiencing downward trends in the abundance data. Likewise, using the I_{TARGET} method, it can be inferred that the stock could also be experiencing overfishing as catches have been well above recommended removals (Table 27).

While the American eel stock is overfished, the SAS was unable to determine if overfishing was occurring. However, the SAS suggests that American eels likely have been experiencing overfishing in the last few decades based on the I_{TARGET} method and supported by additional methods explored in this assessment. As such, coastwide yellow eel catch levels should be reduced as the index-based method of I_{TARGET} suggests catches in recent years should be more in-line with 200,000-300,000 pounds rather than the current coastwide cap of 916,473 pounds.

8 CONCLUSIONS

The abundance indices developed and used in this assessment are more robust and better defined than previous assessments. The trends in abundance produced by the MARSS and Conn methods were similar, as were results from models detecting regime shifts, indicating low abundance of American eel in recent years (1989–2020). Until sufficient data are available at an appropriate scale that encompasses the range inhabited by American eels to support more complex model-based assessments, abundance indices and index-based methods are the best tool for guiding management decisions.

The YOY monitoring effort, now in its 21st year at many sites, provides an indication of recruitment that has been relatively stable coastwide. There are clear latitudinal trends in recruitment in some years, whereas recruitment varies widely in others. As a result, the idea of selecting sentinel sites along the coast to monitor recruitment will likely not produce the desired result of tracking population trends. A relatively consistent level of YOY recruitment for the combined indices coastwide (using the Conn or MARSS method) is not surprising given that the assessment of yellow eel remains at a consistent, but level of low abundance during the same time period. Unfortunately, YOY indices that coincide with historic periods of higher yellow eel abundance are not available to know what recruitment looked like when there was higher spawning biomass. The analysis of glass eel biological characteristics from the YOY monitoring effort shows stable patterns over time. Glass eel weight and length are consistent within sites, with a latitudinal gradient in length with smaller glass eels captured south of Chesapeake Bay. Pigment stages of glass eels show an increase in pigment stage with an increase in water temperature and time, but no relationship with glass eel length, weight, or relative condition.

Given the lack of trends in length, weight, and pigmentation within sites over time, the SAS and TC recommend that biological sampling for state-mandated YOY surveys should not be required. Sites will continue to monitor YOY eel counts at the sites and collect associated environmental data. This should help reduce the burden on the states while still tracking YOY data along the coast. If any concerning trends emerge, biological sampling can be increased back to current levels as needed.

The development of GIS-based habitat models provides an additional path forward towards assessing American eels. Other regions around the world are adopting a similar approach since all catadromous eels share the commonality of a complex life history and highly variable population parameters throughout their range (Hoyle 2016); however, due to limited historical data, it is difficult to assess habitat availability for the American eels beyond their current habitat use.

Many of the analyses explored in this benchmark indicate decreasing or low population trends (e.g., Conn index, MARSS index, regime shift analysis, delay-difference model, Mann-Kendall Test). All lines of evidence indicate the population is at low levels and the stock status of American eels, as determined by the I_{TARGET} approach, is overfished and likely experiencing overfishing.

9 RESEARCH RECOMMENDATIONS

Research recommendations are broken down into future research and data collection and assessment methodology. Research recommendations from ASMFC 2012, 2017 remain important, but the following list is specific to what the SAS thinks could improve the next stock assessment. The SAS recommends an update be considered in five years and a new benchmark be considered in ten years.

9.1 Future Research and Data Collection

- Improve upstream and downstream passage for all life stages of American eels.
- Continue to improve the accuracy of commercial catch and effort data through ACCSP and state partners.
- Characterize the length, weight, age, and sex structure of commercially harvested American eels along the Atlantic coast over time.
- Research coastwide prevalence of the swim bladder parasite *Anguillacolla crassus* and its effects on the American eel's growth and maturation, migration to the Sargasso Sea, and spawning potential.
- Improve understanding of the spawning contribution of unexploited portions of the stock (i.e., freshwater areas of coastal US).
- Characterize the length, weight, and sex structure in unharvestable habitats.
- Conduct a tagging study throughout the species range.
- Quantify recreational removals in marine and freshwater habitats and characterize length, weight, and sex structure.

- Evaluate the passage/passage efficiency of American eels though existing fishways at dams/barriers and evaluate barrier physical attributes (height, material) that can be passed by eel without fishways.

- Evaluate the use vs. availability of habitat in the inland portion of the species range, and how habitat availability has changed through time, including opening of habitat from recent dam and barrier removals. This could and should include assisted migration by trucking around dams.

- To the extent that the data allows, account for the proportion of the population (yellow, silver phase) represented by the inland portion of the species range.

- Evaluate the relative impact that commercial harvest has on population status versus the accessibility to inland habitats.

9.2 Assessment Methods

- Develop methods to assess spawner escapement and biological information pertinent to silver eels in major river basins.

- Perform a range-wide American eel assessment with various countries and agencies (e.g., Canada DFO, ASMFC, USFWS, Caribbean, US Gulf and inland states).

- Explore methods to characterize data by sex to support a female-only delay-difference model.

10 MINORITY OPINION

No minority opinions were submitted during the development of this stock assessment.

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12 TABLES

Table 1. Number of American eel ages supplied for this assessment by agency. Collection years and months are reported, along with the average age of samples and a range.

Agency	Years	Months	Age Range	Average Age	Number of Age Samples	
					Commercial	FI Survey
NJ DFW	2006-2019	Apr-Dec	1-15	4.6	2,663	
DE DFW	2012-2015	Apr-Nov	2-13	4.6	978	
MD DNR	1998-2019	Apr-Dec	1-15	4.4	4,766	1,769
GA DNR	2013	Aug-Dec	3-9	5.2	74	

Table 2. Parameter estimates (standard error in parentheses) of the allometric length (mm)-weight (g) relation fit to available data for American eel by region, sex, and all data pooled. Asterisks (*) denotes standard errors that are ≥ 30% of the parameter estimate.

Group	Subset	n	a	b
None	all	81,830	4.50E-07(7.47E-09)	3.23(2.58E-03)
Region	Gulf of Maine	4,739	7.40E-07(3.40E-08)	3.15(7.09E-03)
	Southern New England	166	5.11E-05(4.12E-05*)	2.52(1.24E-01)
	Hudson River	2,413	1.14E-06(1.83E-07)	3.08(2.50E-02)
	Del Bay/Mid-Atl Coastal Bays	15,694	6.05E-07(2.75E-08)	3.18(7.11E-03)
	Chesapeake Bay	44,251	2.99E-07(4.91E-09)	3.29(2.54E-03)
	South Atlantic	14,567	4.83E-07(3.51E-08)	3.23(1.15E-02)
Sex	Female	4,319	6.54E-07(3.68E-08)	3.17(8.74E-03)
	Male	2,930	1.75E-06(2.03E-07)	3.00(1.99E-02)

Table 3. Parameter estimates (standard error in parentheses) for the linear regression of length (mm) on age (years) fit to available data for American eel by region, sex, and all data pooled.

Group	Subset	n	Intercept	Slope
None	All	20,577	348(1.4)	8.5(0.2)
Region	Gulf of Maine	2,377	87(3.0)	23.5(0.3)
	Southern New England	475	192(18.7)	14.5(1.6)
	Hudson River	914	264(8.5)	12.5(0.6)
	Del Bay/Mid-Atl CB	7,091	293(2.9)	27.2(0.7)
	Chesapeake Bay	8,488	272(2.7)	27.5(0.5)
	South Atlantic	1,232	323(9.2)	27.6(1.9)
Sex	Female	3,798	350(2.6)	8.1(0.3)
	Male	2,709	297(1.3)	3.1(0.2)

Table 4. Parameter estimates (standard error in parentheses) of the von Bertalanffy age-length model fit to available data for American eel by region, sex, and all data pooled. Asterisks (*) denotes standard errors that are ≥ 30% of the parameter estimate.

Group	Subset	n	Linf	K	T_0
None	all	20,577	441(2.0)	0.52(0.014)	-0.4(0.1)
Region	Gulf of Maine	2,377	1414(196.1)	0.02(0.004)	-2.2(0.3)
	Southern New England	475	*failed to converge*		
	Hudson River	914	482(5.2)	0.28(0.018)	0.5(0.1)
	Del Bay/Mid-Atl Coastal Bays	7,091	626(127.3)	0.14(0.018)	-3.5(0.9)
	Chesapeake Bay	8,488	1647(639.7)	0.023(0.012)	-7.8(0.9)
	South Atlantic	1,232	591(31.8)	0.23(0.052)	-1.9(0.7)
Sex	Female	3,798	618(45.9)	0.05(0.012)	-16.4(2.9)
	Male	2,709	*failed to converge*		

Table 5. Summary of available age-length data for American eel from along the Atlantic Coast.

Age	n Lengths
0	106,513
1	285
2	1,875
3	3,657
4	4,177
5	3,489
6	2,047
7	1,209
8	786
9	524
10	411
11	369
12	377
13	335
14	251
15	186
16	153
17	105
18	95
19	72
20	56
21	52
22	21
23	13
24	11
25	6
26	1
27	4
28	2
29	0
30	0
31	0
32	1
33	1
34	0
35	0
36	0
37	1

Table 6. Validated state landings of commercial yellow eels, in pounds, from Maine to Florida for 1998-2020. Landings for 2020 are considered preliminary and are likely to change.

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	PRFC	VA	NC	SC	GA	FL	Total (lbs)
1998	0	Time series average of less than 400 pounds	3,456	967	5,606	16,867	94,327	131,478	301,833	209,008	123,837	91,084	Time series average of less than 400 pounds	Time series average of less than 400 pounds	13,819	992,741
1999	0		3,456	140	10,250	7,882	90,252	128,978	305,812	163,351	183,255	99,939			17,533	1,011,093
2000	0		2,976	25	4,643	5,824	45,393	119,180	259,552	208,549	114,972	127,099			6,054	894,577
2001	9,007		3,867	14,357	1,724	18,192	57,700	121,515	271,178	213,440	97,032	107,070			14,218	929,523
2002	11,617		3,949	22,965	3,710	30,930	64,600	99,529	208,659	128,595	75,549	59,940			7,587	717,698
2003	15,312		4,047	24,883	1,868	8,296	100,701	155,516	346,412	123,450	121,091	172,065			8,486	1,082,614
2004	34,841		5,328	19,858	1,374	5,354	120,607	137,489	273,142	116,263	123,812	128,875			7,330	974,508
2005	17,189		3,073	22,001	337	27,726	148,127	111,200	378,659	103,628	81,563	49,278			3,913	946,694
2006	18,619		3,676	1,034	3,443	10,601	158,917	123,994	362,966	83,622	104,441	33,581			1,248	907,007
2007	13,120		2,853	1,230	935	14,881	169,902	139,647	343,141	97,361	69,177	37,937			7,379	897,943
2008	12,496		3,297	8,866	6,046	15,025	137,687	80,002	381,993	71,655	84,031	23,833			15,624	841,065
2009	2,525		1,217	4,855	435	12,676	118,533	59,619	335,575	58,863	117,974	65,481			6,824	784,577
2010	3,038		322	3,860	167	12,179	105,089	69,355	524,768	57,755	77,263	122,104			11,287	987,290
2011	4,065		408	2,038	60	36,451	120,576	92,181	715,162	29,010	103,222	61,960			25,601	1,190,764
2012	11,275		462.3	1,484	2,228	35,603	113,806	54,304	590,412	90,037	121,605	64,110			11,845	1,099,214
2013	6,691		2,530	2,244	546	42,845	90,244	82,991	587,872	32,290	100,379	33,980			15,059	999,072
2014	7,578		3,903	2,353	1,390	38,143	91,225	62,388	619,935	49,293	109,537	60,755			14,092	1,060,725
2015	4,142		2,213	1,538	2,271	50,194	88,828	44,708	493,043	31,588	86,715	57,791			5,632	868,663
2016	6,811		1,705	2,651	2,445	36,371	67,422	44,558	583,578	58,223	96,336	39,911			6,034	946,110
2017	6,358		592	2,968	905	41,732	77,499	29,945	541,270	33,555	97,328	24,752			7,456	864,360
2018	2,832		375	3,988	3,268	39,218	69,679	31,378	514,226	31,151	57,281	18,058			4,659	776,131
2019	2567		1,577	4,056	5,275	33,039	76,241	13,628	331,878	27,111	34,247	8,140			1,542	539,301
2020*				1,425	2,783	9,865	23,340	1,942	134,024	24,971	14,799	3,291			499	218,005

Table 7. Commercial yellow eel landings, 1904-2020. Landings from 1904-1997 are estimated from historical records. Landings from 1998-2019 were validated by ACCSP. 2020 data is considered preliminary.

Year	Pounds
1904	29,398
1908	44,585
1909	7,414
1913	130,086
1916	66,990
1917	43,191
1918	47,390
1922	
1924	43,249
1925	58,435
1926	36,099
1927	30,767
1928	41,211
1929	62,071
1930	39,652
1931	
1932	50,784
1933	40,247
1934	58,307
1935	46,243
1936	45,718
1937	34,989
1938	43,964
1939	33,099
1940	33,850
1941	35,556
1942	19,031
1943	22,178
1944	11,512
1945	19,293
1946	24,632
1947	24,567
1948	15,973
1949	19,486
1950	2,103,285
1951	1,849,638
1952	1,618,200
1953	1,411,593
1954	1,193,140

Year	Pounds
1955	1,373,978
1956	1,448,058
1957	1,260,997
1958	1,390,175
1959	1,329,426
1960	888,605
1961	836,994
1962	664,092
1963	987,741
1964	1,072,243
1965	1,563,100
1966	1,277,700
1967	1,596,947
1968	1,663,620
1969	1,872,026
1970	2,158,000
1971	2,483,484
1972	1,595,776
1973	1,346,769
1974	3,110,169
1975	3,573,132
1976	2,502,037
1977	2,118,940
1978	3,603,227
1979	3,667,066
1980	3,379,200
1981	3,057,253
1982	2,267,321
1983	1,797,503
1984	2,491,947
1985	2,143,703
1986	2,004,078
1987	1,640,431
1988	1,445,105
1989	1,680,693
1990	1,549,164
1991	1,714,400
1992	1,439,688
1993	1,596,202

Year	Pounds
1994	1,586,665
1995	1,339,690
1996	1,600,445
1997	828,071
1998	992,741
1999	1,011,093
2000	894,577
2001	929,523
2002	717,698
2003	1,082,614
2004	974,508
2005	946,694
2006	907,007
2007	897,943
2008	841,065
2009	784,577
2010	987,290
2011	1,190,764
2012	1,099,214
2013	999,072
2014	1,060,725
2015	868,663
2016	946,110
2017	864,360
2018	776,131
2019	539,301
2020	218,005

Table 8. Annual recreational harvest (Type A + B1) and released alive (Type B2) estimates for American eels along the U.S. east coast as estimated by MRIP, 1981–2019. Proportional standard error (PSE) values greater than 50 indicate an imprecise estimate and are highlighted in pink.

Year	Total Harvest (A+B1)	PSE	Harvest (A+B1) Total Weight (lb)	PSE	Harvest (A+B1) Total Weight (kg)	PSE	Released Alive (B2)	PSE
1981	345,745	32.2	348,961	29.4	158,288	29.4	253,712	33.7
1982	583,954	27.7	402,936	19.8	182,770	19.8	237,000	38.6
1983	283,193	51.3	399,566	61.2	181,242	61.2	278,063	32.7
1984	216,756	32.8	211,703	31.5	96,028	31.5	125,987	32.9
1985	413,188	35.8	375,122	39.2	170,154	39.2	164,441	23.2
1986	407,478	45.4	394,427	48.0	178,911	48.0	272,637	27.5
1987	106,042	35.5	109,515	45.0	49,676	45.0	253,065	30.7
1988	275,933	26.7	228,575	27.8	103,681	27.8	211,949	21.7
1989	147,906	26.0	185,379	28.3	84,087	28.3	333,884	24.0
1990	79,615	30.3	98,068	30.5	44,483	30.5	205,143	20.7
1991	183,068	30.2	160,051	27.8	72,599	27.8	197,984	27.1
1992	130,003	47.8	57,381	40.4	26,028	40.4	127,573	25.1
1993	172,408	39.5	164,114	47.1	74,442	47.1	193,369	19.7
1994	112,381	30.7	110,976	38.5	50,338	38.5	145,291	19.6
1995	20,359	51.6	24,897	52.3	11,293	52.3	192,650	27.4
1996	43,388	35.1	33,294	40.3	15,102	40.3	169,983	22.0
1997	78,187	65.4	78,268	49.6	35,502	49.6	91,594	36.1
1998	20,121	43.5	32,343	47.0	14,671	47.0	144,150	32.7
1999	20,249	44.9	35,128	64.3	15,934	64.3	100,894	27.2
2000	114,158	92.9	59,770	97.7	27,112	97.7	149,152	34.3
2001	32,026	74.0	22,309	65.6	10,119	65.6	84,368	28.7
2002	14,236	47.7	16,620	61.4	7,539	61.4	139,477	25.9
2003	151,008	80.4	4,670	71.3	2,118	71.3	322,919	17.5
2004	134,759	50.4	129,412	55.7	58,701	55.7	204,406	24.4
2005	23,006	53.9	19,502	58.5	8,846	58.5	178,189	34.5
2006	64,147	60.1	40,387	57.9	18,319	57.9	377,834	43.2
2007	102,962	60.2	83,649	67.3	37,943	67.3	242,656	40.3
2008	9,245	56.4	2,856	71.7	1,295	71.7	173,235	36.0
2009	48,518	63.0	25,374	72.8	11,510	72.8	285,954	27.0
2010	371,184	78.1	97,425	58.5	44,192	58.5	304,511	27.6
2011	40,789	59.5	38,918	87.8	17,653	87.8	302,883	24.9
2012	93,736	49.6	31,745	56.9	14,400	56.9	445,654	25.7
2013	33,083	50.2	18,329	28.7	8,314	28.7	430,905	24.6
2014	23,206	53.0	51,588	63.0	23,400	63.0	480,481	52.3
2015	11,510	55.4	21,866	90.5	9,918	90.5	181,830	26.8
2016	155,099	22.6	223,854	20.4	101,539	20.4	201,875	31.2
2017	63,500	84.7	94,229	76.9	42,742	76.9	246,360	22.6
2018	148,807	67.3	142,169	67.7	64,487	67.7	145,357	43.2
2019	14,052	69.7	16,743	93.9	7,595	93.9	117,157	30.5

Table 9. Annual number of total intercepts and intercepts that encountered American eels in the MRIP survey, 1981–2019.

Year	Intercepts	Intercepts with Am Eel	% Intercepts with Am Eel
1981	20,682	42	0.20
1982	26,851	37	0.14
1983	31,014	31	0.10
1984	26,560	26	0.098
1985	34,727	34	0.098
1986	38,076	46	0.12
1987	41,438	35	0.084
1988	50,587	49	0.097
1989	61,305	48	0.078
1990	59,842	29	0.048
1991	68,444	43	0.063
1992	79,746	20	0.025
1993	79,662	25	0.031
1994	89,772	32	0.036
1995	83,969	10	0.012
1996	84,920	17	0.020
1997	89,689	11	0.012
1998	94,211	9	0.0096
1999	102,314	10	0.0098
2000	97,930	6	0.0061
2001	114,874	7	0.0061
2002	110,342	11	0.010
2003	113,238	19	0.017
2004	94,341	14	0.015
2005	92,189	7	0.0076
2006	90,528	8	0.0088
2007	94,033	11	0.012
2008	92,270	6	0.0065
2009	85,407	8	0.0094
2010	97,157	9	0.0093
2011	91,092	5	0.0055
2012	94,565	15	0.016
2013	74,659	13	0.017
2014	84,302	15	0.018
2015	84,899	7	0.0082
2016	83,934	14	0.017
2017	85,590	9	0.011
2018	88,722	16	0.018
2019	87,340	6	0.0069

Table 10. Surveys considered for developing abundance indices for American eels. Table indicates which surveys were accepted for index development and which were rejected and why. Table continued on next page.

State	Site	Start Year	End Year	Stage	Include?	Reason for Exclusion
ME	West Harbor Pond	2001	2019	YOY	Y	
ME	Juvenile Finfish Beach Seine Survey	2000	2019	Elver	Y	
ME	Life Cycle Study	2019	2019	All	N	Time series too short
NH	Lamprey River	2001	2020	YOY	Y	
NH	Oyster River	2014	2020	YOY	N	Time series too short
NH	Rainbow Smelt Fyke Net Survey	2008	2020	Yellow	Y	
MA	Jones River	2001	2019	YOY	Y	
MA	Wankinco River	2009	2019	YOY	Y	
MA	Saugus River	2009	2019	Age-1	Y	
MA	Rainbow Smelt Fyke Net Survey	2004	2019	Yellow	Y	
RI	Gilbert Stuart Dam	2000	2019	YOY	Y	
RI	Hamilton Fish Ladder	2004	2019	YOY	Y	
RI	Coastal Trawl	1979	2019		N	Rarely encounters eel
RI	Narrangansett Bay Seine Survey	1988	2019	Yellow	N	Rarely encounters eel
RI	Coastal Ponds	1992	2020	Yellow	N	Rarely encounters eel
CT	Ingham Hill	2007	2019	YOY	Y	
CT	Farmhill River	2001	2014	Yellow	Y	
CT	Eightmile River	2001	2020	Yellow	Y	
CT	Terry Brook	2009	2020	Yellow	N	Rarely encounters eel
NY	HRE Monitoring	1974	2017	YOY	Y	
NY	HRE Monitoring	1974	2017	Yellow	Y	
NY	Carmans River	2000	2019	YOY	Y	
NY	Hudson River	2008	2020	YOY	Y	
NY	Hudson Juvenile Alosine	1985	2019	Yellow	Y	
NY	Hudson Juv Striped Bass	1980	2019	Yellow	Y	
NY	Western Long Island	1984	2019	Yellow	N	Low % positive tows
NJ	Little Egg Inlet	1992	2015	YOY	Y	
NJ	Patcong Creek	1999	2020	YOY	Y	
NJ	Glass Eel Alternative Collector Survey	2012	2020	YOY	N	Time series too short
NJ	Barnegat Bay	2012	2020	YOY	N	Time series too short
NJ	Delaware Bay Trawl	1991	2019	Yellow	N	Low % positive tows
NJ	Delaware River Seine	1998	2019	Yellow	Y	
DE	DE River Commercial Eel Pots	1999	2019	Yellow	N	Survey design issues
DE	DE River Commercial Eel Pots	2012	2019	Yellow	N	Survey design issues
DE	Delaware Juvenile Trawl	1980	2019	Yellow	Y	
DE	Delaware River - Millsboro	2000	2020	YOY	Y	
PA	Delaware River Area 6	1999	2020	Elver	Y	
PA	Delaware River Area 6	2005	2020	Yellow	Y	
PA	Susquehanna River - Octoraro	2015	2019	Elver	N	Time series too short
MD	Susquehanna River - Conowingo	2008	2019	Elver	Y	

State	Site	Start Year	End Year	Stage	Include?	Reason for Exclusion
MD	MDDNR Striped Bass Seine	1967	2019	yellow	N	Low eel catch
MD	Turville Creek	2000	2019	YOY	Y	
MD	Sassafras	2006	2019	yellow	Y	
DC	DC Potomac	2008	2019	yellow	N	Data format issues
PRFC	Clark's Millpond	2000	2016	YOY	Y	
PRFC	Gardy's Millpond	2000	2019	YOY	Y	
PRFC	Clark's Millpond	2000	2016	Elver	Y	
PRFC	Gardy's Millpond	2000	2019	Elver	Y	
VA	VIMS Trawl Survey	1955	2019	yellow	Y	
VA	DWR Fish Passage Rappahannock, Appomattox	2015, 2019	2015, 2019	yellow	N	Time series too short
VA	DWR Rivanna Watershed Survey	2019	2019	yellow	N	Time series too short
VA	DWR Depletion Survey Lynchburg	2019	2019	yellow	N	Time series too short
VA	VIMS Trawl Short	1996	2019	yellow	Y	
VA	VIMS Seine Survey	1967	2019	yellow	Y	
VA	VIMS Seine Short	1989	2019	yellow	Y	
VA	Wormley Creek	2001	2019	YOY	Y	
VA	Bracken's Pond	2000	2017	YOY	Y	
VA	Kamp's Millpond	2000	2019	YOY	Y	
VA	Wareham's Pond	2003	2019	YOY	Y	
VA	Wormley Creek	2001	2019	Elver	Y	
VA	Bracken's Pond	2000	2017	Elver	Y	
VA	Kamp's Millpond	2000	2019	Elver	Y	
VA	Wareham's Pond	2003	2019	Elver	Y	
NC	Beaufort (BBISP)	1987	2019	YOY	Y	
NC	Pamlico Sound	1971	2019	mix	N	Rarely encounters eel
NC	Roanoke Rapids	2010	2019	yellow	N	Measures passage, not abundance
SC	Goose Creek	2000	2015	YOY	Y	
SC	Goose Creek	2016	2020	YOY	N	Time series too short
SC	various rivers electrofishing	2010	2020	yellow	N	Inconsistent methods
SC	Rediversion canal (fyke)	2003	2003	mix	N	Time series too short
SC	Rediversion canal (ladder corrugated)	2004	2014	mix	N	Time series too short
SC	Rediversion canal (ladder aluminum)	2003	2020	mix	Y	
GA	Altamaha Canal	2001	2013	YOY	Y	
GA	Hudson Creek	2003	2013	YOY	Y	
GA	Altamaha Pot Survey	2013	2020	yellow	N	Time series too short
FL	Guana	2001	2020	YOY	Y	
FL	Trawl FFR	2015	2015	YOY	N	Time series too short
FL	Fyke Net FFR	2018	2018	mix	N	Time series too short
FL	Electrofishing FFR	2006	2020	mix	N	Sampling method issues
FL	Various (MFR)	varies	varies	mix	N	Insufficient data

Table 11. Young-of-year American eel surveys accepted for use in this assessment.

State	Site	Abbreviation	Start Year	End Year
ME	West Harbor Pond	MEWHP	2001	2019
NH	Lamprey River	NHLR	2001	2020
MA	Jones River	MAJR	2001	2019
MA	Wankinco River	MAWR	2009	2019
RI	Gilbert Stuart Dam	RIGSD	2000	2019
RI	Hamilton Fish Ladder	RIHFL	2004	2019
CT	Ingham Hill	CTIH	2007	2019
NY	HRE Monitoring	NYHRE	1974	2017
NY	Carmans River	NYCR	2000	2019
NY	Hudson River	NYHR	2008	2020
NJ	Little Egg Inlet	NJLEI	1992	2015
NJ	Patcong Creek	NJPC	1999	2020
DE	Delaware River - Millsboro	DEM	2000	2020
MD	Turville Creek	MDTC	2000	2019
PRFC	Clark's Millpond	PRFCCM	2000	2013
PRFC	Gardy's Millpond	PRFCGM	2000	2019
VA	Wormley Creek	VAMC	2001	2019
VA	Bracken's Pond	VABP	2000	2015
VA	Kamp's Millpond	VAKM	2000	2019
VA	Wareham's Pond	VAWP	2003	2019
NC	Beaufort (BBISP)	NCBB	1987	2019
SC	Goose Creek	SCGC	2000	2015
GA	Altamaha Canal	GAAC	2001	2013
GA	Hudson Creek	GAHC	2003	2013
FL	Guana	FLG	2001	2020

Table 12. American eel elver surveys accepted for use in this assessment.

State	Site	Abbreviation	Start Year	End Year
ME	Juvenile Finfish Beach Seine Survey	MEJBS	2000	2019
MA	Saugus River	MASR	2007	2019
PA	Delaware River Area 6	PAA6	1999	2020
MD	Susquehanna River - Conowingo	MDSR	2008	2019
PRFC	Clark's Millpond	PRFCCM	2000	2013
PRFC	Gardy's Millpond	PRFCGM	2000	2019
VA	Wormley Creek	VAWC	2001	2019
VA	Bracken's Pond	VABP	2000	2015
VA	Kamp's Millpond	VAKM	2000	2019
VA	Wareham's Pond	VAWP	2003	2019

Table 13. Yellow eel surveys accepted for use in this assessment.

State	Site	Abbreviation	Start Year	End Year
NH	Rainbow Smelt Fyke Net Survey	NHRS	2008	2020
MA	Rainbow Smelt Fyke Net Survey	MARH	2004	2019
CT	Farmhill River	CTFR	2001	2014
CT	Eightmile River	CTER	2001	2020
NY	HRE Monitoring	NYHRE	1974	2017
NY	Hudson Juvenile Alosine	NYHJA	1985	2019
NY	Hudson Juv Striped Bass	NYHSB	1980	2019
NJ	Delaware River Seine	NJDRS	1998	2019
DE	Delaware Juvenile Trawl	DEJT	1980	2019
PA	Delaware River Area 6	PAA6	2005	2020
MD	Sassafras River	MDS	2006	2019
VA	VIMS Trawl Survey	VIMST	1955	2019
VA	VIMS Seine Survey	VIMSS	1967	2019
SC	Rediversion canal (aluminum ladder)	SCRC	2003	2020

Table 14. Spearman's rank correlation between YOY indices with correlation coefficients above the gray line and p-values below the gray line. Correlation coefficients are statistically significant at α < 0.10 and indicated with red fill. See Table 11 for survey abbreviations.

	MEWHP	NHLR	MAJR	MAWR	RIGSD	RIHFL	CTIH	NYHRE	NYCR	NYHR	NJLEI	NJPC	DEM	MDTC	PRFCCM	PRFCGM	VAWC	VABP	VAKM	VAWP	NCBB	SCGC	GAAC	GAHC	FLG
MEWHP		0.29	-0.39	-0.05	0.15	-0.12	-0.19	-0.19	0.59	0.37	0.11	0.28	0.17	-0.30	-0.16	0.41	-0.48	-0.03	0.28	0.16	-0.15	0.00	0.24	0.22	-0.24
NHLR	0.23		-0.26	-0.24	0.41	-0.05	-0.43	-0.02	0.41	0.05	-0.18	0.46	0.09	-0.42	-0.06	0.13	0.20	0.05	0.24	0.23	-0.35	-0.10	0.37	-0.33	-0.32
MAJR	0.10	0.27		0.00	-0.42	0.00	0.17	0.56	-0.48	-0.28	0.62	0.02	-0.27	-0.01	-0.42	0.07	-0.02	0.60	0.09	-0.06	0.07	0.51	0.46	0.61	0.50
MAWR	0.87	0.48	1.00		0.15	0.15	0.40	0.13	0.17	0.39	0.43	-0.05	0.39	0.72	-0.10	0.01	0.05	0.04	-0.31	0.47	-0.26	-0.25	0.20	0.80	-0.20
RIGSD	0.53	0.09	0.08	0.65		0.39	0.04	-0.04	0.42	-0.56	-0.40	0.29	0.21	0.03	-0.02	0.19	0.27	0.07	0.23	0.34	-0.34	-0.34	-0.21	0.06	-0.18
RIHFL	0.65	0.85	0.99	0.67	0.14		-0.18	-0.27	-0.06	-0.13	-0.34	-0.27	0.55	0.30	0.07	0.20	0.53	-0.17	0.27	0.22	-0.22	-0.08	-0.18	0.13	-0.02
CTIH	0.53	0.14	0.58	0.22	0.90	0.55		0.74	-0.02	-0.02	0.10	-0.25	-0.23	0.29	-0.18	-0.28	-0.04	0.37	0.00	0.03	-0.39	0.13	0.50	0.07	0.06
NYHRE	0.46	0.95	0.02	0.73	0.89	0.35	0.01		0.02	-0.45	0.35	-0.20	-0.14	0.20	-0.09	0.23	-0.01	0.57	0.47	-0.50	0.13	0.45	0.35	0.41	0.53
NYCR	0.01	0.08	0.04	0.61	0.07	0.82	0.94	0.94		0.37	0.02	0.25	-0.02	-0.26	0.27	0.28	-0.26	-0.30	0.18	-0.04	-0.28	-0.29	-0.34	-0.01	-0.33
NYHR	0.29	0.87	0.43	0.26	0.09	0.73	0.96	0.26	0.29		0.60	-0.07	-0.07	0.16	0.40	0.16	-0.41	-0.54	-0.61	0.02	0.05	-0.20	-0.40	0.80	0.10
NJLEI	0.69	0.52	0.01	0.34	0.13	0.29	0.80	0.09	0.94	0.21		0.38	-0.07	-0.24	-0.07	0.17	-0.29	0.04	-0.06	-0.36	0.17	0.38	0.18	0.68	0.18
NJPC	0.26	0.05	0.93	0.88	0.24	0.33	0.43	0.44	0.31	0.85	0.15		-0.08	-0.58	0.16	0.04	-0.27	0.04	0.02	0.06	-0.13	-0.21	0.10	0.45	-0.16
DEM	0.49	0.70	0.26	0.23	0.37	0.03	0.45	0.57	0.92	0.83	0.79	0.74		0.34	0.10	0.05	0.41	0.18	0.17	0.05	-0.45	-0.26	0.23	0.32	-0.17
MDTC	0.21	0.08	0.97	0.01	0.91	0.26	0.34	0.42	0.27	0.65	0.37	0.01	0.14		-0.29	-0.34	0.22	0.19	0.21	-0.95	0.16	-0.07	-0.51	0.18	-0.02
PRFCCM	0.59	0.84	0.15	0.87	0.93	0.85	0.70	0.77	0.35	0.60	0.81	0.59	0.73	0.31		-0.14	0.15	-0.24	0.28	-0.77	0.11	0.04	-0.51	0.18	0.25
PRFCGM	0.08	0.60	0.78	0.98	0.42	0.45	0.35	0.35	0.24	0.65	0.53	0.88	0.83	0.23	0.60		-0.31	-0.12	0.25	0.13	0.20	0.07	-0.10	0.22	0.23
VAWC	0.04	0.41	0.93	0.89	0.27	0.03	0.90	0.96	0.29	0.24	0.30	0.29	0.09	0.47	0.57	0.19		0.17	0.33	-0.09	-0.27	0.13	0.64	0.51	0.31
VABP	0.91	0.85	0.02	0.94	0.79	0.59	0.33	0.02	0.25	0.27	0.88	0.89	0.51	0.47	0.40	0.66	0.54		0.38	-0.08	-0.23	0.13	0.64	0.51	0.32
VAKM	0.25	0.33	0.72	0.36	0.32	0.31	1.00	0.05	0.45	0.06	0.83	0.94	0.47	0.47	0.28	0.29	0.90	0.21		-0.35	-0.04	0.25	0.23	0.24	0.52
VAWP	0.56	0.39	0.82	0.17	0.20	0.42	0.91	0.07	0.87	0.97	0.26	0.84	0.85	0.00	0.00	0.64	0.55	0.78	0.18		-0.09	-0.22	0.36	-0.22	-0.29
NCBB	0.55	0.15	0.78	0.43	0.14	0.41	0.19	0.48	0.24	0.88	0.42	0.57	0.05	0.57	0.69	0.39	0.17	0.32	0.88	0.73		0.38	-0.45	-0.10	0.52
SCGC	0.99	0.71	0.05	0.59	0.20	0.81	0.73	0.08	0.27	0.70	0.15	0.46	0.32	0.81	0.89	0.79	0.56	0.63	0.36	0.50	0.14		0.27	0.45	0.57
GAAC	0.44	0.21	0.12	0.75	0.49	0.63	0.25	0.25	0.26	0.60	0.55	0.76	0.46	0.08	0.08	0.73	0.67	0.02	0.45	0.31	0.13	0.37		0.27	-0.08
GAHC	0.52	0.33	0.05	0.10	0.85	0.73	0.88	0.21	0.98	0.20	0.02	0.19	0.34	0.59	0.59	0.52	0.81	0.11	0.48	0.53	0.77	0.17	0.42		0.28
FLG	0.34	0.19	0.03	0.58	0.48	0.95	0.86	0.04	0.18	0.78	0.53	0.54	0.50	0.95	0.36	0.36	0.54	0.27	0.03	0.30	0.03	0.03	0.80	0.43	

Table 15. Spearman's rank correlation between elver indices with correlation coefficients above the gray line and p-values below the gray line. Correlation coefficients are statistically significant at α < 0.10 and indicated with red fill. See Table 12 for survey abbreviations.

	MEJBS	MASR	PAA6	MDSR	PRFCCM	PRFCGM	VAWC	VABP	VAKM	VAWP
MEJBS		-0.45	-0.53	-0.51	-0.13	-0.05	0.19	-0.29	-0.17	0.54
MASR	0.17		0.35	0.03	0.20	0.14	0.15	-0.36	-0.38	-0.13
PAA6	0.02	0.29		0.26	0.28	-0.05	-0.06	0.33	-0.13	-0.03
MDSR	0.09	0.94	0.41		-0.09	0.52	0.02	0.40	0.30	0.15
PRFCCM	0.65	0.75	0.34	0.87		0.41	0.21	-0.27	0.62	-0.43
PRFCGM	0.85	0.69	0.82	0.08	0.14		-0.19	-0.29	0.24	0.16
VAWC	0.44	0.67	0.81	0.95	0.49	0.44		0.19	0.16	0.18
VABP	0.28	0.43	0.22	0.32	0.34	0.28	0.51		-0.19	0.19
VAKM	0.47	0.25	0.59	0.34	0.02	0.30	0.50	0.49		-0.20
VAWP	0.03	0.73	0.90	0.65	0.21	0.54	0.51	0.56	0.45	

Table 16. Spearman's rank correlation between yellow eel indices with correlation coefficients above the gray line and p-values below the gray line. Correlation coefficients are statistically significant at α < 0.10 and indicated with red fill. See Table 13 for survey abbreviations.

	NHRS	MARS	CTFR	CTER	NYHRE	NYHJA	NYHSB	NJDRS	DEJT	PAA6	MDS	VIMST	VIMSS	SCRC
NHRS		0.17	-0.26	-0.18	0.26	0.29	0.48	-0.22	-0.24	0.54	-0.44	0.19	-0.10	0.17
MARS	0.60		-0.01	0.15	-0.35	0.20	-0.06	0.16	0.07	-0.05	-0.56	0.06	-0.15	-0.20
CTFR	0.62	0.99		0.50	0.68	-0.02	0.19	-0.07	0.21	-0.12	0.29	-0.37	0.02	0.63
CTER	0.60	0.60	0.10		0.03	0.17	-0.35	-0.04	-0.33	-0.15	-0.51	-0.49	0.07	-0.28
NYHRE	0.47	0.23	0.01	0.93		0.17	0.59	-0.27	-0.22	-0.05	0.75	0.47	-0.36	0.58
NYHJA	0.35	0.46	0.96	0.52	0.35		0.27	0.45	-0.25	0.12	-0.55	0.52	-0.27	-0.27
NYHSB	0.12	0.81	0.53	0.17	0.00	0.11		0.09	0.12	0.30	0.23	0.61	-0.13	0.14
NJDRS	0.50	0.56	0.83	0.87	0.25	0.03	0.68		0.32	0.06	-0.21	0.23	-0.32	-0.22
DEJT	0.46	0.79	0.49	0.19	0.19	0.14	0.47	0.15		0.28	0.21	-0.02	0.20	-0.24
PAA6	0.06	0.86	0.77	0.61	0.86	0.66	0.27	0.83	0.31		-0.20	0.56	0.00	0.16
MDS	0.15	0.04	0.49	0.07	0.01	0.04	0.43	0.46	0.47	0.49		0.07	0.03	0.46
VIMST	0.56	0.83	0.21	0.05	0.00	0.00	0.00	0.29	0.89	0.03	0.82		0.04	0.35
VIMSS	0.76	0.59	0.94	0.80	0.03	0.12	0.44	0.15	0.24	0.99	0.92	0.79		0.15
SCRC	0.60	0.50	0.07	0.34	0.04	0.33	0.63	0.44	0.38	0.57	0.12	0.21	0.58	

Table 17. Estimate population growth rates from Multivariate Auto-Regressive State-Space (MARSS) models fit to time series of relative abundance indices for American eels life stages along the Atlantic coast.

Life stage	Years	Number of surveys included	Growth Rate (95% CI)
Yellow	1974 – 2020	14	-0.023 (-0.058, 0.012)
Elver	1999 – 2020	10	0.007 (-0.014, 0.027)
YOY	1987 – 2020	25	-0.010 (-0.042, 0.022)

Table 18. YOY, elver, and yellow eel indices and CVs developed with the Conn (2010) method.

	YOY		Elver		Yellow	
Year	Index	CV	Index	CV	Index	CV
1955					1.53	1.00
1956					0.99	0.91
1957					0.60	0.96
1958					0.91	0.90
1959					0.67	0.90
1960					0.57	0.93
1961					0.83	0.90
1962					0.61	0.91
1963					0.53	0.88
1964					0.43	0.92
1965					0.42	0.92
1966					0.66	0.88
1967					0.63	0.63
1968					2.09	0.53
1969					1.19	0.85
1970					0.42	0.64
1971					1.03	0.57
1972					0.43	0.64
1973					1.33	0.86
1974					1.56	0.32
1975					1.68	0.32
1976					1.67	0.32
1977					1.27	0.32
1978					0.89	0.33
1979					1.00	0.35
1980					0.97	0.27
1981					2.11	0.26
1982					2.13	0.26
1983					2.21	0.27
1984					2.35	0.26
1985					1.76	0.24
1986					1.69	0.24
1987	0.91	0.65			1.53	0.25

	YOY		Elver		Yellow	
Year	Index	CV	Index	CV	Index	CV
1988	1.21	0.65			1.41	0.24
1989	1.65	0.65			1.10	0.23
1990	0.86	0.64			1.07	0.23
1991	0.60	0.70			0.97	0.23
1992	1.08	0.38			1.06	0.23
1993	1.31	0.38			0.70	0.23
1994	1.83	0.38			0.87	0.23
1995	1.50	0.38			0.92	0.23
1996	0.92	0.39			1.12	0.23
1997	0.93	0.39			1.00	0.26
1998	1.81	0.41			0.78	0.23
1999	0.73	0.38			0.93	0.23
2000	1.08	0.30	0.43	0.43	0.72	0.23
2001	1.61	0.27	1.47	0.36	0.78	0.18
2002	1.22	0.27	1.04	0.33	0.68	0.19
2003	0.88	0.25	1.06	0.34	0.61	0.18
2004	0.64	0.24	1.23	0.31	0.98	0.19
2005	1.12	0.25	0.77	0.31	0.67	0.18
2006	0.65	0.26	1.01	0.30	0.68	0.17
2007	0.90	0.24	1.02	0.37	0.68	0.17
2008	0.73	0.24	1.30	0.31	0.82	0.17
2009	0.57	0.24	0.61	0.30	0.92	0.16
2010	0.56	0.24	0.88	0.30	0.89	0.16
2011	0.60	0.24	0.81	0.29	0.85	0.16
2012	0.80	0.24	0.73	0.29	0.78	0.17
2013	0.99	0.24	1.17	0.31	0.90	0.17
2014	0.85	0.24	1.37	0.31	0.73	0.17
2015	0.83	0.24	1.11	0.31	0.82	0.17
2016	0.58	0.27	1.09	0.34	0.62	0.18
2017	0.71	0.26	0.92	0.31	0.73	0.18
2018	1.04	0.26	0.92	0.32	0.50	0.21
2019	0.81	0.29	1.06	0.35	0.68	0.19
2020	1.50	0.51			0.33	0.39

Table 19. Results of power analysis conducted on fishery-independent surveys of American eel along the Atlantic coast. Values of statistical power were calculated for linear and exponential trends of ±50% change over a 10-year period. Table continues on next several pages.

State	Survey/Site	Life stage	Median CV	Linear+50 %	Linear-50%	Exponential+50 %	Exponential-50%
MA	Saugus River	Elver	0.2181	0.60	0.79	0.60	0.80
ME	ME Beach Seine	Elver	0.3050	0.39	0.54	0.40	0.56
PA	Delaware River Area 6	Elver	0.2018	0.65	0.84	0.66	0.85
PA	Susquehanna River	Elver	0.2233	0.58	0.77	0.59	0.78
VA	Bracken's Pond	Elver	0.2213	0.59	0.78	0.60	0.79
VA	Clark's Millpond	Elver	0.2190	0.59	0.78	0.60	0.79
VA	Gardy's Millpond	Elver	0.1870	0.71	0.88	0.72	0.89
VA	Kamp's Millpond	Elver	0.2327	0.55	0.74	0.56	0.75
VA	Wareham's Pond	Elver	0.2272	0.57	0.76	0.57	0.77
VA	Wormley Creek	Elver	0.2040	0.65	0.83	0.65	0.84
SC	Patcong Creek	Mix	0.3931	0.28	0.39	0.29	0.41
MA	MA Rainbow Smelt	Yellow	0.2483	0.51	0.69	0.51	0.71
NH	NH Rainbow Smelt	Yellow	0.0763	1.00	1.00	1.00	1.00
CT	Eightmile River	Yellow	0.0638	1.00	1.00	1.00	1.00
CT	Farmill River	Yellow	0.0433	1.00	1.00	1.00	1.00

NY	Alosine Beach Seine	Yellow	0.2414	0.53	0.71	0.53	0.73
NY	HRE Monitoring	Yellow	0.0792	1.00	1.00	1.00	1.00
NY	Striped Bass Beach Seine	Yellow	0.2746	0.44	0.62	0.45	0.63
DE	Delaware River Seine	Yellow	0.4620	0.23	0.31	0.24	0.34
DE	Delaware River Trawl	Yellow	0.0113	1.00	1.00	1.00	1.00
PA	Delaware River Area 6	Yellow	0.2318	0.55	0.74	0.56	0.75
MD	South Atl.sSouth Atl.fras River	Yellow	0.0939	1.00	1.00	1.00	1.00
VA	VIMMS Seine (Short)	Yellow	0.3079	0.38	0.53	0.39	0.56
VA	VIMS Seine	Yellow	0.4603	0.23	0.31	0.24	0.34
VA	VIMS Trawl	Yellow	0.2846	0.42	0.59	0.43	0.61
VA	VIMS Trawl (Short)	Yellow	0.2179	0.60	0.79	0.60	0.80
MA	Wankinco River	YOY	0.2751	0.44	0.61	0.45	0.63
ME	West Harbor Pond	YOY	0.4189	0.26	0.36	0.27	0.38
NH	Jones River	YOY	0.3650	0.30	0.43	0.31	0.45
NH	Lamprey River	YOY	0.3354	0.34	0.48	0.35	0.50
CT	Ingam Hill	YOY	0.1861	0.72	0.89	0.72	0.89
NY	Carman's River	YOY	0.1827	0.73	0.90	0.73	0.90
RI	Gilbert Stuart Dam	YOY	0.2179	0.60	0.79	0.60	0.80

RI	Hamiton Fish Ladder	YOY	0.1978	0.67	0.85	0.67	0.86
NY	HRE Monitoring	YOY	0.1817	0.73	0.90	0.74	0.90
NY	Hudson R.son River	YOY	0.1064	0.99	1.00	0.99	1.00
DE	Millsboro River	YOY	0.2786	0.44	0.60	0.44	0.62
NJ	Little Egg Inlet	YOY	0.1683	0.79	0.93	0.79	0.94
NJ	Patcong Creek	YOY	0.2586	0.48	0.66	0.49	0.68
MD	Turville Creek	YOY	0.2261	0.57	0.76	0.58	0.77
PRFC	Clark's Millpond	YOY	0.2793	0.43	0.60	0.44	0.62
PRFC	Gardy's Millpond	YOY	0.2825	0.43	0.59	0.44	0.61
VA	Bracken's Pond	YOY	0.2325	0.55	0.74	0.56	0.75
VA	Kamp's Millpond	YOY	0.2774	0.44	0.61	0.45	0.63
VA	Wareham's Pond	YOY	0.2614	0.47	0.65	0.48	0.67
VA	Wormley Creek	YOY	0.2693	0.46	0.63	0.46	0.65
FL	Guana River	YOY	0.2560	0.49	0.67	0.50	0.68
GA	Altamaha Canal	YOY	0.3447	0.33	0.46	0.34	0.49
GA	Hudson R.son Creek	YOY	0.4805	0.22	0.30	0.23	0.33
NC	Beufort (BBISP)	YOY	0.2382	0.53	0.72	0.54	0.73
SC	Gilbert Stuart Dam	YOY	0.2030	0.65	0.83	0.66	0.84
MA	South Atl.ugus River	Elver	0.2181	0.60	0.79	0.60	0.80

Table 20. Results of the Mann-Kendall trend analysis applied to YOY indices. *P*-value is the two-tailed probability for the trend test and trend indicates the direction of the trend if a statistically significant temporal trend was detected (*P*-value < α; α = 0.05). NS = not significant.

State	Site	Gear	n	tau	*P*-value	Trend
ME	West Harbor Pond	Irish Elver Ramp	19	0.35	0.042	↑
NH	Lamprey River	Irish Elver Ramp	20	0.13	0.46	NS
MA	Jones River	Sheldon Trap	19	-0.51	0.0026	↓
MA	Wankinco River	Ramp	11	0.35	0.16	NS
RI	Gilbert Stuart Dam	Irish Elver Ramp	20	0.15	0.38	NS
RI	Hamilton Fish Ladder	Irish Elver Ramp	16	0.067	0.75	NS
CT	Ingham Hill	Irish Elver Ramp	13	0.026	0.95	NS
NY	Carmans River	Fyke Net	20	0.18	0.28	NS
NY	HRE Monitoring	Epibenthic sled and tucker trawl	44	-0.087	0.41	NS
NY	Hudson River	Fyke Net	11	0.78	0.0011	↑
NJ	Little Egg Inlet	Plankton net	24	-0.36	0.016	↓
NJ	Patcong Creek	Fyke Net	21	0.21	0.19	NS
DE	Millsboro River	Fyke Net	21	0.12	0.45	NS
MD	Turville Creek	Irish Elver Ramp	20	-0.084	0.63	NS
PRFC	Clark's Millpond	Irish Elver Ramp	14	0.14	0.51	NS
PRFC	Gardy's Millpond	Irish Elver Ramp	20	-0.19	0.26	NS
VA	Bracken's Pond	Irish Elver Ramp	16	-0.25	0.19	NS
VA	Kamp's Millpond	Irish Elver Ramp	20	-0.22	0.18	NS
VA	Wareham's Pond	Irish Elver Ramp	16	0.33	0.079	NS
VA	Wormley Creek	Irish Elver Ramp	19	-0.076	0.67	NS
NC	Beaufort (BBISP)	Neuston plankton net	33	-0.13	0.31	NS
SC	Goose Creek	Fyke Net	16	-0.43	0.022	↓
GA	Altamaha Canal	Fyke Net	13	-0.21	0.36	NS
GA	Hudson Creek	Fyke Net	11	-0.13	0.64	NS
FL	Guana	Dip Net	19	-0.39	0.021	↓

Table 21. Results of the Mann-Kendall trend analysis applied to elver indices. *P*-value is the two-tailed probability for the trend test and trend indicates the direction of the trend if a statistically significant temporal trend was detected (*P*-value < α; α = 0.05). NS = not significant.

State	Site	Gear	n	tau	*P*-value	Trend
ME	Beach Seine Survey	Beach Seine	20	0.18	0.28	NS
MA	Saugus Ramp	Ramp	11	-0.45	0.06	NS
PA	Delaware River Area 6	Electrofishing	22	-0.24	0.13	NS
PA	Susquehanna River	Conowingo Elver Ramp	12	0.061	0.84	NS
PRFC	Clark's Millpond	Irish Elver Ramp	14	-0.16	0.44	NS
PRFC	Gardy's Millpond	Irish Elver Ramp	20	0.23	0.16	NS
VA	Bracken's Pond	Irish Elver Ramp	16	0.02	0.96	NS
VA	Kamp's Millpond	Irish Elver Ramp	20	0.053	0.77	NS
VA	Wareham's Pond	Irish Elver Ramp	16	0.4	0.034	↑
VA	Wormley Creek	Irish Elver Ramp	19	-0.37	0.03	↓

Table 22. Results of the Mann-Kendall trend analysis applied to yellow eel indices. *P*-value is the two-tailed probability for the trend test and trend indicates the direction of the trend if a statistically significant temporal trend was detected (*P*-value < α; α = 0.05). NS = not significant.

State	Site	Gear	n	tau	*P*-value	Trend
NH	Rainbow Smelt Fyke Net Survey	Fyke Net	11	0.018	1.0	NS
MA	Rainbow Smelt Fyke Net Survey	Fyke Net	16	-0.17	0.39	NS
CT	Eightmile River	Electrofishing	17	0.030	0.90	NS
CT	Farmill River	Electrofishing	13	0.28	0.20	NS
NY	HRE Monitoring Yellow	Epibenthic sled and tucker trawl	44	-0.29	0.0054	↓
NY	Hudson Juvenile Alosine	Beach Seine	35	-0.43	<0.001	↓
NY	Hudson Juvenile Striped Bass	Beach Seine	40	-0.44	<0.001	↓
NJ	Delaware River	Seine	22	-0.29	0.063	NS
DE	Delaware River Juvenile Trawl Survey	Trawl	40	0	1.0	NS
PA	Delaware River Area 6	Electrofishing	16	-0.39	0.038	↓
MD	Sassafras	Pot	14	0.71	<0.001	↑
VA	VIMS Seine	Seine	47	0.21	0.042	↑
VA	VIMS Seine (Short)	Seine	31	0.15	0.25	NS
VA	VIMS Trawl	Trawl	65	-0.045	0.60	NS
VA	VIMS Trawl (Short)	Trawl	24	-0.51	<0.001	↓
SC	Rediversion Canal	Aluminum ladder	16	0.191	0.303	NS

Table 23. Traffic light representation of the two composite index methods for YOY and yellow eel indices and commercial mean lengths.

Year	Conn Yellow	Conn YOY	MARSS Yellow	MARSS YOY	Mean Comm Length
1955	1.531				
1956	0.989				
1957	0.598				
1958	0.912				
1959	0.673				
1960	0.569				
1961	0.831				
1962	0.612				
1963	0.532				
1964	0.429				
1965	0.421				
1966	0.659				
1967	0.626				
1968	2.090				
1969	1.194				
1970	0.419				
1971	1.031				
1972	0.433				
1973	1.329				
1974	1.555		0.926		
1975	1.683		0.904		
1976	1.670		0.864		
1977	1.269		0.806		
1978	0.887		0.759		
1979	0.995		0.757		
1980	0.971		0.804		
1981	2.107		0.931		
1982	2.125		1.013		
1983	2.215		1.038		
1984	2.353		1.037		
1985	1.760		0.973		
1986	1.686		0.900		
1987	1.534	0.906	0.807	298.62	
1988	1.409	1.213	0.718	296.94	
1989	1.104	1.649	0.626	295.53	446
1990	1.066	0.861	0.569	292.70	355
1991	0.968	0.596	0.534	291.77	461
1992	1.063	1.080	0.518	295.19	413
1993	0.703	1.306	0.486	300.93	579
1994	0.866	1.829	0.500	305.14	504
1995	0.915	1.498	0.527	300.87	
1996	1.123	0.917	0.548	292.44	665
1997	1.003	0.933	0.523	288.14	386
1998	0.784	1.812	0.496	287.22	367
1999	0.927	0.732	0.483	279.24	379
2000	0.723	1.077	0.447	278.74	336
2001	0.777	1.613	0.429	278.92	418
2002	0.681	1.218	0.388	263.76	431
2003	0.607	0.879	0.378	244.84	397
2004	0.982	0.638	0.436	228.84	326
2005	0.666	1.123	0.415	225.16	345
2006	0.680	0.650	0.422	212.56	356
2007	0.678	0.900	0.445	206.83	380
2008	0.817	0.732	0.503	195.69	319
2009	0.923	0.567	0.521	183.97	347
2010	0.886	0.560	0.514	178.95	367
2011	0.854	0.599	0.480	183.02	410
2012	0.781	0.804	0.470	191.60	366
2013	0.898	0.989	0.479	198.29	447
2014	0.733	0.855	0.452	197.12	340
2015	0.825	0.828	0.442	194.13	371
2016	0.625	0.581	0.408	190.37	367
2017	0.731	0.709	0.397	194.52	419
2018	0.503	1.036	0.361	202.07	397
2019	0.681	0.811	0.361	203.27	417
2020	0.330	1.496	0.323	203.75	

Table 24. Parameters used in the American eel egg-per-recruit model. Separate models were developed for eels occupying estuarine and inland waters.

Parameter	Value/Equation	Source
Age of recruits	0	
Length of recruits	55 mm	Typical glass eel size (ASMFC 2012)
Growth rate (estuary)	72.5 mm/year (range: 65 – 80)	Fenske et al. 2010
Growth rate (inland)	38.5 mm/ year (range: 34 – 43)	Morrison and Secor 2003; Goodwin 1999
Glass eel natural mortality	3.91	Assumed to correspond to survival = 2%
Age-specific natural mortality	$M_i = 0.492 \cdot W_i^{-2.88}$ (±10%)	ASMFC 2012
Ratio of estuary to inland *M*	2.0 (range: 1.0 – 3.0)	Assumed
Fecundity	$\theta_i = (308.32 \cdot L_i^{2.293} + 18.20 \cdot L_i^{2.964})/2$	Tremblay 2009; Barbin and McCleave 1997
Maturity schedule (estuary)	$\rho_i = 1/\left[1 + e^{-(-10.43+0.02 \cdot L_i)}\right]$	ASMFC 2012
Maturity schedule (inland)	$\rho_i = 1/\left[1 + e^{-(-13.83+0.02 \cdot L_i)}\right]$	Eyler (Shanandoah River, unpublished data)
Weight-length relationship	$W_i = 0.00000034 \cdot L^{3.27}$	ASMFC 2012
Fishery Recruitment (yellow eels)	$R_i = 1.0$ if length ≥ 228.6 mm, else $R_i = 0.0$	9 inch (228.6 mm) minimum length limit on yellow eels

Table 25. Parameter estimates from the surplus production model using the MARSS or Conn coastwide index and commercial yellow eel landings.

Parameter	MARSS	Conn
K	74,770,000	34,140,000
r	0.012	1.757
q	1.01E-08	2.70E-08
B_1	105,000,000	98,540,000
B_1/K	1.405	2.886
MSY	230,000	15,000,000
B_{MSY}	37,380,000	17,070,000
B_{2020}/B_{MSY}	0.99	1.99
F_{2020}/F_{MSY}	0.96	0.01

Table 26. Index-based methods used NEFSC (2020, Table 2.2) showing equations and details for each method.

Method	Details
Plan B smooth (PlanB)	$C_{targ,y+1:y+2} = \overline{C}_{3,y}(e^{\lambda})$, Where $\overline{C}_{3,y}$ is the most recent three year average $\overline{C}_{3,y} = \frac{1}{3}\sum_{t=1}^{t=3} C_{y-t}$, and λ is the slope of a log linear regression of a LOESS-smoothed average index of abundance (spring and fall) with span = 0.3: $\widehat{I}_y = LOESS(\overline{I}_y)$, and $LN(\widehat{I}_y) = b + \lambda y$
Islope (Islope)	$C_{targ,y+1:y+2} = 0.8\overline{C}_{5,y}(1 + 0.4e^{\lambda})$, where $\overline{C}_{5,y}$ is the most recent five-year average catch through year y-1: $\overline{C}_{5,y} = \frac{1}{5}\sum_{t=1}^{t=5} C_{y-t}$, and λ is the slope of a log-linear regression of the most recent five years of the averaged index: $LN(\overline{I}_y) = b + \lambda y$
Itarget (Itarget)	$C_{targ,y+1:y+2} = \left[0.5C_{ref}\left(\frac{\overline{I}_{5,y} - I_{thresh}}{I_{target} - I_{thresh}}\right)\right]$ $\overline{I}_{5,y} \geq I_{thresh}$ $C_{targ,y+1:y+2} = \left[0.5C_{ref}\left(\frac{\overline{I}_{5,y}}{I_{thresh}}\right)^2\right]$ $\overline{I}_{5,y} < I_{thresh}$ C_{ref} is the average catch over the reference period (years 26 through 50): $C_{ref} = \frac{1}{25}\sum_{y=26}^{y=50} C_y$, Itarget is 1.5 times the average index over the reference period: $I_{target} = 1.5\left(\frac{1}{25}\sum_{y=26}^{y=50}\overline{I}_y\right)$, $I_{thresh} = 0.8\, I_{target}$ and $\overline{I}_{5,y}$ is the most recent five year average of the combined

Table 26. ***Continued*****.**

Skate (Skate)	$C_{targ,y+1:y+2} = F_{rel}\overline{I}_{3,y}$, where $F_{rel} = median\left(\frac{\overline{C}_{3,\mathbf{Y}}}{\overline{I}_{3,\mathbf{Y}}}\right)$ is the median relative fishing mortality rate calculated using a 3 year moving average of the catch and average survey index across all available years ($\mathbf{Y}$): $\overline{C}_{3,y} = \frac{1}{3}\sum_{t=1}^{t=3} C_{y-t}$ $\overline{I}_{3,y} = \frac{1}{3}\sum_{t=1}^{t=3} I_{y-t+1}$

Table 27. Coastwide removals (landings in lbs) and recommended removals by year under three assumptions of $I_{TARG\ MULT}$ Low = 1.0 (least conservative) Base =1.25, and High = 1.5 (most conservative).

Year	Landings	Recommended removals (lbs.)		
		Base	Low multiple	High multiple
1990	1,549,164	675,391	1,055,298	469,021
1991	1,714,400	551,294	861,397	382,843
1992	1,439,688	484,406	756,884	336,393
1993	1,596,202	436,311	681,736	302,994
1994	1,586,665	417,655	652,586	290,038
1995	1,339,690	422,567	660,261	293,449
1996	1,600,445	457,967	715,573	318,033
1997	828,071	471,154	736,178	327,190
1998	992,741	453,191	708,110	314,716
1999	1,011,093	416,117	650,183	288,970
2000	894,577	375,333	586,458	260,648
2001	929,523	340,892	532,644	236,730
2002	717,698	295,221	461,283	205,015
2003	1,082,614	263,671	411,987	183,105
2004	974,508	266,817	416,902	185,290
2005	946,694	278,604	435,320	193,475
2006	907,007	298,977	467,152	207,623
2007	897,943	303,064	473,537	210,461
2008	841,065	346,381	541,220	240,542
2009	784,577	398,130	622,078	276,479
2010	987,290	436,544	682,100	303,155
2011	1,190,764	423,604	661,881	294,169
2012	1,099,214	395,865	618,540	274,907
2013	999,072	377,320	589,562	262,028
2014	1,060,725	362,820	566,906	251,958
2015	868,663	348,098	543,903	241,735
2016	946,110	313,154	489,303	217,468
2017	864,360	287,012	448,456	199,314
2018	776,131	251,177	392,464	174,428
2019	539,301	231,202	361,253	160,557
2020	218,005	201,516	314,869	139,942

13 FIGURES

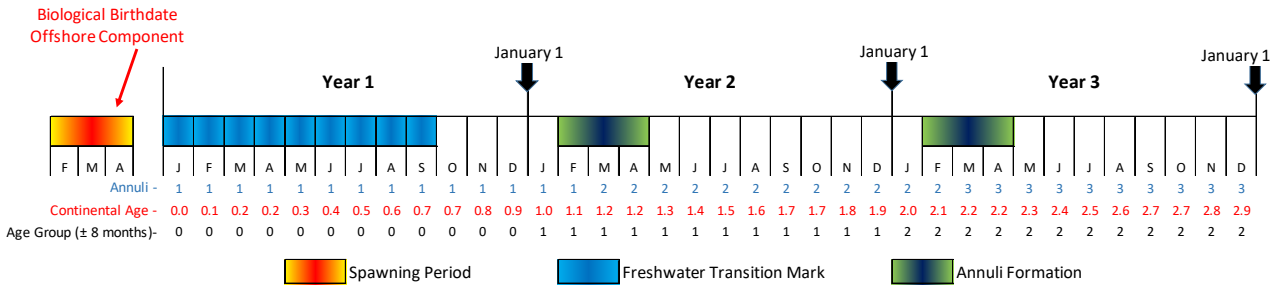


Figure 1. Proposed ageing timeline for American eel as developed for the Gulf and Atlantic States Marine Fisheries Commissions joint ageing manual which is currently in preparation. As noted in the draft manual, further work is needed to identify the annuli deposition period, but deposition likely occurs when water temperatures reach 10˚ C.

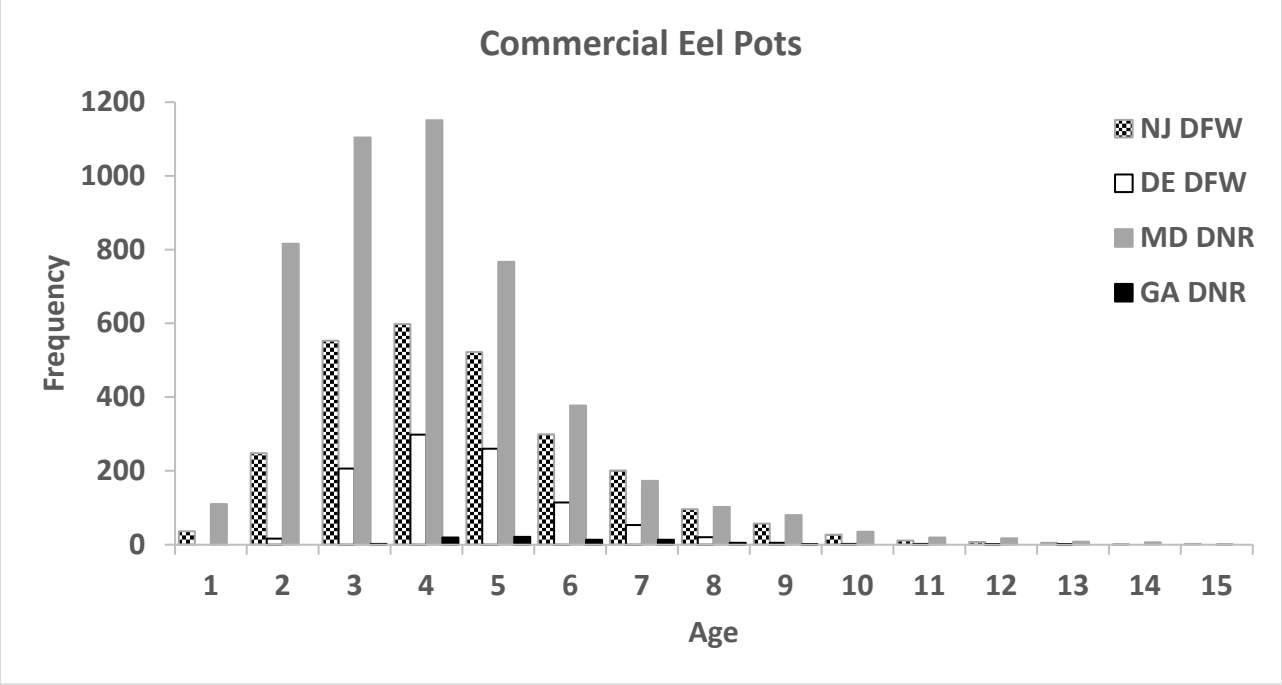


Figure 2. Age frequency by agency for commercial eel pot biosampling programs.

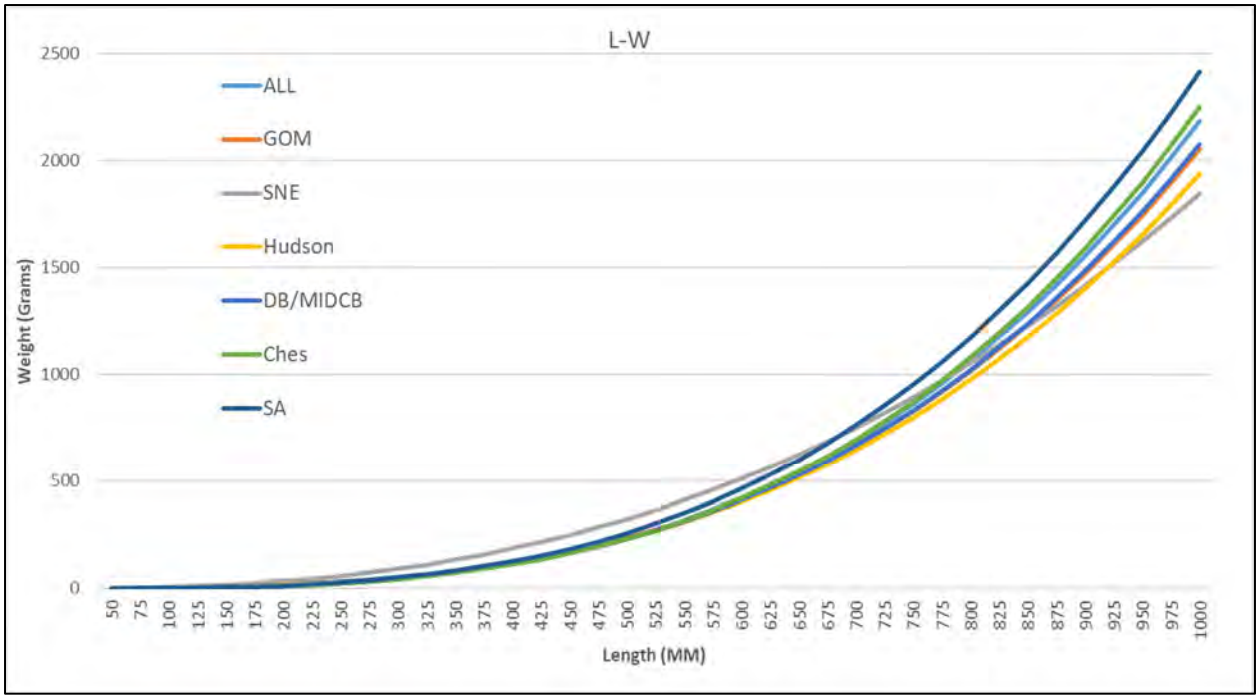


Figure 3. Predicted length-weight relation for American eel based on available data, by region and all pooled.

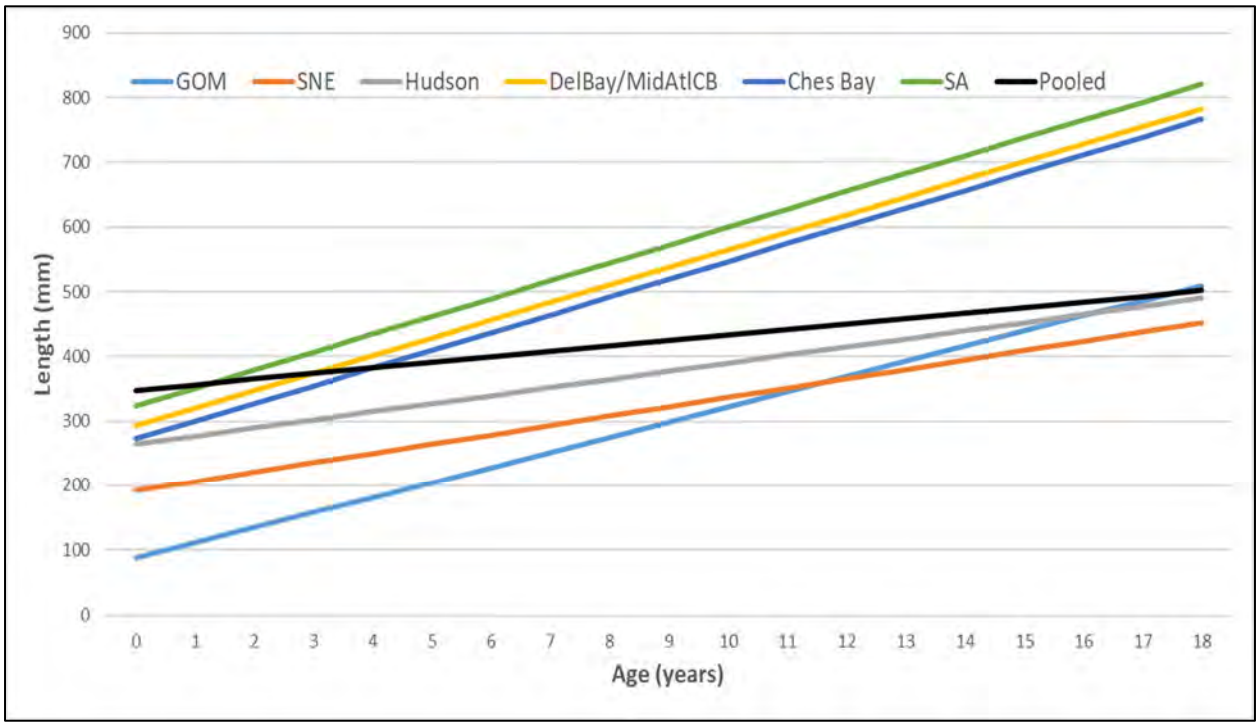


Figure 4. Predicted linear age-length relation for American eel based on available data, by region and all pooled.

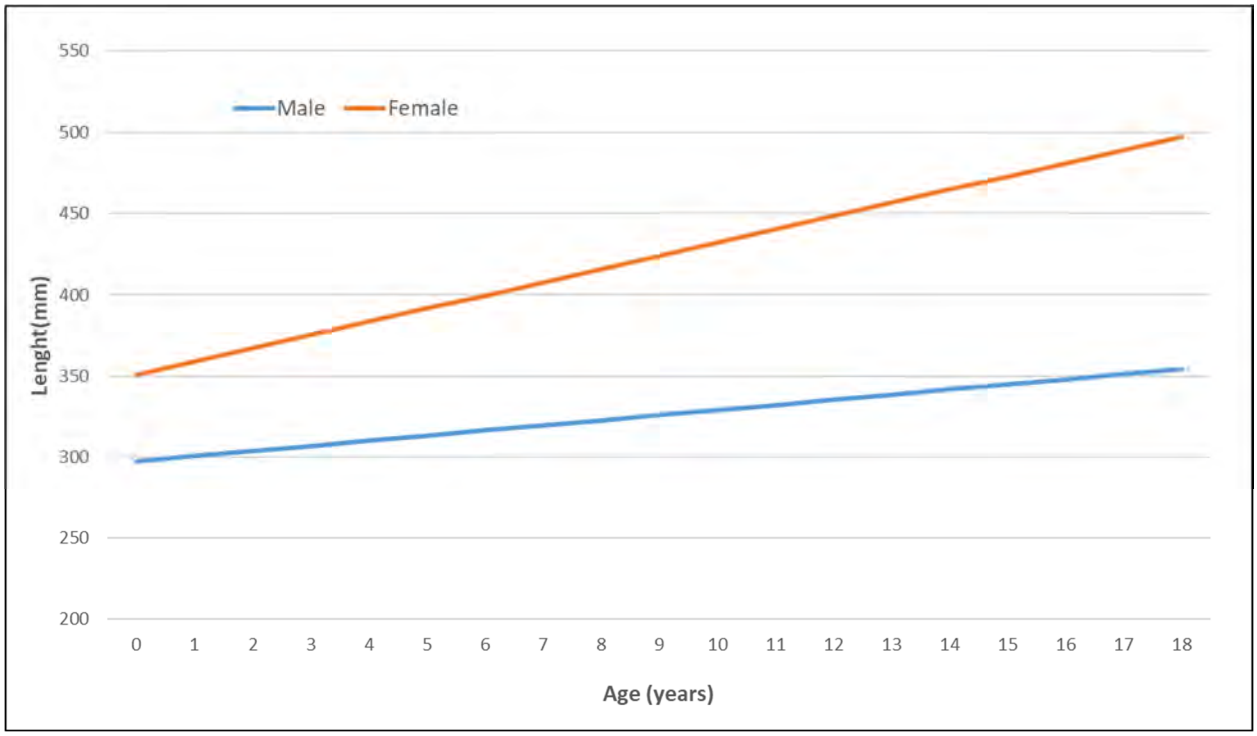


Figure 5. Predicted linear age-length relation for American eel based on available data, by sex.

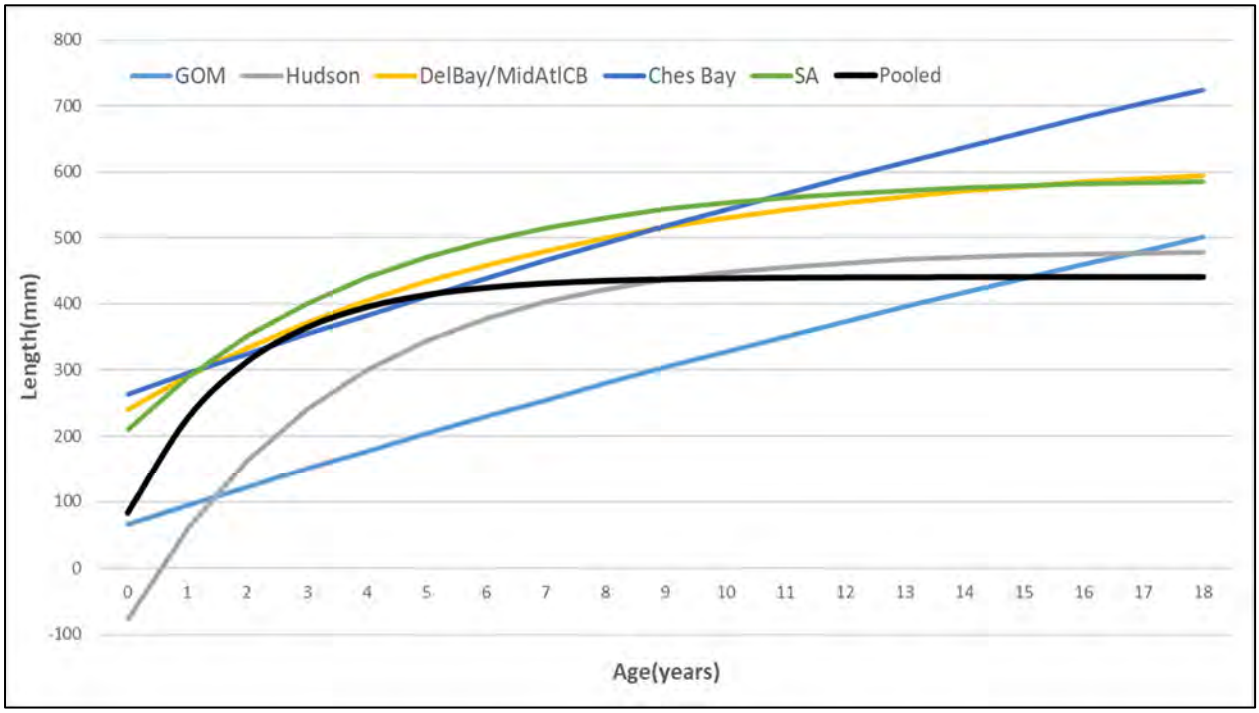


Figure 6. Predicted von Bertallanfy age-length relation for American eel based on available data, by region and all pooled.

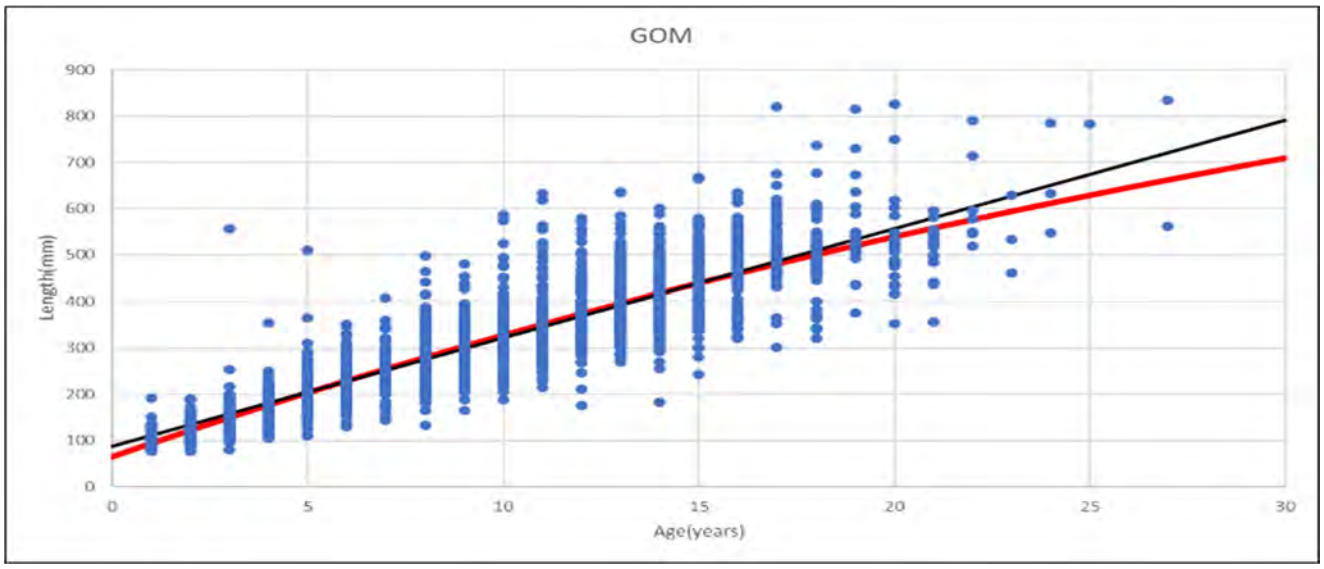


Figure 7. Scatter plot of length-at-age with predicted von Bertallanfy and linear age-length relation for American eel based on available data in the Gulf of Maine (GOM).

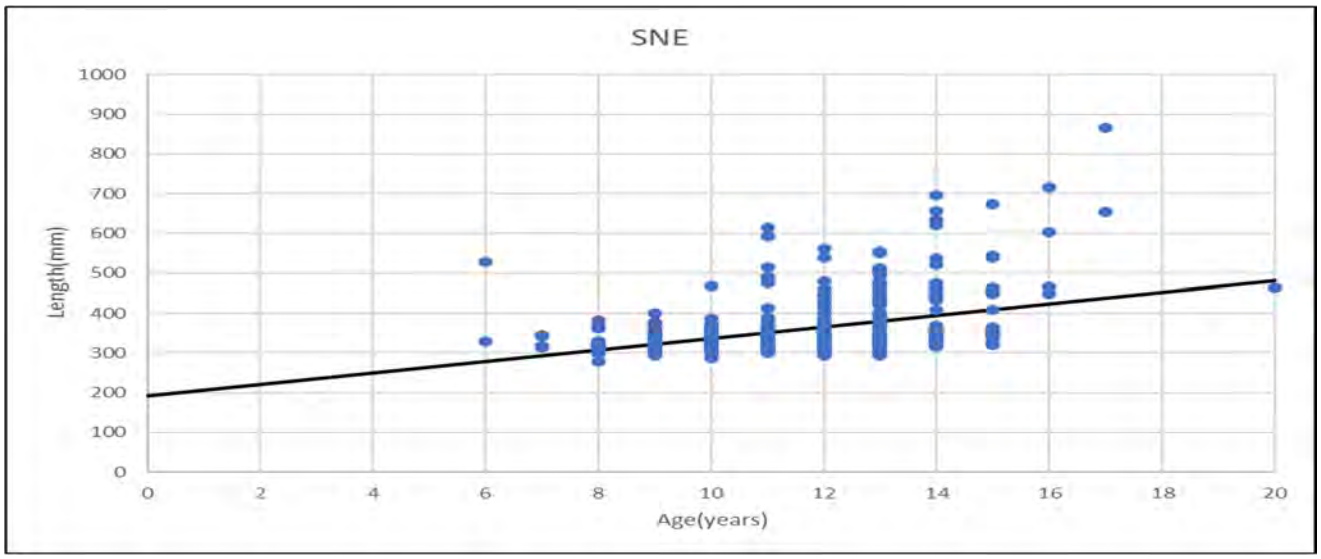


Figure 8. Scatter plot of length-at-age with predicted von Bertallanfy and linear age-length relation for American eel based on available data in Southern New England (SNE).

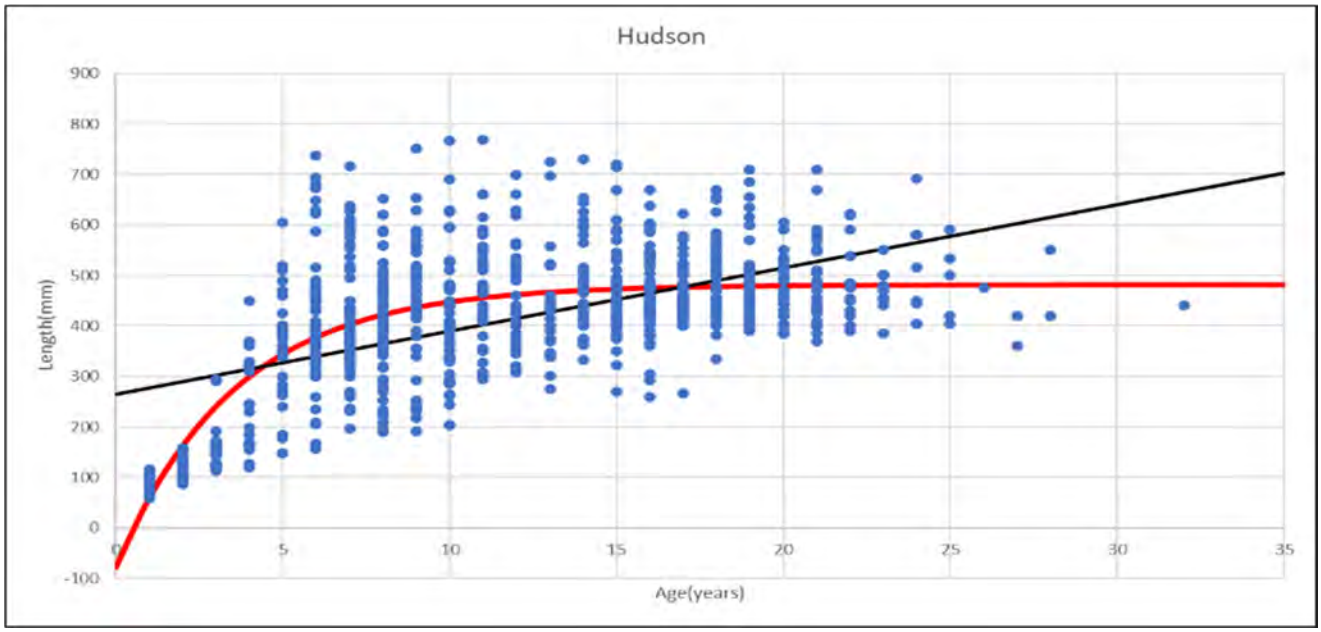


Figure 9. Scatter plot of length-at-age with predicted von Bertallanfy and linear age-length relation for American eel based on available data in the Hudson River.

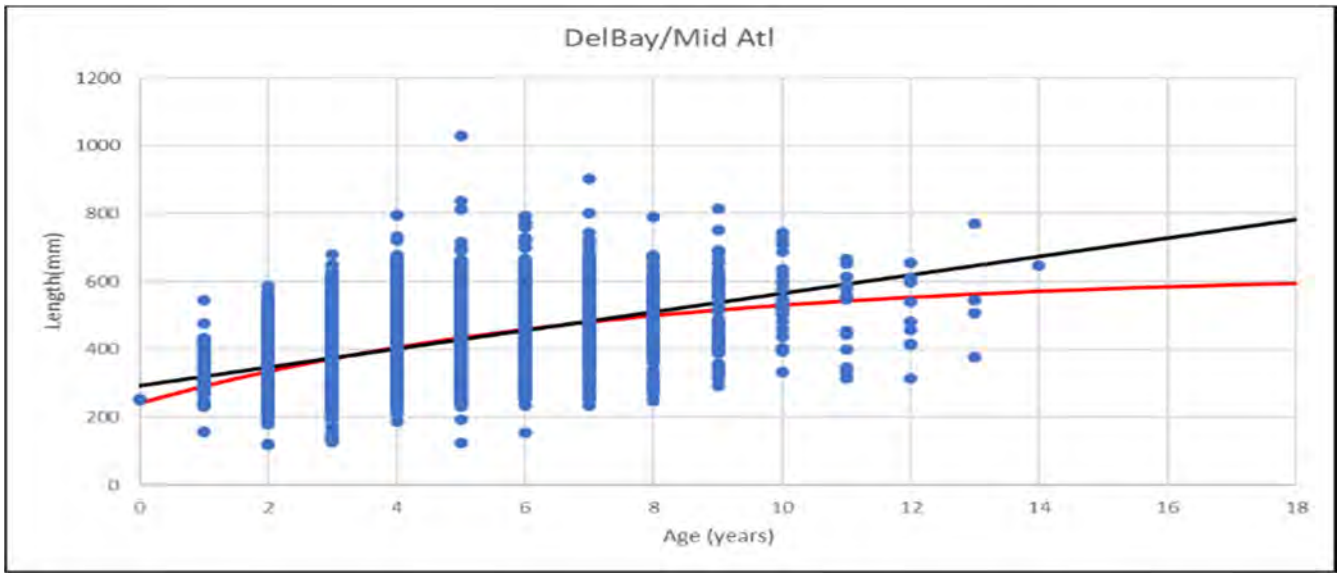


Figure 10. Scatter plot of length-at-age with predicted von Bertallanfy and linear age-length relation for American eel based on available data in the Delaware Bay/Mid-Atlantic Region.

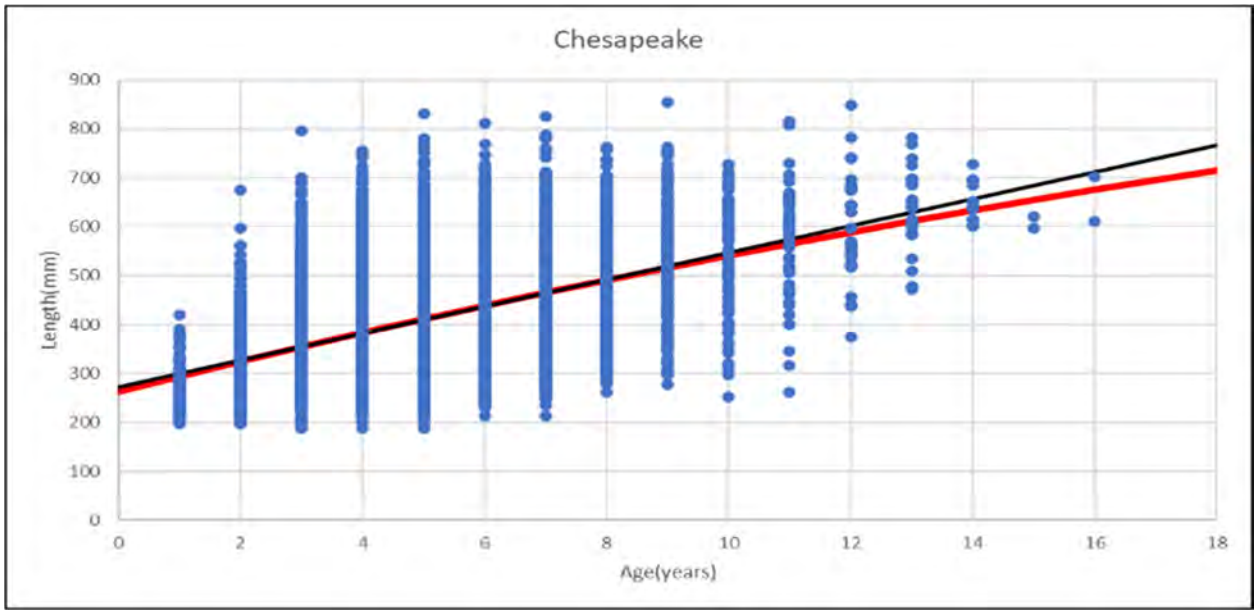


Figure 11. Scatter plot of length-at-age with predicted von Bertallanfy and linear age-length relation for American eel based on available data in the Chesapeake Bay Region.

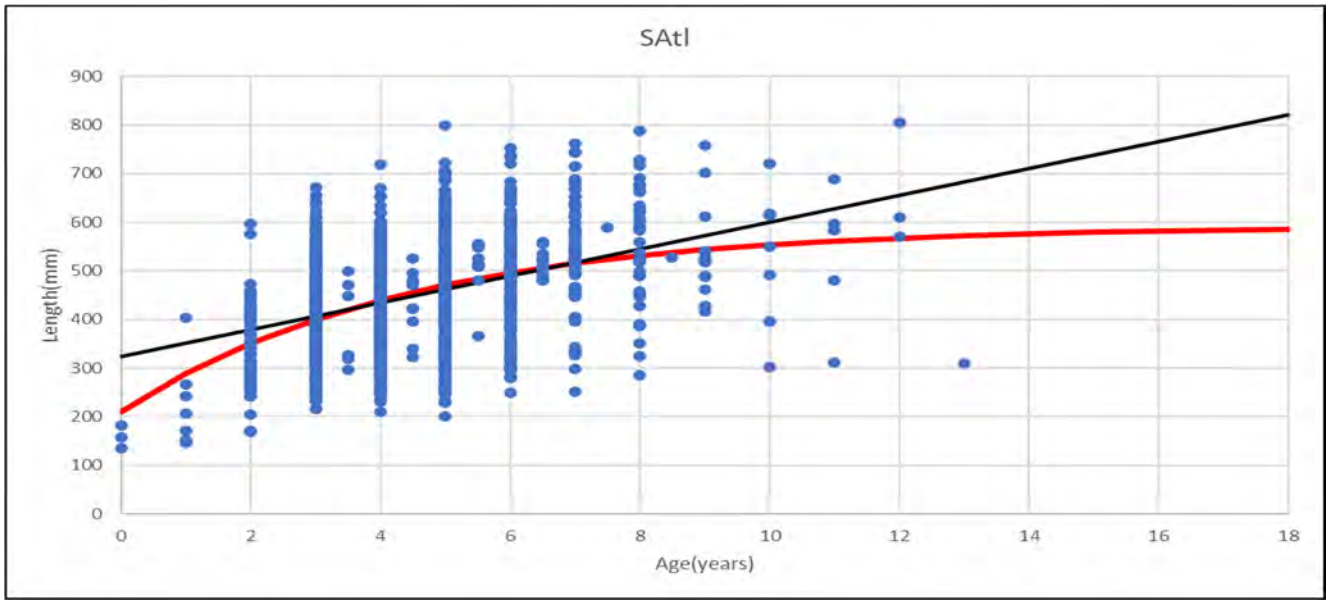


Figure 12. Scatter plot of length-at-age with predicted von Bertallanfy and linear age-length relation for American eel based on available data in the South Atlantic (SAtl) Region.

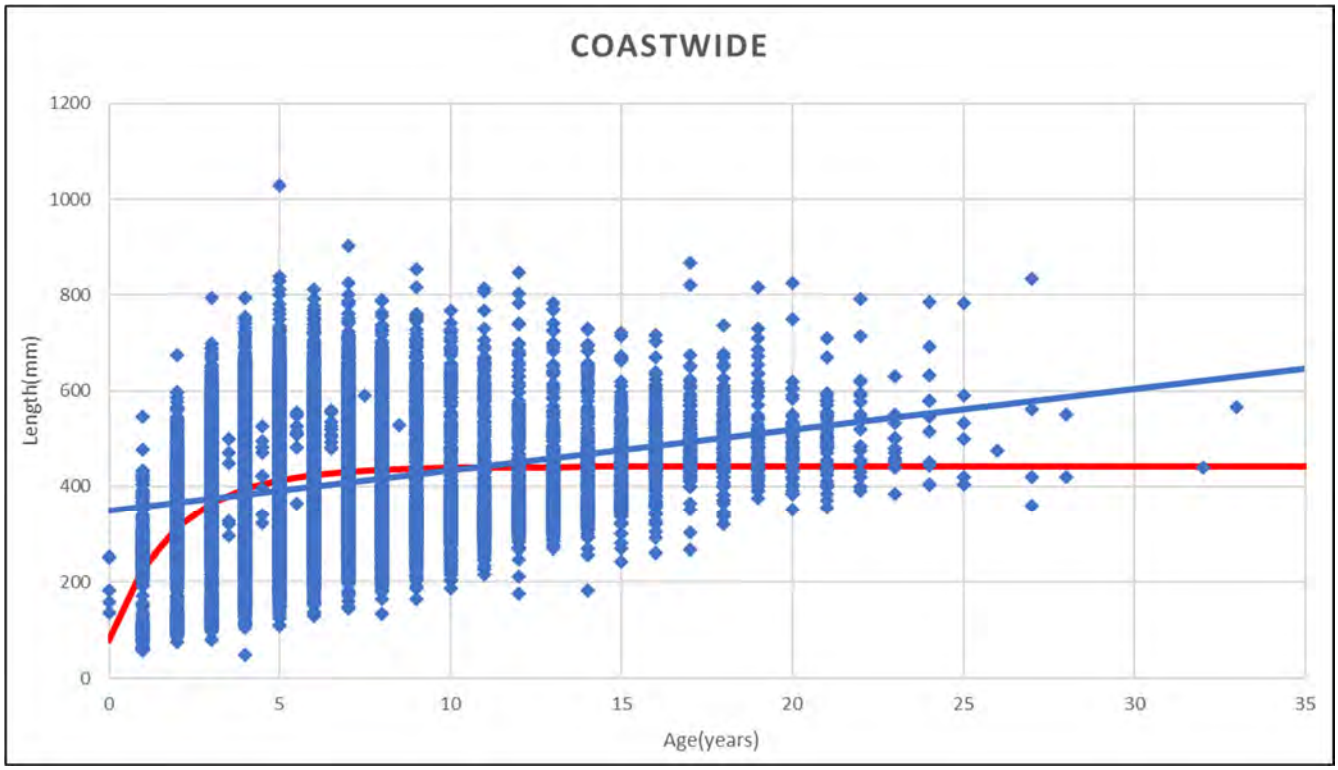


Figure 13. Scatter plot of length-at-age with predicted von Bertallanfy and linear age-length relation for American eel based on available data coastwide.

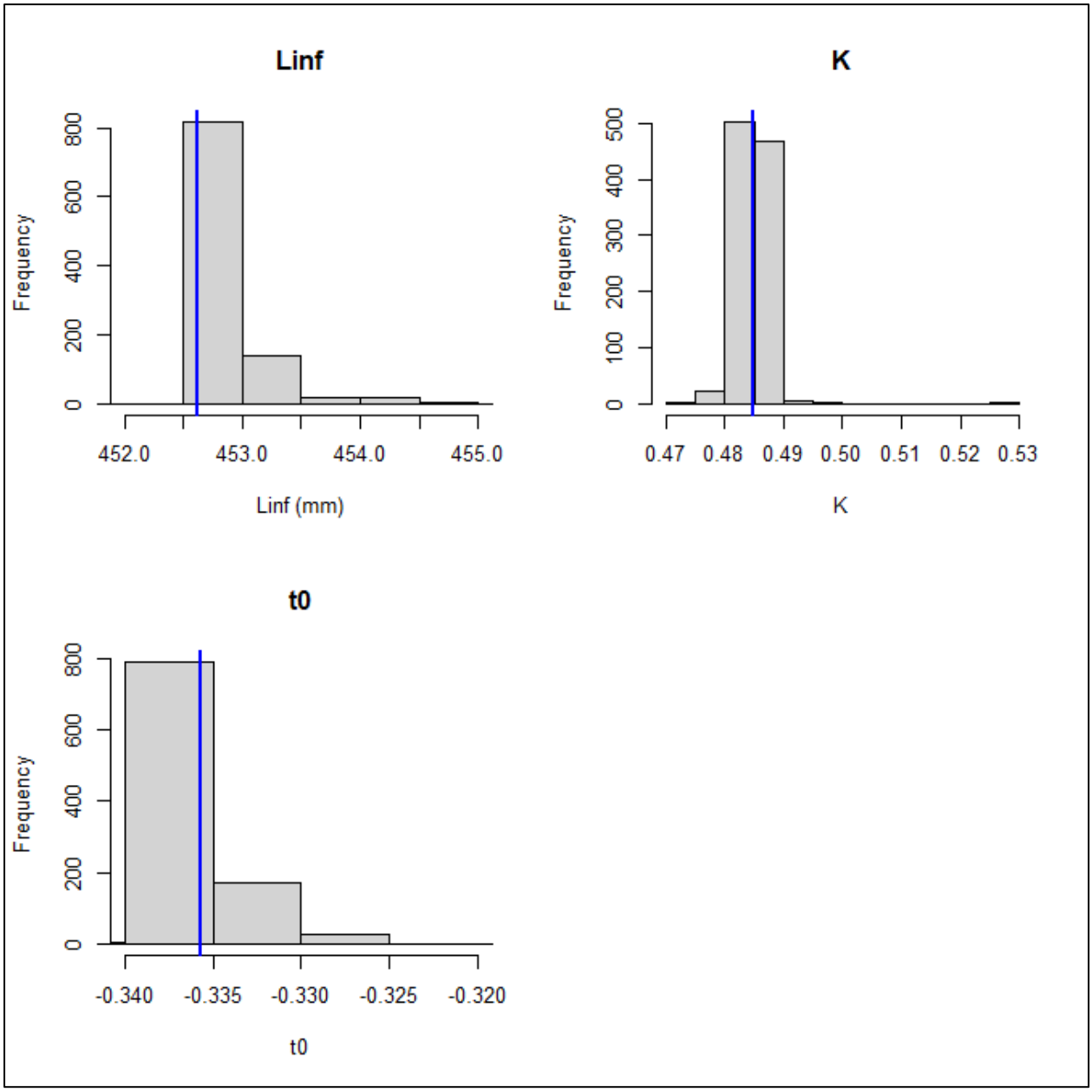


Figure 14. Histograms of the bootstrap estimates for the von Bertalanffy age-length growth model parameters. The vertical blue lines represent the median values of the distributions.

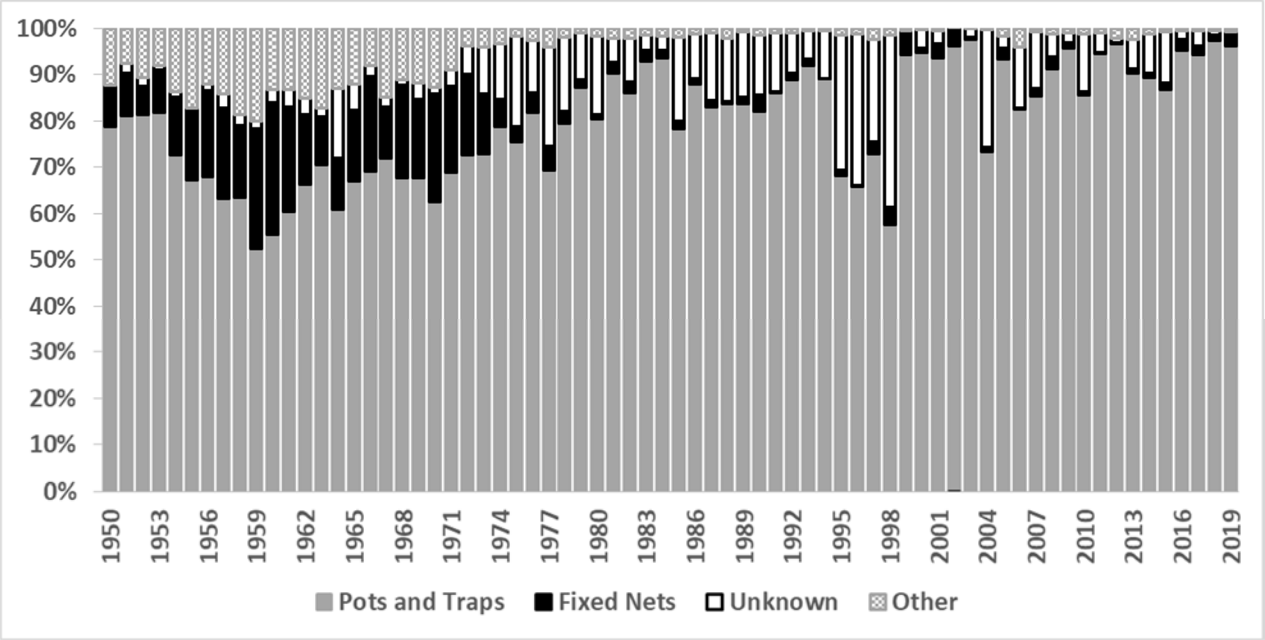


Figure 15. Percent of coastwide commercial landings by gear type, 1950-2019.

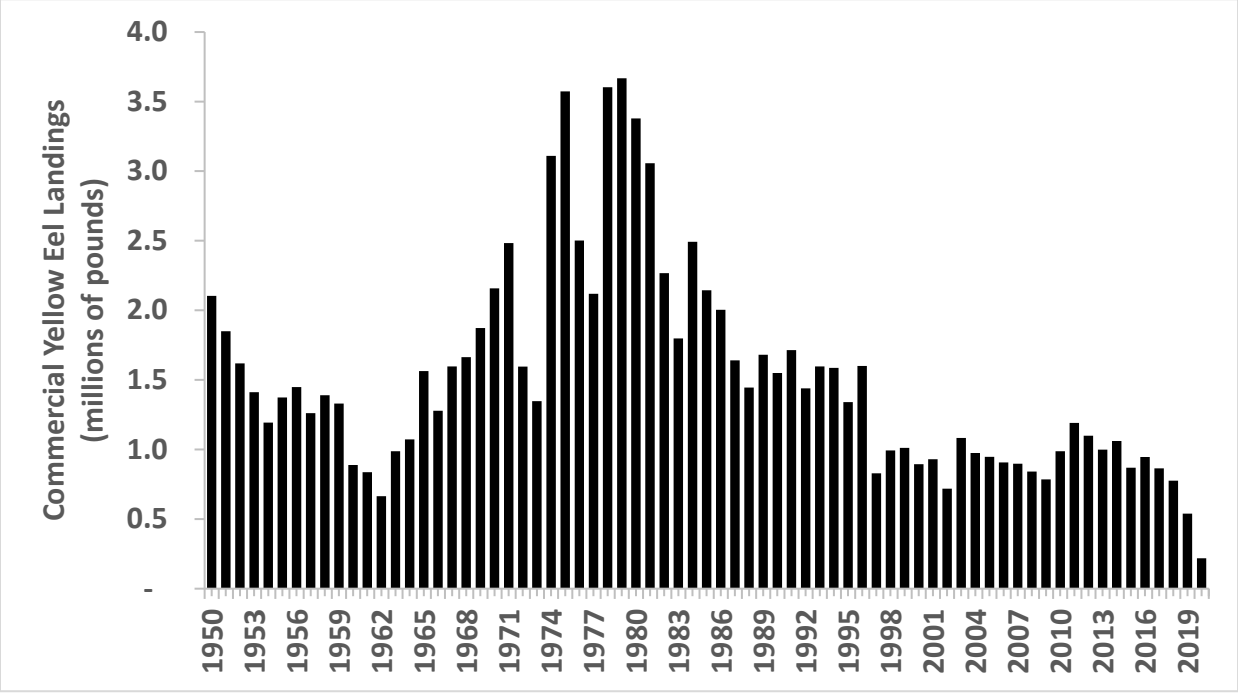


Figure 16. Coastwide commercial yellow eel landings, 1950-2020, in millions of pounds. Historical landings (1950-1997) should be interpreted with caution as there are several data caveats associated with the historical records. Landings 1998-2020 were validated through ACCSP and 2020 is considered preliminary.

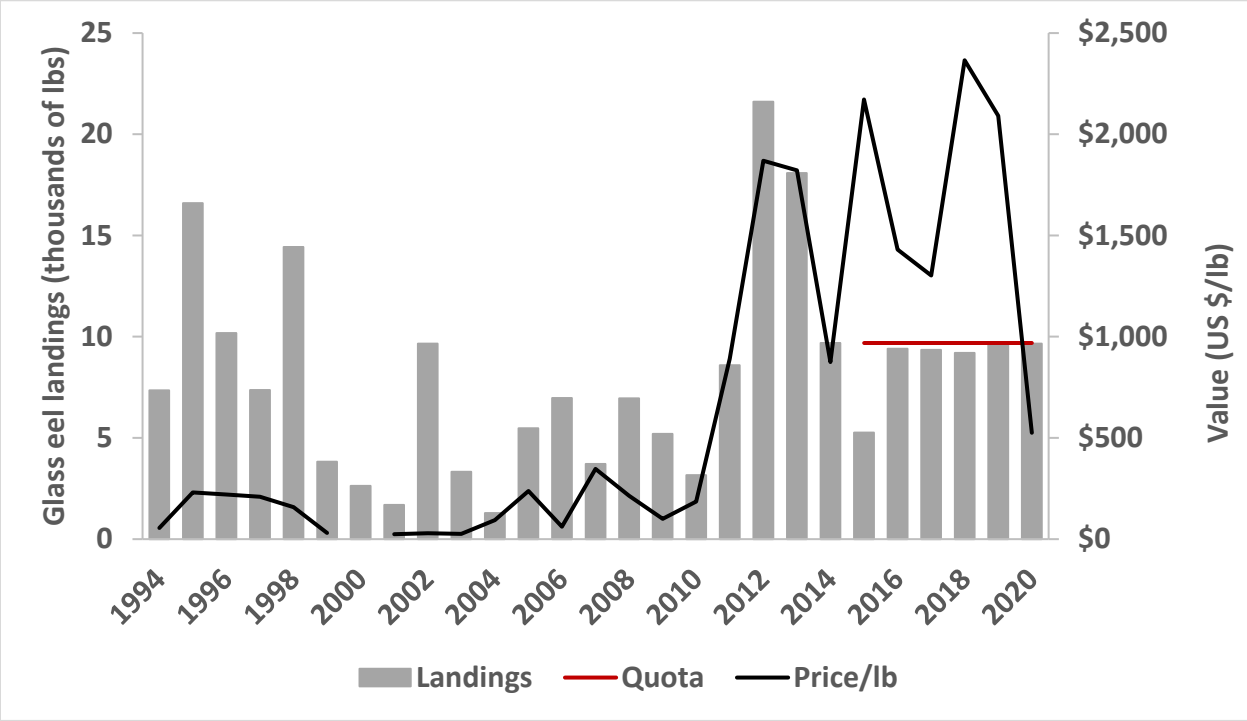


Figure 17. Maine's glass eel landings and price per pound (lb), 1995-2020. The state has had a glass eel quota since 2015, indicated on the graph in red. Source: Maine Department of Marine Resources, www.maine.gov/dmr/commercial-fishing/landings/documents/elver.table.pdf.

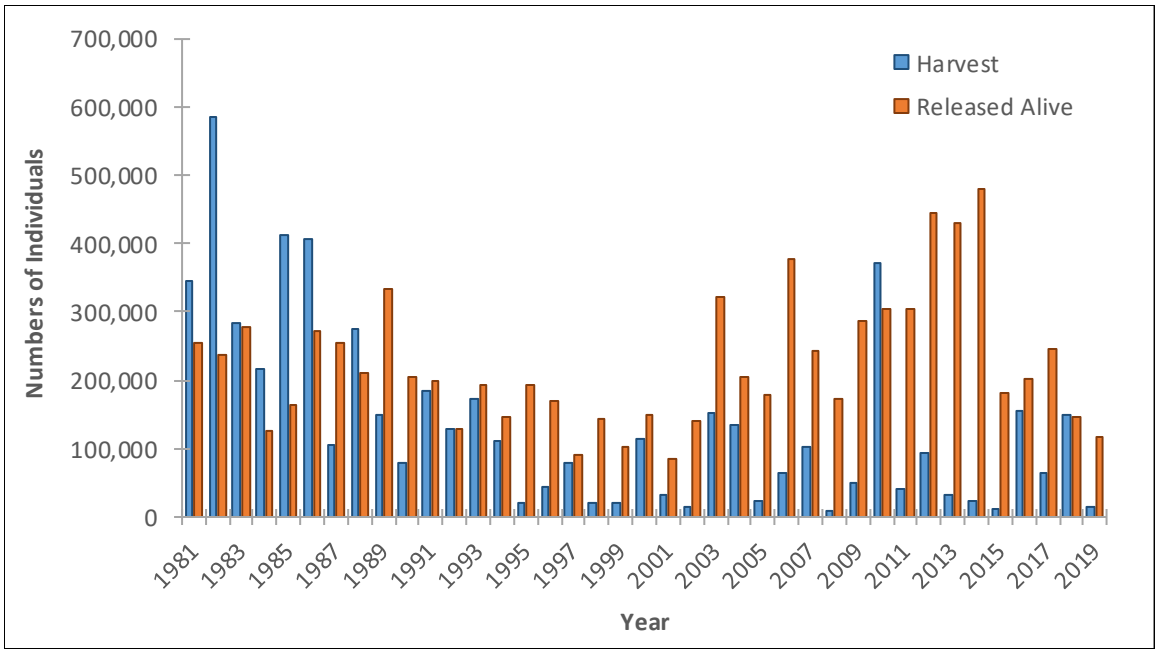


Figure 18. Annual recreational harvest (Type A + B1) and released alive (Type B2) estimates for American eel along the U.S. east coast as estimated by MRIP, 1981–2019.

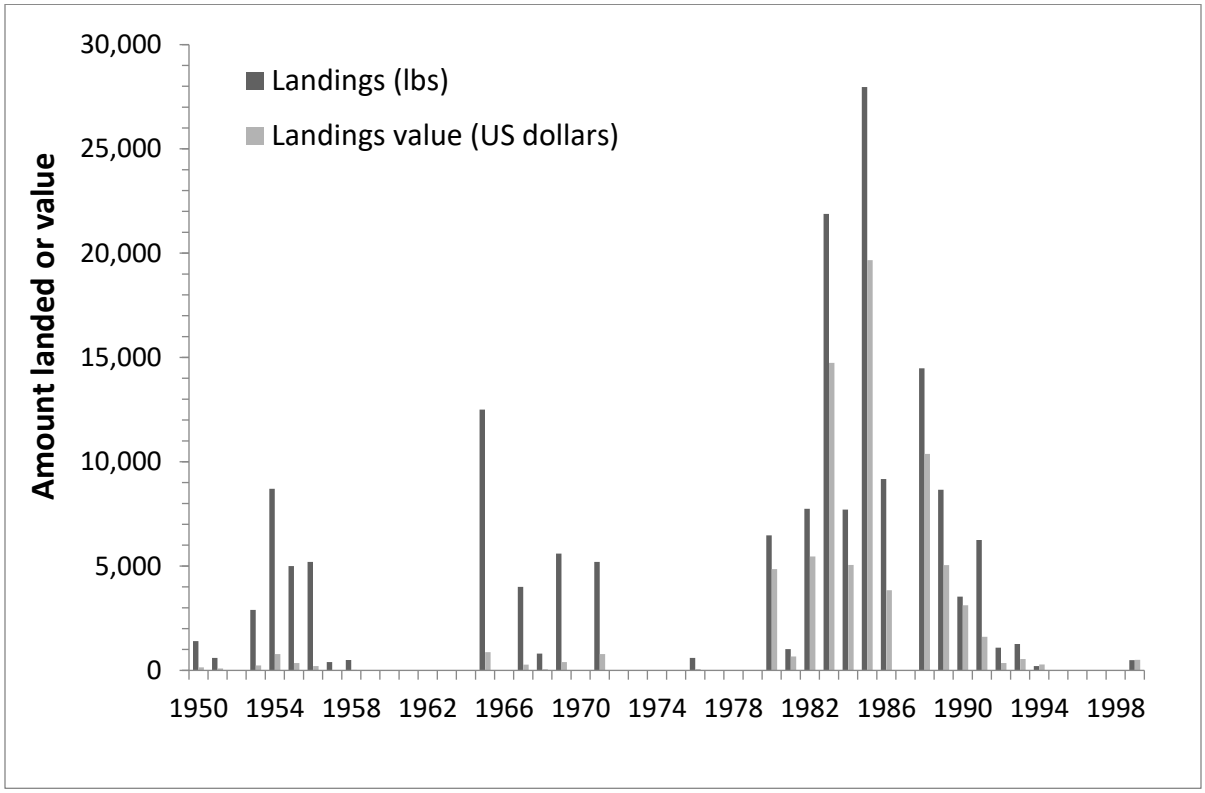


Figure 19. Total weight (lbs) and value (US dollars) of American eel commercial landings in the Gulf of Mexico, 1950–1999. Recent landings are confidential.

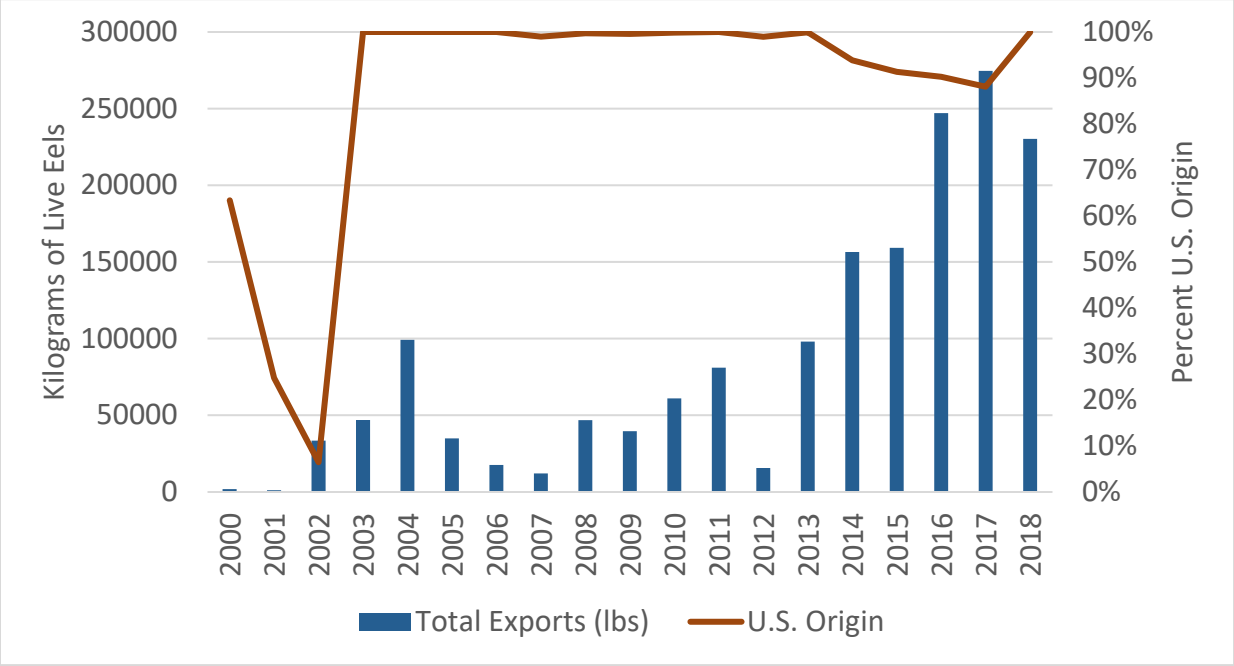


Figure 20. Export of live American eels from the Atlantic coast and the percent that are of U.S. origin, 2000-2018 (source: U.S. Fish and Wildlife Service in the Law Enforcement Management Information System.

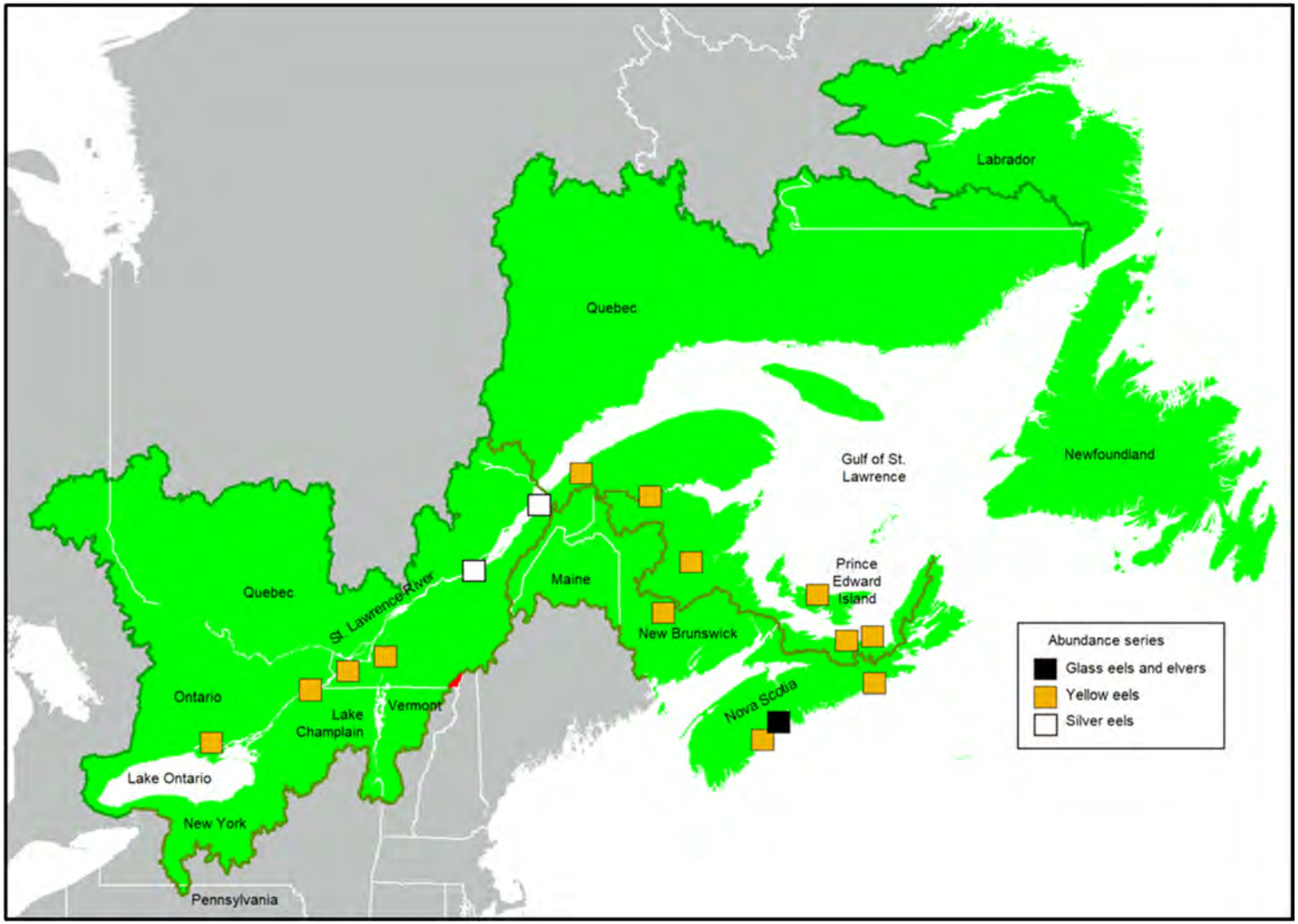


Figure 21. Plausible historical range of the American eel in Canada and areas of the US which drain through Canada (green) (Cairns 2020), and locations of abundance series which are accepted as meeting quality standards (Cornic et al. 2021). Range is drawn to watershed boundaries and to major natural barriers to upstream passage. The red polygon indicates the part of Quebec which drains through the US to the Atlantic Ocean.

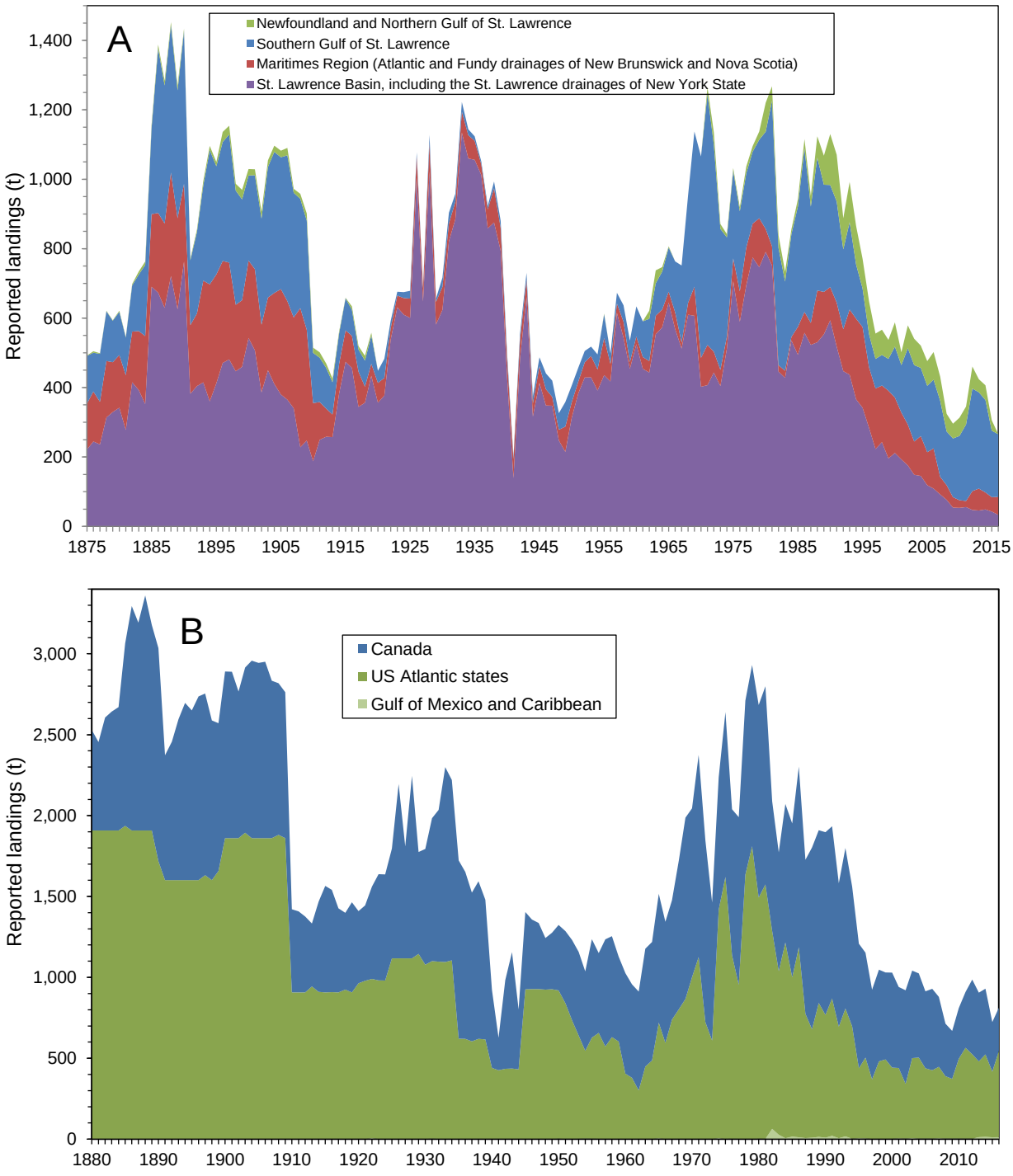


Figure 22. Reported American eel landings (in tonnes) in Canada and US waters that drain through Canada (A) and range-wide (B). Data from Cairns (2020). For (B), US data for 1880-1919 are means by decade and data for 1920-1949 are means by 5-year period.

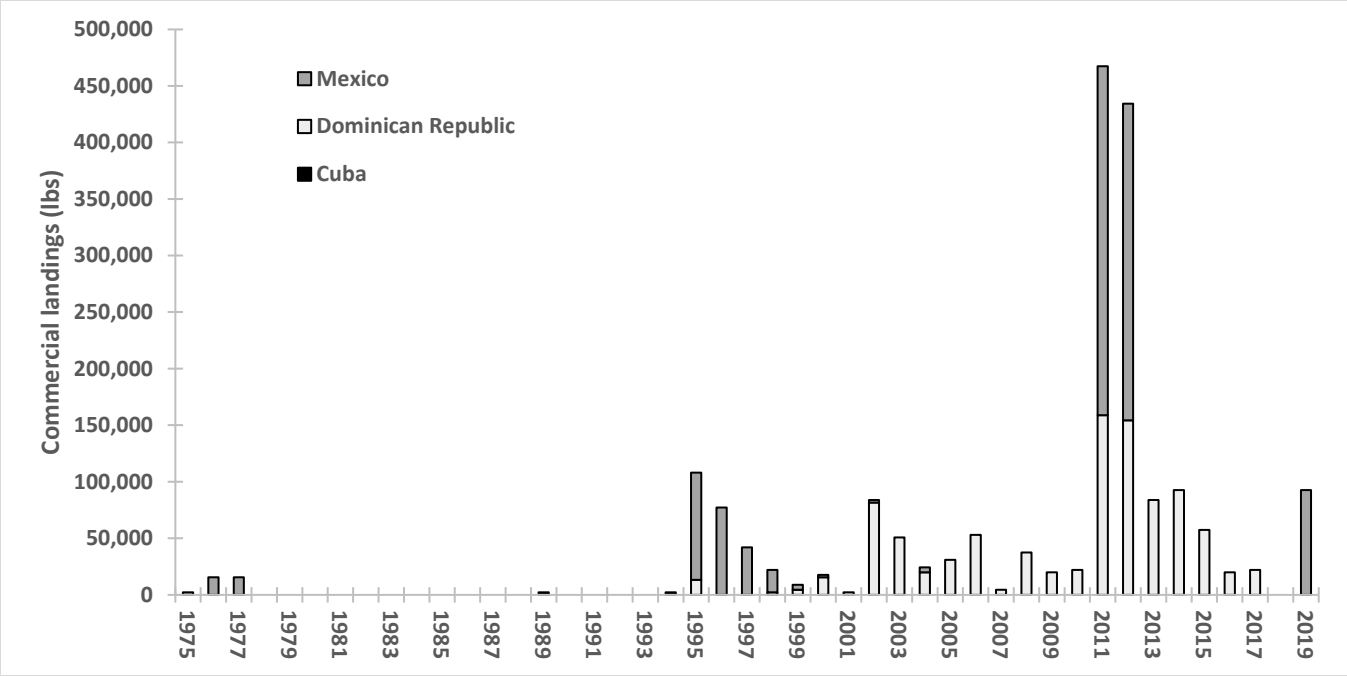


Figure 23. Annual commercial landings (live weight) of American eel reported by the FAO from Central and South America, 1975–2019. No landings were reported between 1950-1974, 1978-1988, and 1990-1993. Cuba's only reported American eel landings were approximately 2,200 pounds in 1989 and 1994.

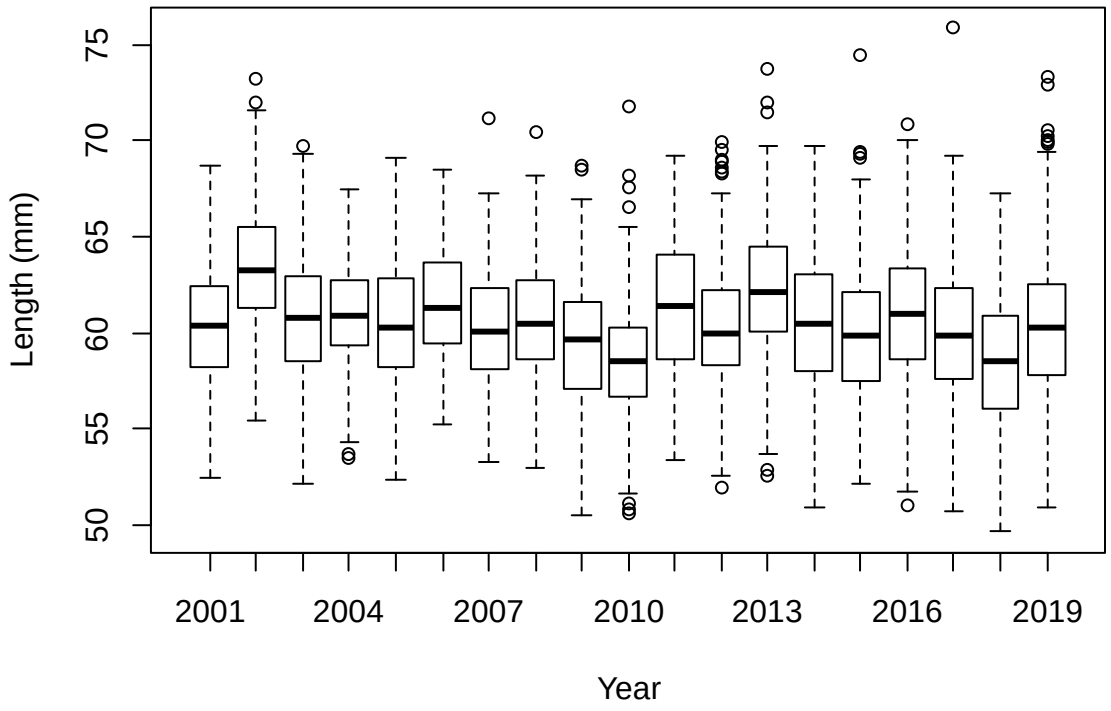


Figure 24. Boxplot of American eel YOY lengths recorded in the Maine West Harbor Pond Survey.

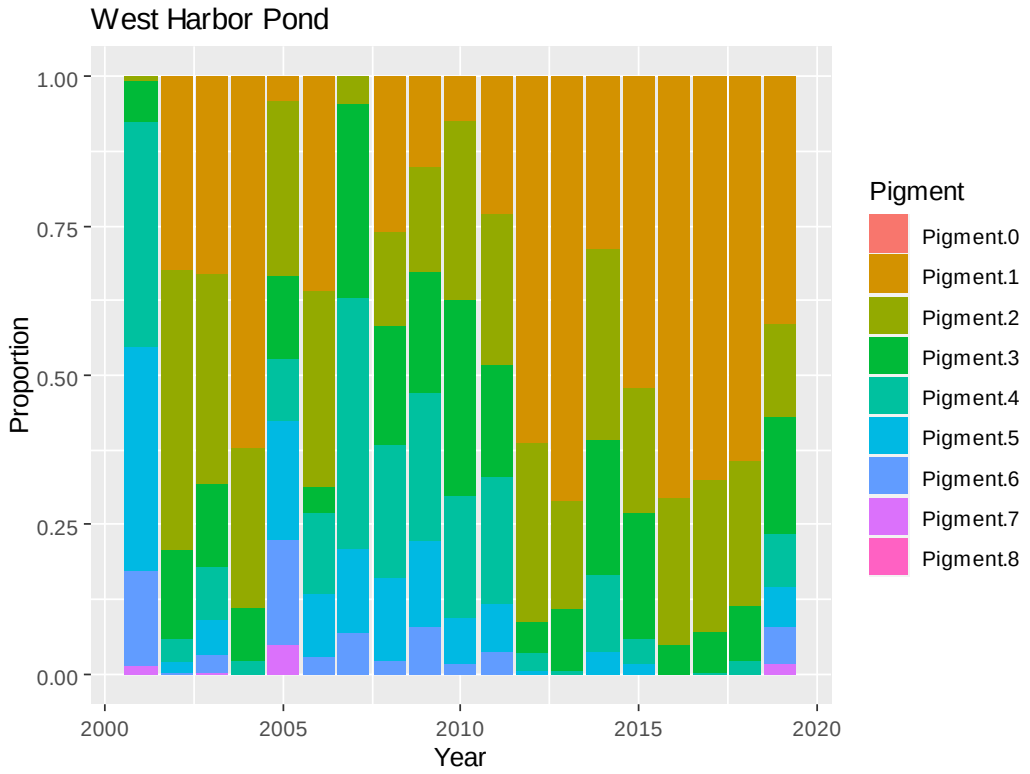


Figure 25. Distribution of pigment stages in the West Harbor Pond YOY American eel survey.

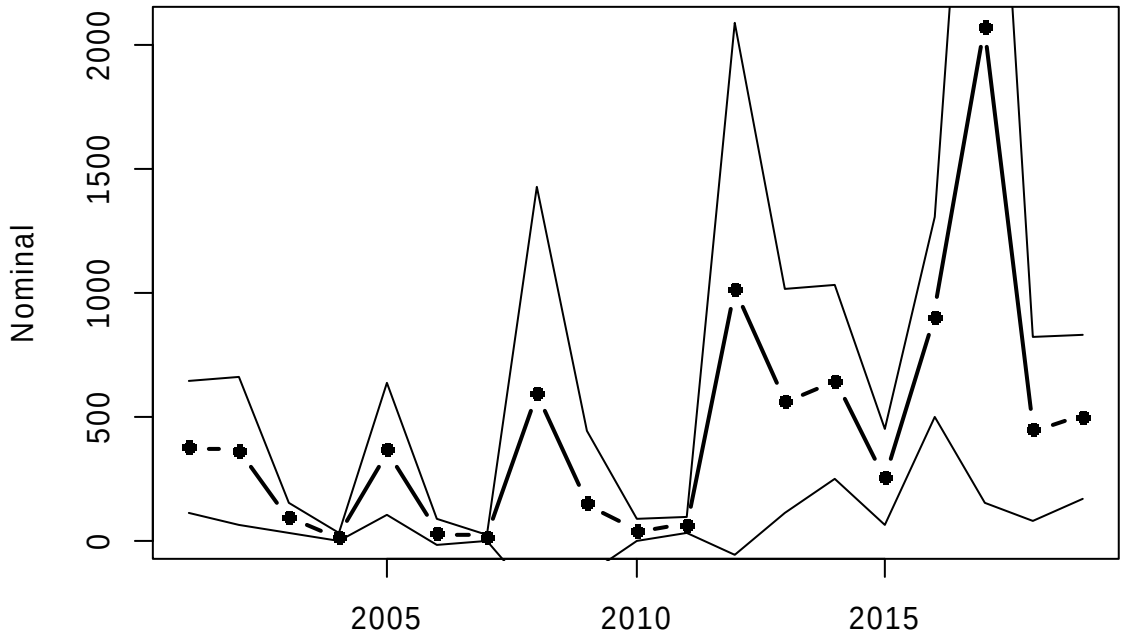


Figure 26. Nominal index of relative abundance of YOY eel developed from Maine's West Harbor Pond Survey with 95% confidence intervals.

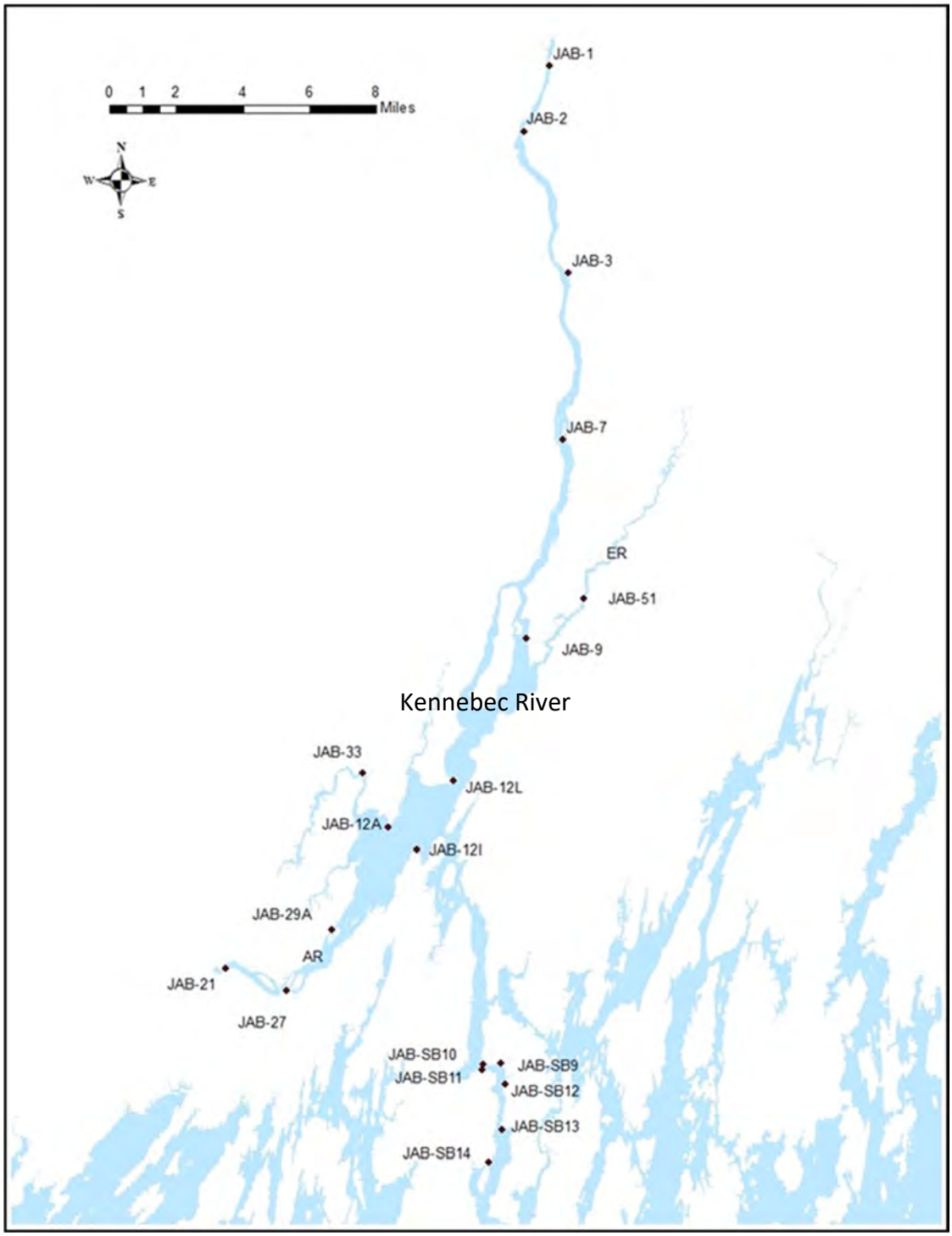


Figure 27. Map of the sites surveyed in Maine's Juvenile Finfish Beach Seine Survey.

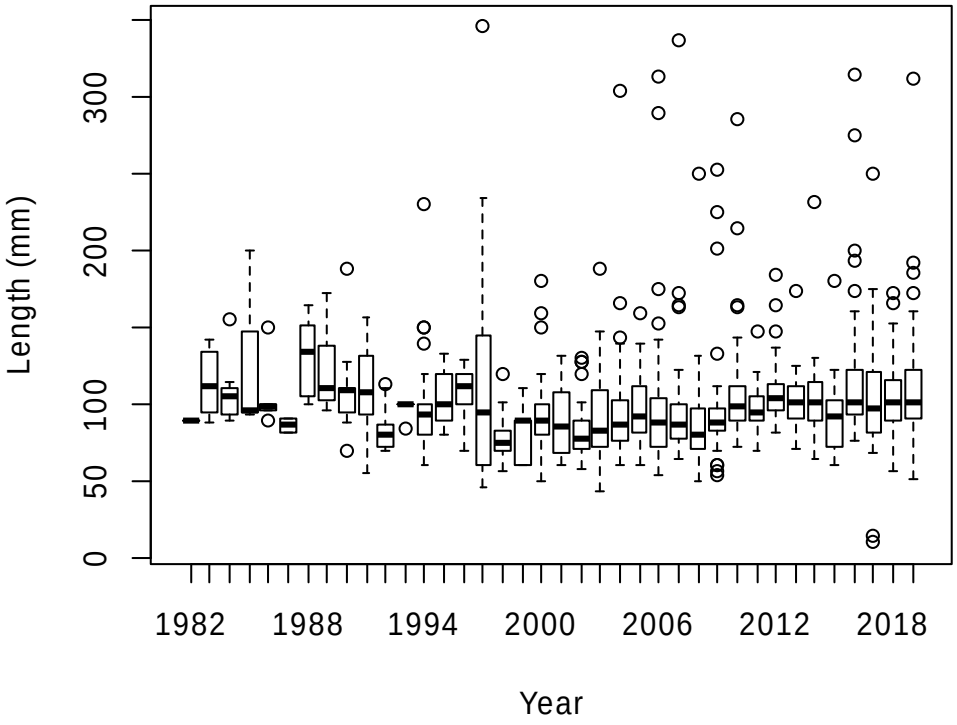


Figure 28. Boxplot of American eel lengths recorded in the Maine Juvenile Finfish Beach Seine Survey.

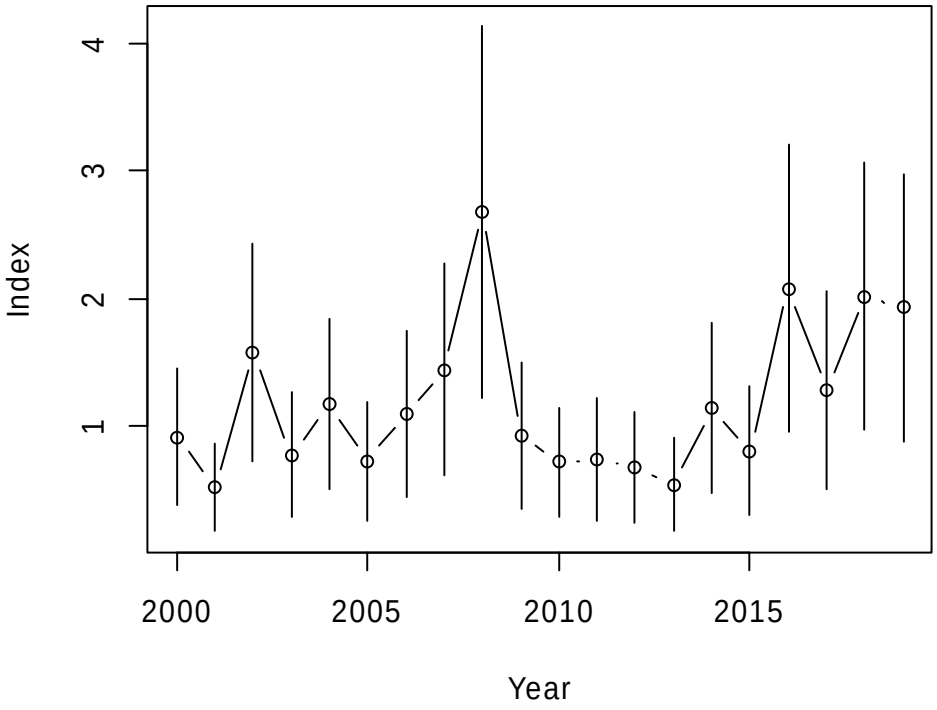


Figure 29. Standardized index of relative elver abundance developed from Maine's Juvenile Finfish Beach Seine Survey with 95% confidence intervals.

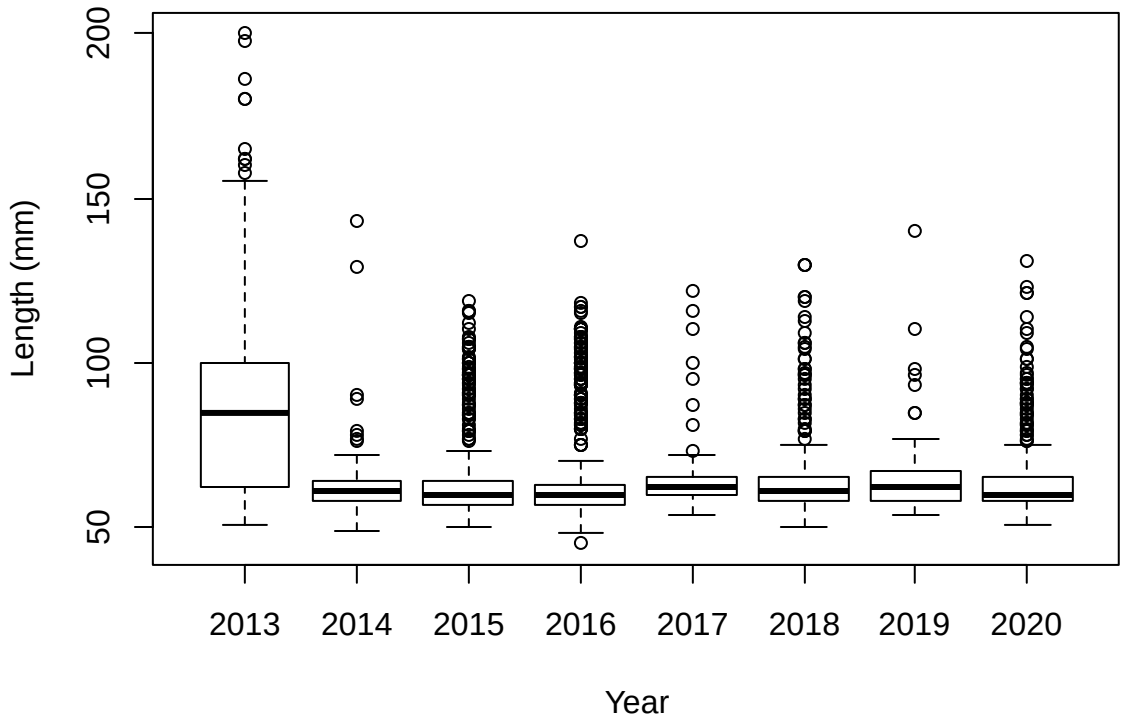


Figure 30. Boxplot of American eel YOY lengths recorded in the New Hampshire Lamprey River Survey.

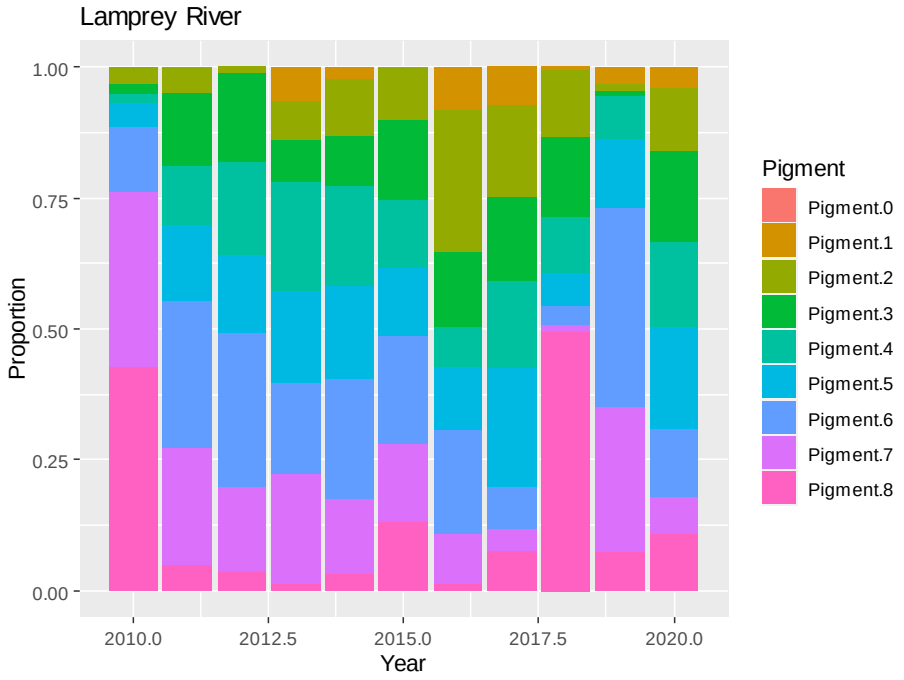


Figure 31. Distribution of pigment stages in the Lamprey River YOY American eel survey.

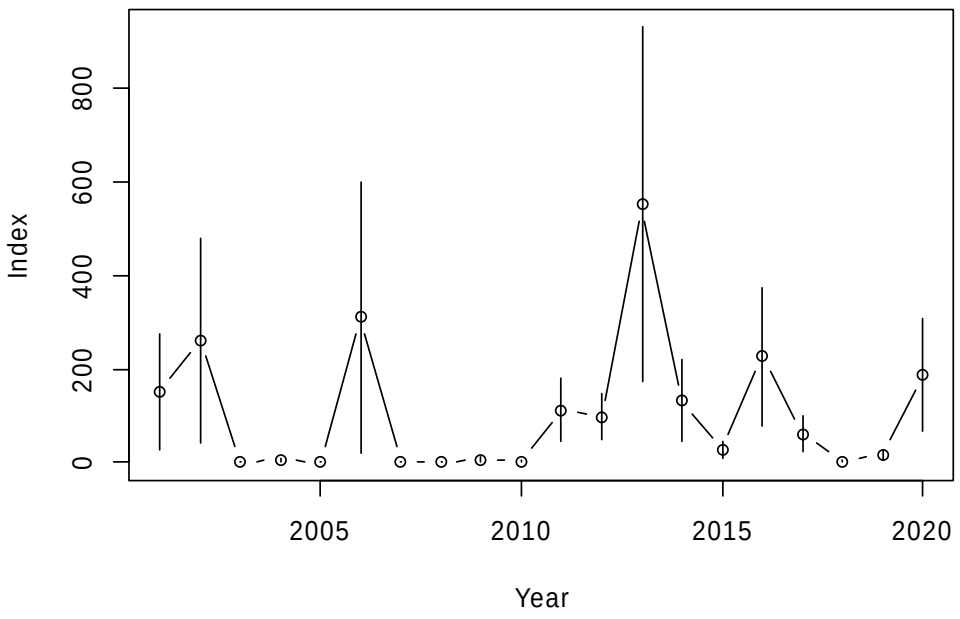


Figure 32. Standardized index of relative YOY abundance developed from New Hampshire's Lamprey River Survey with 95% confidence intervals.

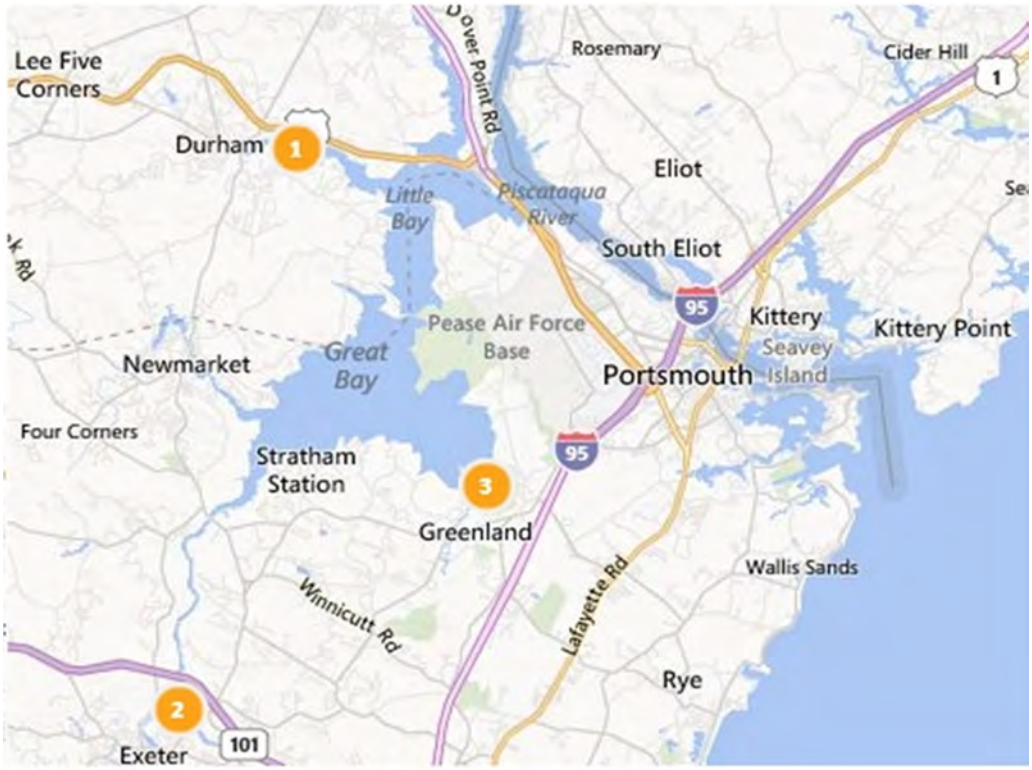


Figure 33. Map of the New Hampshire Fish and Game Rainbow Smelt Fyke Survey fixed station sampling locations where (1) indicates Oyster River, (2) Squamscott River, and

(3) Winnicut River.

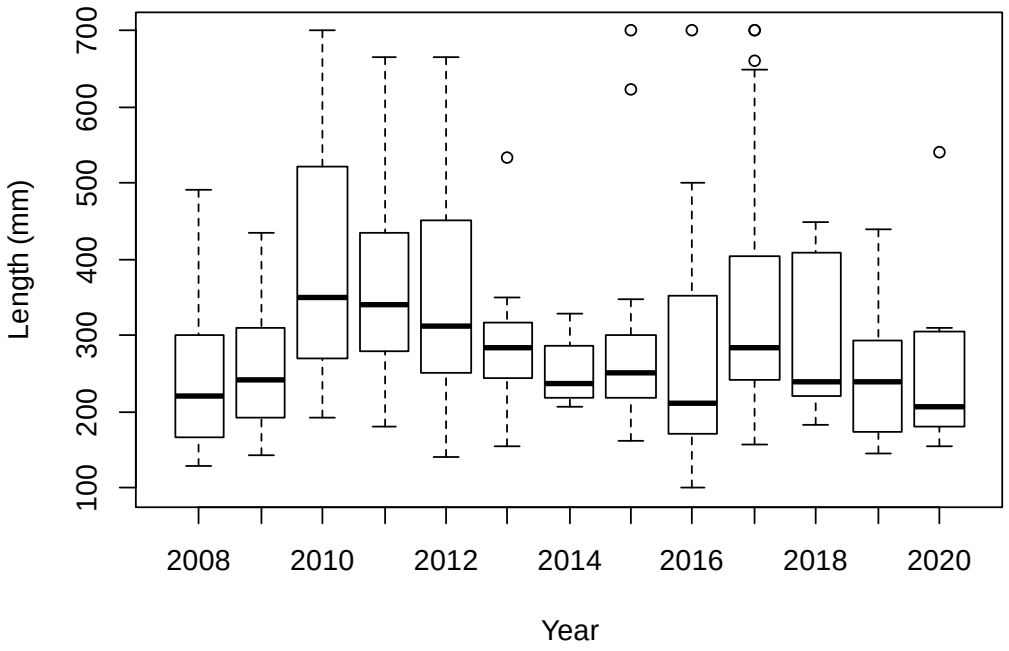


Figure 34. Boxplot of American eel lengths recorded in the New Hampshire Fish and Game Rainbow Smelt Fyke Survey.

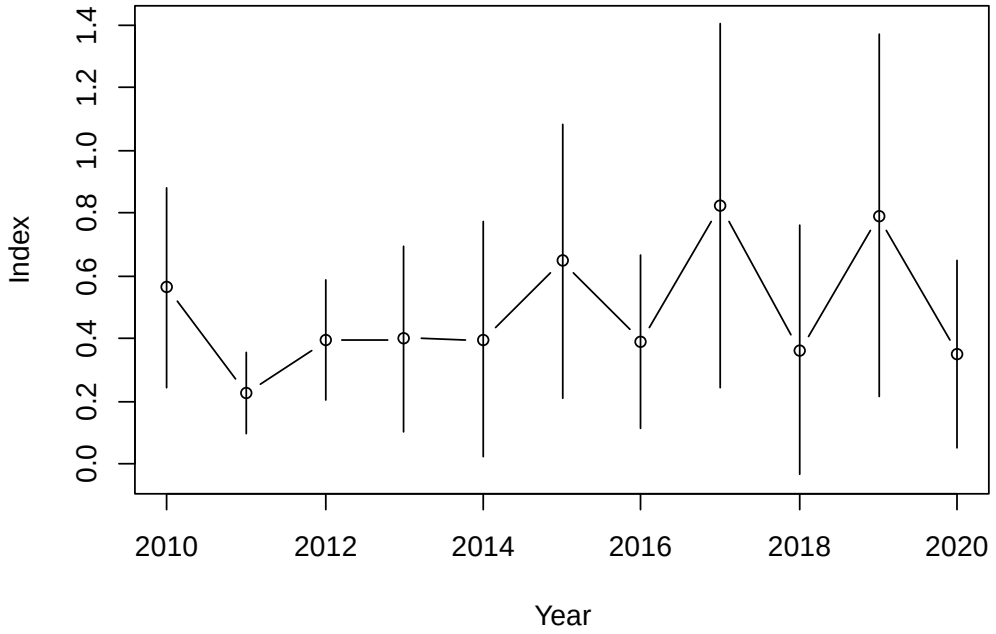


Figure 35. Standardized index of relative abundance of yellow eel developed from the New Hampshire Fish and Game Rainbow Smelt Fyke Survey with 95% confidence intervals.

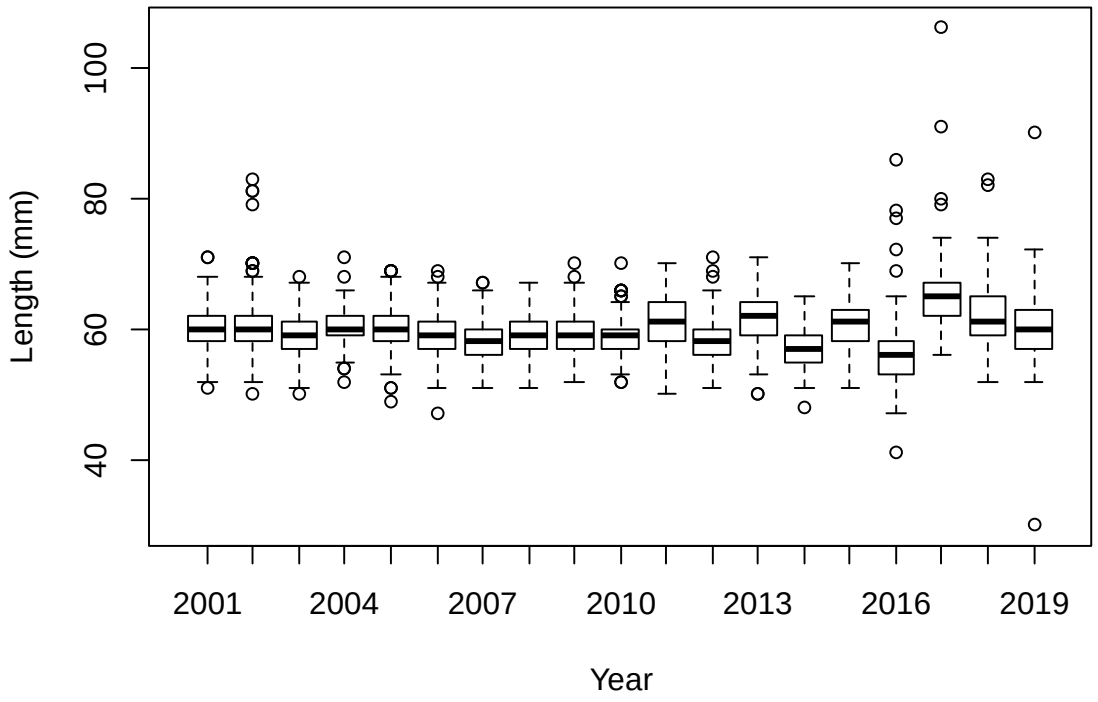


Figure 36. Boxplot of American eel YOY lengths recorded in the Massachusetts Jones River Survey.

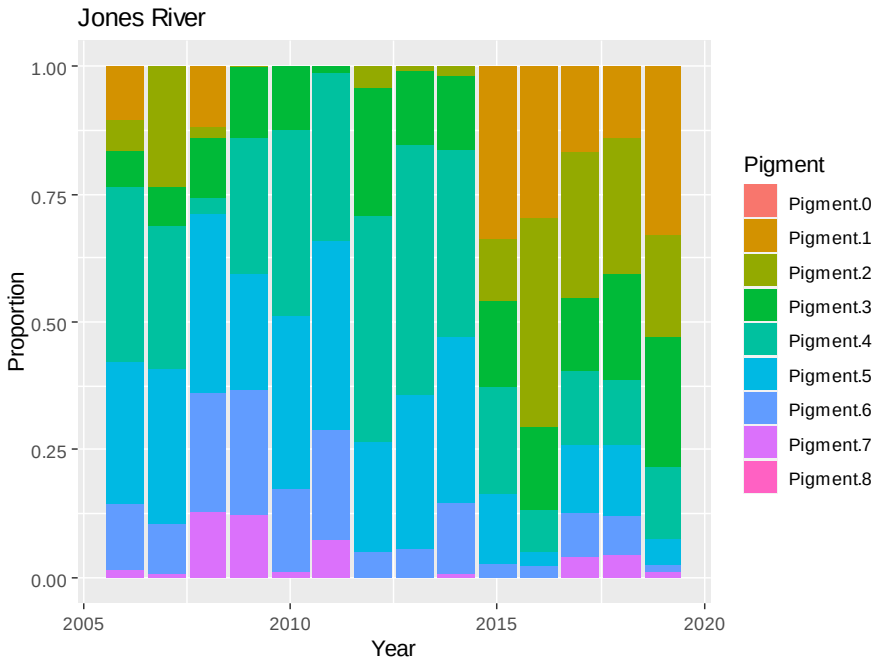


Figure 37. Distribution of pigment stages in the Jones River YOY American eel survey.

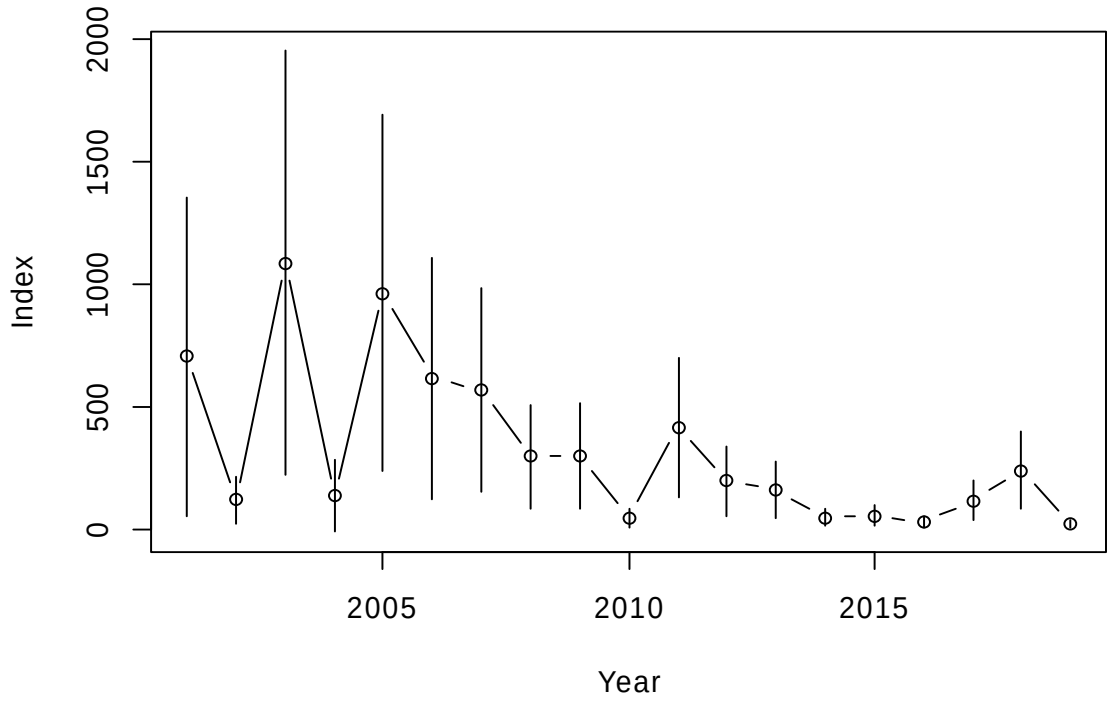


Figure 38. Standardized index of relative YOY abundance developed from Massachusetts's Jones River Survey with 95% confidence intervals.

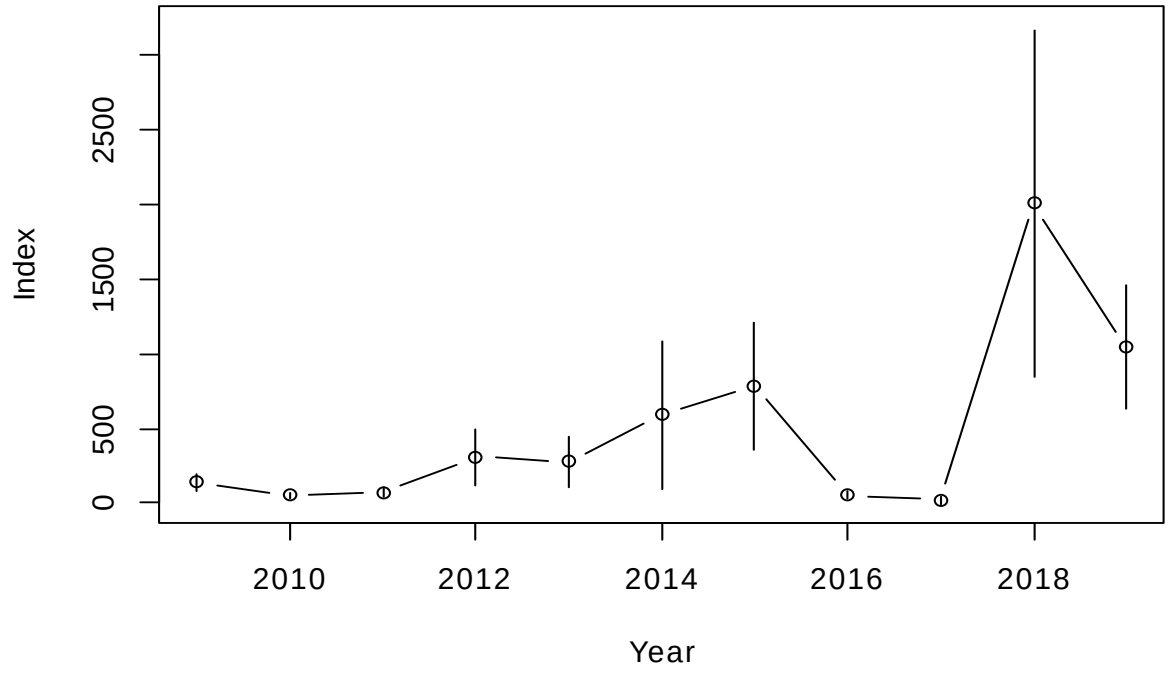


Figure 39. Standardized index of relative YOY abundance developed from Massachusetts's Wankinco River Ramp Survey with 95% confidence intervals.

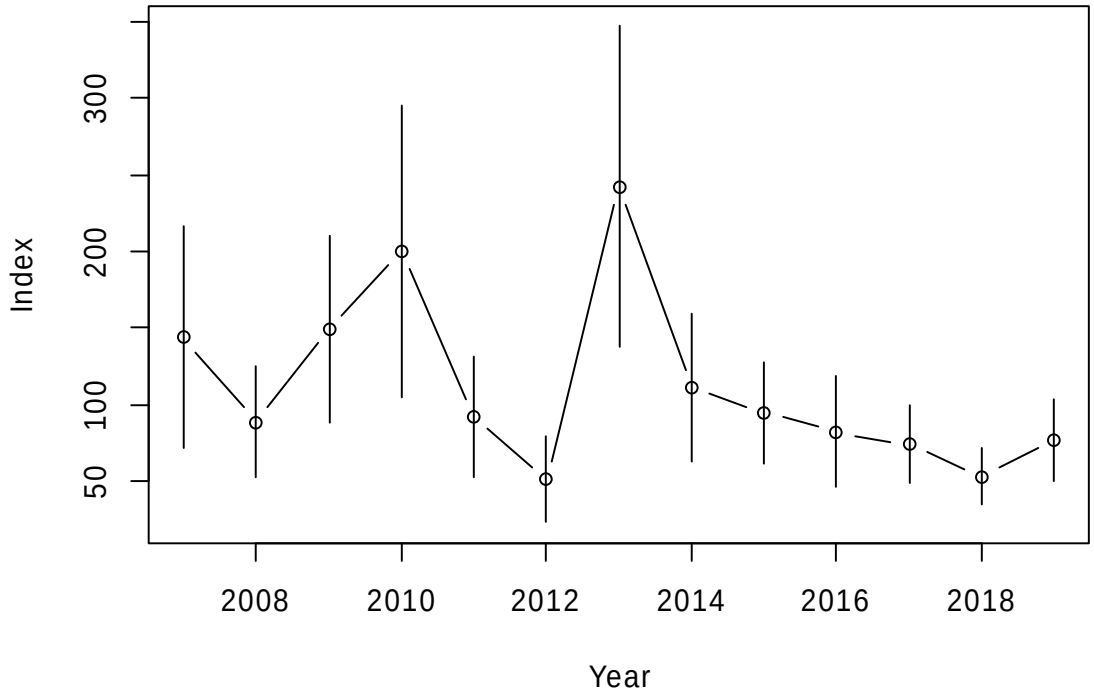


Figure 40. Standardized index of relative elver abundance developed from Massachusetts's Saugus River Ramp Survey with 95% confidence intervals.

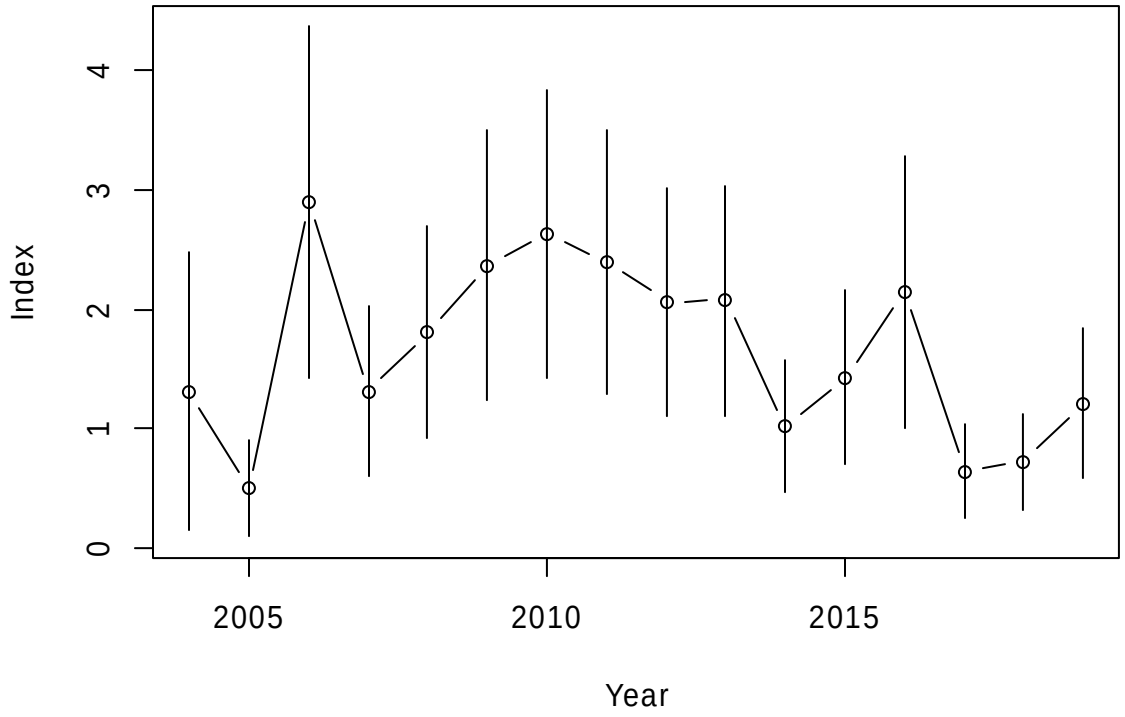


Figure 41. Standardized index of relative abundance of yellow eel developed from the Massachusetts Rainbow Smelt Fyke Survey with 95% confidence intervals.

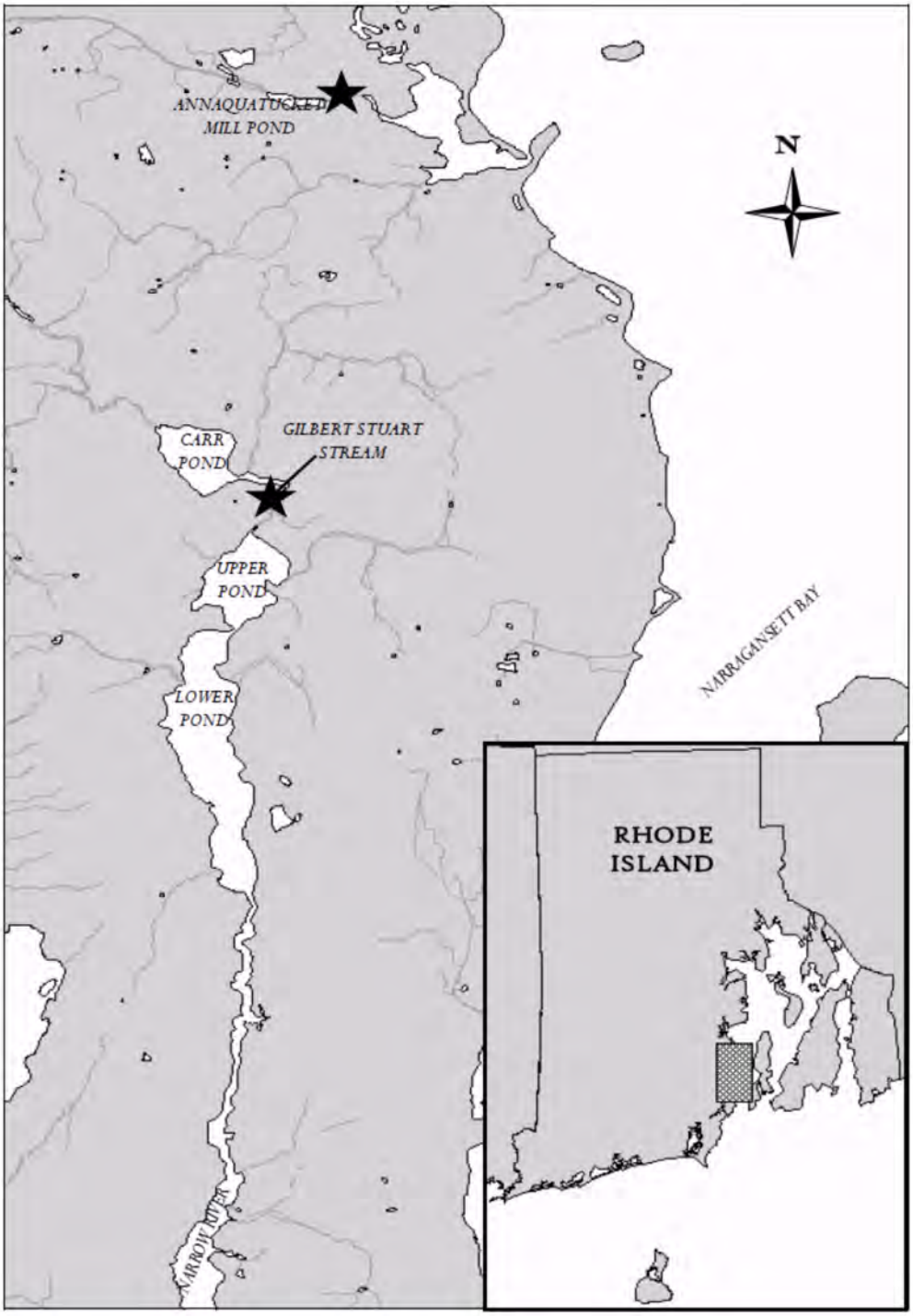


Figure 42. Map of American eel monitoring sites in Rhode Island including the YOY survey at Gilbert Stuart Stream.

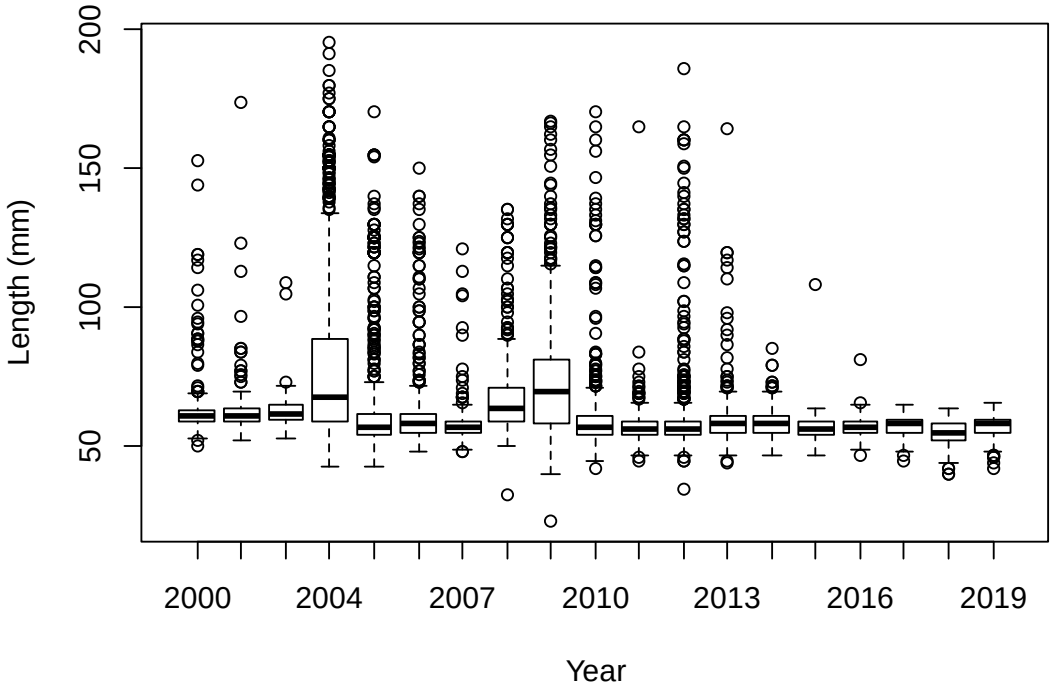


Figure 43. Boxplot of American eel YOY lengths recorded in the Rhode Island Gilbert Stuart Dam Survey.

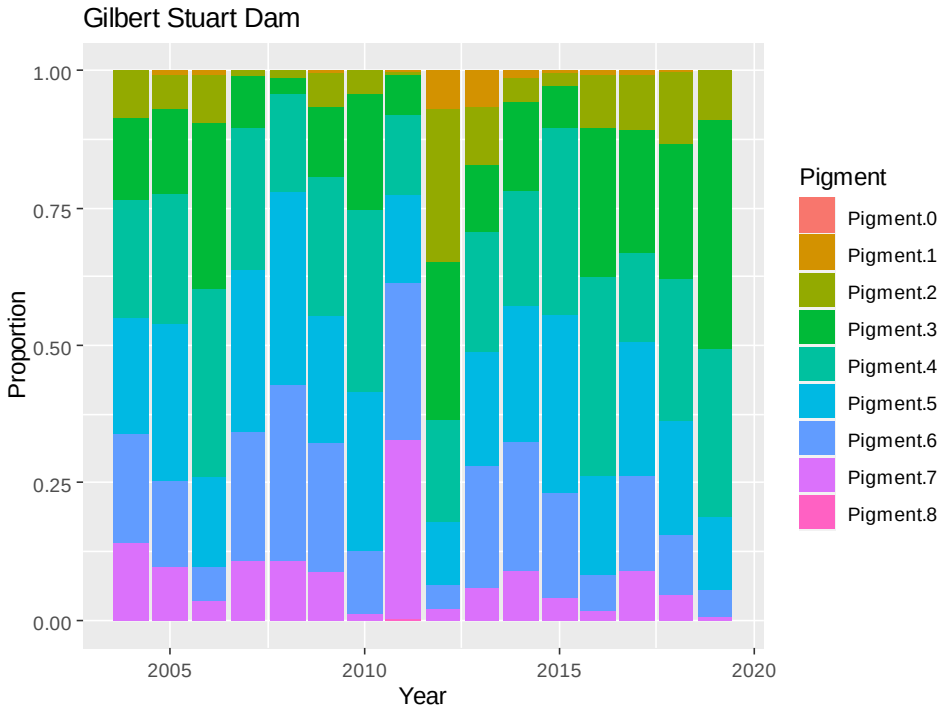


Figure 44. Distribution of pigment stages in the Gilbert Stuart Dam YOY American eel survey.

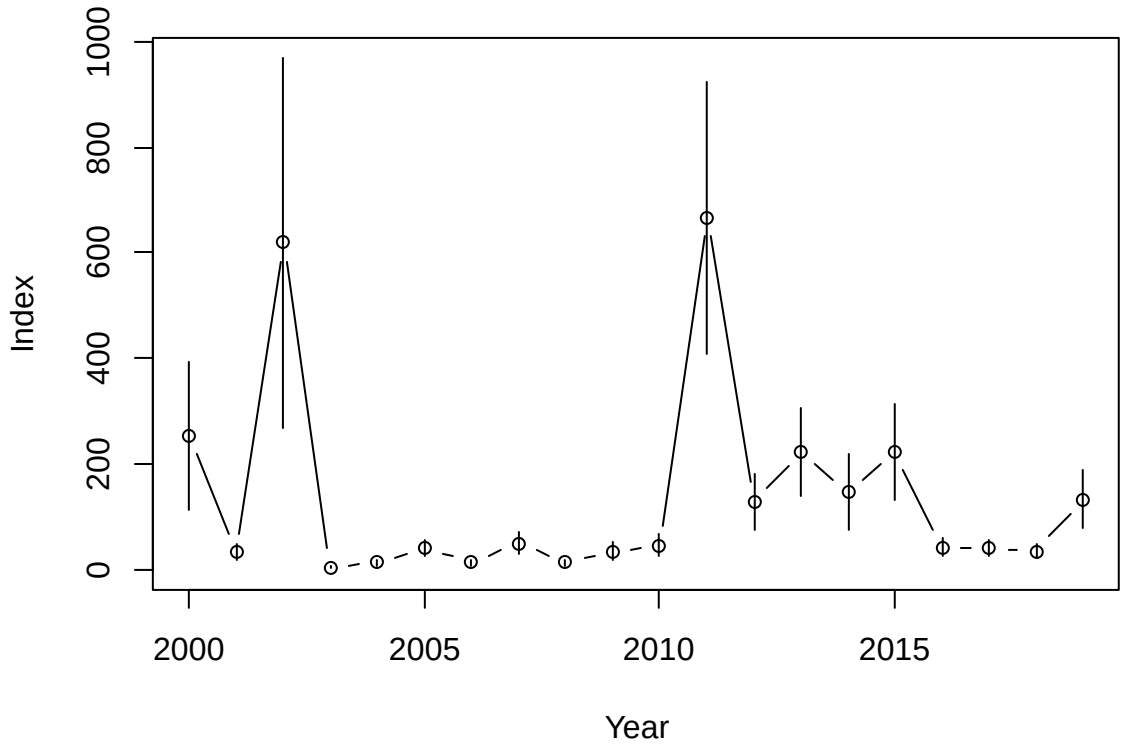


Figure 45. Standardized index of relative YOY abundance developed from Rhode Island's Gilbert Stuart Dam Survey with 95% confidence intervals.

Figure 46. Map of American eel YOY survey at the Hamilton Fish Ladder.

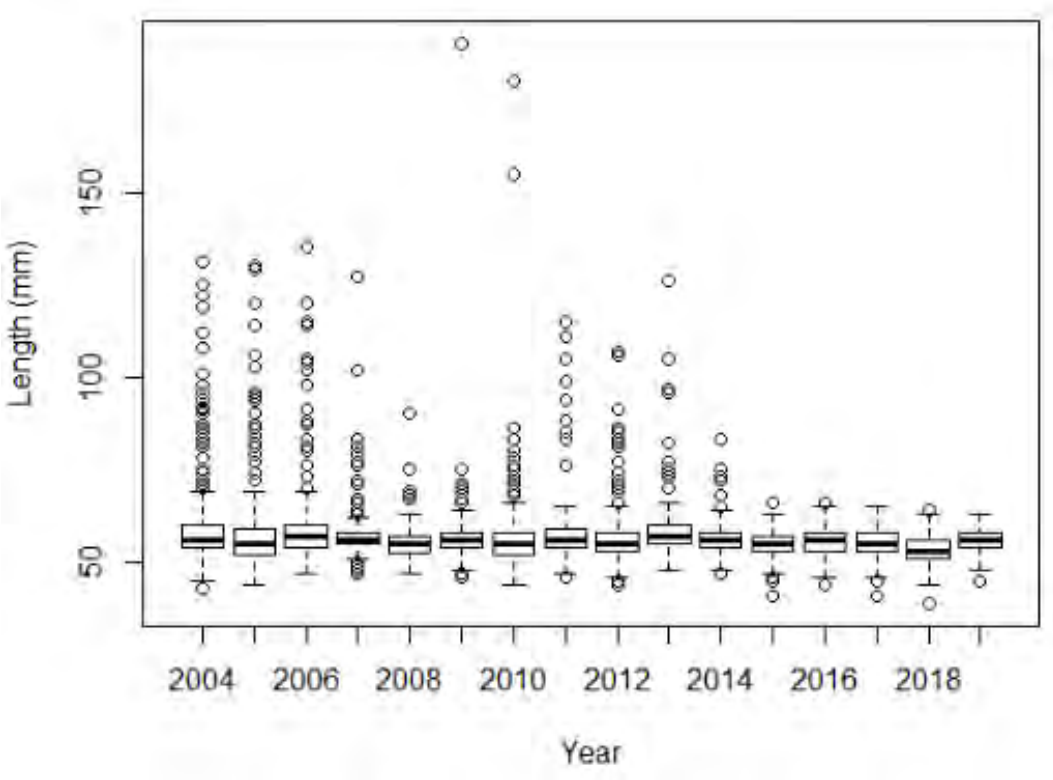


Figure 47. Boxplot of American eel YOY lengths recorded in the Rhode Island Hamilton Fish Ladder Survey.

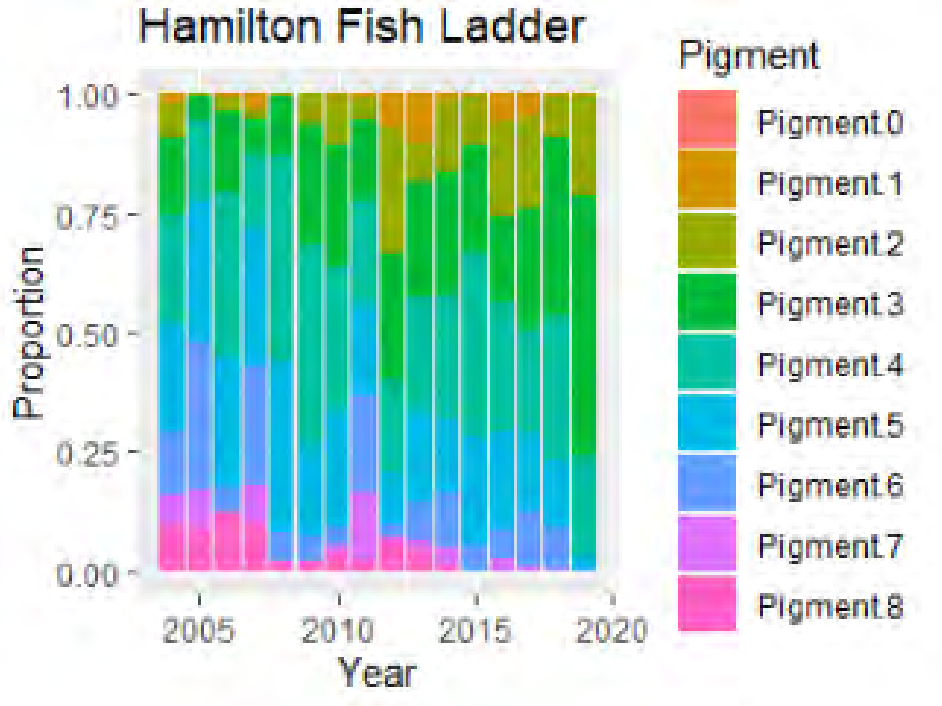


Figure 48. Distribution of pigment stages in the Hamilton Fish Ladder YOY American eel survey.

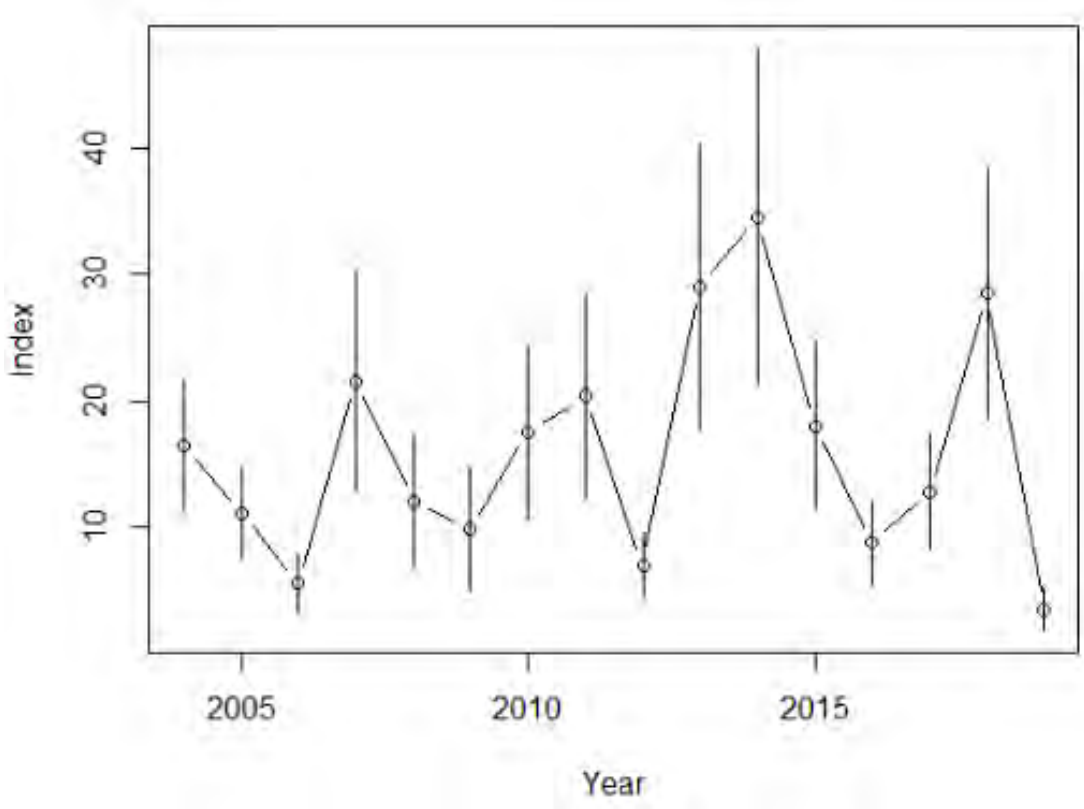


Figure 49. Standardized index of relative YOY abundance developed from Rhode Island's Hamilton Fish Ladder survey with 95% confidence intervals.

Figure 50. Map of the YOY Ingham Hill/Fishing Brook Eel Ramp as provided by CT DEEP.

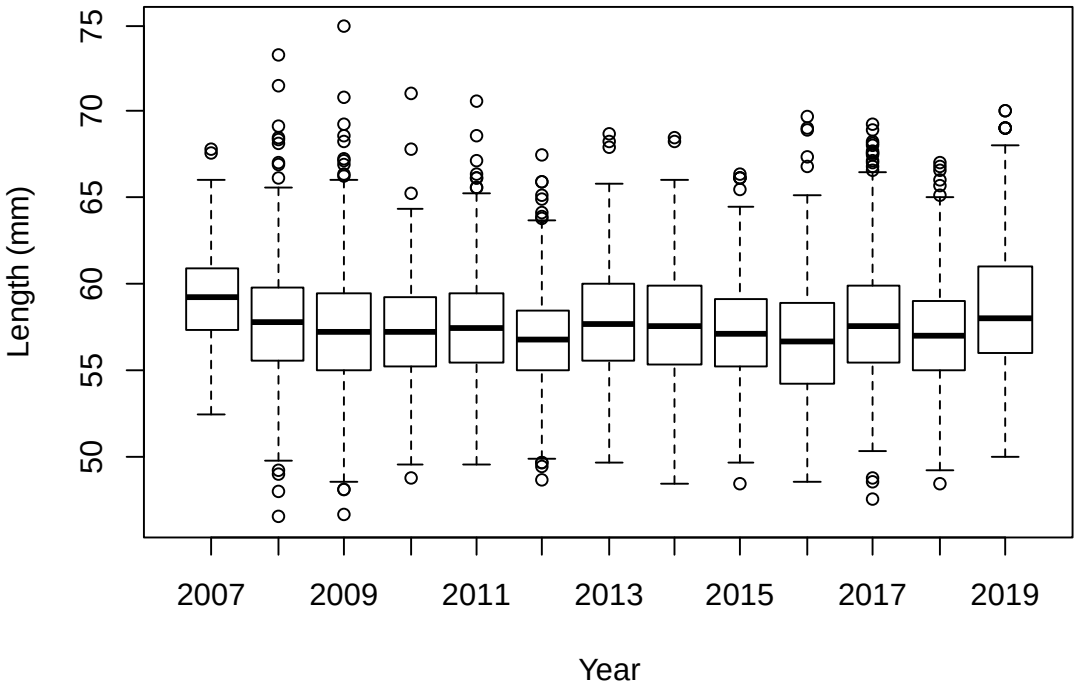


Figure 51. Boxplot of American eel YOY lengths recorded in the Connecticut Ingham Hill Survey.

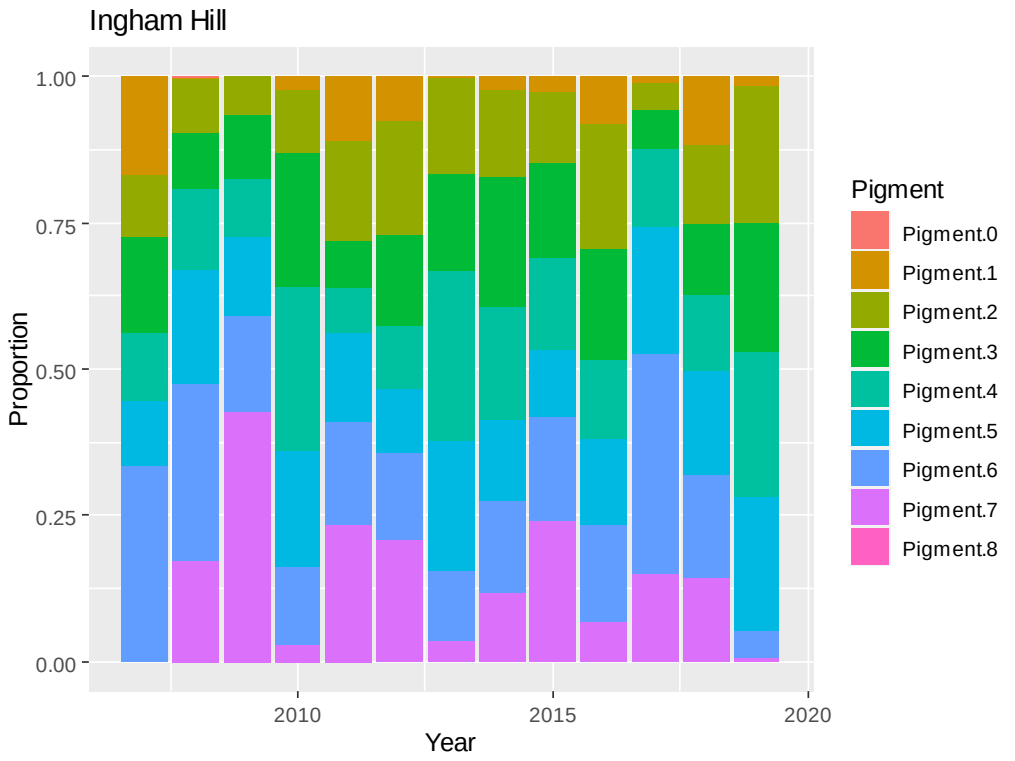


Figure 52. Distribution of pigment stages in the Ingham Hill YOY American eel survey.

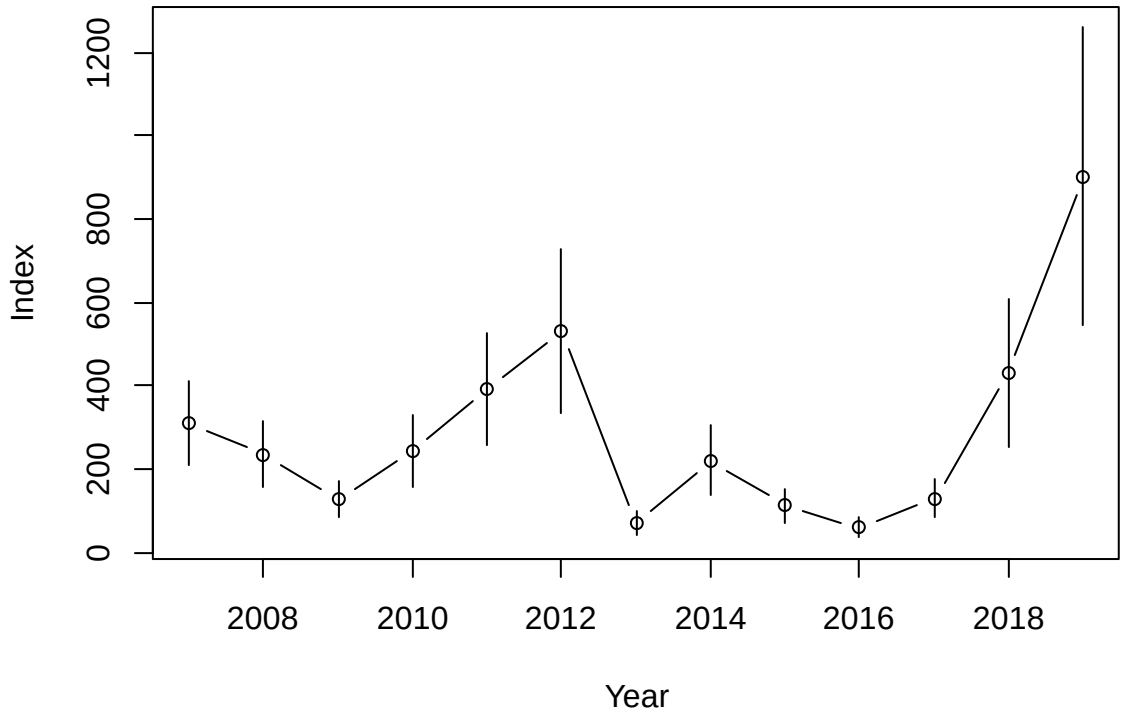


Figure 53. Standardized index of relative YOY abundance developed from Connecticut's Ingham Hill Survey with 95% confidence intervals.

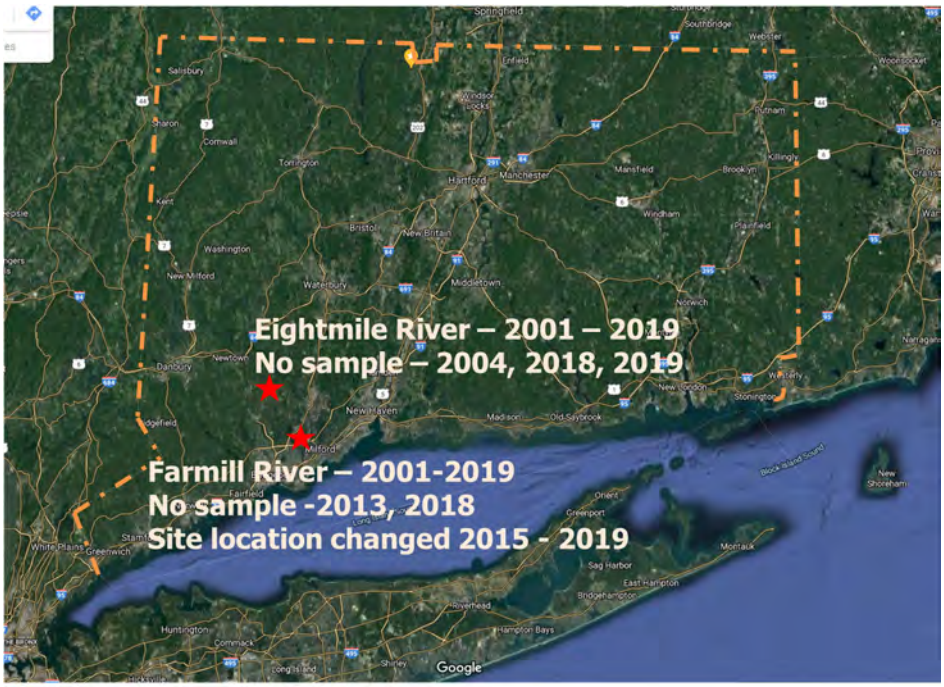


Figure 54. Map of the Connecticut electrofishing surveys used in this assessment as provided by CT DEEP.

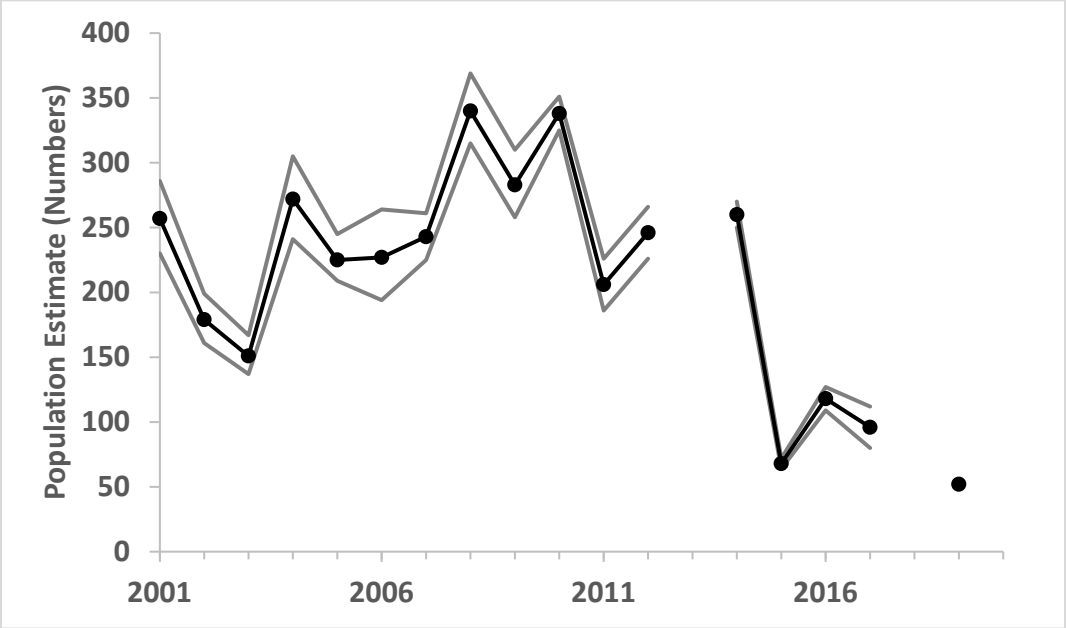


Figure 55. Population estimate for American eels caught by the CT DEEP Electrofishing Survey in the Farmill River. The grey lines represent 95% confidence intervals. The survey did not collect data in 2013 and 2018 and the survey changed sites in 2015.

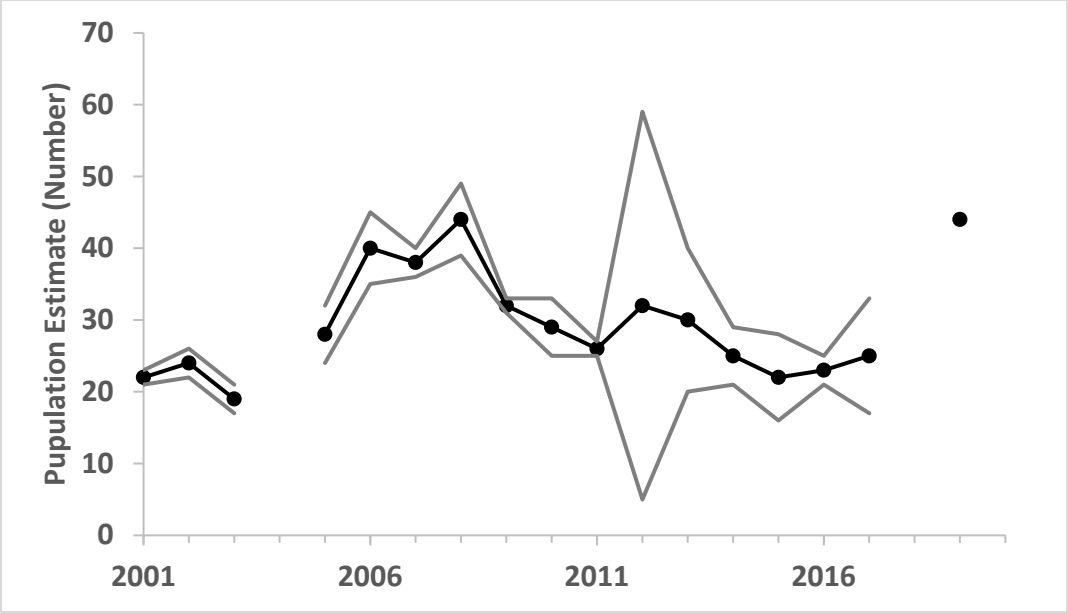


Figure 56. Population estimate for American eels caught by the CT DEEP Electrofishing Survey in the Eightmile River. The grey lines represent 95% confidence intervals.

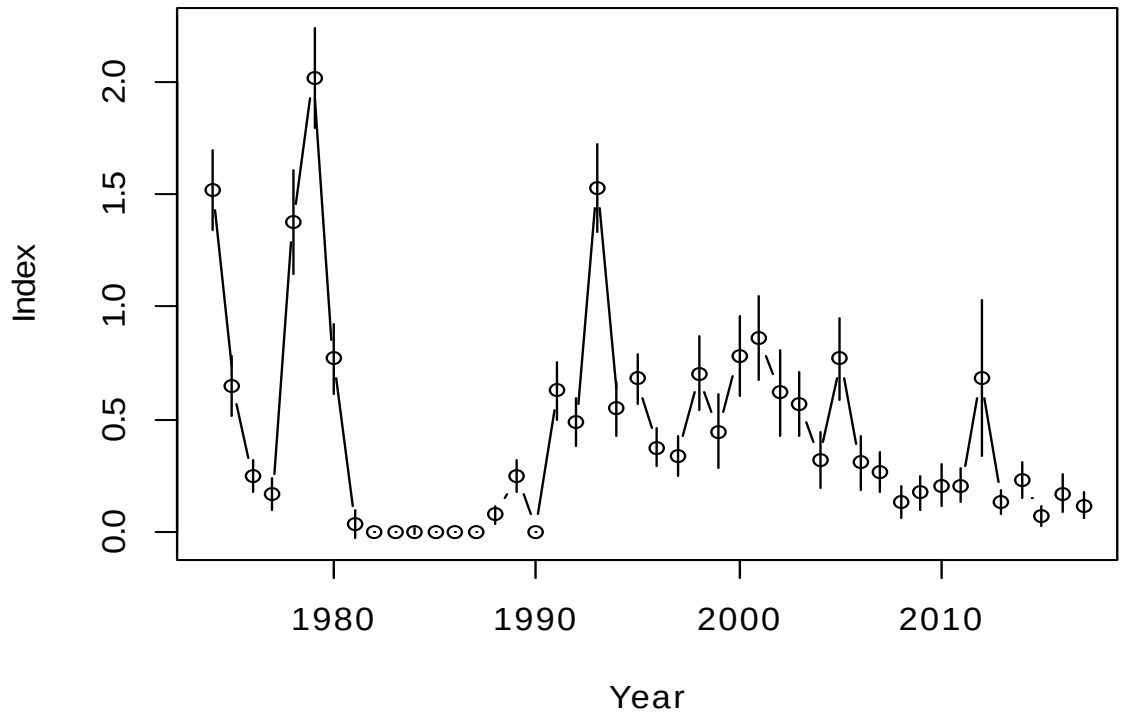


Figure 57. Standardized index of relative abundance of YOY eel developed from the Hudson River Estuary Monitoring Program with 95% confidence intervals.

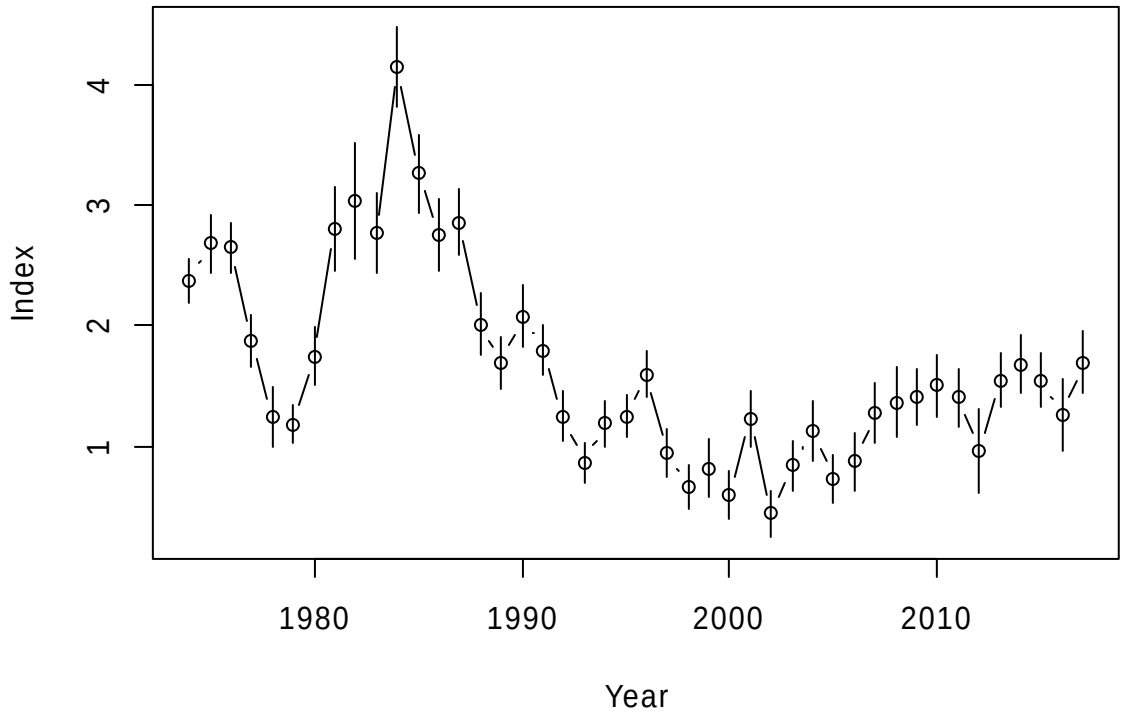


Figure 58. Standardized index of relative abundance of yellow eel developed from the Hudson River Estuary Monitoring Program with 95% confidence intervals.

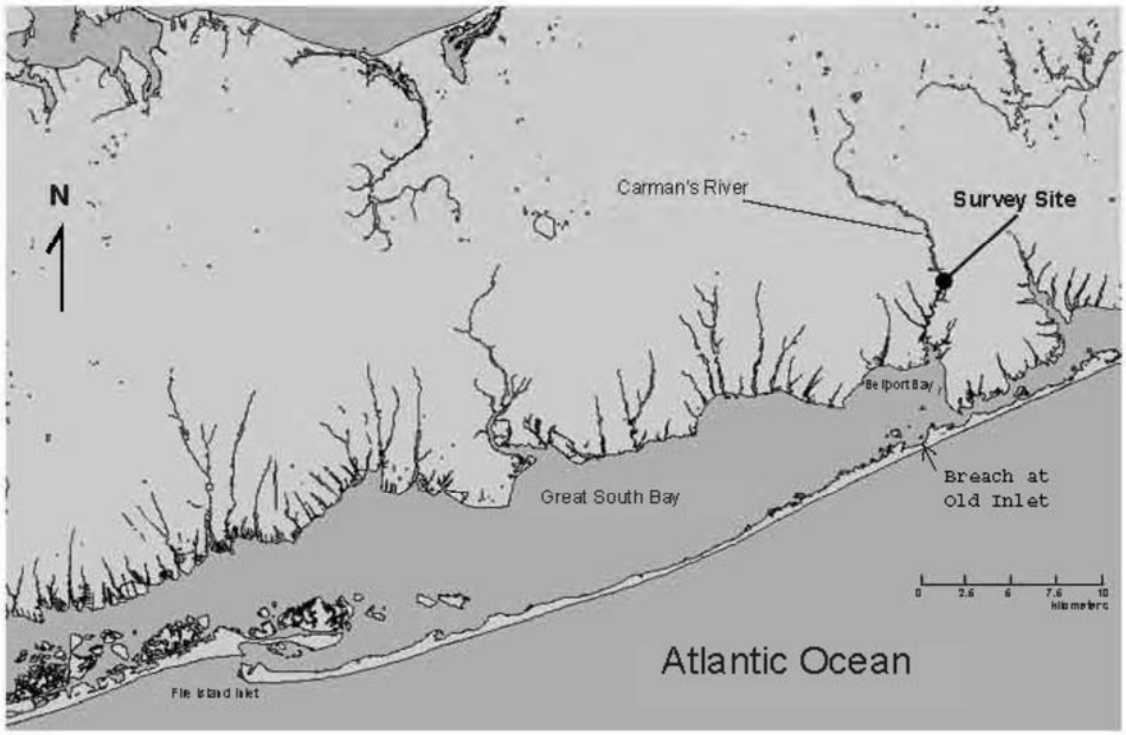


Figure 59. Map of Long Island showing the location of the Carman's River American eel YOY fyke net sampling site.

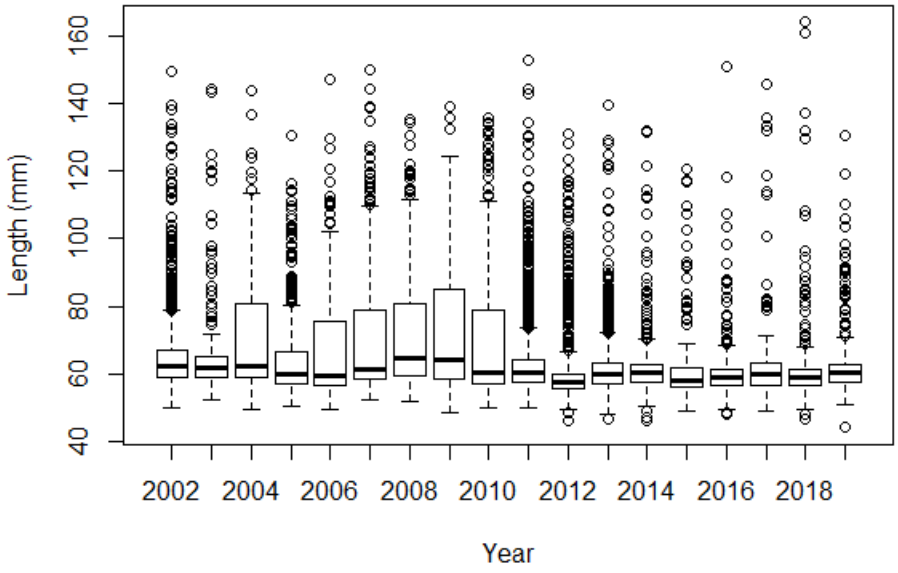


Figure 60. Boxplot of American eel lengths recorded in the Carman's River YOY American eel survey.

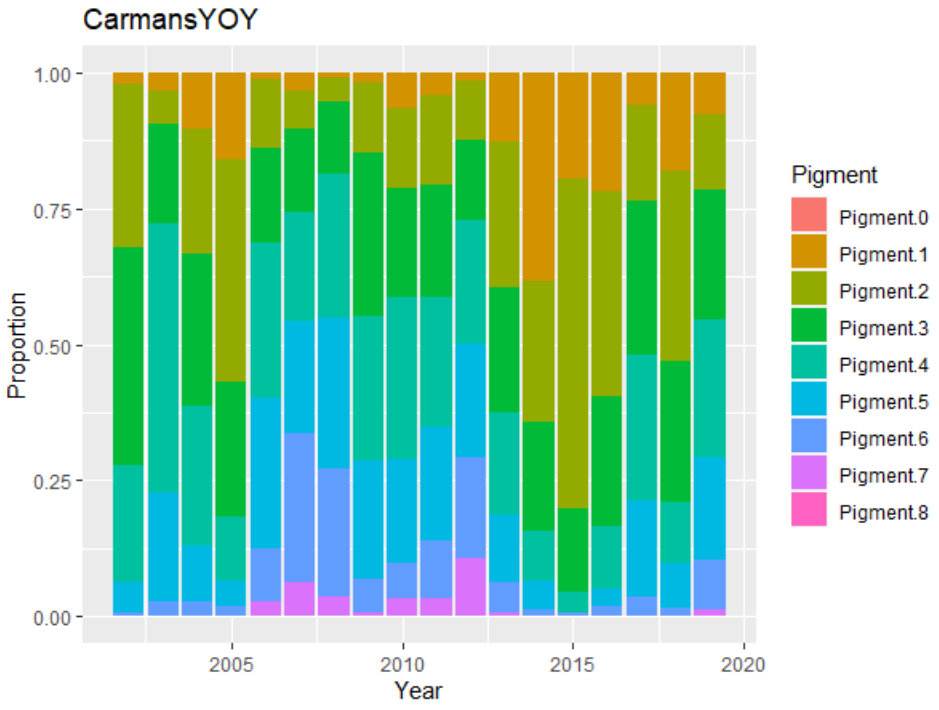


Figure 61. Distribution of pigment stages in the Carman's River YOY American eel survey.

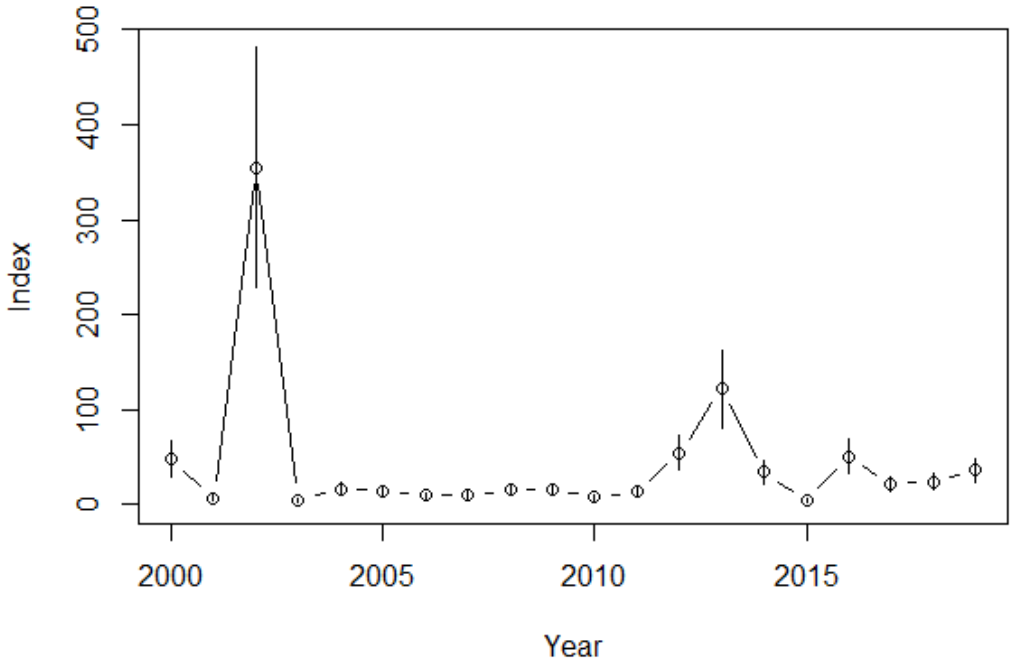


Figure 62. Standardized index of relative abundance of YOY eel developed from the NYSDEC Carman's River survey with 95% confidence intervals.

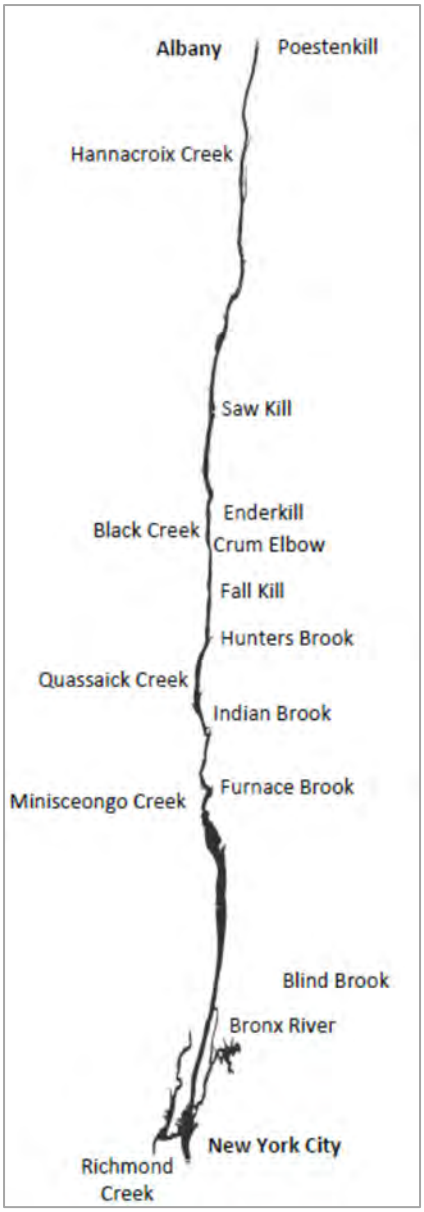


Figure 63. Map of the NYSDEC Hudson River citizen science survey sampling sites.

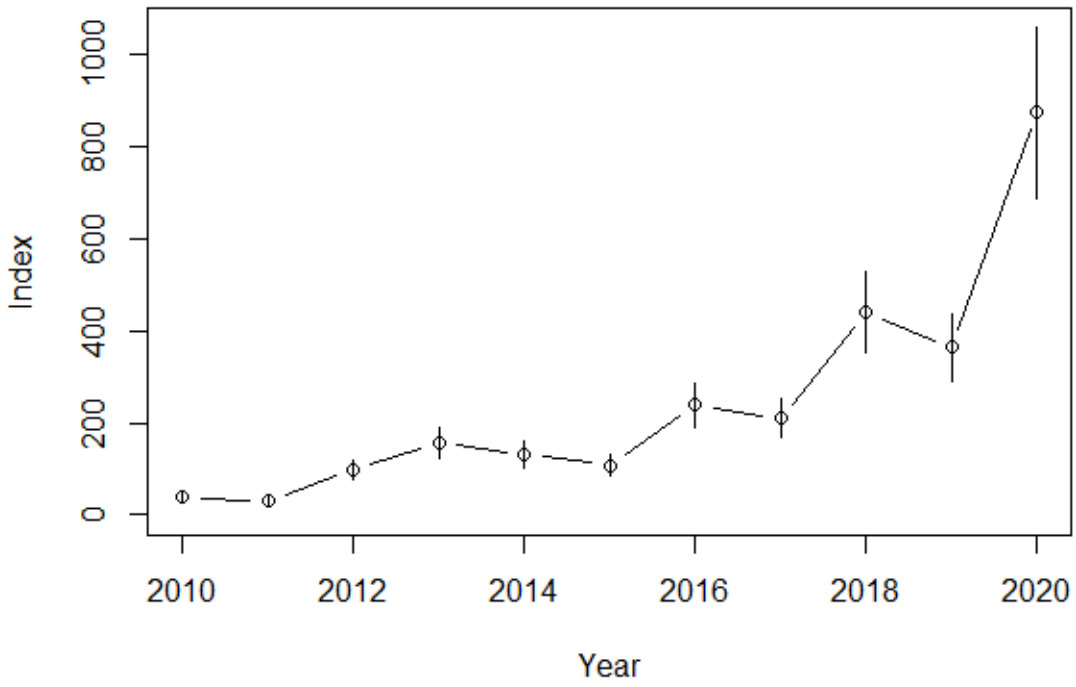


Figure 64. Standardized index of relative abundance of YOY eel developed from the NYSDEC Hudson River citizen science survey with 95% confidence intervals.

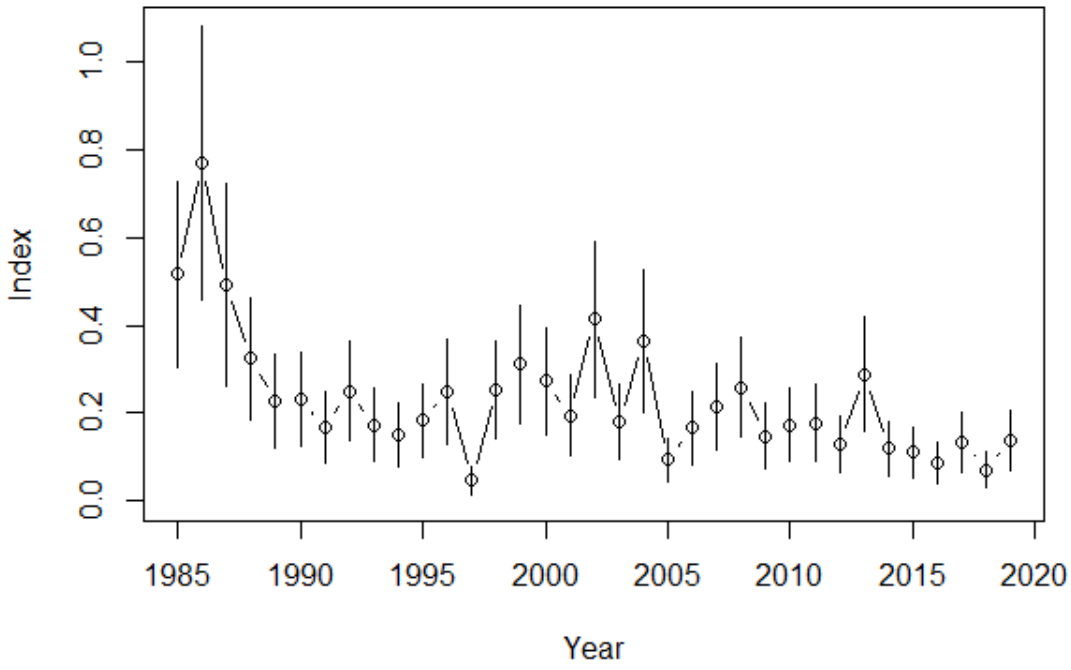


Figure 65. Standardized index of relative abundance of yellow eel developed from the NYSDEC Hudson River Juvenile Alosine Seine survey with 95% confidence intervals.

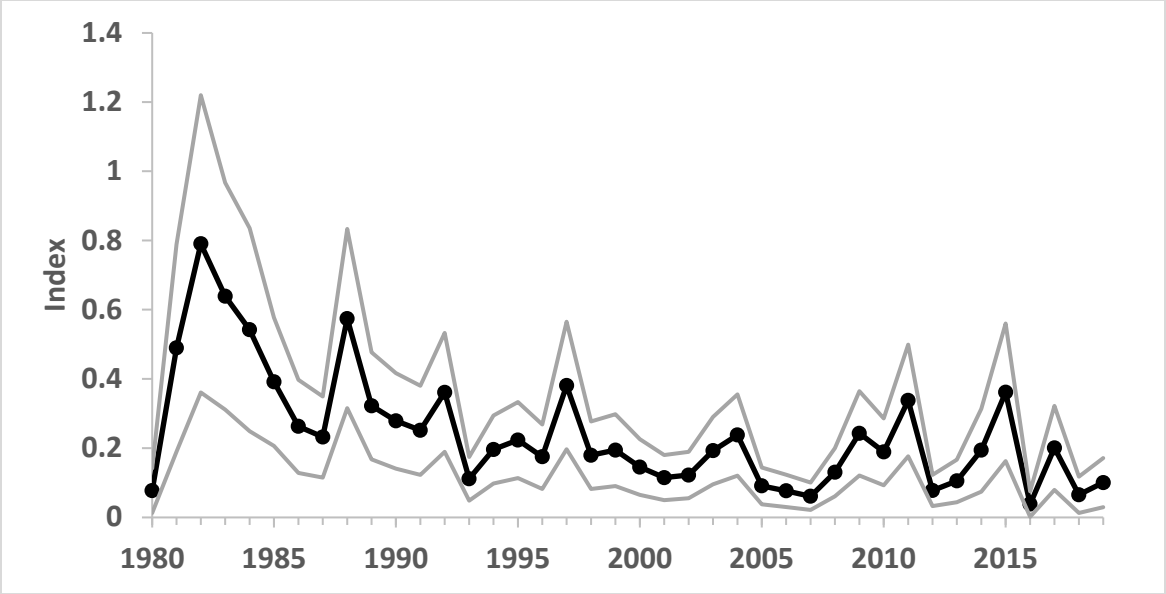


Figure 66. Standardized index of relative abundance of yellow eel developed from the NYSDEC Hudson River Juvenile Striped Bass Seine survey with 95% confidence intervals.

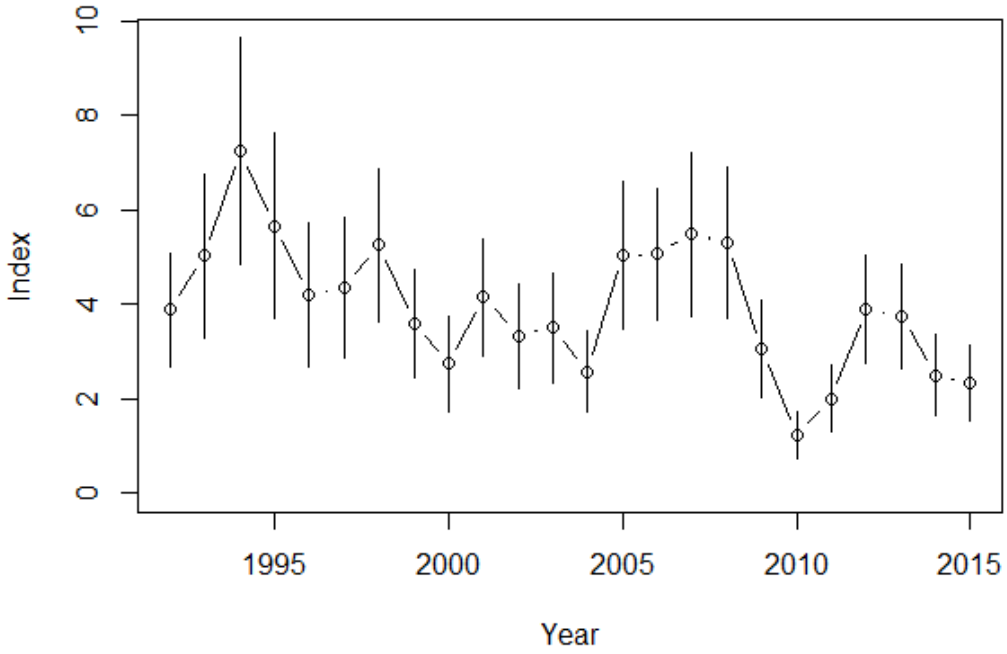


Figure 67. Standardized index of relative abundance of YOY eel developed from the Little Egg Inlet Ichthyoplankton survey with 95% confidence intervals.

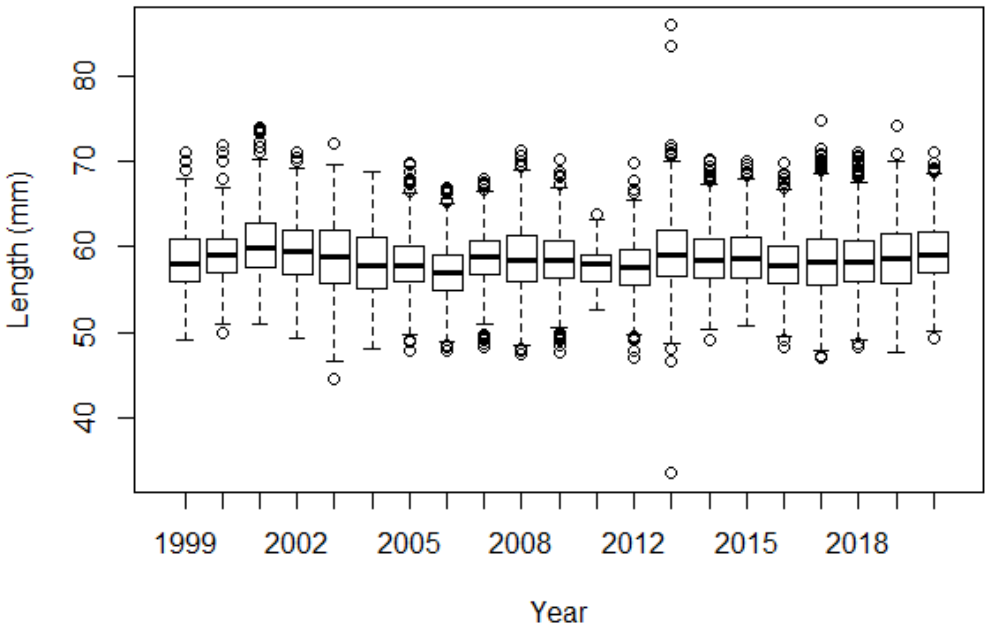


Figure 68. Boxplot of American eel lengths recorded in the Patcong Creek YOY American eel survey.

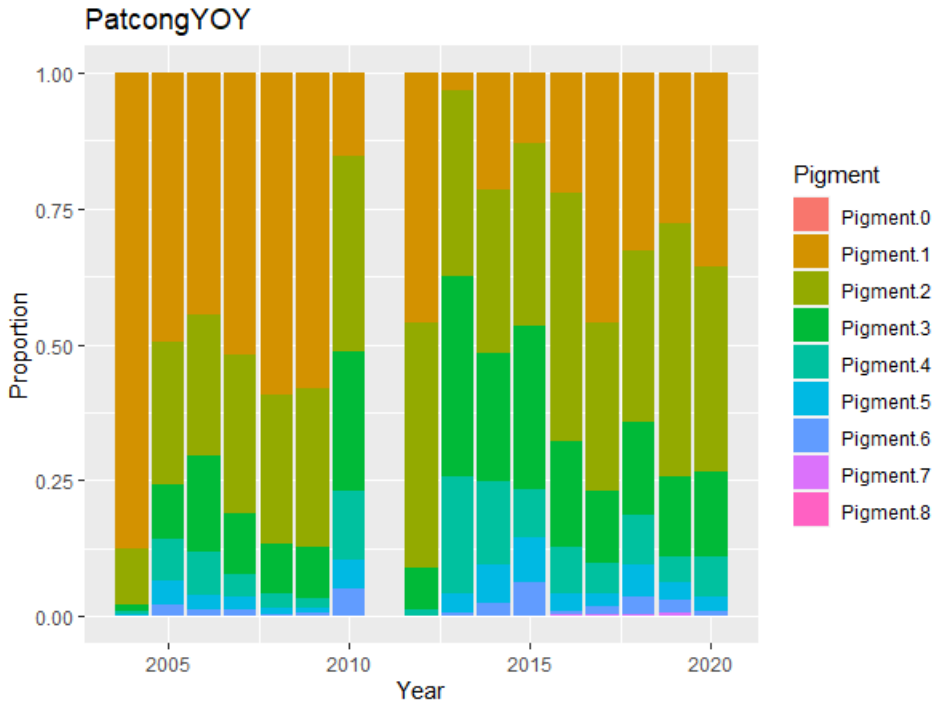


Figure 69. Distribution of pigment stages in the Patcong Creek YOY American eel survey.

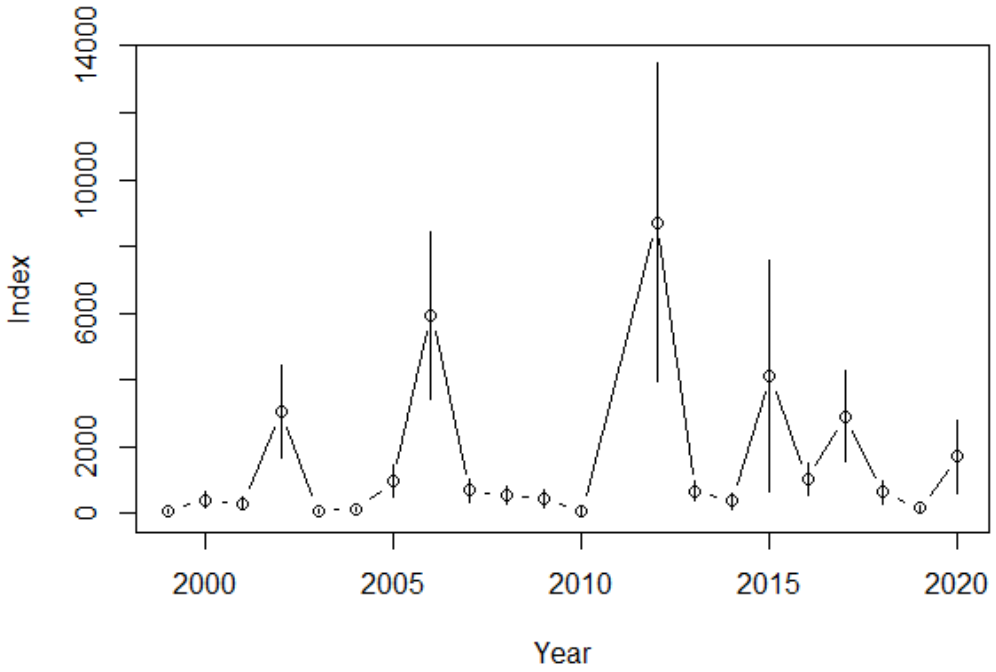


Figure 70. Standardized index of relative abundance of YOY eel developed from the Patcong Creek survey with 95% confidence intervals.

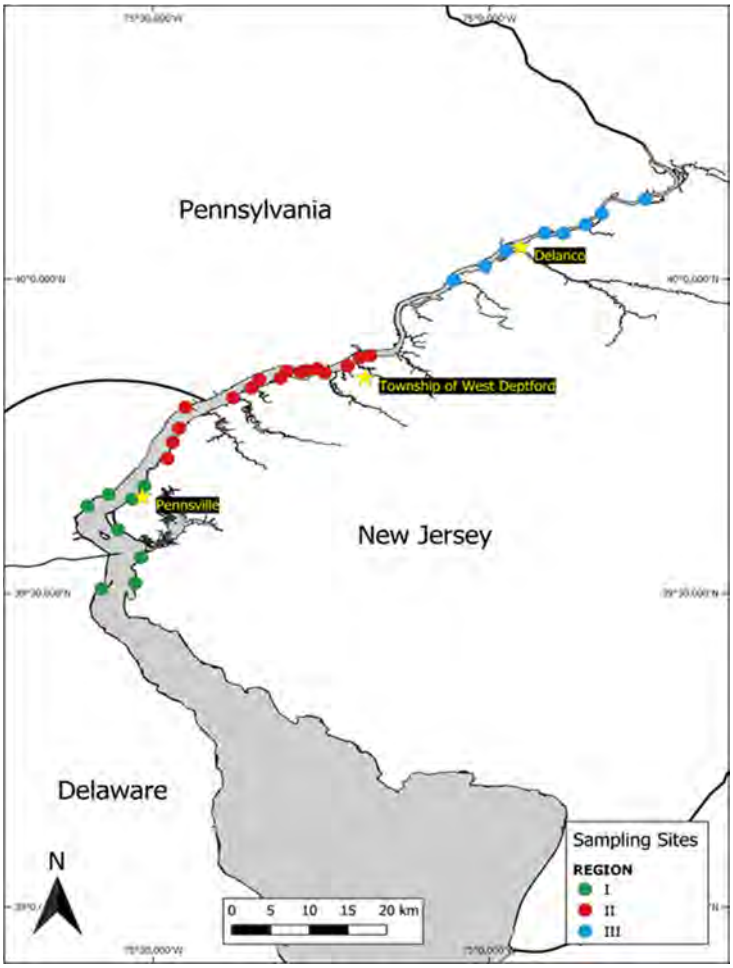


Figure 71. Map of sampling stations for the Delaware River seine survey.

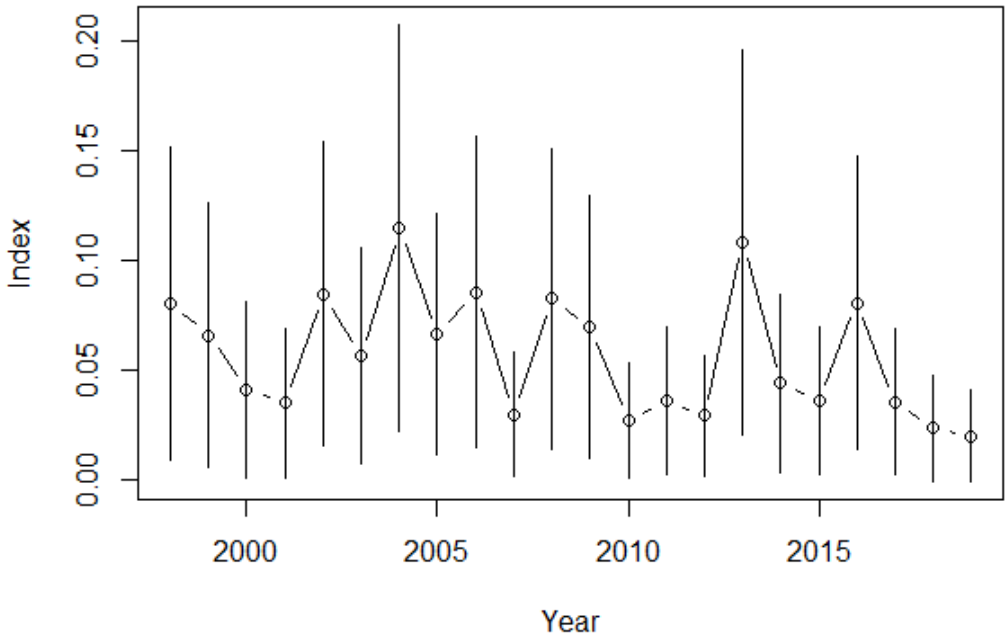


Figure 72. Standardized index of relative abundance of yellow eel developed from the Delaware River seine survey with 95% confidence intervals.

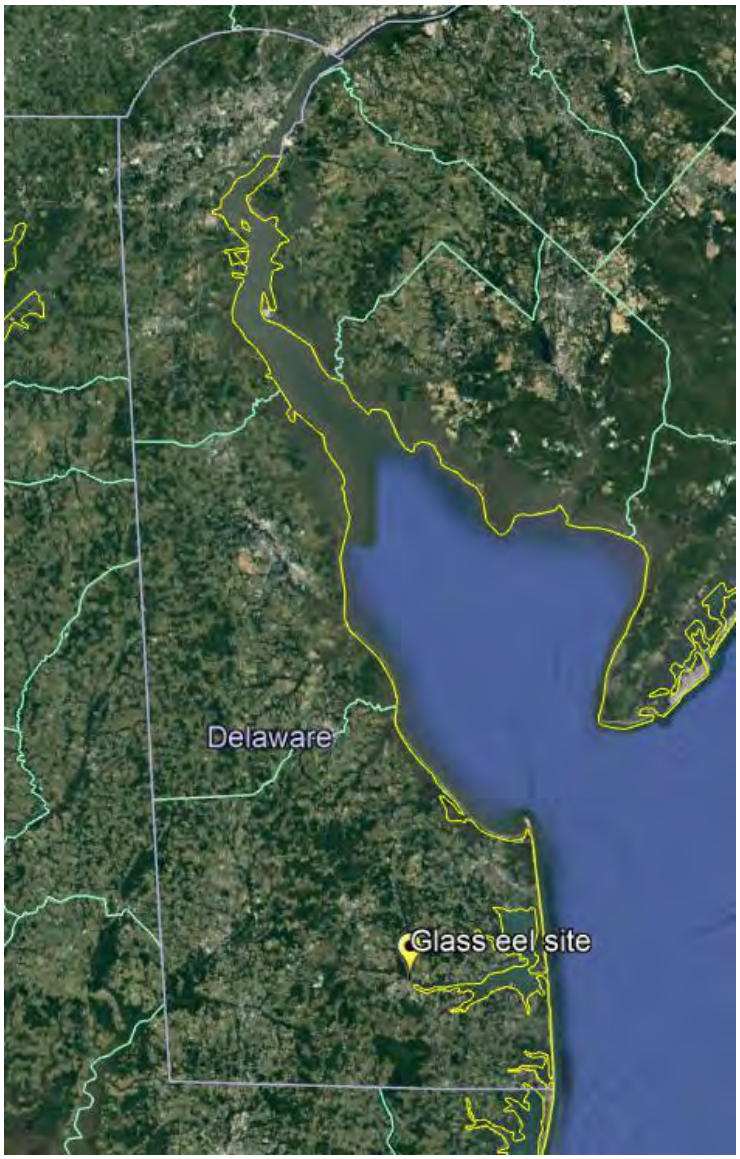


Figure 73. Delaware Millsboro Dam Survey fixed station sampling location.

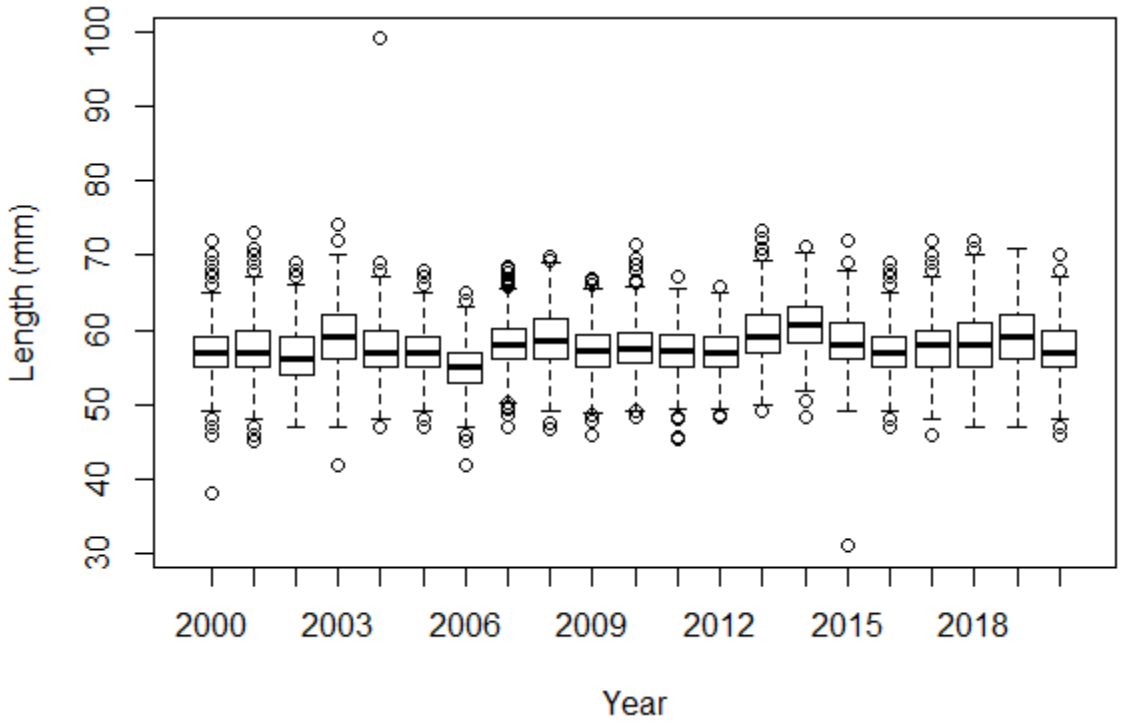


Figure 74. Boxplot of American eel lengths recorded in the Delaware Millsboro Dam Survey.

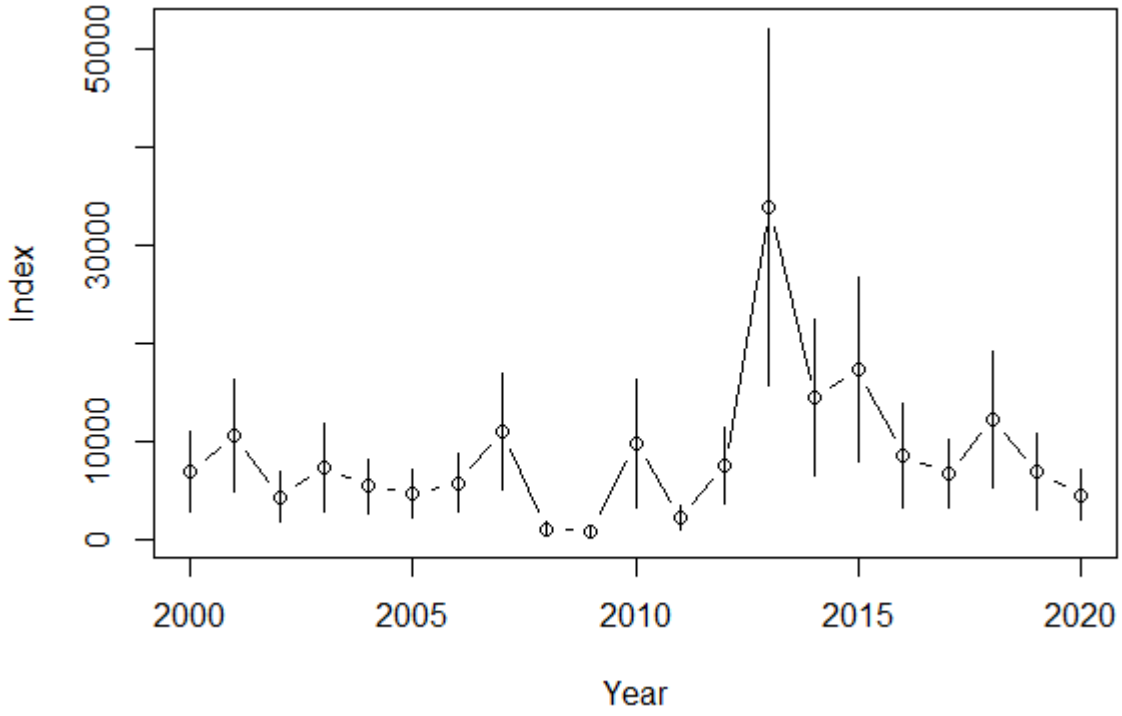


Figure 75. Standardized index of relative abundance of YOY eel developed from the Delaware Millsboro Dam Survey with 95% confidence intervals.

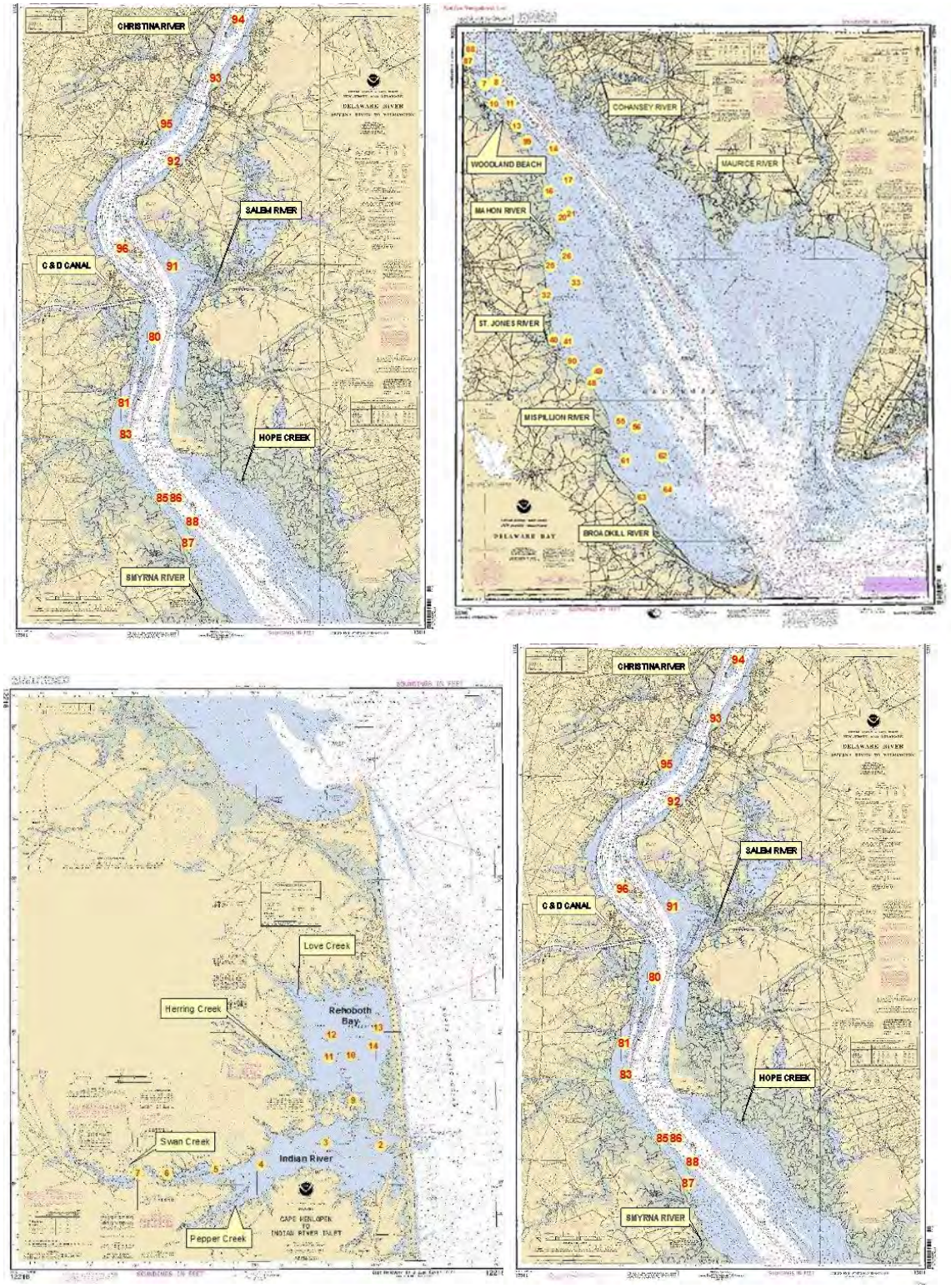


Figure 76. Delaware Juvenile Trawl Survey fixed station sampling locations.

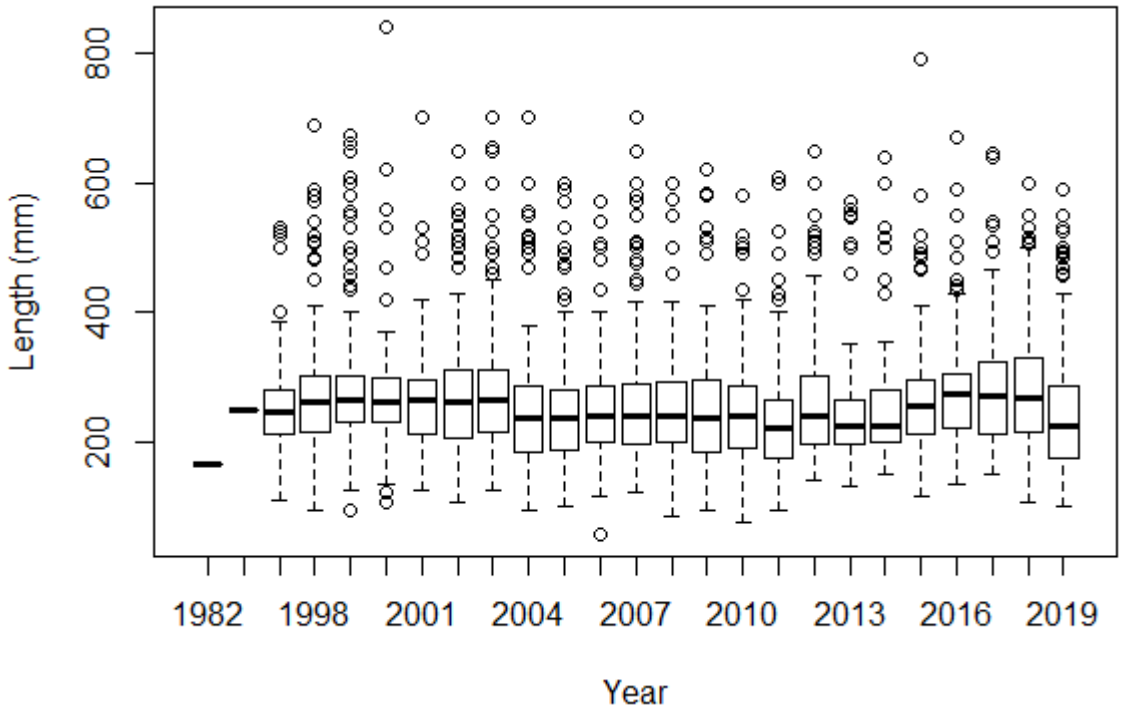


Figure 77. Boxplot of American eel lengths recorded in the Delaware Juvenile Trawl Survey.

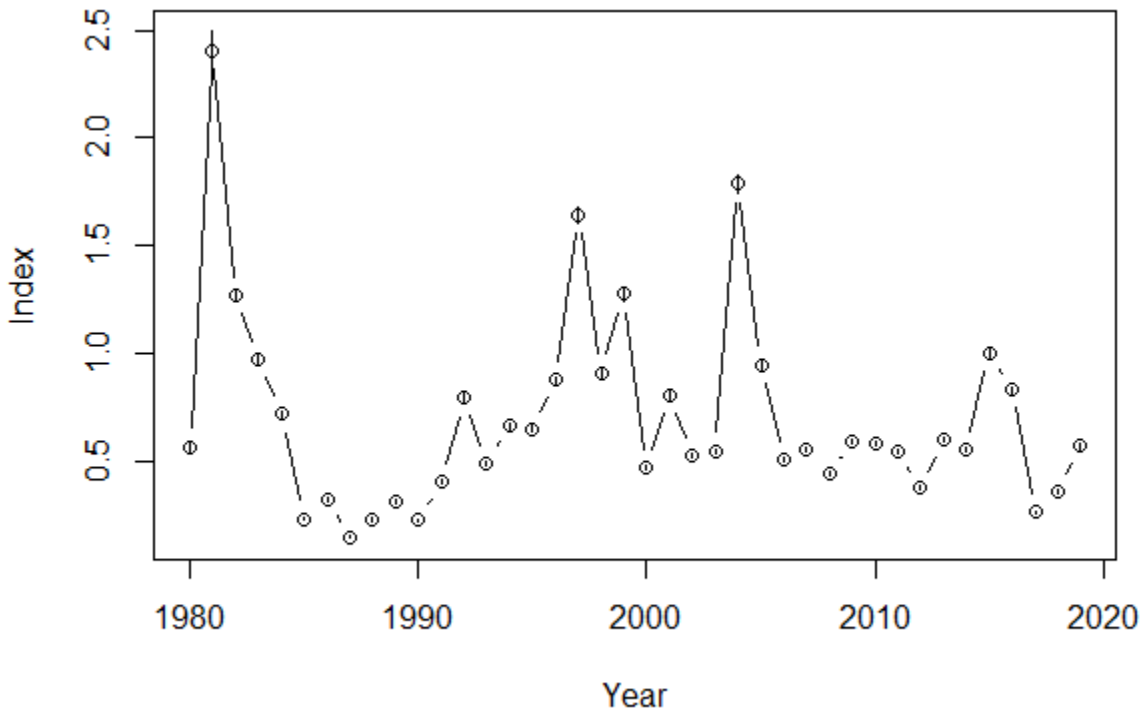


Figure 78. Index of relative abundance of yellow eel developed from the Delaware Juvenile Trawl Survey with 95% confidence intervals.

Figure 79. Pennsylvania Delaware River Area 6 Survey sampling locations.

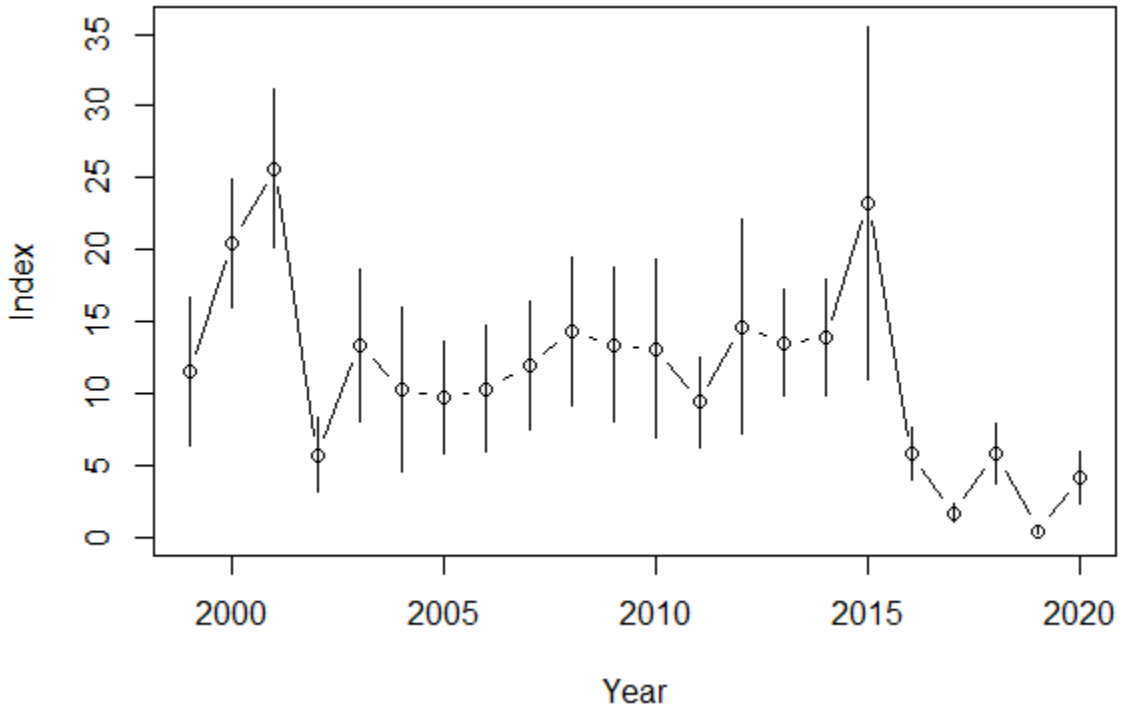


Figure 80. Index of relative abundance of elver eels developed from the Pennsylvania Delaware River Area 6 Survey with 95% confidence intervals.

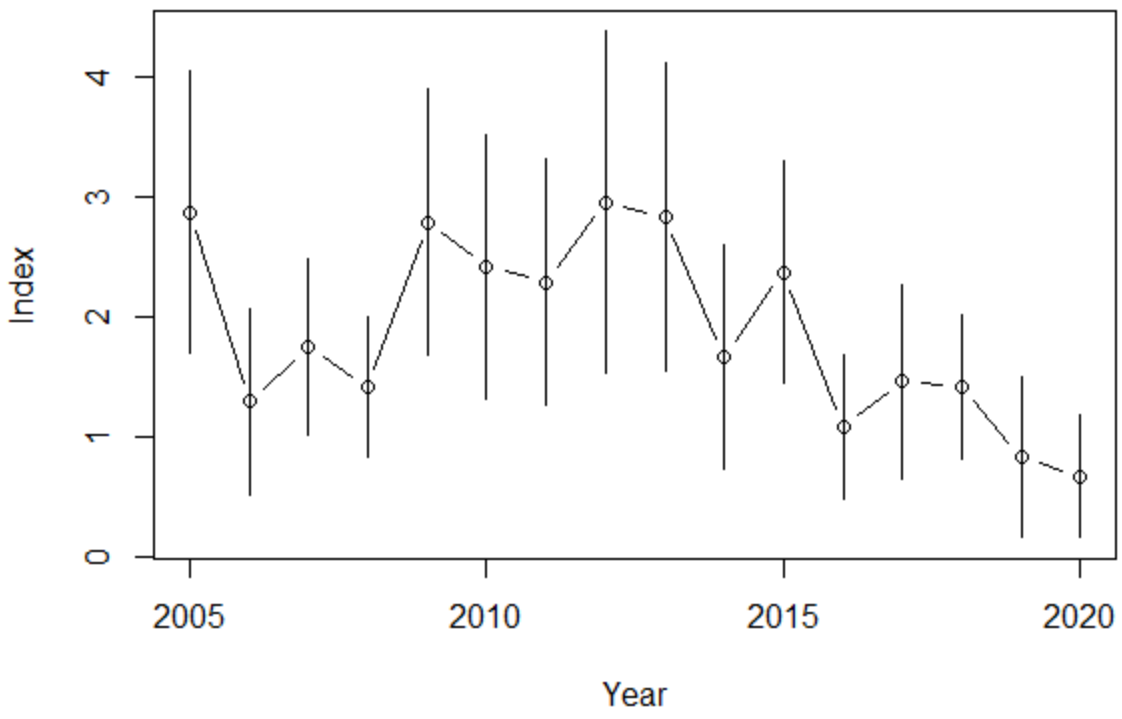


Figure 81. Index of relative abundance of yellow eels developed from the Pennsylvania Delaware River Area 6 Survey with 95% confidence intervals.

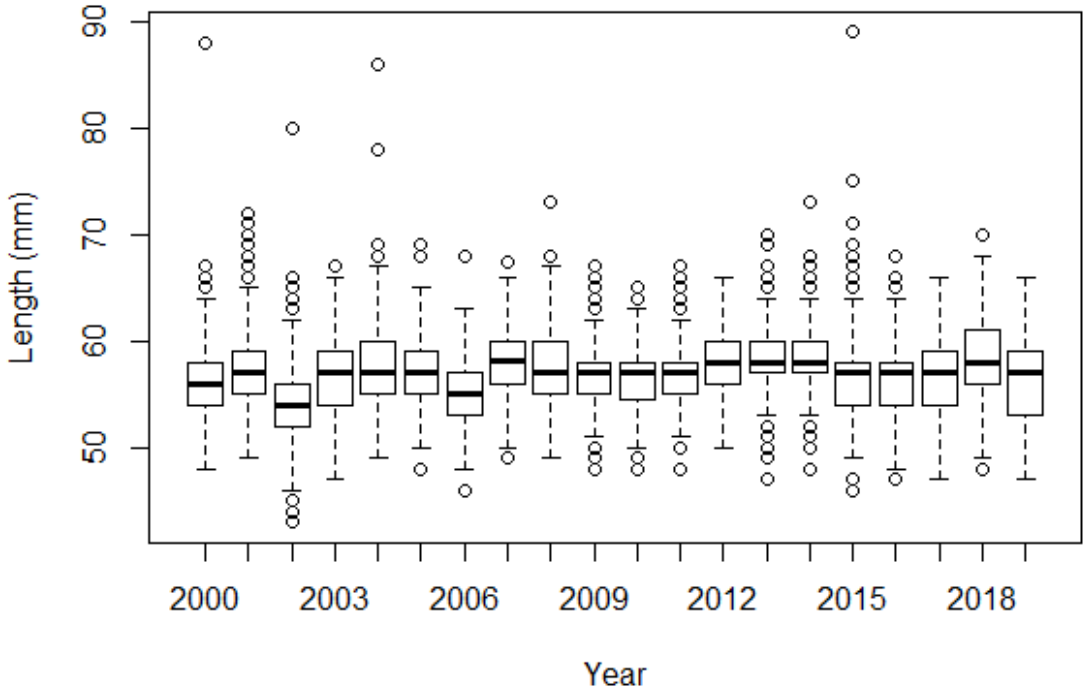


Figure 82. Glass eel total length measurements from Turville Creek, 2000 – 2019.

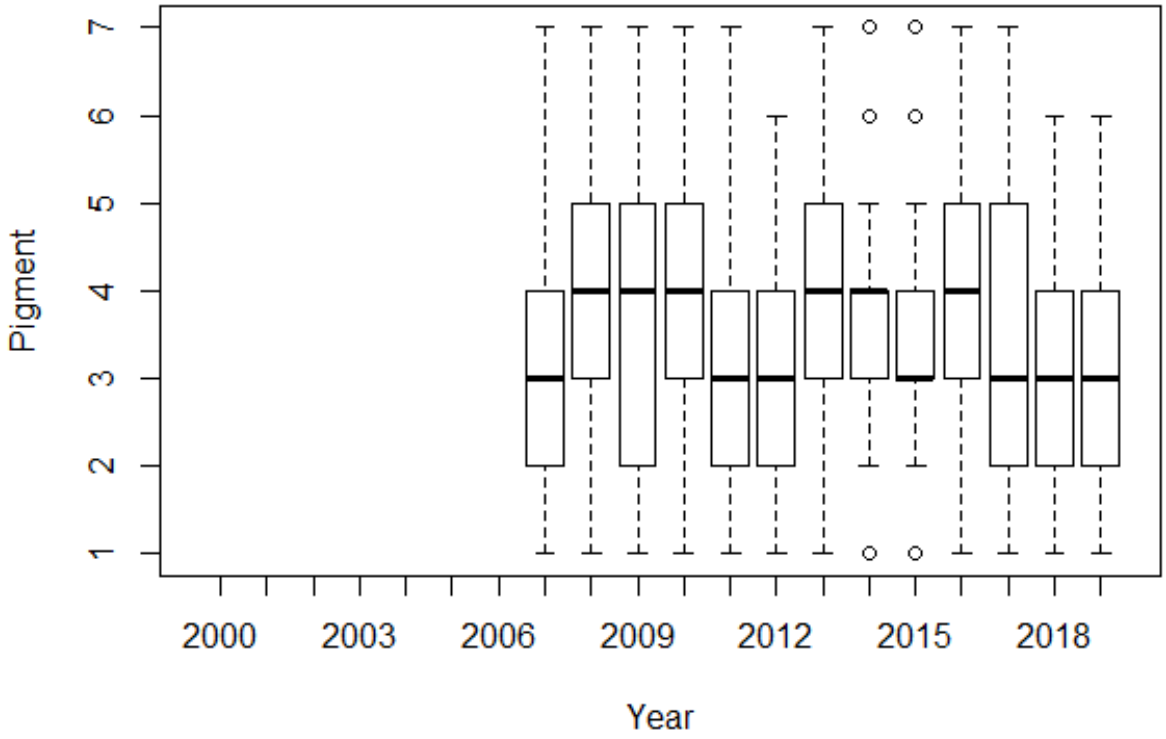


Figure 83. Glass eel pigment stage from Turville Creek, 2007 – 2019. Pigment stage was not assessed prior to 2007.

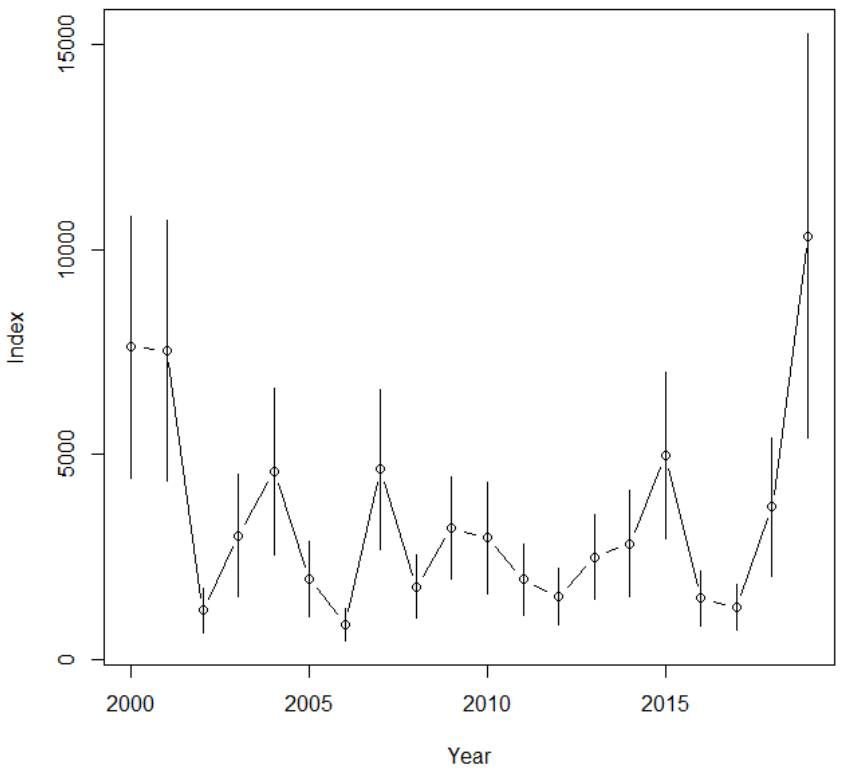


Figure 84. Standardized index of YOY relative abundance developed from Maryland's Turville Creek YOY Survey with 95% confidence intervals.

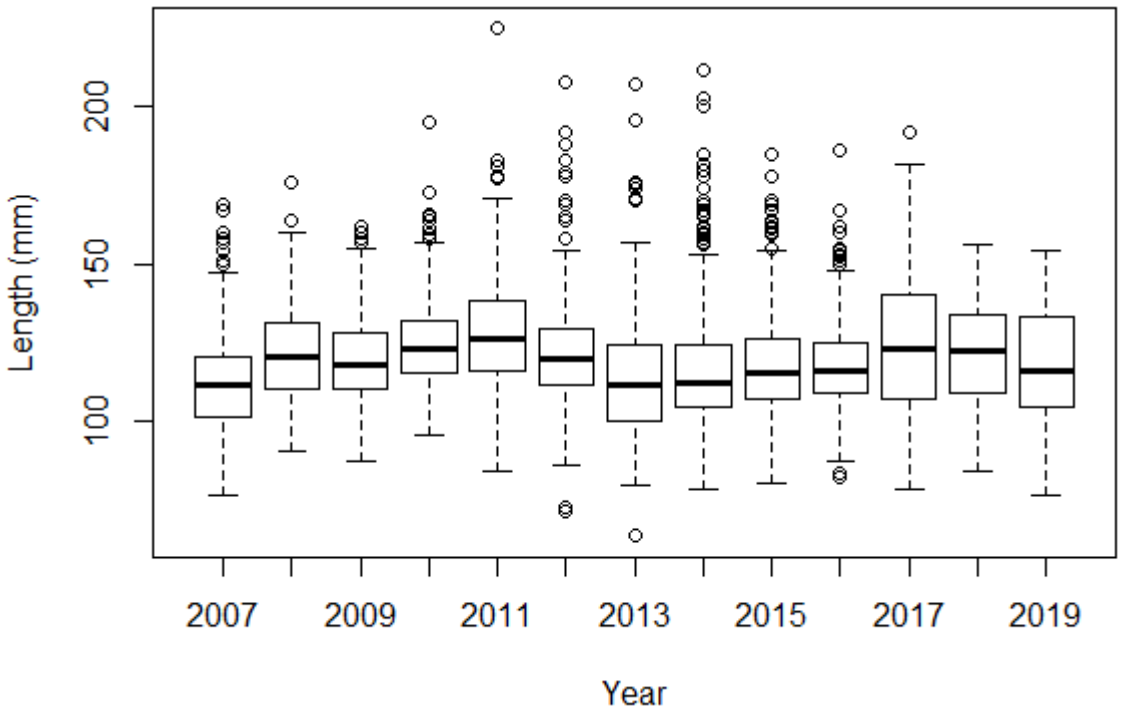


Figure 85. Elver total length measurements from the Maryland Susquehanna River Conowingo Dam Ramp Survey.

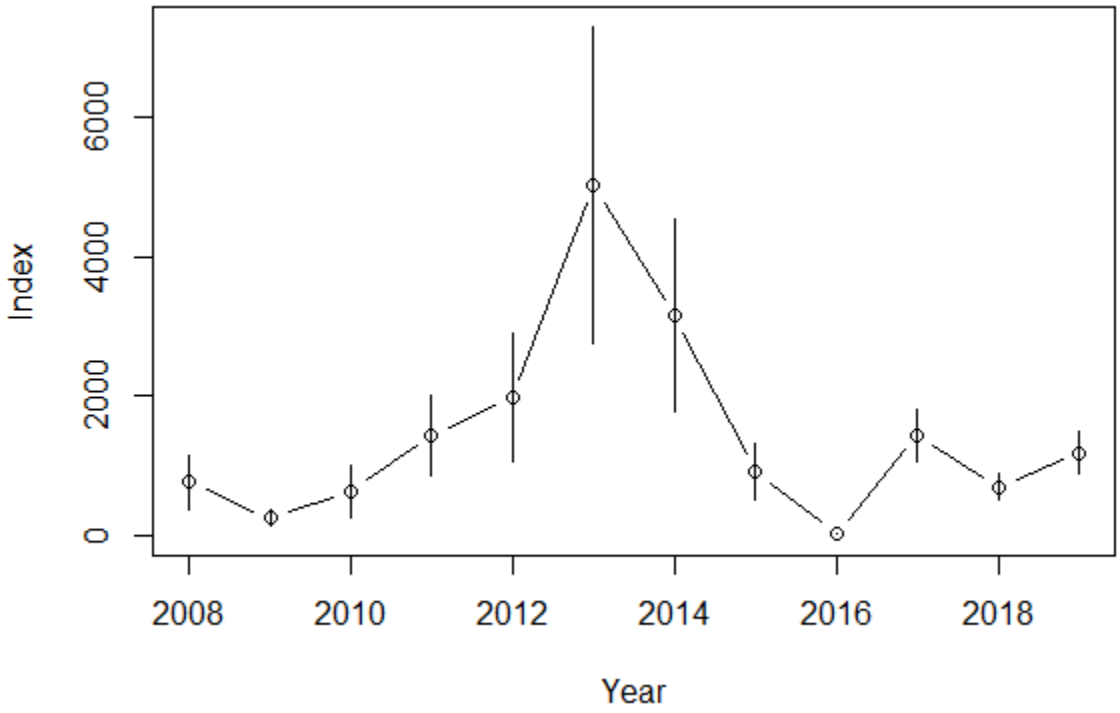


Figure 86. Index of relative abundance of elvers developed from the Maryland Susquehanna River Conowingo Dam Ramp Survey with 95% confidence intervals.

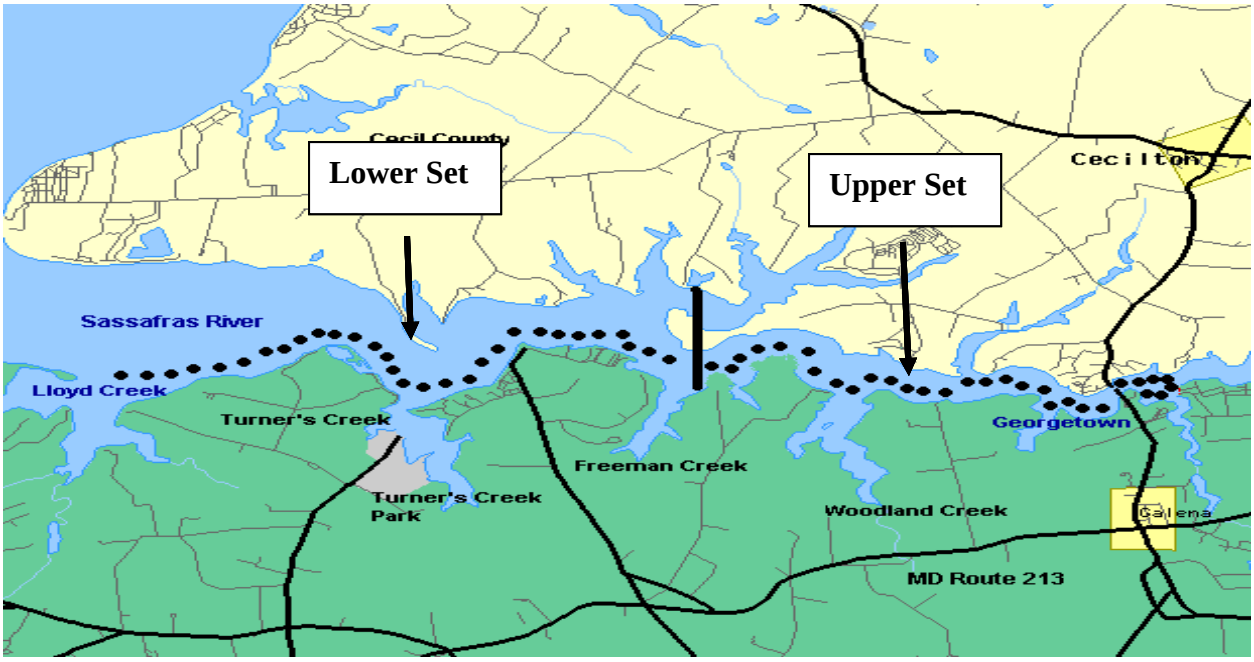


Figure 87. Location of fixed sites in Maryland's Sassafras River eel pot survey targeting yellow eels.

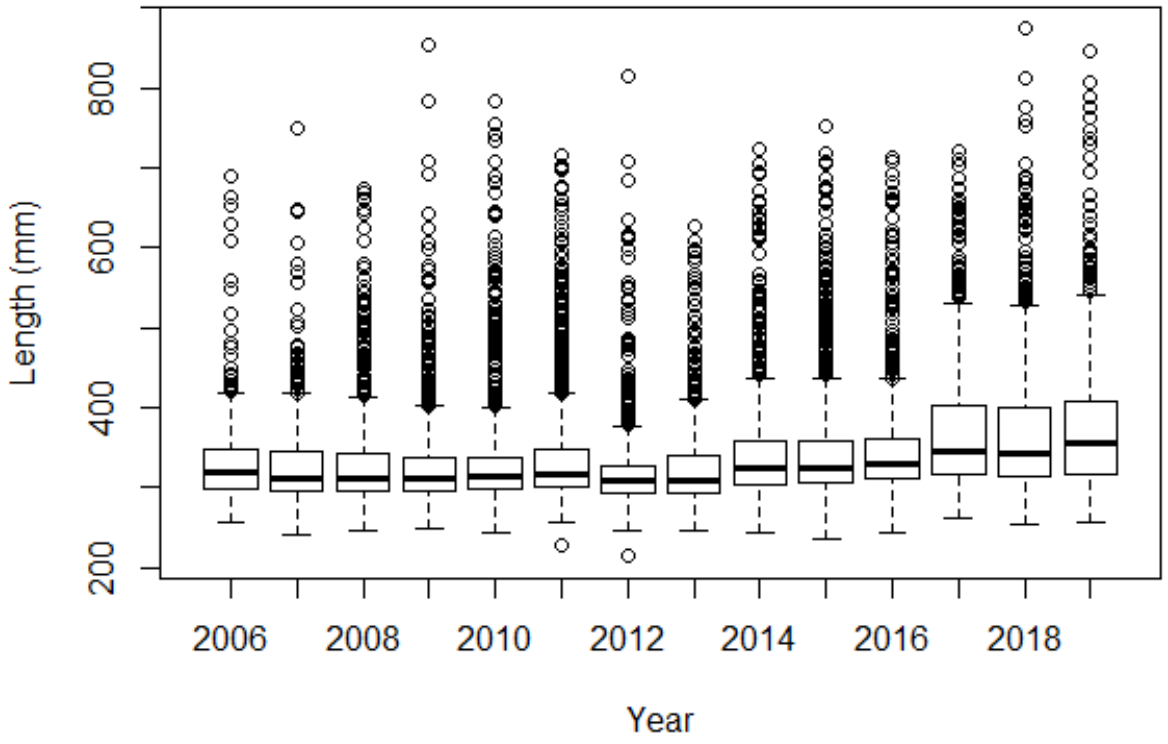


Figure 88. Yellow eel lengths from the Sassafras River Eel Pot Survey, 2006 - 2019.

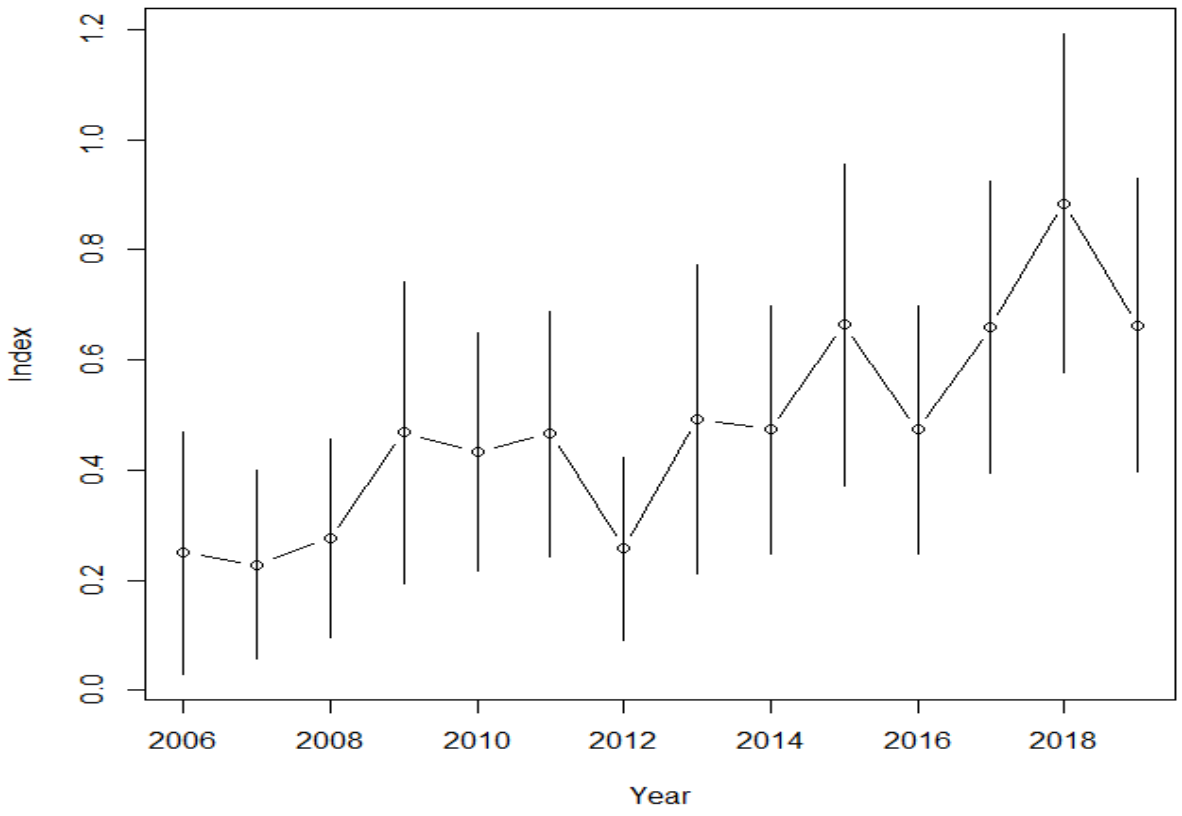


Figure 89. Index of relative biomass of yellow eels developed from the Sassafras River Eel Pot Survey with 95% confidence intervals.

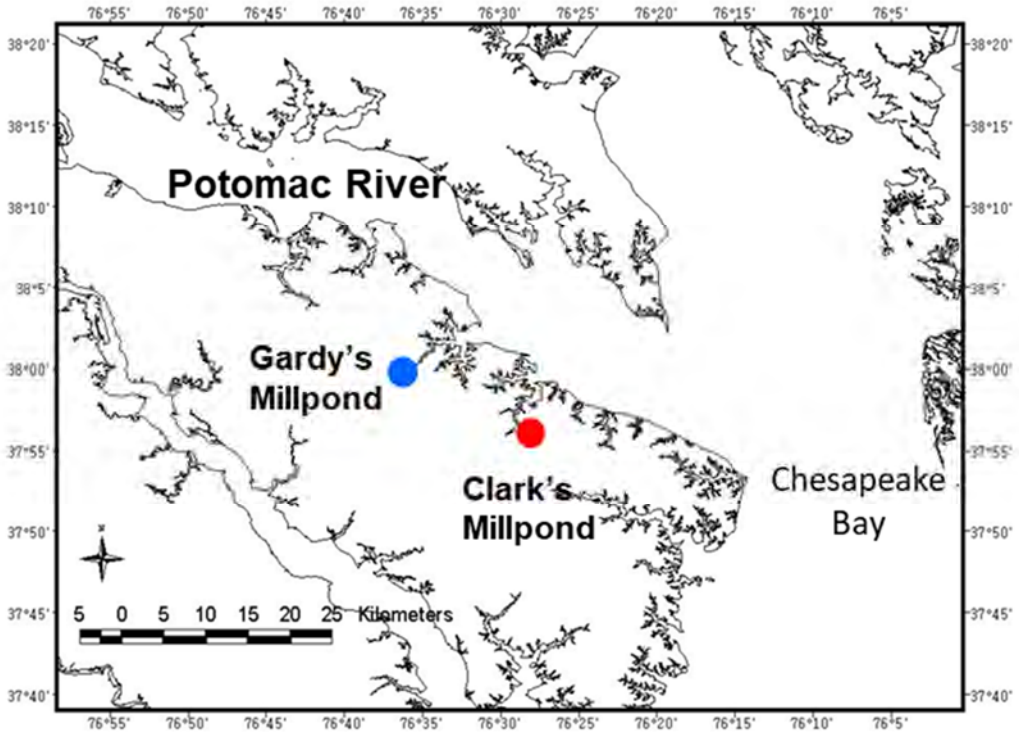


Figure 90. Location of the Gardy's Millpond and Clark's Millpond YOY surveys on the Potomac River.

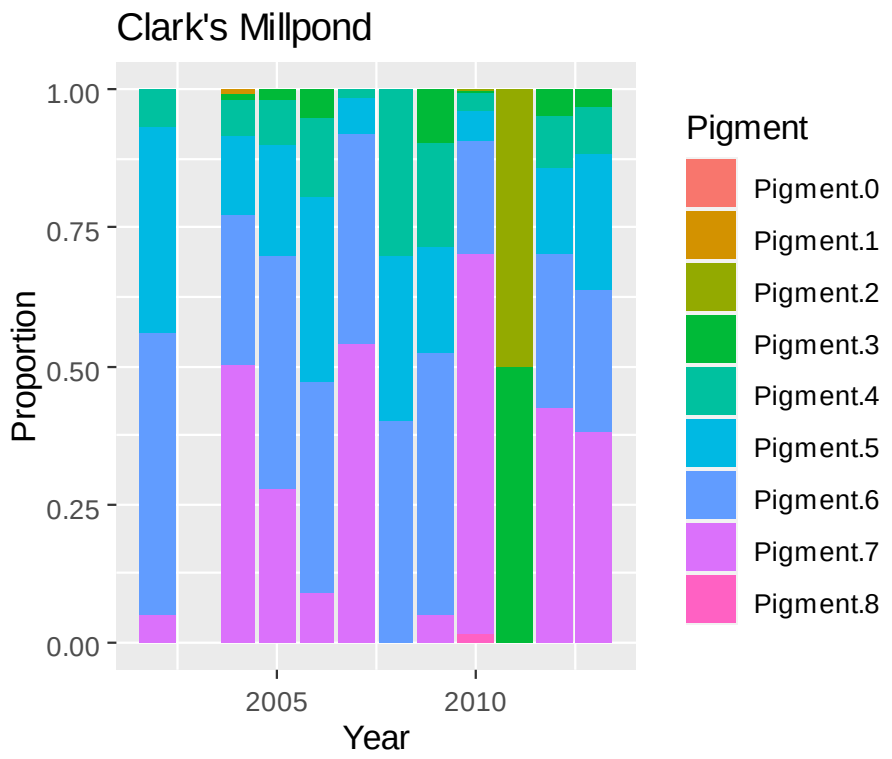


Figure 91. Distribution of pigment stages in the Clark's Millpond YOY American eel survey

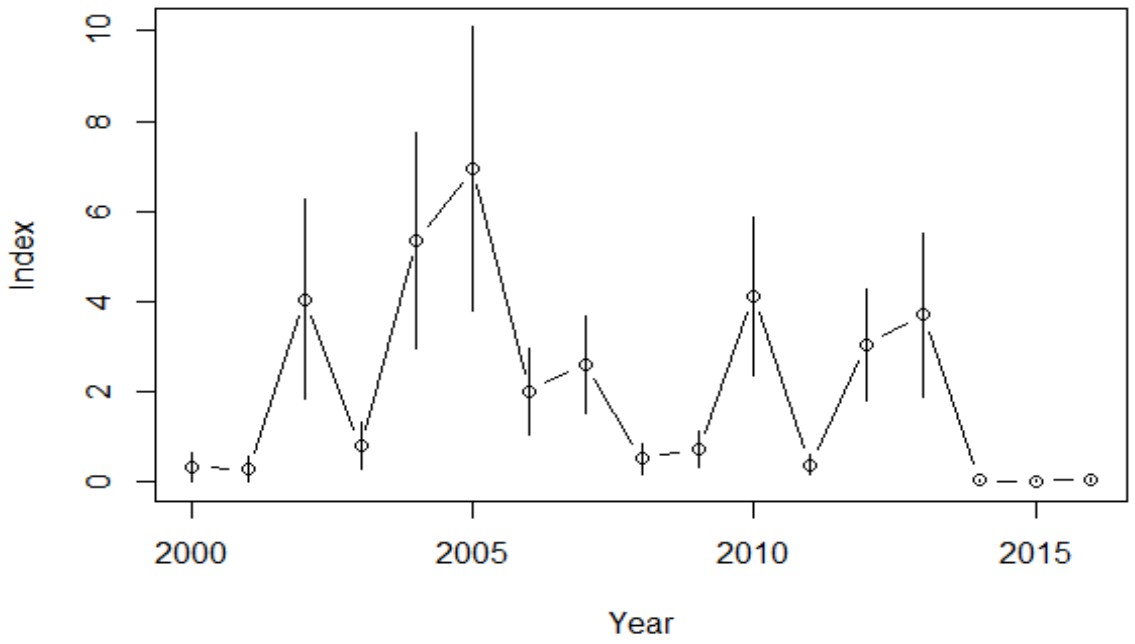


Figure 92. Relative abundance index for YOY glass-stage American eel from Clark's Millpond. Characteristics at the site changed in 2014 and was no longer attractive to glass eels. Therefore, this site was terminated in 2016.

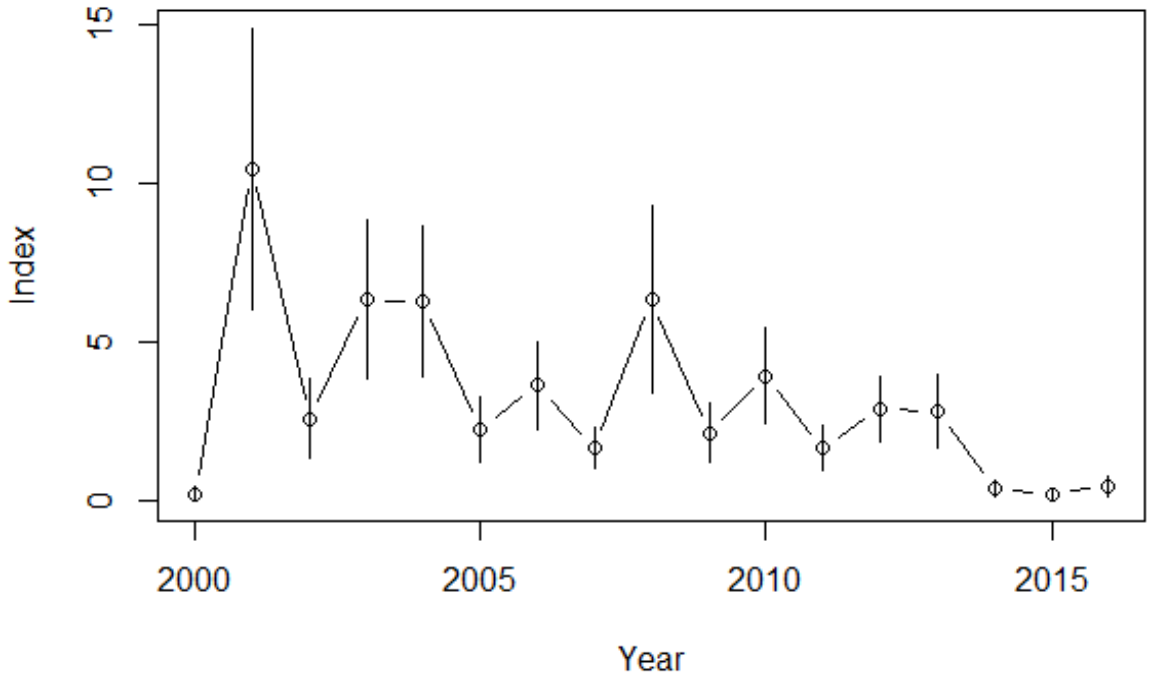


Figure 93. Relative abundance index for elver American eel from Clark's Millpond. Characteristics at the site changed in 2014 and was no longer attractive to eels. Therefore, this site was terminated in 2016.

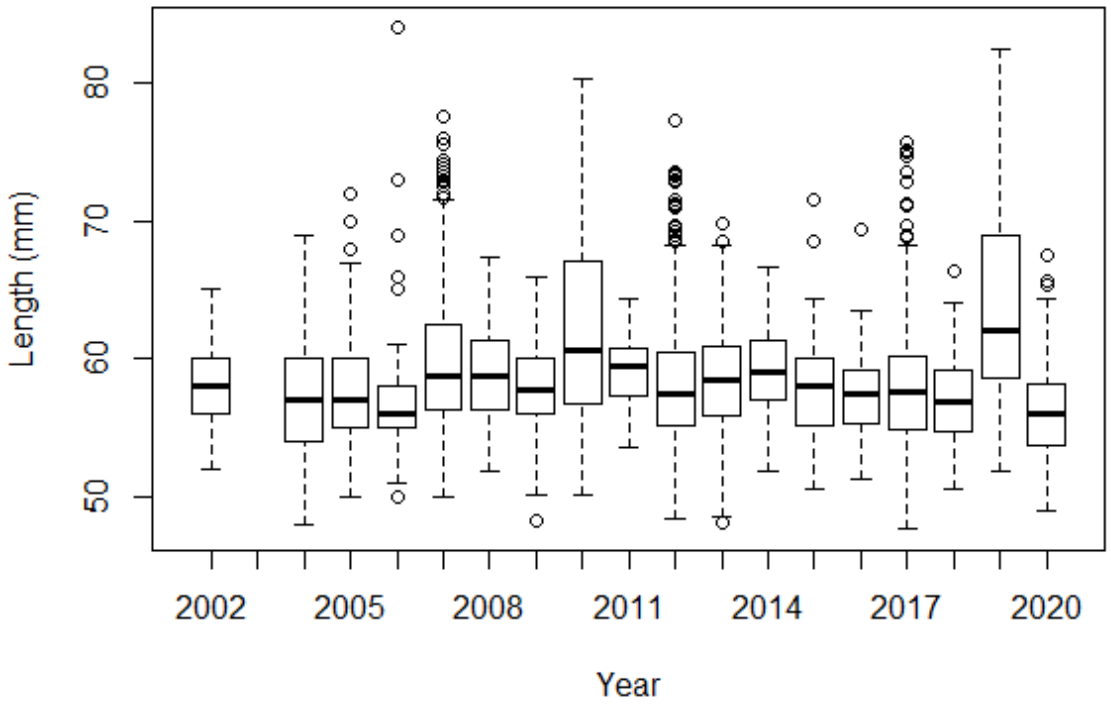


Figure 94. Glass eel total length measurements from Gardy's Millpond, 2002 – 2020.

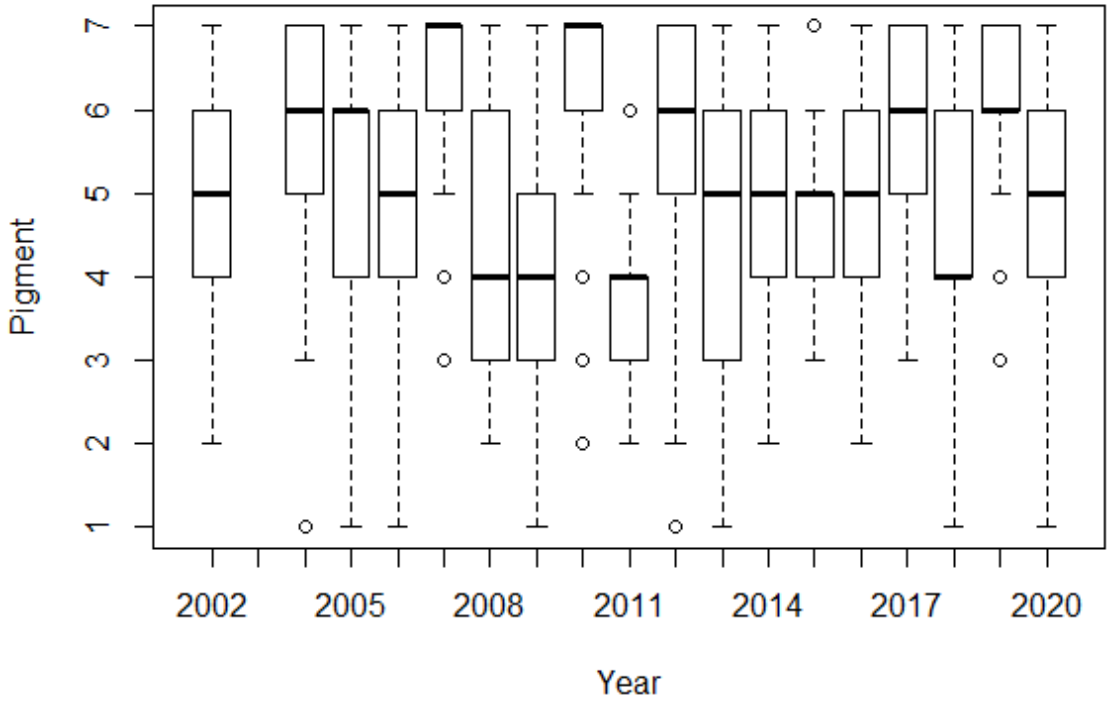


Figure 95. Glass eel pigment stage from Gardy's Millpond, 2002 – 2020.

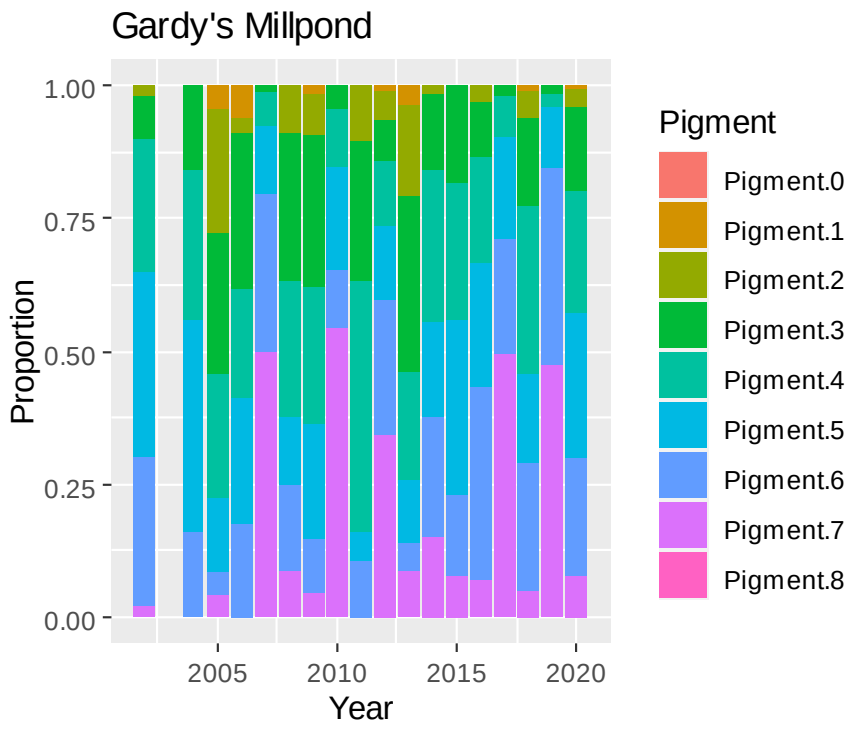


Figure 96. Distribution of pigment stages in the Gardy's Millpond YOY American eel survey.

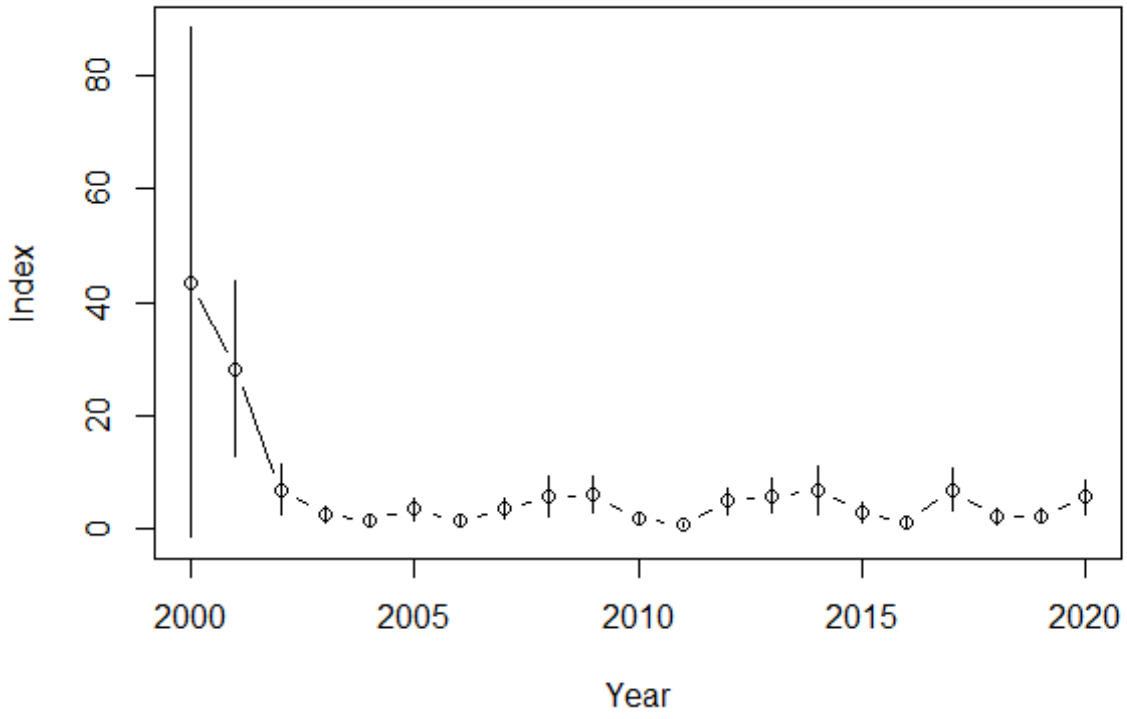


Figure 97. Relative abundance index for YOY glass-stage American eel from Gardy's Millpond.

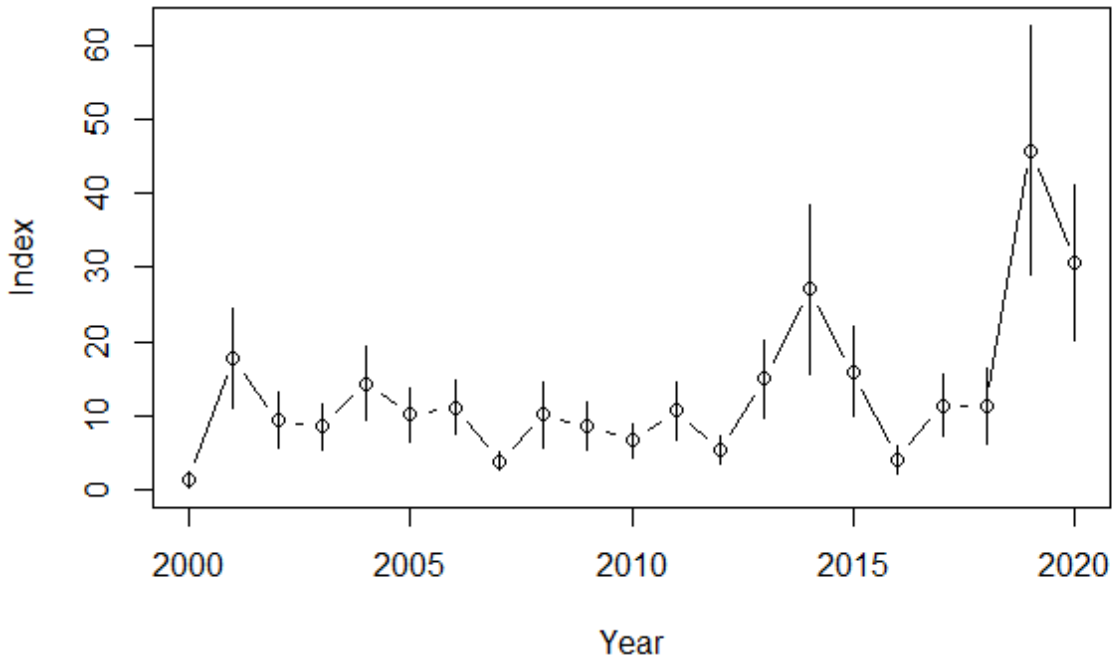


Figure 98. Relative abundance index for elver American eel from Gardy's Millpond.

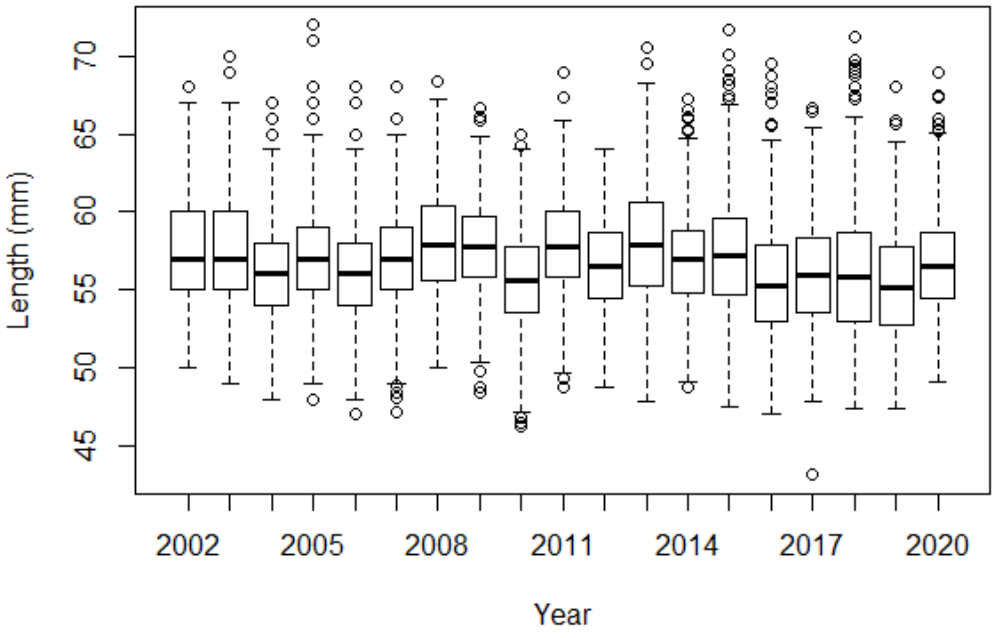


Figure 99. Glass eel total length measurements from Wormley Creek, 2002 – 2020.

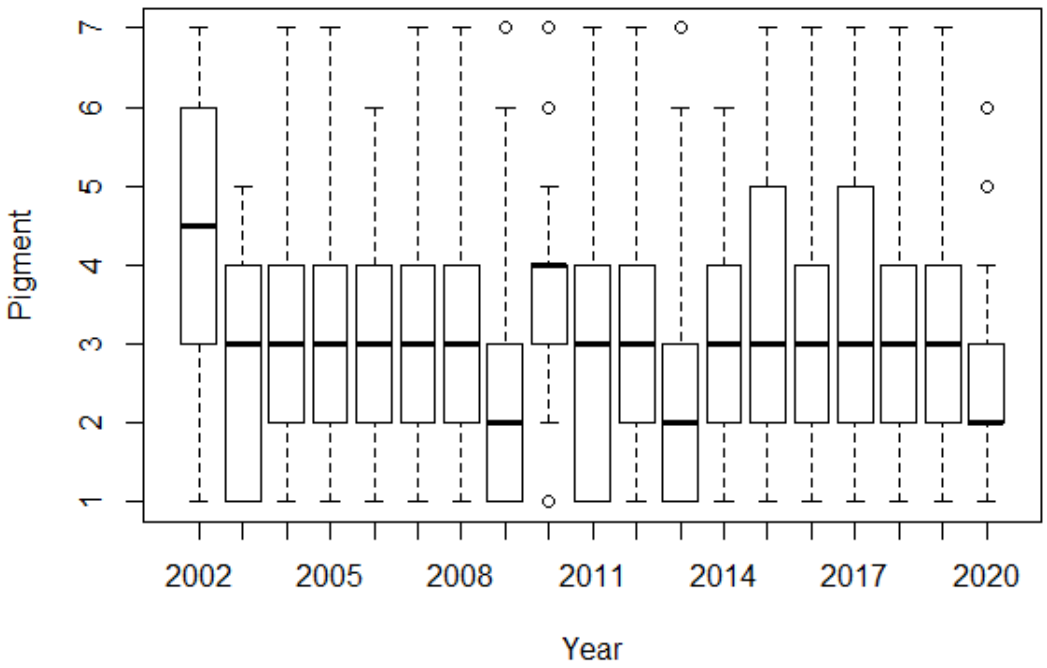


Figure 100. **Glass eel pigment stage from Wormley Creek, 2002 – 2020.**

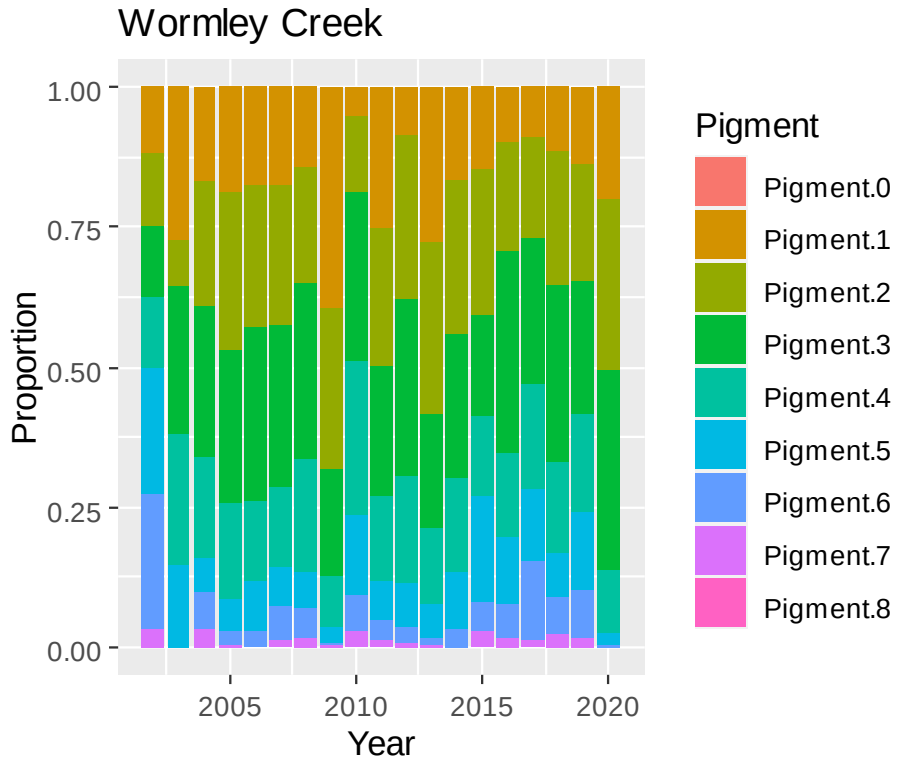


Figure 101. **Distribution of pigment stages in the Wormley Creek YOY American eel survey.**

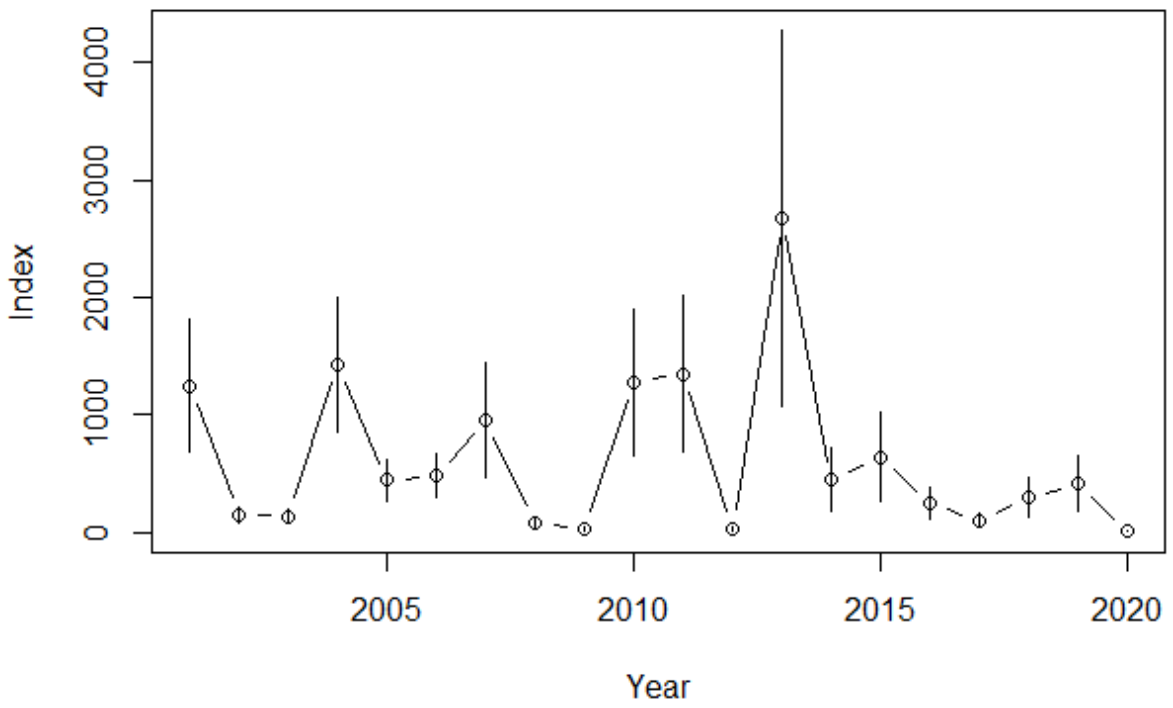


Figure 102. Relative abundance index for YOY glass-stage American eel from Wormley Creek.

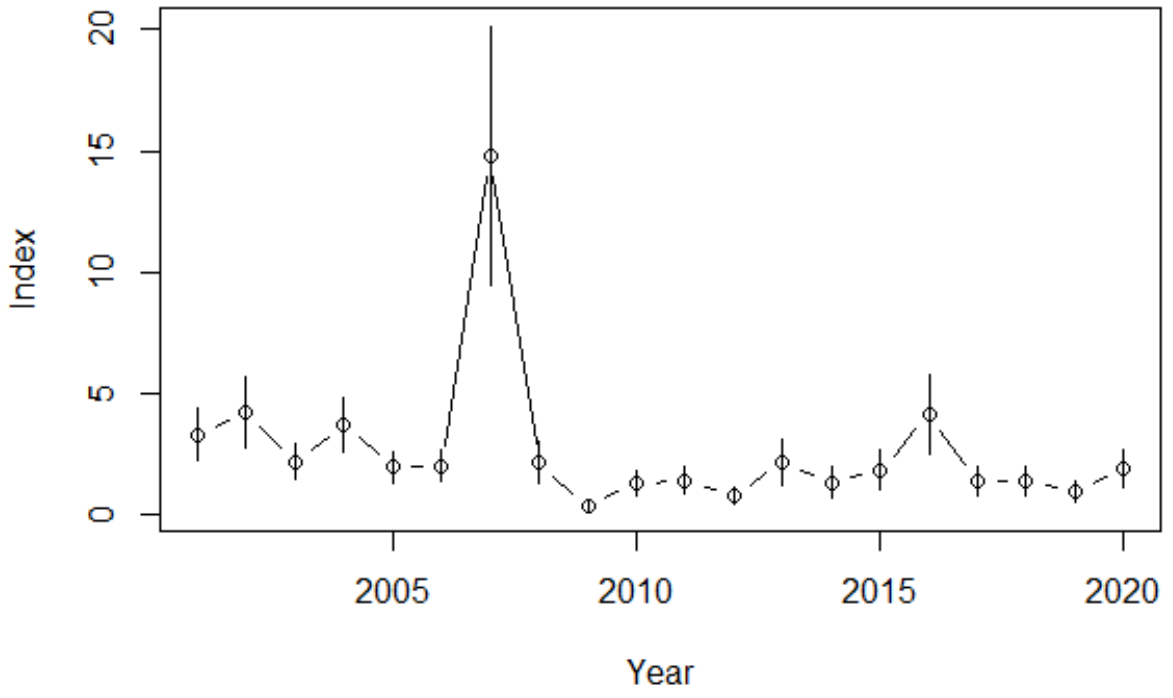


Figure 103. Relative abundance index for elver American eel from Wormley Creek.

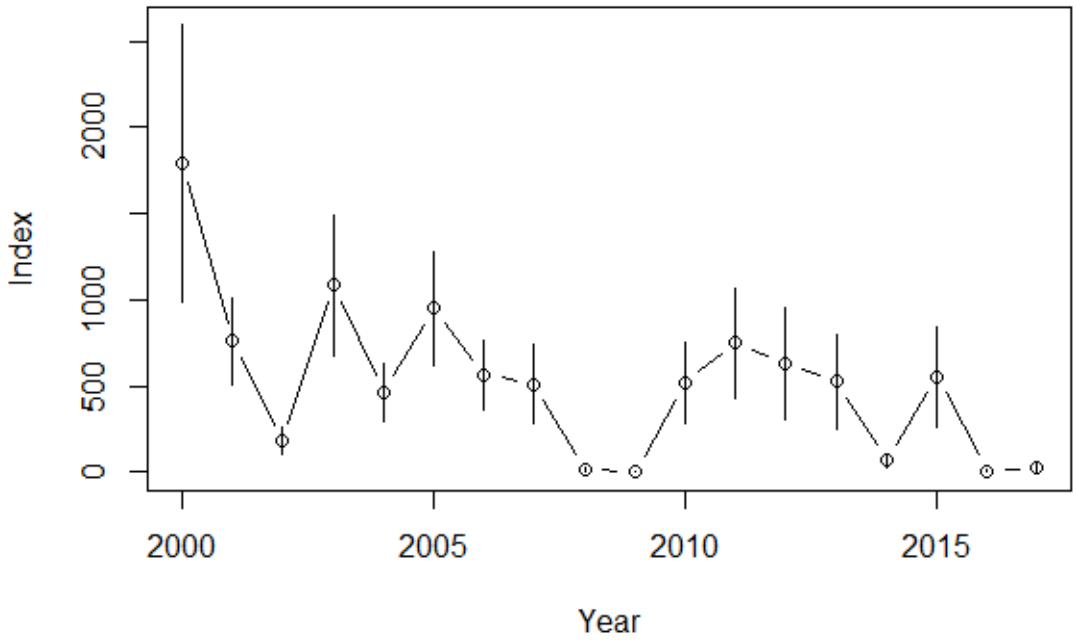


Figure 104. Relative abundance index for YOY glass-stage American eel from Bracken's Pond.

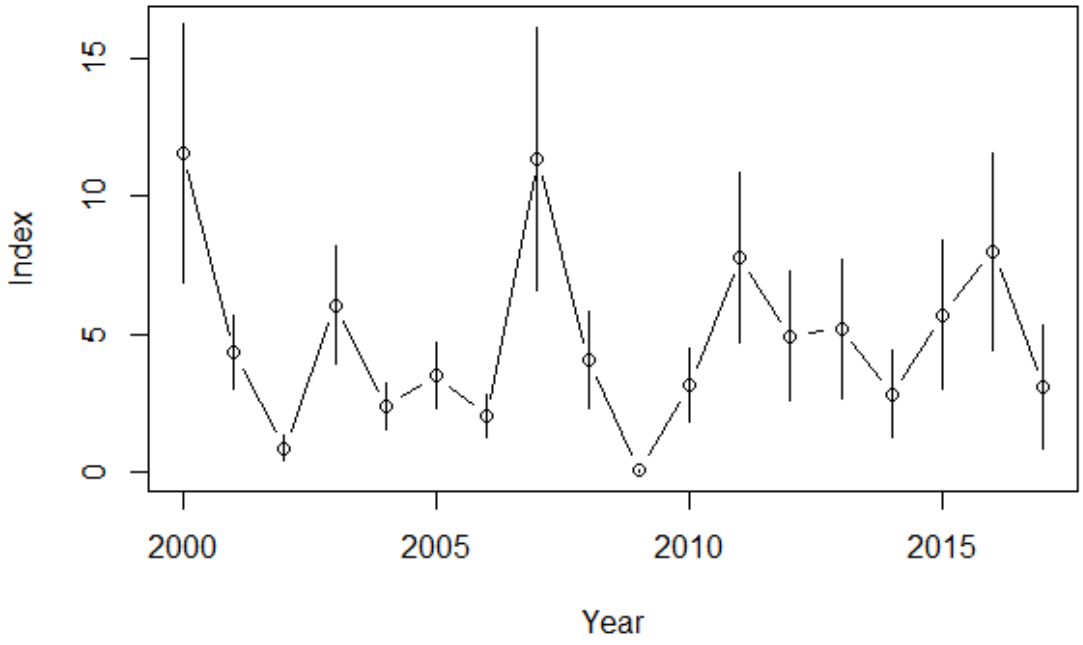


Figure 105. Relative abundance index for elver American eel from Bracken's Pond.

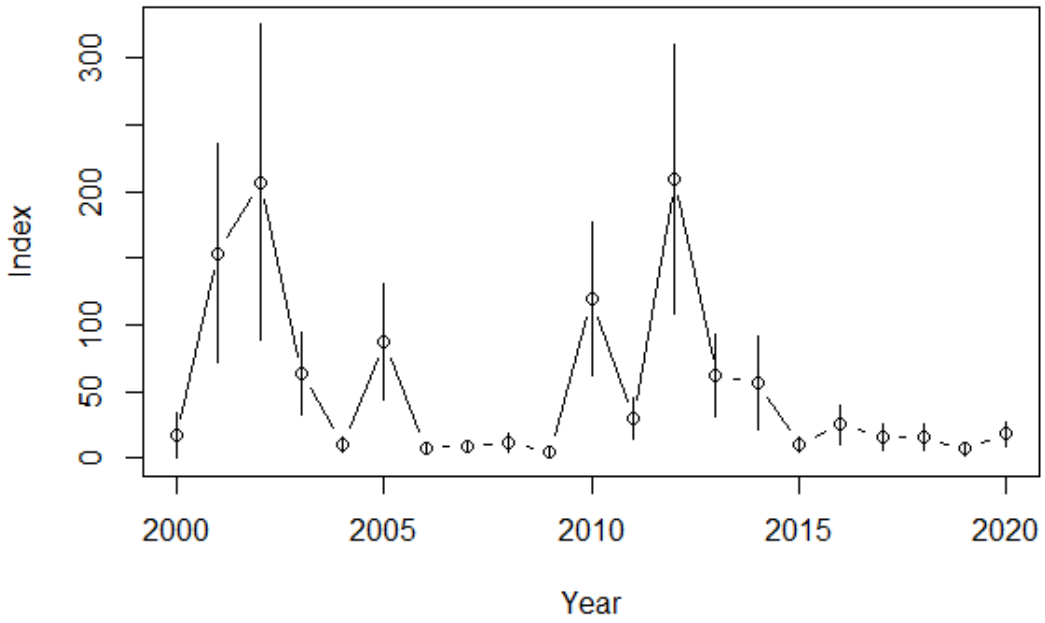


Figure 106. Relative abundance index for YOY glass-stage American eel from Kamp's Millpond.

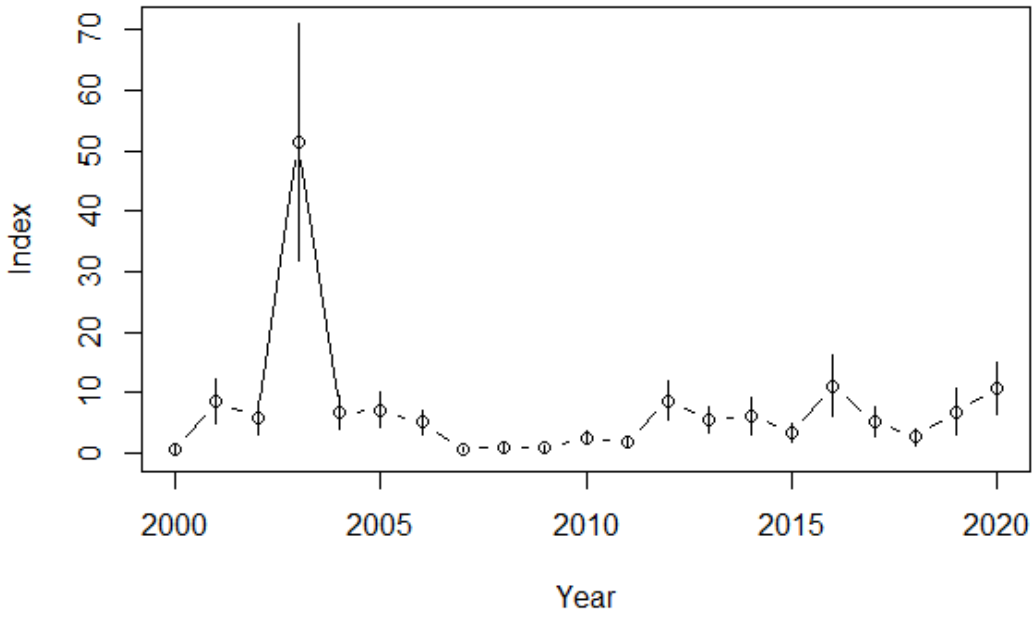


Figure 107. Relative abundance index for elver American eel from Kamp's Millpond.

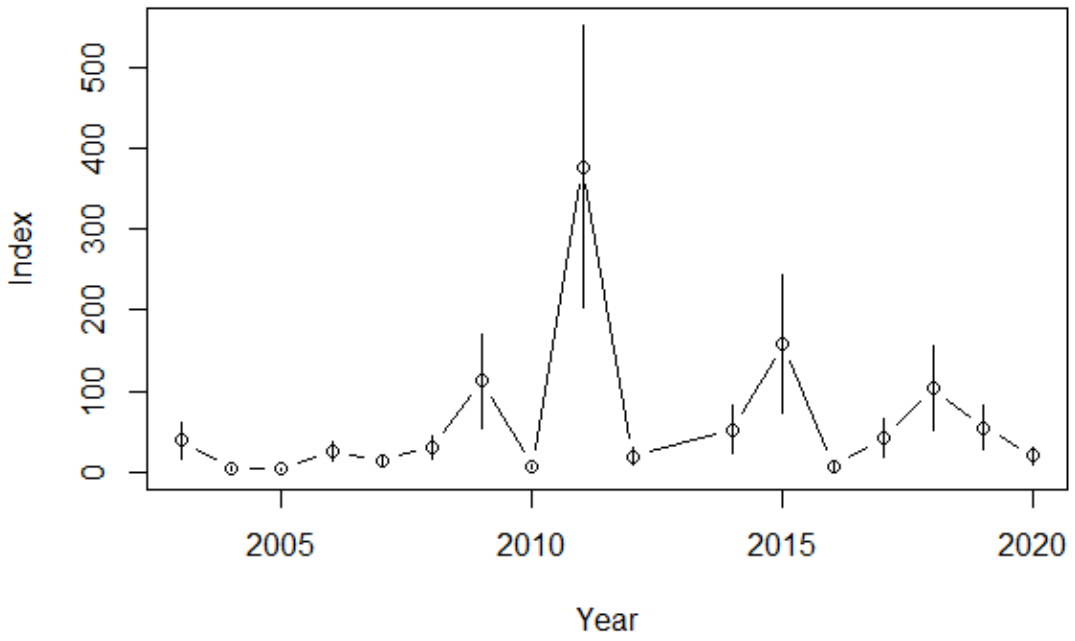


Figure 108. Relative abundance index for YOY glass-stage American eel from Wareham's Pond.

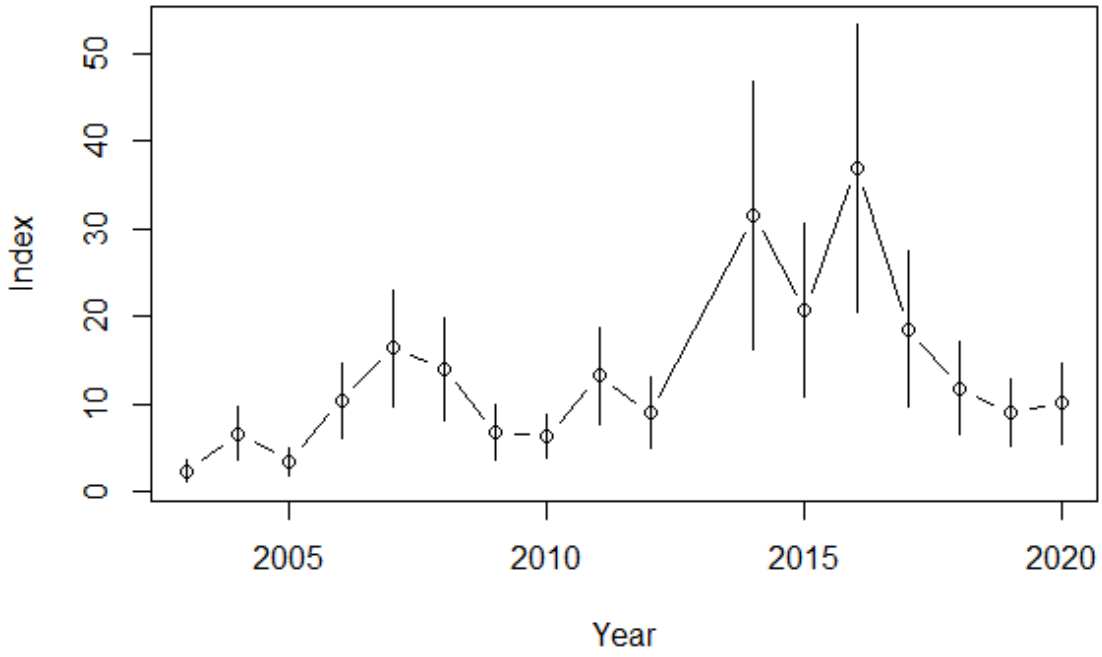


Figure 109. Relative abundance index for elver American eel from Wareham's Pond.

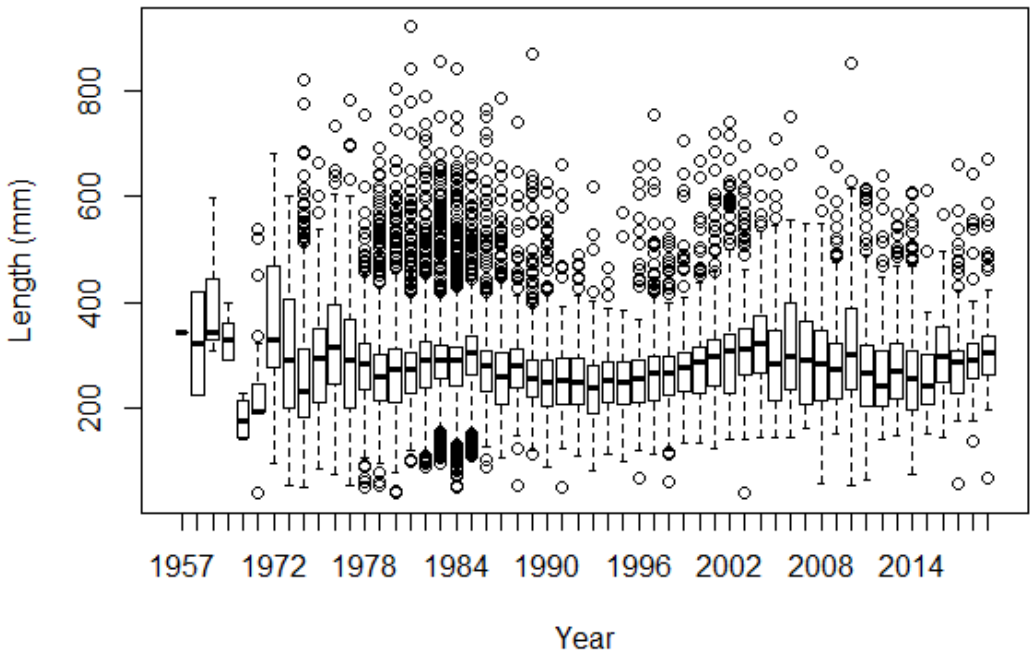


Figure 110. VIMS Trawl Survey yellow eel total lengths from 1955 to 2019.

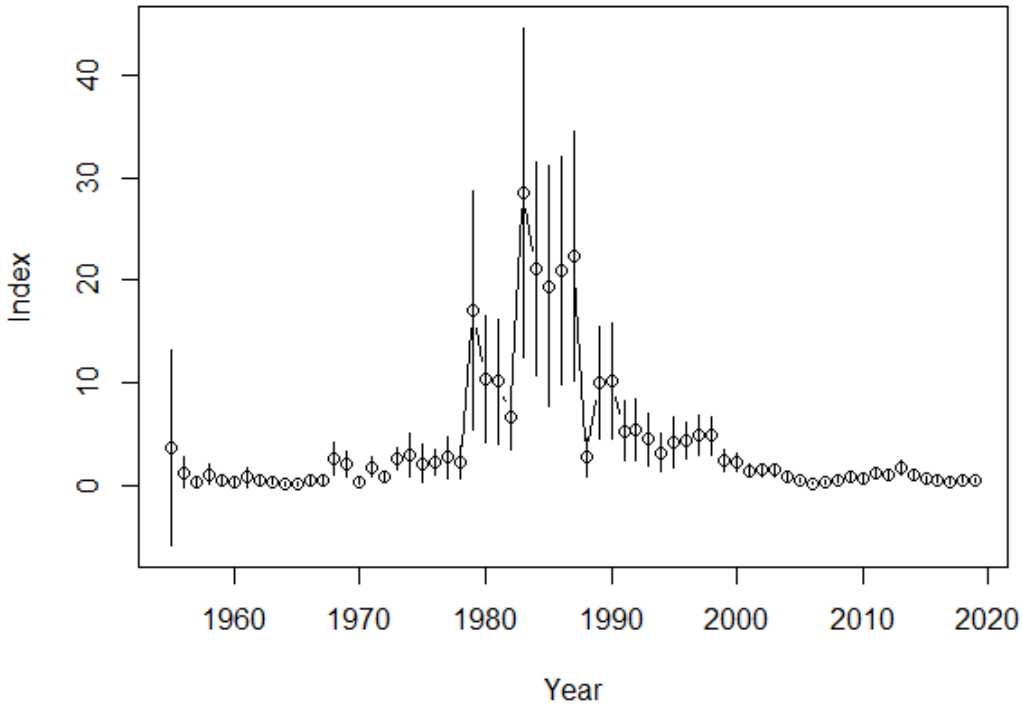


Figure 111. VIMS Trawl Survey yellow American eel index from 1955 to 2019.

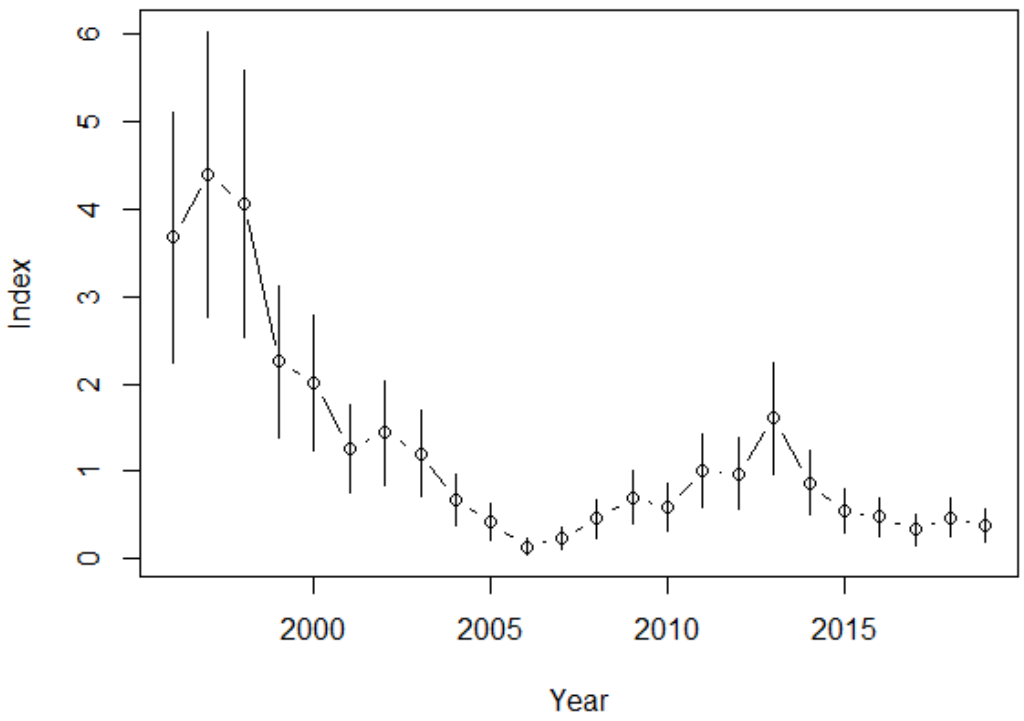


Figure 112. VIMS Trawl Survey short time series for yellow American eel from 1996 to 2019.

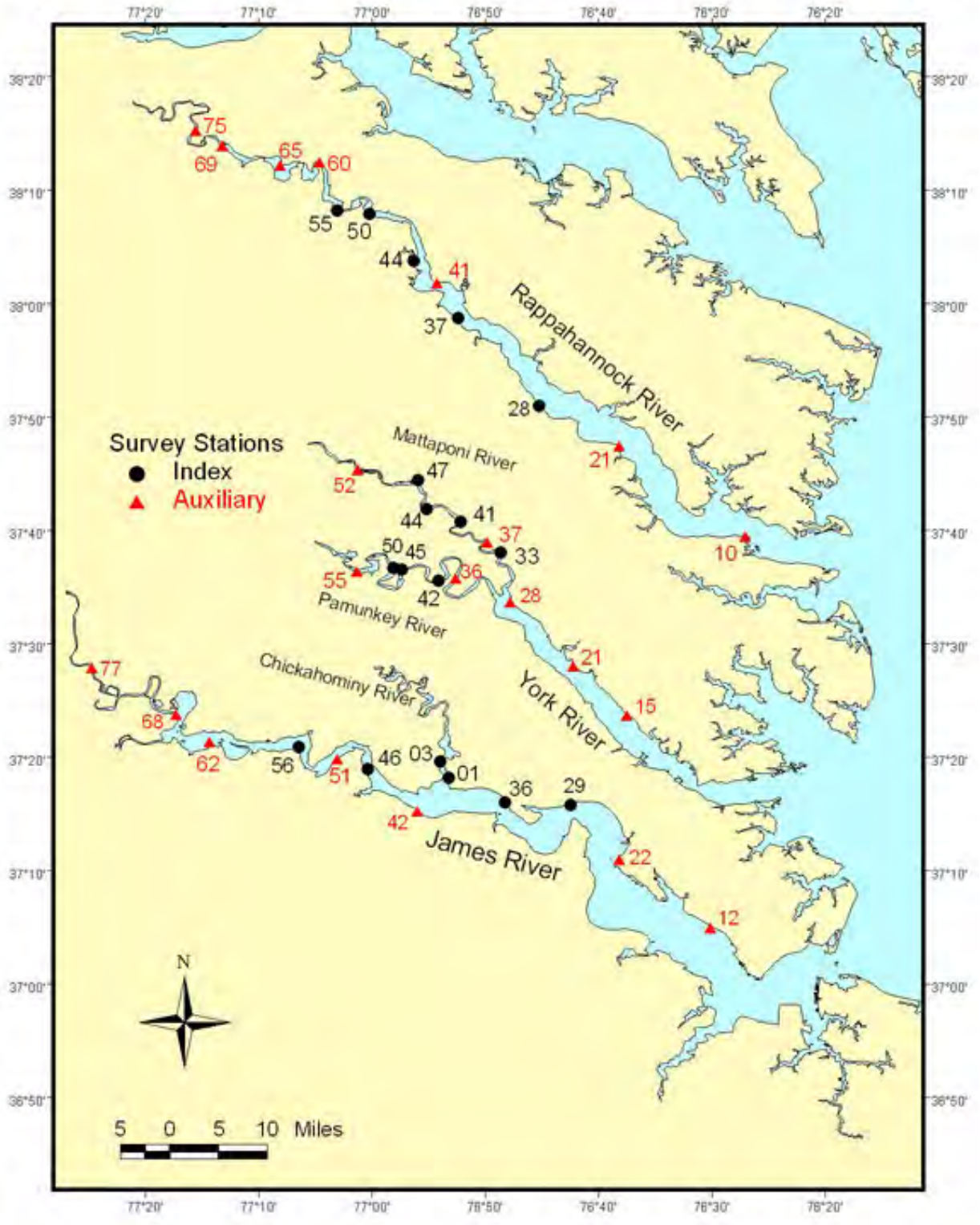


Figure 113. VIMS Striped Bass Seine Survey sites.

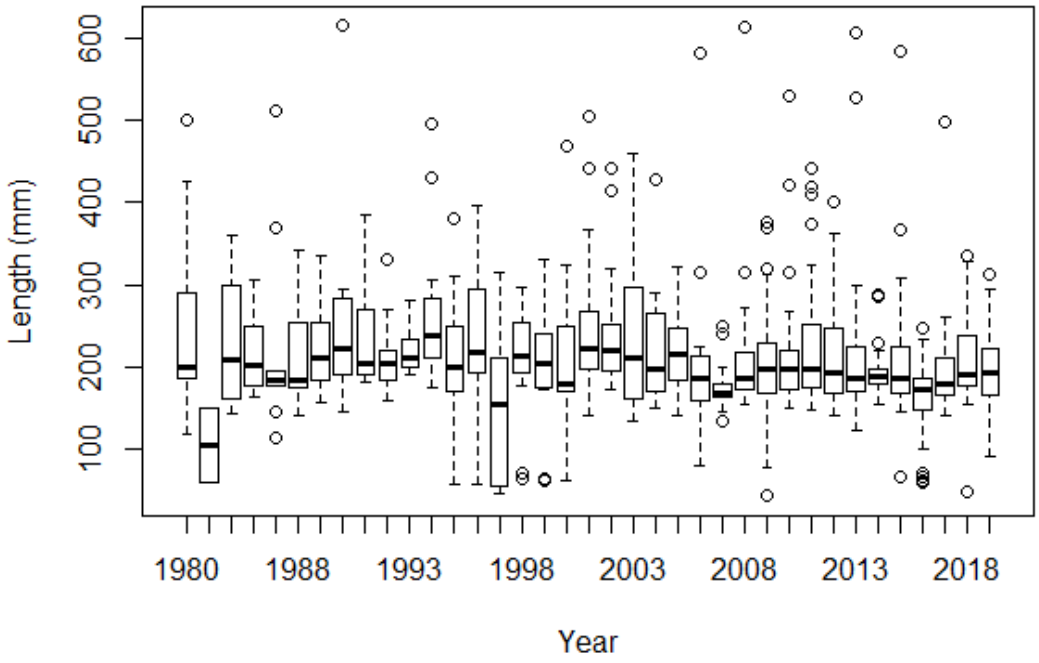


Figure 114. VIMS Striped Bass Seine Survey yellow eel lengths from 1980 to 2019.

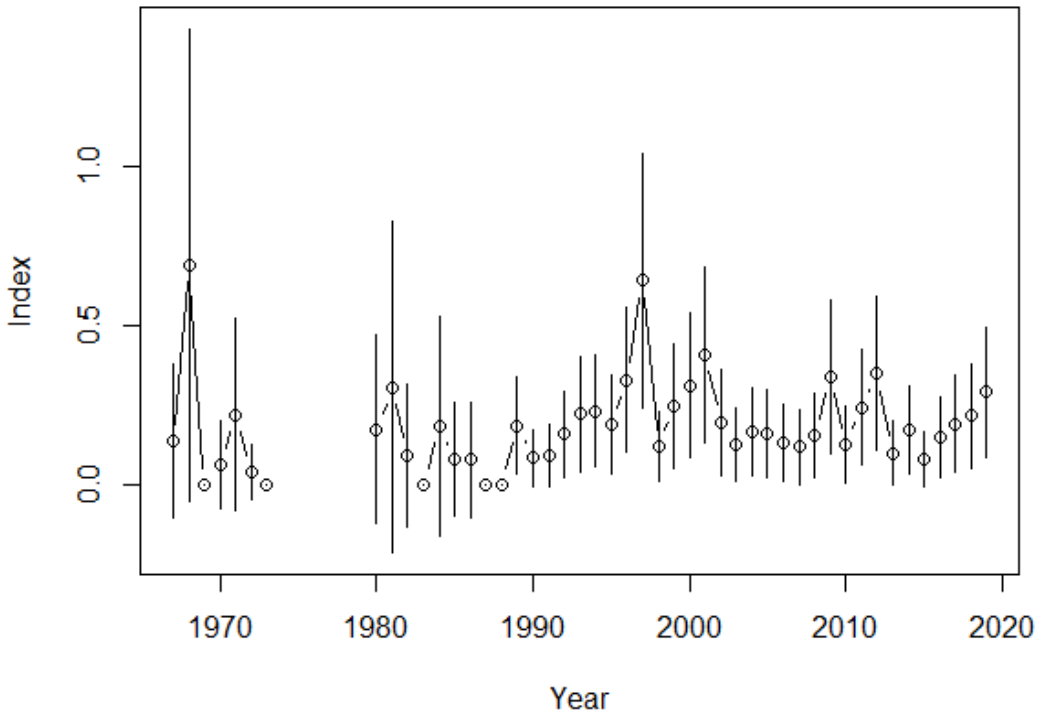


Figure 115. VIMS Striped Bass Seine Survey yellow eel index of abundance for the full time series from 1967 to 1973 and from 1980 to 2019.

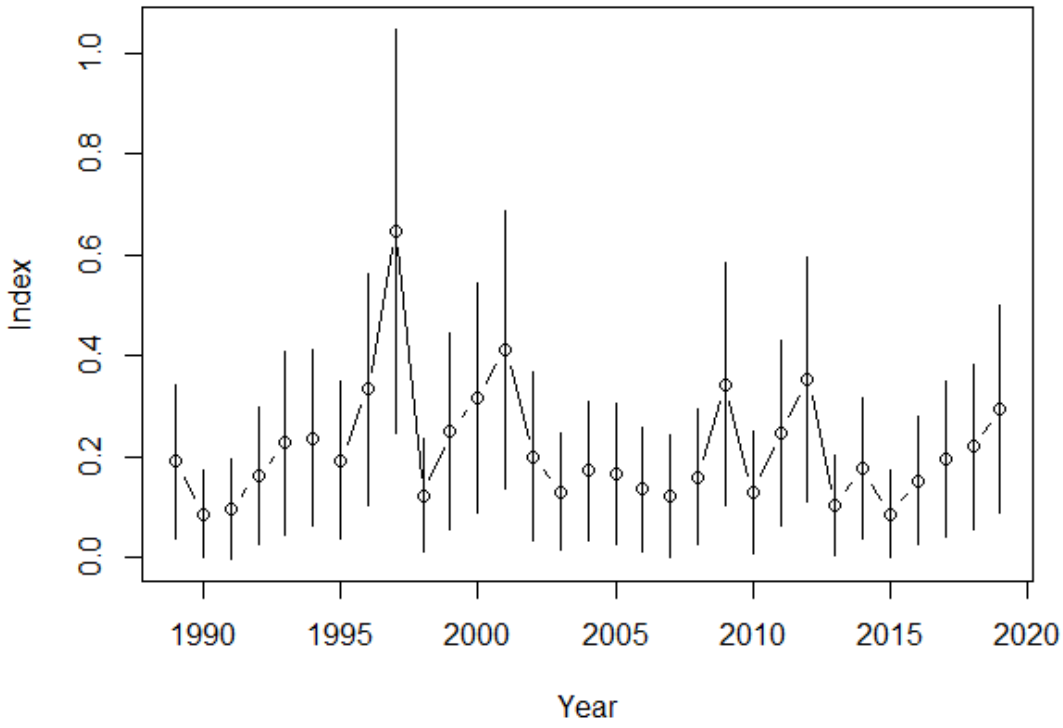


Figure 116. VIMS Striped Bass Seine Survey yellow eel index of abundance for the short time series from 1989 to 2019.

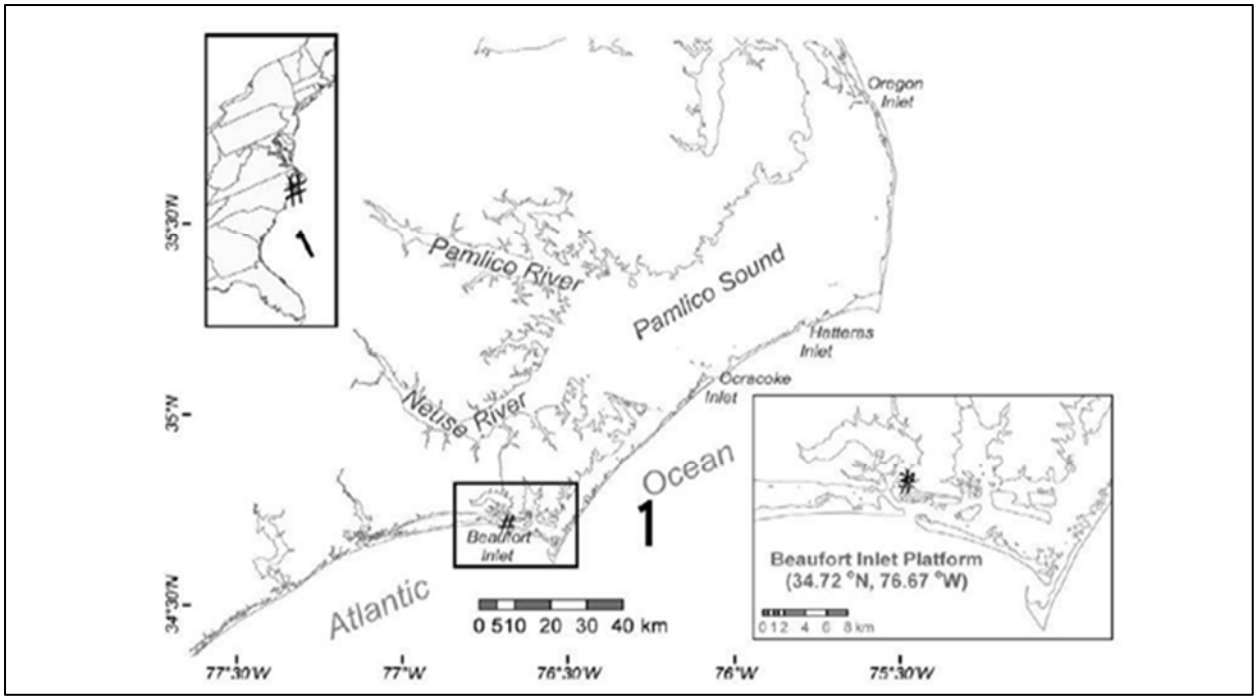


Figure 117. Location of Beaufort Bridgenet Ichthyoplankton Sampling Program observation platform near Beaufort Inlet, North Carolina.

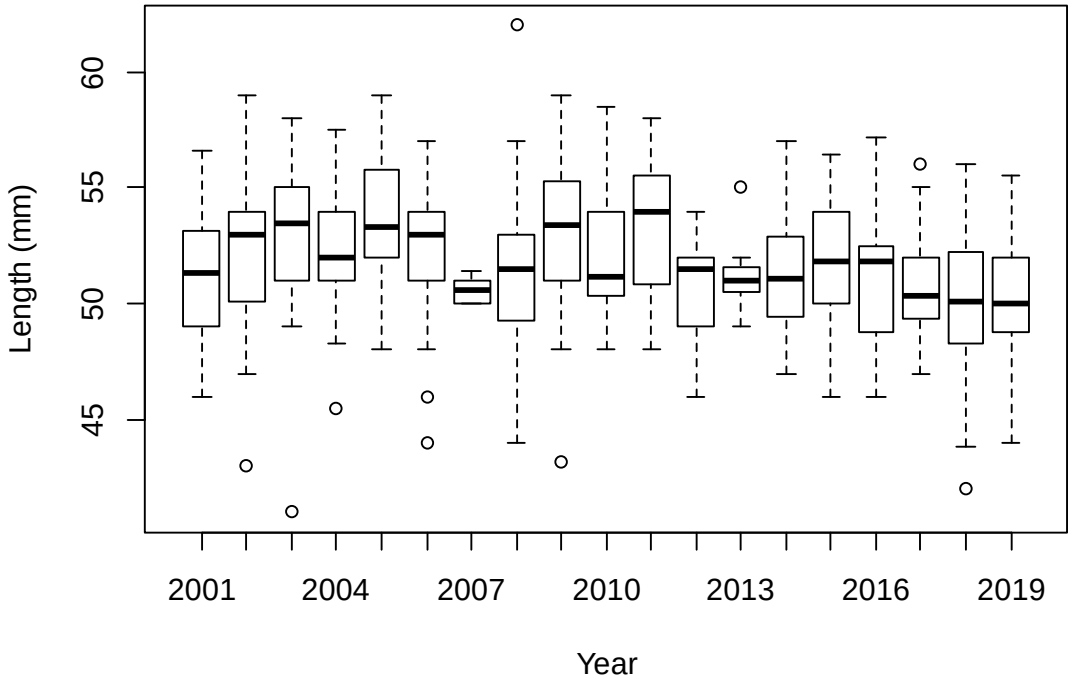


Figure 118. Boxplot of American YOY eel lengths recorded in the Beaufort Bridgenet Ichthyoplankton Sampling Program.

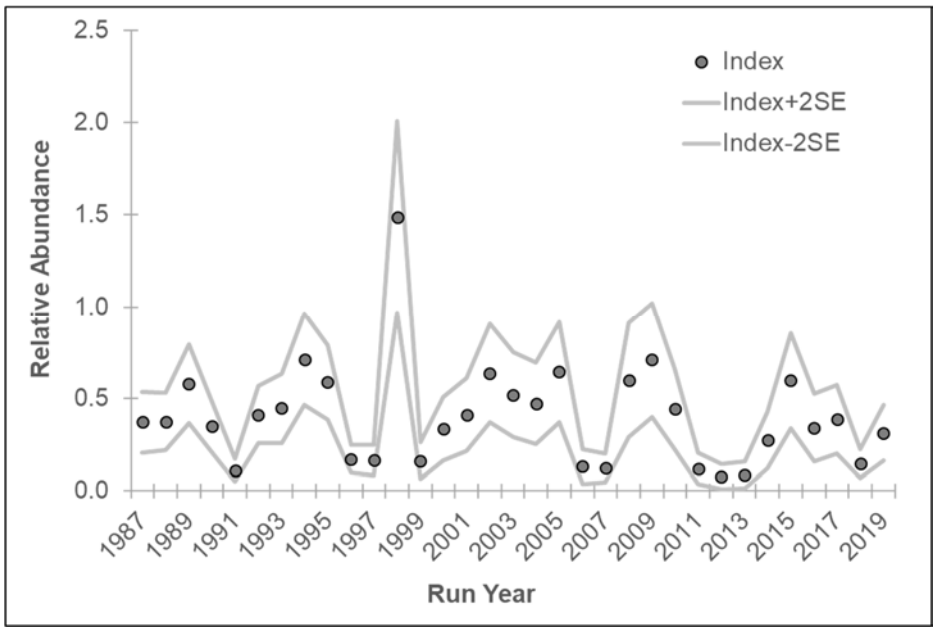


Figure 119. Standardized index of relative abundance of YOY American eel developed from the Beaufort Bridgenet Ichthyoplankton Sampling Program.

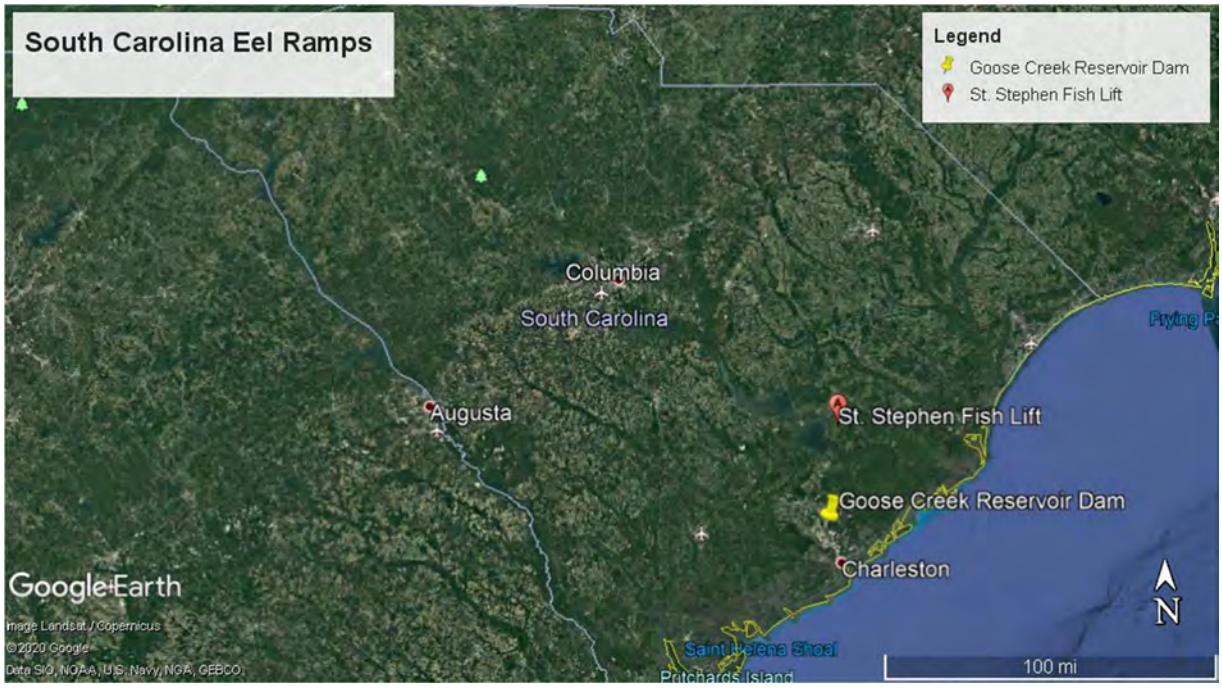


Figure 120. Map of the location of the Goose Creek YOY survey site.

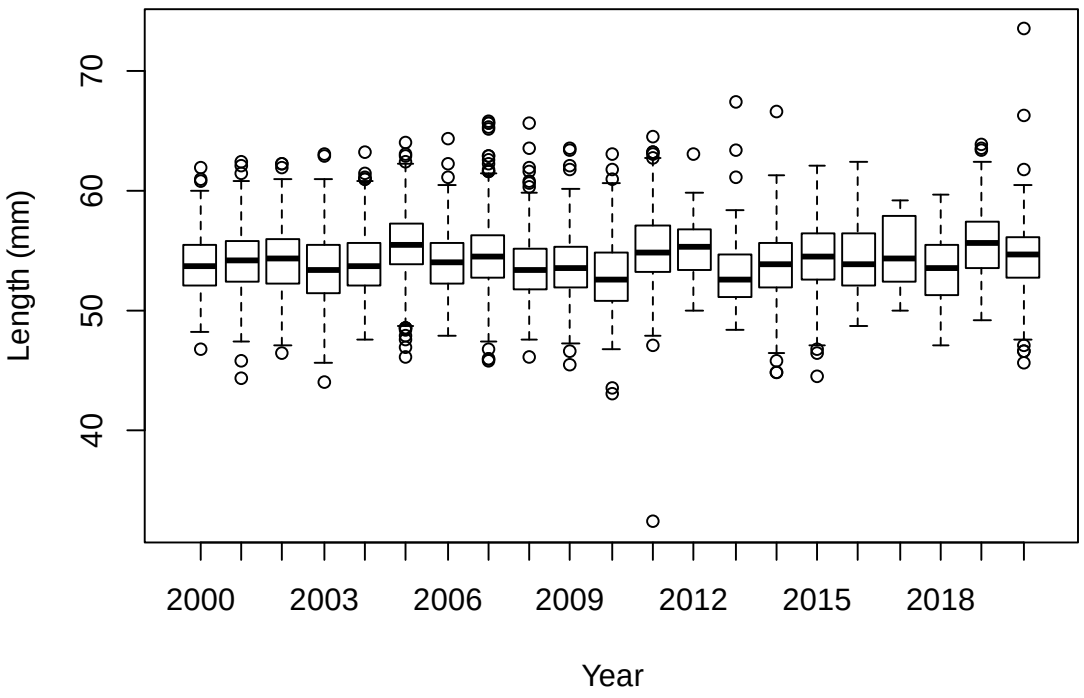


Figure 121. Boxplot of American eel lengths recorded in the South Carolina Goose Creek YOY survey.

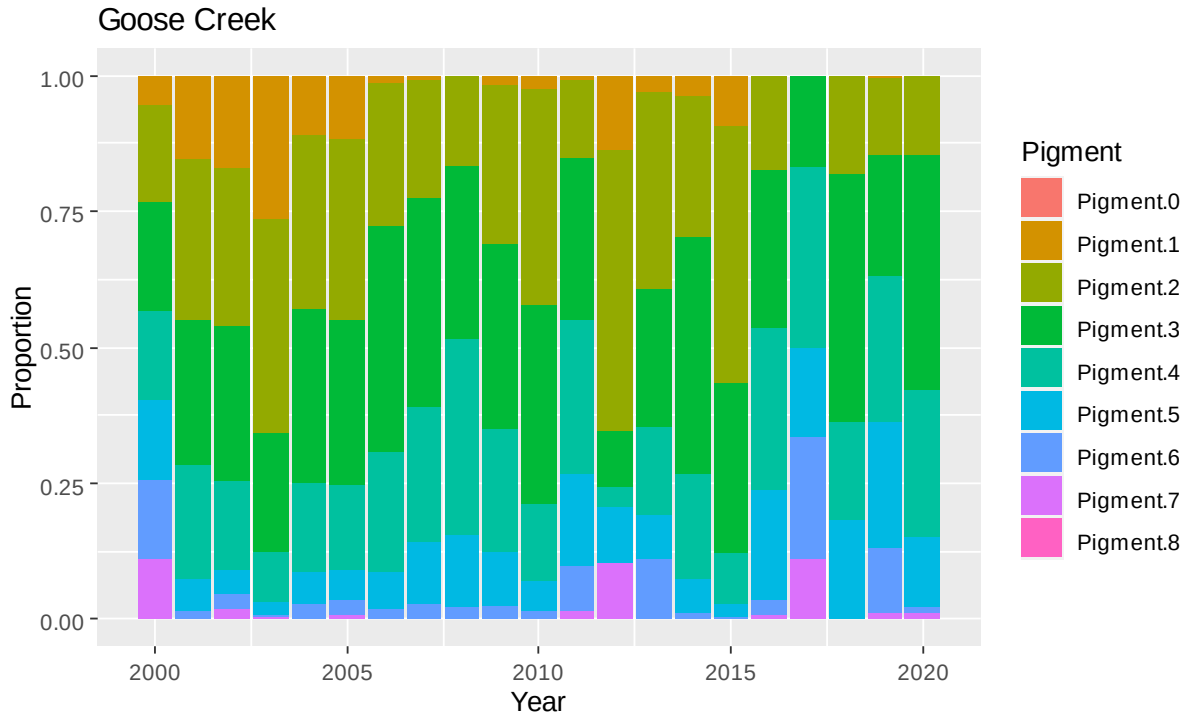


Figure 122. Distribution of pigment stages in the Goose Creek YOY American eel survey.

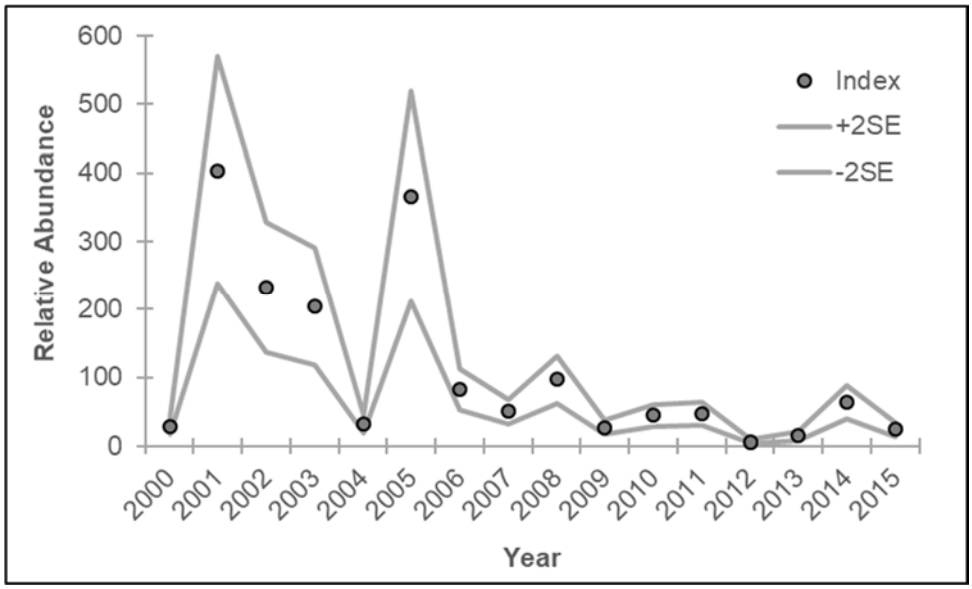


Figure 123. Standardized index of relative abundance of YOY American eel developed from the South Carolina Goose Creek Survey (fyke net).

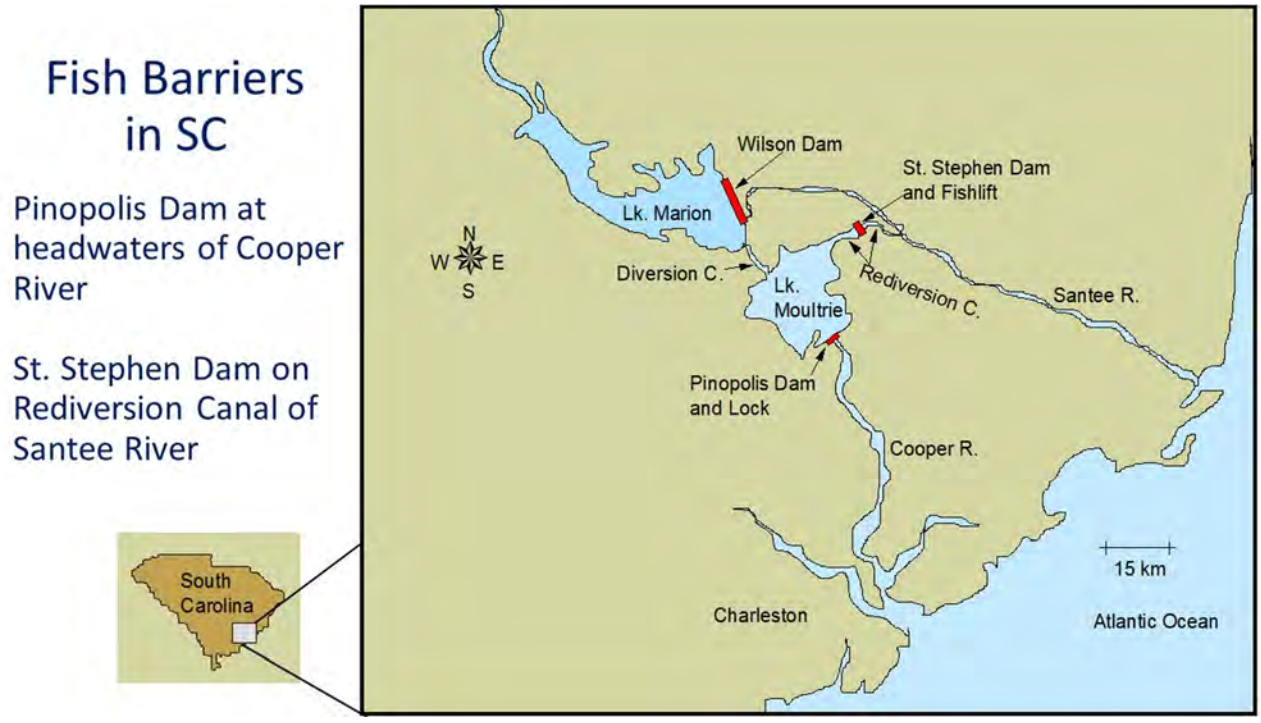


Figure 124. Map of the fish barriers in South Carolina, including the St. Stephen Dam on the Rediversion Canal.

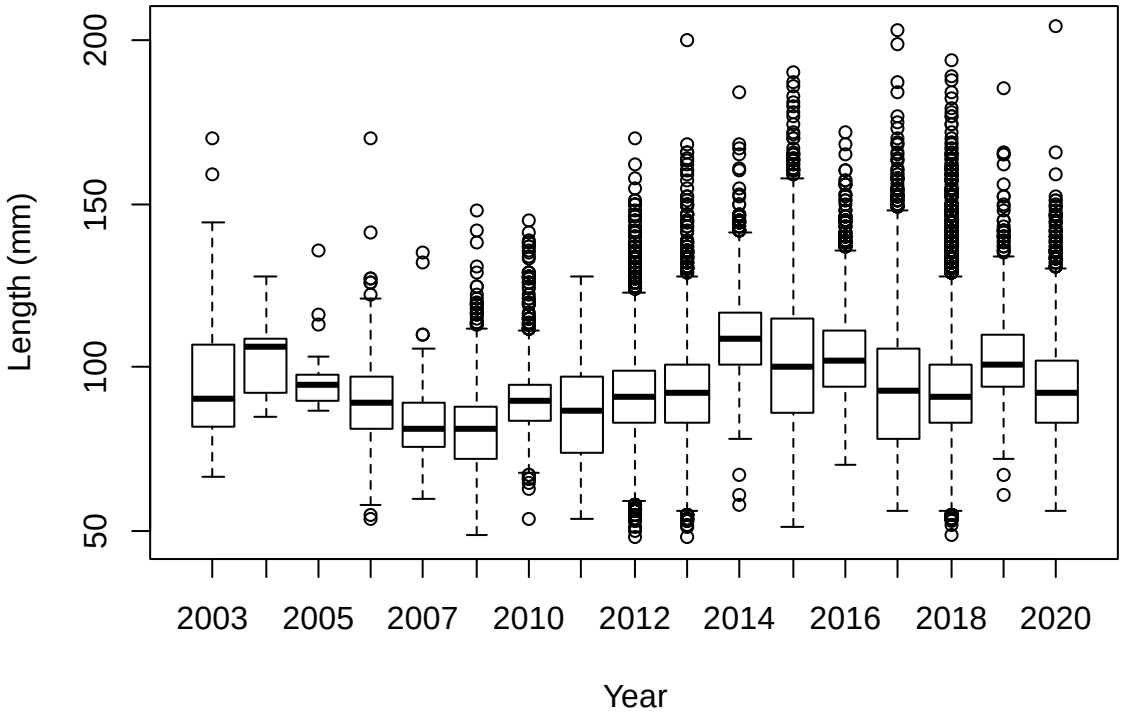


Figure 125. Boxplot of American eel lengths recorded in the South Carolina Rediversion Canal Aluminum Ladder survey.

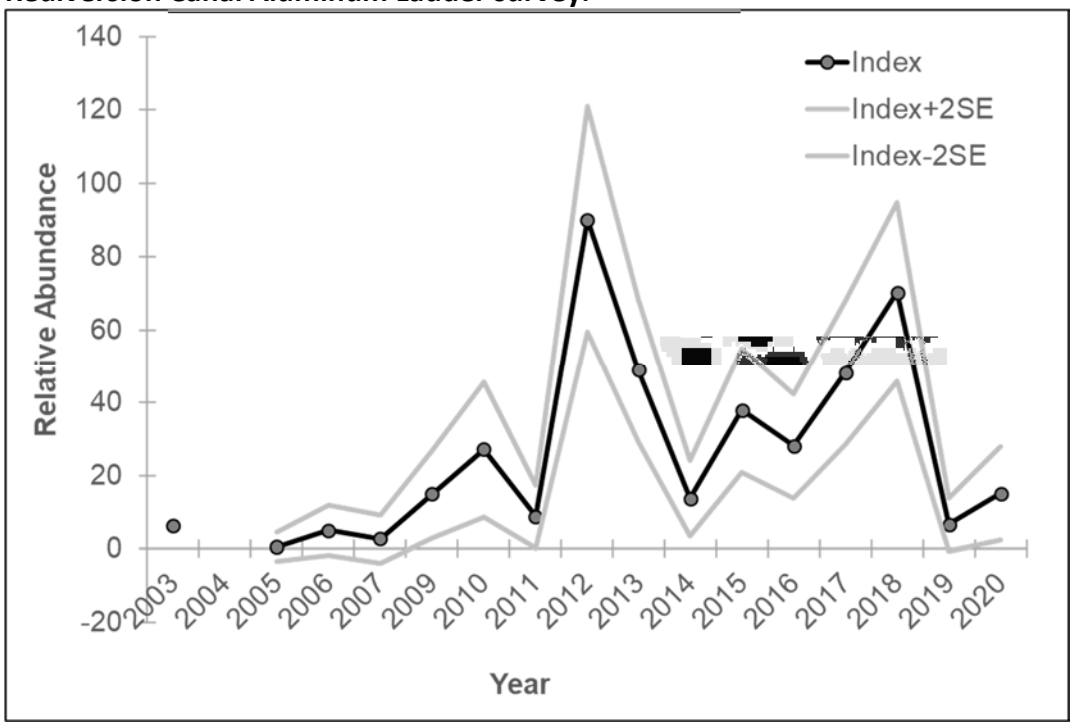


Figure 126. Standardized index of relative yellow eel abundance developed from the South Carolina Rediversion Canal Aluminum Ladder Survey.

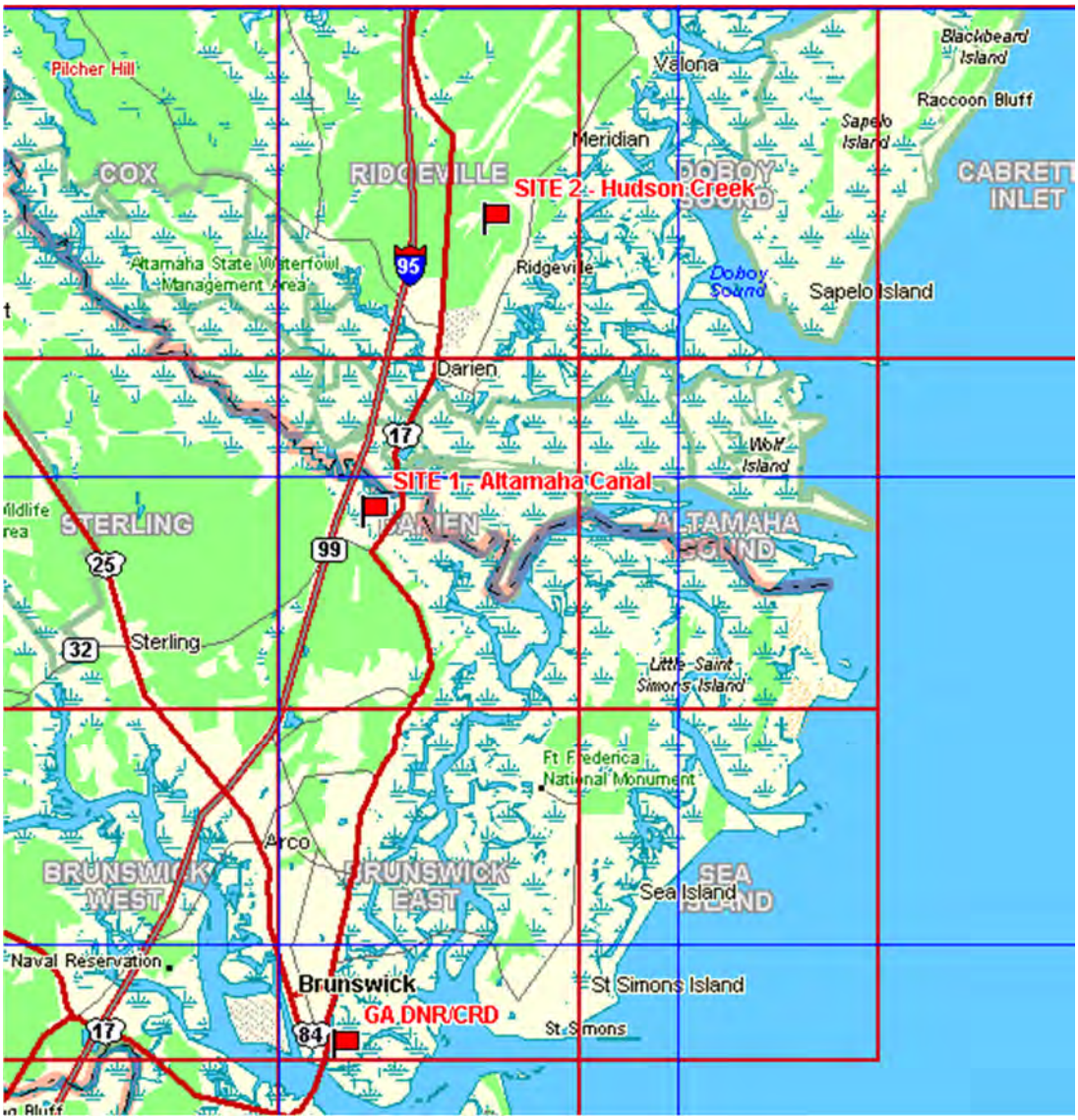


Figure 127. Location of American eel sites in Georgia.

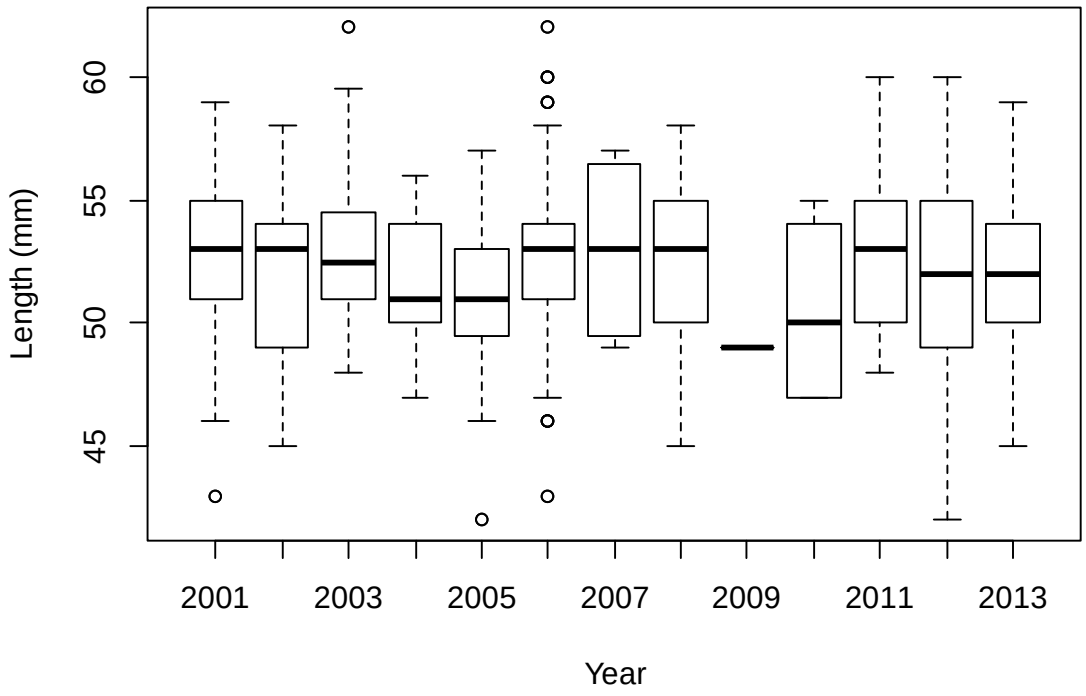


Figure 128. Boxplot of American eel lengths recorded in the Georgia Altamaha Canal YOY survey.

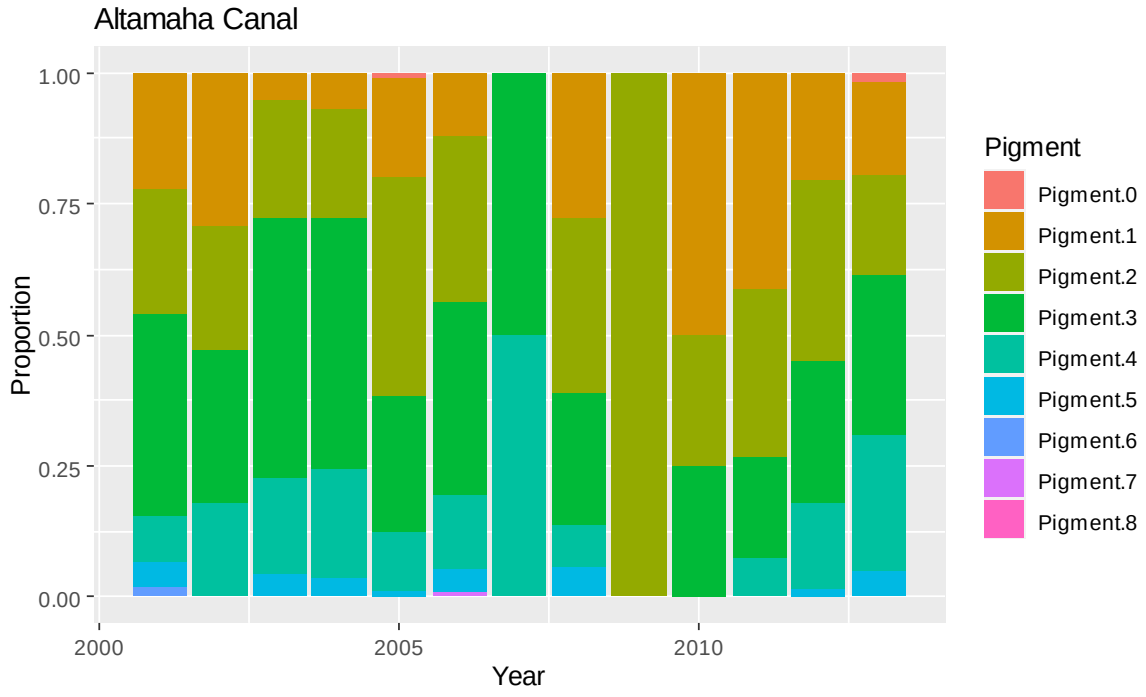


Figure 129. Distribution of pigment stages in the Altamaha Canal YOY American eel survey.

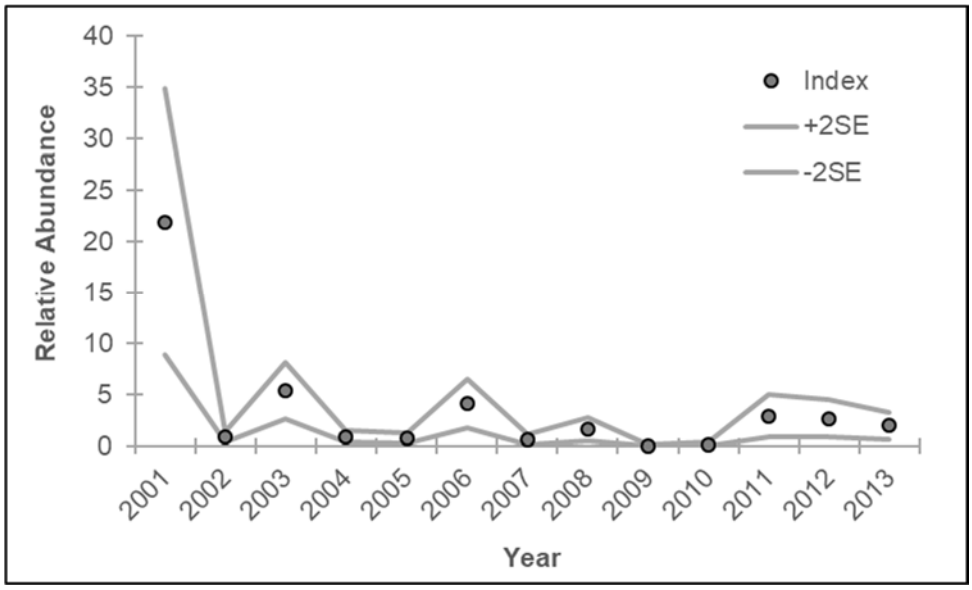


Figure 130. Standardized index of relative abundance of YOY American eel developed from the Georgia Altamaha Canal Survey.

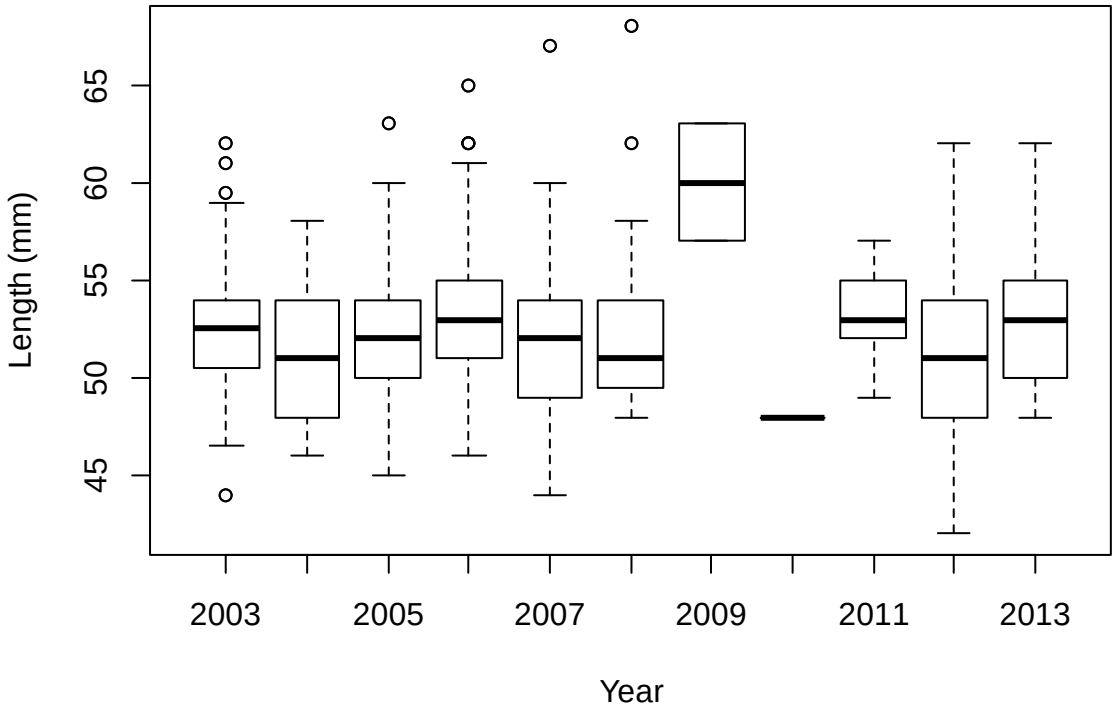


Figure 131. Boxplot of American eel lengths recorded in the Georgia Hudson Creek YOY survey.

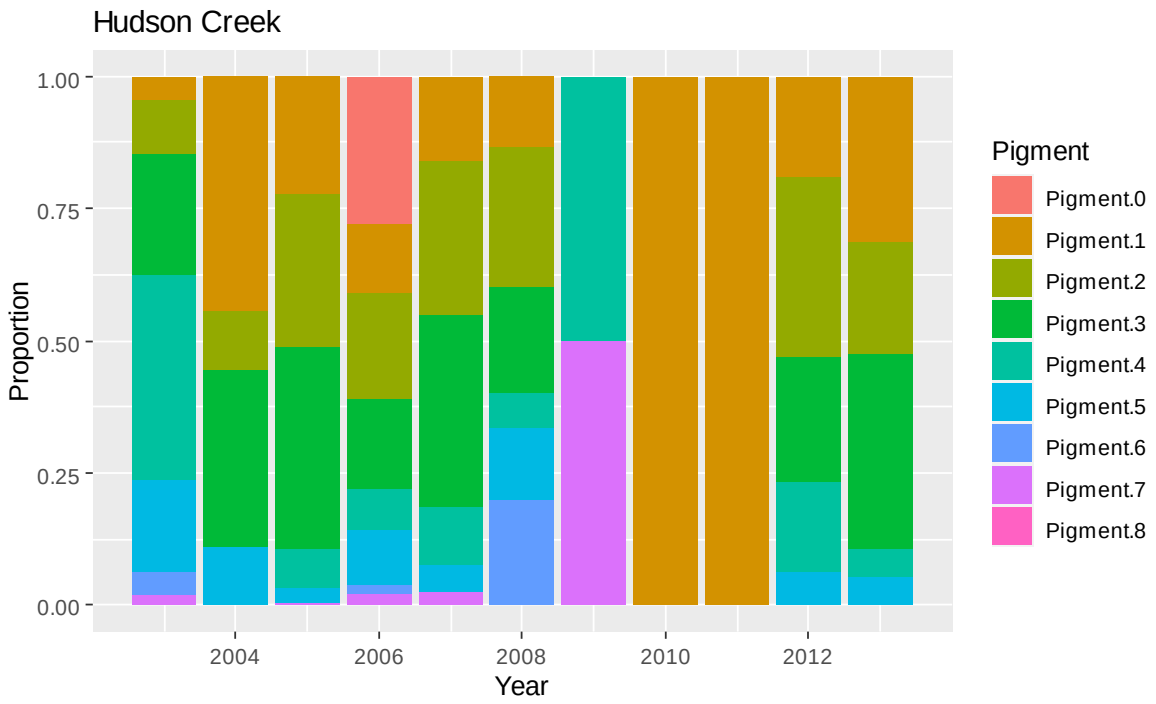


Figure 132. Distribution of pigment stages in the Hudson Creek YOY American eel survey.

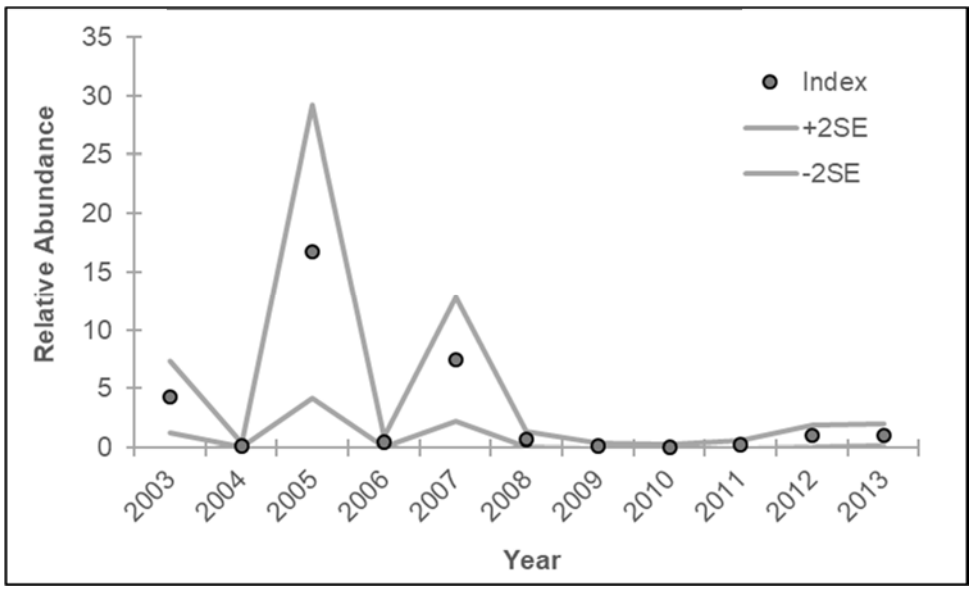


Figure 133. Standardized index of relative abundance of YOY American eel developed from the Georgia Hudson Creek Survey.

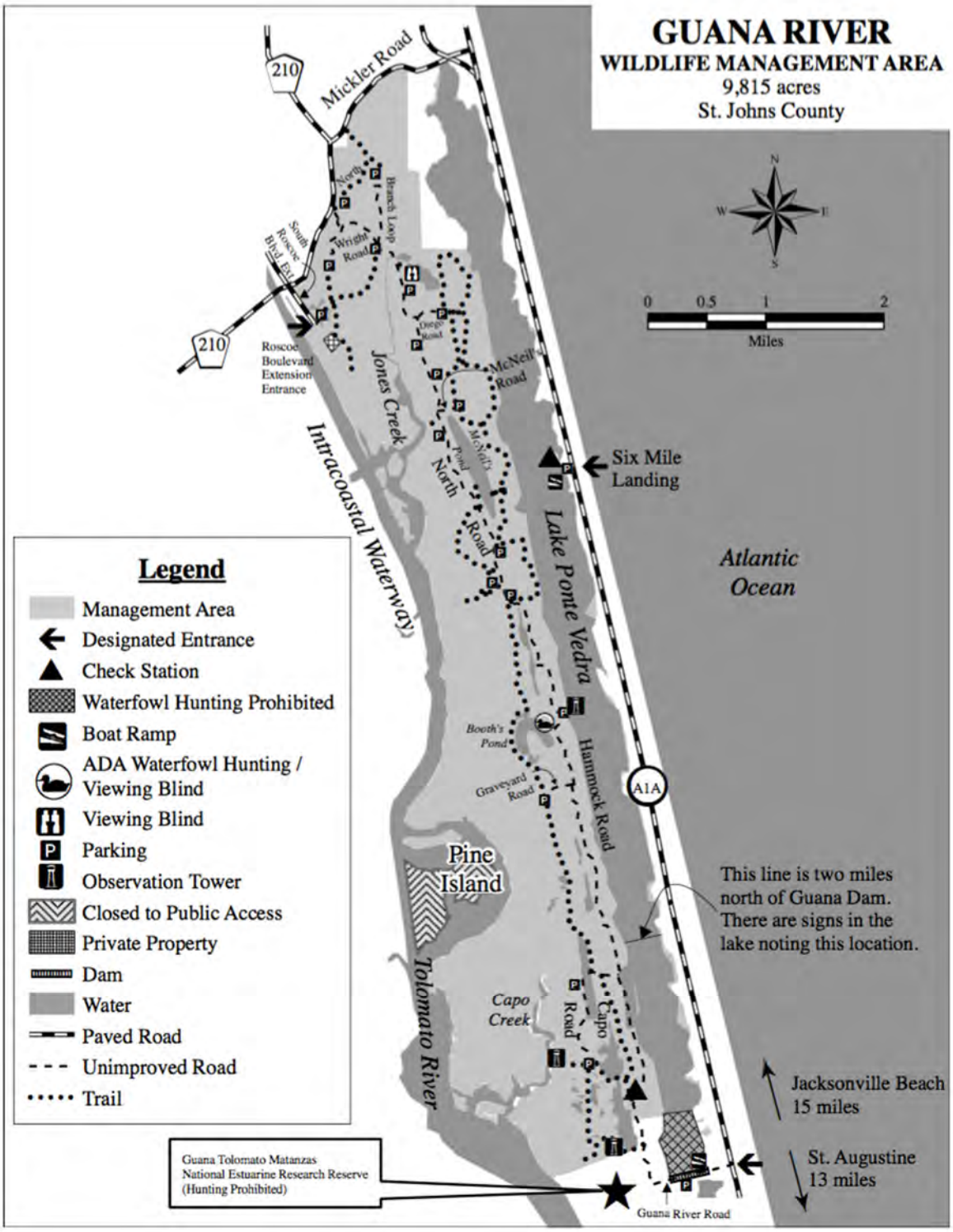


Figure 134. Map of the Guana River Dam in Florida (source: Guana River Wildlife Management Area Trail Meister).

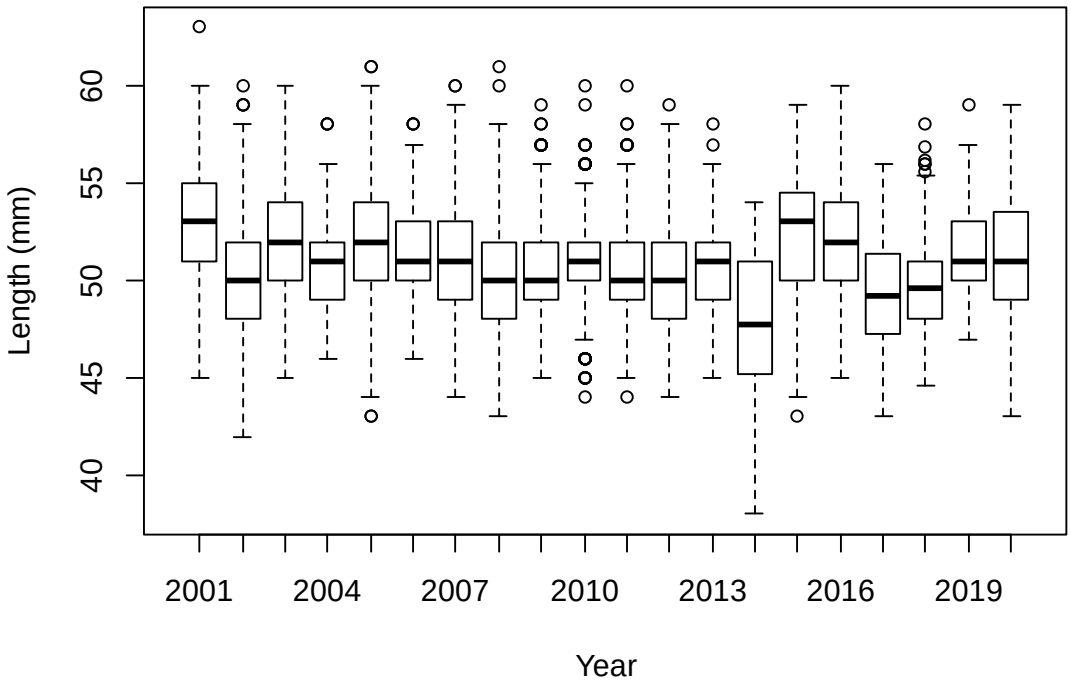


Figure 135. Boxplot of American eel lengths recorded in the Florida Guana River YOY survey.

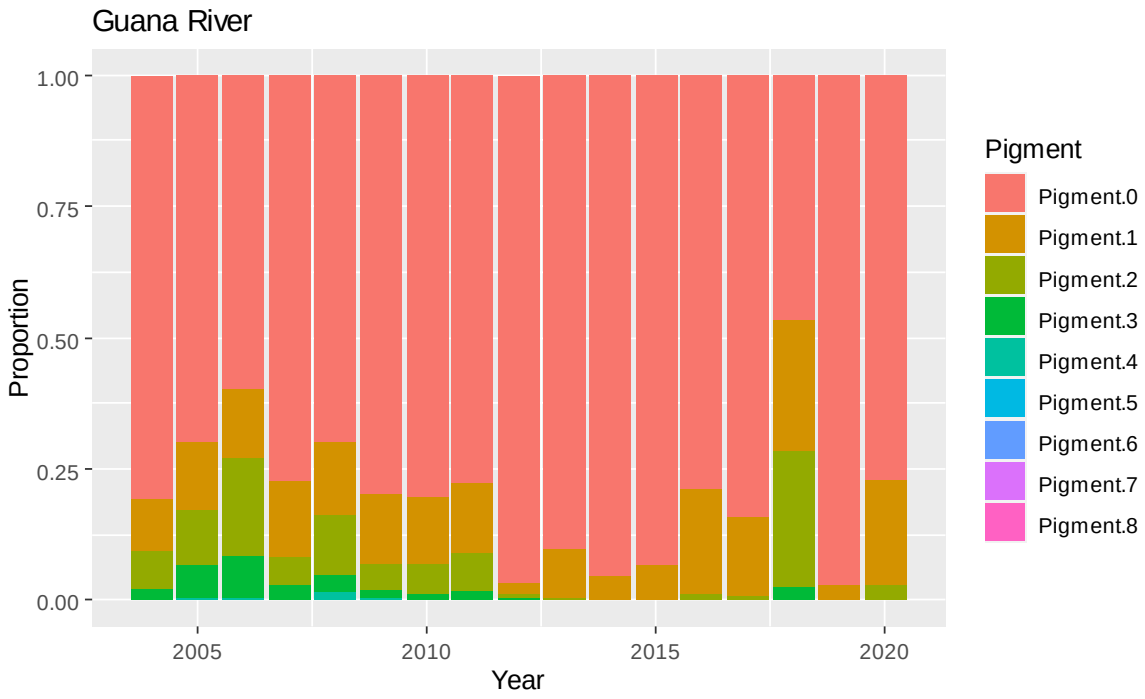


Figure 136. Distribution of pigment stages in the Guana River YOY American eel survey.

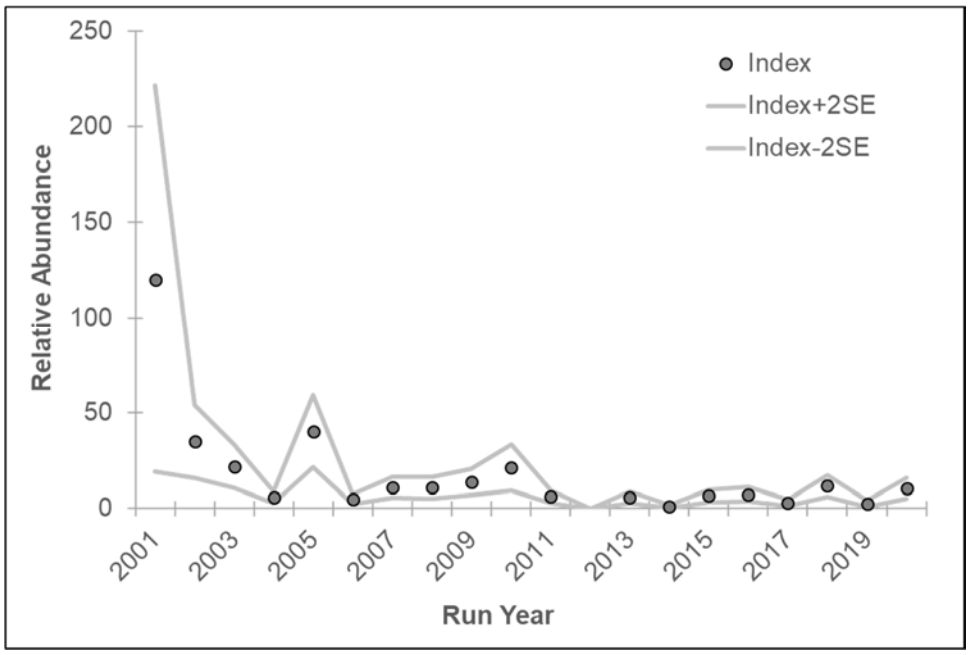


Figure 137. Standardized index of relative abundance of YOY American eel developed from the Florida Guana River Survey.

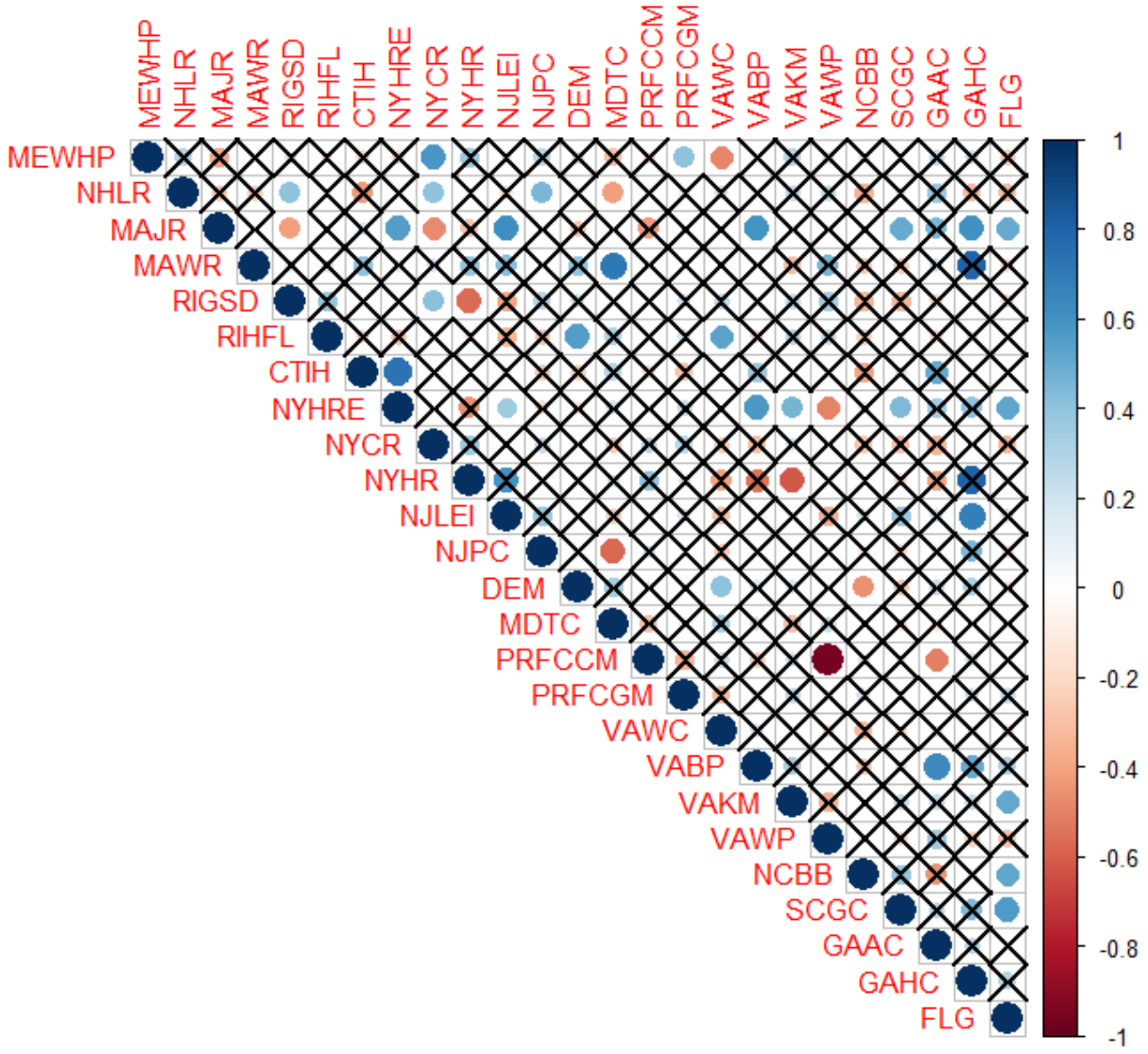


Figure 138. **Correlogram of YOY surveys where blue circles indicate positive correlations, red circles indicate negative correlations, the size of the circle and deepness of color indicate the strength of the correlation, and the insignificant coefficients are marked with a black "X". See Table 11 for survey abbreviations.**

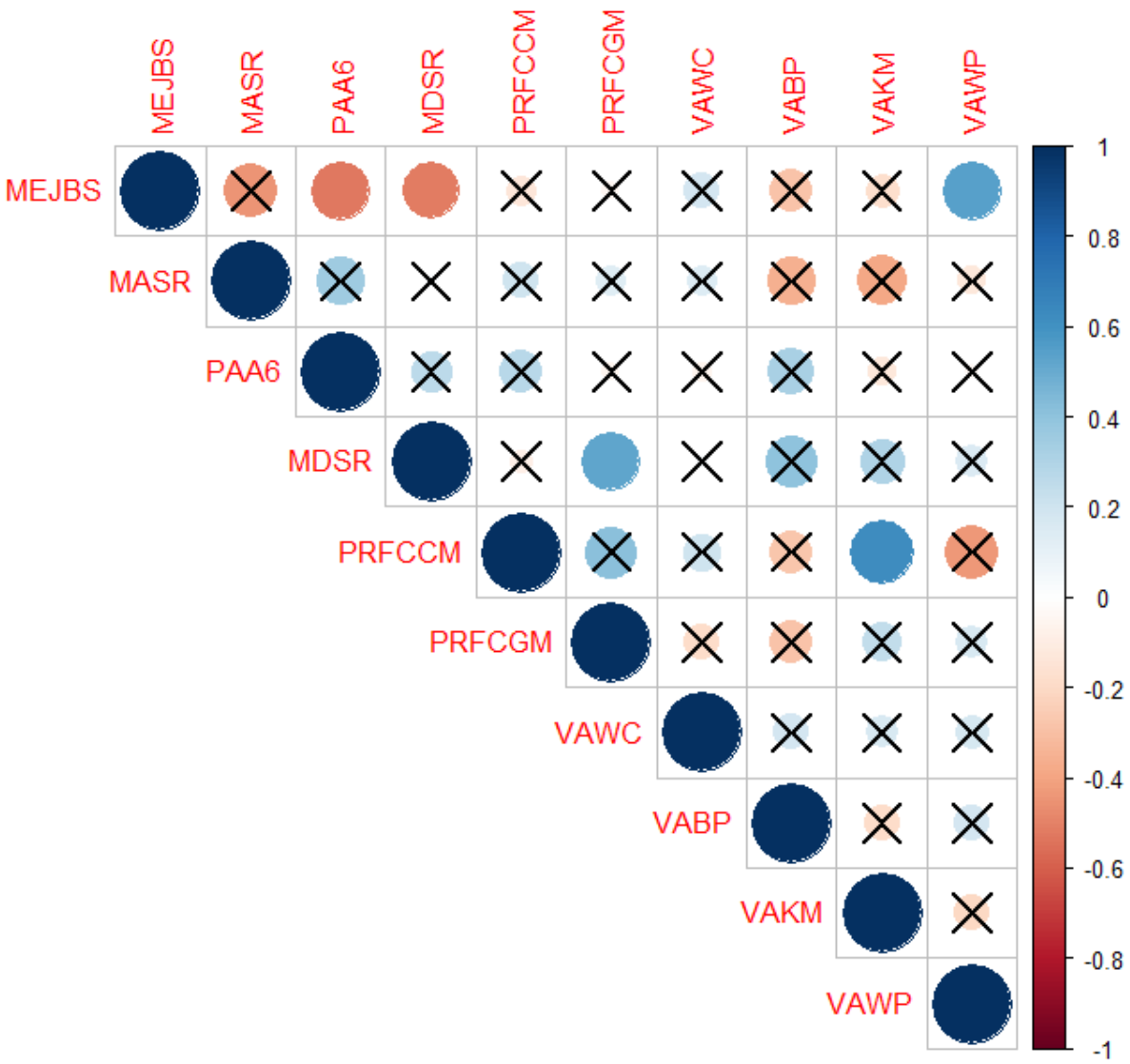


Figure 139. **Correlogram of elver surveys where blue circles indicate positive correlations, red circles indicate negative correlations, the size of the circle and deepness of color indicate the strength of the correlation, and the insignificant coefficients are marked with a black "X". See Table 12 for survey abbreviations.**

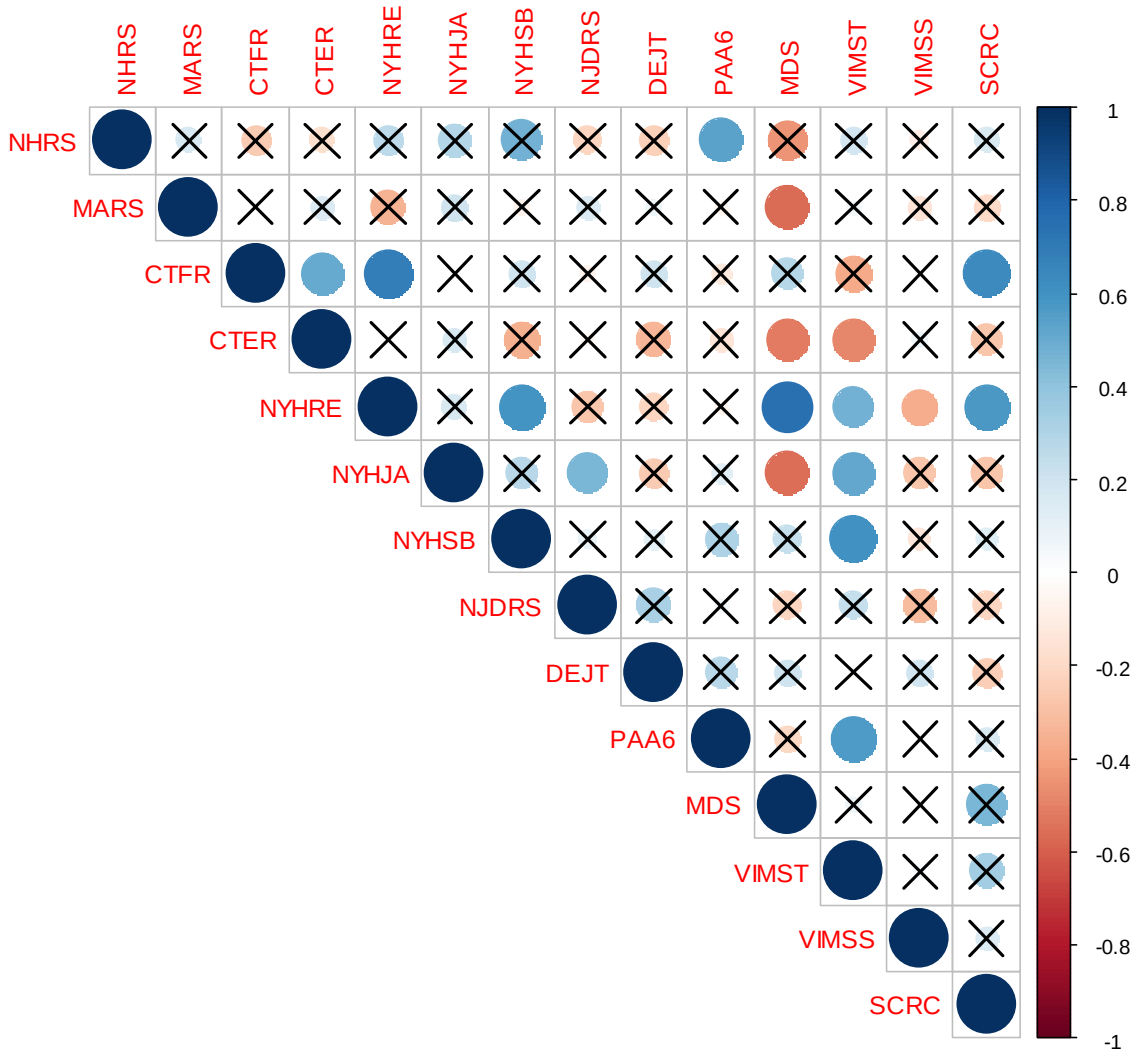


Figure 140. **Correlogram of yellow eel surveys where blue circles indicate positive correlations, red circles indicate negative correlations, the size of the circle and deepness of color indicate the strength of the correlation, and the insignificant coefficients are marked with a black "X". See Table 13 for survey abbreviations.**

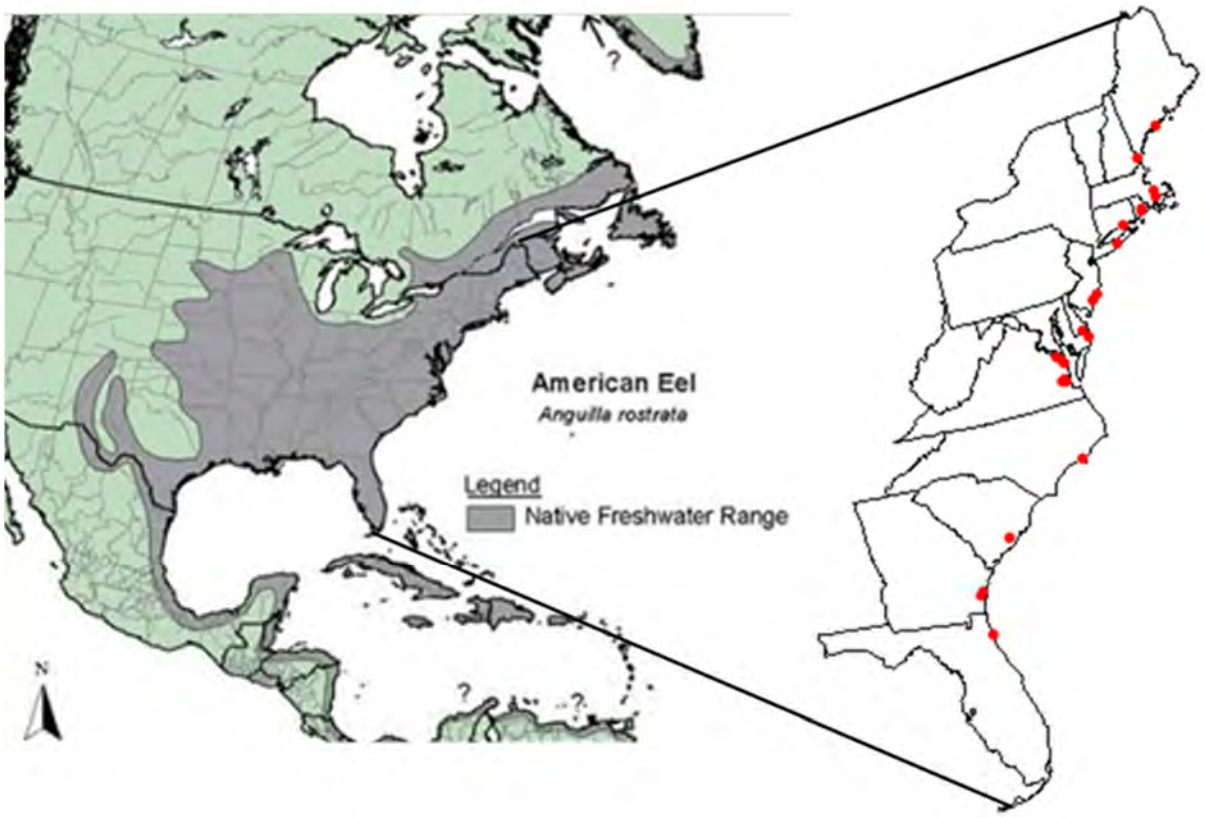
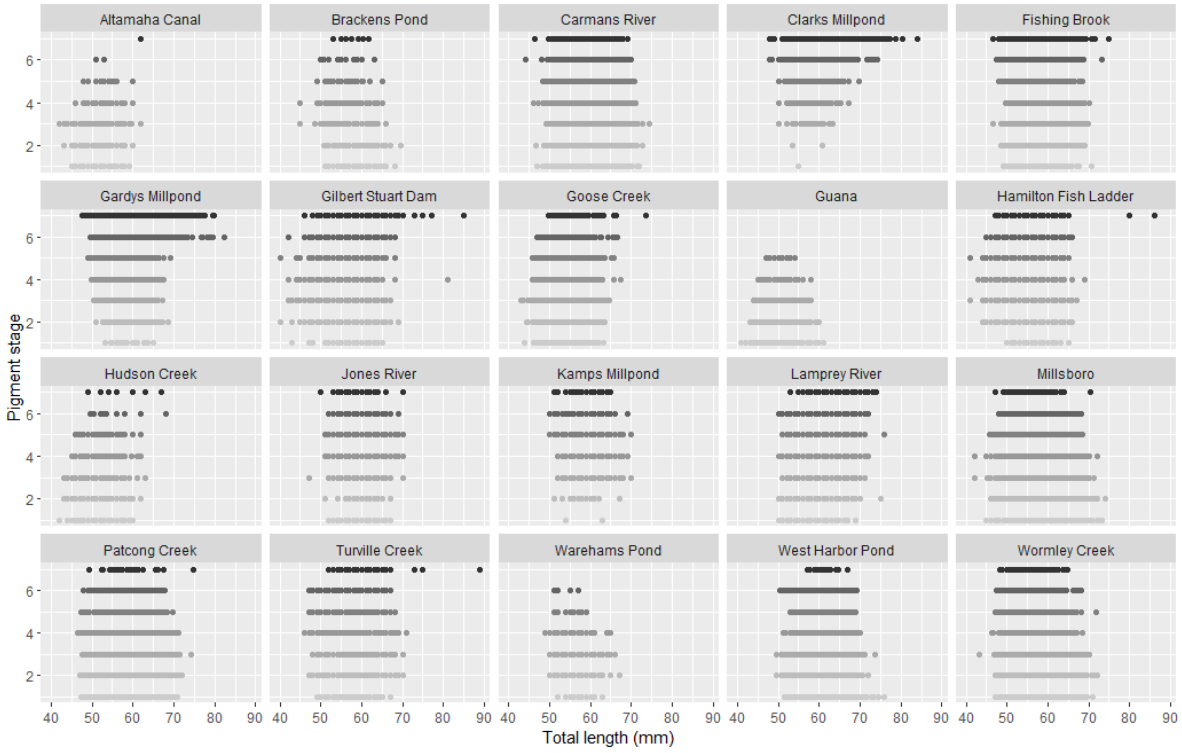
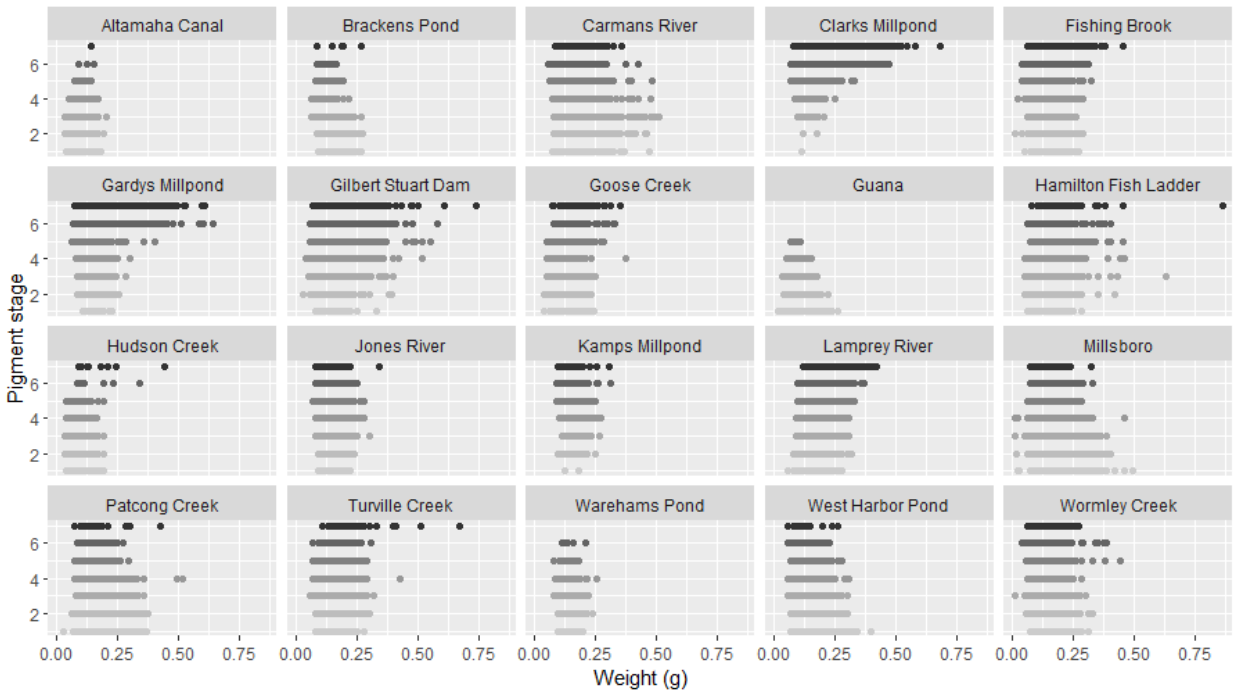


Figure 141. Locations where fixed-site YOY surveys have been or are currently located along the coast. No sites currently exist in the U.S. Gulf of Mexico (source: NatureServe 2006).

a)


Altamaha Canal
Brackens Pond
Carmans River
Clarks Millpond
Fishing Brook
Gardys Millpond
Gilbert Stuart Dam
Goose Creek
Guana
Hamilton Fish Ladder
Hudson Creek
Jones River
Kamps Millpond
Lamprey River
Millsboro
Patcong Creek
Turville Creek
Warehams Pond
West Harbor Pond
Wormley Creek
Pigment stage
Total length (mm)

b)


Altamaha Canal
Brackens Pond
Carmans River
Clarks Millpond
Fishing Brook
Gardys Millpond
Gilbert Stuart Dam
Goose Creek
Guana
Hamilton Fish Ladder
Hudson Creek
Jones River
Kamps Millpond
Lamprey River
Millsboro
Patcong Creek
Turville Creek
Warehams Pond
West Harbor Pond
Wormley Creek
Pigment stage
Weight (g)

c)

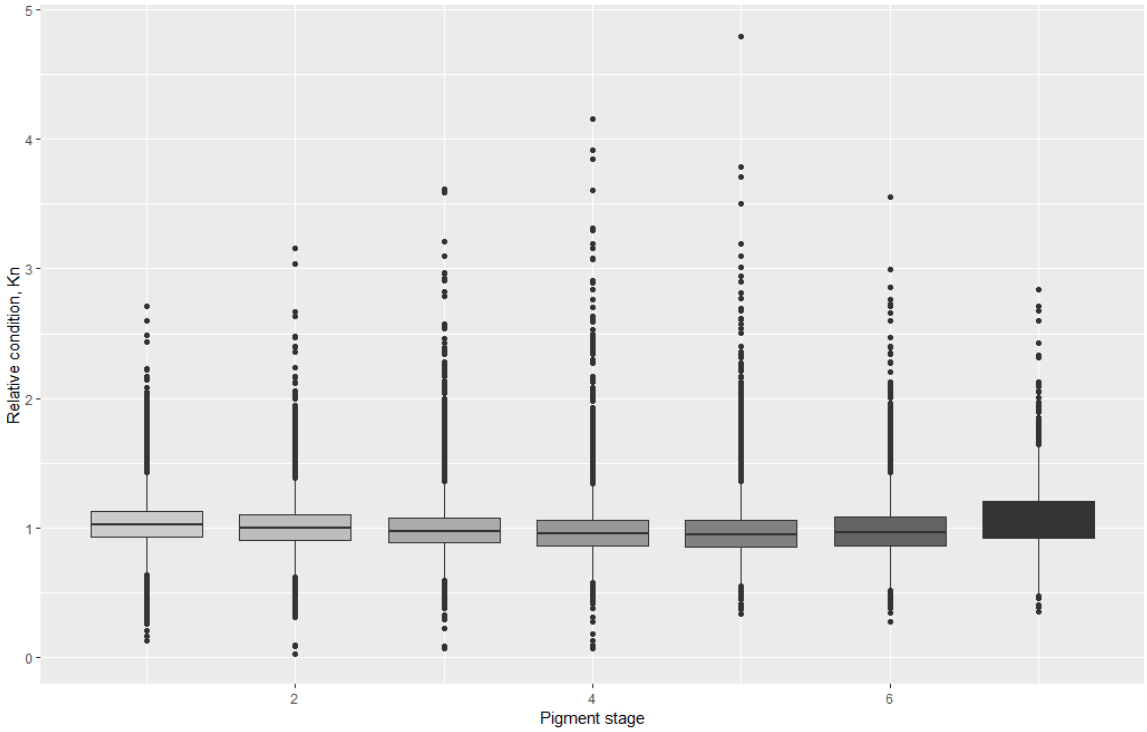


Figure 142. YOY American eel biological data. a) Pigment stage versus total length (mm) of YOY eels, b) Pigment stage versus weight (g) of YOY eels, c) Relative condition of YOY eels versus pigment stage.

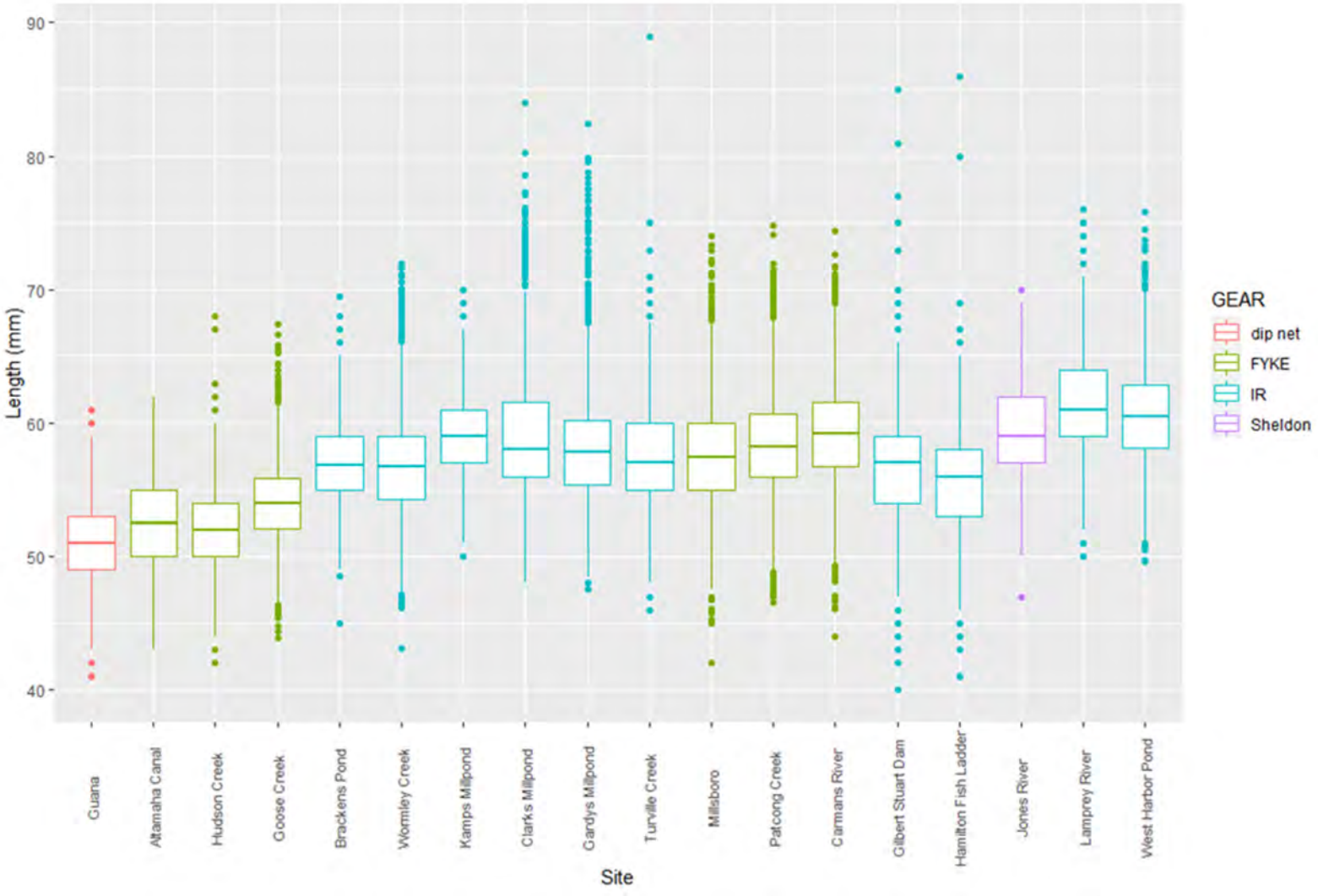


Figure 143. YOY eel length boxplots arranged from south to north along the x-axis. Different gear types are color coded.

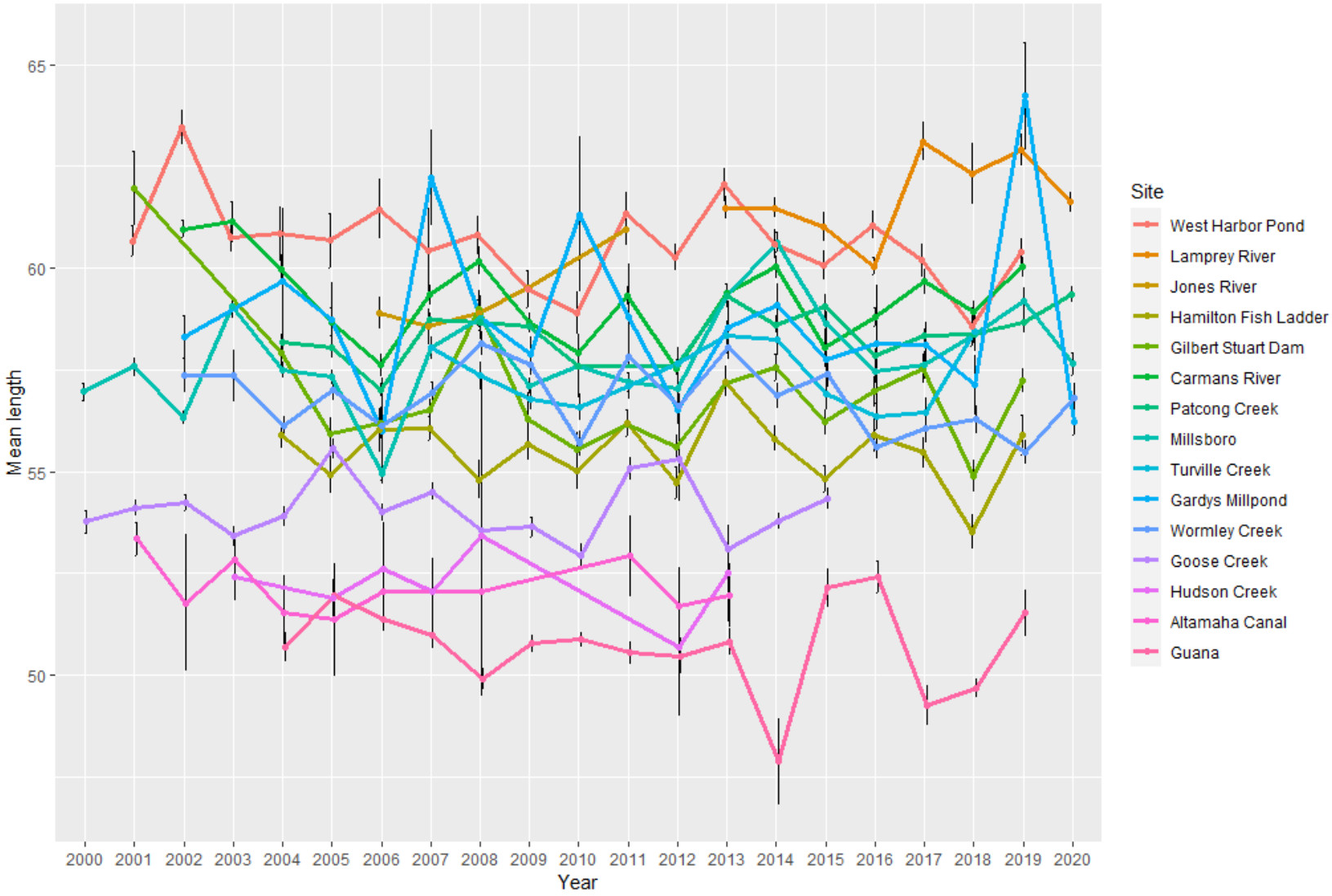


Figure 144. Mean length (95% CI) of YOY eels by year arranged and color-coded by latitude (West Harbor Pond, Massachusetts to Guana, Florida).

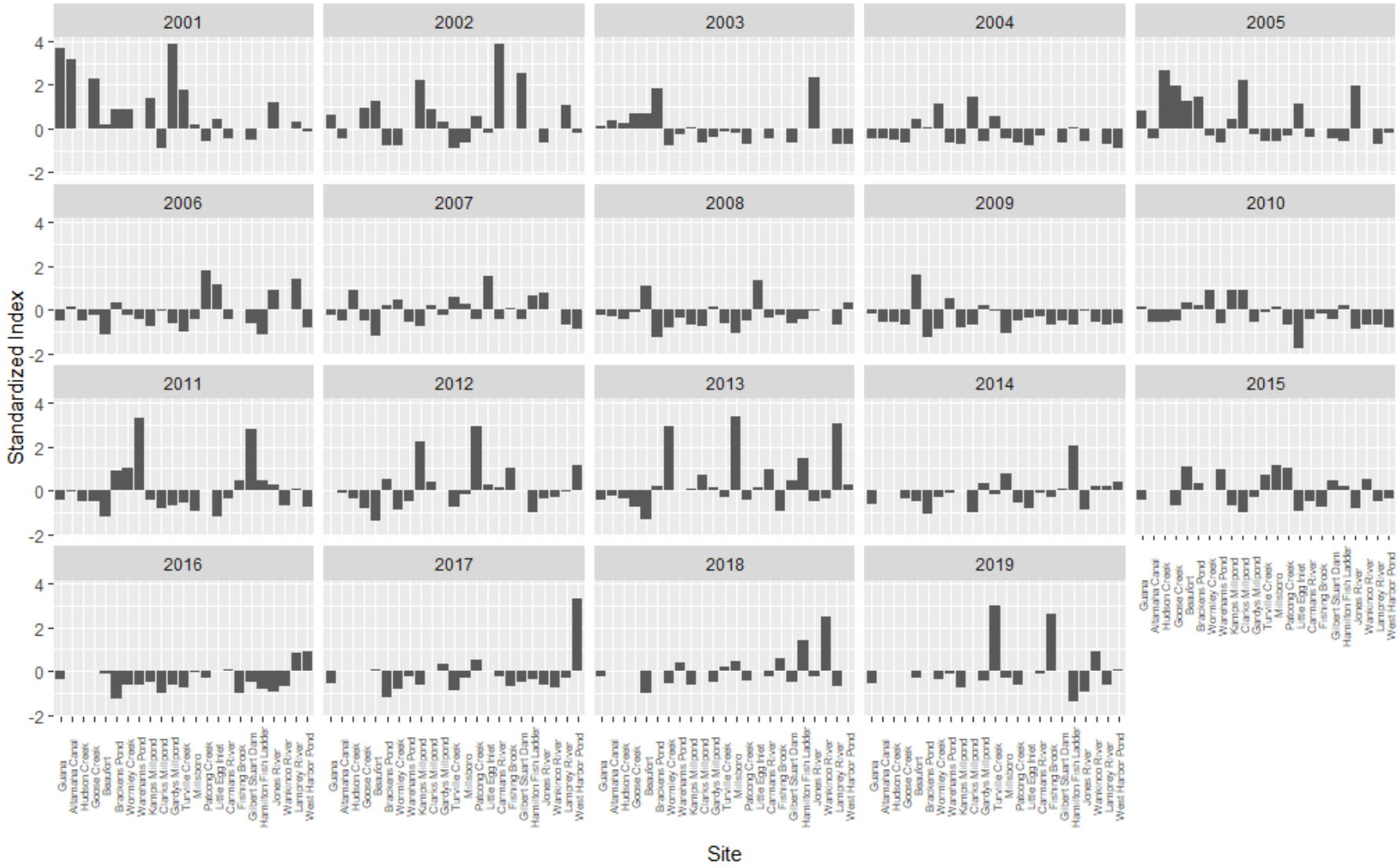


Figure 145. YOY eel indices, standardized within each site, by year. Sites are arranged from south to north along the x-axis in each plot.

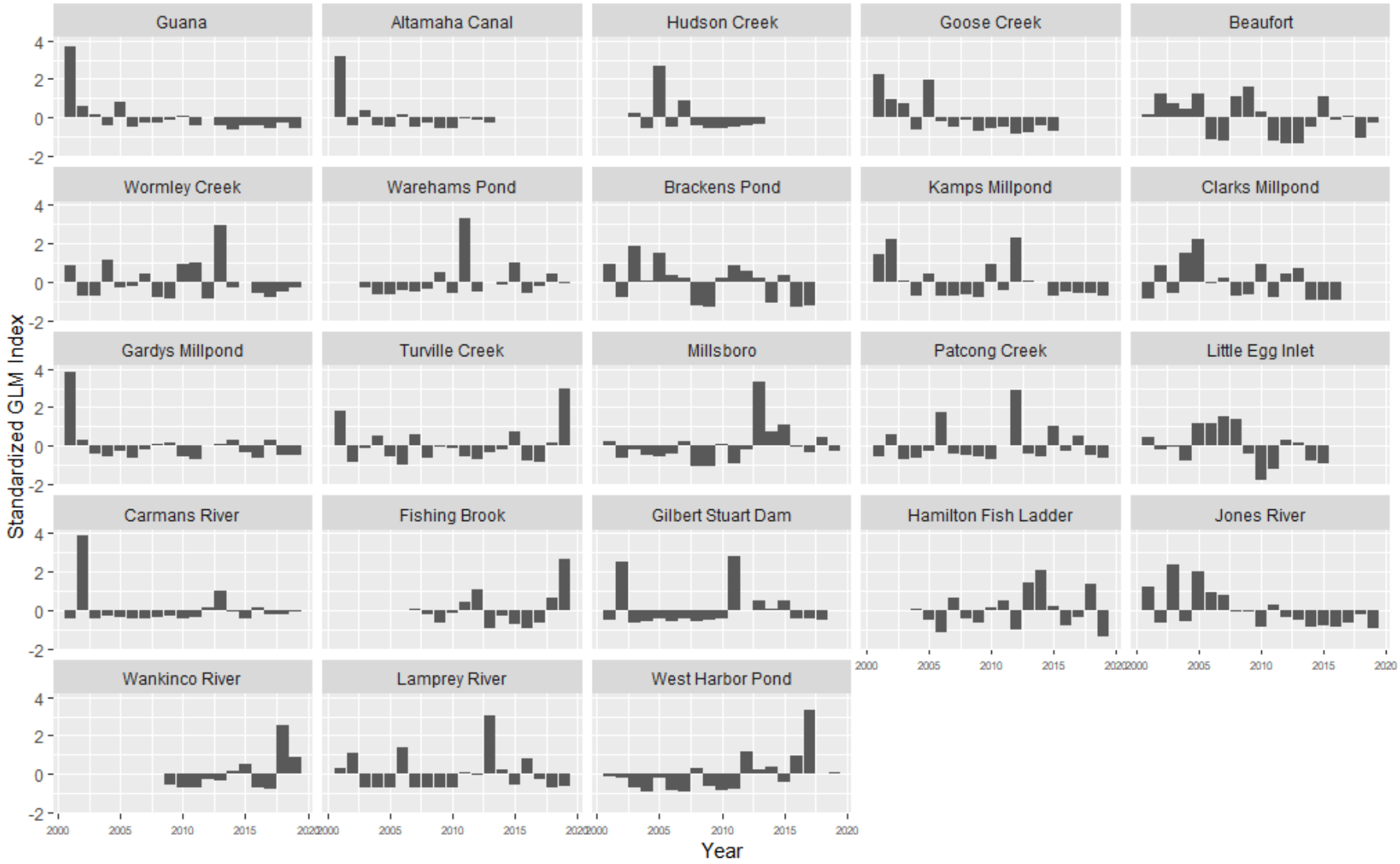


Figure 146. Standardized YOY eel indices (within each site) by year within each site.

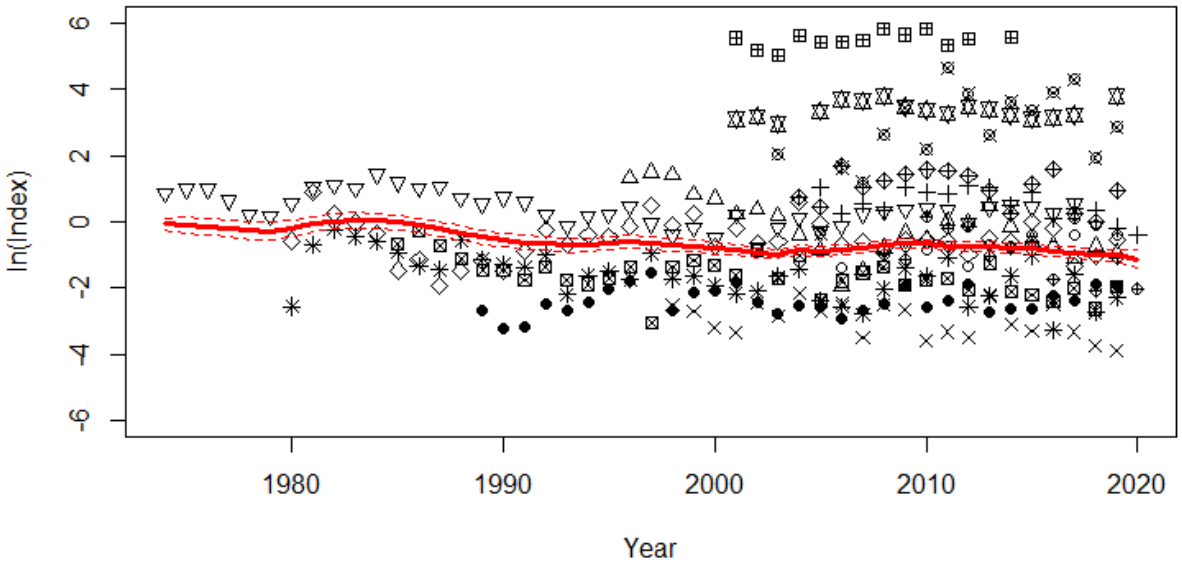


Figure 147. Fit of MARSS model to time series of yellow eel abundance indices along the Atlantic coast. The red solid line represents the true abundance index scaled to the first survey included in the MARSS model fit. Dashed red lines represent 95% confidence intervals. Individual surveys are represented by different symbols in the plot.

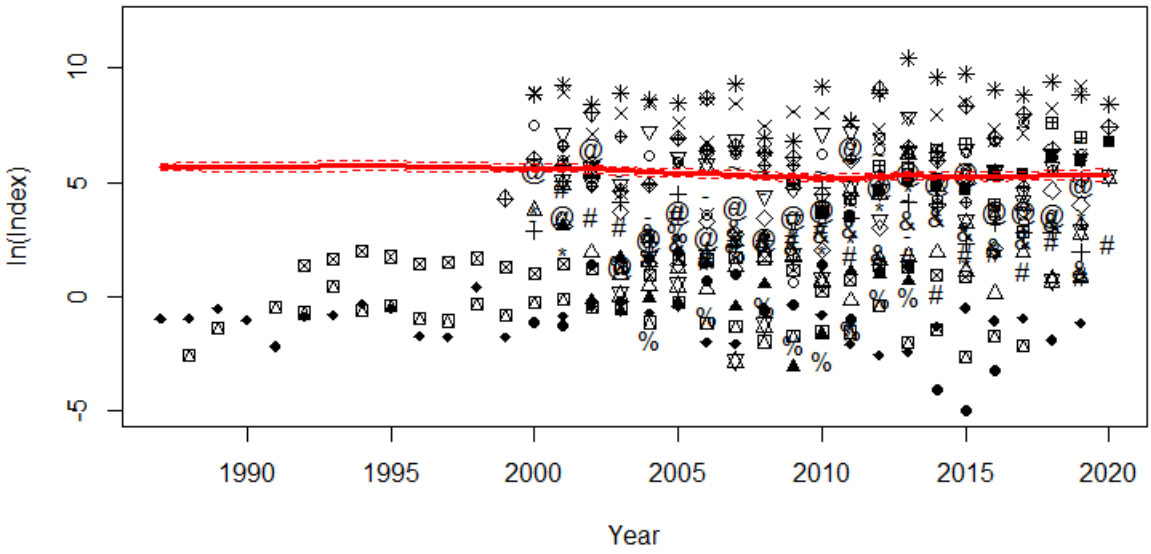


Figure 148. Fit of MARSS model to time series of YOY eel abundance indices along the Atlantic coast. The red solid line represents the true abundance index scaled to the first survey included in the MARSS model fit. Dashed red lines represent 95% confidence intervals. Individual surveys are represented by different symbols in the plot.

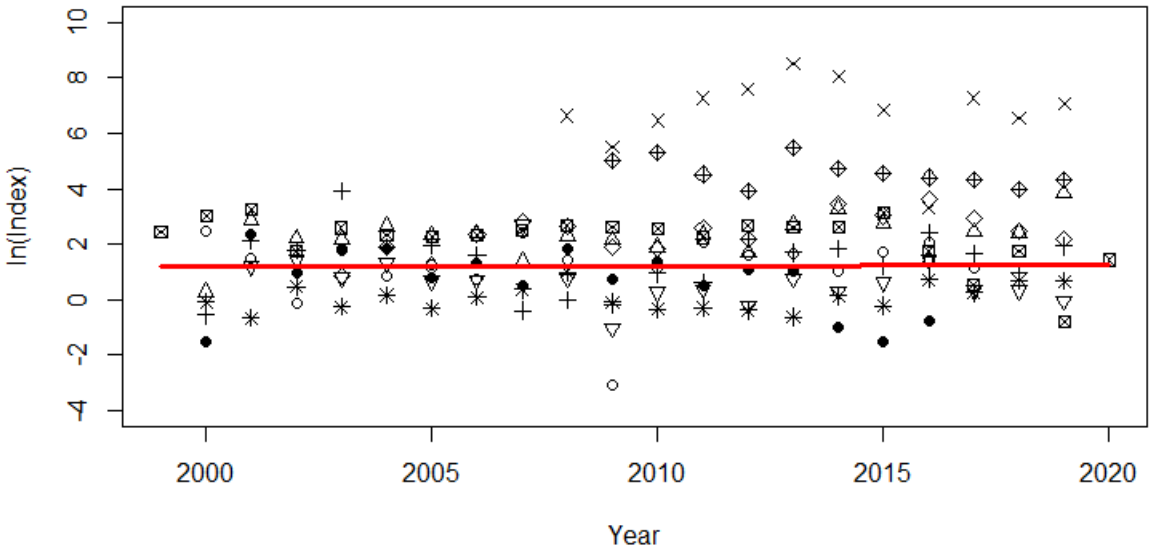


Figure 149. Fit of MARSS model to time series of elver eel abundance indices along the Atlantic coast. The red solid line represents the true abundance index scaled to the first survey included in the MARSS model fit. Confidence intervals (95%) are not shown because there was very little process error among elver surveys which overall showed no trend through time. Individual surveys are represented by different symbols in the plot.

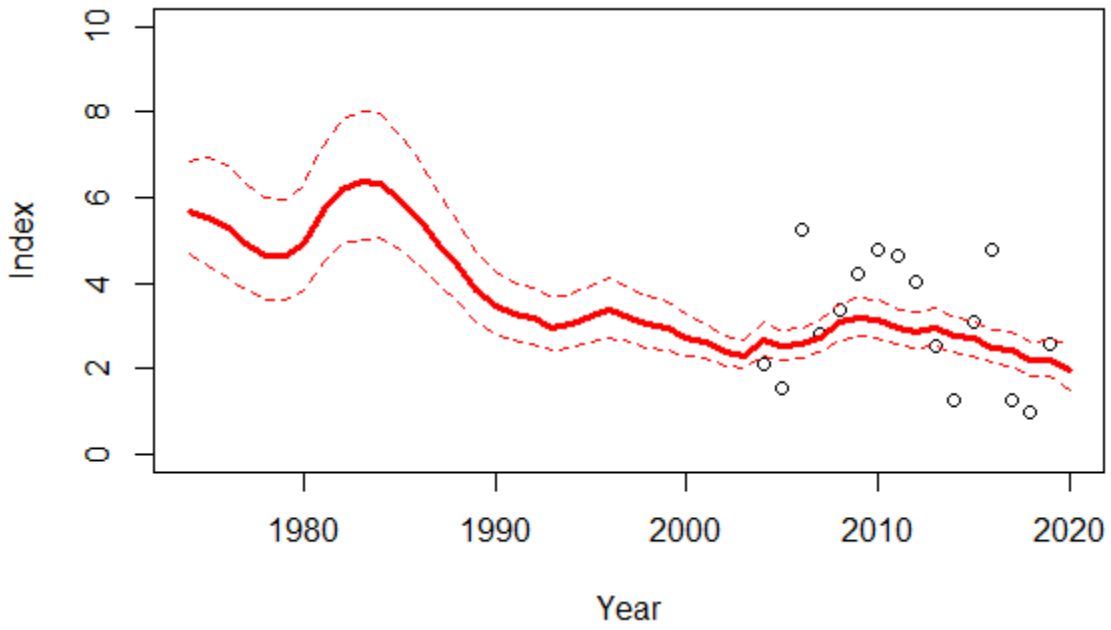


Figure 150. Yellow eel MARSS model fit scaled to the Maine Rainbow Smelt Fyke Net survey.

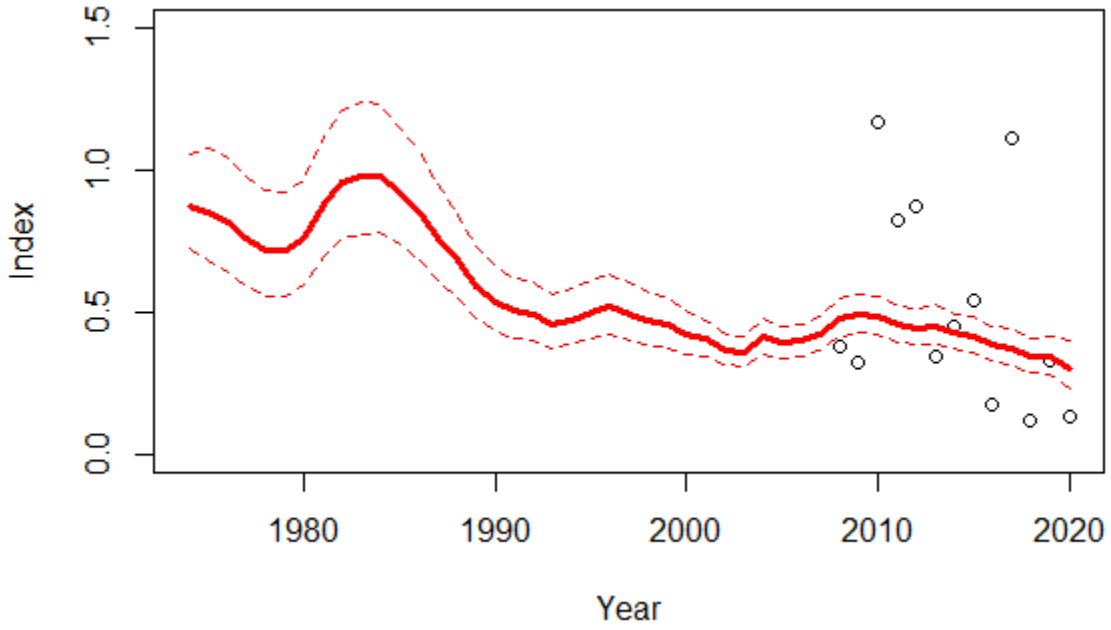


Figure 151. Yellow eel MARSS model fit scaled to the New Hampshire Rainbow Smelt Fyke Net survey.

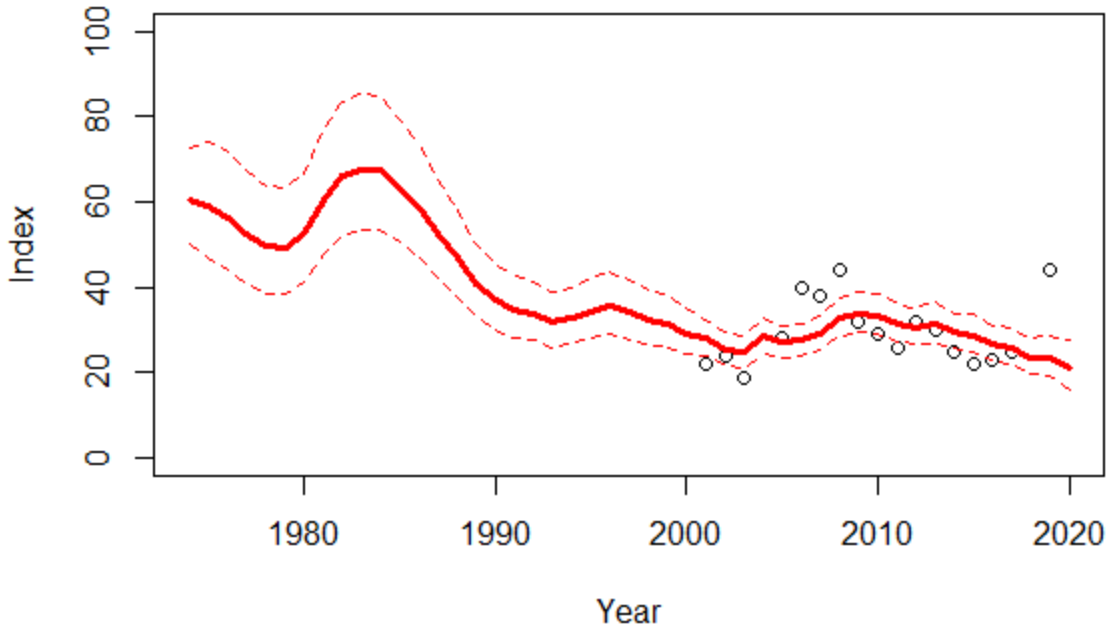


Figure 152. Yellow eel MARSS model fit scaled to the Connecticut Eightmile River electrofishing survey.

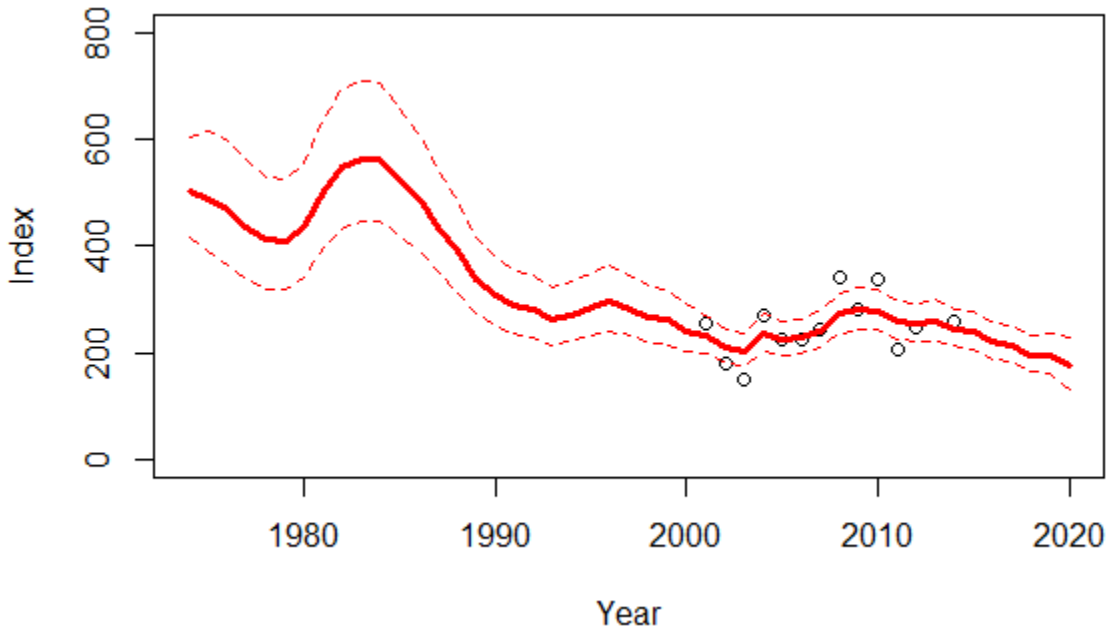


Figure 153. Yellow eel MARSS model fit scaled to the Connecticut Farmill River electrofishing survey.

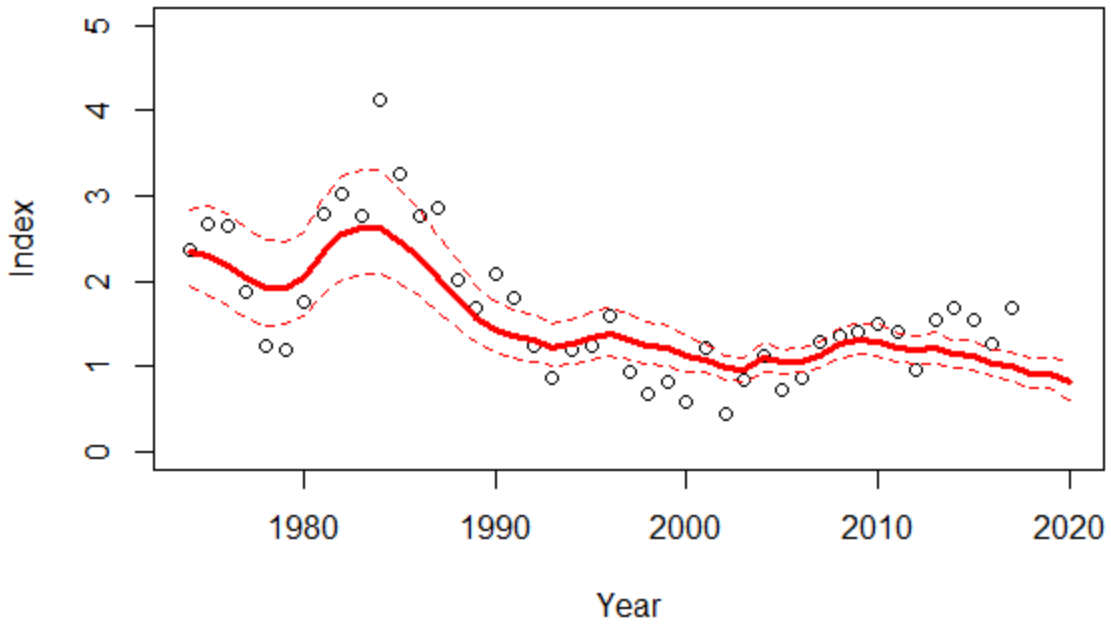


Figure 154. Yellow eel MARSS model fit scaled to the New York Hudson River Estuary (HRE) monitoring program survey.

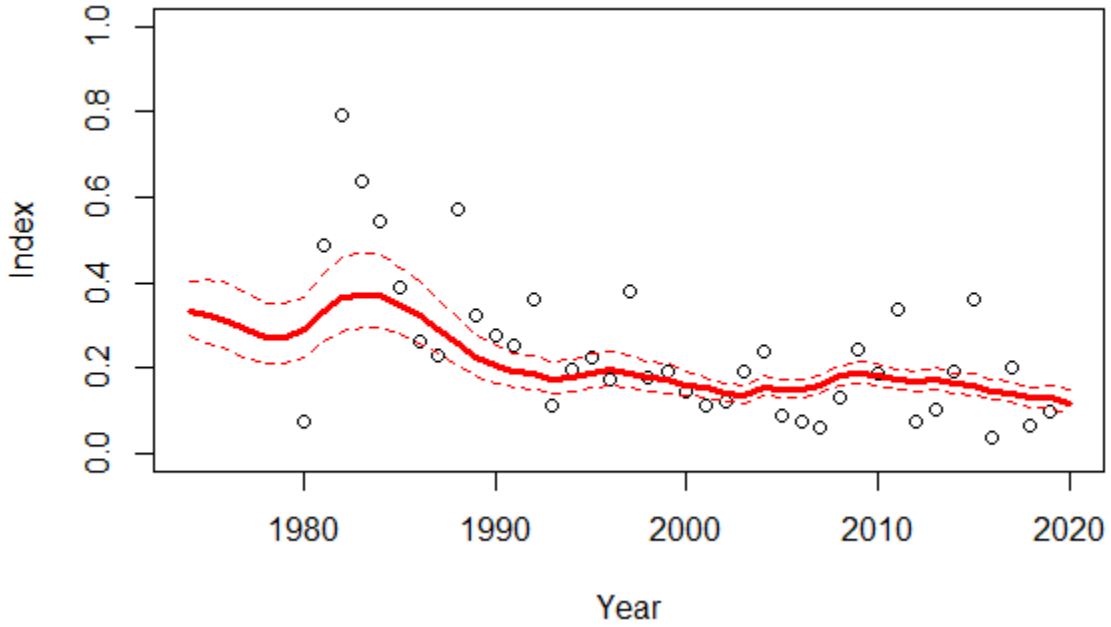


Figure 155. Yellow eel MARSS model fit scaled to the New York Hudson River Juvenile Striped Bass Seine survey.

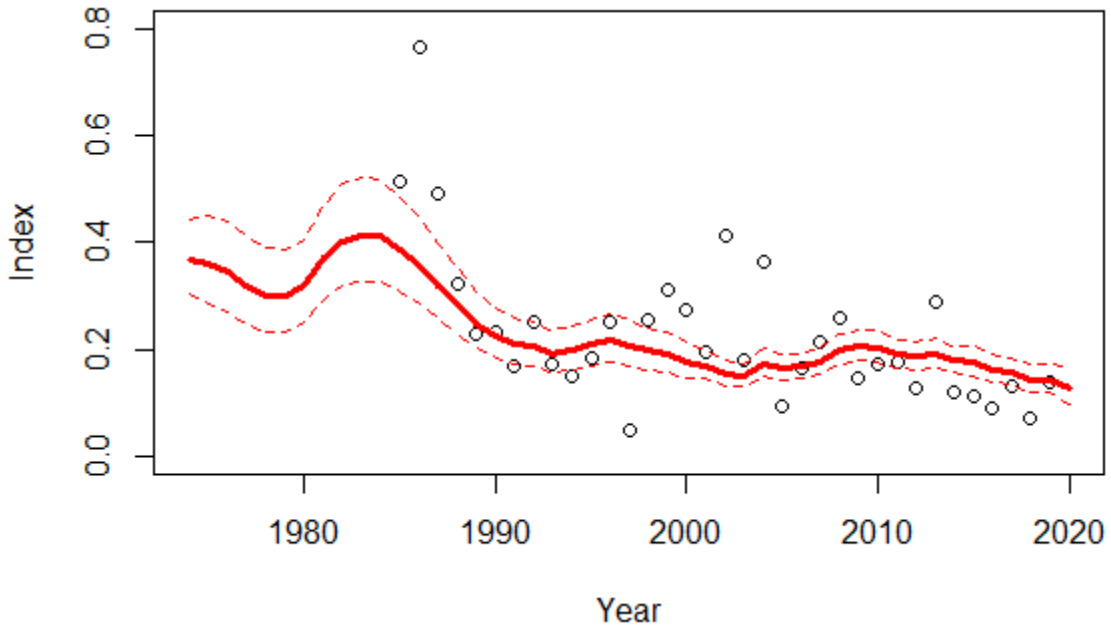


Figure 156. Yellow eel MARSS model fit scaled to the New York Hudson River Juvenile Alosine Seine survey.

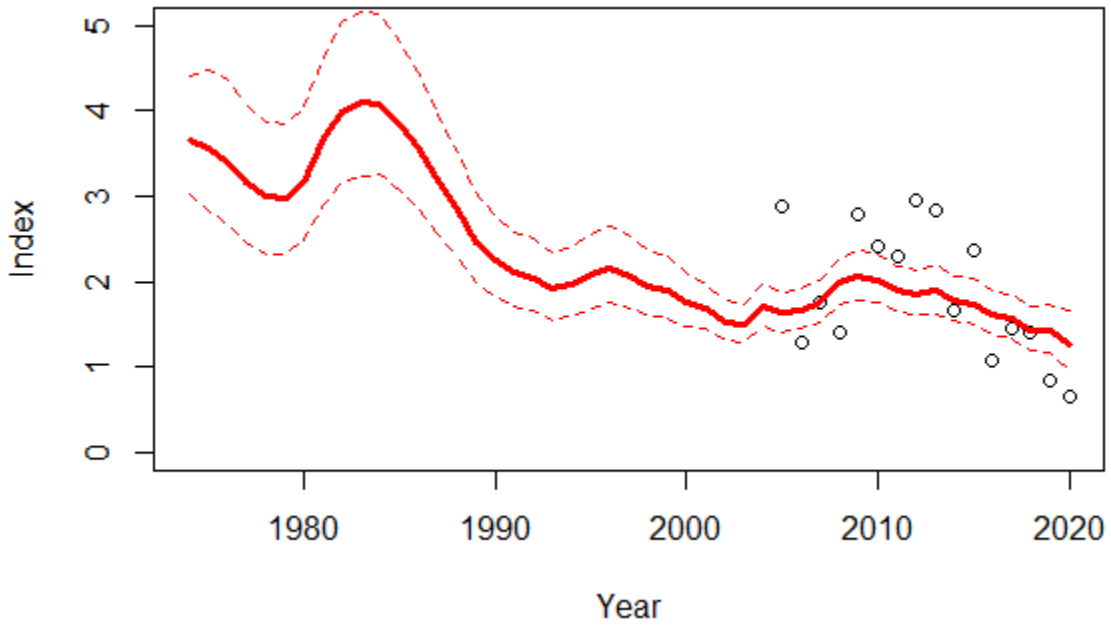


Figure 157. Yellow eel MARSS model fit scaled to the Pennsylvania Delaware River electrofishing survey.

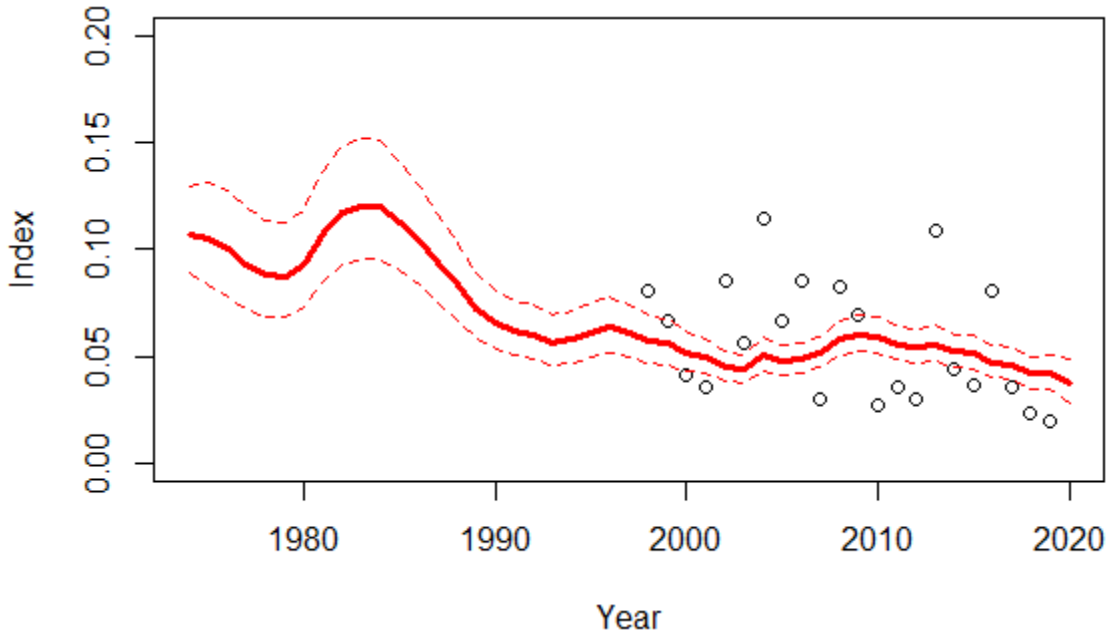


Figure 158. Yellow eel MARSS model fit scaled to the New Jersey Delaware River Seine survey.

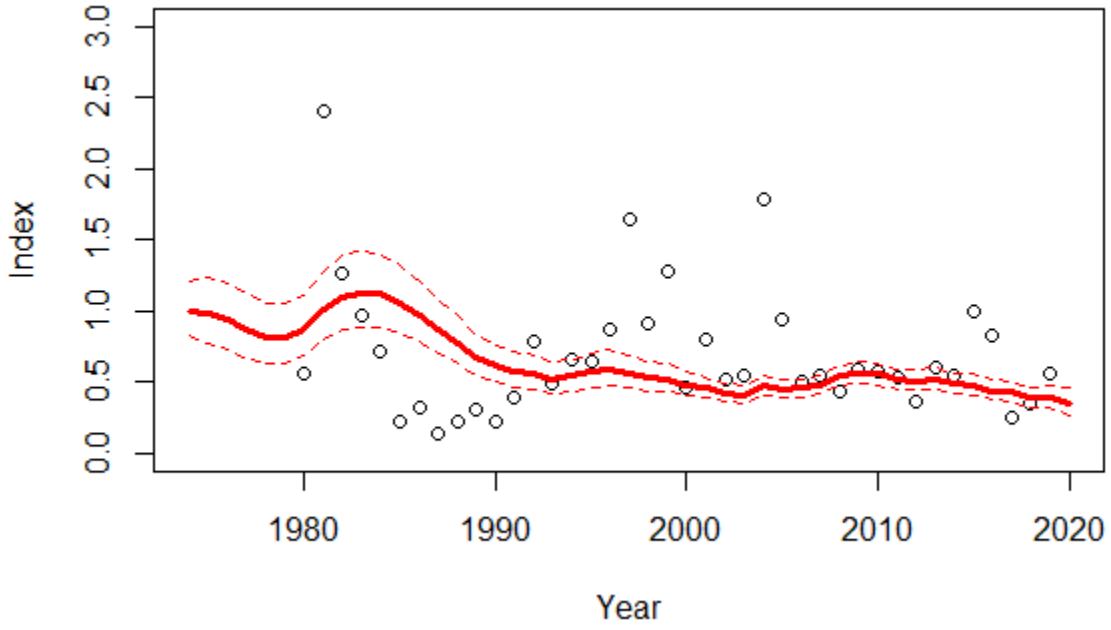


Figure 159. Yellow eel MARSS model fit scaled to the Delaware River Trawl survey.

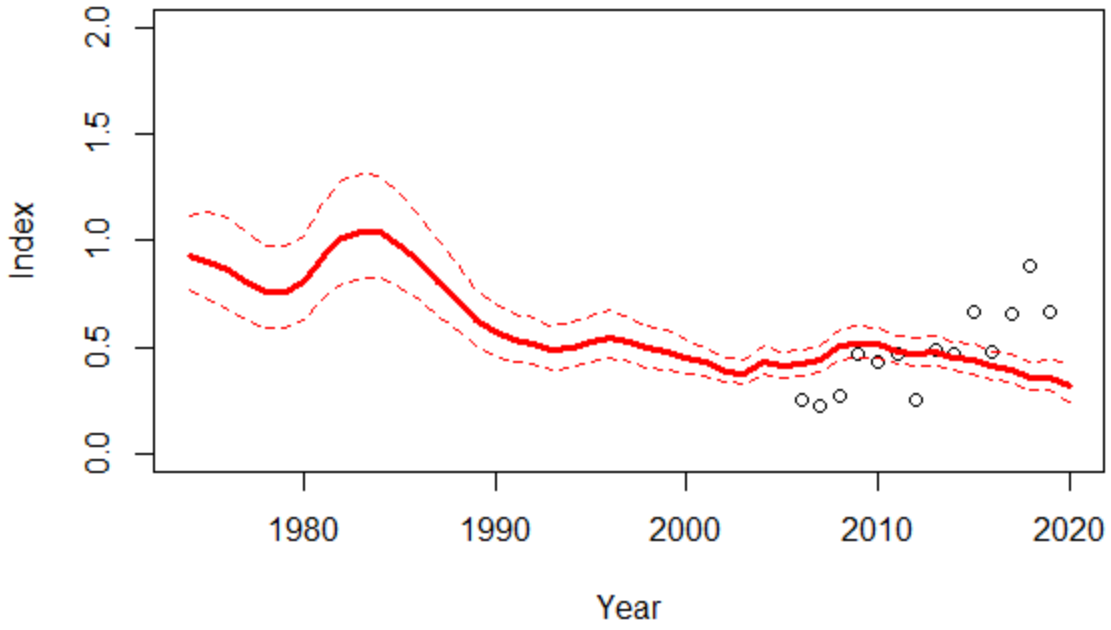


Figure 160. Yellow eel MARSS model fit scaled to the Maryland Sassafras River Eel Pot survey.

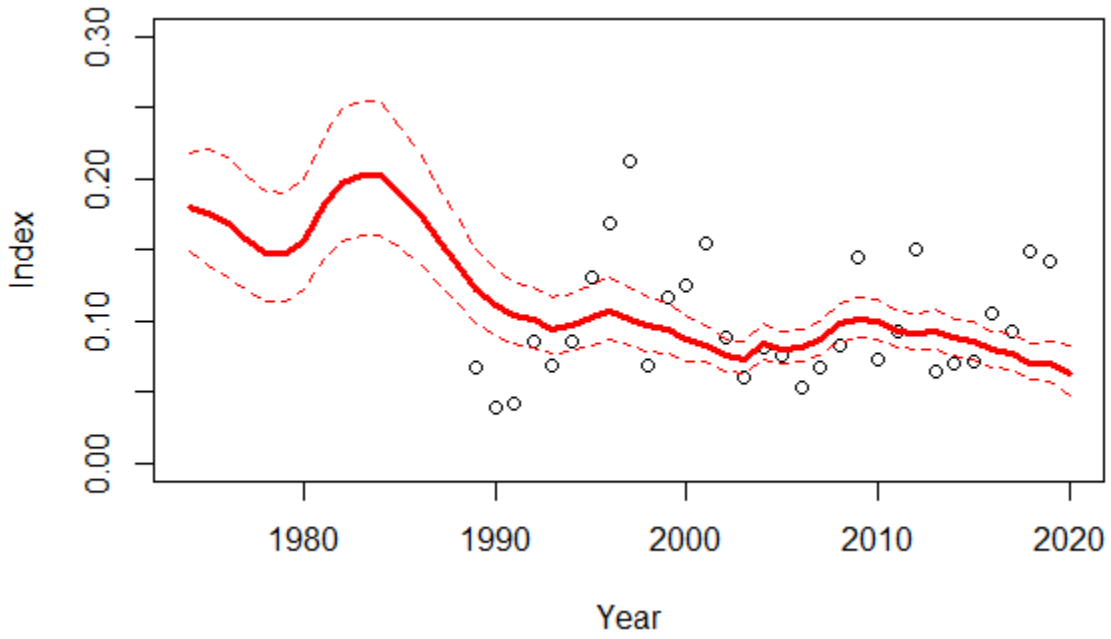


Figure 161. Yellow eel MARSS model fit scaled to the Virginia Institute of Marine Science Seine survey.

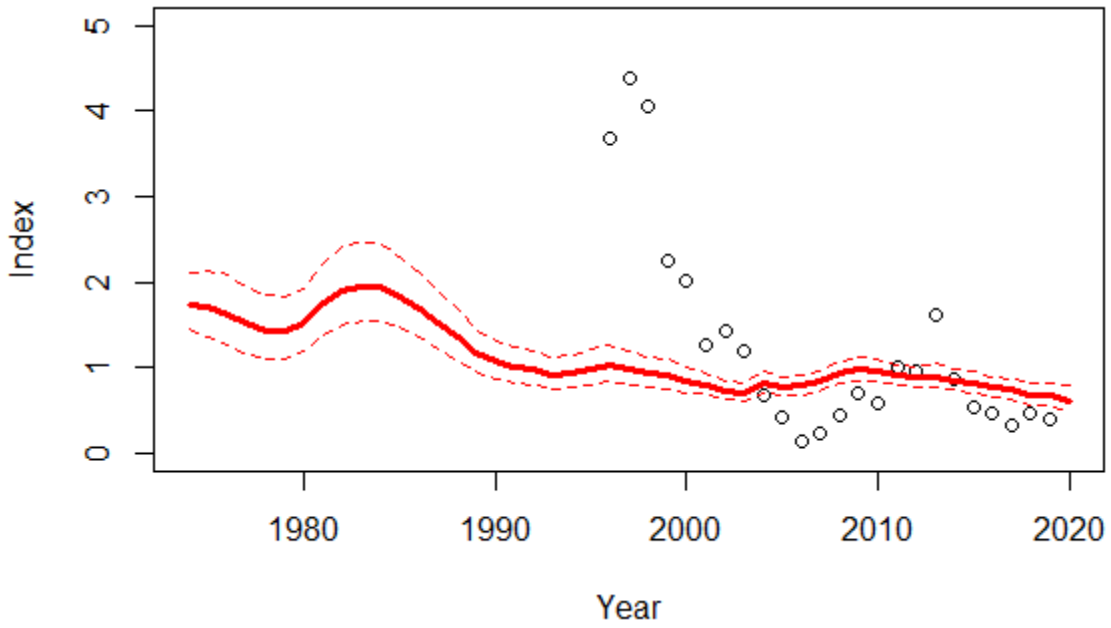


Figure 162. Yellow eel MARSS model fit scaled to the Virginia Institute of Marine Science Trawl survey.

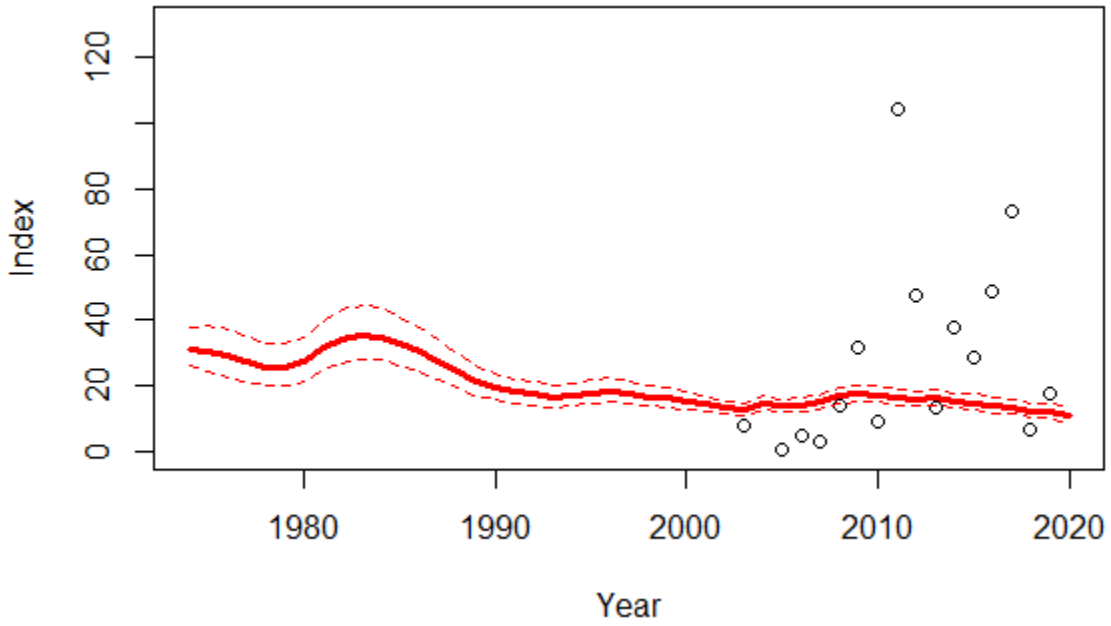


Figure 163. Yellow eel MARSS model fit scaled to the South Carolina Rediversion Canal Ladder survey.

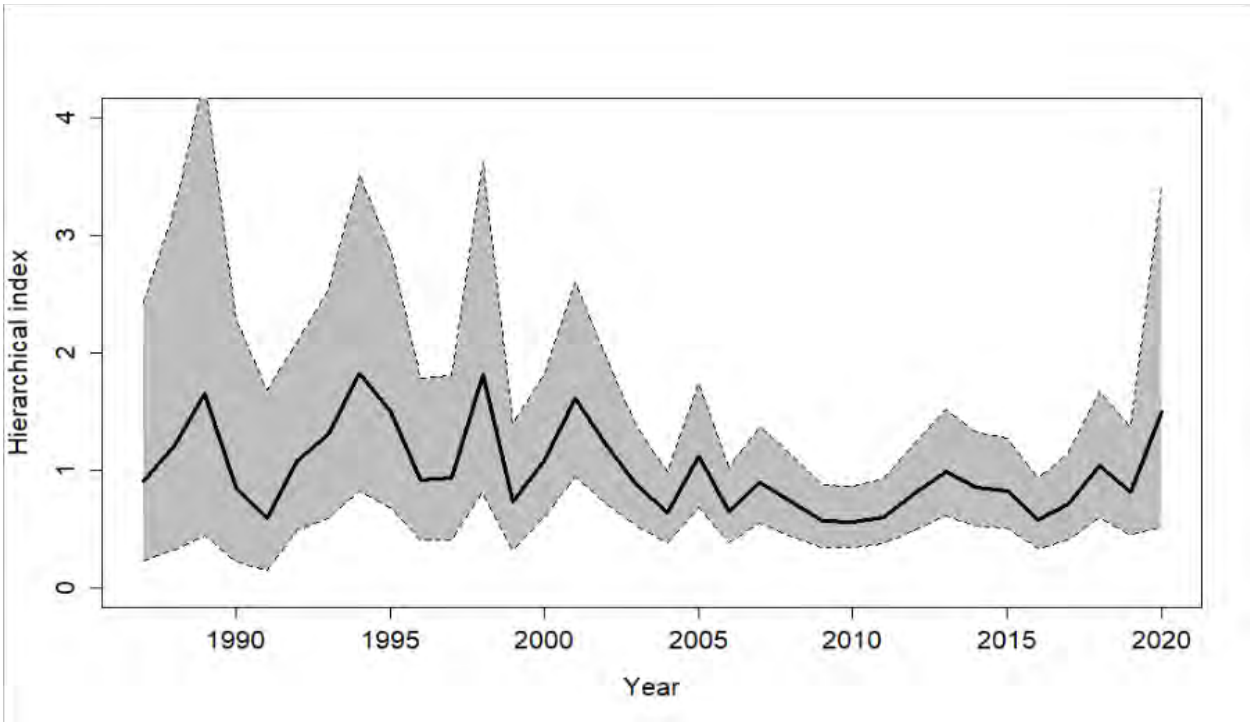


Figure 164. Time series of YOY American eel coastwide abundance as estimated from the Conn method. The black line gives the posterior mean and the grey, shaded area represents a 95% credible interval.

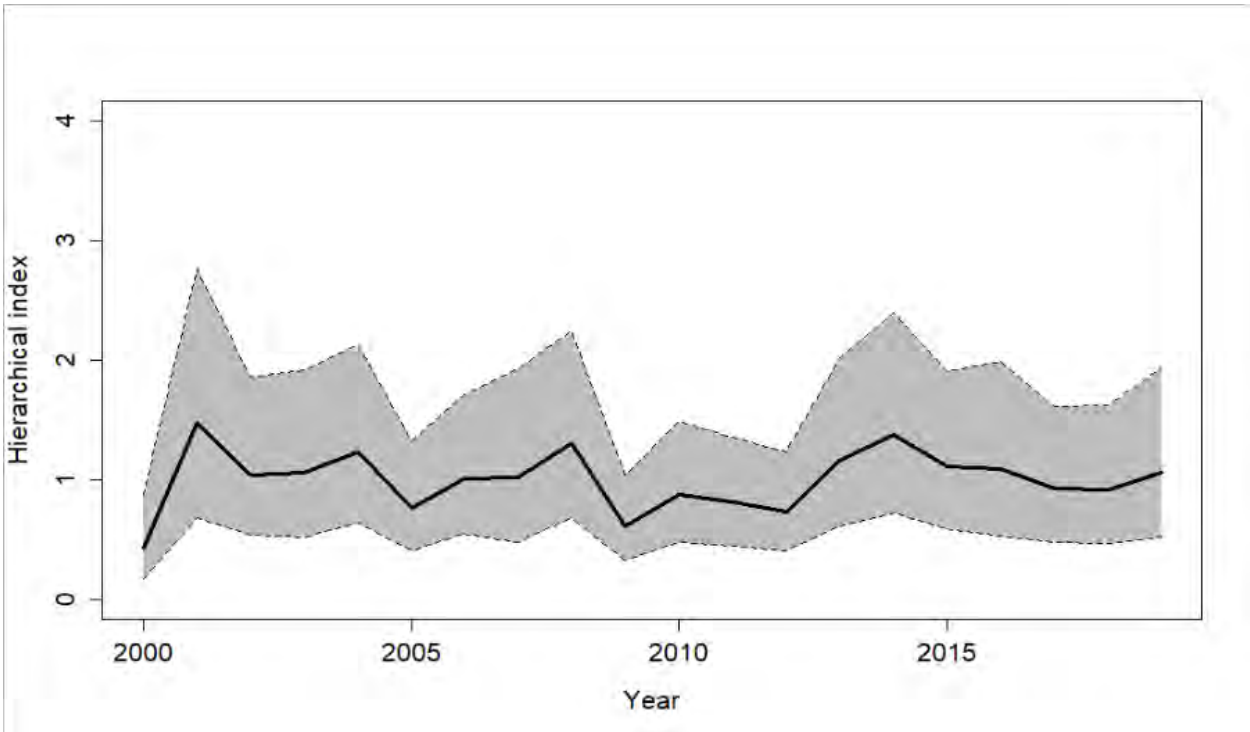


Figure 165. Time series of elver American eel coastwide abundance as estimated from the Conn method. The black line gives the posterior mean and the grey, shaded area represents a 95% credible interval.

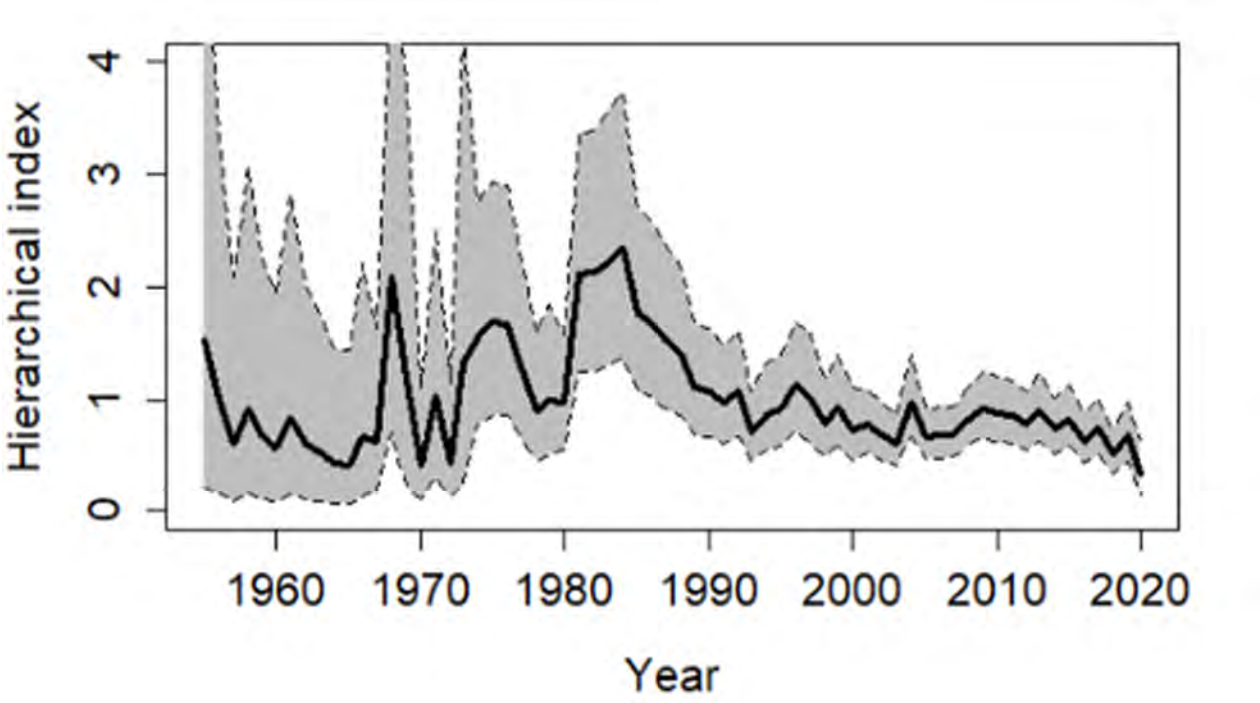


Figure 166. Time series of yellow eel coastwide abundance as estimated from the Conn method. The black line gives the posterior mean and the grey, shaded area represents a 95% credible interval.

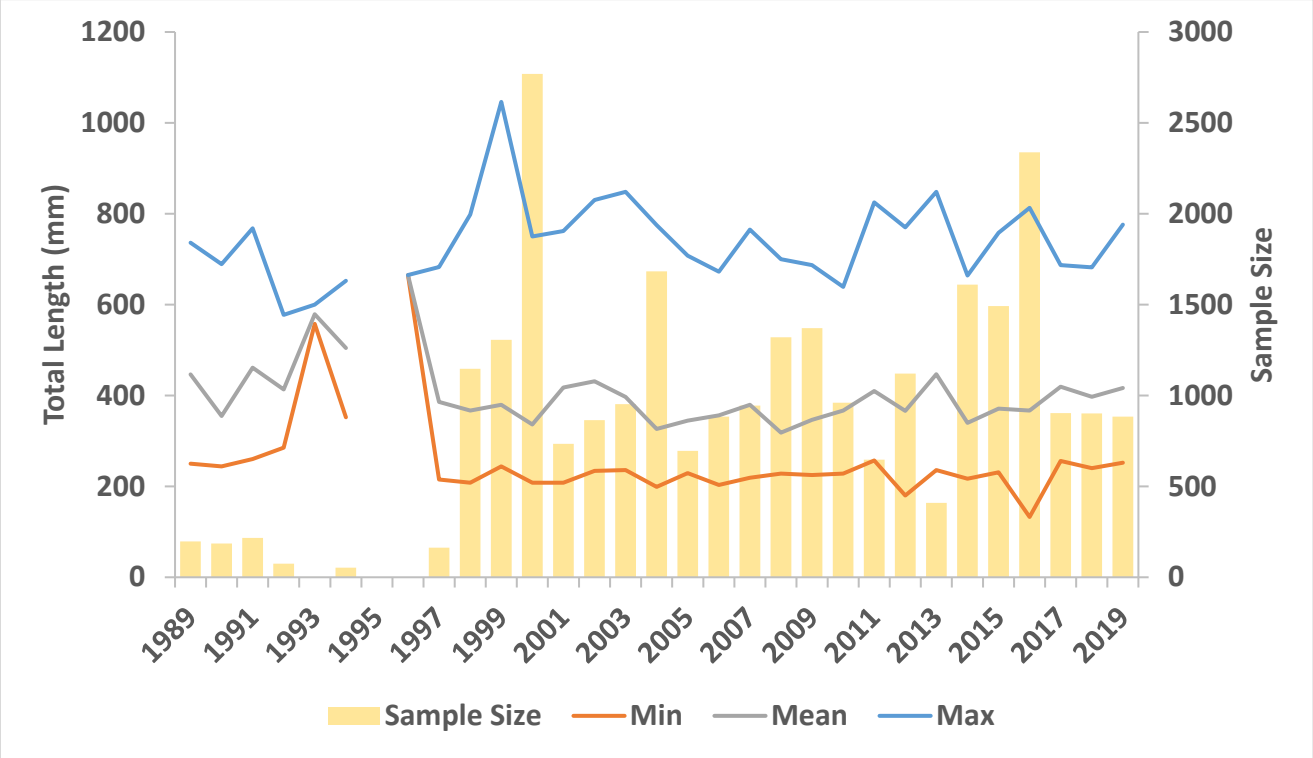


Figure 167. Commercial mean lengths from Chesapeake Bay region states, 1989-2020. Data is from males and females because sex data was not available until 2006. Sample size, minimum length, and maximum length are indicated on the figure.

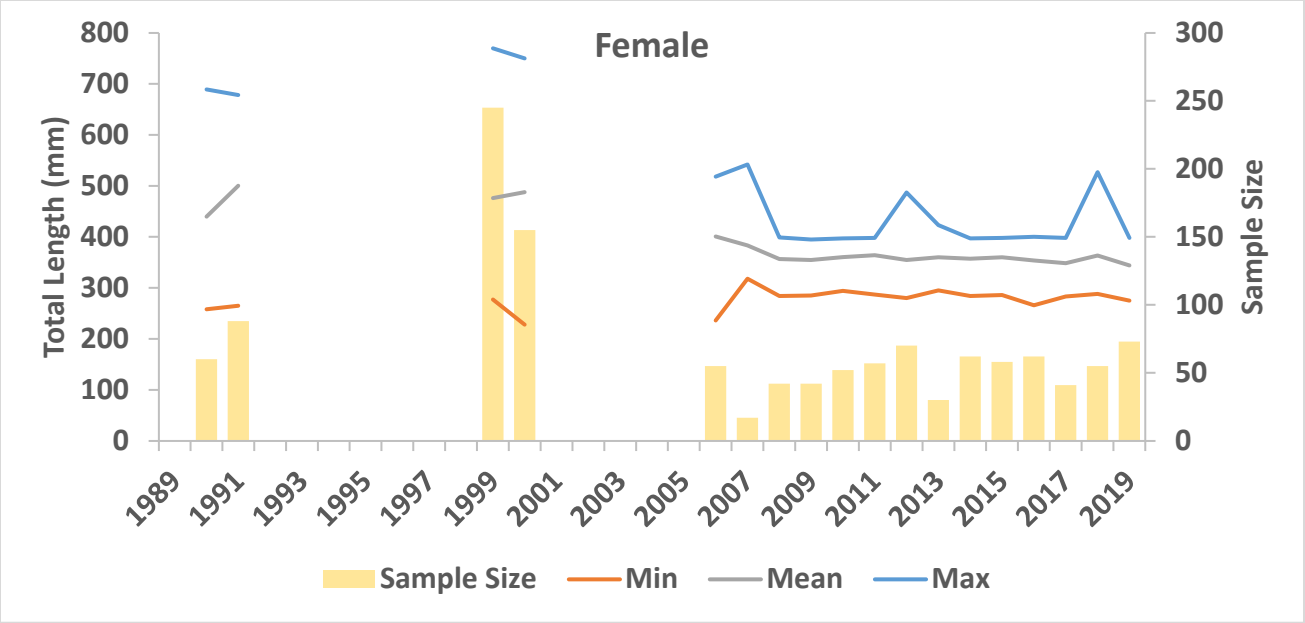


Figure 168. Female commercial mean lengths from Chesapeake Bay region states, 1990-2019. Sample size, minimum length, and maximum length are indicated on the figure. There was no sex data from Delaware and the early 1990s values are from VMRC. The remaining lengths are from Maryland.

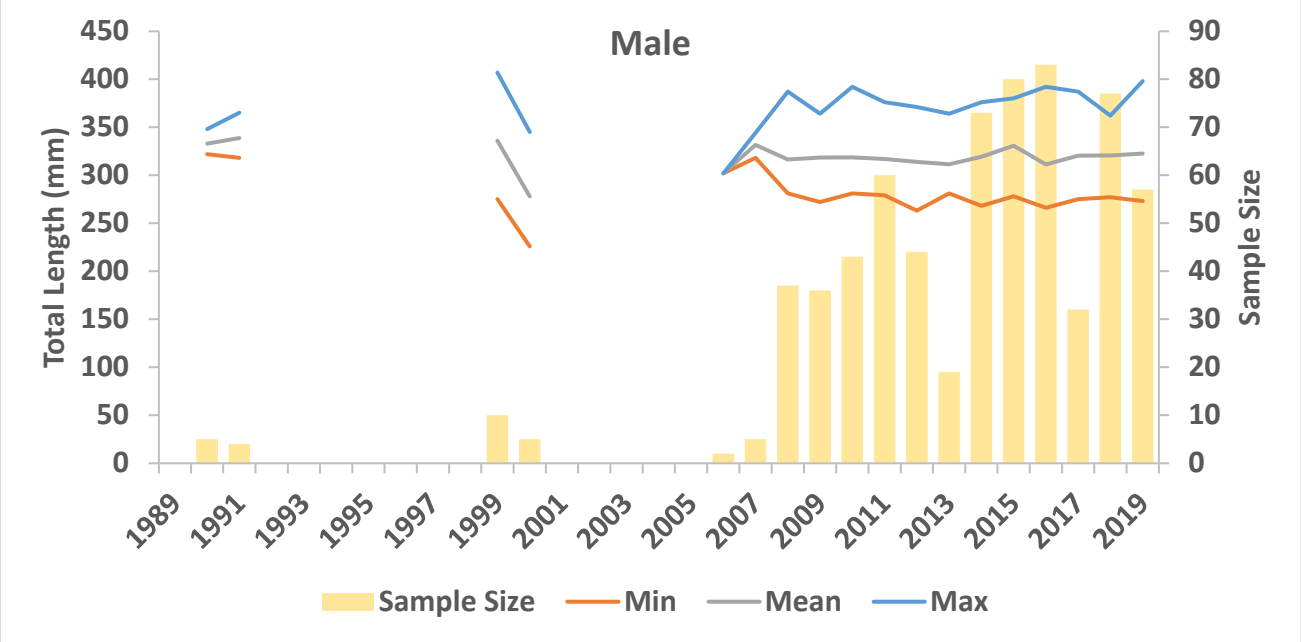


Figure 169. Male commercial mean lengths from Chesapeake Bay region states, 1990-2019. Sample size, minimum length, and maximum length are indicated on the figure. There was no sex data from Delaware and the early 1990s values are from VMRC. The remaining lengths are from Maryland.

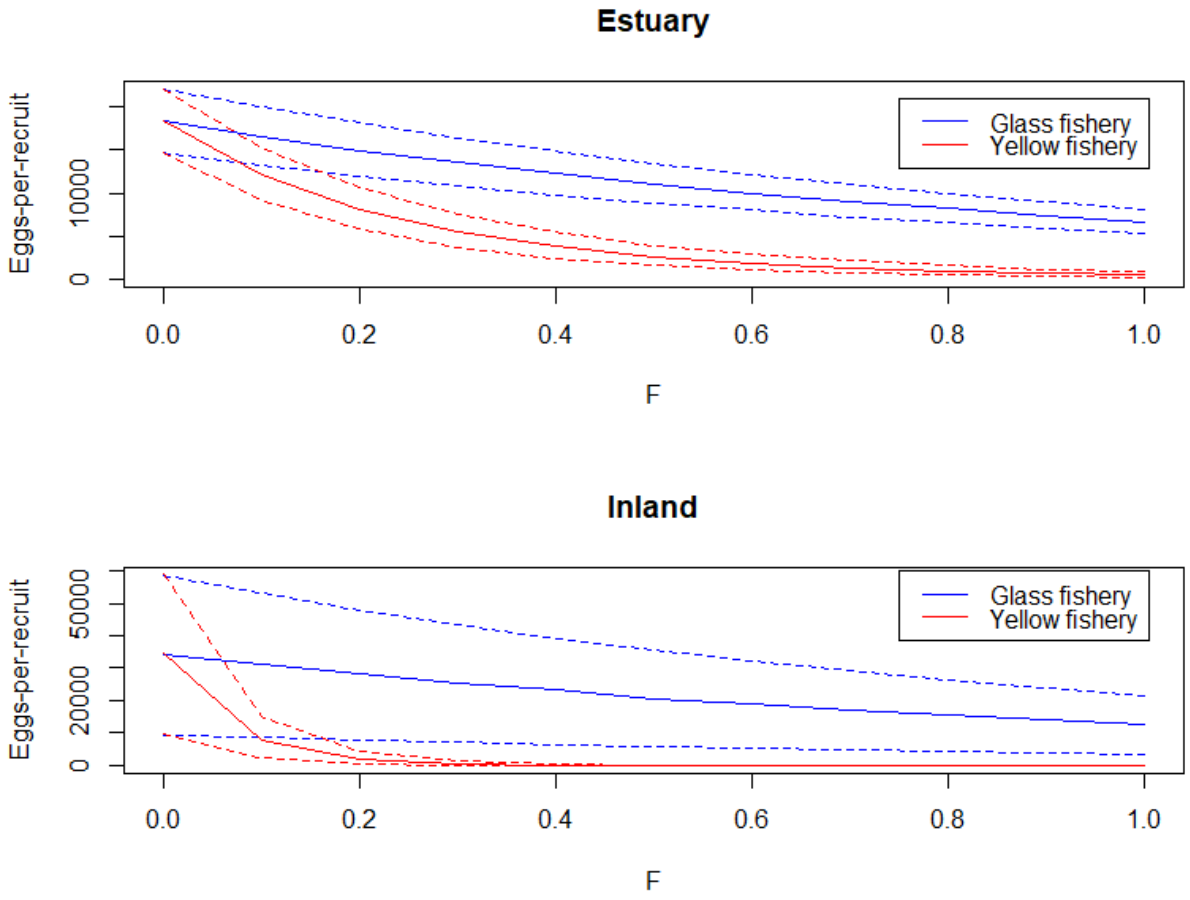


Figure 170. Plots of American eel eggs-per-recruit as a function of fishing mortality (*F*) for glass and yellow eel fisheries occurring in the estuary and inland waters. Solid lines correspond to medians from simulations and dashed lines correspond to 5th and 95th percentiles.

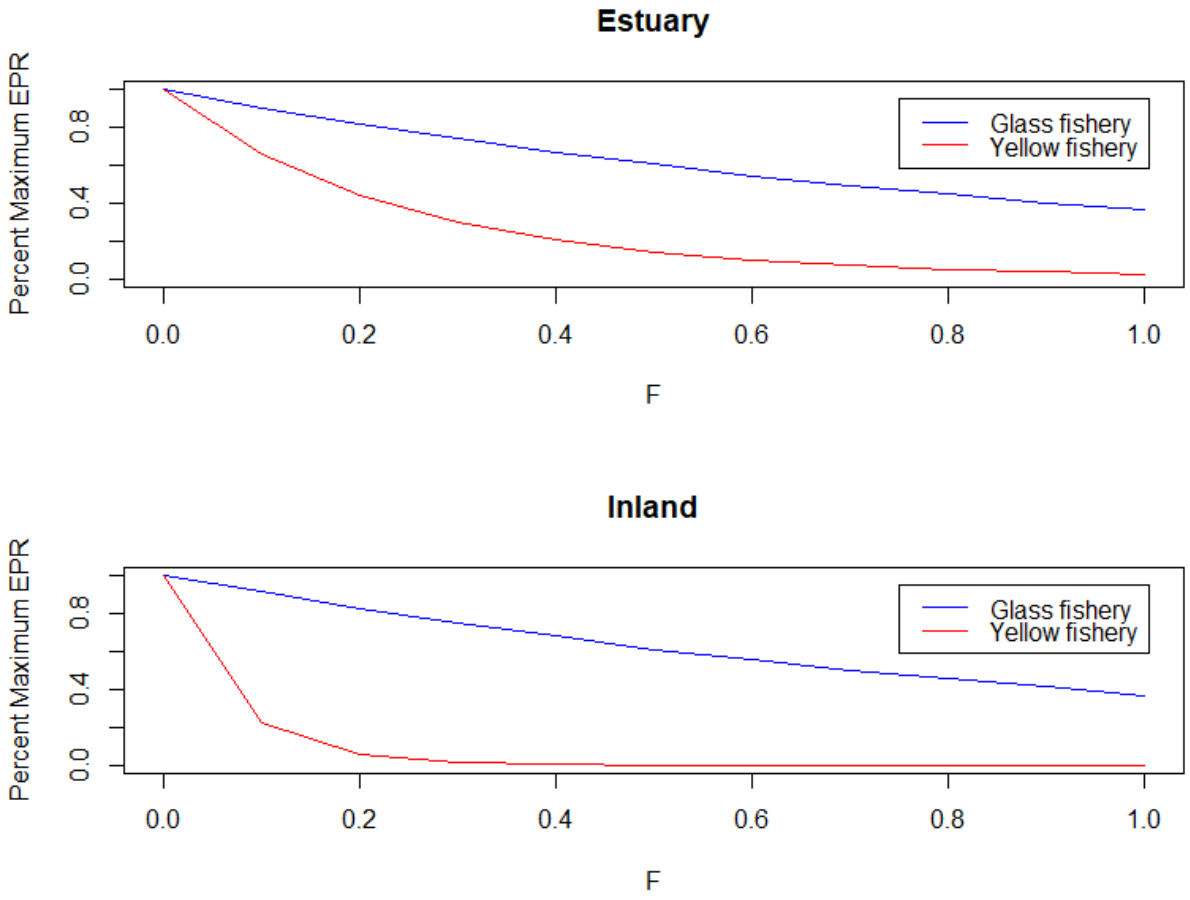


Figure 171. Percent maximum eggs-per-recruit as a function of fishing mortality (*F*) for glass and yellow eel fisheries occurring in the estuary and inland waters. A potential reference point of F_{40} (fishing mortality that preserves 40% of the unfished EPR) would occur at 0.90 for glass eels in both habitats, 0.23 for yellow eels in the estuary, and 0.06 for yellow eels in inland waters.

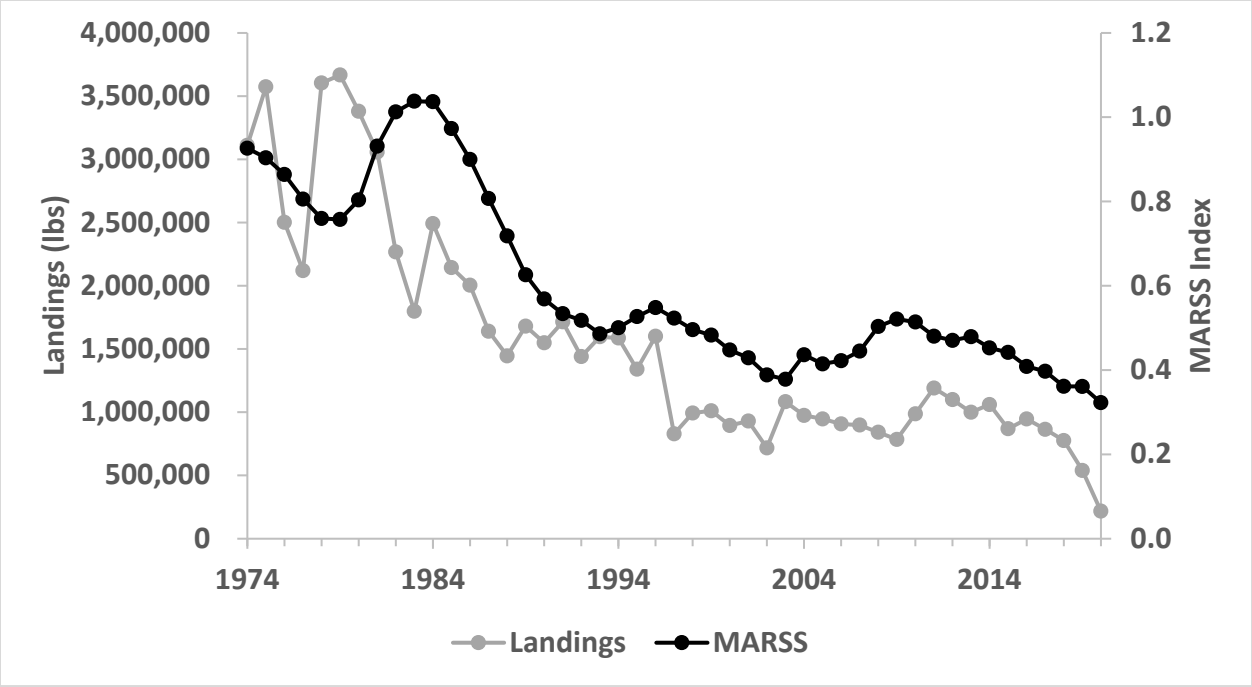


Figure 172. Commercial yellow eel landings and the coastwide MARSS abundance index for use in the surplus production model, 1974-2020.

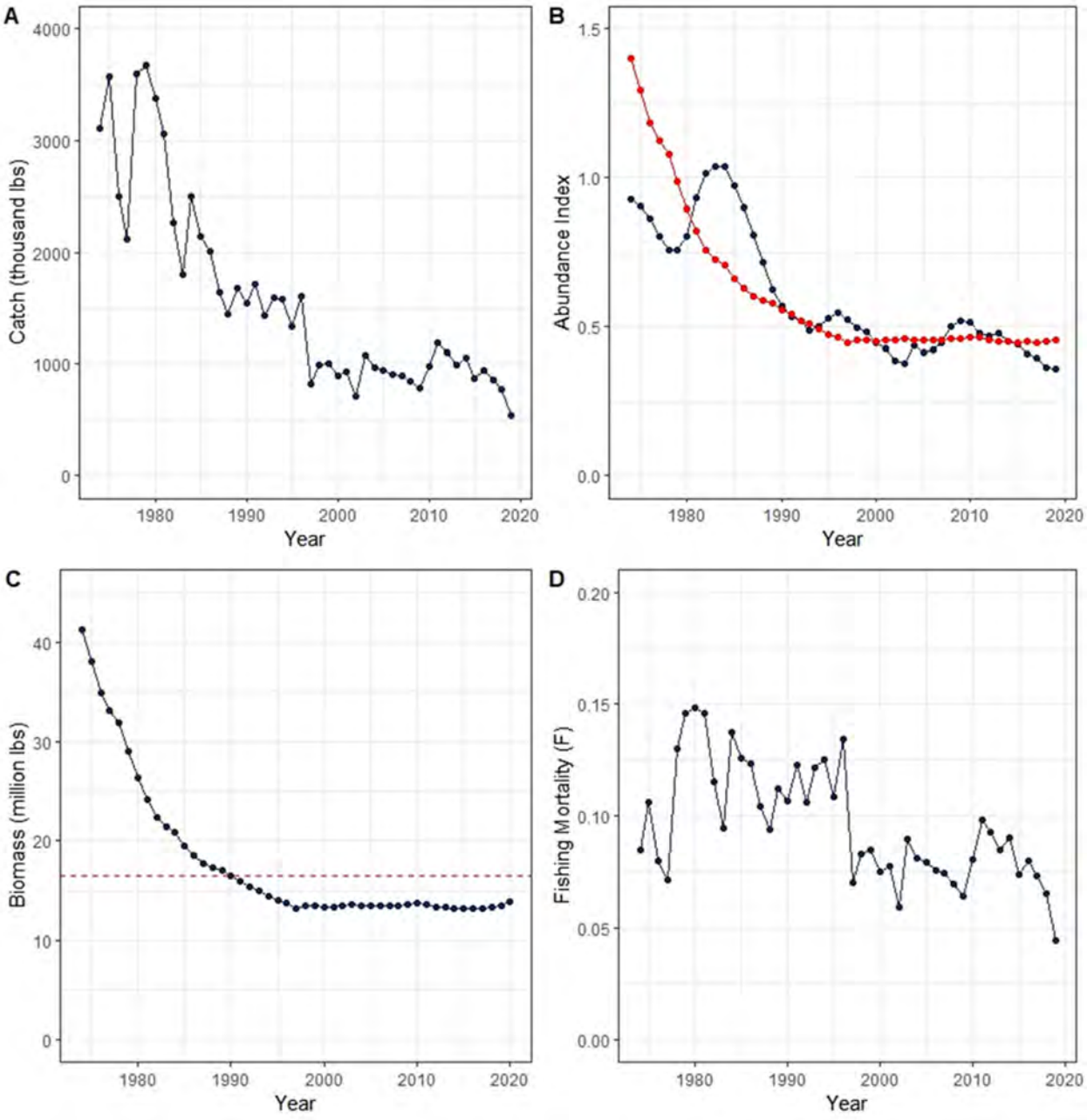


Figure 173. **Output of the delay-difference model for the coastwide population of American eel. A. Observed commercial yellow eel harvest from 1974 through 2019. B. Observed MARSS yellow eel abundance index (black) and model-estimated abundance index (red) from 1974 through 2019. C. Model-estimated biomass of the population over time. D. Model-estimated fishing mortality over the time series.**

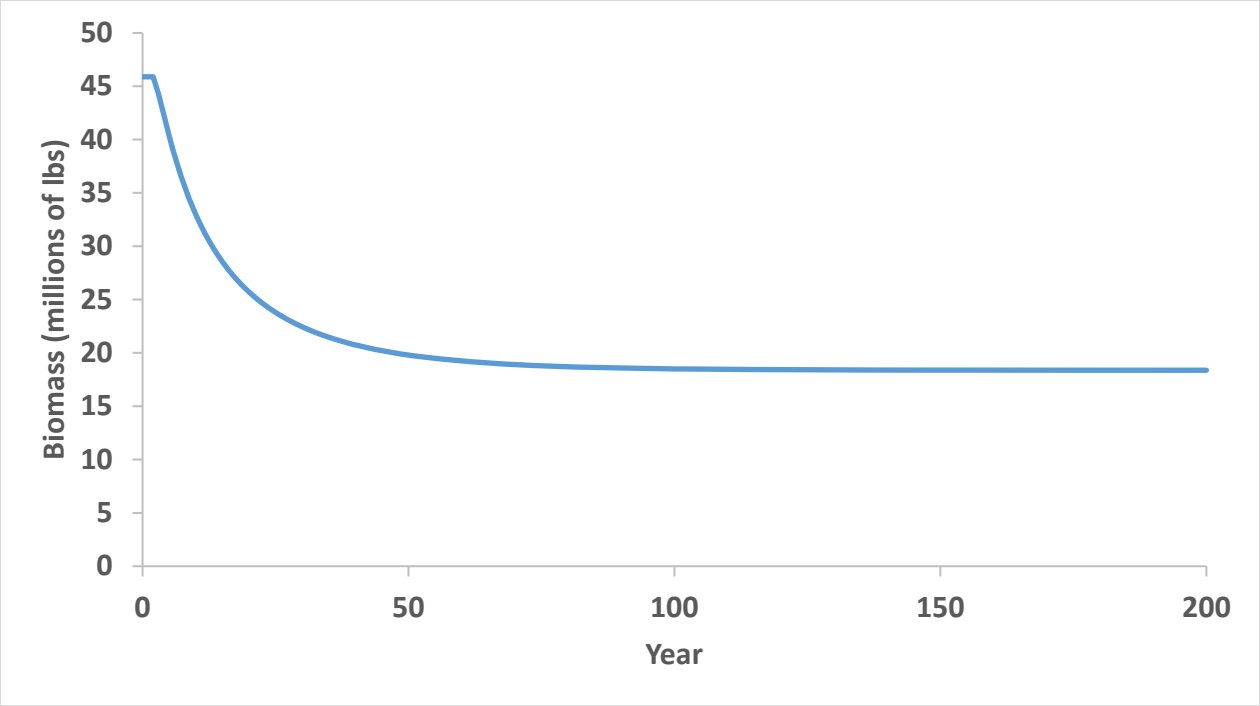


Figure 174. Projection of the delay-difference model starting at B_0 = 45.89 million lbs with fishing mortality of F_{40} = 0.085.

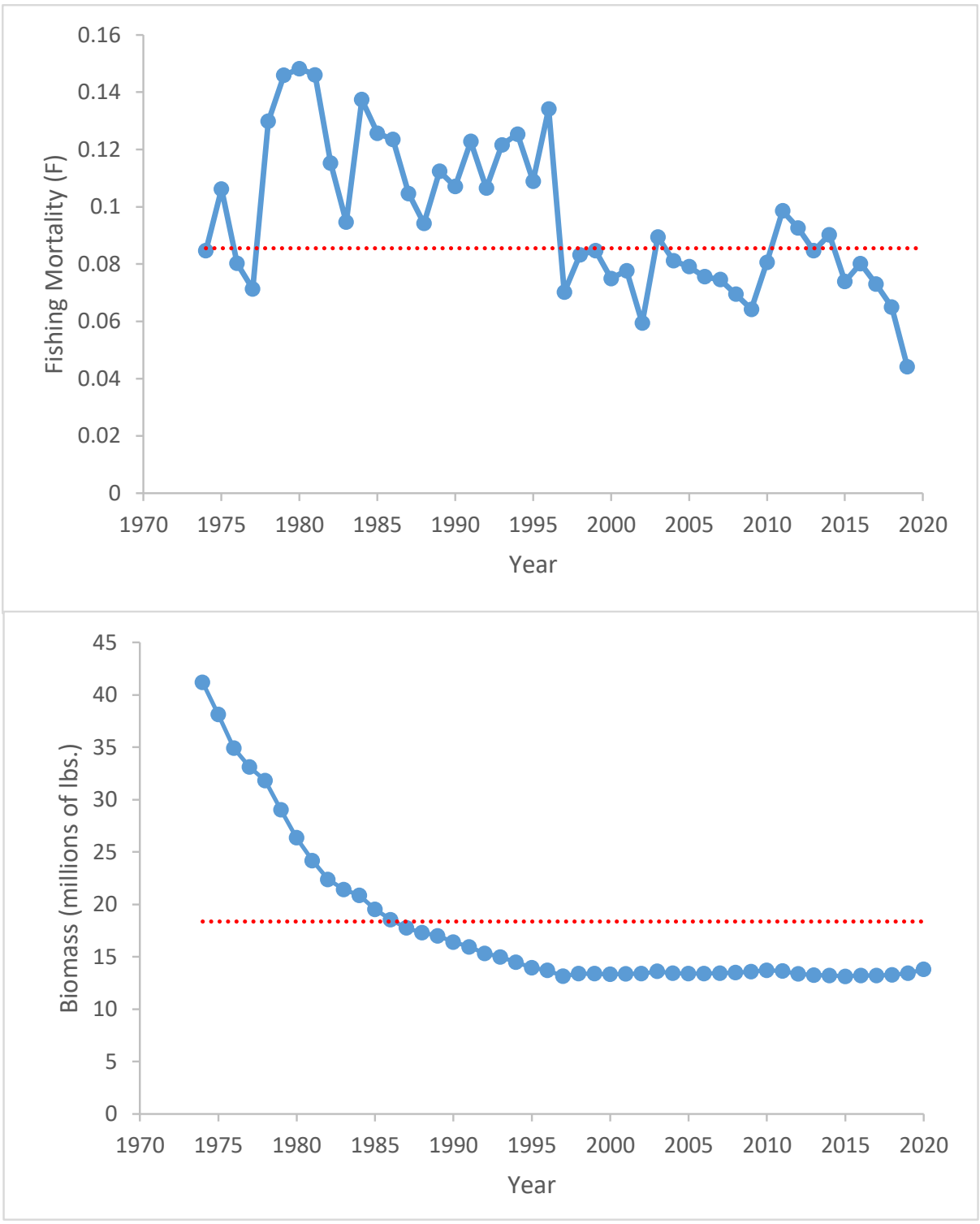


Figure 175. Comparison of estimated fishing mortality and biomass of American eels to reference points of F_{40} (top graph) and B_{40} (bottom graph).

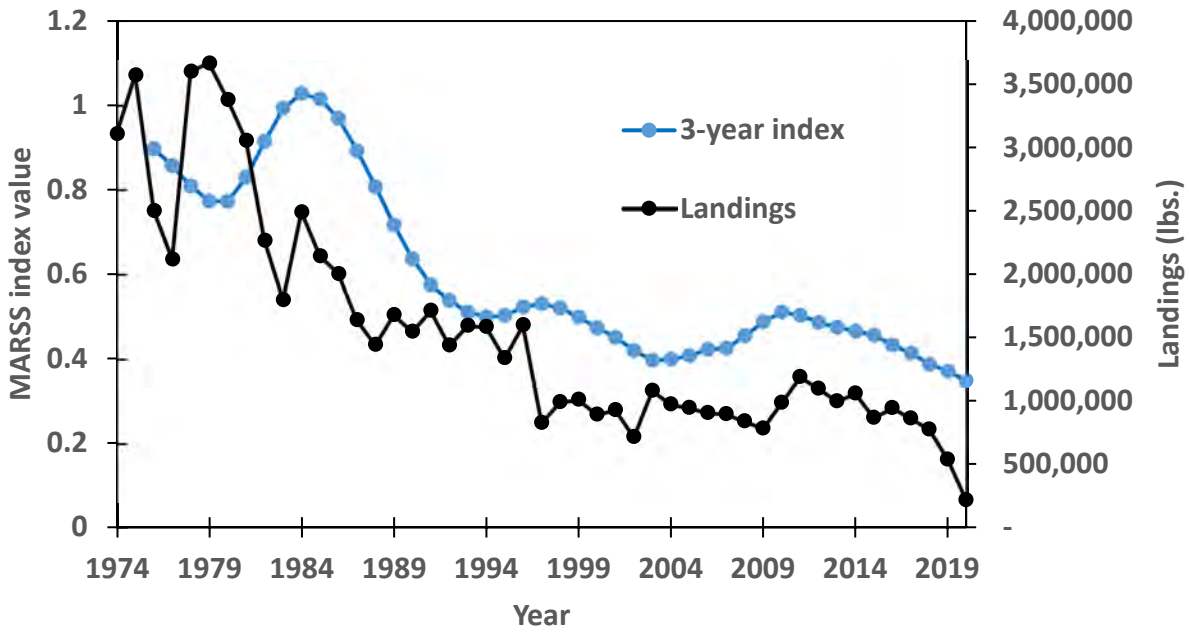


Figure 176. The three-year running average of the MARSS index and coastwide landings.

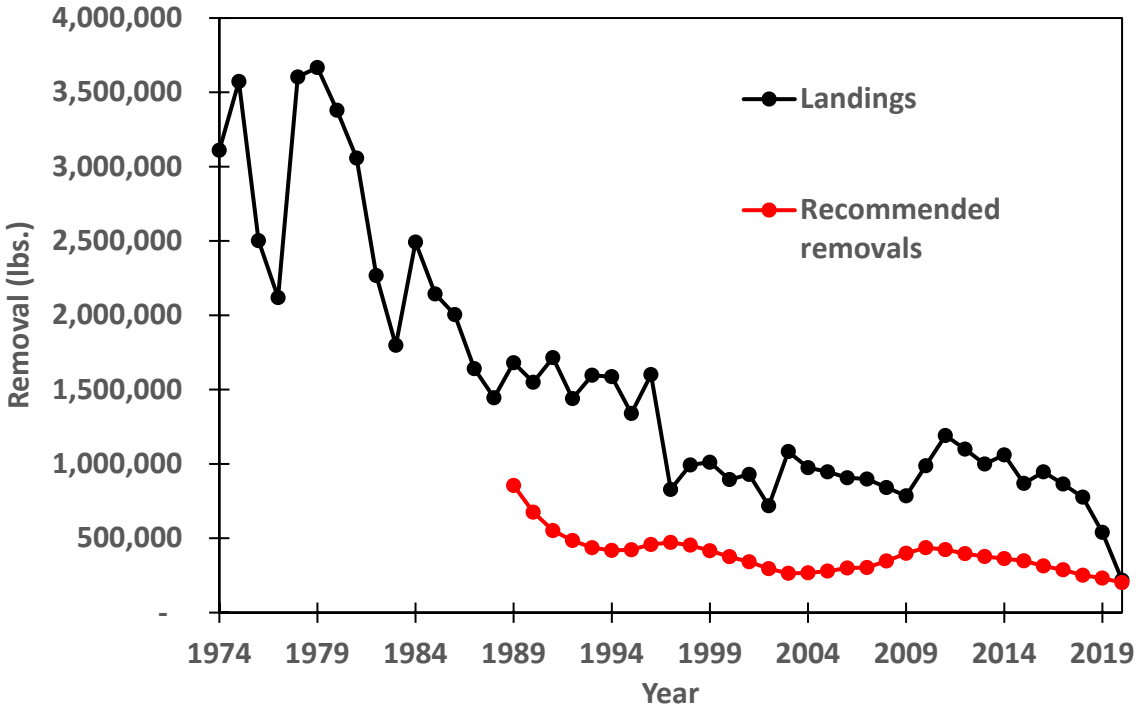


Figure 177. Coastwide landings and recommended removals from the base case using the I_{TARGET} index-based method for catch advice.

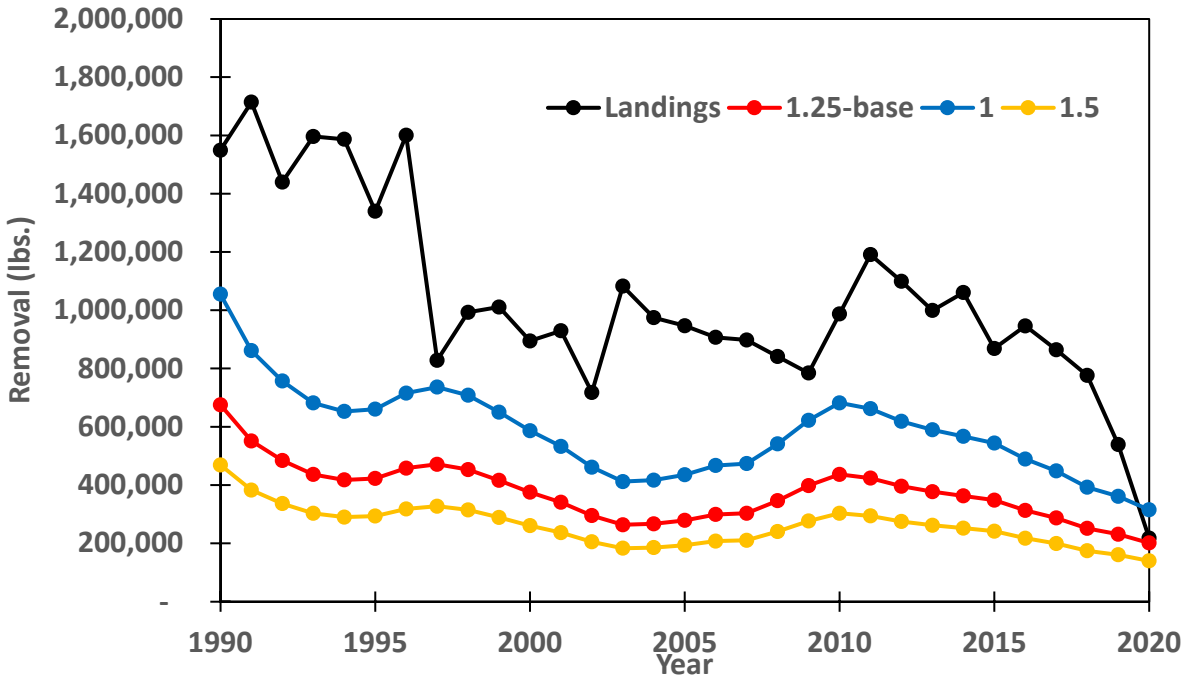


Figure 178. Coastwide landings and recommended catch under three assumptions of $I_{TARG\ MULT}$. Note X-axis scale change.

14 APPENDIX A: FISHERY-DEPENDENT CPUES

Fishery-dependent catch-per-unit-effort (CPUE) was available in some states, but following review of these data they were not considered indicative of trends in the stock as a whole. Note that fishery-dependent CPUE is almost exclusively composed of positive trips only; trip reports with zero eels caught are rare because most agencies don't require reports of zero catches. Several states provided commercial CPUE time series and the indices are listed here as provided by the state.

14.1 Connecticut

Connecticut Department of Energy and Environmental Protection (CT DEEP) provided a nominal fishery-dependent index for consideration in the assessment (Figure 1A). Commercial fishermen are required to record daily fishing activity in logbooks which are submitted to the department monthly and include information on both effort and landings by species. The commercial CPUE index was calculated for yellow eels from the pot fishery.

14.2 New York

New York Department of Environmental Conservation (NY DEC) provided a nominal fishery-dependent index for consideration in the assessment (Figure 2A). The commercial CPUE is an arithmetic mean of pounds per pot per hour fished. The data was from VTR monthly harvester reports.

14.3 New Jersey

The New Jersey Department of Environmental Protection (NJ DEP) provided a nominal fishery-dependent index for consideration in the assessment (Figure 3A). New Jersey's Harvester Trip Report (Miniature Fyke License) reporting form was redesigned in 2017 and require each fisherman to report the disposition of all American eels caught. New Jersey noted that this may be an overestimate since there were very few trips reported with zero catch and it is possible that the fishermen do not completely understand that daily catch must be reported even if it is zero.

14.4 Delaware

Delaware mandated catch and effort reporting from the American eel fishery in 1999. Delaware considers its American eel catch and effort records since 1999 fairly accurate and has calculated an annual commercial CPUE index from 1999 to the present (Figure 4A). The annual index value for CPUE is expressed as catch per pot-day fished and is the ratio of all eel pounds harvested by eel pots divided by the total number of eel pot-days fished (1 pot-day = 1 eel pot fished for 1 day).

14.5 Maryland

From 1992, mandatory catch and effort reporting was fully adopted by commercial eel fishers in Maryland. A commercial CPUE index was calculated for the pot fishery by Maryland Department of Natural Resources staff (Figure 5A). Monthly harvester reports with daily information was used, although prior to 2005 only monthly reporting required, so from 2006-present, daily records are converted back to monthly records by area by license number. The annual index value for CPUE is the ratio of the summation of all eel pounds harvested by eel pots and the summation of all eel pots fished. Average annual CPUE has ranged from a low of 0.31 pounds/pot in 1992 to a high of 1.28 pounds/pot in 2019. The CPUE index was relatively flat from 1992–2002 and then generally increased until hitting the time series high CPUE in the terminal year.

14.6 Virginia

Catch rates were calculated for Virginia's commercial eel pot fishery from daily harvesting reports by dividing the amount of harvest of American eels landed in Virginia (pounds) by the number of eel pot trips (Figure 6A). Only data associated with positive effort are included in the calculations as commercial harvesters only report positive catches to the VMRC. Records where harvest or effort were missing or zero were excluded from the calculations.

14.7 North Carolina

Prior estimates of catch rate, or catch-per-unit-effort (CPUE), for North Carolina were confounded by eel fishermen holding catches from several days of fishing in holding pens and later selling these "accumulated" catches to dealers. In 2007, a new eel pot logbook program was implemented at the individual commercial fisherman level, providing documentation of the number of pots fished, soak time, and landings (pounds) per pot. North Carolina logbook data (which began in 2007) was used for computing fishery-dependent index of abundance (Figure 7A). The index was standardized using a GLM that included year and month with a negative binomial error structure.

14.8 South Carolina

South Carolina Department of Natural Resources did provide data and a calculated CPUE for the commercial fishery using monthly dealer reports but the data is confidential.

14.9 Florida

Commercial catch and effort data collection for American eel began in 2006 in Florida. Data was sourced from trip tickets and a CPUE was provided for the assessment for 2007-2019 (Figure 8A).

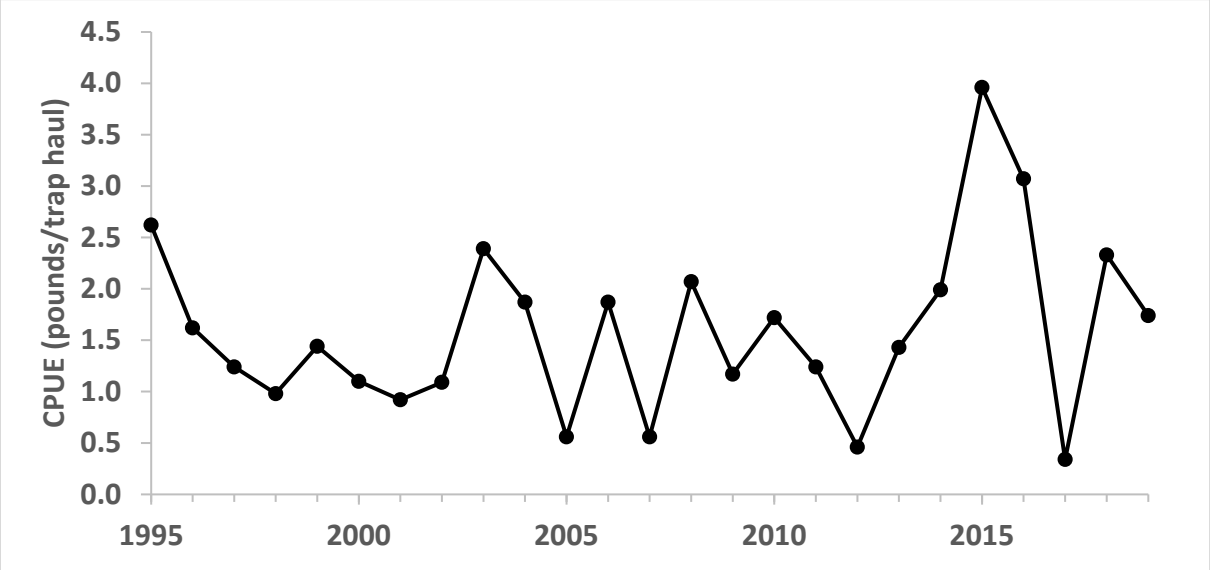


Figure 1A. Fishery-dependent catch-per-unit-effort for Connecticut's yellow eel pot fishery. Estimated errors associated with the index were not provided.

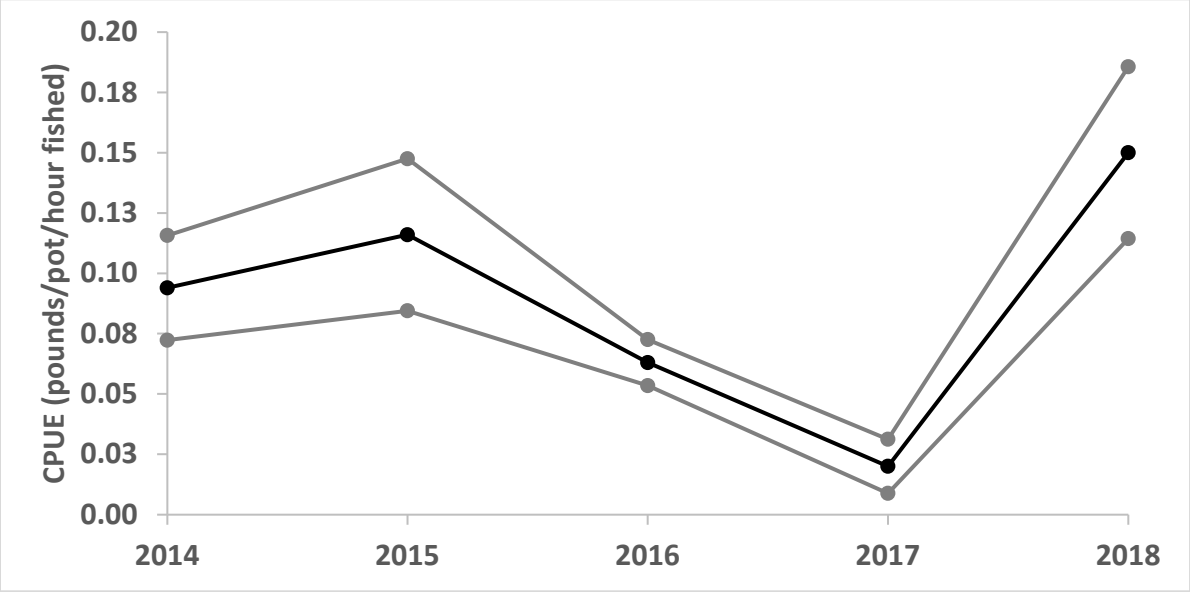


Figure 2A. Fishery-dependent catch-per-unit-effort for New York's yellow eel pot fishery. The black line indicates the CPUE and the grey lines indicate 95% confidence intervals.

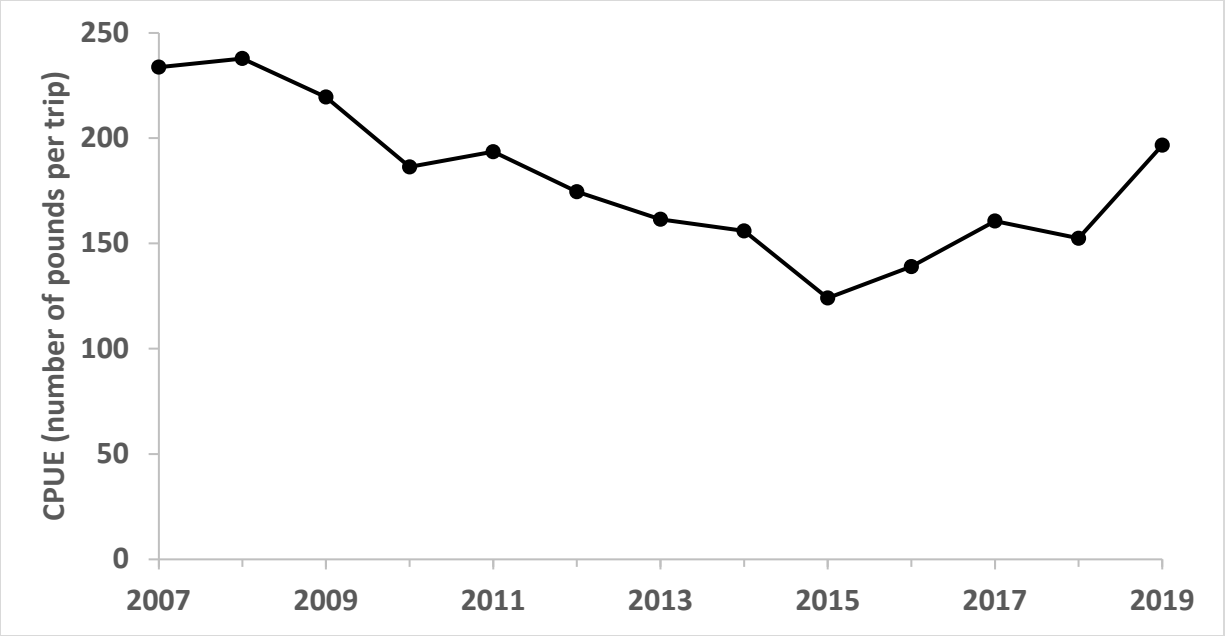


Figure 3A. Fishery-dependent catch-per-unit-effort for New Jersey's yellow eel fyke net fishery. Estimated errors associated with the index were not provided.

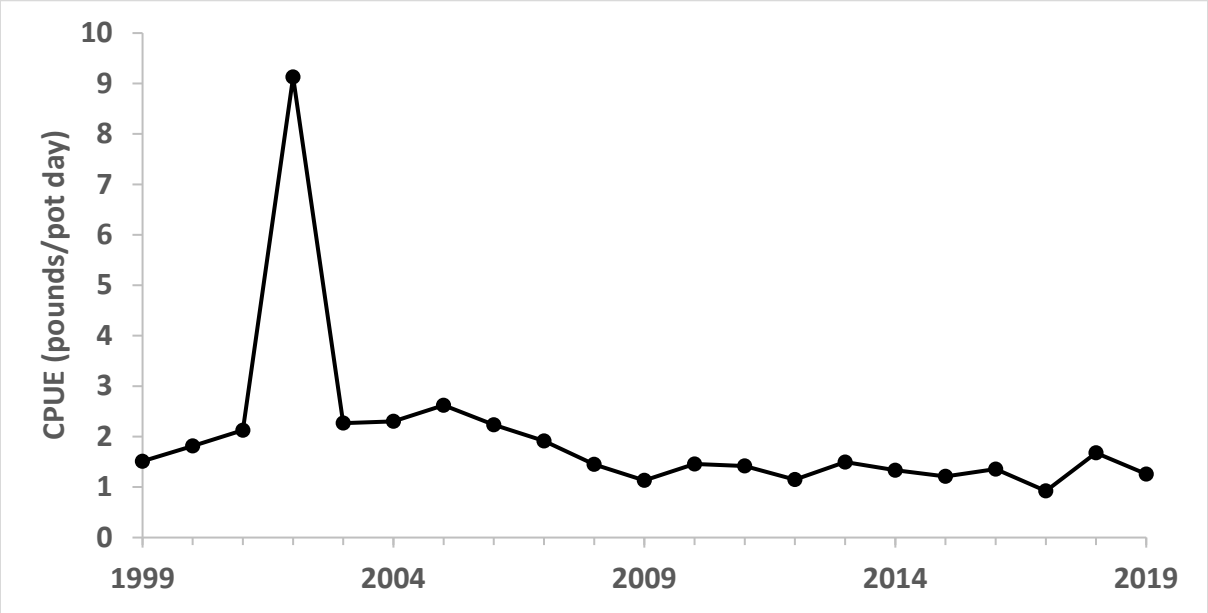


Figure 4A. Fishery-dependent catch-per-unit-effort for Delaware's yellow eel pot fishery. Estimated errors associated with the index were not provided.

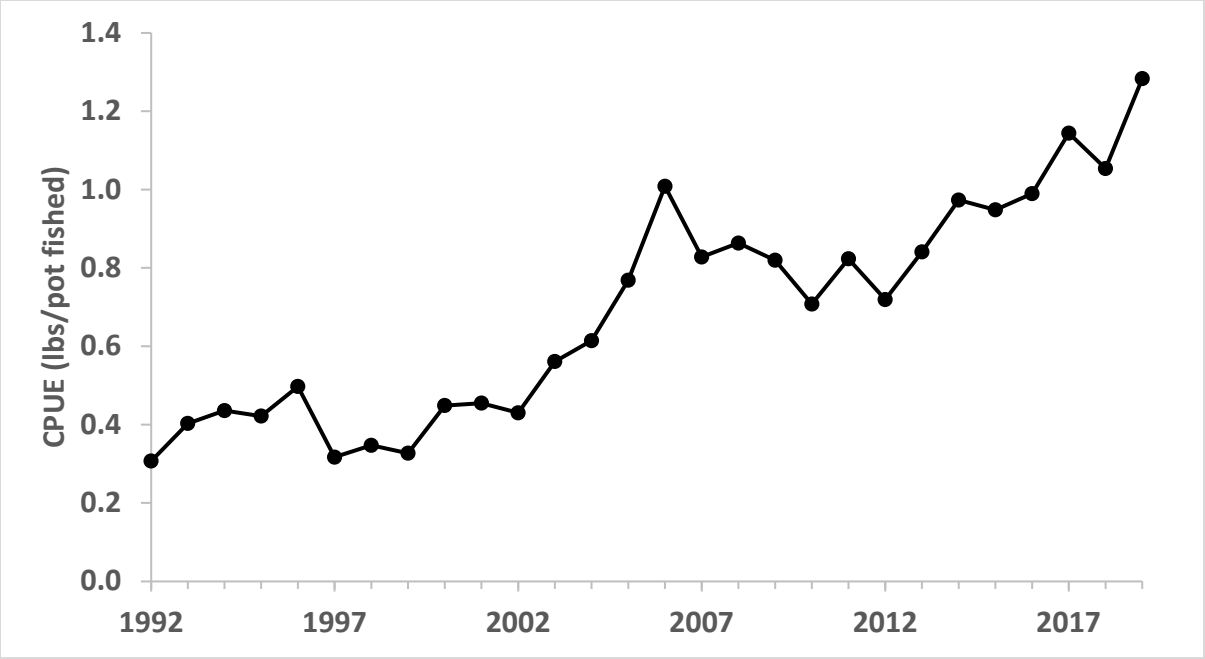


Figure 5A. Fishery-dependent catch-per-unit-effort for Maryland's yellow eel pot fishery. Estimated errors associated with the index were not provided.

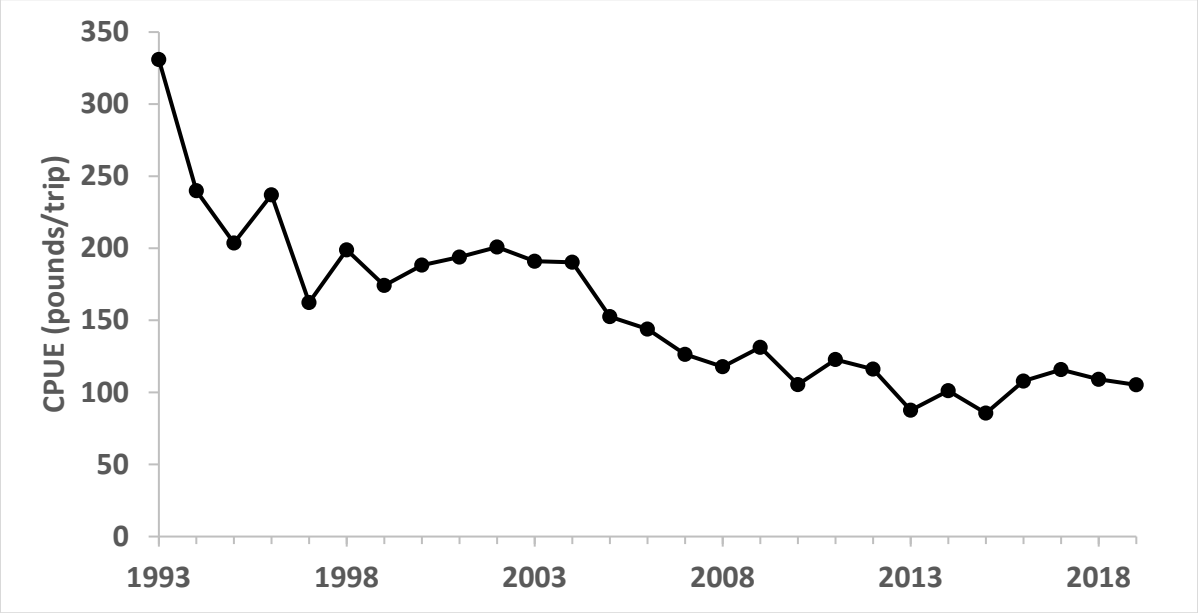


Figure 6A. Fishery-dependent catch-per-unit-effort for Virginia's yellow eel pot fishery. Estimated errors associated with the index were not provided.

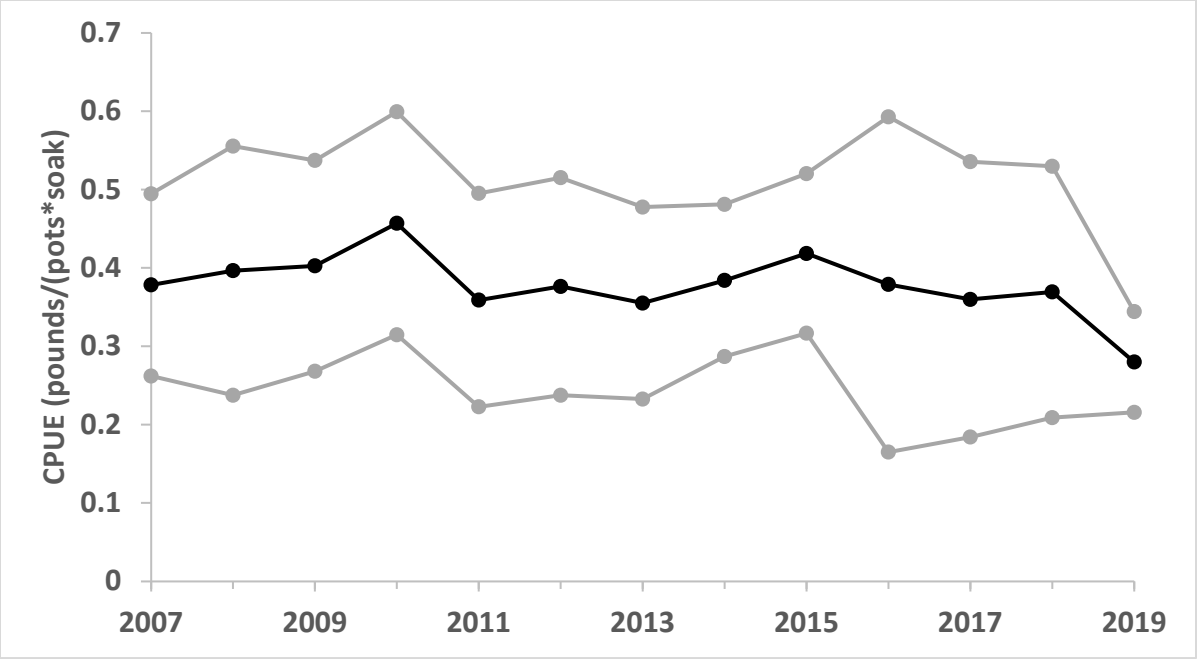


Figure 7A. Fishery-dependent catch-per-unit-effort for North Carolina's yellow eel pot fishery. The black line indicates the CPUE and the grey lines indicate 95% confidence intervals.

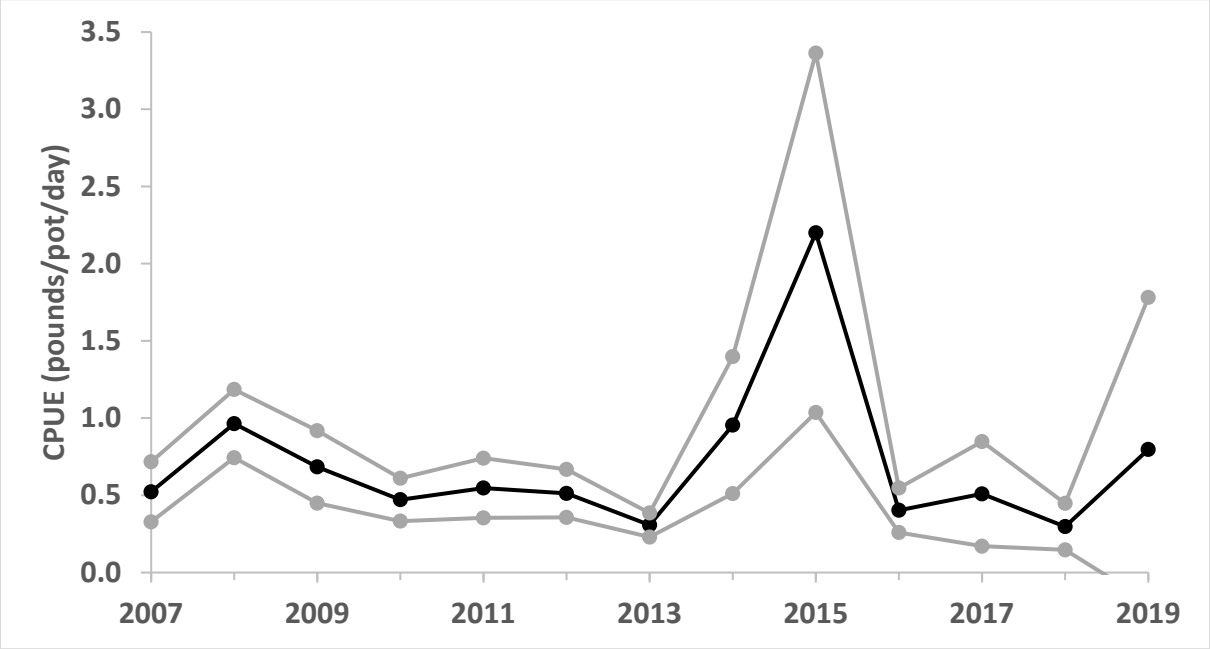
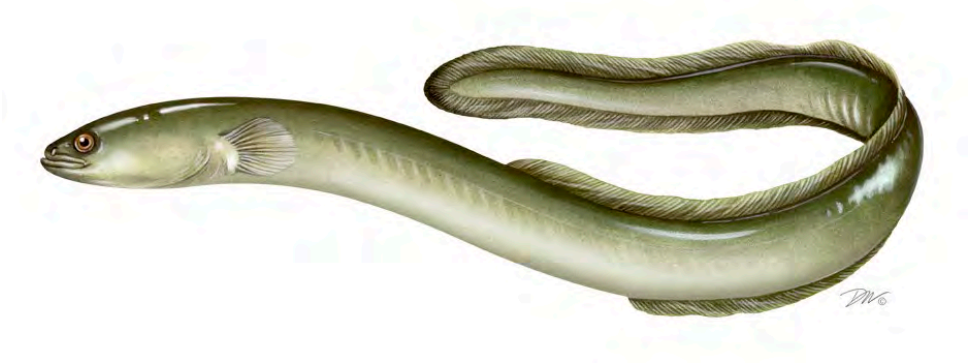


Figure 8A. Fishery-dependent catch-per-unit-effort for Florida's yellow eel pot fishery. The black line indicates the CPUE and the grey lines indicate 95% confidence intervals.

Atlantic States Marine Fisheries Commission

2022 American Eel Benchmark Stock Assessment
Peer Review Report



Conducted November 28 – December 5, 2022

Prepared by the
American Eel Benchmark Stock Assessment Peer Review Panel

Dr. Jared Flowers (Chair), Georgia Department of Natural Resources, Brunswick, Georgia
Dr. Hilaire Drouineau, National Freshwater Research Institute, Bordeaux, France
Dr. Robert Leaf, University of Southern Mississippi, Ocean Springs, Mississippi

EXECUTIVE SUMMARY

Primary findings of the Review Panel:

1. The Review Panel endorses and supports the I_{TARGET} approach for the formulation of reference points for the fishery. The magnitude of the catch recommendation is contingent on the characteristics of the input data but also, importantly, determined by how the analysis is constructed. The Review Panel concludes work is still needed to establish the proposed threshold reference point and recommends a formal robustness test of the index-based method using a simulation approach (with MSE methods). With the additional analysis, I_{TARGET} can be used for developing threshold reference points for the stock.

2. The Review Panel believes it is more appropriate to consider the American eel stock to be in a "depleted" rather than "overfished" state. The Review Panel is uncomfortable with the overfished terminology because of uncertainty in the assessment methods and does not believe a reliable status determination can be defined at this time. More model development is needed to confidently provide a status determination, but the modeling approaches (e.g., MARSS) are appropriate. The time series of abundance indicates the stock, and perhaps recruitment, has decreased. However, there is little evidence that a reduction in fishing effort would result in a population response. Indications of recruitment overfishing necessitate management actions to reduce mortality on the spawning stock.

3. The SAS presented a suite of analytical methods that provide convergent results, indicating the stock has decreased over the monitored time series. Although the Review Panel recognizes the value of these analyses for providing context, select methods should be discontinued to decrease assessment team workload. We recommend the assessment team focus on methods that directly result in catch recommendations. Specifically, index-based methods and stage-based delay-difference modeling are the most promising for management and should be further explored and refined.

4. Habitat modeling for eel shows promise for helping managers understand the changes in carrying capacity and other spatial dynamics of the stock. Preliminary habitat work during the assessment should be further explored, documented, and reported in future assessments. This type of approach has recently been used in other parts of the world for other eel species and delivered promising results (i.e., New Zealand; ICES 2021).

Acknowledgements

The Review Panel thanks members of the American Eel Stock Assessment Subcommittee and Technical Committee, as well as staff of the Atlantic States Marine Fisheries Commission, particularly Patrick Campfield, for support and coordination of activities during the review process.

INTRODUCTION

The American eel *Anguilla rostrata* is one of 15 species in the family Anguillidae (Tsukamoto and Aoyama 1998). The taxa are characterized by great adaptability to a wide range of aquatic ecosystems, and consequently are found around the globe. All reproduce at sea and are at least facultatively catadromous, meaning they use inland habitats (Tesch 2003). Their complex life history is a challenge to managers and creates difficulty for "traditional" stock assessment approaches (Drouineau et al. 2016; Mateo et al. 2017). One example is that the American eel, from its northern limit in Greenland down to its southern limit in French Guiana, is considered one population (Jacoby et al. 2015).

American eels were formerly extremely abundant in inland waters of eastern North America, occupying lakes, rivers, streams, and estuaries (Prosek 2010). American eels were also an important food fish in the US, but today are mainly sold as bait or exported to Asia, where demand continues to be high (Kaifu et al. 2019). Declines in European and Asian eel abundance drive the export fishery. In particular, the export market for glass eels has commanded prices over $2,300/lb in the past (Kaifu et al. 2019), although price and demand has declined in recent years. Decline in demand in both fisheries has been due to increasing aquaculture in Europe and effects of the global market from the COVID-19 pandemic.

There is substantial evidence that the American eel stock is reduced from historic levels. The cause for the reduction is a combination of habitat impacts and fishing pressure. In the last half of the 20th century, a suite of stressors including habitat loss from dams or urbanization, turbine mortality, the nonnative swim-bladder parasite Anguillicolla, toxic pollutants, non-native fish species, and climate change are all factors that act in concert with fishing mortality on American eel (Castonguay et al. 1994; Jacoby et al. 2015; Drouineau et al. 2018). The American eel does not have a federal US protected status. It has been on the IUCN's endangered list since 2013 (Jacoby et al. 2017).

Through a series of data analyses and modeling, the American Eel Stock Assessment Subcommittee (SAS) has sought to assess the current status of American eel. The unique characteristics of American eel's distribution and life history make the species difficult to assess. The SAS has made a thorough and scientifically appropriate attempt to do so. The following Peer Review Report discusses the SAS stock assessment findings, comments on strengths and weaknesses, and makes recommendations for additional data needs and future assessments.

I. TERMS OF REFERENCE

TOR1. Evaluate the definition of stock structure used in the assessment.

The Review Panel agrees with assessing eel at a coast wide scale because it is a panmictic species (Pujolar 2013). The distribution area extends further north and south than the United States. Ideally, a stock assessment should be carried out at an even larger scale - though the Review Panel realizes the challenges associated with such an undertaking. The Review Panel recommends expanding data and analysis to Canadian, Gulf of Mexico, and Caribbean regions, recognizing jurisdictional responsibilities for managing American eel. The SAS has already collected data on commercial fisheries in those regions, although in select regions landings are not comprehensive.

The majority of data originate from coastal areas where most of the commercial fishery takes place, however, the species occupies many other areas and habitats. While recognizing the current constraints in data availability and that habitat impediments restrict occurrences in upstream habitats, the Review Panel encourages future data collection and analysis of American eel in freshwater habitats. Moreover, the Review Panel supports the recent effort to develop a habitat-based model that may provide new insights on habitat use and stock productivity.

The American eel has a complex life-cycle with four unique life stages during its continental phase (glass eels, elvers, yellow eels, silver eels). The Review Panel notes the yellow eel stage is well monitored, with more fishery and survey data than other life stages.

TOR2. Evaluate the thoroughness of data collection and the presentation and treatment of fishery dependent and fishery-independent data in the assessment, including the following but not limited to:

- **a. Presentation of data source variance (e.g., standard errors).**
- **b. Justification for inclusion or elimination of available data sources.**
- **c. Consideration of data strengths and weaknesses (e.g., temporal and spatial scale, gear selectivities, ageing accuracy, sample size).**
- **d. Calculation and/or standardization of abundance indices.**

The large distribution of the species across latitudes, but also inside river basins, makes it difficult to collect representative data of relative abundance for the American eel. The Review Panel considers the data collection achieved by the SAS as comprehensive, generally well presented, and thorough metadata with descriptions by data source were provided. Despite some coverage limitations (see TOR1), the Review Panel concludes the collected data sets are appropriate for the stock assessment. All potential data sources for American eel were requested and used where appropriate.

<u>Fishery-Dependent Data</u>

The SAS collected and described traditional fishery-dependent data. Commercial landings per life-stages and fishing gears were reported. Estimated recreational landings and associated fishing effort were also collected. Several caveats were mentioned, especially with respect to recreational landings data. In order to better visualize the relative importance of recreational

and commercial fisheries, the Review Panel suggests adding a figure showing their relative landings through time.

Because market demand is known to influence commercial landings, the Review Panel also suggests that, if available, a time series of yellow eel price (or a proxy) be presented. We believe such information would be useful for better understanding the dynamics of demand.

The Review Panel notes that no data were provided regarding commercial fishing effort. However, given the variety in fishing gears and fishing areas, the analysis of fishing effort would not be straightforward. Moreover, data on fishing effort is not critical for subsequent assessment analysis. Fishery-dependent indices, as calculated by state partners, were included as an appendix.

a. Presentation of data source variance (e.g., standard errors).

The uncertainty around commercial landings was not quantified, but this is typical of most stock assessments. Uncertainty was presented for recreational data, indicating broad confidence intervals due to limited directed fishing effort targeting the species.

b. Justification for inclusion or elimination of available data sources.

The Review Panel agrees in general with the criteria for use or exclusion of each data source. Data from the recreational fishery was not used further in the analysis, both because of its limited weight compared to the commercial fishery, and because of the caveats around these data. It might be possible to use recreational fishery data to derive abundance indices (e.g., Kahn 2019), but given the caveats and large uncertainty surrounding the data and the amount of fishery-independent data sources, the Review Panel does not necessarily see this as a main priority.

c. Consideration of data strengths and weaknesses (e.g., temporal and spatial scale, gear selectivities, aging accuracy, sample size).

The Review Panel observes that the fishery mainly targets yellow eels, mostly in coastal habitats. As such, fishery-dependent data does not cover the entire distribution of the species. The Review Panel also highlights a notable shift in landings coincident with a change in reporting requirements in 1998 and considers that additional explanations would be valuable (Figure 16, and Table 7, Commercial Yellow Eel Landings).

<u>Fishery-Independent Data</u>

The Review Panel acknowledges and appreciates the substantial amount of work in gathering, vetting, and selecting fishery-independent data sources. The data set is as comprehensive as possible.

a. Presentation of data source variance (e.g., standard errors).

Each time series is adequately described in the report: text summarizes key features (the survey design, environmental and environmental sampling, trends), boxplots display the length

composition per year, and standardized indices with the associated confidence intervals are also presented.

b. Justification for inclusion or elimination of available data sources.

The methods are clearly presented and the Review Panel agrees with criteria for inclusion/exclusion decisions: a time series of at least 10 years of data, appropriate and time-consistent survey design, appropriate gear, relevant temporal and spatial coverage. The reasons for excluding specific time series are clearly stated in a dedicated table.

c. Consideration of data strengths and weaknesses (e.g., temporal and spatial scale, gear selectivities, aging accuracy, sample size).

The Review Panel acknowledges that the numerous available fishery-independent data sets offer good spatial coverage, with time-consistent protocols that provide both biological data and associated environmental conditions. Unfortunately, most time series began in the early 2000s when abundance was already at a low level, so that few time series cover the historical period of higher abundance and the decline.

The Review Panel notes the time series are collected using a large variety of gears, methods, and carried out in diverse monitoring seasons. Depending on the question, this might impair or at least make comparisons more difficult. Nevertheless, the Review Panel believes the differences do not impair the comparison of resulting trends of abundance.

d. Calculation and/or standardization of abundance indices.

The Review Panel agrees with the standardization approaches. The standardization is based on the fitting of a Generalized Linear Model (GLM) per time series, predicting the number of recorded eels for each fishing operation, depending on year, timing of the fishing operations, and other environmental factors. Different family distributions and sets of explanatory variables are compared to select the best model for each time series.

The Review Panel suggests to detail a bit further the systematic framework used by the SAS, perhaps by making the R standardization code available. More importantly, the Review Panel recommends adding a table that clearly summarizes the final model used (e.g., explanatory variables, distribution) for each time series, though this information can be inferred by scrutinizing the main text. This is critical for repeating standardization in future assessments, especially if an index-based approach will be used. Moreover, since the models are fitted on fishing operations, the Review Panel thinks it might be useful to include autocorrelation in the model, for example, by using the R package nlme or glmmTMB. However, the Panel suspects it would probably not drastically change the results and is partially addressed by the frequent inclusion of julian day as an explanatory variable.

The Review Panel was surprised by some trends (e.g., figure 32 “Standardized index of relative YOY abundance from New Hampshire’s Lamprey River Survey” or figure 45 “Standardized index of relative YOY abundance from Rhode Island’s Gilbert Stuart Dam Survey”) with periods of very low values alternating with periods of high values. In the future, the Review Panel proposes to

add a boxplot for each time series that would display the distribution of the raw number of recorded eels per fishing operation for each year. This would allow checking the consistency between the standardized index and the raw data and visualizing the amount of eels on which the index is based.

TOR3. Evaluate the methods and models used to estimate population parameters (e.g., biomass, abundance) and biological reference points:

a. Evaluate the choice and justification of the preferred model(s). Was the most appropriate model (or model averaging approach) chosen given available data and life history of the species?

The SAS carried out a comprehensive review of biological parameters for American eel that were used in the analysis. The Review Panel concludes the SAS used the best scientific knowledge available for the assessment. The SAS focused on four types of parameters:

Ageing: Ageing of American eels is generally carried out through otolith reading and is known to be a complex task (ICES 2020), especially given the large spatial heterogeneity in growth rates. To improve the consistency in methods across the area, several intercalibration workshops have been carried out since 2001. The latest workshop took place in 2018. It pointed out several issues and discrepancies but participants found an agreement to promote the most reliable techniques. The Review Panel concludes the ageing data are consistent. Age data were collected in various states (routine sample collection in Delaware, New Jersey, and Maryland, and a single sampling event from Georgia). Samples were primarily from the commercial fishery in coastal habitats. It might be useful in the future to complement the data collection with samples collected in freshwater habitats. The caveats with age sample reading impair the development of common age-structured stock assessment models.

Growth: Growth of eels varies substantially across latitudes and habitat types (Vélez-Espino and Koops 2009; Patey et al. 2018; Cairns et al. 2022). Given the variability, the SAS carried out an extensive meta-analysis to compile length-weight, sex, and age data. The large amount of data allowed detecting statistical differences in length-weight and length-age relationships among regions. The Review Panel acknowledges these analyses are conducted with well described state-of-the-art methods. Despite the variability in length-age relationship among regions, the subsequent models used by the SAS required the use of a single von Bertalanffy growth curve. To address the variability issue, the SAS used a bootstrap technique to estimate a single curve. The Review Panel concludes the method is indeed relevant to estimate both a mean growth curve and associated uncertainty. However, the Review Panel observes that to do so, the SAS used eels ranging from 0 to 21 years old, while ages from commercial landings were mostly 2 to 6 years old. Given the large variability in growth rates in the species, including too many older eels is likely to give too much weight to slow-growing eels that take a long time to grow to maturity, while eels that grow faster leave continental habitats at younger ages, and as such are underrepresented in the bootstrap. This would in turn lead to an underestimated average growth curve. This might explain the small estimated asymptotic length (a length close to the minimum length of female silver eels) and whether it might be relevant to test the bootstrap on

a more restricted age range. The Review Panel also notes that spatial heterogeneity in growth rates gives reason to pursue development of spatial assessment tools in the future.

Natural mortality: Natural mortality is a key parameter in population dynamics but it is known to be difficult to estimate (Jørgensen and Holt 2013). This is even more complex for eels since, as for other parameters, natural mortality is known to vary across regions and habitats, but also is thought to be density-dependent (Bevacqua et al. 2011). The SAS underwent a large literature review on the natural mortality of American eel that provided qualitative insights. Given the lack of precise quantitative data, the natural mortality was included in the sensitivity analysis by the SAS in two latter modeling approaches (egg-per-recruit, delay difference). The Review Panel observes that natural mortality was parameterized differently in those two exercises. While it is not a major issue since the two models are not used to make final recommendations, it may be worth improving the consistency. It might be also worthwhile to explore the effect of density-dependent mortality in any sensitivity analysis. The Review Panel acknowledges this is far from straightforward, given the absence of quantitative relationships for the species and since the degree of density-dependent mortality is likely to vary depending on local conditions, while modeling exercises are carried out at a coastwide scale.

Reproduction: The American eel has an environmentally driven sex-determination that occurs rather late during the growth phase (Davey and Jellyman 2005). Males and females are thought to display different life-history strategies, resulting in males having a smaller and relatively stable length-at-maturity, while females are thought to optimize a trade-off between higher fecundity but lower survival when length-at-maturity increases (Helfman et al. 1987). Sex data are not extensively used later in the assessment and as such, are not largely detailed here, and appear to arise mostly from histological observations. The Review Panel notes a recent method has been developed for an earlier sex-determination of the European eel (Geffroy et al. 2016) that might be relevant for the American eel in the future, especially if more complex sex-structured stock assessment methods are considered. Fecundity-at-length relationships from the literature were also reported and used later in the assessment (egg-per-recruit analysis).

The SAS tested several stock assessment methods, both updating formerly used tools and testing new approaches. The pros and cons of each approach were appropriately described. They include:

Mann-Kendall Trend Tests on individual time series of abundance: The approach tests whether a monotonic trend can be detected in each time series. This non-parametric test is appropriate for an exploratory analysis of a large set of time series. While conflicting signals among time series were detected with no obvious spatial pattern, results showed that significant negative trends were more frequent than positive trends, while a majority of time series did not display trends at all. An original power analysis was carried out to quantify the ability of each time series to detect a linear or exponential trend. While the results were not used in subsequent analyses, for example for weighting time series, the Review Panel finds the analysis interesting and informative for managers, in order to prioritize their monitoring activities.

Estimation of aggregated abundance indices per life stages using MARSS and Conn: In order to derive aggregated abundance indices per life stage from the whole sets of individual time series, two different state-space models were used. The approach is well suited for this kind of time series analysis, allowing to model both process and observations errors and to account for temporal autocorrelation. The rationales are clearly explained, though the Review Panel thinks it might be worthwhile to specify a bit more the settings of the methods to facilitate repeatability (e.g., to specify the set of constraints of the MARSS matrices, the scaling and transformation of the time-series).

Two regime-shifts analyses (STARS and regression trees) were carried out on aggregate index analyses, consistently indicating that current abundance is lower compared to the beginning of the assessment period. The objective of building aggregated abundance indices is consistent with a panmictic stock and a coastwide assessment. However, the Review Panel suggests that, given the heterogeneity of signals among time series, an analysis such as a Dynamic Factor Analysis (Zuur et al. 2003b, 2003a) would highlight similarities among trends, and potentially facilitate the detection of spatial regions with consistent dynamics. This might open the door to spatial models.

The Review Panel also notes that all time series were given similar a priori weights in the analysis. It can be interesting to explore the use of river basins' weights accounting for their relative importance in the overall population dynamics, for example by using proxies for basins' carrying capacity or productivity. However, the Review Panel also observes there is currently no information on the origin of eels effectively contributing to reproduction and that given the heterogeneities in sex-ratio, fecundity, and distance to the spawning ground among basins, such weighting should be done with caution. The Review Panel recommends adding a plot of the MARSS aggregated index per life stage alongside the associated credibility intervals on back transformed/non-log scale. New figures could replace current Figures 147-149.

Traffic Light Approach: This approach was used by the SAS in a previous assessment. It consists of displaying with a color scheme the status of different indicators such as stock status and exploitation levels. Two options are explored: either comparing the indicators to the mean and quantiles across time periods, or comparing to a reference period. The latter option was presented in the assessment report. However, as acknowledged by the SAS, the ecological complexity of the species and its exploitation impairs the interpretations of classical fisheries indicators (e.g., landings, mean length). Therefore, the set of indicators is limited to the abundance indices arising from Conn and MARSS, and to the mean commercial length. The Review Panel concludes the value of the TLA is limited compared to the other assessment methods.

Egg-Per-Recruit model: This was used to compare the effects of two management options - modification of either glass eel or yellow fishery intensities. The model is clearly described and its weaknesses identified by the SAS. The most important is the uncertainty in several key parameters such as natural mortality, maturation, and growth, especially given the spatial variability of eel life history traits. An appropriate uncertainty analysis based on MCMC

simulations is used to address this issue. The results highlight that, given the likely high natural mortality affecting glass eels, a theoretical increase of the glass eel fishing mortality has less impact than an increase of the same magnitude for the yellow eel fishery. While it is possible to derive reference points based on such a model, the Review Panel considers the exercise rather theoretical. Indeed, it does not account for the diversity of fishing activity with different selection patterns, nor treat the yellow eel fishery and glass eel fishery independently. The Review Panel concludes that outputs are informative for local managers, while recognizing the limited occurrence of glass eel fisheries. Moreover, given their different behaviors, caution should be taken when comparing fishing mortality levels between the two stages. Yellow eel are sedentary while glass eel are migratory and more vulnerable to the fishery, which can achieve very high harvest rates (e.g., Briand et al. 2003, Aranburu et al. 2016).

Surplus production model: This type of model was tested by the SAS in a previous assessment. Two new versions of surplus production models were used that allow for variations in intrinsic growth rate (TVr) or non-equilibrium models (ASPIC). The SAS emphasized that American eel violates almost all assumptions of a surplus production model, and concluded the outputs cannot be used for fishery management advice. The Review Panel endorses this conclusion and notes that a recent ICES assessment gave the same conclusion for European eel (ICES 2021).

Habitat-based modeling: Habitat modeling consists of using GIS analyses to derive statistical relationships between eel abundance and habitat descriptors of the river network. This type of approach has recently been used in other parts of the world for similar species and delivered promising results (Beentjes et al. 2016; Hoyle 2016; ICES 2021; Briand et al. 2022; Mateo et al. 2022). The American eel work supported by the SAS is still in progress and currently consists of a pilot study in the data-rich Chesapeake region. Therefore, it is not possible to draw definitive conclusions on the relevance of results and on transferability of the approach to data-poor regions. It will likely depend on the availability and interoperability of both fish data and habitat data. The Review Panel considers habitat modeling an interesting option to explore in future assessments.

Delay-difference model: This kind of model is an intermediate between a simple production model and a more complex age-structured model. By not requiring complex age-structured data but allowing a finer description of biological processes (growth, natural mortality, reproduction) than a surplus production model, delay-difference models appear relevant to eel. The approach and data used by the SAS is clearly described. Given the large variability in delay-difference model implementation, even within the package used by the SAS, the Review Panel suggests that explicitly writing the dynamic equations underlying the final model would be worthwhile to facilitate understanding and reproducibility. As acknowledged by the SAS, the current model suffers from some weaknesses. For the Review Panel, the most important is the stock-recruitment relationship that (1) does not allow for process errors and (2) does not take into account that a large part of the spawning stock lies outside the US coast (e.g., Canada, Caribbean Sea). Moreover, catches are assumed to be known without errors. Finally, given the large variability in life history traits, the SAS was required to carry out the exercise using an 'average eel' from the Chesapeake region. While the approach was able to estimate reference

points and concluded the stock was overfished but overfishing was not occurring, the SAS and the Review Panel conclude the results cannot be used as the basis for management at the coastwide scale. However, the Review Panel finds the delay-difference model to be a promising way forward to model the stock. It would be possible to use a state-space formulation of the model to relax the assumption on the stock-recruitment relationship and on catches. Moreover, it might be possible to develop a Bayesian hierarchical version of the model to account for regional differences in life-history traits and transfer information from data-rich to data-poor areas. This would be somewhat similar to the spatial stage-based model recently promoted by ICES for the European eel (ICES 2021).

Index-Based Method: This is a data-limited approach that can be useful in situations, such as for American eel, where an age-structured population assessment can become problematic (NEFSC 2020). The SAS evaluated a variety of data-limited methods and focused on exploring four, based on data availability and assumptions: PlanB, I_{SLOPE}, I_{TARGET}, and Skate. Of these, the I_{TARGET} method was selected to be the best for American eel given the depleted nature of the stock and flexibility in determining reference years, and productivity characteristics of the modeled stock. The Review Panel agrees with the use of I_{TARGET} as a threshold reference point, the I_{TARGET} approach requires a selection of a reference period for stock status and a value for I_{TARGET} 'mult' parameter, representing the relationship of the reference period to the biomass target. The parameter can range from 1, indicating the average index over the reference period represented the biomass target for the population, to 1.5, indicating the average index value during the reference period represented one-half the biomass target. The Review Panel agreed with the SAS' rationale and selection of 1974-1988 as a reference period and 1.25 as the $I_{TARG\ MULT,}$ representing a population that has reduced carrying capacity due to habitat impacts and has previously experienced fishing pressure. The Review Panel believes the I_{TARGET} method is promising for management and should continue to be explored and refined. The Review Panel concludes that work is still needed to test the robustness of the assessment method to establish the proposed threshold reference point (e.g., sensitivity analysis, MSE, stakeholder input). Further discussion of the I_{TARGET} method can be found in TOR5.

b. Evaluate model parameterization and specification (e.g., choice of CVs, effective sample sizes, likelihood weighting schemes, calculation/specification of M, stock-recruitment relationship, choice of time-varying parameters, plus group treatment).

See previous section 3a.

c. Recommend best estimates of stock biomass, abundance, and exploitation from the assessment for use in management, if possible, or specify alternative estimation methods.

The Review Panel concludes the aggregated indices per life stage from MARSS are currently the best available coastwide aggregated indices and can be used to indicate stock abundance variations over time. The ratio of landings and MARSS indices can be used as a proxy of exploitation rate trends. The Panel agrees with the SAS about potential problems of standardization with the Conn approach due to inconsistent time-coverage of the time series, and therefore prefers the MARSS indices.

The Panel also highlights that all time-series in the MARSS indicators have the same weight. As a consequence, a time series collected in a zone with low abundance has the same weight as a time series collected in a zone of higher abundance, and regions with more time-series have more weights than data poor regions. In the future, habitat modeling might provide a better way to weight the regions and time series based on their importance in contributing to total biomass.

d. If multiple models were considered, evaluate the analysts' explanation of any differences in results.

The Conn and MARSS methods used to derive abundance indices provide very consistent results, confirming the robustness of trends.

4. Evaluate the methods used to characterize uncertainty in estimated parameters. Ensure the implications of uncertainty in technical conclusions are clearly stated.

The models evaluated by the SAS that can be used to determine fishery and stock reference points were the surplus production, egg-per-recruit, and delay-difference models. Each of these modeling approaches, for reasons of poor or lack of fit, were not able to provide reliable or useful results. The 'estimated parameters' in this context are the estimated reference points, which were not developed.

- Due to the issues stated by the SAS and the previous TOR, the surplus production model was not suitable for use.
- As discussed in the previous TOR, the egg-per-recruit model has weaknesses identified by the SAS. MCMC simulations were used to account for uncertainty in key life history parameters. While it is possible to derive reference points based on such a model that can have some value on local scales where yellow and glass eel fisheries co-exist, the Panel considers the exercise theoretical and caution should be used when interpreting results.
- Although the delay-difference model shows promise, and is the only non-index-based model the SAS indicated they will be moving forward with for management advice (and the Review Panel agrees), the model is not suitable at this time. As stated in the previous TOR, the method needs more development to account for the variability and uncertainty in American eel life history characteristics across range.

5. Evaluate the diagnostic analyses performed, including but not limited to:

a. Sensitivity analyses to determine model stability and potential consequences of major model assumptions.

b. Retrospective analysis.

The model chosen by the SAS for determining stock status and associated catch recommendations was the index-based I_{TARGET} method. In the report and during the review meeting the Review Panel was presented with two types of evaluation of uncertainty. The first was the systematic varying of the I_{TARGET} 'mult' parameter from 1.0, 1.25, and 1.5. This value

represents the relationship of the reference period to the biomass target. The second method of uncertainty was a simulation analysis requested by the Review Panel. This analysis focused on understanding how catch advice using I_{TARGET} varied when values of the input abundance index were altered. The intention was to account for additional uncertainty within the I_{TARGET} method.

The SAS bootstrapped predicted confidence intervals of the MARSS time series and then used the resulting time series within the I_{TARGET} method. This bootstrapping approach is not the ideal approach, as it ignores autocorrelation in the data, but is adequate given the time-constraints of the assessment. Future assessments should further explore alternative methods to better describe uncertainty. The Review Panel very much appreciated both of these investigations.

Retrospective analysis is not used in the index-based modeling approach. However, the Review Panel advises future simulations that alter some of the temporal characteristics in the model.

Adoption of the I_{TARGET} method for determining catch advice will necessitate a complete and full simulation analysis for American eel. The Review Panel recommends the following:

1) Simulation of the input time series should be explored further. The Panel recommends exploring more fully the input data comprising the yellow eel index of abundance. We recommend the MARSS index be iteratively derived in a simulation approach by subsampling the indices, developing the coastwide aggregate time series, and then using this in the simulation. The benefit would be to allow a complete understanding of those time series having the most impact on the model, in the I_{TARGET} context. This is characterized to a certain extent by the correlation analysis presented in the assessment report. However, the Review Panel thinks it is a sensitivity and exploration approach worth pursuing because many of the indices are not positively correlated with one another. The simulation would give decision-makers insight into the probability of abundance index increases that might be expected for a given catch recommendation.

2) The decision to establish the reference period was in part made by using information from Rodionov's STARS algorithm. The Review Panel thinks it was reasonable. The second, and we believe impactful exploration of the I_{TARGET} model that could be explored, would be systematic or stochastic changes to what constitutes the reference period. Because the reference period is based on the analysis from the STARS algorithm, it would be informative, while pursuing #1 above, to also evaluate the robustness of the choice of reference period. The Panel recommends for each time series using the best fitting STARS predicted abundance index to determine the timing of 'regime shift'.

3) One of the penalties of using an index-based approach, and especially one in that uses the information from so many different time series, will be the frequency of availability of each input to build the coast wide index of abundance. Although the nature of

smoothing in deriving the MARSS-based index of abundance likely reduces the deviations one might expect, it presents challenges in terms of implementation of the harvest control rule. This aspect of the I_{TARGET}-based control rule should be explored in simulation. It is likely that operational frequency of assessment – in this case index standardization and development of the coastwide index – will be at frequencies that exceed one or even two years. Given the amount of work and coordination required to do these analyses, a three-year gap is likely between each modeling event. The Review Panel recommends simulation be used to evaluate the magnitude of bias that might be expected when the catch advice is only available every two to three years. Given the large amount of process error, the ability to detect a significant change in the abundance index could be reduced if evaluated infrequently.

4) Although mentioned above, the documentation of the characteristics and structure of the models used for individual time series' standardization will need to be consistent moving forward. To accomplish this, each standardization algorithm will need full and complete documentation.

To address the above points and those presented in TOR 6, the Review Panel recommends the development of an MSE to test the robustness of the assessment method (index method, schedule of assessment) and harvest control rules (setting of catch limits based on assessment results). This would require the development of:

- An operation model: a simulation model that can be used to simulate plausible "virtual" trajectories of population according to different scenarios – e.g., assumptions about what happens outside the US, assumptions about the relative importance of coastal versus freshwater fractions of populations, stock recruitment relationship – and catch levels. The operation model is typically a complex model able to simulate various kinds of uncertainty, with many parameters that cannot be properly estimated, and do not aim to hindcast nor to forecast series of fishing mortalities or SSB. It purely aims at simulating plausible trajectories. An example is the Multi-Sed model (Lambert 2011) for the European eel.
- Testing the index-based assessment method at considered frequency – e.g., every 3 years of data – to assess the status of the population.
- Use the assessment result to set the management measures (e.g., catch limits) according to the harvest control rules. These catch limits are then used to simulate the next time steps with the operating model.

The Review Panel acknowledges MSE is a time-consuming task, especially the development of the simulation model. Therefore, such an MSE is probably not suited to be part of the recurring stock assessments, and may be more suited to a co-constructed research project.

6. Evaluate stock status determination and reference points used by the assessment.

a. Recommend stock status determination from the assessment, or, if appropriate, specify alternative methods/measures.

The primary model used in the assessment, the I_{TARGET} approach, does not allow the determination of stock or fishery status with respect to traditional MSY-based biological reference points. The evaluation of the coastwide index, presented by the SAS, does indicate the stock has declined. The Review Panel concludes that the term 'depleted' is appropriate to describe the stock biomass for the yellow eel life stage. This is a qualitative term used only as a descriptor and not as a determination of status.

b. Evaluate the choice of reference points and the methods used to estimate them.

The characterization of the fish stock being depleted was developed by the SAS using a suite of modeling approaches, each based on the coastwide index of abundance (e.g., Rodionov's STARS and the I_{TARGET} model). The Review Panel encourages the SAS to do a full simulation to test the robustness of catch advice. Given the catch advice from I_{TARGET}, an evaluation should be performed to understand if following the catch advice will result in increases in stock biomass. It is important to test the robustness of the index approach to uncertainty, and the ability of this or an alternative index to move the population trajectory in a positive direction. This can be accomplished by simulating plausible population dynamics for American eel with a simulation modeling exercise (see TOR 5).

Given the process error associated with the complex life history of the stock, the fact that a significant portion of the stock resides outside of the assessed area, anthropogenic impacts other than fishing affect the stock, the focus on yellow eel in the I_{TARGET} approach, the exclusion of other life stages, and the error associated with landings data, it is necessary to evaluate the robustness of the catch advice developed from I_{TARGET}.

7. Evaluate the incorporation of new information or attempts at novel approaches to assess the stock.

Overall, the SAS did an excellent job incorporating new information and approaches in the assessment. This is important for species like American eel where there are limited data for certain aspects of biology and population status that restrict the use of traditional, age-structured stock assessment approaches.

American eel ageing has been a problematic issue for past assessments. This issue was addressed during a coastwide age sample exchange (2017) and a workshop (2018) to compare ageing methods and results. Techniques to produce less biased age estimates were used to improve the quality of data available to the assessment.

The assessment makes use of a large number of indices sourced from various state, academic, international, and other entities across the range of American eel. The SAS has done an excellent job collecting the indices, updating them, and documenting changes in the surveys that affect their use in assessments.

MARSS is a relatively new aggregate time series analysis developed since the completion of the previous eel stock assessment. This method, and the similar Conn method, were used to analyze the large amount of index data in the assessment. These methods are powerful tools for detecting and determining trends in multiple indices. The Review Panel approves of the use of these models and of the SAS' preference for MARSS over the Conn approach. The MARSS model should be further developed in future assessments, incorporating aspects such as covariates and Dynamic Factor Analysis (DFA), to improve fit, and better explore uncertainty and the potential cause of conflicting trends among indices.

The delay-difference model was used to estimate biomass, abundance indices, and fishing mortality over time. While the model is well established, the SAS took into account recommendations from the 2020 American shad stock assessment and used the SAMtool and DLMtool packages that allowed greater model flexibility and outputs. The delay-difference model is a valuable approach for American eel and it is important to take advantage of lessons from other assessments, updated data, and new modeling developments.

The Review Panel approves of the use of index-based methods developed by the SAS. These approaches have advanced significantly since the last assessment and are useful for data-limited species. The SAS evaluated a variety of different index-based approaches and selected I_{TARGET} using sound reasoning. Future assessments should build on what was done here and continue to update the approach as the data and methodology improves.

8. Review the research, data collection, and assessment methodology recommendations provided by the Technical Committee and make any additional recommendations warranted. Clearly prioritize the activities needed to inform and maintain the current assessment, and provide recommendations to improve the reliability of future assessments.
To save time and effort in future assessments, the surplus production model and TLA assessment approaches should be discontinued. Given the issues with American eel life history and the fishery, and the assumptions of surplus production models, this approach is not useful for the assessment. It is not entirely clear why the surplus production model was repeated from previous assessments, given the same assumption problems likely existed. The TLA may have some utility for the species, but needs more development to be usable. Due to the characteristics of the TLA approach, this might be a better management approach for the species as opposed to an assessment approach.

The Review Panel recommends that more effort be placed on methods with the most potential in the future, including the index-based methods and stage-based delay-difference models. These hold the most promise for providing management advice and should continue to be explored and refined. The I_{TARGET} method is useful for developing a threshold reference point for the stock. The Panel concludes that work is still needed to establish the proposed threshold reference point (sensitivity analysis, MSE, stakeholder input) and harvest control rules.

Habitat modeling for eel shows promise for helping managers understand the changes in carrying capacity and other spatial dynamics of the stock, and should be explored in future

assessments. This type of approach has recently been used in other parts of the world for similar species and has delivered promising results (i.e., New Zealand, ICES 2021).

The Panel agrees with the SAS and TC recommendation that the biological sampling requirement for YOY surveys be made optional. This is based on the lack of trends in pigment, length, and weight within and among sites. As stated, if states continue to voluntarily collect biological data, the data can be re-evaluated during the next stock assessment, or as needed, and biological sampling can be mandated again in the future. Annual YOY surveys should continue in order to monitor eels and collect associated environmental data, since abundance indices are such a key component of the assessment.

9. Recommend timing of the next benchmark assessment and updates, if necessary, relative to the life history and current management of the species.

The Review Panel recommends conducting the next benchmark assessment after additional data are collected and progress is achieved in addressing the Panel's analytical recommendations. This would be at a minimum of 5 years from the current benchmark. It is also in keeping with the long generation time for eel (3-5 years in the south, 10-20 years in the north).

Effort should be made to conduct an international assessment, including Canadian, Caribbean, and Gulf of Mexico (GOM) input. The Review Panel applauds the inclusion of Canadian and GOM data in this assessment. Future efforts may benefit from more participation from these areas.

II. ADVISORY SECTION

Status of Stocks: Current and Projected

The Review Panel believes the American eel population is depleted in US waters. The Panel is uncomfortable with overfished terminology because of uncertainty in the assessment methods and did not believe a reliable status determination could be defined at this time. More model development is needed to confidently provide a status determination, but the modeling approaches (e.g., MARSS) are appropriate. The time series of abundance indicates the stock, and possibly recruitment, has decreased. Indications of recruitment overfishing necessitate management actions to reduce mortality on the spawning stock. However, the overfishing and overfished status in relation to biomass and fishing mortality reference points cannot be stated with confidence.

Factors affecting stock status include a combination of historical overfishing, habitat loss due to damming mainstems and tributaries of rivers, mortality from passing through hydroelectric turbines, pollution, possibly parasites and disease, climate change, and other unexplained factors at sea.

An important consideration with American eel stock status is that habitat impacts and fishing pressure are not the same across the stock range. This is shown by the magnitude of historic landings by state and region. The amount and types of habitat impacts likely vary as well, based

on region, with some areas being fully developed and others relatively untouched. This implies a certain proportion of the adult stock has a level of protection from human impact.

The North Atlantic region has already experienced significant cumulative climate-related changes in oceanographic conditions (Ramírez et al. 2017; Greenan et al. 2018) and substantial changes in regional fisheries production (Pershing et al. 2015; Britten et al. 2016). This observation, combined with the regime shift evidence presented in the assessment, could suggest there are ocean-level environmental drivers for American eel stock status. Given the broad distribution of American eel, the center of the species range does not align with the assessed range. Therefore, climate-induced range shifts or contractions may not be fully observable by the indices used in the assessment.

Stock Identification and Distribution

The American eel is a panmictic species. A single, genetically homogeneous population. This is due to having a single spawning region in the Sargasso Sea. After hatch, American eel leptocephali (larvae) drift with currents in a generally westward direction, encountering both the North and South American continents. Consequently, the distribution of American eel ranges from northern South America, into the Gulf of Mexico, and along the North American east coast as far as Labrador and Greenland. There is overlap on the spawning grounds with the European eel, Anguilla anguilla, and a hybrid zone is found in Iceland (Albert et al. 2006).

Although panmictic, there are distinct, habitat-related trends in size and sex ratio in anguillid eels (e.g., Oliveira 1999, Davey and Jellyman 2006). Sex determination is environmentally determined and appears to be a function of density and growth rate, with males arising at higher local population densities. These differences appear to produce females that are larger and therefore more fecund, and take longer to mature, while males mature as quickly as possible (Davey and Jellyman 2006). Therefore, loss of larger, older females in the female-dominated Laurentian Great Lakes drainage, and possibly other areas where females are produced, is cause for concern.

Management Unit

As noted in previous stock assessment peer reviews (ASMFC 2006; ASMFC 2012), because of the broad range (over 50 degrees of latitude) and geographic biological differences in this panmictic species, management of eels in US waters must also consider status of eels beyond the US territory. The inclusion of Canadian data was welcome in the assessment, but Caribbean coordination is also necessary. The Review Panel recommends future stock assessments be carried out at the population scale and encourages internationally coordinated assessments, as achieved for the European eel.

Landings

Earliest US federal records of eel fishing date from the late 19th century. Eel fishing has been documented back to the 17th century. Gear ranges from traditional spears to pots, pound nets, and weirs. During the 20th century, heaviest fishing pressure occurred in response to demand from Asia beginning in the 1960s, and decline began to occur in the early 1980s. Harvests have

been more or less constant since the late 1990s. Recent harvests dropped due to declining demand resulting from increased competition from aquaculture and COVID-19 pandemic downturns. A coastwide cap on yellow eel landings and a glass eel quota for Maine have been in place since 2014 and have not been exceeded through 2020.

A glass eel fishery arose in the 1970s in response to demand from Japan. High prices for glass eels periodically drove up effort in this fishery and demand peaked in 2012 due to a shortage of Japanese eels in the wake of the 2011 tsunami and its impacts. During several years from 2011-2019 average price/lb was approximately $2,000, but the COVID impacted market in 2020 saw a 10-year low of $525/lb. The glass eel fishery is legal only in the states of Maine and South Carolina, while high market prices could result in illegal poaching.

Landings have been restricted coastwide in recent years for both the glass and yellow eel fisheries. This can limit the usefulness of recent landings indicator data, such as in the TLA.

Data and Assessment

Data sets were canvassed from as many sources as possible and trends examined. Fishery-dependent data were examined and used in several aspects of the assessment, including the surplus-production, delay-difference, and I_{TARGET} methods. Fishery-independent data sets were standardized with generalized linear models (GLMs), then analyzed using a variety of methods to evaluate different aspects of the data. Methods included: index correlation; the ability to detect trends (power analysis); monotonic trends (Mann-Kendall tests); evidence of regime change (STARS); coherence of trends over space (via meta-analysis); long-term population change (MARSS, CONN); and general temporal and geographic trends (Traffic Light Analysis). The results indicated variable responses, but most of the data sets indicated declining or stable populations.

Biological Reference Points

Index-based methods and stage-based delay difference modeling are the most promising for management advice and should be further explored and refined. I_{TARGET} is useful for developing a threshold reference point for the stock. The Review Panel considers that work is still needed to establish the proposed threshold reference point (e.g., sensitivity analysis, MSE, stakeholder input).

A TLA was used by grouping different data sets within geographic regions and years, categorizing them as ‘good’, ‘intermediate’, and ‘bad’ in terms of percentiles of ranges. The results were complex and difficult to interpret. The Panel felt the TLA approach was not a priority for future stock assessments. However, TLA could be a useful tool if developed in conjunction with managers and refined to include an optimized set of indices – including environmental and habitat indices – related to American eel population dynamics.

Fishing Mortality

While trends in fishing mortality (*F*) can be discerned from the model, estimates from recent years are somewhat uncertain, as they depend on the assumed level of current depletion.

However, the trends in *F* have been relatively stable over the past 20 years and were known to decline as a result of COVID and market effects at the end of the time series. The catch limits put in place in 2014 have also likely moderated or reduced the trends in *F* seen earlier in the time series.

An important aspect of the American eel fishery is the targeting of two different life stages (glass and yellow). Throughout the assessment, most effort in *F* estimation and stock status are focused on the yellow eel stage. While the landings of glass eel are relatively small and, according to the EPR analysis in the assessment, not as important of a component to spawning production, it is worthwhile to point out that this stage was not included in the assessment's index-based catch recommendations.

Recruitment

Trends in recruitment were primarily monitored through the YOY surveys. While it is important to have the surveys, the spatial variability and lack of correlation among surveys was concerning. While states should continue the surveys, some effort should be made to prioritize surveys that are the most informative, with higher encounter rates and longer time-series. Efforts should also be made to gain more insight into the factors driving variability in the surveys, including, but not limited to geography, environmental conditions, ocean currents, etc.

Spawning Stock Biomass

The magnitude of spawning stock biomass (SSB), both current and historical, is difficult to assess due to uncertainties in abundance estimates, variable growth rates, and population productivity. An unknown fraction of the spawning stock is outside of U.S waters.

The Review Panel reminds that available SSB indices are a proxy based on silver eel abundance indices, the later continental stages, but there is no evidence that silver eels effectively contribute to spawning. Moreover, the stock extends beyond American Atlantic waters and the indices cover only a portion of the total potential SSB.

Bycatch

Eel bycatch is not considered to be a major problem. Eels are caught incidentally by recreational fishers. The Marine Recreational Information Program (MRIP) lists eel as a bycatch species.

Other Comments

In general, the Panel was satisfied with the progress made by the SAS and encourages the continuation of work on new approaches developed for the stock assessment. Given the unique life history and biology of anguillid eels, which defy national boundaries, it is important to account for the contributions of and threats to the portion of the American eel population outside of the US.

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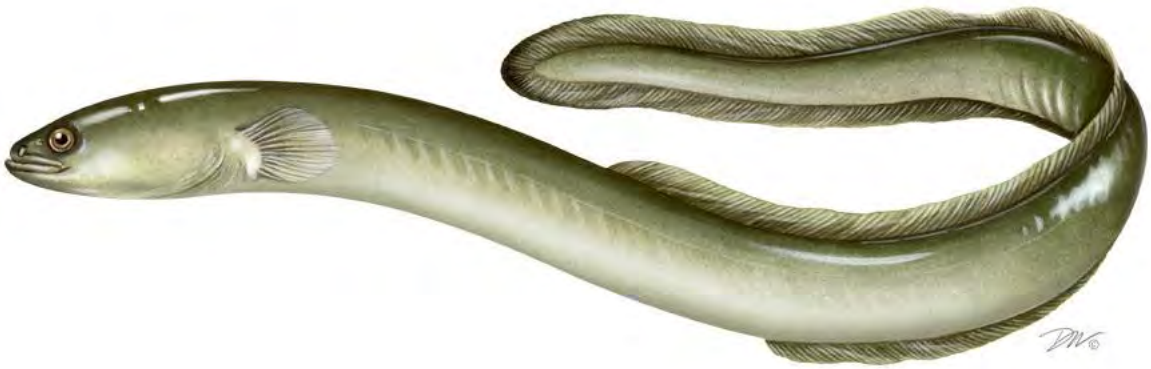
ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

AMERICAN EEL
(Anguilla rostrata)

2021 FISHING YEAR



Prepared by the American Eel Plan Review Team

January 2023

REVIEW OF THE ASMFC FISHERY MANAGEMENT PLAN AND STATE COMPLIANCE FOR AMERICAN EEL *(Anguilla rostrata)* FOR THE 2020 FISHERY

Management Summary

Date of FMP approval:	November 1999
Addenda:	Addendum I (February 2006) Addendum II (October 2008) Addendum III (August 2013) Addendum IV (October 2014) Addendum V (August 2018)
Management unit:	Migratory stocks of American Eel from Maine through Florida
States with a declared interest:	Maine through Florida, including the District of Columbia and the Potomac River Fisheries Commission
Active committees:	American Eel Management Board, Plan Review Team, Technical Committee, Stock Assessment Subcommittee, and Advisory Panel

I. Status of the Fishery Management Plan

The ASMFC American Eel Management Board (Board) first convened in November 1995 and finalized the Fishery Management Plan (FMP) for American Eel in November 1999 (ASMFC 2000).

GOAL

The goal of the FMP is to conserve and protect the American eel resource to ensure its continued role in the ecosystems while providing the opportunity for its commercial, recreational, scientific, and educational use.

OBJECTIVES

1. Improve knowledge of eel utilization at all life stages through mandatory reporting of harvest and effort by commercial fishers and dealers, and enhanced recreational fisheries monitoring.
2. Increase understanding of factors affecting eel population dynamics and life history through increased research and monitoring.
3. Protect and enhance American eel abundance in all watersheds where eel now occur.
4. Where practical, restore American eel to those waters where they had historical abundance but may now be absent by providing access to inland waters for glass eel, elvers, and yellow eel and adequate escapement to the ocean for pre-spawning adult eel.
5. Investigate the abundance level of eel at the various life stages, necessary to provide adequate forage for natural predators and support ecosystem health and food chain structure.

The FMP requires all states and jurisdictions to implement an annual young-of-year (YOY) abundance survey to monitor annual recruitment of each year's cohort. In addition, the FMP requires a minimum recreational size, a possession limit and a state license for recreational fishermen to sell eels. The FMP requires that states and jurisdictions maintain existing or more conservative American eel commercial fishery regulations for all life stages, including minimum size limits. Each state is responsible for implementing management measures within its jurisdiction to ensure the sustainability of its American eel population.

The FMP has been adapted through the following addenda:

Addendum I (February 2006)
In August 2005, the Board directed the American Eel Plan Development Team (PDT) to initiate an addendum to establish a mandatory catch and effort monitoring program for American eel. The Board approved Addendum I at the February 2006 Board meeting.

Addendum II (October 2008)
In January 2007, the Board initiated a draft addendum with the goal of increasing escapement of silver eels to spawning grounds. In October 2008, the Board approved Addendum II, which placed increased emphasis on improving the upstream and downstream passage of American eel. The Board chose to delay action on management measures in order to incorporate the results of the 2012 stock assessment.

Addendum III (August 2013)
In August 2012, the Board initiated Draft Addendum III with the goal of reducing mortality on all life stages of American eel. The Addendum was initiated in response to the findings of the 2012 Benchmark Stock Assessment, which declared American eel stock along the US East Coast depleted. The Board approved Addendum III in August 2013.

Addendum III requires states to reduce the yellow eel recreational possession limit to 25 eel/person/day, with the option to allow an exception of 50 eel/person/day for party/charter employees for bait purposes. The recreational and commercial size limit increased to a minimum of 9 inches. Eel pots are required to be ½ by ½ inch minimum mesh size or have at least a 4" by 4 inch escape panel of ½ by ½ inch mesh escape panel. The glass eel fishery is required to implement a maximum tolerance of 25 pigmented eels per pound of glass eel catch. The silver eel fishery is prohibited to take eels from September 1st to December 31st from any gear type other than baited traps/pots or spears. The Addendum also set minimum monitoring standards for states and required dealer and harvester reporting in the commercial fishery.

Addendum IV (October 2014)
In October 2014, the Board approved Addendum IV. This addendum was also initiated in response to the 2012 American Eel Benchmark Stock Assessment and the need to reduce mortality on all life stages. The Addendum established a coastwide cap of 907,671 pounds of yellow eel, reduced Maine's glass eel quota to 9,688 pounds (2014 landings), and allowed for the continuation of New York's silver eel weir fishery in the Delaware River. For yellow eel fisheries, the coastwide cap was implemented for the 2015 fishing year and established two

management triggers: (1) if the cap is exceeded by more than 10% in a given year, or (2) the cap is exceeded for two consecutive years regardless of the percent overage. If either one of the triggers are met, then states would implement state-specific allocation based on average landings from 2011-2013. The addendum also requires any state or jurisdiction with a commercial glass eel fishery to implement a fishery independent life cycle survey covering glass, yellow, and silver eels within at least one river system.

Addendum V (August 2018)

In August 2018, the Board approved Addendum V. The Addendum increases the yellow eel coastwide cap starting in 2019 to 916,473 pounds to reflect a correction in the historical harvest data. Further, the Addendum adjusts the method (management trigger) to reduce total landings to the coastwide cap when the cap has been exceeded, and removes the implementation of state-by-state allocations if the management trigger is met. Management action will now be initiated if the yellow eel coastwide cap is exceeded by 10% in two consecutive years. If the management trigger is exceeded, only those states accounting for more than 1% of the total yellow eel landings will be responsible for adjusting their measures. A workgroup was formed to define the process to equitably reduce landings among the affected states when the management trigger has been met (see appendix, approved October 2019). Additionally, the Addendum maintains Maine's glass eel quota of 9,688 pounds. The Board also slightly modified the glass eel aquaculture provisions, maintaining the 200 pound limit for glass eel harvest, but adjusting the criteria for evaluating the proposed harvest area's contribution to the overall population consistent with the recommendations of the Technical Committee.

II. Status of the Stock

In 2009, the Board initiated a benchmark stock assessment. After reviewing over 100 surveys and studies, the American Eel Stock Assessment Subcommittee (SAS) selected 19 YOY surveys and 15 yellow eel surveys along the East Coast for use as indices of abundance in the assessment. Despite the large number of surveys and studies available for use, the American eel stock is still considered data-poor because very few surveys target eels and collect information on length, age, and sex of the animals caught. Additionally, eels have an extremely complex life history that is difficult to describe using traditional stock assessment models. Therefore, several data-poor methods were used to assess the American eel resource.

The first set of analyses (trend analyses) aimed to determine if there was a statistically significant trend in the fishery-independent survey data and whether or not there was evidence for significant trends on the regional and coastwide scales. The second approach involved a Depletion-Based Stock Reduction Analysis (DB-SRA) model, which uses trends in historical catch to estimate biomass trends and maximum sustainable yield. Both the trend analyses and DB-SRA results indicated that the American eel stock declined in recent decades, and the prevalence of significant downward trends in multiple surveys across the coast is cause for concern. Therefore, the stock status for American eels is depleted, although overfishing and overfished status in relation to the reference points could not be determined with confidence.

The benchmark stock assessment was peer reviewed in March 2012 and was approved for management use in May 2012 (ASMFC 2012).

In 2003, declarations from the International Eel Symposium (AFS 2003, Quebec City, Quebec, Canada) and the Great Lakes Fisheries Commission (GLFC) highlighted concerns regarding the health of eel stocks worldwide. In 2010, the Canada Department of Fisheries and Oceans (DFO) conducted a stock assessment on American eels in Canadian waters and found that region-specific status indices show that abundance is very low in comparison to levels in the 1980s for the Lake Ontario and upper St. Lawrence River stock, and is either unchanged or increasing in the Atlantic Provinces.

The 2017 American Eel Stock Assessment Update updates the 2012 American Eel Benchmark Stock Assessment with data from 2010-2016. The trend analysis results in this stock assessment update are consistent with the 2012 results, with few exceptions. Despite downward trends in the indices, commercial yellow American eel landings have been stable in recent decades along the Atlantic coast (U.S. and Canada), although landings still remain much lower than historical levels. The trend analysis and stable low landings support the Assessment Update's conclusion that the American eel population in the assessment range is similar to five years ago and remains depleted. Therefore, the resource is considered depleted and no stock status specific to overfishing determination can be made based on the trend analyses performed (ASMFC 2017).

The most recent benchmark stock assessment was completed and an independent peer review workshop was held in late 2022. The Board will review the assessment and peer review in early 2023.

III. Status of the Fishery

Commercial fisheries for American eel occur throughout their range in North America, with the most significant of those fisheries occurring in the US Mid-Atlantic region and Canada. These fisheries are executed in riverine, estuarine, and ocean waters. In the US, commercial fisheries for glass eel/elvers only exist in Maine and South Carolina, a silver eel weir fishery exists in New York's Delaware River, and yellow eel fisheries exist in all states and jurisdictions except Pennsylvania and the District of Columbia.

Although eel have been continuously harvested, consistent data on harvest has not always been available. Harvest data from the Atlantic coastal states (Maine to Florida) indicate that the harvest fluctuated widely between 1970 and 1980, but showed an increasing trend that peaked in 1979 at 3,951,936 pounds. From then landings declined to a low of 641,000 pounds in 2002, recovered steadily to exceed one million pounds on average from 2010-2014, and have since experienced a decline in four of the last five years to a time series low in 2019. Because fishing effort data are unavailable for the entire time series, finding a correlation between population numbers and landings data is difficult.

The Advisory Panel (AP) met and provided feedback that recent declines in landings were primarily related to market demand; demand for wild-caught American eels from the US for European food markets has decreased in recent years due to increased aquaculture in Europe. Additionally, demand for domestic bait decreased from 2019 to 2020 due in part to COVID-19 restrictions. A smaller proportion of landings traditionally goes to the domestic bait market, and the AP indicated that it does not anticipate landings to increase significantly from current levels in the near future.

Commercial Fishery

State reported commercial landings of yellow/silver eels in 2021 totaled approximately 427,048 pounds[1] (Table 1, Figure 1), which represents a 64% increase in landings from 2020 (259,862 pounds). Yellow eel landings increased in eight states and jurisdictions, while decreasing in three. In 2021, state reported landings from Maryland, Virginia, and New Jersey together accounted for 87% of the coastwide commercial total landings. Glass eel landings reported from Maine totaled approximately 9,106 pounds; South Carolina's glass eel landings are confidential.

Table 1. Preliminary 2021 Commercial Landings by State and Life Stage[1]

State	Glass	Yellow
Maine	9,106	457
New Hampshire	No Fishery	0
Massachusetts	No Fishery	Confidential
Rhode Island	No Fishery	1,863
Connecticut	No Fishery	3,085
New York	No Fishery	20,308
New Jersey	No Fishery	26,096
Pennsylvania	No Fishery	0
Delaware	No Fishery	4,009
Maryland	No Fishery	303,902
D.C.	No Fishery	0
PRFC	No Fishery	10,439
Virginia	No Fishery	41,633
North Carolina	No Fishery	5,505
South Carolina	Confidential (<750 pounds)	0
Georgia	No Fishery	0
Florida	No Fishery	9,750
Total	**Glass: Approx 9,106** **Elver: 0**	**427,048**

[1] Preliminary landings data for 2021 come from ACCSP and state compliance reports. Landings information from state compliance reports updates the preliminary landings presented to the American Eel Management Board in May 2022.

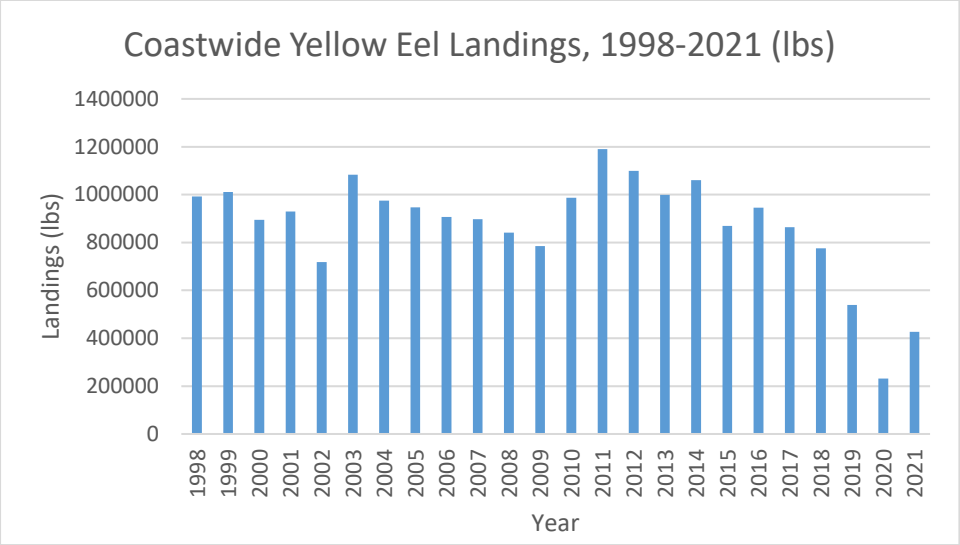


Figure 1. American Eel Yellow-Life Stage Coastwide Landings 1998-2021

Table 2. State commercial regulations for the 2021 fishing year.*

State	Min Size	License/Permit	Other
ME	Glass No minimum size	Daily dealer reports/swipe card program; monthly harvester report of daily landings. Tribal permit system in place for some Native American groups.	In 2017, the Legislature authorized the DMR commissioner to adopt rules to implement the elver fishing license lottery, including provisions for the method and administration of the lottery.
	Yellow 9”	Harvester/dealer license and monthly reporting. Tribal permit system in place for some Native American groups.	Seasonal closures. Gear restrictions. Weekly closures.
NH	9”	Commercial saltwater license and wholesaler license. No dealer reports. Monthly harvester reporting includes dealer information.	Gear restrictions in freshwater.
MA	9"	Commercial permit with annual catch report requirement. Registration for dealers with purchase record requirement. Dealer/harvester reporting.	Traps, pots, spears, and angling only. Mesh restrictions.
RI	9"	Commercial fishing license. Dealer/harvester reporting.	Seasonal gear restrictions.
CT	9"	Commercial license (not required for personal use). Dealer/harvester reporting.	Gear restrictions.
NY	9"	Harvester/dealer license and monthly reporting.	Gear restrictions. Maximum limit of 14” in some rivers.

State	Min Size	License/Permit	Other
NJ	9"	License required. No dealer reports. Monthly harvester reporting includes dealer information.	Gear restrictions.
PA	NO COMMERCIAL FISHERY		
DE	9"	Harvester reporting, no dealer reporting. License required.	Commercial fishing in tidal waters only. Gear restrictions.
MD	9"	Dealer/harvester license and monthly reporting.	Prohibited in non-tidal waters. Gear restrictions. Commercial crabbers may fish 50 pots per day, must submit catch reports.
DC	NO COMMERCIAL FISHERY		
PRFC	9"	Harvester license and reporting. No dealer reporting.	Seasonal gear restrictions. Mesh size restrictions on eel pots.
VA	9"	Harvester license required. Dealer/harvester monthly reporting.	Mesh size restrictions on eel pots. Seasonal closures.
NC	9"	Standard Commercial Fishing License for all commercial fishing. Dealer/harvester monthly combined reports on trip ticket.	Mesh size restrictions on eel pots. Seasonal closures.
SC	Glass No minimum size	Fyke and dip net only permitted. Dealer/harvester monthly combined reports on trip ticket. License required.	Max 10 individuals. Gear and area restrictions.
	Yellow 9"	Pots and traps permitted only. Dealer/harvester monthly combined reports on trip ticket. License required.	Gear restrictions.
GA	9"	Personal commercial fishing license and commercial fishing boat license. Dealer/harvester monthly combined reports on trip ticket.	Gear restrictions on traps and pots. Area restrictions.
FL	9"	Permits and licenses. Harvester reporting. No dealer reporting.	Gear restrictions.

* For specifics on licenses, gear restrictions, and area restrictions, please contact the individual state.

Recreational Fishery

Available information indicates that few recreational anglers directly target American eel. For the most part, hook-and-line fishermen catch eel incidentally when fishing for other species. American eel are often purchased by recreational fishermen for use as bait for larger gamefish such as striped bass, and some recreational fishermen may catch their own to use as bait.

The National Marine Fisheries Service (NMFS) Marine Recreational Information Program (MRIP) shows a declining trend in the catch of eel during the latter part of the 1990s. As of 2009, recreational data are no longer provided for American eel, due to the unreliable design of MRIP that focuses on active fishing sites along coastal and estuarine areas.

Table 3. State recreational regulations for the 2021 fishing year.*

State	Min Size	Daily Possession Limit	Other
ME	9"	25	Gear restrictions. License requirement and seasonal closures (inland waters only). Bait limit of 50 eels/day for party/charter boat captain and crew.
NH	9"	25	Coastal harvest permit needed if taking eels other than by angling. Gear restrictions in freshwater.
MA	9"	25	Nets, pots, traps, spears, and angling only; seasonal gear restrictions and mesh requirements. Bait limit of 50 eels/day for party/charter boat captain and crew.
RI	9"	25	Bait limit of 50 eels/day for party/charter boat captain and crew.
CT	9"	25	
NY	9”	25	Maximum limit of 14” in some rivers. Bait limit of 50 eels/day for party/charter boat captain and crew.
NJ	9"	25	Bait limit of 50 eels/day for party/charter boat captain and crew. Mesh size restriction on pots.
PA	9"	25	Gear restrictions.
DE	9"	25	Two pot limit/person.
MD	9"	25	Gear restrictions.
DC	9"	10	
PRFC	9"	25	
VA	9"	25	Recreational license. Two pot limit. Mandatory monthly catch report. Gear restrictions. Bait limit of 50 eels/day for party/charter boat captain and crew.
NC	9"	25	Gear restrictions. Non-commercial special device license. Two eel pots allowed under Recreational Commercial Gear license. Bait limit of 50 eels/day for party/charter boat captain and crew.
SC	9"	25	Gear restrictions. Permits and licenses. Two pot limit.
GA	9"	25	
FL	9"	25	Gear restrictions. Wholesale/retail purchase exemption applies to possession limit for bait.

* For specifics on licenses, gear restrictions, and area restrictions, please contact the individual state.

IV. Status of Research and Monitoring

The FMP requires states and jurisdictions with a declared interest in the species to conduct an annual YOY survey to monitor annual recruitment of each year’s cohort.

In 2021, the states and jurisdictions of Rhode Island (Gilbert Stuart Dam), Maryland (Turville Creek), and the Potomac River Fisheries Commission (Gardy’s Millpond) had above average YOY

counts. The catch in Pennsylvania's non-tidal Delaware River survey was the third highest in the time series. At Maryland's Turville Creek site the 2021 catch was the fifth highest in the time series, and the catch and CPUE at Gardy's Millpond in the Potomac River were both the third highest in the time series. The 2021 catch at Maine's West Harbor Pond site was third largest catch of yellow eels.

All other YOY surveys in 2021 (Maine, New Hampshire, Massachusetts, Connecticut, New York, South Carolina, and Florida) had at or below average survey counts. D.C. and Georgia do not have YOY surveys, but instead have yellow eel surveys. The 2021 YOY catch Delaware's Millsboro Pond was the lowest in the time series, and catch at Florida's Guana River Dam was the second lowest in the time series. North Carolina samples from the Beaufort Bridge Net survey for 2020 and 2021 have not been processed yet due to a data backlog. New Jersey was unable to fully complete its fishery-independent monitoring surveys in 2021 due to continued COVID-19 restrictions.

New Jersey additionally developed and implemented a fishery-independent eel pot survey to collect abundance data of yellow American eels within nursery grounds. This survey, which began in 2015, supplements the current glass eel survey by sampling more life stages and will allow biologists to collect additional biological samples (age-length-weight data).

As required by Addendum IV, Maine continued the fishery independent life cycle survey of glass, yellow, and silver eels within at least one river system (West Harbor Pond) in 2021. This site was changed from Cobboseecontee Stream to West Harbor Pond to improve collection of eels at all life stages by Maine Department of Marine Resources staff starting in 2019.

Maine's glass eel aquaculture proposal for the 2019 season was approved and 130 pounds were harvested for aquaculture grow out. Maine submitted a similar proposal for the 2020 fishing season that was also approved. For both years, the approved proposals allow for an additional 200 pounds of glass eels to be harvested for aquaculture; this amount is in addition to the Maine's glass eel quota of 9,688 pounds. Due to the COVID-19 pandemic, a total of 0 pounds were harvested out of the 200 pound allocation in 2020. In 2021, 138.91 pounds of aquaculture quota were harvested out of the 200 pound allocation. Maine submitted a proposal for 2022, which was approved by the Board in August 2021.

North Carolina's aquaculture plan for an American Eel Farm was approved for 2019-2020, allowing the harvest of up to 200 pounds of glass eel aquaculture. The American Eel Farm (AEF) harvested 0 pounds. A proposal was not submitted for 2021 to continue efforts at establishing glass eel aquaculture. There is no indication if North Carolina plans to submit a proposal in future years.

V. Research Needs

The FMP does not require any other research initiatives for participating states and jurisdictions. Nonetheless, the American Eel Technical Committee (TC) has identified several

research topics to further understanding of the species' life history, behavior, and biology. The Stock Assessment Subcommittee has considered these research needs as part of the most recent benchmark stock assessment completed in 2022; any updates will be in the full report next year. Research needs for American eel identified by the TC include:

High Priority

- Accurately document the commercial eel fishery to understand participation in the fishery and the amount of directed effort.
- Investigate, develop, and improve technologies for American eel passage upstream and downstream at various barriers for each life stage. In particular, investigate low-cost alternatives to traditional fishway designs for passage of eel.
- Formulate a coastwide sampling program for yellow and silver American eels using standardized and statistically robust methodologies.
- Conduct regular periodic stock assessments and establish sustainable reference points for eel to develop a sustainable harvest rate and to determine whether the population is stable, decreasing, or increasing.
- Research coastwide prevalence of the swim bladder parasite *Anguillacolla crassus* and its effects on the American eel's growth and maturation, migration to the Sargasso Sea, and spawning potential.
- Evaluate the impact, both upstream and downstream, of barriers to eel movement with respect to population and distribution effects. Determine relative contribution of historic loss of habitat to potential eel population and reproductive capacity**.**

Medium Priority

- Investigate survival and mortality rates of different life stages (leptocephalus, glass eel, yellow eel, and silver eel) to assist in the assessment of annual recruitment. Continuing and initiating new tagging programs with individual states could aid such research.
- Tagging Programs: A number of issues could be addressed with a properly designed tagging program. These include:
    - Natural, fishing, and/or discard mortality; survival
    - Growth
    - Validation of aging method(s)
    - Reporting rates
    - Tag shedding or tag attrition rate
- Research contaminant effects on eel and the effects of bioaccumulation with respect to impacts on survival and growth (by age) and effect on maturation and reproductive success.
- Investigate fecundity, length, and weight relationships for females throughout their range; growth rates for males and females throughout their range; predator-prey relationships; behavior and movement of eel during their freshwater residency; oceanic behavior, movement, and spawning location of adult mature eel; and all information on the leptocephalus stage of eel.
- Assess characteristics and distribution of eel habitat and the value of habitat with respect to growth and sex determination.

- Identify triggering mechanism for metamorphosis to mature adult, the silver eel life stage, with specific emphasis on the size and age of the onset of maturity, by sex. A maturity schedule (proportion mature by size or age) would be extremely useful in combination with migration rates.

Low Priority

- Perform economics studies to determine the value of the fishery and the impact of regulatory management.
- Review the historic participation level of subsistence fishers in wildlife management planning and relevant issues brought forth with respect to those subsistence fishers involved with American eel.
- Examine the mechanisms for exit from the Sargasso Sea and transport across the continental shelf.
- Research mechanisms of recognition of the spawning area by silver eel, mate location in the Sargasso Sea, spawning behavior, and gonadal development in maturation.
- Examine age at entry of glass eel into estuaries and fresh waters.
- Examine migratory routes and guidance mechanisms for silver eel in the ocean.
- Investigate the degree of dependence on the American eel resource by subsistence harvesters (e.g., Native American Tribes, Asian and European ethnic groups).
- Examine the mode of nutrition for leptocephalus in the ocean.
- Provide analysis of food habits of glass eel while at sea.

VI. Status of Management Measures and Issues

The FMP requires that all states and jurisdictions implement an annual YOY abundance survey by 2001 in order to monitor annual recruitment of each year's cohort. Addendum III requires a 9 inch minimum size restriction in the commercial and recreational yellow eel fisheries, as well as a minimum mesh size of ½ by ½ inch in the commercial yellow eel pot fishery. The recreational bag limit is 25 fish/angler/day, and the silver eel fishery is restricted, as is the development of pigmented eel fisheries.

Proposed Listing of American Eel

The US Fish and Wildlife Service (USFWS) reviewed the status of American eel in 2007 and found that, at that time, protection under the Endangered Species Act (ESA) was not warranted. American eel was later petitioned for listing as threatened under the ESA in April 2010 by the Center for Environmental Science, Accuracy, and Reliability (CESAR, formally the Council for Endangered Species Act Reliability). The USFWS published a positive 90 day finding on the petition in September 2011, acknowledging that the petition may be warranted and that a status review would be conducted. CESAR filed a lawsuit in August 2012 against the USFWS for failure to comply with the statutes of the ESA, which specifies a proposed rule based on the status review be published within one year of the receipt of the petition. A Settlement Agreement was approved by the court in April 2013, which required the USFWS to publish a 12-month finding by September 30, 2015. In the published finding, the USFWS determined that a listing under the ESA was not warranted.

VII. Current State-by-State Implementation of FMP Compliance Requirements

The PRT reviewed the state compliance reports for the 2021 fishing year. The PRT notes the following regarding state implementation of the required provisions of the American Eel FMP:

Silver Eel Fishery Measures:

- Florida does not have a regulation preventing harvest of eels from pound nets from September 1 through December 31, but the state is unaware of any active pound net fishery in the past 10-15 years.

Reporting Measures:

- The following jurisdictions do not have dealer reporting:
    - New Hampshire and New Jersey do not have dealer reporting (there are no permitted eel dealers for either state), but harvesters report some information on dealers.
    - Delaware (no permitted eel dealers)
    - Potomac River Fisheries Commission (jurisdiction reports harvest, not landings)
    - Florida (considered a freshwater species and there is dealer reporting for freshwater species)
- Many states have been unable to provide information on the percent of commercial harvest sold as food versus bait; only Maine, New York, New Jersey, Delaware, and Florida provided this information for 2021.
- New York was unable to provide data on commercial CPUE for the 2021 fishing year.

Monitoring Measures:

- New Jersey was unable to complete the fishery independent monitoring requirements in 2021 due to continued COVID-19 restrictions.

Section 4.4.2 of the FMP stipulates that states may apply for *de minimis* status for each life stage if (given the availability of data), for the preceding two years, their average commercial landings (by weight) of that life stage constitute less than 1% of the coastwide commercial landings for that life stage for the same two-year period. States meeting this criterion are exempted from having to adopt commercial and recreational fishery regulations for a particular life stage listed in Section 4 and any fishery-dependent monitoring elements for that life stage listed in Section 3.4.1.

Qualification for *de minimis* is determined from state-reported landings found in annual compliance reports. In 2021, New Hampshire, Massachusetts, Pennsylvania, District of Columbia, Georgia, and Florida requested continued *de minimis* status for their yellow eel fisheries. Florida does not qualify as the state landings in 2021 exceed 1% of the coastwide yellow eel landings. All other states that applied for *de minimis* of the yellow eel fishery meet the *de minimis* criteria.

VIII. Recommendations/Findings of the Plan Review Team

1. The PRT recommends the Board consider state compliance notes as detailed in Section VII.

2. The PRT recommends *de minimis* be granted to New Hampshire, Massachusetts, Pennsylvania, District of Columbia, and Georgia for their yellow eel fisheries.

3. The PRT had previously requested that the Board reevaluate the requirement that states provide estimates of the percent of harvest going to food versus bait, as there is a high level of uncertainty and subjectivity inherent in the data. Additionally, the PRT notes that this information does currently impact regulations and is unclear of the benefit for management. The PRT requests again that the Board consider tasking the Committee on Economic and Social Sciences (CESS) to conduct an analysis of the market demand for all life stages of eel, specific to food vs bait markets, as well as international market demand.

4. The PRT requests that states continue to work with the law enforcement agencies to include information on any confiscated poundage from illegal or undocumented fisheries, and that the Board continue to encourage interstate enforcement actions with regards to poaching, due to the broad geographic scale at which the issue occurs.

5. The PRT recommends that the Commission and USFWS work together to annually compare domestic landings data to export data for American eel across all life stages.

6. The PRT requests that New York separate its yellow and silver eel landings, if possible, when reporting harvest.

7. The PRT requests that states quantify escapements, changes in upstream and downstream passage (e.g. dam removals, new impediments to passage) annually and provide this information to the Technical Committee for evaluation.

VIII. Works Cited

Atlantic States Marine Fisheries Commission (ASMFC). 1998. Interstate Fishery Management Plan for American Eel (*Anguilla rostrata*). Washington D.C. NOAA Oceanic and Atmospheric Administration Award No. NA97 FGO 0034 and NA07 FGO 024.

Atlantic States Marine Fisheries Commission (ASMFC). 2012. American Eel Benchmark Stock Assessment. Arlington, VA.

Atlantic States Marine Fisheries Commission (ASMFC). 2017. American Eel Stock Assessment Update. Arlington, VA.

Atlantic States Marine Fisheries Commission

Atlantic Menhaden Management Board

February 1, 2023
11:30 a.m. – 12:30 p.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*M. Bell*)	11:30 a.m.
2. Board Consent • Approval of Agenda • Approval of Proceedings from November 2022	11:30 a.m.
3. Public Comment	11:35 a.m.
4. Consider State Implementation Plans for Addendum I to Amendment 3 to the Interstate Fishery Management Plan *(J. Boyle)* **Final Action**	11:45 a.m.
5. Consider Approval of Menhaden Technical Addendum to Addendum I to Amendment 3 (*J. Boyle*) **Final Action**	12:05 p.m.
6. Other Business/Adjourn	12:30 p.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

MEETING OVERVIEW

Atlantic Menhaden Management Board
Wednesday, February 1, 2023
11:30 a.m. – 12:30 p.m.
Hybrid Meeting

Chair: Mel Bell (SC) Assumed Chairmanship: 10/21	Technical Committee Chair: Josh Newhard (USFWS)	Law Enforcement Committee Representative: Scott Simmons (MD)
Vice Chair: Conor McManus (RI)	Advisory Panel Chair: Meghan Lapp (RI)	Previous Board Meeting: November 9, 2022
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (18 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from November 9, 2022

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time should use the webinar raise your hand function and the Board Chair will let you know when to speak. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance, the Board Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Consider State Implementation Plans for Addendum I to Amendment 3 to the Interstate Fishery Management Plan (11:45 a.m.–12:05 p.m.) Final Action

Background

- The Board approved Addendum I to Amendment 3 at the 2022 Annual Meeting and set an implementation date of May 1, 2023.
- The Plan Review Team (PRT) reviewed the state plans and drafted recommendations to the Board **(Supplemental Materials)**.

Presentations

- Review of state implementation plans by J. Boyle

Board Actions for Consideration

- Consider state implementation plans for approval

5. Consider Approval of Menhaden Technical Addendum to Addendum I to Amendment 3 (12:05-12:30 p.m.) Final Action

Background

• After approval of Addendum I to Amendment 3, Staff discovered that the Addendum inadvertently did not contain language to update the timeframe for redistributing relinquished quota to the new quota allocation timeframe. • Staff is recommending approval of Technical Addendum I to correct the timeframe used for redistributing relinquished quota **(Supplemental Materials)**.
Presentations • Overview of Technical Addendum I to Addendum I by J. Boyle
Board Actions for Consideration • Consider approval of Technical Addendum I

6. Other Business/Adjourn

Atlantic Menhaden

Activity level: High

Committee Overlap Score: High (SAS, ERP WG overlaps with American eel, striped bass, northern shrimp, Atlantic herring, horseshoe crab, weakfish)

Committee Task List

- 2023 Ageing Workshop
- 2025 Benchmark Stock Assessment
- Annual compliance reports due August 1st

TC Members: Josh Newhard (USFWS, Chair), Holly White (NC), Keilin Gamboa-Salazar (SC), Jason McNamee (RI), Eddie Leonard (GA), Jeff Brust (NJ), Matt Cieri (ME), Ingrid Braun (PRFC), Micah Dean (MA), Kurt Gottschall (CT), Caitlin Craig (NY, Vice-Chair), Shanna Madsen (VMRC), Chris Swanson (FL), Ray Mroch (NMFS), Sydney Alhale (NMFS), Amy Schueller (NMFS), Alexei Sharov (MD), Garry Glanden (DE), Heather Walsh (USGS), Kristen Anstead (ASMFC), James Boyle (ASMFC)

SAS Members: Amy Schueller (NMFS, SAS Chair), Matt Cieri (ME), Micah Dean (MA), Robert Latour (VIMS), Chris Swanson (FL), Ray Mroch (NMFS), Jason McNamee (RI), Alexei Sharov (MD), Jeff Brust (NJ) Kristen Anstead (ASMFC), James Boyle (ASMFC), Joey Ballenger (SC)

ERP WG Members: Jason Boucher (NOAA), Matt Cieri (ME,ERP Chair), Michael Celestino (NJ), David Chagaris (FL), Micah Dean (MA), Rob Latour (VIMS), Jason McNamee (RI), Amy Schueller (NFMS), Alexei Sharov (MD), Howard Townsend (NFMS), Jim Uphoff (MD), Kristen Anstead (ASMFC), Katie Drew (ASMFC)

From:	Tom Lilly
To:	Tina Berger; Robert Beal; Allison Colden; LYNN FEGLEY; Hilary Falk; Patrick Geer
Cc:	STEPHEN ATKINSON; PHILIP ZALESAK; Jaclyn Higgins
Subject:	[External] Public Comment -Winter Meeting. ASMFC
Date:	Tuesday, January 3, 2023 7:10:27 PM
Attachments:	2023WinterMtgFirstNotice_PreliminaryAgenda.pdf WestinCrystalCity_HotelDirections.pdf TA 23-003ASMFC2023WinterMeeting_revised.pdf TravelReimbursementGuidelines_2023.pdf

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Tina ….please distribute this comment to the Commissioners and the Menhaden Board.
To the stakeholders;
Just in case you missed it….the people that have just about destroyed Chesapeake Bay are meeting again . No doubt they will be celebrating allowing the factory fishing to take another 20,000 tons of menhaden headed to Chesapeake Bay and the defeat of a modest proposal to limit bycatch and net snags in Virginia by five of the nine VMRC Commissioners. Both natural resource "managers" remain intent on favoring factory fishing interests no matter what the cost to the environment and millions of ordinary people in Virginia and Maryland and tens of thousands of small businesses. Some day this sad and absurd waste of a critical natural resource may end but by then it will be far far too late.
Thomas Lilly. Whitehaven, Md
Sent from my iPhone

Begin forwarded message:

From: Tina Berger <tberger@asmfc.org>
Date: January 3, 2023 at 11:17:10 AM EST
Cc: Senior Staff <senior.staff@asmfc.org>
Subject: REMINDER: ASMFC 2023 Winter Meeting Preliminary Agenda, Public Comment Guidelines, and Meeting Details

FOR IMMEDIATE RELEASE, JANUARY 3, 2023
PRESS CONTACT, TINA BERGER, 703.842.0749

In case you missed it, below is the meeting announcement for the Commission's 2023 Winter Meeting. Attached is the preliminary agenda, hotel directions, revised travel authorization form, and reimbursement guidelines.

If you plan on attending in-person, the deadline for reservations is tomorrow, January 4.

Tina Berger
Director of Communications
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200A-N
Arlington, VA 22201

Atlantic States Marine Fisheries Commission

Spiny Dogfish Management Board

February 1, 2023
1:30 – 2:15 p.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(N. Meserve)*	1:30 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from January 2022	1:30 p.m.
3.	Public Comment	1:35 p.m.
4.	Set 2023/2024 Specifications **Final Action** • Review Monitoring Committee and Mid-Atlantic and New England Fishery Management Council's Recommendations for the 2023 Fishing Year *(J. Didden)*	1:45 p.m.
5.	Elect Vice-Chair **Action**	2:10 p.m.
6.	Other Business/Adjourn	2:15 p.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details.

MEETING OVERVIEW

February 1, 2023
1:30 – 2:15 p.m.
Hybrid Meeting

Chair: Nichola Meserve (MA) Assumed Chairmanship: 10/21	Technical Committee Chair: Scott Newlin (DE)	Law Enforcement Committee Representative: Baker (MA)
Vice-Chair: Vacant	Advisory Panel Chair: Vacant	Previous Board Meeting: January 25, 2022
Voting Members: ME, NH, MA, RI, CT, NY, NJ, DE, MD, VA, NC, NMFS (12 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from January 25, 2022

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time should use the webinar raise your hand function and the Board Chair will let you know when to speak. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance, the Board Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Set 2023/2024 Specifications (1:45-2:10 p.m.) Final Action

Background

- In October 2022, the Mid-Atlantic Fishery Management Council (MAFMC) set 2023 spiny dogfish specifications. The Council's Scientific and Statistical Committee (SSC) recommended an Acceptable Biological Catch (ABC) reduction from 17,498 metric tons (MT) to 7,788 MT, a 55.5% reduction. The SSC's rationale for the reduction included observations of declining trends in several indicators including survey abundance, catch per unit of effort (CPUE), pup production, and dogfish growth. After other sources of catches are accounted for (discards, recreational landings, and Canadian landings), the 2023 commercial quota (beginning May 1, 2023) would be 12.0 million pounds, a 59% reduction from 2022 **(Briefing Materials).**
- The MAFMC discussed that these specifications involve a higher risk of overages due to the lack of a management uncertainty buffer and uncertainty about expected discards, but industry input indicated they were willing to risk future paybacks because a 2023 quota below 12 million pounds could lead to the closure of the last remaining spiny dogfish processing facility.

- The New England Fishery Management Council (NEFMC) considered its spiny dogfish recommendations in December 2022 for this jointly-managed stock. The NEFMC voted to set the management uncertainty buffer to 0% for a 12-million-pound commercial quota.

  MAFMC motion passed:
  I move that the Council adopt a 0% management uncertainty buffer with the other specifications used by the Monitoring Committee to result in a 12-million-pound commercial quota.

  NEFMC motion passed:
  That the management uncertainty buffer be set to 0% and with the other specification used by the Monitoring Committee to result in a 12-million-pound commercial quota.

Presentations

- Review Monitoring Committee and Mid-Atlantic and New England Fishery Management Council's Recommendations for the 2023 Fishing Year by J. Didden

Board Actions for Consideration

- Set specifications for the 2023 fishing year

5. Elect Vice-Chair

6. Other Business/Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

SPINY DOGFISH MANAGEMENT BOARD

Webinar
January 25, 2022

These minutes are draft and subject to approval by the Spiny Dogfish Management Board.
The Board will review the minutes during its next meeting.

Draft Proceedings of the Spiny Dogfish Management Board Webinar
January 2022

TABLE OF CONTENTS

INDEX OF MOTIONS

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Cheri Patterson, NH (AA)
G. Ritchie White, NH (GA)
Nicola Meserve, MA, proxy for D. McKiernan (AA)
Raymond Kane, MA (GA)
Rep. Sarah Peake, MA (LA)
Conor McManus, RI, proxy for J. McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Matt Gates, CT, proxy for J. Davis (AA)
Rob LaFrance, CT, proxy for B. Hyatt (GA)
John Maniscalco, NY, proxy for J. Gilmore (AA)
Emerson Hasbrouck, NY (GA)
John McMurray, NY, proxy for Sen. Kaminsky (LA)
Joe Cimino, NJ (AA)
Peter Clarke, NJ, proxy for T. Fote (GA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Mike Luisi, MD, Administrative proxy
Russell Dize, MD (GA)
David Sikorski, MD, proxy for Del. Stein (LA)
Pat Geer, VA, Administrative proxy
Bryan Plumlee, VA (GA)
Shanna Madsen, VA proxy for Sen. Mason (LA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Cynthia Ferrio, NMFS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Staff

Robert Beal
Toni Kerns
Tina Berger
Kristen Anstead
Maya Drzewicki
James Boyle
Emilie Franke
Chris Jacobs
Jeff Kipp
Kirby Rootes-Murdy
Sarah Murray
Caitlin Starks
Deke Tompkins

Guests

Jeff Amorello
Pat Augustine, Coram, NY
Rick Bellavance
Alan Bianchi, NC DENR
Francis Blount
Jeff Brust, NJ DEP
Merry Camhi, WCS
John Clark, DE (AA)
Jesica Daher, NJ DEP
Dave Daly, DNE Consulting
Laura Deighan, NOAA
Jason Didden, MAFMC
Sarah Ferrara, MA, Leg. proxy
Cynthia Ferrio, NOAA
Anthony Friedrich, SGA
John Gans, TRCP
Marty Gary, PRFC
Lorena de la Garza, NC DENR
Lewis Gillingham. VMRC
Jim Gilmore, NY (AA)
Jay Hermsen, NOAA
Matthew Heyl, NJ DEP
Harry Hornick, MD DNR
Jesse Hornstein, NYS DEC
Bill Hyatt, CT (GA)
Jeff Kaelin, Lund's Fisheries
Kurt Karwacky
Jake LaBelle, WCS
Chip Lynch, NOAA
Jason McNamee, RI (AA)
Kim McKown, NYS DEC
Steve Meyers
Brandon Muffley, MAMFC
Allison Murphy, NOAA
Hannah Novotny, Whiteside
Adam Nowalsky, Port Republic, NJ
Jill Ramsey, VMRC
Kathy Rawls, NC (AA)
Tara Scott, NOAA
David Stormer, DE DFW
Craig Weedon, MD DNR
John Whiteside, Whiteside
Angel Wiley, MD DNR
Kate Wilke, TNC
Logan Williams
Steven Witthuhn
Chris Wright, NOAA
Erik Zlokovitz, MD DNR

The Spiny Dogfish Management Board of the Atlantic States Marine Fisheries Commission convened via webinar; Tuesday, January 25, 2022, and was called to order at 4:30 p.m. by Chair Nichola Meserve.

CALL TO ORDER

CHAIR NICHOLA MESERVE: Welcome all to the January 25, 2022 Spiny Dogfish Management Board meeting, which I'll call to order. My name is Nichola Meserve, I'm proxy for the Administrative Commissioner from Massachusetts, and I'm joined by staff lead, Kirby, here today. I want to thank Chris Batsavage, the outgoing Chair of the Spiny Dogfish Board, for his leadership the last two years.

APPROVAL OF AGENDA

CHAIR MESERVE: Move on to the agenda, we have the enviable position of the last meeting of the last meeting of the day. Are there any Board members that would like to make any changes or additions to the agenda? Not seeing any hands, so we will consider the Agenda for January 25 approved by consent.

APPROVAL OF PROCEEDINGS

CHAIR MESERVE: We also have the Proceedings from the Board's last meeting in October, 2021.

Do any Board members have revisions to the minutes from the October, 2021 meeting? Again, no hands, so we will also consider the minutes from October 2021 approved by consent. Regarding the agenda, I will just note that this is the agenda that was in the supplemental materials, as opposed to the main materials, which removed the election of a Vice-Chair, which will take place at the next Board meeting.

PUBLIC COMMENT

CHAIR MESERVE: Instead, we'll move on to Public Comment. This is for any items that are not on the agenda today. Members of the public can raise their hand, or if you're just on the phone, speak up. If you have any comment on items not on the agenda today.

CONSIDER POSTPONED MOTIONS FROM OCTOBER, 2021 MEETING

CHAIR MESERVE: Seeing no hands, we can move on to Item 4, which is to Consider the Postponed Motions from the October, 2021 Meeting. These revolve around the setting of the northern region state waters trip limits, and I'm going to turn to Kirby for a quick recap of the Board's considerations at the last meeting, and some of that background information. Go ahead, Kirby, when you're ready.

MR. KIRBY ROOTES-MURDY: As noted by Nichola, during the Board's last meeting in October, the Board was considering the action by the Mid-Atlantic Council, which had voted to increase the federal commercial trip limit from 6,000 pounds to 7,500 pounds. That change in the trip limit was in response to quota underutilization, as well as analysis that Mid-Atlantic Council staff had undertaken that had indicated that while increasing the trip limit may increase the landings, it would not negatively affect the resource, nor market price.

With that information in mind, the Board met and reviewed that action by the Mid-Atlantic Council. The other considerations this Board discussed were how the New England Fishery Management Council would act. As you all are aware, the species is jointly managed between the Mid-Atlantic and New England Fishery Management Council.

It was unclear if the New England Council was going to recommend the same motion that the Mid had recommended. The other concern was around the timing of this potential change. There had been some indication that the change in the trip limit in federal waters could be done sooner than for the fishing year 2022, which would start in May of this year.

Then the last was whether if there had been a difference between what the New England Council and the Mid had recommended, what NOAA would choose to implement if there was difference

between those two. Those were some of the main points. The Board, as many of you remember, moved to first consider a motion to set at least a 7,500-pound trip limit in the northern regions for the fishing year 2022, contingent on NOAA Fisheries adopting at least that level for federal wasters.

If at least a 7,500-pound trip limit is not approved in federal waters, then the 6,000-pound trip limit would remain in place. As you guys remember there was then a motion to substitute, and that motion read, to set the northern region trip limit in state waters for the fishing year 2022 equal to the trip limit in federal waters approved by NOAA Fisheries. Given back and forth discussion, the Board moved to postpone these motions following that meeting.

Today, I wanted to just note that after that meeting the New England Council voted to increase the commercial federal trip limit to 7,500 pounds, which is consistent with the Mid-Atlantic Council's recommendation. Additionally, for this Board's understanding, both bodies are supporting the pursuit of a framework adjustment to develop additional changes to the trip limit if warranted, pending the results of the research track assessment that should be completed later this summer.

For this afternoon the Board is to consider the postponed motions for adjusting the commercial trip limit in the northern region state waters for fishing year 2022. I'll just note that if needed, the postponed motions could be withdrawn with the majority support of the Board, as they are property of the Board now, and a new motion could be put forward. With that I'll take any questions, Madam Chair. Thanks.

CHAIR MESERVE: We'll look for questions for Kirby for the information he has presented. I'll start, I have one that would be directed towards NOAA Fisheries if Cynthia is here. I was hoping she could provide us any clarity on the timing of the Services proposed, or more importantly maybe the Final Rule, and what the effective date for the potential trip limit increase would be for federal waters. It may help us to understand whether our motions are adequate, or we might be better served with a new motion.

MS. CYNTHIA FERRIO: I'm here and can respond.

CHAIR MESERVE: Yes, that would be great. Thank you, Cynthia.

MS. FERRIO: Yes, we have the proposed rule based on the both Council's recommendations, almost ready to go. We're expecting publication of the proposed rule and subsequent comment period probably early mid-February, so expecting it very soon. As of right now, just the way things are shaking out, because we are doing it through the Federal Rule through the specifications action for the 2022 specifications.

It's basically projected to be effective for the start of the fishing year in May. But if folks think that it would be desirable to have an earlier effective time, for example upon publication of the Final Rule, which will likely be, I'm ball-parking, but probably with the proposal coming out in February, Final Rule will probably be late March, early April-ish, so you would gain maybe a couple weeks to a month at most. It would be effective upon publication.

If that is something you would like to shoot for, I would suggest participating in the public comment period when the proposed rule publishes, and requesting earlier effectiveness, rather than just the start of the fishing year. That is an option. But that is kind of where we are time wise, I can go further into that if there are further questions.

CHAIR MESERVE: Thank you, Cynthia, are there any other questions, either to Kirby's slides or to the timing of the Federal Rule? Okay, I'm not seeing any hands. I think at this point I would like to ask if Kirby or Maya could bring up the two postponed motions, as they are essentially brought back onto the table, and we can take them up.

That brings us to the substitute motion, is what is in play right now, which was to move to substitute to

set the northern region, Maine through Connecticut state waters trip limit for FY-2022 equal to the trip limit in federal waters approved by NOAA Fisheries.

Inherent in this motion is that the northern region limit would not be increased until May 1, provided that NOAA Fisheries finalizes the rule on time for that. Is there any Board discussion on that or desire to amend this motion, or we can always move to a vote on it if there is no discussion? Emerson Hasbrouck.

MR. EMERSON C. HASBROUCK: I'm a little unclear moving forward. If we were to support the substitute motion, that means that the increase in the trip limit would not go into effect until the Final Rule is implemented by NOAA. But if we support the main motion instead, states can go ahead and increase their trip limit as soon as they want to, or as soon as they are able to. Is my interpretation correct, or am I incorrect?

CHAIR MESERVE: Both the main motion and the substitute motion include FY-2022 in them, so my interpretation would be that we would be beholden to May 1 for the state waters trip limits to be changed, unless either of these motions are changed.

MR. HASBROUCK: Thank you.

CHAIR MESERVE: Are there any other thoughts on the motion? I think that it may help with the state's rulemaking process if we have a date certain. I know in Massachusetts we'll be gearing up to make a rule change, or already are gearing up to make a rule change. You know having the certainty of the May 1 date would be of some benefit to the state rulemaking process.

MR. ROOTES-MURDY: Okay, you've got a couple hands in the queue, it looks like, Chris Batsavage and then Ray Kane.

CHAIR MESERVE: All right, Chris, to you.

MR. CHRIS BATSAVAGE: Just trying to remember from the meeting back in October. I think it seems that the substitute motion is a little less prescriptive than the main motion, if it was the desire of the New England states to have a state waters trip limit that was the same as the federal waters trip limit.

Then in terms of whether to have this implemented on May 1 or sooner, I guess the question for the New England states, since this really applies to them, is there much benefit to having this before May 1, considering the availability of dogfish in state waters that time of year, versus maybe in the summertime when the fishery is a little more active.

CHAIR MESERVE: Thank you for that, Chris. Maybe there will be some other northern region states that will want to opine on that. But I'll turn to Ray Kane next.

MR. RAYMOND W. KANE: The way I'm reading these motions, we're dependent on NOAA Fisheries, and when will their rulemaking process be done, so that we in fact can start the season on May 1?

CHAIR MESERVE: Thank you for the question, Ray. Cynthia indicated that they can aim for May 1 for that effective date, or if there were comment from the states during the public comment process on the proposed rule, it's possible that it could be upon the publication of the Final Rule, which would be in late March to early April, potentially.

MR. KANE: Okay, well my concern is that moving to a 7,500-pound trip limit, that it does open on May 1, not being dependent on NOAA, because we know how things can get bogged down with NOAA.

CHAIR MESERVE: It doesn't sound like there is a concern that it would be after May 1, at this point, as Cynthia presented.

MR. KANE: Okay, thank you, Madam Chair. Also, wouldn't this be a coastwide trip limit, both the northern and southern region?

CHAIR MESERVE: No, just the northern region has a uniform maximum trip limit set by the ASMFC,

because they have a regional quota. The other states have their unique state-specific quotas, and set the trip limit as they see fit. Of course, when the ASMFC sets the northern region limit it's still the state's option whether or not to go up to that limit or not, or something more conservative.

MS. TONI KERNS: Nichola, I don't know if you're able to see, are you seeing the hands?

CHAIR MESERVE: I'm not seeing the hands, so why don't you go ahead, Toni.

MS. KERNS: Okay, you have Megan Ware, followed by Cheri Patterson.

CHAIR MESERVE: Thank you. Megan, go ahead.

MS. MEGAN WARE: Just to answer the question I think that Chris Batsavage posed to the northern states. My preference would be to start on May 1. I think it gives all states the same start date for this change, and it would create parity between state and federal waters for enforcement, so I see some advantages there.

CHAIR MESERVE: Okay, thank you, Megan, Cheri Patterson.

MS. CHERI PATTERSON: Thank you, Madam Chair. I agree with Megan. The northern region really does not harvest a lot between January and May 1, so I would prefer just to see some continuity occur between federal and state waters. Thanks.

CHAIR MESERVE: Okay, thank you, Cheri. I think that's what is achieved with the substitute motion. Are there any other hands, Toni?

MS. KERNS: I see no additional hands.

CHAIR MESERVE: I think we can turn to the substitute motion, if there is no desire to amend it. Do Board members need a moment to caucus on the substitute motion? If you do, please raise your hand.

MS. KERNS: I have no hands currently, still no hands.

CHAIR MESERVE: I will try this the easy way then, and ask if there is any opposition to the substitute motion.

MS. KERNS: I see no hands in opposition.

CHAIR MESERVE: Any abstentions?

MS. KERNS: No abstentions.

CHAIR MESERVE: Thank you, so we'll consider the motion to substitute approved unanimously, and that will become our main motion. We'll see if we can proceed in the same manner, with that as the main motion, to set the northern region, Maine through Connecticut state waters trip limit for FY-2022 equal to the trip limit in federal waters approved by NOAA Fisheries. Is there any opposition to the main motion?

MS. KERNS: Nichole, I don't know if he was wanting for opposition, but I didn't know if Ray Kane had a question. His hand did go up and went back down.

CHAIR MESERVE: Before we vote then, Ray, do you have a question?

MR. KANE: No, I see you moved that to the main motion, thank you very much. I was going to, never mind.

CHAIR MESERVE: Thanks, Ray.

MR. ROOTES-MURDY: just a point of clarity. I think given that it was substituted, it should now say move to set, as opposed to move to substitute to set, correct?

CHAIR MESERVE: Correct. This is now the main motion. I don't sense a need for caucus, given that it passed as a substitute, and is there any opposition to the motion?

MS. KERNS: I have no hands raised in opposition.

CHAIR MESERVE: Any abstentions to note?

MS. KERNS: No hands raised in abstention.

CHAIR MESERVE: Okay, thank you, Toni, we will consider the motion approved by unanimous consent. That concludes, I believe Item 4 on the agenda, Kirby.

MR. ROOTES-MURDY: Correct.

REVIEW AND POPULATE THE SPINY DOGFISH ADVISORY PANEL

CHAIR MESERVE: Okay, thank you, and we'll move to Number 5, and ask Tina Berger to present a nomination for the Spiny Dogfish Advisory Panel. Are you there, Tina?

MR. ROOTES-MURDY: Let's give her a second, if need be, we can get that up for you.

MS. KERNS: Kirby, why don't you just go ahead and get those names out there for the Board, if you have them.

MR. ROOTES-MURDY: Got it. Sure thing. There was one nomination sent forward, and that was for Captain Rick Bellavance, he's a commercial rod and reel fisherman, and charterboat captain from Rhode Island. His nomination was included in the briefing materials.

CHAIR MESERVE: Thank you, Kirby, is there a member of the Board that would like to make that motion?

MS. KERNS: We have Jason McNamee.

CHAIR MESERVE: And a second?

MS. KERNS: Matt Gates.

CHAIR MESERVE: Okay, thank you, Jason and Matt, is there any opposition to the motion to nominate Captain Rick Bellavance to the Spiny Dogfish Advisory Panel?

MS. KERNS: I don't see any hands in opposition.

CHAIR MESERVE: Great, we'll consider that approved by unanimous consent then as well. Congratulations to Rick.

OTHER BUSINESS

CHAIR MESERVE: That will bring us down to our last agenda item, which is Other Business, and I would just like to personally thank Kirby for his service, his dedication and professionalism, and attention to detail that he brings to all of his tasks as a Commission staff member, and we're going to miss him, and wish him well with his new position with USGS. Thank you, Kirby. Is there any other business to come before the Spiny Dogfish Board? I see Jason Didden's hand, why don't you go ahead, Jason?

MR. JASON DIDDEN: Hi there, thank you. I just wanted to highlight the Spiny Dogfish Research Track Assessment Working Group continues to meet, and is having a stakeholder workshop on February 15. It will be posted at least to the Mid-Atlantic Council's calendar. They're just looking to do outreach to fishery participants and interested parties about the approaches the assessment is taking, and get input from them. If people are interested, you will be able to find links to that soon, if not now on the Council's calendar, thank you.

CHAIR MESERVE: Thank you, Jason, for that important note. I'm sure the states can help advertise that as well as possible. Is there any other business to come before the Board today?

MS. KERNS: I don't see any other hands raised, Nichola.

ADJOURNMENT

CHAIR MESERVE: All right, thanks, Toni. Seeing none, is there a motion to adjourn? I see Ray's hand, and Cheri Patterson. Thank you, any opposition. Seeing none, the Board meeting is adjourned.

(Whereupon the meeting adjourned at 4:54 p.m. on Tuesday, January 25, 2022.)

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2023 Spiny Dogfish Specifications

December 2022 New England Fishery Management Council Meeting

Prepared by: Jason Didden, MAFMC Staff

2023 Spiny Dogfish Specifications

The briefing materials provided to the Mid-Atlantic Fishery Management Council (MAFMC) follow. In addition to those materials, the relevant motion passed by the MAFMC was:

I move that the Council adopt a 0% management uncertainty buffer with the other specifications used by the Monitoring Committee to result in a 12-million-pound commercial quota. (18/0/1)

This motion adopts the following specifications (which differs from the Committee motion):

	2023	
Specifications	mil pounds	metric tons
OFL (from SSC)	na	na
ABC (from SSC)	17.2	7,788
Canadian Landings	0.1	37
Domestic ABC	17.1	7,751
ACL = ABC	17.1	7,751
Mgmt Uncert Buffer	0%	0%
Amount of buffer	0	0
ACT (minus buffer)	17.1	7,751
U.S. Discards	4.6	2,088
TAL (minus discards)	12.5	5,663
U.S. Rec Landings	0.5	214
Com Quota (Minus Rec)	12.0	5,449
Rationale for Management Uncertainty Buffer	No buffer: other buffers effectively built in; concern that further reduced quota will collapse infrastructure.	

The MAFMC's Scientific and Statistical Committee (SSC) report was in a different section of the MAFMC's October 2022 briefing book, but can be found here: https://www.mafmc.org/ssc-meetings/2022/sept13-14. Several related background materials can also be accessed at that SSC meeting webpage.

The MAFMC also received several public comments prior to its October 2022 meeting, which can be viewed at: https://www.mafmc.org/s/Dogfish-Supplemental-Coms.pdf.

The peer review for the spiny dogfish research track assessment takes place in December 2022. Preliminary indications suggest that the stock has been in decline and has been less productive recently, as noted in the assessment working group's report.

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MEMORANDUM

Date: September 22, 2022

To: Council

From: Jason Didden, Council staff

Subject: 2023 Spiny Dogfish Specifications

Please find attached the following documents to support Council action regarding 2023 spiny dogfish specifications:

Spiny Dogfish Committee Meeting Summary (with Committee recommendation motion)

Spiny Dogfish Staff Memo to the Committee with staff recommendation

Spiny Dogfish Monitoring Committee Summary

Scientific and Statistical Report (see Committee Reports Tab)

Staff Acceptable Biological Catch (ABC) Memo

Advisory Panel (AP) Fishery Performance Report

Fishery Information Document

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Spiny Dogfish Committee Meeting Summary

September 20, 2022
Webinar

The Spiny Dogfish Committee ("the Committee" hereafter) met on September 16, 2022 to develop recommendations regarding 2023 spiny dogfish specifications. The Committee is primarily made up of members of the Mid-Atlantic Fishery Management Council (MAFMC) and the New England Fishery Management Council (NEFMC) for this jointly-managed species (NMFS and the ASMFC also have one seat each).

Committee Attendees: Sonny Gwin (chair), Nichola Meserve (vice-chair), Daniel Salerno, Dan Farnham, Mark Alexander, Dewey Hemilright, David Stormer, Chris Batsavage, Jay Hermsen, Skip Feller, and Rick Bellavance (11/14 with a 15th vacant from NEFMC)

Other Attendees: Jason Didden, Scott MacDonald, John Whiteside, Cynthia Ferrio, Mark Sanford, Caitlin Starks, Albert Didden, James Fletcher, Hannah Novotny, and Kris Winiarski

Staff reviewed the recommendations of staff, the Monitoring Committee, and the Scientific and Statistical Committee (SSC), as well as input from the Advisory Panel. Several questions were asked by the Committee or public including:

What is the precision of the recreational landings? Staff: MRIP Coastwide Proportional Standard Errors (PSEs) 2018-2021 ranged from about 34%-50% (i.e. not very precise for a coastwide estimate).

What research is addressing how spiny dogfish biomass may have shifted or day/night differences? Staff: The assessment is evaluating using vector autoregressive spatio-temporal (VAST) models to standardize the survey information. Not every possible factor can be considered, but a variety is being analyzed.

There was a clarification that with spiny dogfish, stock status is not a factor for Annual Catch Limit (ACL) overage paybacks. There is always a pound for pound payback of U.S. ACL overages. We account for Canada in the specifications as a good-faith effort, but under-specifying Canadian landings will not lead to U.S. paybacks. The only in-season controlled component of catch is the federal commercial landings quota. Discards and recreational landings are tallied after the fishing year. Staff clarified that there are no federally-based state allocations and that the ASMFC would likely need an Addendum to change or eliminate the state quotas.

There was a question about the location of observed fishery spiny dogfish catch (staff analysis) outside of the NMFS survey strata. Preliminary qualitative analysis suggests most of the relevant observer data is within the NMFS survey strata area.

There was a clarification that with spiny dogfish, management uncertainty buffers have not been used recently because the catch has been substantially below the ACLs in most years.

Could the recent use of gear that sheds spiny dogfish be responsible for the more recent decline in spiny dogfish catch rates (rather than a decline in spiny dogfish abundance)? Staff: That's possible, one could potentially examine or remove those gear types from future similar analyses. There are many potentially confounding factors that are not accounted for in the exploratory observer data analysis conducted by staff.

There was a question what preliminary information was available from the assessment pointing toward lower productivity. Staff relayed it was tied to aging work, but the assessment work group was still analyzing data. In the survey, it also appears that 95+ cm females never fully recovered, so growth reduction may be tied to not having as many of the largest females in the stock as earlier.

Public Comments:

John Whiteside: The apparent catastrophic drops in survey biomass should not be included and each step of this process has huge buffers already built in. Relying on the survey since 2016 is misplaced given the poor survey performance since then in terms of completing scheduled tows at the standard time of year. To reduce to a 12-million-pound quota is the bare minimum industry needs to hang on. If set at 12-million we won't land that much because of the state quotas, like in 2019, and this creates a large buffer. At the substitute motion (that ultimately passed) the industry will likely land less than 10-million pounds (due to state allocations). There's a real risk that below a 12-million-pound quota, the last processor will exit, and then everyone who went along with this will be responsible for the ecological disaster from dogfish predating on all other species.

Scott McDonald: What John said, plus: We've had people buying boats/permits based on the very recent trip limit increase to 7,500 pounds. There's outrage throughout the fishing community because we still don't believe the science. What time of year is the survey fishing off of Virginia? Can we double check it? I can have two vessels next to each other catch totally differently based on experience and how gear is hung. How do we know they can catch fish? We don't believe they are fishing in the right areas. Distributions are changing – we're going to new areas but the survey is fishing in the same footprint. At the Virginia quota, we'll be finished before Christmas, no one is coming down for that. Even best case I see us collapsing in Virginia. We really need this quota around 15 million pounds to save the industry – with that we might reach 12 million in actual landings. At this rate, myself, and all the vessels I've been packing out for the last 30 years are all going to be out of business. I was told in 1999 at a meeting that spiny dogfish would never be rebuilt in my lifetime, and then 10-11 years later they were begging us to catch them and the stock was off the charts so there's something different going on besides the trawl indices, "science," and what's going on out on the water.

The Committee passed the following motion:

I move to recommend to the Council to use a 5% management uncertainty buffer with the other specifications used by the Monitoring Committee to result in an 11.2-million-pound commercial quota.

7/3/1

The rationale for this approach included that given the uncertainty in discards, and the threat of substantial 2025 re-payments due to potential 2023 overages of the ACL, some management uncertainty buffer appears warranted. The 5% buffer balances the potential re-payment issue with 2023 industry viability, considering there will be some additional buffering since landings will probably come in under any quota given the state allocation issues previously discussed. Chris Batsavage indicated that with the recent history of landings, North Carolina may be able to transfer quota faster than in preceding years.

The above-passed motion was a substitute for this original motion:

I move to recommend to the Councils that a 0% management uncertainty buffer be used with the other specifications used by the Monitoring Committee to result in a 12.0-million-pound commercial quota. (The substitute for this passed by a vote of 6/4/1)

The rationales for the original motion were primarily that the result will be a disaster otherwise and we need to keep in mind the damage potentially caused from an out-of-control dogfish population. It was also noted that the states need to more flexibly transfer quota given the current circumstances, and they won't be able to transfer so efficiently as to land 12 million pounds. Also, the industry appears well aware of the risk of paybacks in 2025, but appears to need a 12-million-pound quota to just stay viable for another year.

Note: there was a request that before the Council meeting, staff provide information on how landings occur among the states through a year. Staff will attempt to provide relevant information, but may be constrained by data confidentiality issues.

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MEMORANDUM

Date: September 19, 2022

To: Spiny Dogfish Committee

From: Jason Didden, Council staff

Subject: Spiny Dogfish Specifications

A Spiny Dogfish Monitoring Committee (MC) meeting summary follows this cover memo. The MC summary provides several options for management uncertainty buffers as part of the 2023 specifications. The primary source of catch uncertainty is the level of 2023 discards.

The management uncertainty buffers address whether the fishery might exceed its Annual Catch Limit (ACL). Exceeding the ACL could negatively impact the stock and 2023 overages would most likely be repaid in 2025. The preliminary signals coming out of the ongoing research track assessment suggest to staff that 2025 catch limits will not likely be higher to absorb overage repayments.

Staff weighed the concerns regarding negatively impacting the spiny dogfish stock and/or the 2025 fishery. Industry members on the MC indicated that 2023 quotas lower than 12 million pounds may mean that there will be no remaining fishery infrastructure to even worry about affecting in 2025.

Given the considerable uncertainty in the discard specification for 2023 and the input from industry, staff recommends a 5% uncertainty buffer as described in the MC summary. If assessment developments warrant additional concern in late 2022 upon conclusion of the research track assessment, or in mid-2023 after the management track assessment, the Council could request emergency action at that time if deemed appropriate.

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Spiny Dogfish Monitoring Committee Meeting (MC) Summary

September 16, 2022
Webinar

The Mid-Atlantic Fishery Management Council's (Council) Spiny Dogfish Monitoring Committee (MC) met on September 16, 2022 to develop recommendations regarding 2023 spiny dogfish specifications.

Monitoring Committee Attendees: Jason Didden, Cynthia Ferrio, Nichola Meserve, Dvora Hart, John Whiteside, Scott MacDonald, and Chris Kellogg (left early) (7 of 10).

Other Attendees: Mark Alexander, Daniel Salerno, Jesse Hornstein, Kris Winiarski, and James Fletcher.

Staff reviewed the binding 2023 spiny dogfish Acceptable Biological Catch (ABC) recommendation from the Council's Scientific and Statistical Committee (SSC): 7,788 MT. Noting the uncertainty and challenge of setting ABCs without assessments, the SSC used the approximately 40% decline from the 2016/17/18 Northeast Fisheries Science Center spring trawl survey index average to the subsequent 2021/2022 average (no survey in 2020 due to COVID) to scale what would have been the 2019 ABC under the current risk policy [12,978 metric tons (MT)] down to a 2023 ABC of 7,788 MT. A 40% decline over the survey years' midpoints equates to about an 11% decline in the stock each year over this 4.5-year period.

A research track assessment is scheduled for peer review for December 2022 with a management track assessment scheduled for 2023 to determine stock status and future ABCs. The preliminary indications of the assessment suggest the stock has been in decline and has been less productive recently. While the MC noted this preliminary information as background, the MC also voiced caution regarding basing decisions on preliminary assessment outputs.

The current charge of the MC is to make appropriately justified recommendations on measures that ensure that the annual catch limit (ACL) is not exceeded, i.e., to address management uncertainty (not the scientific uncertainty addressed by the SSC). Staff noted the only way to completely ensure no ACL overages would be to essentially close the fishery, but the general approach has been to recommend measures that seem reasonably likely to adhere to the ACL, and to explain the potential risks of overages. Besides potential harm to the stock, a key risk of exceeding the ACL is that overages trigger paybacks. Any 2023 overages are likely to be deducted from the 2025 fishery's ACL. If ABCs are higher in 2025 than 2023, paybacks have less impact. However, if ABCs are even lower in 2025, paybacks have even more impact. The management uncertainty buffer provides more assurance that the ACL is not exceeded, or at least not exceeded by as much as would occur without some buffer.

Given recent trends, the MC agreed that setting aside 37 MT for Canadian landings (= 2019 estimate) and 214 MT for U.S. recreational landings (= 2021 estimate) should be sufficient.

Canadian landings have been low since 2009. Based on the last 20 years of U.S. recreational landings, occasional landings above 200 MT are usually followed by similar or lower landings two years later (i.e. 2021 to 2023) and recreational landings have usually been lower than 200 MT. Setting aside 214 MT for 2023 recreational landings will likely provide some inherent buffering, as opposed to the three-year (2019–2021) average of 129 MT as was discussed as a possible alternative.

Discussion then turned to an appropriate amount to set aside for discards, the primary specification that could lead to overages. Staff noted analyses done for the SSC that indicated annual *trawl **fishery** spiny dogfish observed catch rates* (i.e., observer data of trawl fishing) seem to closely track the NEFSC spring index (https://www.mafmc.org/s/Spiny-dogfish-trawl-observer-data-analysis.pdf). Exploratory trawl catch per unit of effort (CPUE) analyses for the research track assessment also align with the staff analysis, and suggest further catch rate declines after 2019 into 2021. (The staff analyses stop in 2019 due to COVID-related issues with the observer program, but the CPUE analyses for the assessment also integrate study fleet data which were not as impacted by COVID.) With most dead discards occurring incidentally in trawl fisheries in recent years, these lines of evidence suggested to staff that if spiny dogfish biomass is actually declining, discards should also go down. The 2016-2018 dead discard average equaled 3,479 MT. Reducing that amount by the same 40% as the SSC used results in a 2023 discard set aside of 2,088 MT. The MC settled on 2,088 MT of discards for 2023 being a reasonable approach, though also discussed a proposal by John Whiteside that would have scaled discards down more, to 1,816 MT based in the 55.5% reduction between the 2022 and 2023 ABCs. Part of obtaining consensus on this discard set-aside was noting that other approaches could have resulted in lower discard set-asides, potentially creating some buffering via the agreed-upon discard set-aside, which some MC members noted should be considered in discussion of a management uncertainty buffer. While this approach seems reasonable given the available information, 2,088 MT involves substantial uncertainty and would be less discards than estimated for any time in the time series being considered in the current research track assessment (1989-2019). A management uncertainty buffer, discussed next, could guard against this discard projection uncertainty causing an ACL overage if realized discards are higher.

Regarding an appropriate management uncertainty buffer, the primary concern communicated by staff is that if the fishery catches its quota and the recreational landings projection is accurate, then any underestimate of discards is likely to force paybacks in 2025. For example, if 2,088 MT are set aside for discards without any management uncertainty buffer and 4,088 MT ends up as the 2023 discard estimate, then 2,000 MT (4.4 million pounds) would have to be paid back in 2025 (assuming the other catches occur as predicted). If the base quota in 2025 is even lower than 2023, then any paybacks may be even more impactful.

The ex-officio industry MC members recommended no management uncertainty buffer because the ABC is already accounting for substantial precaution and quotas lower than 12 million pounds would threaten the survival of the last remaining processor, the survival of the industry, and related infrastructure. They indicated the fishery is already hanging on by a thread. While the danger of paybacks in 2025 was acknowledged, the focus was on allowing the industry to survive at least through the 2023 fishing year. It was also noted that state/regional allocations/quotas will cause logistical challenges for fully landing a 12-million-pound (or similarly low) quota because of the needed contortions for interstate transfers and states'

hesitancy to transfer quota early in the fishing year. For example, the fishery was constrained by state quotas in 2019 and ended up about 1.4 million pounds below the coastwide quota largely due to transfer challenges according to the industry MC members. It was also noted that while some increase in vessel interest is beginning due to the higher 7,500-pound trip limit (as of May 1, 2022), in Virginia a substantial component of relevant fleet travels there for fishing, and they won't be convinced to travel for a small quota. Overall, the industry MC members concluded these issues will create enough of a *de facto* buffer against any uncertainty in discards and that the imminent risk to the fishery from quotas below 12 million justifies accepting some possible risk for 2025 paybacks (otherwise there won't be a fishery around to worry about in 2025).

Other MC members (i.e., not John Whiteside or Scott McDonald) focused on the risk of under-estimating 2023 discards and causing paybacks in 2025. Staff noted that buffering by 18% (holding back about the amount of the proposed discard reduction from the 2016-2018 average) would likely mitigate the potential for at least large paybacks. However, the MC concluded that, if the approaches justifying a lower presumed 2023 discard value are reasonable, it doesn't seem appropriate to then just set the same amount aside as a buffer. The issue is really "now risk" versus "later risk" and depends on the Councils' risk tolerances. The MC struggled with a particular amount to recommend given all the various factors, including immediate survival of the industry, the relatively high amount set aside for recreational landings, and the state apportionment and transfer issue described above.

The MC could not come up with a particular recommendation, but agreed that discards are the key source of uncertainty in terms of risk of exceeding the ACL in 2023 and triggering paybacks. It was noted that a 13% buffer would create about 1,000 MT (2.2 million pounds) of buffer, which would cover about a 50% higher realized discard estimate for 2023. The MC also noted that a 5% buffer would be nearly a million pounds, and if a similar landings quota underage as 2019 occurred (1.4 million pounds), the combined effects would be roughly equivalent to a 13% uncertainty buffer scenario (if all landings occurred with the 13% scenario). See Table 1 below for the 2023 specifications resulting from the range of management uncertainty buffers discussed (0%, 5%, 13%, and 18%).

The MC did not delve into the trip limit issue, but noted that the Councils have been planning for a potential action to consider trip limit modifications once the assessment results are available.

The MC also noted that potential gear restriction actions related to mitigating risks for protected resources (e.g., sturgeon) are likely for 2023, and warrant tracking by interested parties.

Table 1. 2023 Specification Options with Different Management Uncertainty Buffers

	2023		2023		2023		2023	
Specifications	mil pounds	metric tons	mil pounds	metric tons	mil pounds	metric tons	mil pounds	metric tons
OFL (from SSC)	na	na	na	na	na	na	na	na
ABC (from SSC)	17.2	7,788	17.2	7,788	17.2	7,788	17.2	7,788
Canadian Landings	0.1	37	0.1	37	0.1	37	0.1	37
Domestic ABC	17.1	7,751	17.1	7,751	17.1	7,751	17.1	7,751
ACL = ABC	17.1	7,751	17.1	7,751	17.1	7,751	17.1	7,751
Mgmt Uncert Buffer	0%	0%	5%	5%	13%	13%	18%	18%
Amount of buffer	0	0	0.9	388	2.2	1,008	3.1	1,395
ACT (minus buffer)	17.1	7,751	16.2	7,363	14.9	6,743	14.0	6,356
U.S. Discards	4.6	2,088	4.6	2,088	4.6	2,088	4.6	2,088
TAL (minus discards)	12.5	5,663	11.6	5,275	10.3	4,655	9.4	4,268
U.S. Rec Landings	0.5	214	0.5	214	0.5	214	0.5	214
Com Quota (Minus Rec)	12.0	5,449	11.2	5,061	9.8	4,441	8.9	4,054
Rationale for Management Uncertainty Buffer	No buffer: other buffers effectively built in; concern that further reduced quota will collapse infrastructure.		Some explicit buffer included (discard uncertainty primary concern); other factors will limit landings below the specified quota.		A 13% buffer could absorb a realized 2023 discard estimate that is 50% higher than specified even if other specified catches occur.		An 18% buffer fully offsets the reduction in specified discards; least likely to result in large 2023 overages and large 2025 paybacks if discards don't decrease as predicted.	

Public comments

J. Fletcher: The real issue is the collection of the science or entering of the data and using bad data to set the ABC. Staff noted that one of two scenarios must be true given the quotas have not been exceeded: either the science is wrong now, or the science was wrong in recent years when those quotas were set.

D Salerno: While we may see higher discard rates than projected, effort and trawl landings may be reduced.

See Committee Reports Tab for SSC Spiny Dogfish ABC Recommendations (click to link)

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Mid-Atlantic Fishery Management Council
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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 2, 2022

To: Chris Moore, Executive Director

From: Jason Didden, staff

Subject: 2023 Spiny Dogfish Acceptable Biological Catch (ABC)

Executive Summary

In 2018 spiny dogfish was neither overfished nor experiencing overfishing, and estimated to be at 67% of its biomass target. The 2022 data point for female spawners, which is the driver for spawning stock biomass in the last assessment, is the lowest in the time series.

The Spiny Dogfish Research Track Assessment Peer Review has been delayed until late 2022, so the current plan is to set 1-year (2023) specifications. A Management Track Assessment is expected in 2023.

The 2021 fishing year continued a declining landings trend. However, 2022 fishing year landings to date appear similar to 2021. This memo uses updated landings information from the new Catch Accounting and Monitoring System (CAMS) which indicates higher (6%-13% annually) landings than previously estimated.

The Mid-Atlantic Fishery Management Council (MAFMC) will meet in October 2022 to review the recommendations of the AP, the SSC, the Monitoring Committee, and input from the public. The Council will then recommend catch and landings limits and other management measures for the 2023 fishing year. The New England Fishery Management Council (NEFMC) will take similar action in December 2022.

Staff recommends a 2023 ABC of 8,284 MT (18.3 million pounds), which would likely result in a U.S. commercial quota of 4,785 MT (10.5 million pounds) after accounting for other sources of mortality.

Current Measures and Review of Prior SSC Recommendations

The last setting of spiny dogfish specifications occurred in 2020 for the 2021 and 2022 fishing years. The resulting 17,498 MT (38.6 million pounds) ABC and 13,408 MT (29.6-million pounds) quota was a result of the then current assessment and the Council's risk policy, which is designed to avoid overfishing and achieve optimum yield. Once the coastwide quota is caught, federal waters are closed for possession of spiny dogfish. If the Annual Catch Limit (ACL) is exceeded, overages are deducted as soon as possible from the ACL for a subsequent fishing year. In 2021 the Councils (MAFMC and NEFMC) voted to increase the trip limit for spiny dogfish to 7,500 pounds, which was implemented for the 2022 fishing year.

Recent Catch and Landings

Recent landings peaked in 2012 and declined to about 5,175 MT (11.4 million pounds) in 2021 These updated landings numbers are outputs of the new CAMS database that accounts for "orphan VTRs" that don't appear in traditional dealer landings totals. The Fishery Performance Report documents industry perspectives on why recent landings have been low relative to quotas, including market constraints and other fishing opportunities.

Stock Status and Biological Reference Points

In 2018 spiny dogfish was neither overfished nor experiencing overfishing, and at 67% of its biomass target. A research track assessment is underway. There are some preliminary indications that stock productivity may have been overestimated in previous assessments and the 2022 data point for female spawners, which is the driver for spawning stock biomass in the last assessment, is the lowest in the time series.

Staff Recommendation

Given the date of the last assessment and the uncertainty about the outcome of the current research track assessment, staff notes the Council's risk policy amendment advises more precautionary ABCs as assessment uncertainty increases.

Staff observes that as the fishery re-established in 2006-2010, the survey biomass trend was relatively stable (Figure 1, 2022 Fishery Information Document). CAMS landings over this period averaged 4,785 MT (10.5 million pounds), about 7.5% less than 2021 landings of 5,175 MT (11.4 million pounds). Based on the current uncertainty with the ongoing assessment and declining trawl index trends, an ABC resulting in 4,785 MT of landings appears to be a reasonable recommendation at this time. After accounting for other sources of mortality, the associated ABC would be 8,284 MT (18.3 million pounds). Other sources of mortality include U.S. discards, recreational harvest, and Canadian landings.[1] If the upcoming assessment indicates the initial 2023 ABC is substantially too high or too low, an in-season action could be considered.

Staff concluded that this "reverse engineering" approach is more appropriate than starting with average total dead realized catch over 2006-2010. With discards and Canadian landings both lower recently, if one starts with the 2006-2010 total catches there would not likely be any constraint on U.S. landings in 2023 after the various deductions for quota determinations are made. Some precautionary constraint on landings appears warranted to staff at this time, which would be achieved by the recommended ABC.

[1] 2017-2019 data were examined due to discard availability for that time period. 2017-2019 U.S. dead discards averaged 3,368 MT (range 2,829-3,786 MT). 2017-2019 Canadian landings averaged 45 MT. 2017-2019 recreational harvest averaged 86 MT.

Spiny Dogfish
AP Fishery Performance Report
July 2022

The Mid-Atlantic Fishery Management Council's (Council) Spiny Dogfish Advisory Panel (AP) met via webinar on July 28, 2022 to review the Spiny Dogfish Fishery Information Document and develop the following Fishery Performance Report. The primary purpose of this report is to contextualize catch histories for the Scientific and Statistical Committee (SSC) by providing information about fishing effort, market trends, environmental changes, and other factors. Trigger questions (see below) were posed to the AP to generate discussion of observations in the spiny dogfish fishery. Advisor comments described below are not necessarily consensus or majority statements.

Advisory Panel members attending: James Fletcher, Scott MacDonald, Roger Rulifson, John Whiteside, Sonja Fordham, Kevin Wark, Mark Sanford, Chris Rainone, Sam Martin, Jeremy Hancher
Others attending: Jason Didden, Chris Batsavage, Cynthia Ferrio, Sonny Gwin, Lewis Gillingham, Mark Alexander, Yan Jiao, Geret DePiper, Daniel Salerno, Caitlin Starks, Angel Willey, Willow Patten, Chris Kellogg, Alan Bianchi, Hannah Novotny

Trigger questions:

The AP was presented with the following trigger questions:

1. What factors have influenced recent catch (markets/economy, environment, regulations, other factors)?
2. Are the current fishery regulations appropriate? How could they be improved?
3. What would you recommend as research priorities?
4. What else is important for the Council to know?

Market/Economic Conditions

Critically increased fuel costs and relatively low dogfish availability to some ports have combined to keep 2022 calendar year landings low.

COVID-19 did not have a large impact on this fishery. Similar market issues persist as with previous years – demand has been low but stable recently – market could support more landings than in most recent year if participation/production at the vessel level increases.

Changing the name to Chip Fish would help with marketing/exports. We could sell these in the U.S. if we could change the name (like snakehead). No advisors were opposed but practical challenges were highlighted.

There are no Southern processors – they were “burnt” by previous management and won’t get

back in without quota stability on a decadal timeframe. They would need to know that the quota won't go down for 5-10 years. Southern fishermen have to ship to MA.

Previous reports have noted not having a processor also depresses NY landings.

Developing industrial markets, be it fertilizer, processed export, or pharmaceutical (livers), requires a higher trip limit for trawlers. Expanding use of liver components could increase overall value – several outreach efforts have occurred to pharmaceutical companies with no interest expressed back. Could help develop a market for male dogfish.

Regarding the fin market – there are self-imposed bans by cargo lines that prohibit fin transport even from sustainable sources (i.e. this is beyond our control).

Better opportunities in other fisheries reduce spiny dogfish effort. For example, in Virginia, fishermen have calculated that oysters and shrimp are better opportunities.

Cornell has continued efforts to expand domestic consumption of spiny dogfish and other undervalued/underutilized/lesser-known species through chefs' sampler events, underserved communities/foodbanks, etc. See https://www.localfish.org/.

Public Input

Lack of crew has hampered trips in the Gulf of Maine. The Portland Fish Exchange was allowing spiny dogfish landings to try to build market but hasn't been super successful to date.

Environmental Conditions

Environmental conditions are always a factor in terms of dogfish distribution and availability to fishermen.

In VA, early 2022 weather was a neutral factor considering a span of years (neither great nor horrible weather).

Condition of NC inlets makes it very difficult to get product into NC. NC trawl fishermen can't land spiny dogfish in VA due to state regulations. Fish houses continue to go out of business due to low seafood supply.

In NJ/Viking Village, spiny dogfish keep showing up well in the fall. In spring 2022, very poor weather off NJ contributed to very low spring participation (plus greying of the fleet/participants).

Management Issues

Regulations (especially the trip limit) do not allow a male fishery. State regulations do not allow new fishermen to participate. The current regulations are geared to keep price up and production limited and do not allow industrial production.

Raising the trip limit to 10,000 pounds could entice more vessels to participate and allow higher landings once dogfish are located. Vessels won't immediately all land 10,000 pounds but helps with flexibility. More important now with fuel prices and just one fish house left – if we lose the last buyer, what will we do with these fish?

Biomass trends raise the question of whether management is restrictive enough and suggests that management is insufficiently restrictive. The SSC should consider interim advice for current fishing year given trends.

Other Issues

Given the lack of an off-shelf survey and vertical water column usage by dogfish, we don't really know the population size. See Carlson AE, Hoffmayer ER, Tribuzio CA, Sulikowski JA (2014) The Use of Satellite Tags to Redefine Movement Patterns of Spiny Dogfish (Squalus acanthias) along the U.S. East Coast: Implications for Fisheries Management. PLoS ONE 9(7): e103384. https://doi.org/10.1371/journal.pone.0103384. Also see Garry Wright's thesis that concluded that the NEFSC trawl survey is not accurately representing spiny dogfish biomass.

Allowing dogfish populations to increase has hurt all other fish populations. We need calculations regarding consumption by dogfish of other fish.

You should note the continual nature of embryo development/pupping in the general biological information section.

Bigelow performance issues are doing a disservice to all the fisheries and fishermen. The repeated failure of the Bigelow since 2014 to complete its mission in terms of not fishing at a consistent time and not achieving planned stations eliminates our ability to have good information about spiny dogfish abundance given the dependence on the survey for spiny dogfish. This compounds uncertainty concerns and the Bigelow performance degrades the credibility of the resulting information (individual years and interpreting the time series). We have 2/9 years of full surveys in recent years. This affects all species' management. The Council should call in NEFSC maritime operations manager to account for Bigelow performance.

There is concern whether the NEFSC is continuing wire/net measurements to ensure survey consistency. The timing of the survey is critical for spiny dogfish due to the observed migration patterns and not sampling the same areas consistently reduces the meaningfulness of the resulting data.

High fuel costs adds to trucking costs, which is a substantial issue for this fishery given the processing situation.

Research Priorities

To add fishery value, we should research the value and production of squalamine in spiny dogfish livers for medical use.

The assessment needs to account for the continual pup production observed in females, which is primarily affected by food availability/consumption.

We should conduct research into the purposes of the horn/spine – is it offensive (weakening potential prey), or defensive?

Off the shelf sampling needs to occur to understand biomass. Why can't Bigelow do some deeper sampling? Could we send a drone to monitor?

East Carolina Univ has tagged 43,000 + spiny dogfish – trying to get graduate student to publish. Appears to be an availability gap from years 2-8/10 where if not caught in first few years fish are not caught for a number of years but then eventually show back up in commercial catches.

Updated bycatch mortality information could help us understand biomass trends.

Could there be electromagnetic energy being transferred to the trawl affecting survey catches?

Why are people opting out of this fishery? Greying of the fleet? Costs? Other fisheries? We need to understand the vast drop in participation and what is projected for future trends.

Loss of fish houses is a coast-wide issue – and the loss of infrastructure needs to be addressed to maintain a healthy fishery.

Spiny dogfish fishing could have an environmental justice component as a relatively low-priced seafood.

Spiny Dogfish Fishery Information Document

July 2022

This Fishery Information Document provides an overview of the biology, stock condition, management system, and fishery performance for spiny dogfish (*Squalus acanthias*) with an emphasis on recent data. Data sources for Fishery Information Documents are generally from unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and should be considered preliminary. Due to various database issues, 2022 landings data are less certain than would be the case in most years. For more resources, including previous Fishery Information Documents, please visit http://www.mafmc.org/dogfish.

Key Facts

- The 2021 fishing year continued the recent declining landings trend. 2021 fishing year landings were about 10.1 million pounds; 2020 fishing year landings were about 12.8 million pounds.
- The current 2022 fishing year quota is 29.6 million pounds (same as previous year).
- The Spiny Dogfish Research Track Assessment Peer Review has been delayed until later in the year, so the current plan is to set 1-year (2023) specifications.
- Updates of the spring trawl survey results and pup index through 2022 are included. The 2022 data point for female spawners is the lowest in the time series.
- Staff has concerns about this stock, including whether the ongoing assessment may find the stock was previously estimated to be overly productive, and whether the stock may be overfished.

Basic Biology

Spiny dogfish is the most abundant shark in the western north Atlantic and ranges from Labrador to Florida, being most abundant from Nova Scotia to Cape Hatteras, North Carolina. Migrations are believed to primarily occur in response to changes in water temperature. Spiny dogfish have a long life, late maturation, a long gestation period, and relatively low fecundity, making them generally vulnerable to depletion. Fish, squid, and ctenophores dominate the stomach contents of spiny dogfish collected during the Northeast Fisheries Science Center (NEFSC) bottom trawl surveys, but spiny dogfish are opportunistic and have been found to consume a wide variety of prey. More detailed life history information can be found in the essential fish habitat (EFH) source document for spiny dogfish at: https://www.fisheries.noaa.gov/region/new-england-mid-atlantic#science. [1]

Status of the Stock

Based on the current biomass reference point and an assessment update considering data through spring of 2018[2] (available at http://www.mafmc.org/ssc-meetings/2018/sept-11), the spiny dogfish stock is not overfished or experiencing overfishing. The 2018 biomass was 67% of the target. Fishing mortality in 2017, the most recent year available, was 83% of the overfishing threshold. A research track assessment has begun and is scheduled for review in late 2022. NEFSC staff provided updated NEFSC spring trawl data (the chief determinant of biomass in the assessment) through 2022. See Figures 1/2 (female spawning stock biomass/pup indices). The two vertical blue lines align the shared 1982-2022 years in the two figures below.

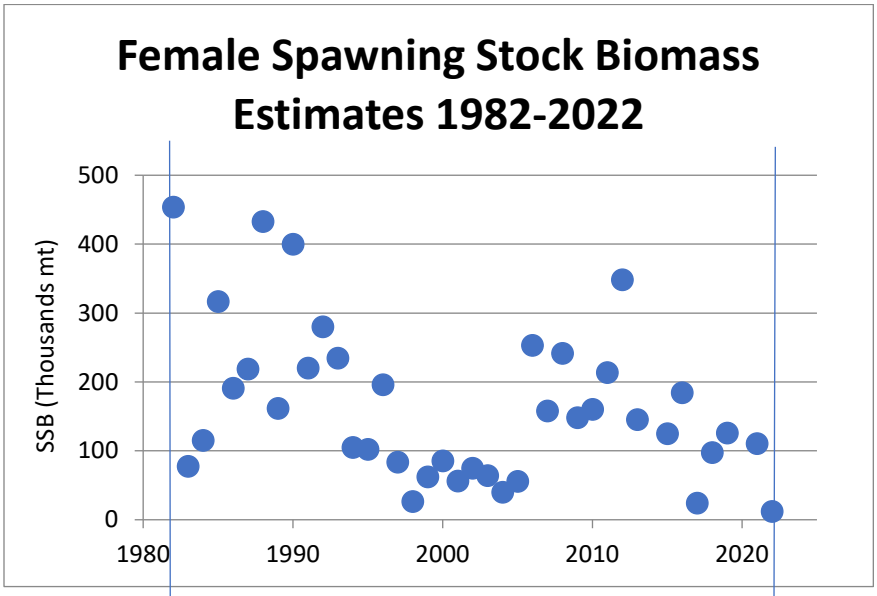

Figure 1. Female Spawning Stock Biomass Estimates 1982-2022, NEFSC Spring Trawl

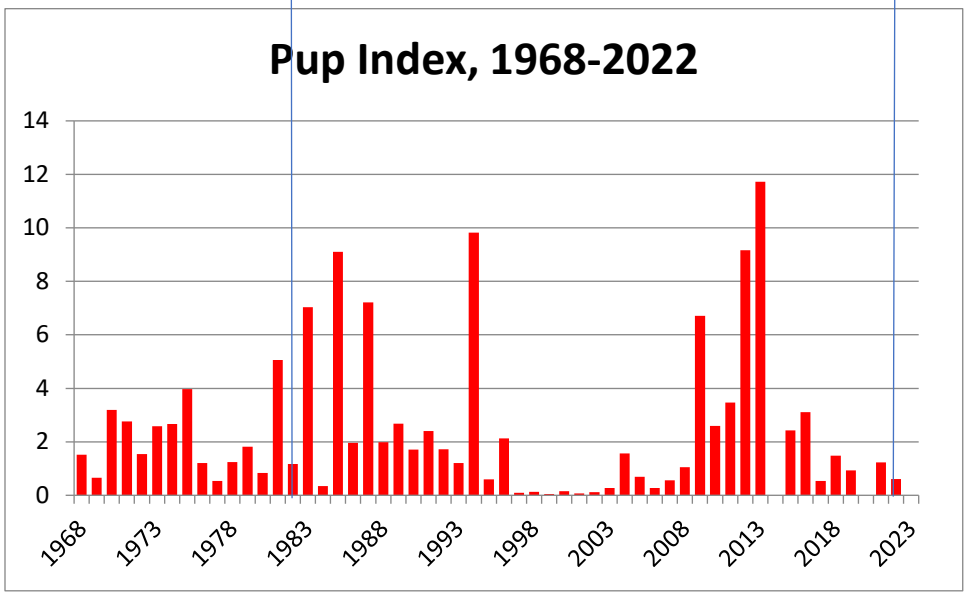

Figure 2. NEFSC Spring Trawl Pup Index 1968-2022

Management System and Fishery Performance

Management

The Council established management of spiny dogfish in 2000 and the management unit includes all federal East Coast waters. Quotas are set based on the current science and Council's risk policy to avoid overfishing and rebuild stocks if/when necessary.

Access to the fishery is not limited, but a federal permit must be obtained to fish in federal waters and there are various permit conditions (e.g. trip limit and reporting). There is a federal trip limit of 7,500 pounds (increased from 6,000 for the 2022 fishing year). Some states mirror the federal trip limit, but states can set their own trip limits. The annual quota has been allocated to state shares through the Atlantic States Marine Fisheries Commission (http://www.asmfc.org/species/spiny-dogfish).

Spiny Dogfish specifications are generally set for multiple years, but with the research track assessment delayed, the plan is to just set 2023 fishing year specifications for now. Once management track assessment results are available in 2023, those results will be utilized as soon as practicable.

Commercial Fishery (Recreational catch comprises a relatively low portion of fishing mortality)

Figure 3 and Table 1 illustrate spiny dogfish landings for the 2000-2021 fishing years relative to the quotas in those years. The Advisory Panel has previously noted that the fishery is subject to strong market constraints given weak demand.

Figure 4 provides inflation-adjusted spiny dogfish ex-vessel prices in "real" 2021 dollars.

Figure 5 illustrates preliminary landings from the 2022 and 2021 fishing years relative to the current quota. The last blue (2022) data point is typically the most incomplete.

Tables 2-4 provide information on landings in the 2019-2021 fishing years by state, month, and gear type.

Table 5 provides information on the numbers of participating vessels that have at least one federal permit. State-only vessels are not included, but the table should still illustrate overall trends in participation.

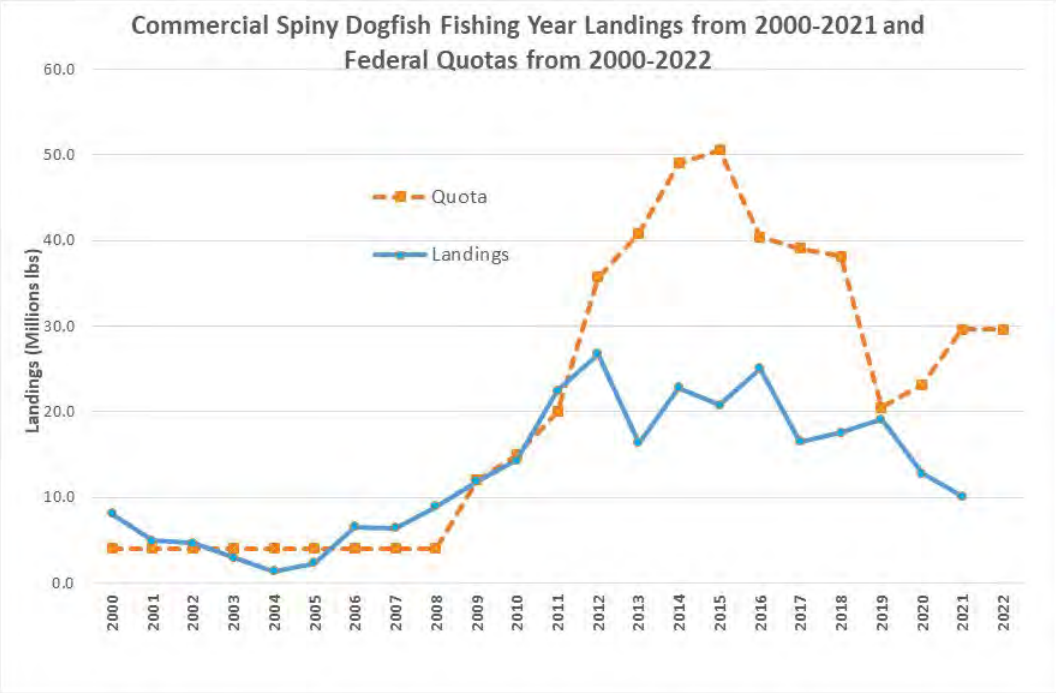

Figure 3. Annual spiny dogfish landings and federal quotas since 2000 Source: NMFS unpublished dealer data. [3]

Table 1. Annual spiny dogfish landings and federal quotas since 2000 Source: NMFS unpublished dealer data. [3]

Fishing year	Fed Quota (M lb)	Landings (M lb)
2000	4.0	8.1
2001	4.0	4.9
2002	4.0	4.7
2003	4.0	3.0
2004	4.0	1.3
2005	4.0	2.3
2006	4.0	6.6
2007	4.0	6.4
2008	4.0	8.9
2009	12.0	11.9
2010	15.0	14.4
2011	20.0	22.5
2012	35.7	26.8
2013	40.8	16.4
2014	49.0	22.8
2015	50.6	20.8
2016	40.4	25.0
2017	39.1	16.5
2018	38.2	17.6
2019	20.5	19.1
2020	23.2	12.8
2021	29.6	10.1
2022	29.6	

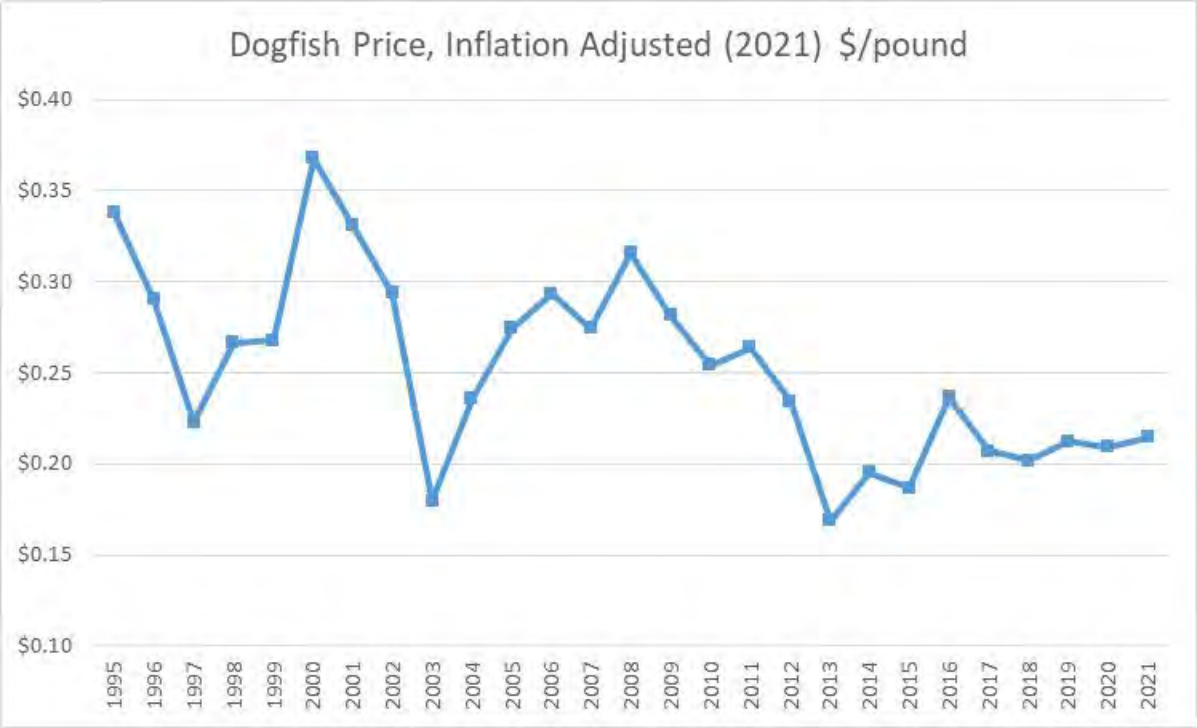

Figure 4. Price of spiny dogfish ($/live pound) (adjusted to 2021 "real" dollars using the GDP deflator, 1995-2021 fishing years. Given the difference between fishing year and the calendar year used for inflation adjusting, adjusted prices are approximate. Source: NMFS unpublished dealer data. [3]

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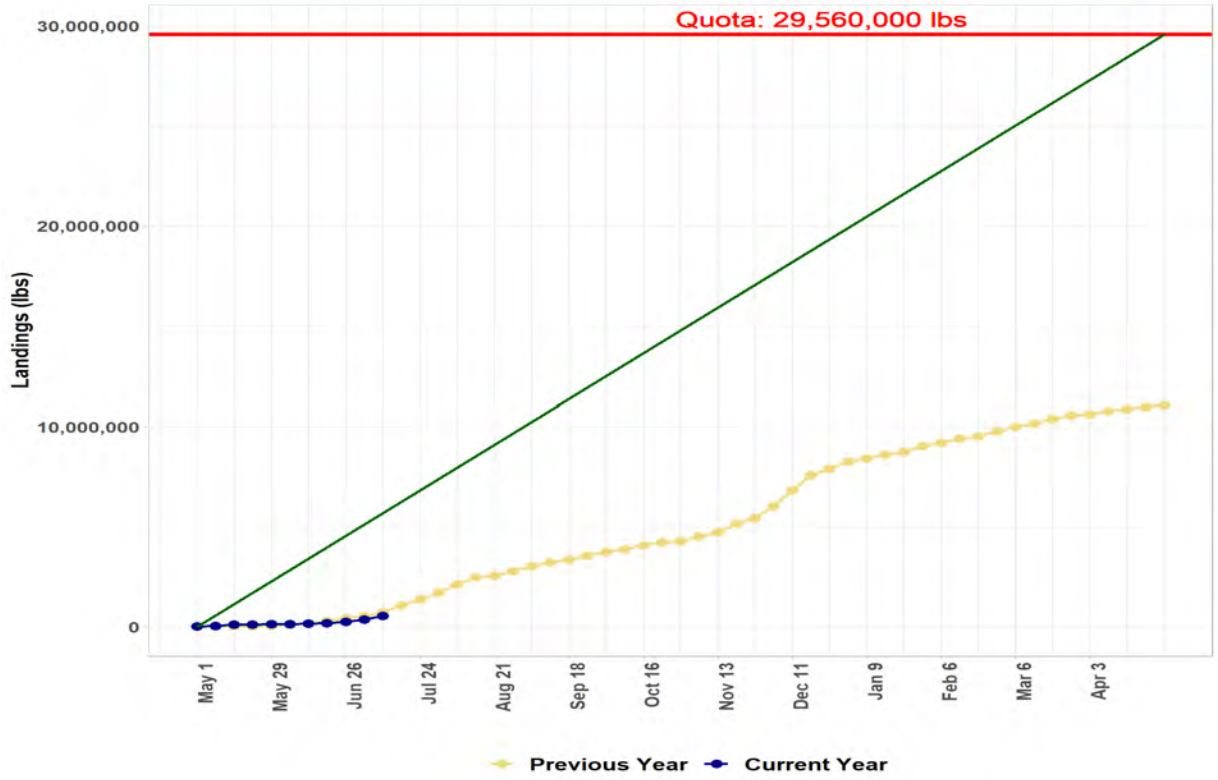

Figure 5. Preliminary Spiny dogfish landings; the 2022 fishing year (Starts May 1) is in blue through July 22, 2022, and the 2021 fishing year is in yellow-orange. Source: https://www.fisheries.noaa.gov/new-england-mid-atlantic/commercial-fishing/quota-monitoring-greater-atlantic-region . [3]

Table 2. Commercial Spiny Dogfish landings (live weight – millions of pounds) by state for 2019-2021 fishing years. Source: NMFS unpublished dealer data. [3]

fishyear	MA	VA	NJ	Other (NC,NH, MD, RI,CT, NY)	Total
2019	6.6	7.4	1.9	3.1	19.1
2020	6.6	2.9	2.0	1.4	12.8
2021	3.8	3.5	1.6	1.2	10.1

Table 3. Commercial Spiny Dogfish landings (live weight – millions of pounds) by months for 2019-2021 fishing years. Source: NMFS unpublished dealer data. [3]

fishyear	May-June	July-Aug	Sept-Oct	Nov-Dec	Jan-Feb	Mar-April	Total
2019	0.3	5.0	2.6	4.1	4.2	2.8	19.1
2020	0.3	4.6	2.4	3.0	1.6	0.7	12.8
2021	0.5	2.4	1.3	3.0	1.6	1.3	10.1

Table 4. Commercial Spiny Dogfish landings (live weight – millions of pounds) by gear for 2019-2021 fishing years. Source: NMFS unpublished dealer data. [3]

fishyear	GILL_NET_SINK__OTHER	UNKNOWN	LONGLINE__BOTTOM	GILL_NET_SET__STAKE__SEA_BASS	HAND_LINE__OTHER	TRAWL_OTTER_BOTTOM_FISH	Other	Total
2019	12.1	3.0	1.3	1.5	0.5	0.5	0.3	19.1
2020	9.1	1.3	1.8	0.1	0.0	0.4	0.0	12.8
2021	8.7	0.2	0.5	0.1	0.1	0.3	0.2	10.1

Table 5. Participation by fishing year of federally-permitted vessels. State-only vessels are not included. Source: NMFS unpublished dealer data. [3]

YEAR	Vessels 200,000+	Vessels 100,000 - 199,999	Vessels 50,000 - 99,999	Vessels 10,000 - 49,999	Total with at least 10,000 pounds landings
2000	16	10	8	43	77
2001	4	12	10	33	59
2002	2	14	8	31	55
2003	4	5	3	17	29
2004	0	0	0	42	42
2005	0	0	1	67	68
2006	0	4	11	114	129
2007	1	2	21	72	96
2008	0	5	20	119	144
2009	0	11	42	166	219
2010	0	26	54	124	204
2011	1	48	73	135	257
2012	25	55	56	146	282
2013	10	27	45	87	169
2014	27	38	38	81	184
2015	31	33	36	59	159
2016	52	26	14	45	137
2017	28	27	24	32	111
2018	28	26	20	35	109
2019	29	25	21	29	104
2020	23	27	15	22	87
2021	15	27	11	26	79

References

[1] Stehlik, Linda. 2007. Essential Fish Habitat source document: Spiny Dogfish, *Squalus acanthias*, Life History and Habitat Characteristics. NOAA Technical Memorandum NMFS-NE-203; 52 p.

[2] NEFSC 2018. Spiny Dogfish Assessment Update. Available at http://www.mafmc.org/ssc-meetings/2018/sept-11.

[3] Unpublished NMFS dealer and/or Vessel Trip Report data.

END OF DOCUMENT

Atlantic States Marine Fisheries Commission

Shad and River Herring Management Board

February 2, 2023
8:30 – 9:30 a.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(L. Fegley)*	8:30 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from November 2022	8:30 a.m.
3.	Public Comment	8:35 a.m.
4.	Consider North Carolina American Shad Sustainable Fishery Management Plan Update *(B. Neilan)* **Final Action**	8:40 a.m.
5.	Update on the 2023 River Herring Benchmark Stock Assessment *(K. Drew)*	8:55 a.m.
6.	Consider Fishery Management Plan Review and State Compliance for 2021 Fishing Year *(J. Boyle)* **Action**	9:05 a.m.
7.	Review and Populate Advisory Panel Membership *(T. Berger)* **Action**	9:20 a.m.
8.	Elect Vice-Chair **Action**	9:25 a.m.
9.	Other Business/Adjourn	9:30 a.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

Atlantic States Marine Fisheries Commission

MEETING OVERVIEW

Shad and River Herring Management Board
February 2, 2023
8:30 a.m. – 9:30 a.m.
Hybrid Meeting

Chair: Lynn Fegley (MD) Assumed Chairmanship: 2/23	Technical Committee Chair: Brian Neilan (NJ)	Law Enforcement Committee Representative: Thomas Burrell (PA)
Vice Chair: Vacant	Advisory Panel Chair: Pam Lyons Gromen	Previous Board Meeting: November 8, 2022
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (19 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from November 8, 2022

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Consider North Carolina American Shad Sustainable Fishery Management Plan Update (8:40-8:55 a.m.) Final Action

Background

- Amendments 2 and 3 to the Shad and River Herring FMP require all states and jurisdictions that have a commercial fishery to submit a sustainable fishing management plan (SFMP) for river herring and American shad, respectively. Plans are updated and reviewed by the Technical Committee (TC) every five years.
- North Carolina submitted an updated SFMP for TC review and Board consideration at the 2023 Winter Meeting (**Supplemental Materials**).
- The TC reviewed this SFMP update and developed a recommendation for the Board (**Supplemental Materials**).

Presentations

- American Shad Sustainable Fishery Management Plan Update for Board Consideration by B. Neilan

Board Actions for Consideration

- Consider approval of updated SFMP for North Carolina

5. Update on 2023 River Herring Benchmark Stock Assessment (8:55-9:05 a.m.)

Background

- The river herring benchmark stock assessment was initiated in April 2022. The methods workshop is scheduled for February 2023.

Presentations

- Update on River Herring Stock Assessment Progress by K. Drew

6. Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year (9:05-9:20 a.m.) Action

Background

- State Compliance Reports were due on July 1, 2022.
- The Plan Review Team reviewed each state report and compiled the annual FMP Review (**Supplemental Materials**).

Presentations

- Overview of the FMP Review Report by J. Boyle

Board Actions for Consideration

- Approve FMP Review for 2021 fishing year, state compliance reports, and *de minimis* requests

7. Review and Populate Advisory Panel Membership (9:20-9:25 p.m.)

Background

- There is one new nomination to the Shad and River Herring Advisory Panel—Stephen Gephard, a recreational angler and retired CT DEEP biologist **(Briefing Materials).**

Presentations

- Nomination by T. Berger

Board Actions for Consideration

- Approve Shad and River Herring Advisory Panel Nomination

8. Elect Vice-Chair

9. Other Business/Adjourn

Shad and River Herring 2023 TC Tasks

Activity level: Medium

Committee Overlap Score: Medium (Multi-species committees for this Board)

Committee Task List
• 2023 River Herring Benchmark Stock Assessment • Updates to state Shad SFMPs • Annual state compliance reports due July 1
TC Members: Mike Brown (ME), Conor O'Donnell (NH), Brad Chase (MA), Patrick McGee (RI), Kevin Job (CT), Wes Eakin (Vice Chair, NY), Brian Neilan (Chair, NJ), Brian Niewinski (PA), Johnny Moore (DE), Matthew Jargowsky (MD), Ingrid Braun (PRFC), Joseph Swann (DC), Patrick McGrath (VA), Holly White (NC), Jeremy McCargo (NC), Bill Post (SC), Jim Page (GA), Reid Hyle (FL), Ken Sprankle (MA), Ruth Hass-Castro (NOAA), John Ellis (USFWS). Ted Castro-Santos (USGS), C. Michael Bailey (USFWS)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

SHAD AND RIVER HERRING MANAGEMENT BOARD

The Ocean Place Resort
Long Branch, New Jersey
Hybrid Meeting

November 8, 2022

These minutes are draft and subject to approval by Shad and River Herring Management Board.
The Board will review the minutes during its next meeting.

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Draft Proceedings of the Shad and River Herring Management Board Hybrid Meeting
November 2022

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ATTENDANCE

Board Members

Pat Keliher, ME (AA)
Steve Train, ME (GA)
Cheri Patterson, NH (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Mike Armstrong, MA, proxy for D. McKiernan (AA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Phil Edwards, RI, proxy for J. McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Rep. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
Sen. Craig Miner, CT (LA)
John Maniscalco, NY, proxy for J. Gilmore (AA)
Emerson Hasbrouck, NY (GA)
Heather Corbett, NJ, proxy for J. Cimino (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
Warren Elliott, PA (LA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Lynn Fegley, MD (AA, Acting)
Allison Colden, MD, proxy for Del. Stein (LA)
Russell Dize, MD (GA)
Pat Geer, VA, proxy for J. Green (AA)
Shanna Madsen, VA, proxy for Sen. Mason (LA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Jerry Mannen, NC (GA)
Ross Self, SC, proxy for M. Bell (AA)
Malcolm Rhodes, SC (GA)
Chris McDonough, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Marty Gary, PRFC
Dan Ryan, DC, proxy for R. Cloyd
Rick Jacobson, USFWS
Max Appelman, NOAA

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Brian Neilan, Technical Committee Vice-Chair

Staff

Bob Beal
Toni Kerns
Madeline Musante
Tina Berger
James Boyle
Katie Drew
Emilie Franke
Lisa Havel
Chris Jacobs
Jeff Kipp
Adam Lee
Jeff Rinaldi
Caitlin Starks

Guests

Ashley Asci, NOAA
Marina Barrineau, FL FWC
Mel Bell, SC (AA)
Alan Bianchi, NC DNR
Christopher Boelke, NOAA
Jason Boucher, NOAA
Jeff Brust, NJ DEP
John Carmichael, SAFMC
Joe Cimino, NJ (AA)
Casey Clark, ME DMR
Margaret Conroy, DE DFW
Caitlin Craig, NYS DEC
Maureen Davidson, NYS DEC
Roman Dudus
Wes Eakin, NYS DEC
Emily Farr, Manomet
Jennifer Foss, NOAA
Ben German, NOAA

These minutes are draft and subject to approval by the Shad and River Herring Management Board.
The Board will review the minutes during its next meeting.

Guests (continued)

Jim Gilmore, NY (AA)
Jamie Green, VA (AA)
Pam Lyons Gromen, WildOceans
Lars Hammer, ME DMR
Anne Hayden
Helen Takade-Heumacher, US FWS
Jessie Hornstein, NYS DEC
Andrew Hrycyna, Mystic River
Landis Hudson, Maine Rivers
John Kravchak
Danni Logue
Mike Luisi, MD DNR
Michael Manning, Maine Salmon Rivers
Patrick McGrath, VIMS
Nichola Meserve, MA DMF
Tina Moore, NC DENR
Brandon Muffley, MAFMC
Kirby Rootes-Murdy, USGS
Thomas Newman
Derek Orner, NOAA
Willow Patten, NC DENR
Lucas Pensinger, NC DENR
Nicholas Popoff, US FWS
Bill Post, SC DNR
Will Poston, SGA
Kathy Rawls, NC (AA)
Eric Roach
Jason Rock, NC DENR
Mike Ruccio, NMFS
Zachary Schuller, NYS DEC
McLean Seward, NC DENR
Andrew Sinchuk, NYS DEC
Kiel Stone, GMU
David Stormer, DE DFW
ElizaBeth Streifeneder, NYS DEC
Kevin Sullivan, NH F&G
Mike Thalhauser, Coastal Fisheries
Jonathan Watson, NOAA
William Wayman, US FWS
Holly White, NC DENR
Ritchie White, CCA NH
Meredith Whitten, NC DENR
Christine Wiegand, SAFMC
Kate Wilke, TNC
Chris Wright, NOAA
Renee Zobel, NH F&G

The Shad and River Herring Management Board of the Atlantic States Marine Fisheries Commission convened in The Monmouth I Room in The Ocean Place Resort, a hybrid meeting, in-person and webinar; Tuesday, November 8, 2022, and was called to order at 9:00 a.m. by Chair Justin Davis.

CALL TO ORDER

CHAIR JUSTIN DAVIS: Good morning, Folks. I'm going to go ahead and call to order this meeting of the Shad and River Herring Management Board. Good morning, all, my name is Justin Davis. I'm the Administrative Commissioner from Connecticut, and I'm currently serving as the Chair of the Shad and River Herring Management Board.

I'll acknowledge up here at the head table with me I have Dr. Katie Drew and James Boyle from Commission staff, as well as Brian Neilan from New Jersey DEP, our current Technical Committee Chair. All of them will be helping out with running the meeting today.

APPROVAL OF AGENDA

CHAIR DAVIS: For our first order of business this morning is approval of the agenda.

I'll ask if anybody has any suggested modifications or additions to the agenda that was provided in the meeting materials. Okay, not seeing any hands, we'll consider the agenda approved by consent.

APPROVAL OF PROCEEDINGS

CHAIR DAVIS: Moving on to the next item, approval of the proceedings from the last meeting of this Board in May of this year, which were also provided in the meeting materials.

I'll also take a quick minute to thank my Vice Chair, Lynn Fegley from the state of Maryland, for running that meeting, because I was not available. Thanks, Lynn. Any suggested edits, modifications, additions to the meeting proceedings from May 2022? Okay, not seeing any hands we'll consider those proceedings approved by consent. Moving right along here.

PUBLIC COMMENT

CHAIR DAVIS: Next item on the agenda is Public Comment. This would be public comment for any items not on the meeting agenda this morning. Do we have any members of the public here in the room or on the webinar, who would like to provide public comment at this time? Okay, not seeing anybody who would like to make public comment at this time.

AMERICAN SHAD HABITAT PLAN UPDATE

CHAIR DAVIS: We'll move along here to our next item on the agenda. We're going to have a series of presentations this morning concerning Shad Habitat Plans and Sustainable Fishery Management Plans. For the first of those I'm going to turn to Brian Neilan for a presentation on an American Shad Habitat Plan Update. Brian.

MR. BRIAN NEILAN: Good morning to the Board. My name is Brian Neilan, and I'm the TC rep from New Jersey and current Chair of the Shad and River Herring TC. I hope you've been enjoying your time in my home state so far, as the bunker put on a show for you yesterday.

MR. NEILAN: Today I have for you a few different plans for your consideration. First is an American Shad Habitat Plan for the Taunton River in Massachusetts, followed by a few River Herring Sustainable Fishery Management Plans, all out of New England.

Just some quick background on these habitat plans. Under Amendment 3 to the Shad and River Herring Fishery Management Plan, all states and jurisdictions are required to submit habitat plans for American shad. These plans are meant to contain a summary of current and historical information on spawning and nursery habitat, any threats to those habitats, and any habitat restoration programs or anything going on within each state.

Back in February of 2022 the Board agreed that these plans should be updated every five years or so, similar to how we update our sustainable fishery management plans. Over the past couple years, the Board has been presented with a slew of updated and new plans for consideration from various agencies and jurisdictions, as the Board requested.

MASSACHUSETTS TAUNTON RIVER ADDITION

MR. NEILAN: At the end of last month one habitat plan was evaluated by the TC, and submitted for Board consideration today. This is the Taunton River Plan out of Massachusetts. The TC recommends approval of this plan. We'll jump right in here. The Taunton River Plan was submitted by the Massachusetts Division of Marine Fisheries, and was presented by the Mass TC Rep, Brad Chase.

Each plan is required to have a habitat assessment that details current and historic shad spawning in nursery habitat. For the Taunton River, for this particular plan the Taunton River is one of the largest rivers in Southeast Massachusetts. It's unique in New England, being such a large river with no dams or impediments along the course of its main stem.

There were historical commercial shad fisheries in the main stem and tributaries that were impacted by overharvest, dams in the tributaries, and industrial pollution. There has been minimal recent evidence of existing shad run, despite some stocking efforts that went on in the '60s and '70s. Before those stocking efforts, Mass DMF did a survey to assess the habitat and down 45 kilometers of the main stem of potential spawning habitat.

This plan was primarily developed to support the development of a shad stocking effort in the Taunton River. It's a multiagency effort between Mass DMF, Massachusetts Division of Wildlife, and the United States Fish and Wildlife Service. With recent improvements in water management and decreases in pollution, they're hoping that they might be a little more successful in this stocking effort.

Each plan is required to do a Threats Assessment. This is kind of a plan in progress, but Mass DMF wanted to submit the plan in order to highlight the current and future stocking efforts that they're undertaking. As I said, they're hoping to take advantage of the nearly 80 acres of potential spawning and nursery habitat.

At this time no formal Threats Assessment has been conducted, but Barriers to Migration, which is one of the greatest threats to spawning habitat access is not an issue, at least in the main stem here. The biggest issues in the past were commercial overfishing, and industrial pollution, which degraded the water quality and spawning habitat, to the point that shad spawning was largely unsuccessful. Habitat plans are also required to detail any habitat restoration programs going on within the watershed and the state.

As mentioned before, this is a kind of in the works plan that is being developed to support the joint agency stocking effort. For the Mass DMF expects that a habitat survey and assessment would be useful for this watershed, with methods potentially transferrable to other watersheds within Massachusetts, but they are still working on funding, which is we've all experienced problems with.

Mass DMF recommended that the following actions be taken for the Taunton River. First, an assessment of the amount and suitability of habitat for shad spawning and rearing. They have the assessment from the '60s, but they would obviously like to update that with the water quality increases over the past decades.

Then continued monitoring to document the status of the shad spawning run in response to the stocking efforts. Within the Habitat Plan, Mass DMF also included the proposed stocking plan for the Taunton River. The Taunton River Watershed has about 80 acres of potential American shad

spawning habitat. Based on this estimate, Mass DMF and the other agencies involved are looking to do stock over the next four to five years about 20 million shad larvae.

To achieve this goal, they are going to be taking 350 broodstock fish from Holyoke Dam yearly, doing strip spawning and then surviving adults will be released post spawning. Additionally, they are going to be doing monitoring for juveniles during the summer and fall to look at success rates of their stocking.

Adult monitoring would begin three years after the initial stocking. Three years is when you start seeing your returns. So far in 2022, over 5 million shad larvae were stocked. During summer sampling they found juvenile American shad at three, up to five, monitoring stations they currently monitor. That's the rundown of the Taunton River Plan from Massachusetts. I could take any questions.

CHAIR DAVIS: Thank you, Brian, for that presentation. I'll turn back to the Board and see if there are any questions for Brian. Okay, not seeing any hands from the Board. I think at this point, James, we'll need a motion to approve the Shad Habitat Plan Update. I'm wondering if there might be a member of the Board that would be willing to make that motion. Mike Armstrong.

DR. MIKE ARMSTRONG: Certainly. I move to approve the updated Shad Habitat Plan from Massachusetts as presented today.

CHAIR DAVIS: Okay, there is a motion from Mike Armstrong. I'm just going to wait until it's up on the board. There it is. I'm looking for a second, Eric Reid, Rhode Island. I'll ask the Board if there is any discussion on the motion. Mike, as the maker of the motion do you want to provide your rationale?

DR. ARMSTRONG: Yes, I don't think I need to say much. It was covered in the presentation there. But we're pretty excited to begin a cooperative program with U.S. Fish and Wildlife Service hatchery in North Attleboro, which is adjacent to the Taunton River, and we've already had some documentation of success. The Taunton is a big river, and my only question is, why haven't we done this before. But the stars have aligned, and I think it will be awesome.

CHAIR DAVIS: Any other members of the Board wish to make a comment on the motion? Okay, we'll see if we can do this the easy way. **Are there any objections to the motion? Okay, not seeing any hands, the motion passes by unanimous consent.**

RIVER HERRING SUSTAINABLE FISHERY MANAGEMENT PLAN UPDATES FROM MASSACHUSETTS AND MAINE

CHAIR DAVIS: All right, so we're going to go back to Brian here for our next presentation on Approval of Two Sustainable Fishery Management Plan Updates. Brian.

MR. NEILAN: Next I'll be going over some River Herring Sustainable Fishery Management Plan from Massachusetts and Maine. Just a bit of background on our sustainable fishery management plans and what is required of them, including the FMPs sustainability definition. Amendments 2 and 3 of the Shad and River Herring Plan require states wishing to have a fishery to submit a sustainable fishery management plan.

The definition of sustainability in the FMP is that any harvest will demonstrate their stock can support a commercial and/or recreational fishery that will not diminish the future stock reproduction and recruitment. These plans are updated and reviewed every five years to reassess stock status and the sustainability of the harvest. Last month the TC reviewed a bunch of plan updates and new plans from Massachusetts and Maine.

Three herring sustainable fishery management plans were evaluated by the TC and are being submitted today for the Board's consideration. We have a Nemasket River update to their current SFMP, a Herring River out of Massachusetts new

plan being added to this Massachusetts State Plan, and then an update to the Addendum to the Maine 2019 Sustainable Fishery Management Plan. Again, these are all river herring plans.

MASSACHUSETTS NEMASKET RIVER UPDATE

MR. NEILAN: The TC recommends approval of both Massachusetts plans and the continuation of the Maine limited fisheries, based on the presented update. The first presentation was a regularly scheduled update of the Nemasket River, River Herring Sustainable Management Plan from Massachusetts.

The proposed Nemasket River fishery is a small dip net fishery, with harvest that would predominantly be used for bait and personal consumption.

It's cooperatively managed by the Massachusetts DMF and the Middleboro and Lakeville Town Herring Fishery Commission. The Fishery Commission is made up of residents of the town, and they kind of do the counts. They manage the fishery on a local level. The updated plan remains relatively unchanged from the previous iteration.

Just a quick rundown of the management measures here. It's a five-week season that goes middle of April to middle of May. Approximately 900 permits issued per year, with required reporting, and the harvest allowance is 20 fish per permit per week. You need trip tickets for each trip. To possess the river herring, you have to have these trip tickets in your possession as well. I might have buried the lead here a bit, but no harvest was permitted throughout the previous tenure of the plan. The Herring Commission did not permit harvest for a couple of reasons. The year before they were going to start harvest there was a decrease in their run counts to a level that the Commission was not comfortable with allowing harvest to take place. There is also some hesitancy there to be the only open fishery in the state, kind of worried about the concentration of effort on their stretch there.

Here are the fishery program mechanics. The management unit is the Nemasket River, the run in the river between the towns of Middleboro and Lakeville. That is the only place where harvest would potentially be allowed if the Herring Commission wants to open a fishery. For sustainability measure its ongoing spawning run counts, used to calculate run size, and that will serve as the primary measure to monitor runs, the health of the runs.

They have a sustainability target; they plan to harvest. Harvest will be capped at 10 percent of the time series mean on the run counts. This value will be calculated each year. Their primary action threshold, their management threshold will be 25th percentile of the run count. If this threshold is exceeded two years in a row, the harvest rate will be reduced in half to 5 percent of the time series mean.

If it's exceeded three years in a row, then the fishery will be closed until such time that three years in a row above the management target is achieved. But as I said previously, there has been no harvest so far. They also plan on using a secondary threshold, to kind of reinforce the other threshold. As I said, 10 percent of the time series mean is their harvest goal here.

In any given year if they exceed their 10 percent harvest rate, Mass DMF will meet with the Herring Commission to review the harvest records and look at their management practices to look at ways they could reduce harvest through different control measures, reducing permits, reducing fishing days, bag limits that sort of thing.

They are also looking at potential future targets, including mortality based on repeat spawning, so they are taking biological samples as well. Here is a graph showing the annual run count over the years, with the blue line at the bottom. You could see it representing the 10 percent harvest threshold. The

red area represents the first quartile management threshold.

Like I said, two years below that the harvest target will be reduced in half, and three years below the fishery will be closed. Then the top line there is the time series mean. That's it for the Nemasket Plan Update. I guess I could take questions and just reiterate that although they had the ability to harvest, they didn't. The Herring Commission has been very cautious and conservative, and hasn't harvested at all during the previous tenure.

CHAIR DAVIS: Thanks, Brian, at this point I'll turn back to the Board and see if there are any questions on the Nemasket River Plan Update. Brian, I do have one quick question. Is the last year in that graph 2021 or 2022, the last year of data?

MR. NEILAN: I believe that is 2021. I'm not sure they finished calculating 2022 yet.

DR. ARMSTRONG: Yes, I believe this year's number is around 700, 800,000. It's not on the graph though.

CHAIR DAVIS: Okay, thanks, Mike. Okay, not seeing any hands from the Board. I think Brian, what we should do is maybe just move along to the next Massachusetts Plan Update and then at the end of that we could consider a motion to approve the two sustainable fishery management plan updates from Massachusetts.

MASSACHUSETTS ADDITION OF THE HERRING RIVER

MR. NEILAN: Sure. Massachusetts also submitted a proposed River Herring SFMP for the Herring River**.** The proposed plan is essentially the same as the Nemasket River Plan, we just used some tweaks to kind of tailor it to this particular river's run. There are less total permits here, but they stayed at the 10 percent of the time series mean as their harvest target.

I believe the Town of Harwich, their Herring Commission also has similar hesitancy to open, for similar reasons in the Nemasket Plan. They are worried about being the only open fishery and the concentration of effort, and then they are also just being very cautious and conservative, given the state of river herring coastwide.

Again, here are the fishery program mechanics, as I said very similar to the Nemasket River, just tailored to the Herring River's run. The run size will be measured through combined visual. On the Herring River they have an electronic fish counter. Those run counts are currently combined, but in the future, I think once they get their electronic fish counts dialed in, I believe they're going to transition to a fish counter only in the next iteration of the plan for the counts.

Again, the sustainability target is 10 percent of the time series mean. The primary action threshold is the same at the 25th percentile of the run. They also had that secondary threshold looking at a yearly harvest rates if they ever exceed that 10 percent on a given year, they will revisit their harvest control measures.

For management actions in any given year run counts climb below the 25th percentile being reported in the ASMFC Annual Compliance Report two years in a row below the sustainability target of 25 percent will reduce the harvest in half, and then three years in a row will close down the fishery. I went through that one a little quicker, just because it's very similar to the previous plan, so I would be happy to take any questions.

CHAIR DAVIS: Okay, thanks, Brian, I'll turn it back to the Board and see if there are any questions relative to the Herring River Sustainable Fishery Management Plan. I do have one question or a comment. I think I direct this to you, Mike, possibly. I suspect many folks around the table are aware, but if not, we just had one of the worst years on record for river herring returns in Southern New England.

Connecticut, many of the runs we monitor we sort of recorded the lowest returns we've ever recorded, or close to. Cursory examination of the data suggests that it doesn't look like a single year class failure, but sort of all the year classes in the runs were at much lower-than-expected abundances. It has the biologists on our staff who deal with river herring kind of scratching their heads about what's going on with river herring in Southern New England. There is a lot of allusion in the presentation to a conservative stance about harvest on these rivers. I'm wondering, do you have any insight, even with these plans being approved, whether you think Mass DMF and the town groups that are managing these rivers are going to move forward with opening harvest next year, or if there might be a little bit of a "wait and see" approach, given the year we just had for river herring returns?

DR. ARMSTRONG: Yes, I don't think they will harvest. There were downturns in a lot of our runs too, but not all of them. It's more, these are our two largest runs, and they historically have been harvested. They want it in their back pocket to be available. I honestly can't tell you if Herring River, if we pass this would even be above the threshold for harvest. But Brad Chase told me they're not terribly interested in aggressively going forward with harvesting until things are steady and looking good.

CHAIR DAVIS: Looking to the Board to see if there are any additional questions. Okay, so at this point I think we'll need a motion to approve these two sustainable fishery management plans from Massachusetts. I'll look to the Board to see if somebody is willing to make that motion. Cheri Patterson. Cheri, would you mind reading that motion into the record?

MS. CHERI PATTERSON: Thank you, Mr. Chair, I would love to. Move to approve the updated River Herring Sustainable Fishery Management Plan from Massachusetts as presented today.

CHAIR DAVIS: We have a motion on the board, do we have a second? I see Steve Train. I'll turn back to you, Cheri, to see if you want to provide any rationale for the motion.

MS. PATTERSON: No, I think Brian covered the Management Plans very well, and I don't see any issues with them.

CHAIR DAVIS: Okay, thank you all, I'll look back to the Board to see if there are any additional comments on the motion**. All right, seeing no additional hands, I'll ask if there are any objections to the motion. Not seeing any hands, the motion passes by unanimous consent.**

MAINE SUSTAINABLE FISHERY MANAGEMENT PLAN ADDENDUM

CHAIR DAVIS: Okay, Brian, I'll turn back to you for the presentation on the Addendum to Maine's Sustainable Fishery Management Plan.

MR. NEILAN: Lastly, I have an update on the Maine River Herring Sustainable Fishery Management Plan Addendum. In 2019 the Board approved an Addendum to the Maine River Herring SFMP to allow three provisional fisheries through 2024. This was in an effort to incentivize the continuation of local restoration efforts.

There has been a lot of great local restoration efforts on these three rivers, these provisional fisheries were allowed dam removals, culvert replacements, improvement to fish passage. To keep the momentum going they opted to possibly allow the fishery provisional fisheries in these rivers.

The Board required an update to look at these provisional fisheries to see if they're having an effect, good or bad, on the river herring runs. There were three habitats in the Addendum ranging from 43 to 135 acres of potential spawning habitat. These locations did not meet the existing Maine SFMP metrics, but as I said, we're under restoration, so they didn't quite have run counts that met the minimum amount of years, but they

were almost there, and currently getting really good returns.

As I said, there is active restoration efforts underway to increase population size, age structure, and repeat spawning, as well as lower the mortality estimates on the various rivers. For these limited fisheries, the control rules and assessment criteria were developed as follows. This has been kind of an escapement fishery approach.

The harvest will occur after May 18 to allow older river herring to escape the fishery. Municipalities that allow recreational fisheries must enumerate and subtract the recreational harvest from the currently allowed commercial catch. The goal is their release of a minimum spawning stock threshold of 235 fish per acre.

Commercial fishery that does not meet this escapement threshold will close until the fishery achieves the escapement threshold, again, at some point. There will be annual review of age data and mortality rates, repeat spawning rates derived from annual biological collection, to assess the need to reduce harvest numbers, or to suspend any fishery short of the 5-year period.

It's very well tracked, or potentially be tracked. The Board asked for an update midway through the tenure of these provisional fisheries. Only one municipality opted to conduct a fishery. In 2020 the run was over before the harvest opened on May 18, so they chose to harvest the runbacks. This kind of resulted in a higher mortality rate on older fish.

The other two municipalities did not opt to conduct their fishery, but they did continue with biological data and fish counts. Then the Addendum requires management action resulting, due to the 2022 harvest in the one municipality that did allow harvest, management action resulting in reduction in the 2023 harvest meet the mortality and repeat spawning goals.

Maine had some recommendations from their presentation. They recommended to allow municipalities within the plan to continue to fish for the remainder of the five-year period, or at least have the option to fish, as I said, only one of the three municipalities chose to conduct a harvest. They want to maintain the existing control rules that manage harvest based on returns, biological data, and associated management actions.

At the end of the Addendum period, which I believe is 2024, they'll make a final determination on these provisional fisheries regarding whether to continue to allow them, and assess whether further restoration access helps municipalities meet the Maine and ASMFC sustainability metrics. That's all I have for that one, the Maine Addendum Update, and I would be happy to take any questions.

CHAIR DAVIS: Okay, thank you, Brian. Turn back to the Board to see if there are any questions. Lynn Fegley.

MS. LYNN FEGLEY: I just had a curiosity question, maybe for the state of Maine about, it looked to me, I think what I saw was that for the recreational harvest happens after May 18, but anything that they harvest would be subtracted from the commercial catch allowance. I'm just kind of curious how that works, because the timing seems, it's just an interesting setup, sort of an on-the-fly allocation. I just wonder if that works well. I'm curious.

CHAIR DAVIS: Pat, look to you, see if you would like to answer the question.

MR. PATRICK C. KELIHER: Thanks for that question, Lynn, I think. I don't know if it works well or not, quite honestly. I mean the intent here is to try to ensure that we can control the overall harvest. But because it's all happening in a very isolated location, we can keep an eye on that and the volunteers track it pretty well. I think overall, because of the size of the system it works. If this was a larger system where they could harvest in multiple locations, it probably wouldn't work at all.

CHAIR DAVIS: Okay, thanks, Pat. I look to the Board to see if there are any additional questions on the presentation. I was remiss in not doing this earlier. I meant to provide an opportunity for public comment on this general agenda item on sustainable fishery management plans. I'll ask at this time if there is any member of the public in the audience or on the webinar who would like to make a public comment.

DR. KATIE DREW: On the webinar we have Andrew Hrycyna. Andrew, you're self-muted now, so if you would like to unmute yourself you can go ahead and make a comment. Andrew, you're still muted on your end. If you want to click the little red button so it turns green.

CHAIR DAVIS: Okay, Andrew, we'll go ahead and move on, but if you drop a comment, potentially on the webinar, we could possibly come back to you to provide comment later on. Not seeing any additional hands from the Board, at this point we'll need a motion to approve Maine's Sustainable Fishery Management Plan Addendum. I'll look to the Board to see if anybody would be willing to make that motion. Pat Keliher.

MR. KELIHER: Before I make that motion, just for clarity of the record based on Maryland's question. The municipality actually in this case, chose not to allow for that recreational harvest this past year, so that controlled it even more.

On this particular issue I would move to approve the continuation of the provisional river herring fisheries as described in the addendum to the Maine River Herring SFMP for the remainder of the five-year period ending in 2024, at which time the Technical Committee will use the established sustainability criteria to evaluate if the municipalities may continue to harvest under the SFMP.

CHAIR DAVIS: We have a motion by Pat Keliher, I see a second from Malcolm Rhodes. Pat, I'll turn back to you to see if you want to provide any additional comments or rationale on the motion.

MR. KELIHER: I don't have anything else.

CHAIR DAVIS: Would any other member of the Board care to comment on the motion? I'll go back to Andrew, a member of the public on the webinar for a second try here for public comment. Andrew, go ahead.

MR. ANDREW HRYCYNA: Yes, thank you very much. I lost control of the interface there for a moment. I'm Andy Hrycyna from the Mystic River Watershed Association in Boston, where we are very proud of our program of monitoring our herring run. It has documented a two to threefold increase, thanks to a fish ladder installation and collaboration.

We do the monitoring in collaboration with DMF. Really, some of my concerns have been addressed, but we wanted to just submit a comment urging caution on reinstituting harvest on Nemasket and Herring Rivers at the time when it's not clear from data that populations are robust, and not just support sustainable harvest.

A major concern we had is lack of sort of publicly available analysis how vulnerable these populations are to changes due to climate change, especially to the expected increase in the incidence and severity of summer droughts. In fact, we noted also that the Herring River run has shown declines in the past four successive years from over a million to 25 percent of that number in 2022.

Those comments about caution were appreciated. But maybe more to the point, if part of the motivation for reinstituting harvest is to engage a variety of stakeholders in the larger conservation efforts, we believe there are other and better ways, and we've had great success in recruiting volunteers for in-person counts. We have 150 people a year going out and doing counts.

We also have an education program in schools that reach thousands of kids, and we have a video monitoring program that engages 5,000 users a year. We've shared that technology with Pembroke in Plymouth, and with South River in Marshfield. If part of the motivation is encouraging public awareness and engagement, we think that these programs and technologies allow ways that reach more people than the relatively few people engaged in the harvest. That was our comment, and thank you very much.

CHAIR DAVIS: Thank you, Andrew, and I'll apologize again for not providing you an opportunity to make that comment earlier when we were considering Massachusetts Sustainable Fishery Management Plans. At this point I'll turn back to the Board to see if there are any additional hands for a comment or discussion.

Okay, seeing none, I'll ask if there are any objections to the motion. Okay, seeing none, the motion passes by unanimous consent.

UPDATE ON THE 2023 RIVER HERRING BENCHMARK STOCK ASSESSMENT

CHAIR DAVIS: All right, so we'll move on to our next agenda item. I'm going to turn to Dr. Katie Drew to provide an update on the 2023 River Herring Benchmark Stock Assessment**.**

DR. DREW: We'll just get a presentation up here pretty quickly, and thank you, Madeline.

APPROVAL OF DRAFT TERMS OF REFERENCE

DR. DREW: We are going to go over today a quick summary of the timeline and where we are on that, and then present for your approval the Terms of Reference for the stock assessment and the Stock Assessment Subcommittee membership for your approval. This is the current timeline. We have clearly moved ahead without having these things approved yet. But mostly we've been in the preparation stages of gathering data from our various state and partner agencies, as well as we did a call for data via a press release, and got several datasets from academic and other institutions to supplement what we have.

We plan to have the SAS and the TORs approved today here at this webinar/in-person meeting, and then our next sort of big meetings will be a methods workshop in February-ish of next year, and an assessment workshop in April of next year, so that we can finalize the report, have the peer review in August, and present to you again in October of 2023, at our annual meeting, the final result of this assessment.

Obviously, this is a large amount of work. These are essentially two stock assessments for two separate species, with multiple stocks going on at the same time. There is a possibility that this timeline will need to be adjusted, in order to complete our work. But this is what we are on track for now. Obviously, we will be having consistent SAS webinars throughout this process, but we just highlighted some of the major meetings and milestones for now.

What we need from you is basically approval of the Terms of Reference. This is an external peer review, so that means that we usually do two sets of TORs, one for the Stock Assessment Subcommittee to follow, and that is for how we want to conduct the assessment itself, what we want to focus on, our major areas of concern.

Then a separate set of TORs for the Peer Review Panel itself to follow, which is more focused on evaluating what the SAS has completed. We'll start with the TORs for the SAS and the TC. TOR 1, define and justify stock structure. Obviously, our river herring are genetically distinct populations at the river level. But we would like to have some sort of biologically justified stock structure in between the river and the coastwide that is maybe a little more biologically justifiable than just state.

We're looking to recent genetic information to kind of develop a stock structure on the coast that will

let us pull in datasets from multiple rivers, and also maybe make some inferences about rivers within genetic stock regions that don't have available data. Obviously then, it's important to define and justify that within the assessment. The second TOR is to characterize the precision and accuracy of all of the data that we have.

The fishery dependent stuff, the fishery independent stuff, this includes life history data like age and repeat spawner data, as well as your sort of nontraditional stock assessment datasets like entrainment, impingement, passage, etcetera that are unique to river herring. Obviously, this comes with a lot of sub-bullets that are all included in the meeting materials. We don't need to read through all of this. But basically, it's just focused on making sure that we are providing adequate descriptions of the data sources.

Describe how we're calculating or standardizing our indices, and making sure that we have fully described the uncertainty with all of these datasets. Then finally, justify the inclusion or the elimination of these datasets as we go through and kind of pick and choose from what's available to us. TOR 3 is estimate bycatch where and when possible. This will include pulling data from, obviously the Northeast Fisheries Science Center Bycatch Observer Programs, but also potentially looking at state datasets or individual one-off studies to cover bycatch of river herring, again, when and where possible.

Summarize data availability and trends by stock. We want to make sure that. There is a tremendous amount of data out there for river herring, and so we want to make sure that we are capturing all of that data in an understandable and comprehensive format. Discussing what is available and what is not available, as well as what are the overall trends from this data by stock.

Then, if possible, go beyond that sort of trend analysis to develop models used to estimate population parameters like total mortality, biomass and abundance, as well as biological reference points, and analyze that model performance. You will note that if possible and where possible is doing a lot of work in these TORs.

I think with the recognition that these are data poor species. As I said, we have a ton of data for them, but it's still not enough, and so we may not be able to do traditional methods for all of the stocks and all of the rivers. But we're going to give it a try. This one also includes a number of, well sub bullets that give us much more detailed instructions about how to document that model usage and development.

Make sure that we're stating our assumptions and making clear sources of uncertainty, and assumptions that we're making as we go through to help us evaluate these models better. If possible, develop methods to calculate a biologically based cap or limit on bycatch of river herring and ocean fisheries.

This one is actually a little unique. Most of the rest of the TORs were based on the shad benchmark assessment, but this was a specific request from the Mid-Atlantic Council, which does implement a bycatch cap on ocean fisheries, in order to try to reduce the overall bycatch of river herring in those fisheries that they manage.

However, that cap is currently based on sort of historical levels. They are very interested in developing a more biologically or scientifically justified cap for those fisheries. If this is also one where we put that impossible in front, we are definitely interested in exploring this. If we could develop this, this would be useful for river herring management, from our perspective, as well as from the Council's perspective.

But there is no guarantee that we will actually be able to have the data to do that the defensible way. We're going to give it a try, but it may or may not pan out. After all of that work, obviously the key finding from the assessment will be to recommend

stock status as related to reference points, if available.

If we are able to develop reference points for specific stocks, specific rivers, then we will try to recommend stock status relative to those reference points. This is sort of a catch-all TOR, in terms of other scientific issues that maybe don't fit within a traditional assessment framework, basically focusing on after we have done all that work, take the time to reflect on, are the answers that we're getting out of this aligning with what our understanding of the stock dynamics are? Comparing trends and population parameters and reference points with the actual modeled results coming out afterwards. Compare the reference points that we're developing to what we think we know about the life history of this stock, and consider or explain any inconsistencies, as well as trying to look at either in a qualitative or a quantitative way, climate change impacts, predation impacts, other anthropogenic sources of mortality on the stock.

We may not be able to quantify these effects, but can we describe them in a qualitative framework to help understand what's happening with this species complex. Our traditional if a minority report has been filed, make sure that we go through the correct steps of responding to that minority report, and making sure that both reports are in conversation with each other.

Then sort of the wrap up of Number 10, short term and long-term prioritized research recommendations, as well as recommending the timing of the next benchmark and assessment updates to be most informative to management. Those were the TORs for the stock assessment. Those are the TORs that the SAS will address through our work.

But we also developed a set of TORs for the Peer Review Panel, and really, it's mostly just taking those TORs and then instead of saying do these things, it says evaluate how we did these things. The TORs for Peer Review are basically evaluate the choice of stock structure. Evaluate the thoroughness of the data collection and the presentation of the data, the treatment of the data.

Are we fully capturing uncertainty, et cetera. There is sort of that similar list of items that they should check off to make sure that we did a good job of presenting. Evaluate the methods and the models used to estimate population parameters, biological reference points and the bycatch cap limit, if we are able to. Whatever we develop they will evaluate.

Again, if the minority report has been filed, we do ask the Peer Review Panel to review that report as well, and comment on whether it is an appropriate response, or basically who's right in this situation, or can you merge them to create sort of a more appropriate response to the minority report and the majority report.

Then we'll look to the Peer Review Panel to, after they have reviewed the assessment, to recommend the best estimates of biomass, abundance and exploitation, if possible, if we're getting those data out, or specify alternative estimation methods. If they don't like what we have done and reject it, we would like them to provide an alternative that we can pursue in the future.

Then to evaluate the choice of reference points similarly, and the methods used to estimate them, and recommend that stock status, as well as the absolute estimates recommend stock status, or again if appropriate specify an alternative option for management advice. They will also then review the research and data collection recommendations, tell us what they think about our recommendations, and make their own recommendations for future research to improve the reliability of the assessment in the future.

They will provide their own opinion on the timing of the next benchmark and stock assessment updates. Then prepare their final report summarizing their evaluation of our assessment, and ideally have that done within four weeks of the end of the workshop. That's it for the TORs, I am happy to answer any

questions. I don't know if you want to just jump straight into the SAS, or also approve them separately.

CHAIR DAVIS: I think what we'll do here is just pause for a moment and see if there are any questions from the Board for Katie, relative to the Terms of Reference. Mike Armstrong.

DR. ARMSTRONG: Katie, going back to the bycatch TOR. The putative source that everyone believed was a major source was the herring and the mackerel fishery, which are at a very, very diminished level now, and yet as Justin said, we've had tremendous downturns across age classes, which is suggested of bycatch, because it's not year class strength Will you be looking at, what we see is bycatch in small mesh. Other fisheries that kind of have been ignored, like whiting and squid, would it be your intent to dig into those other fisheries and see what you find?

DR. DREW: Yes, good question. Obviously, there is the mackerel and the herring fisheries have had special dedicated sampling programs for that level of bycatch and monitoring. But there is also the larger Northeast Fishery Science Center Bottom Trawl, sorry there is the bottom trawl, but I was thinking specifically of the Observer Program that covers a wider range of gears and fisheries.

However, that also does have limited coverage, so it's hard to say what the uncertainty will be on those estimates. We will update them for this assessment, and we'll look for other sources of bycatch data if possible. But for sure, it's a limitation of the data that we have available to us that there is going to be a lot of uncertainty around that.

While that TOR is specifically for a management plan that addresses those two fisheries, I think we can provide more general advice as well. Perhaps we won't be able to say, this is the exact level for the cap that the Council is interested in, but can we provide advice on bycatch in general, to the Council to address that as a whole, based on our data.

CHAIR DAVIS: Okay, Bill Hyatt.

MR. WILLIAM HYATT: I don't know if this is a question, you're going to be able to answer at this point. But given all the if possible and where possible in what you showed us. It seems like TOR Number 8 is going to be kind of an important catch all to address a lot of this stuff. I just was wondering if you've given any thought to how fine grained, relative to specific watersheds and populations you envision getting in this assessment, compared to say previous assessments?

DR. DREW: I think we want to get as fine grained as we can, given the data. There will definitely be some systems where we can get very detailed information, and possibly even develop estimates of exploitation or estimates of total biomass. There will be other systems where it's like, well we think we saw a river herring in there once.

I think the goal is to try to be as detailed as possible spatially, but then build up to more regional within still a biologically based framework to say, okay this river appears to be or is most likely part of this larger meta stock, and what is the overall trend doing for these different rivers? Where we can combine datasets from different rivers into still a biologically meaningful trend. I think it's still hard to say. The goal would not be to less detailed than previous assessments. I think the goal would be to maybe instead of focusing on the last time the level between river and coast was state.

If we couldn't, you know we would talk about specific rivers and then we talk about the states in general, and then the coast. I think this time the goal would be, instead of focusing on state as a unit, focus on some of these genetic regional stocks as a unit in between river and coast, if that helps.

CHAIR DAVIS: John Maniscalco.

MR. JOHN MANISCALCO: Bill and I had similar questions. I was just wondering if we've previously

been able to utilize environmental data in earlier river herring assessments, and if you think there is a real chance of getting to see some analyses on at least some river systems, considering environmental impact.

DR. DREW: I think we've had some limited information, but it has been more in a qualitative sense of saying, you know this is what the environment has done compared to this is what the trend has done. I think we're definitely interested in trying some more, especially with related to run counts, to look more comprehensively at environmental factors that could be driving those run counts, as opposed to just sort of, here's a run count, we're done.

I think trying to look at environmental conditions and other factors that could be related to that run count, as well as trying to. I think one of our big questions is, why are we seeing differences in regions? I think Southern New England was saying they've seen some of the worst runs in history recently, and other regions have been saying, things looked fine for us, 2022 was great. What is causing that difference? Is that related to the environment?

Is that related to management? Is that related to other factors that we don't have a good handle on yet? I think for sure we would like to do more with that. But again, the limitation is, do you have that environmental data for the complete time series of that run? Did your methods change halfway through your counting process, et cetera. I think we're definitely interested in that, and we'll pursue it where possible, given the data limitations that we have.

CHAIR DAVIS: Okay, I'll go to Lynn Fegley and then John Clark.

MS. FEGLEY: Thank you, Katie, for that presentation. I was curious, you've got a TOR to reflect on additional sources of mortality by stock, and then also the bycatch. I'm just wondering if there is any mechanism to look at how bycatch is affecting a particular stock. As Mike Armstrong pointed out, there is sort of putative that bycatch could be impacting the runs in the Northeast, and maybe that's why the Northeast is having issues. Is there a way to tease out bycatch mortality and how it affects a particular stock, or how does that work?

DR. DREW: There has been some limited data collected on the genetic composition of fish in the bycatch fishery. We do have, but it's more snapshot type of stock. We can definitely look at, you know in recent years there has been data collected on that, so we can definitely then link some of that bycatch back to these genetic stocks, probably not down to the river level, but back to some of these more genetically distinct stocks. But again, that's kind of like a snapshot in time.

But it's definitely a step closer to maybe having an understanding of, again are these differences in condition or run counts, etcetera, coming from something like differential mortality in these bycatch fisheries across different regions. It's something we're very interested in looking at.

CHAIR DAVIS: Okay, John Clark.

MR. JOHN CLARK: Thanks for the presentation, Katie. Yet another question on Number 8. The item you had about predation just had me curious. We've seen an absolute explosion of invasive catfish in the Mid-Atlantic, and we've been doing stomach contents on blue cats. Is there any way to work that type of information into your natural mortality?

Then on the other hand there is a huge amount of money available right now going into fish passage. We have a lot of dams just in a state as small as Delaware that are slated either for removal or putting in natural fish passages to allow herring to get over. Is that something that can be considered in the modeling you do?

DR. DREW: Good question. I am not sure that we will be able to quantify the effects of predation, in

terms of changing your natural mortality at this point. I think we definitely look at linkages between increasing of the invasive species, or increases in the striped bass population in certain rivers, and how does that compare to the overall trends in mortality that we're seeing?

I think we can look at it as a factor. It may end up being a little more qualitative than quantitative at this point. In terms of the fish passage question. We are working again with the people who did the shad habitat model, and tried to translate that into a river herring model. We'll hopefully be able to provide some similar information that we did with shad about the potential benefits of restoration and quantify the effects of habitat loss for river herring.

Obviously, it's not a simple port over that the shad habitat is different than the river herring habitat, and so for blueback herring is different than alewife at that level. We'll need to put in some more work to refine those maps and the habitat for those species. But hopefully we can apply that same approach, and provide some more information on that as we did for shad.

CHAIR DAVIS: Okay, I'll look to the Board to see if there are any additional questions on the Terms of Reference for the stock assessment. Do we have any hands on the webinar at all? Okay, not seeing any additional questions.

APPROVAL OF STOCK ASSESSMENT SUBCOMMITTEE MEMBERSHIP

CHAIR DAVIS: I think what I would like to do at this time is ask Dr. Drew to present the Stock Assessment Subcommittee membership, and then after that we'll entertain motions to approve the Terms of Reference and the Stock Assessment Subcommittee membership.

DR. DREW: It should be very quick. I will be presenting the Stock Assessment Subcommittee membership. We have excellent representation. We have people from NOAA Fisheries, U.S. Fish and Wildlife, as well as somebody from the USGS via the University of Maine. Joe Zydlewski one of the habitat modelers I mentioned before, as well as representation from Maine, Delaware, New York, Massachusetts, South Carolina, Maryland and ASMFC. I think it's a great subcommittee. These are the names, and good expertise in terms of riverine biology, as well as modeling approaches. They have all been hard at work already in the assumption that you will approve them.

CHAIR DAVIS: There is certainly quite a collection of talent up there on the slide, so we look forward to all the great work they're going to do. I think at this point we could entertain a motion from the Board to approve both the terms of reference and the Stock Assessment Subcommittee membership in one motion. I believe staff has a motion like that prepared, so I'll look to the Board to see if somebody would like to make that motion. John Clark.

MR. CLARK: I would be glad to make that motion, Mr. Chair. Move to approve the Stock Assessment Committee and Terms of Reference for the 2023 Benchmark Stock Assessment as presented today.

CHAIR DAVIS: We have a motion from John Clark. I think I saw a second from Lynn Fegley. I'll ask the Board if there is any discussion on the motion. Malcolm Rhodes.

DR. MALCOLM RHODES: Do we need to include accepting the members of the Stock Assessment Subcommittee in this motion, or should that be a separate one, or is that in it already?

DR. DREW: It should be subcommittee, Stock Assessment Subcommittee. I think you were just thrown off by the lack of the Sub in there.

CHAIR DAVIS: Thanks for that, Malcolm**. Okay, I'll ask the Board if there are any objections to the motion. Seeing none, the motion passes by unanimous consent**.

PRESENTATION ON NOAAS RIVER HERRING HABITAT CONSERVATION PLAN

CHAIR DAVIS: Moving right along to our next agenda item. We're going to have a presentation on NOAAs River Herring Habitat Conservation Plan by Ben German and Jonathan Watson. Ben and John, I'll go ahead and turn it over to you.

MR. BEN GERMAN: Good morning, everybody, I want to thank you for the invitation to present an overview to the Board on NOAAs River Herring Habitat Conservation Plan. My name is Ben German, and I work in the Habitat and Ecosystem Services position at NOAA Fisheries, in our Greater Atlantic Regional Fisheries Office in Gloucester, Massachusetts. I am joined today by my colleague, Jonathan Watson, and I'll ask him to introduce himself and do a little microphone check here.

MR. JONATHAN WATSON: Hi, I'm Jonathan Watson, also with NOAA Fisheries Habitat and Ecosystem Services Division in the Great Atlantic Region in the Annapolis Field Office. Happy to be here today.

MR. GERMAN: First we want to acknowledge the NOAA Office of Habitat Conservation for funding this effort. You can see here the three groups that were responsible for document development. First, we have the core team, led by a contractor, which was comprised of Jonathan and myself, as well as contractors, who's time with us has ended, he was Matt Best, as well as Sean McDermott who helped out early in plan development, and is assisting with the final review.

Then we had the working group, which you can see there, which is a primarily internal team to NOAA, although we did have representatives from ASMFC as you can see there. Then we had the Steering Committee, which was comprised of regional river herring subject matter experts from partner agencies and academia.

This is just a brief overview of the folks involved. We'll provide a little more detail on the roles of these groups in a later slide. For a bit of background on the effort. Back in 2015, as many of you may be aware, the TEWG was formed, that's the Technical Expert Working Group, to help address the need for river herring conservation and restoration.

As a part of the documents produced by that group, there was a number of them, but they were kind of compiled into a plan back in 2015. The TEWG, although it's no longer formally assembled, it's now kind of folded into the River Herring Forum that meets biannually. At that time the TEWG recommended that the work they completed would be updated and expanded as necessary, to reflect the temporary needs and approaches to research and restoration.

This plan approaches river herring conservation at the coastwide scale, built upon that effort and takes a bit of a broader approach than most watershed plans that you may be familiar with. This allows for a bit of more acoustic framework. However, it is a little bit less specific likely than some of the regional and local plans, by necessity.

But it is designed to support these more directed efforts at finer scales. Here is some of the plan features that seek to improve on past efforts. The 2015 plan was largely retrospective, and came on the heels of NMFS 2013 Endangered Species Act listing determination. River herring were not listed as a result of the 2013 determination, or the revisit in 2019.

However, it was noted in both cases that the lack of information on the species is a challenge, but more on this later. This plan takes a bit more proactive of an approach, focusing on the needs of river herring over the next decade and beyond. Also, it's being produced in a traditional document format, which is a bit easier to navigate and share out, compared to the web-based offering of the 2015 plan, which incidentally is no longer public facing. With that I'll turn it over to Jonathan for some finer details on the contents of the plan.

MR. WATSON: Yes, what were our overall goals at the outside of this plan, and essentially asking the question of how do we conserve and restore these species, which are at historically low abundances coastwide, really with a focus on their habitat. The goal here was to provide a framework complete with goals and objectives for the restoration of river herring throughout their range in a single document.

It's also to facilitate hydropower licensing review, federal EFH and hydropower consultations, and promote restoration projects in support of river herring conservation and management. This document is really designed to help NOAA Fisheries meet our mandates in all these avenues. We also want to support coordination and collaboration internally across regions, you know the Great Lake Region and the Southeast Region of NOAA Fisheries, and also between tribes and state agencies and other partners.

Finally, another broad goal is to support collaborative restoration activities by state agencies, tribes, and NGOs and other stakeholders throughout the range of river herring, which is Florida to Maine. How we went about doing this, basically structured the effort by developing two different committees.

Obviously, the core team that has been described, included Ben, myself and a contractor, Matt Best, as well as Sean McDermott. But then also, you know with close review from the NOAA internal team and ASMFC representatives, which is about 10 people from the Greater Atlantic Region, NOAA Fisheries, the Southeast Region and the restoration center.

That group, that working group was really responsible for reviewing and compiling available data, developing the content, producing the draft materials, and providing initial review of the document. Then the Steering Committee, which was composed of those technical experts throughout the range of river herring.

They were responsible for providing feedback on the plan content and direction, bringing additional regional context to the document, providing secondary review. We have been through several rounds of review at this point. We are closing in on entering it into the final publication process through our policy series, the Greater Atlantic Region Field Office policy series, which is anticipated at the end of this year, or maybe beginning of next year.

A lot of text here, not intending to be read, but this is essentially how we structured the plan. Each of these bullets represent a chapter. Aside from the intro to the agencies, which have been our missions, which we've already kind of covered here. I'll jump into each one of these sections in a little bit finer detail here.

The first two chapters of the document focus on life history and stock status. A lot of this information is already out there has been presented in various documents. But we worked to update those documents by placing recent studies, which add to that body of knowledge within the context of this past literature.

We also provide information about the management timeline, recent fisheries management efforts, and condensed several decades of fisheries management information into one source document, and divided it up by regions. That section is largely an update. One of our major focuses of the document was to describe the threats to river herring, again, many of which are known.

These include barriers to migration and lost connectivity, climate change, habitat degradation, at-sea morality, hybrids and landlock variance, trophic dynamics and other interspecific interactions. You know as I said, many of these were known, but we provide some updated literature examining their likely effects, and described studies that have focused on emerging threats like invasive species, such as blue catfish out

on the lower left there, and climate change, which we are still learning about. In the data gaps and research needs section, you know many of these were identified in the 2015 plan developed by the Technical Expert Working Group, and they were focused on several categories, including climate change, fisheries and stock status, life history strategies and population dynamics, habitat use, and viability, species interactions, historical population information.

Here we just highlight the need for continued research on these species, because we're still learning about them and there are still things we don't know. We also highlight how answering specific research questions would help address emerging threats, you know for example climate change, and identify how it would help direct the management of the species.

Section 6, I believe it is, the ecosystem integration and social ecological benefit section, you know acknowledges that a healthy well-functioning riverine system holds intrinsic values that can be measured in economic, social, cultural and ecosystem services terms. In many systems river herring are considered a keystone species.

We note that function. By highlighting each of these benefits, we also note that where the stock is diminished restoration provides an opportunity to enhance this suite of functions and we really worked to tie it to the human community benefit. We also drew attention to the important link that river herring provide between marine and freshwater ecosystems, such as marine derived nutrients, the prey buffering roles that they served.

Support of the marine food web as forage, and also co-benefits for other freshwater species such as mussels. Then again, as one of those ways that we worked to demonstrate the value for communities of river herring, you know to human communities. We documented different contemporary river herring festivals up and down the coast.

We currently have about 20 different festivals, and most of those are in New England. We just acknowledge that those festivals can help establish a sense of place, and it can enhance economic activity in some of our coastal towns. I'm going to turn it back over to Ben to finish up the plan description.

MR. GERMAN: This section tackles a bit of a description of the watersheds that we're looking at here. You can see on the map we're looking at 24 coastal HUC4 watersheds from Maine to Florida. This is an area over 300,000 square miles. It gives a very broad overview of river herring management and threats documented in each of these watersheds.

It also attempts to catalogue existing plans and assessments, reference those, describing threats and sources of degradation in teach specific watershed. Adding in a little finer scale in this section as well, we have kind of an overview of the 233 HUC8 watersheds that comprise those 24 HUC4s that I showed in the previous slide. We attempt to assign a designation whether that HUC8 is a focus area or not for river herring management.

In order to do this, we establish four criteria, and based on our review to date the identified focus areas were highlighted here. You can see in green it was yes, a focus, in red not a focus, and the shade indicates how many of the four criteria the reviewers indicated that that watershed met, in their opinion. Those criteria were Number 1, water sheds with greatest river herring potential, which could mean production in total numbers of fish or the importance of that contribution to the region.

Number 2 was watersheds in greatest need of river herring restoration, which could result from degraded historical habitat, extirpated runs for one reason or another, invasive species or lost connectivity. Criteria Number 3 was historical or cultural significance of the former runs, which

speaks to regional sense of place, which includes economic impacts.

Criteria Number 4 was watersheds with ongoing river herring work, which includes travel, federal, state, local, academic or NGO run projects. You can see there the dark green areas are both a yes focus and meet 3 or 4 of these criteria. Generally, we defer to the highest value indicated for any HUC8.

If there were multiple reviewers for a single HUC 8, and one said it was a focus and one said it wasn't, we deferred to the yes vote. I also want to point out that this designation is not intended to indicate a priority for projects or watersheds. It's really as a more formal prioritization exercise might, rather it's included here in this plan to shed light on areas where river herring restoration is currently occurring, and it is expected to be a focus of the state managers, tribes and others, over the next decade.

This exercise also served to inform the development of the plan itself, providing relevance and context to our goals and objectives for river herring habitat conservation. You can kind of view this as a bit of a heat map of where work is being done. You can kind of see the northeast is relatively dark in color compared to the southeast.

But there is certainly more detail on this plan, and we would like you to take a look once it is published, if you're interested. The next section, Section 8, is the goals, objectives and recommendations. These were developed including some measurable actions for the restoration of river herring.

The recommendations are specific action items that fall under each objective, which serve the broad level goals. They are viewed as generally beneficial, proactive steps to help the species, and they are not intended to be prescriptive or directive, so there are very few instances here of technical guidance, they are more broad recommendations.

They are crafted to strengthen and support regional watershed and local restoration efforts. Here you can see kind of the four very high-level goals, and I'll briefly run through the four of these, as well as some relevant objectives, the examples of objectives that would fall under each one. Goal 1 is focused on improving connectivity between the ocean habitat and the spawning and rearing habitat in fresh water.

Objectives under this goal include developing watershed plans and prioritizations, pursuing barrier removals where possible, advocating for effective fish passage where removal is not feasible. Each of these objectives have action items that stress a watershed approach to connectivity. Goal 2 focuses on figuring out where the valuable spawning and rearing habitats are, and working to conserve and restore them. Objectives here include things like assessing the quantity and quality of current and potential habitat, restoring degraded habitats, and minimizing human impacts on river herring and their habitats, pertaining to things like construction, water intakes, et cetera.

Goal 3 is focused on building partnerships that we may collectively work together for the benefit of these species. Objectives here include disseminating information about research and potential funding for project partners and continuing to convene researchers, managers and restoration practitioners at the river herring forum.

Finally, Goal 4 is focused on addressing knowledge gaps. Objectives here include describing how climate change may interact with other threats, such as invasive species, monitoring of runs, and providing reliable and comparable data throughout the range of species, and defining factors that govern effective upstream and downstream passage at different barriers.

Again, there are many sub bullets to each of these, but these goals and objectives are really aimed to benefit river herring and support efforts of

practitioners engaged in restoration at state and local scales. The final section of the plan is what we've called our restoration project showcase. It provides examples of recent restoration efforts targeted to benefit river herring.

We worked with our restoration center and other practitioners, including state agencies and NGOs to develop a comprehensive list of projects that have occurred over the last five or ten years. We came up with a list of 30 plus projects that are included in a table in the appendix of the plan. But we selected 11 of these to highlight in this section, which represent a range of approaches implemented across the range of the species.

It's intended to describe some of the successes and lessons learned through the process of implementing these projects, and it's intended to provide some greater insight into how the projects are developed, funded and challenges to overcome to help inform future efforts. Finally, I'll just close with some of the intended benefits to the plan.

It's really a compendium of material at a coastwide scale. Again, much of this information is available, but is scattered among various state watershed and local planning efforts, and our intent here is to bring them together into a single document. Not to rehash those efforts, but at least to, in some cases, point the reader to relevant documents that they may be interested in.

It provides watershed information, management actions and timelines, as well as recommendations for the diversity of habitats that support river herring along the Atlantic coast, and has a particular relevance to some of the recent federal funding opportunities to the infrastructure law.

It also helps with our internal coordination across regions at NOAA Fisheries. In our work, whether it's FERC hydropower or non-hydropower engagement, and it also provides the granular detail on restoration projects encourage to help inform future efforts. With that I'll wrap up and take questions if there are any. Thank you for your time today.

CHAIR DAVIS: I'm being told Jonathan and Ben may not have heard what I just said, so I'll just thank them again for the presentation, and I'm looking to the Board to see if there are any questions. Mike Armstrong.

DR. ARMSTRONG: I'm pretty sure I saw it earlier, but I sort of missed it. When will this document become available?

MR. GERMAN: We're hoping to publish by the end of this calendar year, at the very latest January or February.

DR. ARMSTRONG: I'm lazy and we're busy. If you could provide notification to ASMFC, and maybe through James, and he could then notify all of us when it becomes available, that would be awesome.

MR. GERMAN: We'll be sure to do that.

CHAIR DAVIS: Okay and James is nodding, so it sounds like that will happen. Any other questions from the Board? Okay, thank you again, Jonathan and Ben for that presentation.

REVIEW AND POPULATE ADVISORY PANEL MEMBERSHIP

CHAIR DAVIS: All right, we'll move on to our last item on the agenda this morning and turn to Tina Berger from Commission staff, who has a nomination for the Advisory Panel.

MS. TINA L. BERGER: I offer for the Board's consideration and approval two nominees to the Shad and River Herring Advisory Panel, Paul Perra a recreational angler and Jerry Audet also an angler and outdoor writer. Both are from Massachusetts.

CHAIR DAVIS: Thank you, Tina. We have a motion up on the board. I'll look to see if there is somebody willing to make that motion. Cheri Patterson. Cheri, would you be willing to read that. Thank you.

MS. PATTERSON: Yes, I would love to, it would be wonderful to see Paul Perra back into this. **Move to approve the nominations of Paul Perra and Jerry Audet from Massachusetts to the Shad and River Herring Advisory Panel**.

CHAIR DAVIS: Okay, and I'm seeing a second from Pat Geer down the line there. I'll ask the Board if there is any discussion or comments on the motion. **Okay, I'll ask if there are any objections to the motion. Seeing none; the motion passes by unanimous consent**. All right, so we've reached the end of our agenda items.

ADJOURNMENT

I'll ask if there is any other business to come before this Board this morning. Okay, not seeing any takers, I'll again thank Dr. Katie Drew, James Boyle and Brian Neilan for their help running the meeting this morning. I was also remiss this morning not acknowledging Madeline Musante and Dustin Colson Leaning down there at the end of the table who are helping keep the magic board going this morning.

Thanks very much for your help with that. I'll take a quick moment just to congratulate Dustin. Dustin is going to be leaving the Commission, I believe next week, for a new position with Environmental Defense Fund. I've had the good fortune of working closely with Dustin in my capacity as the Chair of the Summer Flounder, Scup and Black Sea Bass Management Board, and Dustin's been excellent to work with. I'm sure he'll be an asset to his new organization he's moving on to. Thank you, Dustin, and congratulations and good luck.

(Whereupon the meeting adjourned at 10:30 a.m. on Tuesday, November 8, 2022)

Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • www.asmfc.org

MEMORANDUM

January 9, 2023

To: **Shad and River Herring Management Board**

From: **Tina Berger, Director of Communications**

RE: **Advisory Panel Nomination**

Please find attached a new nomination to the Shad and River Herring Advisory Panel – Stephen Gephard, a recreational angelr and retired CT DEEP biologist with over four decades of experience with diadromous species. Please review this nomination for action at the next Board meeting.

If you have any questions, please feel free to contact me at (703) 842-0749 or tberger@asmfc.org.

Enc.

cc: James Boyle

SHAD & RIVER HERRING ADVISORY PANEL

Bolded names await approval by the Shad & River Herring Management Board

January 9, 2023

Maine
River Herring:
Deborah Wilson (conservation)
374 Bayview Road
Nobleboro, ME 04555
Phone: (207)380-6997
Deb.wilson1028@gmail.com
Appt Confirmed 5/3/22

Mike Thalhauser (comm)
Alewife Harvesters of Maine
13 Atlantic Avenue
Stonington, ME 04681
207.367.2708
mthalhauser@coastalfisheries.org
Appt. Confirmed 10/30/19

Shad:
Vacancy - shad rec

New Hampshire
Shad & River Herring:
Eric Roach (rec)
54A Foggs Lane
Seabrook, NH 03874
Phone: 603.502.0928
Eroach1970@gmail.com
Appt Confirmed 2/4/21

Massachusetts
Shad & River Herring:
Paul Perra (rec)
5 Candleberry Court
Bourne, MA 02532
Phone: 978.381.4746
pperra@icloud.com
Appt Confirmed 11/8/22

Jerry Audet (rec/outdoor writer)
286 Yew Street
Douglas, MA 01516
Phone: 304.906.1298
indeepoutdoorswmedia@gmail.com
Appt Confirmed 11/8/22

Connecticut
Shad & River Herring:
Stephen Gephard (rec)
7 High Street
Deep River, CT 06417
Phone: 860.966.9344
sgephard@gmail.com

1 Vacancies

New York
Shad & River Herring:
Byron Young
53 Highview Lane
Ridge, NY 11961
Phone: (631) 821-9623
Cell: (631) 294-9612
Fax: (631) 821-9623
Email: youngb53@optimum.net
Appt. Confirmed 5/5/08
Chair from 1/09- 1/11
Confirmed interest in March 2019

New Jersey
Shad:
Vacancy – recreational

Shad & River Herring:
Jeff Kaelin (comm. trawl and purse seine)
Director of Sustainability and Government Relations
Lund's Fisheries, Inc.
997 Ocean Drive
Cape May, NJ 08204
Phone: 207.266.0440
jkaelin@lundsfish.com
Appt Confirmed 8/20/09
Confirmed interest in March 2019

Pennsylvania
Vacancy

SHAD & RIVER HERRING ADVISORY PANEL

Bolded names await approval by the Shad & River Herring Management Board

January 9, 2023

Delaware
Shad & River Herring:
Dr. Edward Hale
Delaware Sea Grant
23 Gosling Drive
Lewes, DE 19958
Phone: 302.470.3380
Ehale@udel.edu
Appt Confirmed 2/4/21

Maryland
Shad & River Herring:
Vacancy - recreational

Virginia
Shad & River Herring:
Vacancy

Shad:
Vacancy

North Carolina
River Herring:
Louis Ray Brown, Jr. (rec)
212 Walnut Creek Drive
Goldsboro, NC 27534
Phone (day): (919) 778-9404
Phone (eve): (919) 778-9792
FAX: (919) 778-1197
Email: oldpirate.rb@gmail.com
Appt. Confirmed 5/5/08; 8/18
Confirmed interest in March 2019

Vacancy – commercial

South Carolina
Shad:
Thomas M. Rowe, Jr. (rec)
4625 Flounder Lake Drive
Meggett, SC 29449
Phone: 843-908-0247
FAX: 843-549-7575
Email: thomasmrowe@hotmail.com
Appt Confirmed 8/3/10
Confirmed interest in Sept 2017

Vacancy – commercial net

Georgia
River Herring:
Fulton Love (dealer)
6817 Basin Road
Savannah, GA 31419
Phone: (912)925-3616
FAX: (912)925-1900
Appt. Confirmed 10/30/95
Appt. Reconfirmed 9/8/99; 3/19/08
No response to Sept 2017 or March 2019 inquiry regarding continuing interest in serving on AP

Florida
Shad & River Herring:
2 vacancies

Potomac River Fisheries Commission
River Herring:
Kevin L. Gladhill (rec)
21370 Mount Lena Road
Boonsboro, MD 21713
Phone (day): (301)988-6697
Phone (eve): (301)714-1074
Email: KLGladhill@myactv.net
Appt. Confirmed 5/5/08
No response to Sept 2017 or March 2019 inquiry regarding continuing interest in serving on AP

Vacancy – commercial pound net

District of Columbia
Shad:
Joe Fletcher (rec)
1445 Pathfinder Lane
McLean, VA 22101
Phone (day): (202)244-0461
Appt. Confirmed 10/30/95
Appt. Reconfirmed 9/15/99
Appt. Reconfirmed 4/21/08
No response to Sept 2017 inquiry regarding continuing interest in serving on AP

Nontraditional Stakeholders

Chair, Pam Lyons Gromen (fisheries conservation) (1/11)
Executive Director
Wild Oceans
1793 Sandy Court
Springboro, Ohio 45066
Phone: 240.405.6931
Email: plgromen@wildoceans.org
Appt. Confirmed 5/5/08
Confirmed interest in March 2019

Alison A. Bowden
Freshwater Program Director
The Nature Conservancy
205 Portland St, Suite 400
Boston, MA 02114
Phone (day): (617) 227-7017 x351
Phone (eve): (617)678-6135
FAX: (617) 227-7688
Email: abowden@tnc.org
Appt. Confirmed 5/5/08
Confirmed interest in March 2019

ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

This form is designed to help nominate Advisors to the Commission's Species Advisory Panels. The information on the returned form will be provided to the Commission's relevant species management board or section. Please answer the questions in the categories (All Nominees, Commercial Fisherman, Charter/Headboat Captain, Recreational Fisherman, Dealer/Processor, or Other Interested Parties) that pertain to the nominee's experience. If the nominee fits into more than one category, answer the questions for all categories that fit the situation. **Also, please fill in the sections which pertain to All Nominees (pages 1 and 2). In addition, nominee signatures are required to verify the provided information (page 4), and Commissioner signatures are requested to verify Commissioner consensus (page 4). Please print and use a black pen.**

Form submitted by: Justin Davis (your name) State: Connecticut

Name of Nominee: Stephen Gephard

Address: 7 High Street

City, State, Zip: Deep River, CT 06417

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 860-966-9344 Phone (evening): 860-966-9344

FAX: n.a. Email: sgephard@gmail.com

. . . . . .

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.
   1. Shad and River Herring
   2. _____
   3. _____
   4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

   yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes X no_____

If "yes," please list them below by name.

Connecticut River Salmon Assoc.

(recreational)

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Striped Bass

Bluefish

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Atlantic Salmon

trout

black bass

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years

2. Is the nominee employed only in commercial fishing? yes_____ no_____

3. What is the predominant gear type used by the nominee?_____

4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)?_____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years

2. Is the nominee employed only in the charter/headboat industry? yes _____ no_____

   If "no," please list other type(s)of business(es) and/occupation(s):_____

   _____

3. How many years has the nominee lived in the home port community? _____ years

   If less than five years, please indicate the nominee's previous home port community.

   _____

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? >60 years

2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no X

   If "yes," please explain.

_____

_____

_____

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____years

2. Is the nominee employed only in the business of seafood processing/dealing?

   yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

_____

_____

_____

3. How many years has the nominee lived in the home port community? _____ years

If less than five years, please indicate the nominee's previous home port community.

_____

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? ~50 years

2. Is the nominee employed in the fishing business or the field of fisheries management?
yes X no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

_____

_____

_____

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

The formatting for this space is non-functional. Please see attached addendum.

Nominee Signature: _____ Date: 12/21/2022

Name: Stephen Gephard
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

_____
State Director

_____
State Legislator

_____
Governor's Appointee

ADDENDUM TO THE ADVISORY PANEL NOMINATION FORM- Gephard

The nominee holds a BA in Biology and a MS in Fisheries Biology and worked for 42 years with the CTDEEP Fisheries Division as a fisheries biologist, specializing in diadromous fish species. Upon retirement in 2020, he had supervised the CTDEEP's Diadromous FIsh program for nearly 20 years. During this time, he was the first chairman of the ASMFC's American Eel Technical Committee. He has extensive technical experience with both Alewife and Blueback Herring as well as knowledge with American Shad. He has co-authored technical publications on these species. He is currently a self-employed fisheries consultant specializing in diadromous fish species and fish passage and remains active in the field. He currently is a member of Steering Committee on development NOAA's River Herring Habitat Conservation Plan.

Atlantic States Marine Fisheries Commission

ISFMP Policy Board

February 2, 2023
9:45 – 11:15 am
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(S. Woodward)*	9:45 a.m.
2.	Board Consent *(S. Woodward)* • Approval of Agenda • Approval of Proceedings from November 2022	9:45 a.m.
3.	Public Comment	9:50 a.m.
4.	Executive Committee Report (*S. Woodward*)	10:00 a.m.
5.	Review and Discuss 2022 Commissioner Survey Results (*T. Kerns*)	10:15 a.m.
6.	Discuss Atlantic Bonito Management (*D. McKiernan)*	10:35 a.m.
7.	Update on Ongoing Stock Assessments **Action**	10:45 a.m.
8.	Review Noncompliance Findings (If Necessary) **Action**	10:55 a.m.
9.	Other Business	11:00 a.m.
10.	Adjourn	11:15 a.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

MEETING OVERVIEW

ISFMP Policy Board
Thursday February 2, 2023
9:45 – 11:15 a.m.
Hybrid Meeting

Chair: Spud Woodward (GA) Assumed Chairmanship: 10/21	Vice Chair: Joe Cimino (NJ)	Previous Board Meetings: November 10, 2022
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (19 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from November 2, 2022

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Executive Committee Report (10:00- 10:15 a.m.)
Background • The Executive Committee will meet on February 1, 2023
Presentations • S. Woodward will provide an update of the Executive Committee's work
Board action for consideration at this meeting • none

5. Review and Discuss 2022 Commissioner Survey Results (10:15-10:35 a.m.)
Background • Commissioners completed a survey of Commission performance in 2022 (**Supplemental Materials**). The survey measures Commissioner's opinions regarding the progress and actions of the Commission in 2022.
Presentations • T. Kerns will present the results of the 2022 Commissioner survey highlighting significant changes from the previous year.

Board discussion for consideration at this meeting

- Determine if any action is required based on the survey results

6. Discuss Management of Atlantic Bonito (10:35-10:45 a.m.)

Background

- Some questions have been raised regarding Atlantic bonito management or lack of management. Some states are seeing robust recreational fisheries at certain times of the year on young of year fish vs adult fish.

Presentations

- None

Board action for consideration at this meeting

- Discuss Atlantic bonito fisheries along the Atlantic coast

7. Update on Ongoing Benchmark Stock Assessments (10:45-10:55 a.m.) Action

Background

- Atlantic croaker, spot and red drum benchmark stock assessments work has begun
- The Sciaenid's Board will not meet this winter but the Terms of Reference (**Supplement Materials**) need to be approved

Presentations

- Staff will present TORs for Atlantic croaker, spot and red drum

Board action for consideration at this meeting

- Consider approval of TORs

8. Review Non-Compliance Findings, if Necessary Action

9. Other Business

10. Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ISFMP POLICY BOARD

The Ocean Place Resort
Long Branch, New Jersey
Hybrid Meeting

November 7, 2022

These minutes are draft and subject to approval by the ISFMP Policy Board.
The Board will review the minutes during its next meeting

TABLE OF CONTENTS

INDEX OF MOTIONS

1. **Approval of agenda** by Consent (Page 1).

2. **Approval of Proceedings of August 21, 2022 Hybrid Meeting** by Consent (Page 1).

3. **Move to approve De Minimis Policy as presented today** (Page 6). Motion by Doug Grout; second by Doug Haymans. Motion carried with one objection (Page 6).

4. **Move to adjourn** by Consent (Page 14).

.

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Cheri Patterson, NH (AA)
Doug Grout, NH (GA)
Dan McKiernan, MA (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Jason McNamee, RI (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
Jim Gilmore, NY (AA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
John Clark, DE (AA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Lynn Fegley, MD (AA) (Acting)
Pat Geer, VA, proxy for J. Green (AA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Jerry Mannen, NC (GA)
Chris McDonough, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Marty Gary, PRFC
Mike Ruccio, NOAA
Rick Jacobson, US FWS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Staff

Robert Beal
Toni Kerns
Tina Berger
Madeline Musante
Kristen Anstead
Tracey Bauer
Katie Drew
Emilie Franke
Lisa Havel
Chris Jacobs
Jeff Kipp
Adam Lee
Mike Rinaldi
Julie Simpson

Guests

Jason Avila
Alan Bianchi, NC DENR
Colleen Bouffard
Nicole Caudell, MD DNR
Karson Cisneros, MAFMC
Heather Corbett, NJ DEP
Jessica Daher, NJ DEP
Jeffrey Dobbs, NC DENR
Cynthia Ferrio, NOAA
Anthony Friedrich, SGA
Alexa Galvan, VMRC
Lewis Gillingham, VMRC
Jesse Hornstein, NYS DEC
Adam Kenyon, VMRC
John Kravchak
Mike Luisi, MD DNR
Tina Moore, NC DENR
Brandon Muffley, MAFMC
Brian Neilan, NJ DEP
Derek Orner, NOAA
Nicholas Popoff, US FWS
Will Poston, SGA
Jill Ramsey, VMRC
Jeff Renchen, FL FWC
Chris Scott, NYS DEC
McLean Seward, NC DENR
Somers Smott, VMRC
Bryan Sparrow, Fuji Film
Rene St. Armand, CT DEEP
Alex Su
Beth Versak, MD DNR
Eric Wallace
Kate Wilke, TNC
Angel Willey, MD DNR
Chris Wright, NOAA
Faith Zerbe, DE Riverkeepers
Erik Zlokovitz, MD DNR

The ISFMP Policy Board of the Atlantic States Marine Fisheries Commission convened in The Monmouth I Room in The Ocean Place Resort, via hybrid meeting, in-person and webinar; Thursday, November 10, 2022, and was called to order at 12:00 p.m. by Vice-Chair Joe Cimino.

CALL TO ORDER

VICE-CHAIR JOE CIMINO: I'm going to call the Policy Board to order. Once again, this is Joe Cimino, New Jersey DEP, and Vice-Chair of the Commission. I'm somewhat pinch hitting for Chairman Woodward, who I am glad to report made it home safely, and is participating virtually. I think this is a little bit easier for me to call on hands, since the vast majority of us are here, albeit assisted by Bob and Toni and others.

APPROVAL OF AGENDA

VICE-CHAIR CIMINO: We'll just start with Approval of the Agenda. I'll look for if there is any objection to that. Do you want to do that now?

EXECUTIVE DIRECTOR ROBERT E. BEAL: Yes, thank you, Mr. Chair. Just one additional agenda item for the Policy Board that came out of the Executive Committee. The Executive Committee recommended a letter of support for the RISEE Act. If we could add that under Other Business, I can explain the background on that at the time.

VICE-CHAIR CIMINO: Great, thank you, and a little more information will come out of the Executive Committee Report in a little bit. We'll add that to the agenda, and with no objections I'll consider that approved with unanimous consent.

APPROVAL OF PROCEEDINGS

VICE-CHAIR CIMINO: Then, approval of the proceedings from the August, 2022 meeting. Again, if no objections we'll consider that approved by consent.

PUBLIC COMMENT

VICE-CHAIR JOE CIMINO We'll open it up now to any public comment. Okay, seeing none, I would like to turn it over now to Chairman Woodward, who had some comments. I mentioned that at the Executive Committee, and so I would like to turn it over to Spud.

CHAIRMAN'S REMARKS

CHAIR SPUD WOODWARD: Thanks, Joe, can you hear me?

VICE-CHAIR CIMINO: Loud and clear.

CHAIR WOODWARD: All right, very good. Thank you, Joe, and thank you for stepping in to pinch hit for me. Sorry I had to leave the meeting, but it's probably the right decision, given the weather conditions that are here right now. It probably would have been very difficult to get home as planned, so I appreciate it.

It is customary for the Chair to make a few remarks during the annual meeting, so if you will indulge me with a few minutes, I would like to fulfill that responsibility. First of all, I want to thank all of you for your confidence in me and Joe, by reelecting us as your Chair and Vice-Chair for another year. We are certainly proud that the Commission's shared accomplishments this past year, and look forward to working with you to address the many opportunities for success before us.

I cannot overstate how wonderful it has been to finally be together for our annual meeting, after two years of having to rely on virtual participation. While we continued to accomplish our business in that virtual format, the results of this week's meeting clearly show that being together in person creates a much better environment for making mutually agreeable, or perhaps I should say mutually disagreeable decisions about complex fishery management options.

Over the past year we have made significant progress on revising two of the Commission's foundational policies, our Appeals Process and our

De Minimis Policy. Both are fundamentally important to ensuring that we treat each other fairly and without undue burden in the Interstate Management Process. I hope by the end of next year we will be able to finalize changes to another foundational policy, Conservation Equivalency.

Through the efforts of many, including Congress, NOAA Fisheries, the Commission's Finance Department, and Cares Act Administrators in each state's marine fisheries agencies, we have distributed over $200 million to thousands of people in the aquaculture, for-hire and commercial fishing industry, who suffered loss of opportunity and income during the pandemic.

I was so pleased that we were able to acknowledge these folks at our Monday evening reception, for all the hard work they have done in support of our stakeholders. In 2022, we also made major strides in updating and improving a management supporting science of several species. These include approval and implementation of Amendment VII to the Striped Bass Plan, and completion of the 2022 Stock Assessment Update, which finds that our management measures are beginning to take effect, with the stock no longer experiencing overfishing.

At this meeting, we approved new addenda for Atlantic menhaden and Horseshoe crab. Although both address difficult issues, and are not without controversy, we made decisions that provide states and their stakeholders access to these shared resources, while ensuring the species health and long-term sustainability.

Lastly, as we discussed earlier this week at American Lobster Board. The Commission will continue work as a member of the North Atlantic Large Whale Take Reduction Team with NOAA Fisheries, to address the many challenges associated with the intersection of east coast fisheries, and Atlantic large whales. Our working relationships with the three east coast regional fishery management councils have never been stronger.

All three Councils and NOAA Fisheries have been working together with the Commission, on the East Coast Climate Change Planning Initiative, which explores how fishery managers can address changing fish stock availability, and distribution, while also developing strategy to strengthen fisheries management, while also supporting the fishing community. This is an extremely important endeavor, and one that I hope will lay the groundwork for how we can proactively respond to changes in the ocean environment, the shifts in species distribution and productivity over time. Working collaboratively with the Mid-Atlantic Council, we have adopted new amendments for both summer flounder and bluefish, including a rebuilding program for bluefish, and approved changes to the management of recreational fisheries for bluefish, summer flounder, scup, and black sea bass through adoption of the Harvest Control Rule.

Discussion on recreational fisheries management reform will continue to be a focus for both management bodies. We are also closely following the South Atlantic Council, as it works to finalize SEDAR Spanish Mackerel Assessment, and to determine whether next steps for management are needed and possible.

Thank you again for your vote of confidence in Joe and me. We certainly look forward to working with you in the year ahead. Let's build upon our past accomplishments, and ongoing efforts to make 2023 even more productive and successful than 2022. I certainly want to thank the help of the staff for preparing these remarks, and any past chairman will tell you that their help is necessary to making us appear smarter and certainly more eloquent than we probably really are. But thanks again, Joe.

VICE-CHAIR CIMINO: Thank you, Mr. Chair, and I will simply say here, here.

EXECUTIVE COMMITTEE REPORT

VICE-CHAIR CIMINO: For our next agenda item, well Bob has very politely offered to read out the Executive Committee Report. Thanks, Bob.

EXECUTIVE DIRECTOR BEAL: As most folks here know, the Executive Committee met yesterday morning at 8:00 a.m. 8 to 10, and went over a number of different agenda items. The first one they took action on was to review the FY22 Audit. The audit was clean, no problems were identified by the auditors, and the Commission is still in strong financial shape.

The Executive Committee approved the audit, and that is good news to hear. As always, Laura and her shop keep the financial parts of the Commission running smoothly. The next agenda item was the Cares Act Update. The Executive Committee reviewed the spending of Cares 1 and Cares 2, and there is a little bit of money left over in Cares 1, and the Commission may have that money reallocated to overhead for ASMFC, because we spent a lot more than we charged for.

Then for Cares 2, there is about 5 million dollars that will likely go unspent by individual states, because they no longer have a need, and they've accommodated all the industry folks that were impacted by COVID. We're going to consider reallocating those 5 million dollars to seven states that indicated they had remaining needs, and we're going to bring some different reallocation scenarios forward to the Executive Committee in one of their interim phone calls between this meeting and the February meeting.

The next agenda item was the De Minimis Policy. You'll hear more about this later as Toni presents it. But ultimately, the outcome of the review of this was to recommend that the Policy Board approve the draft De Minimis Policy, and as I said, we'll hear more about that in a minute. The Executive Committee reviewed a spending strategy for 14 million dollars, as allocated by Congress to deal with right whales and lobster fishery interactions with right whales. The money is to be spent on gear modifications, gear marking, vessel trackers, and vessel tracker subscriptions, as well as just general research to move forward in reducing interactions between lobster gear and right whales. The group agreed to essentially an allocation strategy that will allocate the money based on the number of federal permits that each state has. It's a proportion that will go out to each of the states.

The northern four states, Maine, New Hampshire, Massachusetts and Rhode Island are going to develop individual spend plans to submit to Congress, and the states from Connecticut through Virginia, actually Connecticut through Maryland, will develop one comprehensive spend plan. The majority of that money will come to ASMFC, and ASMFC will actually administer the money out for those states, because they have relatively small number of permit holders.

That plan will move forward. We also received an update on the conservation equivalency process or review of the conservation equivalency process. That process is moving along. There was a workgroup that reviewed a series of questions that were identified by the Policy Board, and the Executive Committee agreed that they wanted to forward those responses to those questions to the full Management and Science Committee for comment and review.

That document will bounce back to the Management and Science Committee for a little bit more work. We received an update on future annual meetings. Next year we're in North Carolina, most likely Beaufort, North Carolina. The following year we're in Maryland, and I forget where we go after that. But that is far enough in advance, so North Carolina and then Maryland the next two years.

Under Other Business, two agenda items came up. One is the RISEE Act letter that I mentioned earlier. I was contacted by a Congressional Office that was seeking the Commission's support for the RISEE Act

as it is currently written right now. RISEE is the reinvestment in shoreline economies and ecosystems.

It is essentially taking revenue generated from wind power generations, wind power leases, and moving that fund in a ratio back to U.S. Treasury, the states and into ocean projects at the state level. I'll talk about that more later, when we go into this. There is a draft letter that I e-mailed around last night to everybody.

That is what we'll be asking for approval of later in this meeting. Then the final agenda item that was brought up, there was some conversation about financial support for LGA participation in ASMFC meetings outside of our normal meeting weeks. The staff is going to go back and look into that, see what the financial affects would be.

Try to define some sideboards on what sort of an extraordinary meeting that would potentially warrant some sort of stipend or payment that is kind of above and beyond the call of duty of regular volunteer work that two-thirds of the Commissioner's do as either a Legislative Commissioner or Governor's Appointee. Those are the quick updates from the Executive Committee. I'm happy to answer any questions if there are any from the Policy Board.

VICE-CHAIR CIMINO: Yes, I would be happy to help on that as well, Bob. I really appreciate that. That was quite a bit. We don't just gather for breakfast. Any questions? Go ahead, Ray.

MR. RAYMOND W. KANE: Bob, was RAWA mentioned at all during the Executive Committee meeting?

EXECUTIVE DIRECTOR BEAL: I mentioned it briefly during the conversation about the RISEE Act, just kind of a similar idea of getting money off to the states. You know the hope is that, and Bill Hyatt, the Chair of the Legislative Committee can chime in. But the hope with the RAWA is that they will be able to get that Act approved during this lame duck session after the election. There is some momentum toward that.

There is some new information coming about, about scoring and pay forwards and all these other things. We hope to be able to share that sooner, rather than later with everybody. But if you are in contact with any of your Congressional officers, it's worthwhile just mentioning, if they can move that forward that would be really helpful. That is the hope, because if it's not approved before the end of the year, we essentially have to start over. The 118th Congress will have to reintroduce it.

VICE-CHAIR CIMINO: Go ahead, Bill.

MR. WILLIAM HYATT: Yes, just as Bob said, the Recovering America's Wildlife Act is kind of stuck on the one-yard line right now. As Bob mentioned, hopefully next week we'll have information back on scoring, and on the pay for. At that point in time, I hope to be able, I've been given by the Association of Fish and Wildlife Agencies a list of offices that would benefit from some contacts.

Hopefully at some point next week, we'll be reaching out to folks to try to encourage and help with making some of those contacts happen. As Bob said, it's on a very short timeframe that it needs to get done, and it needs to be included in an end-of-year spending package, just the strategy at this point in time.

REVIEW OF THE DRAFT DE MINIMIS POLICY

VICE-CHAIR CIMINO: Thanks for that. Any other questions? All right, we'll move on to the Policy Board's Review of the Draft De Minimis Policy. Toni.

MS. TONI KERNS: As Bob said, the Draft De Minimis Policy was reviewed by the Executive Committee and recommended for approval to the Policy Board for your review and consideration. It was on your supplemental materials, if you're looking for the Policy itself. The Draft Policy starts off with the definition of de minimis, and the guidance that is

within the ISFMP Charter on the requirements of de minimis being considered in each of our FMPs.

The De Minimis Policy would outline a set of standards for all species FMPs. It does state that species boards could deviate from the standards to address the unique characteristics of that fishery, but they just need to provide a rationale when they're deviating from the standards. We also recognize that federal FMPs do not have de minimis within their FMPs.

Any measure implemented in a Commission plan or jointly managed species, could result in an inconsistent measure between state and federal waters. The Policy would not automatically change provisions of a species FMP. An addenda or amendment would need to be completed, in order to make a change in a document. That could be either in an addendum that you have coming up, or if it's an issue that is important to that Board, to make a change to the amendments we could do a document-specific to de minimis. The minimum standards that are outlined in the document is that each FMP would establish a set of minimum standards for de minimis.

The standards are there to provide a minimum level of conservation for that species, and prevent regulatory loopholes for the states that are following the measures that are outlined in the FMP that may change from year to year, etcetera, what happens when assessments come out and we have new measures.

These measures would be, the minimum measures would be for the commercial and recreational fishery. They can either be the same for each species, or different. It requires that the standards be reviewed after each benchmark stock assessment, to make sure that they are still providing a minimum level of conservation.

For the fishery designations, the Draft Policy outlines that the provision is considered separately for commercial and recreational fisheries, or the FMP can combine them. But it is stating that you have to have a de minimis designation if a fishery exists. If there is no significant fishery, then the Plan can state that, and you wouldn't have to have a designation.

I don't mean if it's within a state, it's like the whole coast doesn't have a significant fishery, such as menhaden doesn't have a significant recreational fishery, so you wouldn't need de minimis for recreational menhaden. Under the thresholds, the de minimis would be considered off of the average landings from the previous three years.

A state would be considered de minimis if the average landings of the last three years is less than 1 percent of the coastwide landings. Then lastly, for sampling requirements, the de minimis states can be exempt from sampling requirements, but recommending that the TC and the Stock Assessment Committee review that and take that into consideration, and make recommendations to the Board.

We recognize that biological samples for some stock assessments can be very important for the outer edge states, and so we may need some different level of sampling for those de minimis states, perhaps. That would come from those Committees. That is all I have, Mr. Chair.

VICE-CHAIR CIMINO: Yes, this has been kicking around a little while now. I appreciate all the hard work that went into it, and I think we now have a balance between a standardized policy, but allowing flexibility for the uniqueness of so many of the fisheries that we manage. I'll start with any questions for Toni, and then we'll be looking for the will of the Board to move this forward. Any questions? Chris McDonough, go ahead, please.

MR. CHRIS McDONOUGH: Thanks, Toni, I apologize if you covered this and I missed this part. If a Technical Committee or the species board decide they want to make a change in how their current de minimis status is set, is that going to require an addendum process, since it's modifying the FMP?

MS. KERNS: Thanks, Chris, for that question. Yes. The Policy outlines that management changes do not happen automatically. You would need to go through an addendum or an amendment process to make a change.

VICE-CHAIR CIMINO: Chris, are you okay with that.

MR. McDONOUGH: Yes. Sorry about that, my microphone button shrunk down to a little thing I could barely see. Yes, that is fine. It answered my question.

VICE-CHAIR CIMINO: No, it's appreciated, because it's an important point that we're dealing with. As Toni mentioned, getting this Policy to be reflected in the FMPs is going to be something that is going to happen over the course of time. If we ever find ourselves in a situation where just this is important enough, moving forward de minimis into an FMP.

Then that is a discussion that is going to happen to start an addendum just specifically for that. Otherwise, we hope that as we so often do start opening these up, that we can also start incorporating these policies. Any other questions? If not, I would look for a motion. Go ahead, Doug.

MR. DOUGLAS GROUT: No questions, I just would like to be the person that makes the motion, because Charlie Lessor and I worked on this in the '90s on the Management and Science Committee, the initial concept, you know as little tiny states here and everything. I would appreciate the opportunity when it's ready.

VICE-CHAIR CIMINO: Well, and I saw another fellow de minimis state. Doug, I think we're there, so why don't you go ahead, please.

MR. GROUT: Would you like to make it jointly? I would like to move to approve the De Minimis Policy as presented today.

VICE-CHAIR CIMINO: Well, I think it's only fair to allow the other Doug, who started this round of the De Minimis Policy, so second by Doug Haymans, thank you both. Is there any discussion on this? Go ahead, Doug, and then Mike.

MR. HAYMANS: I'll just echo your gratitude to Toni for putting this together, and to the Commission for their consideration. As Doug and others have said, you know it seems like a small issue, but that is the very definition of de minimis, and I appreciate this moving forward. Hopefully, when we get to bluefish, you guys will help me get that inserted into the bluefish plan, so that I don't have to make a change every six months. Thank you.

VICE-CHAIR CIMINO: Mike, go ahead, please.

MR. MIKE RUCCIO: I just wanted to say, I'll be abstaining on this, and it's for the reason that it does potentially pose incompatibility between jointly managed species, where there is a federal FMP. I will also state that I am jealous of the ability to have this type of provision. It is something that I pay attention to. If there is an opportunity for us to try to develop this into some type of federal framework (say that fast five times), I would really appreciate the ability to do so. But we'll be abstaining on this vote, simply for the reason of the disconnects. I appreciate the kind of threading the needle there, that there is acknowledgement, but it doesn't preclude the ability of the Policy to go forward. If we have those disconnects, we'll deal with them in those individual species boards as needed.

VICE-CHAIR CIMINO: Agreed, thank you. If no other discussion on this, with one noted exception, I'm curious if there is any objection to this. **Okay, it looks like motion carries without objection. You have one abstention from NOAA Fisheries.**

COMMITTEE REPORTS

VICE-CHAIR CIMINO: Okay, we're going to be doing Committee Reports next.

MS. KERNS: Lisa, you're here, yes?

ACFHP

DR. LISA HAVEL: Sorry I couldn't be there in person, but we thought it was best to not expose you all to COVID. I'm going to start with the ACFHP update, and the ACFHP update is very short. We met November 8 through 10th, so we just wrapped up about 20 minutes ago. We discussed plans for the transition to the new ACFHP Director, which should be taking place hopefully by January 1st they can get started.

We received a presentation from the Nature Conservancy on the funded projects that we helped with in New Jersey, and we spent the majority of our time on strategic and action planning. That will continue through early 2023, and hopefully those will be released, I'm hoping by early spring.

We welcomed two new members, Robert Atwood from New Hampshire, and Eric Schneider from Rhode Island. Our FY2024 NFHP RFP is open, and it closes on January 20, 2023. These are for our Fish Habitat Conservation Projects in any phase. We welcome everything from design through construction and monitoring.

There is no upper limit on the funding request, but it must have one-to-one nonfederal match, although federally recognized tribes are exempted. The requirements are very similar to last year's RFP, and you can find the RFP on our website at www.atlanticfishhabitat.org As always, ACFHP would like to thank the ASMFC for your continued operational support.

HABITAT COMMITTEE

DR. HAVEL: I'll jump into the Habitat Committee now.

The Habitat Committee met on Monday, which was the 7th, and we discussed the status of the acoustics impacts, habitat management series document. Hoping that will also be released in the spring. The status of the Habitat Hotline, which is on track to be released by Christmas, and the fish habitats of concern designations, which were included in the briefing materials for this meeting here.

There was a presentation on aquaculture updates from NOAA GARFO and from the New England and Mid-Atlantic Councils, and a presentation on the Northeast Regional Habitat Assessment Data Explorer, which was recently released by the New England and Mid-Atlantic Council. We welcomed two new members, Robert Atwood from New Hampshire and Forrest Vanderbilt from USGS, and our new Chair is Russ Babb from New Jersey, and our Vice-Chair is now Kate Wilke from The Nature Conservancy. Finally, I will go into the Fish Habitats of Concern Designations document. The Habitat Committee drafted Fish Habitats of Concern Designations for all Commission only managed species, plus Atlantic sturgeon. This is because eventually, hopefully, Atlantic sturgeon management will go back to the Commission.

Those species that are jointly managed with the Councils already have essential fish habitat and habitat area of particular concern designation. Some species designations that were drafted are specific, others are less so, and this is due both to species characteristics, and also data availability.

The Committee did not want to just describe all habitats that the species use, they use HAPC Habitat Area of Particular Concern guidelines in these designations. When making the designations they considered current Commission documents, including FMPs, species habitat fact sheets, habitat management series publications and more.

They also considered the current literature. Draft designations were shared with the Technical Committee's for edits, which were also included. As I mentioned, this draft is included in the briefing materials, and now I'm going to highlight three different species; lobster, sturgeon, and spot, just to give you a general idea of the specificity that we were working with.

For American lobster, the Committee designated Southern New England waters due to thermal stress. They acknowledge that currently the Gulf of Maine is still within the optimal temperature range, but it is warming, so it could warrant designation in the future. Gravel, cobble, boulder and embedded rock for young of year, juvenile, and adult life stages were considered such habitats of concern, and they should be protected from coastal development.

Offshore and nearshore shoal areas for egg bearing females and Grand Manan, Canada, Monhegan Island, Maine, Isle of Shoals, Maine/New Hampshire and Georges Bank. For Atlantic sturgeon, the Habitat Committee acknowledged that all NMFS critical habitat designations for the five discreet population segments, should also be included as fish habitats of concern.

Finer scale information since these designations in 2017 have come out, especially for the Hudson River in New York, York River in Virginia, and information is being gathered for North Carolina rivers as well. In 2017, when the designations were made, NMFS indicated that they did not have enough data to designate estuarine of offshore habitats, where sturgeon aggregations occurred as critical habitat, for reasons that were not unequivocally associated with particular physical or biological features.

The Habitat Committee believes that there is sufficient justification and data exists to designate fish habitats of concern, where fishery independent sampling has persistently shown juveniles to be present. NMFS Critical Habitat Designations in most cases already include the estuarine portions of many rivers.

But the Habitat Committee believes that additional estuarine areas further downstream also merit FHOC status, based on persistent and documented presence of juvenile sturgeon, and their importance as a migratory pathway. For these reasons the recommendations for fish habitats of concern also include Long Island Sound, Rockaway and Sandy Hook in the spring and the fall, Delaware Bay, Chesapeake Bay, including the Nanticoke River, and Marshyhope Creek Estuary, Western Albemarle Sound, Pamlico Sound, Winyah Bay and "Hot Spots" once specific locations are identified, and likely nearshore, the Atlantic Ocean off of North Carolina and Virginia.

For spot, for larvae FHOC designations include brackish and saltwater marsh, submerged aquatic vegetation and mesohaline and polyhaline water for juveniles from Delaware to Florida, low salinity bays, and tidal marsh creeks with mud and detrital bottoms that contain their epifaunal and infaunal prey, and submerged aquatic vegetation in Chesapeake Bay in North Carolina.

For young of year in the early spring they are designating seagrass habitats, and for adults they are designating tidal creeks and estuarine bays with mud and detrital substrates which support abundant prey. They also acknowledge that bottom tending fishing gear may impact spot fish habitats of concern. With that we welcome approval of the document now, but acknowledge that it's very possible that you are probably going to want to take additional time to review for edits, and possibly would prefer to consider voting at the winter meeting.

We welcome edits, questions and feedback on these designations. I am happy to pass along any specific questions to the Habitat Committee, because I am not necessarily the expert here. But I will be sure that any questions that you do have will be answered, just possibly not right now. With that I am happy to take any questions.

VICE-CHAIR CIMINO: Great, thank you so much, Lisa. Actually, I think what I'll do is open this up for questions for Lisa on everything presented. But also open it for comments and concerns on the FHOC as presented. Chris Batsavage, go ahead.

MR. CHRIS BATSAVAGE: Thank you, Lisa, for the presentation. Actually, out of the examples you gave I had questions about the spot FHOCs and also

sturgeon. Start with spot, and this also applies to weakfish and Atlantic croaker, where it said the bottom tending fishing gears may impact FHOCs. I was wondering what the impact or concerns are with just bottom disturbing gears to the estuarine habitats for those three species, and any other estuarine dependent species. I'll just stop there as my first question.

DR. HAVEL: I know that came from the sciaenid habitat source document, the Habitat Management Series document, and so that might be why it's only for certain species, because we're citing that particular document, and I think it only cited certain species there. With that being said, it's very possible that the bottom tending gear could be impacting other species as well. But we just wanted to make sure there was a citation for that.

MR. BATSAVAGE: Thanks for the explanation, it wasn't really clear to me. It almost reads like it's more of a bycatch concern, which that is a concern, but maybe it is, maybe it isn't a habitat concern. I just had a question about that. The second one on sturgeon. I noticed that Pamlico Sound in total was listed as an FHOC, but just Western Albemarle Sound in North Carolina got that designation. I think there is pretty good information to show that Western Albemarle Sound definitely is an area of higher sturgeon abundance. Pamlico Sound is pretty big. I'm not aware of any information that shows that the entire Pamlico Sound is an FHOC. That might be more of a question/comment on that one. Thanks.

MS. HAVEL: Yes, thank you for that. I know who wrote that up, and I'll be happy to pass it back to Dr. Laney, to make sure that we have enough citations in there to warrant all of Pamlico Sound, if that's what the full Habitat Committee thinks. Otherwise, we'll go back and review and narrow it down.

VICE-CHAIR CIMINO: Thank you. Lynn.

MS. LYNN FEGLEY: I had questions regarding sturgeons. I think I'll share what I would like to do is put in a plug for following Lisa's recommendation to vote on at the winter meeting to provide us with some review, and provide questions and feedback. But my question on sturgeon, you know the Marshyhope estuary was specifically mentioned in there.

I'm pretty sure that I saw in the press that we had a large hatchery facility that was applying for permits to put a facility way up high, you know more toward the headwaters of that creek. That situation has been diffused. You know we're sort of past that threat. But it was worrisome, because of the large amount of discharge that would enter into the Marshyhope, and how that could affect the spawning population of sturgeon that are present in that creek.

My question is really particularly, it stated the Marshyhope Estuary. But I think one of the issues that we had was, I just wonder if there was discussion about taking this much further upstream, and sort of what the dividing line are, since this was now up in sort of more freshwater areas, but could trickle down to impact sturgeon.

DR. HAVEL: That is an excellent question. If the current critical habitat designations don't already cover that, we can discuss, to make sure that the whole area is covered, if that is what the Policy Board thinks is warranted. I think we were focusing more downstream, because this was current critical habitat designation. But we can doublecheck to make sure that the entire area is covered.

VICE-CHAIR CIMINO: Jim Gilmore.

MR. JAMES J. GILMORE, JR.: I concur with Lynn. I think it might be better to talk about this at the winter meeting. The immediate question I have is just that really with Atlantic sturgeon. DEC has been funding research for quite a few years now. The last, I guess the cited reference in here is from a 2015 study. But we've got probably another five or six years of data.

Just in terms of, I don't know if those reports ever got into the consideration, but really want to doublecheck on that. Just if you know now, if you even are aware of those, and then secondly, again, I think it would be better to delay a little bit on this, until we make sure we've got all the relevant information.

DR. HAVEL: Yes, thanks. If it is not cited, it is possible that it was still considered, but for some reason didn't make it into the publication, for one reason or another. If you or your staff want to share that with, I guess now Toni, since I'll be stepping down soon, so that we can make sure that it's considered. Happy to share that with everyone, so that we can possibly plug it into the document.

VICE-CHAIR CIMINO: Yes, I appreciate all the hard work put into this. I think we already have, if not some edits, some additional questions that need looking into. I think we could all benefit from some review. You know the concept of moving this forward now is, I think in general the group felt like the vast majority of work has been done on this.

I don't think that changes that fact. I think really the time that is needed now is for some review, and maybe some possible, edits, additions. But I'll once again look around for the will of the Board. Is there any objection to kind of holding on, getting some questions answered, and taking this back up again at the winter meeting? Actually, let's have Toni give a follow first.

MS. KERNS: Just for process wise. What I will do is send a reminder, probably right after Thanksgiving, for edits and comments. I have the questions and comments that you guys have provided today, and I'll start with those. But if we could get those to me, maybe by the end of the first week of December, so that then I can go back to the Habitat Committee and work with them on the specific questions that you all have that we want to look at in the document, so that we can get it back in time for the winter meeting.

VICE-CHAIR CIMINO: Okay, I've seen a few head nods, so I think that is how we'll proceed there. Then again, thank you, Lisa.

LAW ENFORCEMENT

VICE-CHAIR CIMINO: I think that moves us to the Law Enforcement Report**,** and Toni will handle that.

MS. KERNS: The Law Enforcement Committee met this week to look at a working draft of the Vessel Tracker Application that ACCSP is providing, so that's the interface that will show the Enforcement Committee the tracks of the vessel. Julie gave them sort of a demonstration, to show how the vessel tracked the pier, how you can see speed, and other information.

They provided some feedback to her on some things that they have for a wish list, and they're going to be working on that. The Committee also discussed the size limit provision that is being considered change for the Gulf of Maine/Georges Bank lobster fishery, in the context of how that could need us to have changes for the Mitchell Provision that is within the Magnuson-Stevens Act that the Lobster Board talked about.

Previous to the Lobster Board meeting, the Law Enforcement Committee had said that some aspects of this will be difficult to enforce, because it can open up some loopholes to allow U.S. fishermen to try to get smaller size lobster caught, and then into the market, where that wouldn't be legal for them.

Just the Committee discussed some additional ways that if there is a different size limit for imports and the U.S. fishery. Ways that we can try to prevent some of those loopholes. They are going to go home and talk to the states about different things that might be a possibility to do, if this provision does move forward, so that we can have better enforcement with those different size limits. The Committee also discussed the enforceability guidelines. They are continuing to work on making

changes to those guidelines, to reflect how enforcement is occurring now. When we first redid the guidelines in 2015, the use of drones and different types of technology weren't in effect at that time. They are making changes to reflect current enforcement, and hope they will have a finalized draft for the Board to consider at the May meeting. Then they went to their closed session, and that's all I have. I can take any questions.

VICE-CHAIR CIMINO: John.

MR. JOHN CLARK: Just some more details on the trackers. You are referring to the trackers for the lobster fishery, and you said it's going to track speed also. I mean our enforcement is not going to be expected to kind of write speeding tickets, when the speed limits go into effect, or is that part of it?

MS. KERNS: I was not in the room when they talked about the demonstration, and in the nook that I was provided, it had speed identified. I'll have to come back to you and let you know.

MR. CLARK: I'm just curious that I don't recall that coming up. I thought the tracking was more to make sure they are not in the same areas. I didn't know that speed was going to be part of it, but seeing all the bruhaha about the speed limits that could be imposed by the right whale, I'm just curious.

MS. KERNS: I'll go out on a limb, but it does ping every minute, and you can see where it is, so there might be some way to figure out speed within the track. But I'm not making any promises. The group also did talk about how to enforce, potentially, that speed rule if it does come into play. They discussed how within the current speed rules you mostly use AIS to enforce those, and that 65 foot and greater vessels often have AIS.

There are a limited number of enforcement vessels that have the capability to enforce using AIS. But then they also talked about that NOAA is doing some experimentation with other devices for tracking speed, that could be done in particular on the smaller vessels. Vessels that are 35 feet to 65 feet do not typically have AIS on them.

They were using radar and another technology that I cannot remember off the top of my head right now, as a possibility that state enforcement officers requested that NOAA provide them with some guidance on how they think that the state can best help enforce that, knowing that those state vessels do not have access to the technologies at this time that they are considering. If they need those state vessels to have technology, then they are going to need resources to get them.

VICE-CHAIR CIMINO: Thank you, any other questions? Go ahead, Dan.

MR. DANIEL McKIERNAN: I'll be brief. Toni, in the disposition of lobsters coming into this country from Canada I think go to two places, one a processing facility, and then retail markets. Was there talk at the Law Enforcement Committee of maybe allowing the undersized Canadian imports to go into a processing house, where it would be like chain of custody issues could be resolved, as opposed to the wholesale and retail distribution?

MS. KERNS: We did talk about, in different states it is dealt with a little bit differently, but they did talk about in some cases it does go straight to the processor, and other cases it goes to a retail market, and that everything is consolidated into one box or one car when it comes into that dealer/processer.

Often you are going to find illegal lobster in that, whether it is short or oversized or eggers. That was part of the discussion of like how you deal with that. They did not come up with any solid recommendations. They wanted to go home and be able to talk to the state, and then come back and make recommendations. But there was some recognition that it does go to two different places at times.

VICE-CHAIR CIMINO: Any other questions? Go ahead, Loren.

MR. LOREN W. LUSTIG: I've been concerned over the last several months, if not years, about lowered budgetary support for conservation law enforcement, as we've seen in other sorts of law enforcement agencies. Was there any talk in the Law Enforcement Committee regarding that, that you could give us an update regarding that question?

MS. KERNS: There wasn't a discussion in general about it that I was present for. I don't know if the officers discussed this during their closed session or not, Loren, and like a side note of that was what I just reported on, in the sense that we know that enforcement for right whale measures.

Whether it be the speed rule, or whatever comes out of changes to the fishery is a priority for NOAA. If they need the states to help then the states are going to need resources for that, and the Law Enforcement Officers did send that message or carried that message to the NOAA Law Enforcement representative that was there.

VICE-CHAIR CIMINO: Any other questions?

PROGRESS UPDATE FOR THE ONGOING STOCK ASSESSMENTS

VICE-CHAIR CIMINO: We can move on to a Progress Update for the Ongoing Stock Assessments**.** We have both Katie and Jeff.

MS. KERNS: Kristen is also going to come up as well.

BLACK DRUM

MR. JEFF J. KIPP: I'll give updates on the black drum assessment, red drum assessment and black sea bass assessment. For the black drum assessment, the SAS has completed this estimate, and the full Technical Committee has reviewed and approved the assessment for peer review. The assessment was forwarded to the Review Panel at the end of October, and the Review Workshop is currently being planned. We anticipate presenting the assessment and peer review to the Sciaenid Board at the Commission's winter meeting.

RED DRUM

MR. KIPP: For red drum, although not on the agenda, I'll give a quick update on that assessment that has just begun. Following the completion of the simulation assessment earlier this year to evaluate performance of several candidate assessment approaches, and guide modeling in the next benchmark. We've started some initial planning steps for the benchmark stock assessment that is set to be complete in the summer of 2024. The Technical Committee and Stock Assessment Subcommittee will be meeting at the end of the month to finalize terms of reference, and a timeline that will subsequently be forwarded to the Sciaenid Board for approval.

BLACK SEA BASS

MR. KIPP: Then for black sea bass**,** I'm not a member of the Assessment Working Group for that assessment, but I will relay an update on the ongoing research track assessment from the Working Group. The research track assessment has experienced some slow data deliveries, as well as some workload bottlenecks that have delayed progress.

The Work Group met this past Friday, actually, and has decided to request an extension to the current assessment timeline, which had a peer review scheduled for the end of February, 2023. As of yet, it is undetermined if the delay will be granted by the NRCC, who will it ultimately be up to. Still a little bit of uncertainty in when the peer review will be occurring for that assessment. But those are my updates, and I can stop there and see if there are any questions on those.

VICE-CHAIR CIMINO: Thanks, Jeff, any questions?

BLUEFISH

DR. KATIE DREW: I'm going to give an update on the bluefish assessment, which is also going through a research track assessment through the SAW/SARC process. The assessment is essentially completed at this point. The final report is being finalized this week, so that it can be transferred to the peer review panel next week, to maintain our scheduled review date of the first week of December for the SARC review.

Basically, bluefish has moved from the ASAP model to a statistical catch at age model, using the Woods Hole Assessment Model Framework, which is a state-space model. We're excited to see some of the progress and advances made for that specific species, and hopefully the review panel will agree that this is an improvement on the current ASAP model. But I am happy to take any questions about that.

VICE-CHAIR CIMINO: Thank you, any questions for Katie?

SPINY DOGFISH

DR. KRISTEN ANSTEAD: All right, I'll give a brief update on the spiny dogfish assessment. The Spiny Dogfish Working Group is currently wrapping up the research track assessment that was initiated last year. We're going to peer review with bluefish the week of December 5th, and we're putting forth a length-based stock synthesis model as our preferred model for the species.

While the base run of the model relies on the spring index from the Northeast Fisheries Science Center Trawl, there are several sensitivities runs with additional indices and configurations. In addition to the stock synthesis model, we have also completed a bridge run of the previously used stochastic estimator model, and have some limited tools that are new to dogfish as supporting models.

To address past research recommendations, the Working Group has also reevaluated the growth, by looking at updated length and age data, and explored the use of a bass model to examine the shifting spatial distribution of dogfish, and indices that consider environmental covariates. This assessment will be peer reviewed in about a month. I guess probably they come to the Board at the winter meeting.

VICE-CHAIR CIMINO: We're agreeing with your guess.

MS. KERNS: That's I think so for those on the webinar.

VICE-CHAIR CIMINO: Any questions for Kristen? Seeing none; I appreciate that and I'm honestly very excited. Well, there is a little bit of trepidation, I have to say. Especially bluefish, I think it's great to see that moving in that direction and moving forward.

OTHER BUSINESS

VICE-CHAIR CIMINO: With no other questions there, we have **no** noncompliance findings, happy to say, and we did have that one other agenda item that we've added under Other Business. I'll let Bob go, and then see if there are any others.

LETTER OF SUPPORT FOR REINVESTING IN SHORELINE ECONOMIES AND ECOSYSTEMS (RISEE) ACT

EXECUTIVE DIRECTOR BEAL: Yes, just as I mentioned in the Executive Committee Summary, there is a draft letter that was distributed to the full Policy Board on reinvesting shoreline economies and ecosystems, the RISEE Act. The letter is currently addressed to Senate Leadership. Just a quick bit of background.

As I said, our revenue is generated from offshore wind leases and wind power generation, 50 percent of the money would go to the U.S. Treasury, 35.5 percent would go to coastal states, 12.5 would enter the National Oceans and Coastal Security Fund, and be distributed through competitive grants and formula grants through the states.

It's a pretty complex allocation of money, but it does have the potential to generate a lot of money to the coastal states, and provide the opportunity for them to respond to some of the wind generation impacts from those activities. The push to hopefully get this through, similar to RAWA by the end of this Congress is motivated by the fact that there are a number of new leases coming online, a couple on the west coast, one down in the Gulf, and I think one additional one potentially here on the East Coast.

If this Act is implemented by the end of the calendar year, then the revenue from those leases can actually be part of this distribution formula, and we have the potential to get a lot of money out to the states. That is the sort of urgency that I've been notified about from the Congressional Office that I talked to. Happy to answer any questions.

The draft letter has been reviewed by the Executive Committee twice, and made some small tweaks to get all the Executive Committee members comfortable with the letter. I think it is ready to go from our perspective, but if there are questions about the Act or details about the letter, I'm happy to consider it.

VICE-CHAIR CIMINO: Questions or comments, and I see one hand already, so Pat Geer, go ahead.

MR. PAT GEER: Bob, just it might be the devil in the details, but for the national and state grants, was there any discussion on what kind of grants do they have to be related to species that are going to be impacted by wind, or are they just general grants?

EXECUTIVE DIRECTOR BEAL: My understanding is they are general grants. I have not seen linkages between impacted species and the grant application process. That's the best answer I can give you.

VICE-CHAIR CIMINO: Not seeing any other hands, as far as questions or comments. You know there is a timing issue here, so the will of the Board. I don't know if we necessarily need a motion, but just anyone speaking to approval of this letter to go out, I would be happy to hear. Well, I'm seeing some thumbs up and Bill's hand. Go ahead, Bill.

MR. HYATT: I'll just add we've been asked by a Senators Office to approve and support something that is in our best interest, and I think we should move as quickly as possible.

VICE-CHAIR CIMINO: Thanks, Bill. If we've got general consent, I think that sounds good. I'm seeing a lot of heads nodding and I know mine is as well. That sounds great, so we'll move that forward. Is there any other business to come before us?

MS. KERNS: I think Lisa is still on, and I'm sorry that she couldn't be here in person, and I just wanted to say thank you, Lisa, for all your work, and thank you for being online this week. It was a great help to both Pat and myself. We are going to so very much miss you at the Commission, but we're super excited for your move to Texas, for you to be closer with family, and for Philip's new advancement. We wish you the best of luck, and we hope that this is not the last time we will see you.

MS. HAVEL: Thank you, Toni, it's been a pleasure working with all of you the last eight years. Hopefully I can get back to visit you folks soon.

VICE-CHAIR CIMINO: Russ Babb and I certainly share that sentiment.

ADJOURNMENT

VICE-CHAIR CIMINO: Well, with that I have the pleasure of sitting up here and playing host, and just saying, I don't think it could have gone any better. I am so thankful to all of you for coming. It's been a long time in the making, and it feels fantastic to be here in person together. I think we had a great week with a lot of important decisions made. Absolute pleasure, and safe travels to all of

you, but especially those of you heading into this ugly storm. Thank you so much, everyone.

(Whereupon the meeting adjourned at 1:00 p.m. on Thursday, November 10, 2022)

Atlantic States Marine Fisheries Commission

Business Session

February 2, 2023
11:15 – 11:30 a.m.
Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Introductions *(S. Woodward)*	11:00 a.m.
2.	Committee Consent • Approval of Agenda • Approval of Proceedings from November 2022	11:05 a.m.
3.	Public Comment	11:05 a.m.
4.	Review Noncompliance Findings, if necessary **Final Action**	11:10 a.m.
5.	Other Business/Adjourn	11:15 a.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

BUSINESS SESSION

The Westin Crystal City
Arlington, Virginia
Hybrid Meeting

November 9, 2022

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ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Cheri Patterson, NH (AA)
Doug Grout, NH (GA)
Dan McKiernan, MA (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Jason McNamee, RI (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
Jim Gilmore, NY (AA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
John Clark, DE (AA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Lynn Fegley, MD (AA) (Acting)
Pat Geer, VA, proxy for J. Green (AA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Jerry Mannen, NC (GA)
Chris McDonough, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Marty Gary, PRFC
Mike Ruccio, NOAA
Rick Jacobson, US FWS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Staff

Robert Beal
Toni Kerns
Tina Berger
Maya Drzewicki
Kristen Anstead
James Boyle
Pat Campfield
Emilie Franke
Lisa Havel
Chris Jacobs
Jeff Kipp
Sarah Murray
Caitlin Starks
Deke Tompkins

Guests

Jason Avila
Alan Bianchi, NC DENR
Colleen Bouffard
Nicole Caudell, MD DNR
Karson Cisneros, MAFMC
Heather Corbett, NJ DEP
Jessica Daher, NJ DEP
Jeffrey Dobbs, NC DENR
Cynthia Ferrio, NOAA
Anthony Friedrich, SGA
Alexa Galvan, VMRC
Lewis Gillingham, VMRC
Jesse Hornstein, NYS DEC
Adam Kenyon, VMRC
John Kravchak
Mike Luisi, MD DNR
Tina Moore, NC DENR
Brandon Muffley, MAFMC
Brian Neilan, NJ DEP
Derek Orner, NOAA
Nicholas Popoff, US FWS
Will Poston, SGA
Jill Ramsey, VMRC
Jeff Renchen, FL FWC
Chris Scott, NYS DEC
McLean Seward, NC DENR
Somers Smott, VMRC
Bryan Sparrow, Fuji Film
Rene St. Armand, CT DEEP
Alex Su
Beth Versak, MD DNR
Eric Wallace
Kate Wilke, TNC
Angel Willey, MD DNR
Chris Wright, NOAA
Faith Zerbe, DE Riverkeepers
Erik Zlokovitz, MD DNR

The Business Session of the Atlantic States Marine Fisheries Commission convened in The Monmouth I Room in The Ocean Place Resort, a hybrid meeting, in-person and webinar; Wednesday, November 9, 2022, and was called to order at 10:15 a.m. by Vice-Chair Joe Cimino.

CALL TO ORDER

CHAIR JOE CIMINO: Some of you are aware Chairman is trying to beat some weather here, and he headed out early, so I will be subbing for him. Joe Cimino; New Jersey DEP, Vice-Chair of the Commission. We have some agenda items to go through here. We're going to get some exciting presentations on the Action Plan.

APPROVAL OF AGENDA

CHAIR CIMINO: I'll start with our call to order, and look for approval of the agenda. I see no hands in objection, so we'll approve by consent.

APPROVAL OF PROCEEDINGS

CHAIR CIMINO: Approval of the proceedings from May, 2022. If no issues or objections we'll consider approved by consent. Public comment. You all look like you work here. I don't think we have any public comment.

CONSIDER APPROVAL OF THE 2023 ACTION PLAN

CHAIR CIMINO: Okay, so we'll get into the Approval of the 2023 Action Plan.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Just really quickly before you jump into the details of the Action Plan. This will be very similar to how we've done it in the past. We'll go through each of the goals, and at the end of each goal we'll stop and you guys can ask any questions or make any recommendations for changes.

You know if there is anything really significant that will take a lot of staff time, we may need to talk about tradeoffs. But we think it is a pretty comprehensive plan so far. As you see, all the staff is up here, and so we'll each go through sort of the goals that each department has in the Action Plan.

The first one is Goal Number 1 that's fishery management activities, and if you guys will remember that it's divided up into high priority species and what we call medium low priority species. The high priorities are just that. They're the ones that are, they're busy. There is a lot going on with those species next year.

The other ones, there still is a lot going on with some of those medium and low priorities, but they are not quite as high profile, and won't take quite as much staff time and Commissioner time to work through those. With that I'll turn it over to Toni to go through Goal Number 1, please.

MS. TONI KERNS: Thank you, Bob, and thank you, Mr. Chairman. For the high priority species, and just as a reminder, it's not that we think that these species are more important than another one, it's about staff workload and Board workload. For American eel, this moved up into the higher priority. The stock assessment peer review will be occurring in the coming months, and then we'll be able to report out to the Board, and if necessary, we'll take management action.

Under American lobster there is a couple things that are continuing from last year, but in particular we'll be working with all of our state and federal partners, as well as ACCSP on implementing and integrating the tracking device data collection as part of Addendum XXIV. In addition, the Board made it clear it's going to be moving forward on Addendum XXVII, which is the trigger mechanism for the protection of spawning stock biomass in the Gulf of Maine/Georges Bank stock.

Then scrolling on down to striped bass, the Board did approve Addendum I for public comment and this is for their voluntary transfers of commercial quota. Then for summer flounder, scup, black sea bass and bluefish, we have some very similar bullets, so I'm only going to go over it one time here under black sea bass.

That is to continue working with the Mid-Atlantic Council on some of the recreational measures, and this is one to do the recreational sector separation and catch accounting amendment. It could turn into some version of an addendum, just to be clear, and then as well as develop the recreational reform technical guidance document, and continue developing the harvest control rule options that did not get approved earlier this year.

This species will also, all the species will have a research track and a management track stock assessment and peer review. Then moving down to bluefish, the one difference is that we'll be working with the Council to develop a management uncertainty policy for that species. For horseshoe crab, we'll work with a workgroup that will review and update the best management practices for handling biomedical catch.

We'll move forward with conducting the ARM if it does get approved at the meeting tomorrow. For Jonah crab, we're going to work with same as lobster on the tracking device, as well as review the benchmark stock assessment and respond if necessary. I'm going to skip through scup, because that is the same bullet.

For shad and river herring we'll review the river herring benchmark stock assessment and peer review and respond as necessary, and there is still a couple of SFMPs and shad habitat plans that will come forward to the Board. Then scrolling down to our medium and low priority species. For Atlantic croaker and spot, we'll initiate a benchmark stock assessment that will be peer reviewed in 2024.

For Atlantic herring, we'll be exploring funding options for a biological sampling program. This week the Board did not take any action for Draft Addendum III, which is the allocation of the Area 1A quota. I think we'll probably pull this bullet out of the document, unless I hear otherwise today from the states. Scrolling down to Atlantic sturgeon, we'll be initiating the benchmark stock assessment for review in 2024, and continue to monitor the federal activities in response to the action plan to reduce Atlantic sturgeon bycatch in federal large mesh gillnet fisheries, and respond to any actions that the Council may take if necessary. For black drum we'll be reviewing the benchmark stock assessment and peer review that will be coming out, and respond, if necessary, as well as updating the indicators of fishery performance and indices of abundance. For coastal shark, again we'll continue to monitor HMS activities, but specifically looking at what they are doing with Amendment 14.

Then also any proposed rules to consider the prohibition and retention of sharks listed as threatened under the Endangered Species Act. We've been told by HMS that that is a possibility for next year. For Atlantic cobia we will explore reactions to emerging harvest in the Mid-Atlantic. We heard a little bit about this yesterday.

We won't go into it for now, but if there are questions, answer them. Northern shrimp, we will develop the management triggers to indicate when the stock can support a commercial fishery, ad that is through the workgroup that has been engaging on how to move forward with northern shrimp management.

For red drum we'll initiate a benchmark stock assessment, which would be peer reviewed in 2024. Then under Spanish mackerel we'll review the revised SEDAR stock assessment, in response to the South Atlantic Council's SSC recommendation, and then we'll respond, if necessary, in collaboration with our South Atlantic partners, and we'll consider development of a management action to address the differences in the state and federal management plan that we heard about yesterday at the Coastal Pelagics Board meeting, and we'll do that with the Council.

For spiny dogfish, if there are actions that get taken through the New England and Mid-Atlantic Councils for the reduction of sturgeon in the large mesh gillnet fisheries, we would respond in the spiny dogfish that is one of the species that is in that

action plan from NOAA. I've already gone over spot, and we don't have any new tasks for weakfish or winter flounder or tautaug.

Under the crosscutting issues, a lot of these issues are carrying over from last year. We've been working on them, but work continues on them. But we did add to the scenario planning is to respond to the summit recommendations, to make sure any proposed actions that come out of there have a path forward.

Then we also added to the bulleted list, even though we have been working on these things this year to continue to develop and finalize the de minimis policy for use in Commission FMPs. Lastly, to explore the development or the guidance or policy level document on allocation and the use of mode splits, which has been discussions in the past, but not officially in the Action Plan. That is everything that I have, I'll take questions.

CHAIR CIMINO: Questions for Toni? Go ahead, Adam.

MR. ADAM NOWALSKY: At the Mid-Atlantic Council's meeting in October, the Executive Committee approved a draft 2023 Implementation Plan, which will be considered by the Full Council in December. That included under summer flounder, scup and black sea bass, initiate development of action to replace recreational harvest control rule after a sunset period. The question is, does the item we have here for those species that continue development of recreational harvest control rule options. I interpreted that as specifications on an annual basis, or was that really referring to the changes that would need to be made because of the sunset period on that action?

MS. KERNS: Adam, those are the changes or the work that needs to be done on the options that weren't approved that the Board asked staff to do. Then if that includes a management action because we're ready before the end of the year, we can roll that into that bullet.

CHAIR CIMINO: Adam, are you okay? Thank you, great question. Any others? No, okay. Bob.

EXECUTIVE DIRECT BEAL: Pat Campfield is going to run through Goal 2, which is the Science Program Activities.

MR. PATRICK A. CAMPFIELD: This includes all of the Commission's fisheries research, surveys and stock assessment activities. In the first category under the Science Committees, that includes Management Science Committee, Assessment Science Committee, Fisheries Socioeconomics.

New activity for 2023 is to update the Commission's research priorities. We do this across the board every five years, so the document was last updated in a comprehensive fashion in 2018, so we'll do that again here in 2023. Then any priority research that comes out of that we'll try to work with the science committees to develop proposals to fund that kind of research.

We'll also incorporate risk and uncertainty lessons learned for the next iteration of the tool. You may recall a lot of work done on risk and uncertainty for tautaug. The next candidate species is cobia, so we'll try to move that forward next year. Also, a bit down in the weeds, but for the stock assessment purposes, create a centralized repository for archiving assessment modeling code to enhance our ability to run models.

Under data collection, nothing really new under the SEAMAP program. Under the NEMAP Survey program, communicate with offshore wind energy developers on the use of the NEMAP brand, in terms of their pre and post construction surveys and monitoring. Under collection of new data to address stock assessment needs, support the states, South Atlantic Council and ACCSP with Citizen Science projects, to collect new recreational live release data.

Under the fisheries research category and under fish gauging, we plan to conduct age sample exchanges and workshops to compare protocols for both menhaden and Atlantic sturgeon. Then under

ecosystem-based management and changing ocean conditions, nothing really new. Toni alluded to the Scenario Planning Initiative that we went through yesterday.

There is also a lot of strong science coming out of NMFS and their fishery science center, so we continue to stay plugged in with the science centers on latest and greatest, including products like their climate and vulnerability assessments. Then finally, under competing ocean uses, to determine the Commission's role in wind energy intersections with fisheries. I think those are the highlights in science.

CHAIR CIMINO: Thank you, Pat, questions for Pat? Seeing none; oh, we do. Go ahead, Jay, sorry.

DR. JASON McNAMEE: One question I had was that concept you have in there for the repository. I just wanted to mention. I think, I can't remember what the context was. I think it was like an ecosystem modeling workshop thing that I was at. But I think NOAA is thinking about something similar. It's just important to just be connected with that so we don't have like, I don't know, competing repositories.

Maybe that's okay to have that. But at least we'll know where the different tools are. I just wanted to mention that, and then just a quick question on the bullet on the enhanced. I can't remember exactly how it was written, but the enhanced computing power. I just wonder what that, you're talking about like a super computer or efficient code? I was just sort of wondering.

MR. CAMPFIELD: You all are very curious about the computational speed and code we used in the stock assessments, but really, I think we're on the same page that you're talking about with NMFS. This is stemming from the bluefish assessment that is just wrapping up, and Katie has been a major contributor to, using what's call GitHub, so a centralized repository for the code, but sort of on shared servers where you can run the models a lot faster. Working with Tony Wood in Woods Hole and the Science Center on bluefish, but doing it more broadly for all Commission assessments.

CHAIR CIMINO: I was going to say that all Doug Adams fans chuckle when they see a bullet point like that, and then I'll turn it over to Dr. Drew.

DR. KATIE DREW: Just to add on to that. I think one of the things we did find with the bluefish assessment is that NOAA has very strict requirements about how they use GitHub, and we certainly wouldn't want to compete with them in any way, but we want to set up something to be more flexible for ASMFC purposes, and complement whatever NOAA is doing with their own repository.

CHAIR CIMINO: Go ahead, John.

MR. JOHN CLARK: Pat, did I miss it? Did you mention anything about the Economic and Social Sciences Committee in this one?

MR. CAMPFIELD: Thanks, John, so at the top of the goal there are a few bullet points there on the highlights of what we try to achieve each year with the SAS Committee, and providing input to the fishery management plans. There have been some one-off inquiries related to the menhaden, I think black sea bass, in the last couple of years. But again, the overall activity is to keep the Socioeconomic Committee engaged, and when requests come in from the Boards, if there are data to try to provide that advice.

MR. CLARK: Thanks, I was just curious, just because I noticed in a lot of the comments coming up about the horseshoe crab ARM is that so many of the commenters were saying the economic value of ecotourism for the crabs and the birds. I was just curious if that was something that was being considered to look at. I'm sure that is something that might come up with other species, as we move forward or those type of issues.

EXECUTIVE DIRECTOR BEAL: John, in response. We don't have anything specific in there for horseshoe

crab or your ecotourism type thing. But if that is something, a bullet we want to add to the action plan, and ask the SAS Committee to look at it, you know that is fair game for sure.

MR. CLARK: Right, I just meant that has been so highly scrutinized, I just figured it would be something that at least we could say, you know we are aware of that situation.

CHAIR CIMINO: Yes, and I think there is going to be some discussions during the Horseshoe Crab Board meeting about what is the future of the ARM, and what are we going to look at moving forward. We had the peer review of the ARM that suggested a management strategy evaluation, and so if something like that comes along, you know we'll certainly be looking at socioeconomics. I'll turn it over to Lynn, go ahead, please.

MS. LYNN FEGLEY: Just to pile on John's comment. I don't advocate adding this as a bullet to this plan yet. But in a couple hours we'll be tackling menhaden allocation. We have a lot of concerns in our state about what the impacts are when you do these reallocations to market, and also the impacts of transferring quota on markets in the state. Like when are you really disrupting how product is flowing up and down the coast, when you do these allocations?

I think it's something that we need to maybe for all of our species, think about considering, and maybe allowing the SAS to start doing some more. I know data are hard to come by in this regard, but it would be nice when we have these conversations, if we had a little ability to address some of these economic and market concerns. Like I said, I don't know the best for this plan, but maybe it's something we can put on our radar, and think about when we go around again.

CHAIR CIMINO: Yes, I agree, and you know sitting through the Climate Scenario Workshop yesterday, when you're thinking about the future you also need to have a base line, right. I'm not sure we do for every species. I feel pretty comfortable saying we really don't. I agree, I think it's something that in some form or another we have to start to tackle. Any other comments or questions?

EXECUTIVE DIRECTOR BEAL: All right, the next goal is Goal 3, fisheries statistics, and Geoff White will handle that one.

MR. GEOFF WHITE: Goal 3 is really focused on the fisheries dependent data collected through ACCSP. The items highlighted on a continuing basis take up a fair amount of the activities that are reliant by other departments and other agencies. We kind of tweaked a few items in that section to include an additional component of the MRIP surveys that we help support, as well as engaging and aligning with the Commission's Outreach and Communication Plan. Similar item on partnerships. I wanted to just continue highlighting the data approaches, and the partnerships with all the other agencies in data collection initiatives, and data dissemination to support other systems. Specifically, under fisheries dependent data collection, within SAFIS we're trying to highlight items that will really focus on accomplishing in 2023. The first item reads a little bit cryptically, but truthfully, we've been using the same species list across the dealer and the trip reporting applications for a long time as a choice, and it's necessary at this point to separate out the species unit, market grades that are available to selection lists in the dealer reports.

That those rows that are available for commercial trips or for-hire trips. That is shortening those lists, entities are selecting better records, it allows us to drive which questions are being asked in which application. This is kind of an initial step we're already working on, which should be rolling out early in 2023.

Another major item is to extend the one-stop reporting initiative, to expand that a bit more across more of the federal permits, and to begin gaining the requirements from the states by holding a workshop on what their requirements are for one-

stop reporting. Also, we're supporting implementation of spatial data management.

As I have mentioned about the lobster trip locations, VMS, not just collecting the location data, but providing ways for the state agencies to visualize that and look into other means of support with it. Then more towards the end of the year and throughout the year, we're looking at applying designing and applying the updated participant and permit information database design.

Again, it's an item that helps to better show the history of a particular entity in the data warehouse, as well as which records should be visible to those through the confidentiality approaches. It may not be the exciting things that folks were thinking about when it comes to the action plan, but they are definitely necessary steps to move this forward.

Under recreational surveys we are sharing the infrastructure that we've developed with both the Gulf of Mexico and Hawaii, to kind of standardizes and extend the methodology for some of those staff and agency-based data collection activities. Under data standards, distribution and use, we will be convening a workshop to identify the best practices on data validation, reconciliation and documentation for improving data integrity.

This is a lot of the Coordinating Council's Accountability Workgroup, and how the different data streams do line up and connect for data quality and use by management. We'll continue to refine the for-hire program methodology with MRIP, to more fully incorporate logbooks and the math that goes along with that.

We'll be establishing policies and procedures for ACCSP Citizen Science data and data collection systems, including the SciFish project. Under data distribution, we're looking to expand the data warehouse contact, really looking at the updated MRIP standards and presentation of the recreational estimates aligning with public presentation of the MRIP estimates that will be changing in April of 2023.

Also, establishing new biological data feeds to fulfill that section of the data warehouse. Of course, under data use, we do a lot to support the assessments that are going on. We'll be continuing to provide validated commercial landings data for the Commission assessments and the SEDAR assessments that were listed there, and responding to data requests. Thank you.

CHAIR CIMINO: Thank you, Geoff, any questions for Geoff? Go ahead, John.

MR. CLARK: Geoff, if you're going to be looking for volunteers to go to Hawaii, I'll mentor them on the tablets. I'm sure we have APAIS staff that would love to do that.

DR. McNAMEE: I was wondering about the large pelagic survey, so that item is about working with the states to transfer that program to states, or I was wondering like what you mean by that bullet.

MR. WHITE: It's a recognition of something that has been done by the states already. The large pelagic telephone survey add-on to the for-hire survey component, is an extension of that phone interview that is already occurring, and the states were already doing. But we hadn't captured a recognition of that in the Action Plan. It's not a new activity, it is more an explanation of what happens.

CHAIR CIMINO: Anyone else?

EXECUTIVE DIRECTOR BEAL: Moving on, Goal 4 is compliance LEC activities, and Toni is going to handle that, I believe.

MS. KERNS: I just have two updates for the Law Enforcement goal. The first is in concurrence with the goal for lobster and Jonah crab that will have the Law Enforcement Committee work with the states to incorporate or implement the vessel tracking devices consistent with the Addendum.

In addition, the Committee has started this week working on making changes to the guidelines for resource managers, so I don't know if we should say newly revised guidelines. But I'll think of a way to edit that to show that this will be the third update to that document. It was last updated in 2015.

CHAIR CIMINO: Question?

EXECUTIVE DIRECTOR BEAL: All right that was quick. Moving on, Goal 5 is habitat work, and Pat is going to cover that.

MR. CAMPFIELD: Goal 5 covers the Habitat Program as well as the Commission support of the Atlantic Coastal Fish Habitat Partnership. Not a lot of new activities, though continue to generate habitat management series publications, the Habitat Hotline Outreach Newsletter of state activities and federal partner activities.

They will also continue to work on fish habitats of concern. Under the leverage partnerships section, a couple of activities under the Atlantic Coastal Fish Habitat Partnership are to identify partners and support restoration, grant administration, and project management. That is an activity that the U.S. Fish and Wildlife Service has supported for a number of years. Hopefully that will continue, but with some new federal legislation that may change, so we need to brainstorm and find a Plan B. Also work with partners to develop standardized SAV monitoring protocols for the coast. That has been working closely with PEW and other NGOs leading that effort.

Then finally, implement the new ACFHP five-year strategic plan, and the next annual action plan for the partnership, including new initiatives with climate resilience and DEJ. The ACFHP Steering Committee is meeting down the hall this week, to hopefully put the finishing touches on that next Strategic Plan.

CHAIR CIMINO: Thank, Pat, any questions for Pat?

EXECUTIVE DIRECTOR BEAL: Great, thanks, moving along, Goal 6 is Outreach efforts, and Tina Berger will cover that.

MS. TINA L. BERGER: Thank you. As Bob mentioned, this goal is about outreach and communication. As many of the other sections or goals, we do a lot of things on a continuing basis. I'll just highlight a few of the big things that we will be working on next year. We'll continue to keep on making our annual report a slim, sleek, concise overview of what we're accomplishing each year.

We're going to highlight our outreach efforts on some focused subjects and species, and those are identified under that first header under current and new technologies. We're going to be doing a lot of work on the website, not completely revising it, but certainly updating and upgrading it, making it HTPPS compliant, increasing its flow and user friendliness, and developing new content.

We will also be migrating three of the websites that we currently host in-office to an off-site host, to increase security of our own servers and internal structures. Under stakeholder participation, we'll continue to revitalize advisory panels for those species that will have major activities next year, and get our advisory panel primer up to date, including several new changes that have been made.

Under media relations and networking, as Geoff mentioned in his, we're going to be finalizing a communication plan that seeks to clarify our staff roles and responsibilities, and provide a vision for future outreach efforts for all the Commission programs. We will continue on a continuing effort, respond to factual inaccuracies that have been showing up in various news articles, in particular horseshoe crab, but other species as well. That is the major activities for Goal 6. Thank you.

CHAIR CIMINO: Thank you, Tina, any question? Yes, John.

MR. CLARK: Not a question, Joe, I just wanted to thank Tina for her phenomenal efforts in responding to all the false information coming out about the Horseshoe Crab ARM, and you know just seeing some of the things that we've already seen about the latest update of the menhaden assessment. It looks like it's going to be keeping your hands full, Tina, responding to these types of things. Thanks again.

CHAIR CIMINO: Loren.

MR. LOREN W. LUSTIG: Thank you for the report regarding outreach. I'm very familiar with some programs that have been developed in the past that take outreach into the classrooms. For example, there is a program that occurred in Maryland, when I was working there, called Grasses in Classes, that encouraged to actually have a hands-on, in terms of conservation. A similar program, Trout in the Classroom in Pennsylvania. Do we have any plans or hopes to develop similar programs that relate to marine fishes?

MS. BERGER: I'll answer this in this way. You know the Commission is centralized in Arlington. It is hard for us to get sort of programs out into nature, based on our accessibility to that. We can certainly work in greater effort to work with the state programs, and working with their education, to get into classrooms through the states.

That may be a more appropriate way to do that than at the Commission level. We have in the past participated in a lot of tradeshows and coast fests, as in the Georgia Coast Fest, where we hit a large number of young children with activities and information that is easily accessible. I agree with you, it's an important way to educate our youth, and get them familiar with the natural world. I'll seek ways to do that at the Commission level.

CHAIR CIMINO: Yes, I would just add that we had the State Directors meeting with all the other Commissions just last week, and we had a pretty long discussion on equity and diversity. You know the general consensus was, the only way that we're going to see diversity around these tables, and in fisheries management, is to start getting people interested at a very early age. Any other questions?

EXECUTIVE DIRECTOR BEAL: Moving on to Goal 7. This is the Commission's legislative activity. A lot of this is care and feeding, but a couple of highlights. In fact, we started this work last night. Eric Reid opened up lines of communication with Congressman Pallone and his staff, so that's pretty nice, we were able to see them at their celebration party last night.

Moving on to some other specifics. Obviously, there was an election yesterday, and we will reach out to the new staff members and new officers, and committee structure may be changing and other things. We'll get to know those folks early in the new year, once the 118th Congress is set. Then a lot of the activities we work on through the legislative program is appropriations and support for the activities of the Commission, highlighting or adding SEAMAP, South Atlantic and trawl survey work there.

The other bills, the Bipartisan Infrastructure Law and the Inflation Reduction Act have a ton of money in them, and we're trying to find ways to tap into that money for habitat work, survey work and other things. We just noted that in there. We need to add the RISEE Act to the last bullet under the topic of engaging Congress and the administration on legislation. We will add that. We already have Recovering Americas Wildlife Act in there, and we'll see where that goes. We may be able to take that off if that were to pass before the end of the calendar year. There are some conversations about fishery compensation and litigation legislation for offshore wind power, and we'll track that pending legislation as well. We'll work with NOAA leadership and Congressional folks for sort of the out fiscal years, '23 and '24, trying to get our priorities recognized there.

Again, you know highlighting our budget priorities, SEAMAP, South Atlantic, Chesapeake Bay work for menhaden, and also there is a specific ask in here for helping South Carolina with their research vessel. That vessel is a little bit beyond the useful life of a survey vessel, we'll say. It's being held together by duct tape and bubblegum, but it's still working, and we're going to try to get that replaced and retrofit and help out South Carolina with that.

Then the last bullet here that's new is highlighting the USGS Commission partnership. ASMFC and the other three Commissions, including the Great Lakes, have new and cooperative programs and research work going on with USGS. I'm going to try to find some financial support for that in the year moving forward.

Those are the highlights of our legislative activity, and we're getting very close to hiring a new Legislative Coordinator, which will be great. Happy to answer any questions on that. Moving on, last but not least, Goal Number 8, right, is Laura's finance and administration activities.

MS. LAURA C. LEACH: As you are well aware, most of the activities in Goal 8 are ongoing every year, so I'm really going to only point out one that I'm really excited about. I mean I love them all, that's not how I meant that. But Geoff has been working very hard to develop a database, comprehensive database, that we can track everything of our incoming funds, as well as the contracts that go out from those funds.

Because, especially with the project cooperative agreement that we have that Derek Orner runs. We put out a lot of contracts on those. We have a lot of money in those, and it's been run by spreadsheets for a very long time, and Geoff and I have been working very hard to make a comprehensive database that will capture the complete life cycle. I'm very excited about that. Everything else is ongoing, so I'm not going to bore you. You can ask me any questions that you would like, but otherwise that is the only one I'm going to highlight.

CHAIR CIMINO: Questions for Laura? Thank you, Laura. Erika, go ahead, please.

MR. ERIKA BURGESS: My question was back on the legislative item. Bob, I was wondering if work on streamlining the federal disaster funding is included in your legislative priorities? I know several states have run into issues with the amount of time it takes to get federal disaster declarations approved, and then funding through the OMB process.

More recently in Florida, we as many of you know, were devastated by Hurricane Ian, which wiped out much of our infrastructure in Southwest Florida, and our Southwest shrimping fleet. The response we have from NOAA is that, come back to us in a year, show us your losses, and then we'll consider a disaster request. In the meantime, we have people without homes, without businesses, without boats. This system just really seems to be broken. I would like to see it be an ASMFC priority.

EXECUTIVE DIRECTOR BEAL: Thanks for that comment. We do not have that included here. The question is, how much of that can we affect at ASMFC? In other words, you know it is a federal process, OMB is involved. For the herring disaster in the northeast, we're actually working with the states, and hopefully be able to move that money along pretty quickly once we get it.

But the bottlenecks are not on our end. We can put something in here, but there are conversations going on at the federal level to speed that up and make it more efficient. It's up to the group. We can put something in here, but I'm not sure we can affect a whole lot of change from the Commission side of things.

CHAIR CIMINO: Go ahead, Pat.

MR. PATRICK C. KELIHER: I don't disagree with anything that Bob said. But one thing that we may want to though consider around disaster declaration is the appropriations component,

adding that as a priority to already appropriations quests. That is going to be an ongoing conversation.

Especially in light of what is happening on the west coast with the Alaskan crab fishery and the huge amount of money that is going to be requested there. You may want to think about it strictly from, I agree with all your comments, but strictly from an appropriations standpoint. I can see us wanting to add that to our asks going forward through that process.

EXECUTIVE DIRECTOR BEAL: Okay, we can add that if the group is comfortable with that. One other noteworthy thing here is that when we were at the State Directors meeting in San Diego last week, Sam Rauch reported out. They are going to hire a full-time staffer or two that is going to be available just to work on disaster. Some of the activity that happens within NOAA Fisheries, hopefully will be sped up, if that person is on staff full time. But we can add some language about appropriation and seeking funds for disasters.

CHAIR CIMINO: Yes, and part of that was Sam's recognition that this is happening a lot more often. I think that's a good idea. I mean it needs to be part of our bigger discussions.

MR. KELIHER: Yes, I think that's a good reminder. I had forgotten about that conversation, because those were some very key questions asked to NOAA leadership around streamlining the process. While it's not capture here, it certainly was captured by the State Directors in that meeting last week.

CHAIR CIMINO: Sorry, go ahead, Tom.

MR. THOMAS P. FOTE: Yes, we've been discussing the same problem at MAFAC, and how do we basically correct the problem. I'll work with you, because I'm still going to be on MAFAC until 2025, so we can work that way also.

CHAIR CIMINO: Great, thank you. Any other questions? **We're looking for a motion to approve as modified. I'm going to give it to Tom Fote, and I'm going to give a second to John Clark.** That is homefield advantage there.

ELECTION OF COMMISSION CHAIR AND VICE-CHAIR

CHAIR CIMINO: The next item is election of Chair and Vice-Chair, and for once I'm going to pass this over to Bob with no smart Alec remarks.

EXECUTIVE DIRECTOR BEAL: You can save those remarks until after the election, Joe. I think everyone knows where we are. Spud Woodward has been Chair for a year and Joe Cimino has been Vice-Chair of the Commission. But the Guiding Documents of the Commission require an annual election of leadership at the Commission.

The Commission sets up a Nominations Committee every year, and the membership this year is Erika Burgess from Florida, John Clark from Delaware, and it's Chaired by Pat Keliher from Maine. With that I will call on Mr. Keliher for a report out from the Nominations Committee.

MR. KELIHER: The Nomination Committee did send an e-mail through Bob last week, asking for further nominations. After receiving countless requests for other names to be put forward, and considering that, as I was just reminded by my seatmate to my left that the current Chair decided to duck out of this meeting early.

We did have to have an emergency meeting of the Nominations Committee. But in light of all that, we did come to the conclusion, because of the fantastic work of our Chairman, Spud Woodward, and Vice-Chairman Joe Cimino, that we would move them forward as a slate for renomination, or for nomination.

EXECUTIVE DIRECTOR BEAL: Okay, thank you, Pat, for that report from the Nominations Committee, and since it is from a committee it does not need a second. The Commission always does allow

nominations from the field, so are there any other nominations, outside of what the Nominations Committee has brought forward?

Seeing none; let's see if we can do this efficiently now. Bet we can**. Is there any opposition to reelecting Spud Woodward as the Commission's Chair and Joe Cimino as the Vice-Chair of the Commission? Seeing no hands; congratulations, Spud, wherever you are in your travels, and congratulations, Joe on another year.** (Applause)

CHAIR CIMINO: Yes, thanks. I wanted to say, Spud had some comments, and this kind of even goes to the Action Plan too. Hopefully, if all goes well, he'll be home safe and things will be all right there, and he'll be able to make those comments during Policy Board, which he'll be chairing virtually, and thank you all. Yes, any other business to come before us? Go ahead, Tom.

MR. FOTE: Yes, I was just thinking of the first time that I got a chance to vote as a commissioner, with the vote in the election in 1991. I remember that at that period of time, that was the only opportunity at the Business Meeting, we got Governor's Appointee and Legislative Appointee able to vote. The progress over the years has really been something. It gave me a warm feeling to basically do this vote again.

ADJOURNMENT

CHAIR CIMINO: Okay, if nothing else, I'll entertain a motion to adjourn.

(Whereupon the meeting adjourned at 11:05 a.m. on Wednesday, November 9, 2022)