Atlantic States Marine Fisheries Commission

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Joseph Cimino (NJ), Chair *Dan McKiernan (MA), Vice-Chair* *Robert E. Beal, Executive Director*

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEMORANDUM

April 23, 2025

TO: Commissioners; Proxies; American Lobster Management Board; Atlantic Coastal Cooperative Statistics Program Coordinating Council; Atlantic Herring Management Board; Atlantic Menhaden Management Board; Atlantic Striped Bass Management Board; Executive Committee; Horseshoe Crab Management Board; ISFMP Policy Board; Law Enforcement Committee; Sciaenids Management Board; Spiny Dogfish Management Board; and Tautog Management Board

FROM: Robert E. Beal
Executive Director

RE: ASMFC Spring Meeting: May 5 – 8, 2025 (TA 25-051)

The Atlantic States Marine Fisheries Commission's Spring Meeting will be May 5 – 8, 2025 at **The Westin Crystal City**. This will be a hybrid meeting (both in-person and remote) to allow for participation by Commissioners and interested stakeholders. The room block is now closed; if you need assistance reserving a room, please contact Lisa Carty at lcarty@asmfc.org.

The final agenda and meeting materials for the Spring Meeting are now available at https://asmfc.org/events/2025-spring-meeting/; click on the relevant Board/Committee name to access the documents for that Board/Committee. For ease of access, all boards have been combined into one document - https://asmfc.org/resources/management/management-presentations/2025-spring-meeting-materials-combined-may-2025/. Supplemental materials will be posted to the website on Wednesday, April 30.

Please note: the Weakfish Management Board meeting, previously scheduled for Monday, May 5 (3:45 – 4:45 PM) has been canceled. Instead, the Spiny Dogfish Management Board will be held on May 5 from 3:45 – 4:15 PM, with an Atlantic Herring Management Board meeting to follow from 4:30 – 5 PM.

The following pages contain the final agenda and public comment guidelines. Be advised the agenda's schedule is subject to change; the order in which the agenda items are listed is subject to change, and other agenda items or meetings may be added as necessary.

Webinar Information

Meeting proceedings will be broadcast daily via webinar beginning Monday, May 5 at 1:30 PM and continuing daily until the conclusion of the meeting (expected to be Noon on Wednesday, May 8). To

register for the webinar, please go to: https://attendee.gotowebinar.com/register/6073856830857865O (Webinar ID: 826-144-067). If you are joining the webinar but will not be using VoIP, you may also call in at +1.562.247.8321, access code 112-047-383. A PIN will be provided to you after joining the webinar. 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.

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.

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 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.

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

Enclosed: Final Agenda

Atlantic States Marine Fisheries Commission

Spring Meeting

May 5 – 8, 2025

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 opportunities 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 comments 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 comments 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 (April 14) will be included in the briefing materials.
2. Comments received by 5 PM on Tuesday, April 29 will be included in supplemental materials.
3. Comments received by 10 AM on Friday, May 2 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 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.

Please note: the Weakfish Management Board meeting, previously scheduled for Monday, May 5 (3:45 – 4:45 PM) has been canceled. Instead, the Spiny Dogfish Management Board will be held on May 5 from 3:45 – 4:15 PM, with an Atlantic Herring Management Board meeting to follow from 4:30 – 5 PM.

Monday, May 5

1:30 – 3:30 p.m. **American Lobster Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia
Other Members: NEFMC, NMFS
Other Participants: Beal, Pugh, Soule
Chair: Zobel
Staff: Starks

1. Welcome/Call to Order *(R. Zobel)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from March 2025
3. Public Comment
4. Consider Addendum XXXII on Repealing Gauge and Vent Size Changes of Addendum XXVII for Final Approval *(C. Starks)* **Final Action**
5. Update from Maine and New Hampshire on Industry Meetings *(C. Wilson, R. Zobel)*
6. Report from Lobster Conservation Management Team Area 3 *(H. Soule)*
7. Update on Joint New England and Mid-Atlantic Fishery Management Council Alternative Gear Marking Amendment *(A. Murphy)*
8. Update on American Lobster Benchmark Stock Assessment (*T. Pugh*)
9. Other Business/Adjourn

3:45 – 4:15 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
Other Participants: Chapin, Newlin
Chair: Geer
Staff: Boyle

1. Welcome/Call to Order (*P. Geer*)

2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from February 2025
3. Public Comment
4. Consider Technical Addendum I to Spiny Dogfish Addendum VII for Final Approval *(J. Boyle)* **Final Action**
5. Other Business/Adjourn

4:30 – 5 p.m. **Atlantic Herring Management Board**
Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey
Other Members: NEFMC, NMFS
Other Participants: Brown
Chair: Grout
Staff: Franke

1. Welcome/Call to Order *(D. Grout)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2024
3. Public Comment
4. Consider Revised Specifications for the 2025-2027 Fishing Years *(E. Franke)* **Final Action**
5. Other Business/Adjourn

Tuesday, May 6

9 – 10 a.m. **Interstate Fisheries Management Program (ISFMP) 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: Cimino
Staff: Kerns

1. Welcome/Call to Order *(J. Cimino)*
2. Board Consent *(J. Cimino)*
   - Approval of Agenda
   - Approval of Proceedings from February 2025
3. Public Comment
4. Review and Consider Conservation Equivalency: Policy and Technical Guidance Document (*T. Kerns*) **Final Action**
5. Progress Update on On-Going Stock Assessments (*K. Drew*)
6. Recess/Reconvene on May 8, 2025

10:15 – 11:45 a.m. **Sciaenids Management Board**

Member States: New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: NMFS, PRFC
Other Participants: Simpson
Chair: Haymans
Staff: Bauer

1. Welcome/Call to Order *(D. Haymans)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from February 2025
3. Public Comment
4. Red Drum Technical Committee Report (*E. Simpson*) **Possible Action**
   - Recommendations on Benchmark Stock Assessment Follow-up Tasks
5. Progress Update on Atlantic Croaker Benchmark Stock Assessment (*J. Kipp*)
6. Other Business/Adjourn

11:45 a.m. – 1:15 p.m. **Luncheon for Legislative and Governor Appointee Commissioners**

11:45 a.m. – 1:15 p.m. **Lunch Provided for Commissioners and Proxies**

1:15 – 5:15 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
Other Participants: Grabowski, Mercer
Chair: Ware
Staff: Franke

1. Welcome/Call to Order *(M. Ware)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from February 2025
3. Public Comment
4. Update on 2027 Benchmark Stock Assessment (*K. Drew)* **Action**
   - Review and Consider Stock Assessment Terms of Reference
   - Review and Populate Stock Assessment Subcommittee Membership
5. Consider Approval of Draft Addendum III on Future Management Measures, Commercial Tagging, and Total Length Measurement for Public Comment *(E. Franke)* **Action**
   - Technical Committee Report on Stock Projections *(K. Drew)*
   - Maryland Proposal for Recreational Season Baseline Option *(M. Luisi)*
6. Other Business/Adjourn

1:30 – 5 p.m. **Law Enforcement Committee**

(A portion of this meeting will be a closed session for Committee members and the LEC Coordinator only)
Members: Bailey, Beal, Brown, Cassin, Chapelle, Chapin, Daniels, Gadomski, B. Hale, Hettenbach, Hodge, Javor, Mercer, Pearce, Rogers, Thomas, Walker, Williams
Chair: Pearce
Staff: Blanchard

Webinar link: https://v.ringcentral.com/join/053399673 (Meeting ID: 053399673)

Call in: +1 (650) 419-1505 US (Access Code / Meeting ID: 053399673)

1. Welcome/Call to Order *(S. Pearce)*
2. Committee Consent *(S. Pearce)*
   - Approval of Agenda
3. Public Comment
4. Introductions
5. New Hampshire Fish and Game Law Enforcement Case Study *(D. Brown)*
6. Break
7. Review and Discuss Commission Species
   - Bluefish Uncertainty Tool *(C. Touhy)*
   - Other Species
8. Meeting Recess/Reconvene on May 7 at 8:30 a.m.

6 – 7:30 p.m. **Annual Awards of Excellence Reception**

Wednesday, May 7

8 – 10 a.m. **Executive Committee**

Breakfast will be available at 7:30 a.m.

(A portion of this meeting will be a closed session for Committee members and Commissioners only)
Members: Abbott, Burgess, Cimino, Clark, Davis, Dyar, Fegley, Gary, Green, Haymans, Kuhn, McKiernan, McNamee, Miller, Patterson, Rawls, Wilson
Chair: Cimino
Staff: Leach

1. Welcome/Call to Order *(J. Cimino)*
2. Board Consent
   - Approval of Agenda
   - Approval of Meeting Summary from February 2025
3. Public Comment
4. Report of the Administrative Oversight Committee **Final Approval** (*D. McKiernan*)
   - Review and Consider Approval of FY26 Budget
5. Legislative Update (*A. Law*)

6. Review Discussion Paper on Declared Interests and Voting Privileges – Issues 1 & 2 (*R. Beal)*
7. Future Annual Meetings Update (*L. Leach*)
   - October 26 – 30, 2025 – Dewey Beach, Delaware
   - 2026 – Rhode Island
   - 2027 – South Carolina
   - 2028 – Massachusetts
   - 2029 – Pennsylvania
   - 2030 -- Georgia
8. Other Business
9. ***Closed Session***
   - Litigation Update (*R. Beal)*
   - Update on CARES Act Repayment Progress (*R. Beal*)
   - Conduct Executive Director Performance Review
10. Adjourn

8:30 – 11:30 a.m. **Law Enforcement Committee (continued)**

(A portion of this meeting will be a closed session for Committee members and the LEC Coordinator only)

Webinar link: https://v.ringcentral.com/join/053399673 (Meeting ID: 053399673)

Call in: +1 (650) 419-1505 US (Access Code / Meeting ID: 053399673)

1. Reconvene
2. Review and Discuss Ongoing Enforcement Activities **(Closed Session)**
3. State Agency Reports (*S. Pearce*)
4. ASMFC Website Review *(T. Berger)*
5. Other Business/Adjourn

10:15 a.m. – 12:15 p.m. **Atlantic Coastal Cooperative Statistics Program (ACCSP) Coordinating Council**

Partners: ASMFC, Connecticut, Delaware, District of Columbia, Florida, Georgia, MAFMC, Maine, Maryland, Massachusetts, NEFMC, New Hampshire, New Jersey, New York, NMFS, North Carolina, Pennsylvania, PRFC, Rhode Island, SAFMC, South Carolina, USFWS, Virginia
Chair: Knowlton
Staff: White

1. Call to Order/Welcome/Introductions (*G. White, K. Knowlton*)
2. Council Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2024
3. Public Comment
4. Consider Funding Decision Document and FY2026 Request for Proposals (*J. Simpson*) **Action**

5. Update on Program and Committee Activities (*G. White, J. Simpson*)
6. Other Business/Adjourn

12:15 – 1:15 p.m. **Lunch Break**

1:15 – 3:15 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
Other Participants: Bailey, Craig
Chair: Clark
Staff: Boyle

1. Welcome/Call to Order (*J. Clark*)
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2024
3. Public Comment
4. Consider Final Report from Work Group on Precautionary Management in Chesapeake Bay *(M. Gary)* **Possible Action**
5. Progress Update on 2025 Ecological Reference Point Benchmark Stock Assessment *(K. Drew)*
6. Provide Direction to Technical Committee on 2026-2028 Stock Projections (*K. Drew*)
7. Other Business/Adjourn

3:30 – 4 p.m. **Update on Responsible Offshore Science Alliance for Commissioners**

4:15 – 5 p.m. **Tautog Management Board**

Member States: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia
Other Members: NMFS
Other Participants: Scott, Weedon
Chair: Vacant (R. Beal will chair the meeting)
Staff: Boyle

1. Welcome/Call to Order (*R. Beal*)
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2023
3. Public Comment
4. Review Technical Committee Report on New York Study of Alternative Commercial Tags *(C. Weedon)*
5. Progress Update on the 2025 Tautog Stock Assessment Update *(K. Drew)*
6. Elect Chair **Action**
7. Other Business/Adjourn

Thursday, May 8

8:30 – 10:15 a.m. **Horseshoe Crab Management Board**

Member States: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: NMFS, PRFC, USFWS
Other Participants: Couch, Hoffmeister, Simpson, Sweka
Chair: Reid
Staff: Starks

1. Welcome/Call to Order *(E. Reid)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from February 2025
3. Public Comment
4. Consider Addendum IX on Multi-year Specifications for Male-Only Harvest of Delaware Bay-origin Horseshoe Crabs for Final Approval **Final Action**
   - Review Options and Public Comment Summary *(C. Starks)*
   - Advisory Panel Report *(B. Hoffmeister)*
   - Consider Addendum IX for Final Approval
5. Adaptive Resource Management Subcommittee Report (*J. Sweka)*
   - Recommendations Regarding Possible Changes to Reward/Utility Functions
6. Review and Populate Advisory Panel Membership *(T. Berger, C. Starks)* **Action**
7. Other Business/Adjourn

10:30 – 11:45 a.m. **ISFMP Policy Board (continued)**

1. Reconvene
2. Executive Committee Report (*J. Cimino*)
3. Review Discussion Paper on Declared Interests and Voting Privileges – Issues 1 & 2 (*T. Kerns*) **Possible Action**
4. Law Enforcement Committee Report (*K. Blanchard*)
5. Review Noncompliance Findings (If Necessary) **Action**
6. Other Business/Adjourn

11:45 a.m. – Noon **Commission 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: Cimino
Staff: Beal

1. Welcome/Call to Order *(J. Cimino)*

2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2024
3. Public Comment
4. Consider Amendment 4 to the Interstate Fishery Management Plan for Northern Shrimp for Final Approval **Final Action** (*D. Grout*)
5. Consider Noncompliance Recommendations, if necessary
6. Other Business/Adjourn

Atlantic States Marine Fisheries Commission

American Lobster Management Board

May 5, 2025
1:30 – 3:30 p.m.

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 *(R. Zobel)*	1:30 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from March 2025	1:30 p.m.
3.	Public Comment	1:35 p.m.
4.	Consider Addendum XXXII on Repealing Gauge and Vent Size Changes of Addendum XXVII for Final Approval *(C. Starks)* **Final Action**	1:45 p.m.
5.	Update from Maine and New Hampshire on Industry Meetings *(C. Wilson, R. Zobel)*	2:30 p.m.
6.	Report from Lobster Conservation Management Team Area 3 *(H. Soule)*	2:45 p.m.
7.	Update on Joint New England and Mid-Atlantic Fishery Management Council Alternative Gear Marking Amendment *(A. Murphy)*	3:00 p.m.
8.	Update on American Lobster Benchmark Stock Assessment *(T. Pugh)*	3:25 p.m.
9.	Other Business/Adjourn	3:30 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

American Lobster Management Board
May 5, 2025
1:30 – 3:30 p.m.

Chair: Renee Zobel (NH) Assumed Chairmanship: 03/25	Technical Committee Chair: Tracy Pugh (MA)	Law Enforcement Committee Rep: Rob Beal (ME)
Vice Chair: VACANT	Lobster Advisory Panel Chair: Grant Moore (MA) Jonah Crab Advisory Panel Chair: Sonny Gwin	Previous Board Meeting: March 18, 2025
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NMFS, NEFMC (12 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from March 2025

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 Addendum XXXII on Repealing Gauge and Vent Size Changes of Addendum XXVII for Final Approval (1:45-2:30) p.m.

Background

- The Board initiated Draft Addendum XXXII to Amendment 3 to the Interstate Fishery Management Plan for American Lobster in February 2025. The Addendum considers repealing all Addendum XXVII measures pertaining to gauge and escape vent size limits.
- Draft Addendum XXXII was approved for public comment in March 2025 **(Briefing Materials).**
- A virtual public hearing was held in April 2025 and written public comments were compiled **(Supplemental Materials).**

Presentations

- Overview of Draft Addendum XXXII and Public Comment Summary by C. Starks

5. Update from Maine and New Hampshire on Industry Meetings (2:30-2:45 p.m.)

Background

- Concurrent with the initiation of Draft Addendum XXXII, the Gulf of Maine states agreed to work with the lobster industry to develop management strategies to ensure the long-term health of the resource and the coastal communities that it supports.
- The Board requested Maine and New Hampshire provide updates on industry meetings and possible alternative management measures to those of Addendum XXVII at each quarterly meeting.

Presentations

- Update from Maine and New Hampshire on Industry Meetings by C. Wilson and R. Zobel

6. Report from Lobster Conservation Management Team Area 3 (2:45-3:00 p.m.)

Background

- A meeting of the Lobster Conservation Management Team for Area 3 was held on meeting on April 2nd, 2025. The goals of the meeting were to elect a new chairman, review the Lobster Plan Development Team (PDT) Report on the Area 3 lobster fishery relative to mandates applied by Addenda XXI and XXII, to make management recommendations for Area 3 regarding the goals of Addenda XXI and XXII, and to discuss future concerns and goals for the LCMT 3 **(Briefing Materials)**.
- NOAA fisheries published an interim rule in October 2023 that responds to the Commission's 2013 recommendations to NOAA to adopt the measures in Addenda XXI and XXII in federal waters. The Addenda aimed to scale the capacity of the Southern New England (SNE) fishery to the diminished size of the SNE resource. However, because over a decade has passed since the date when the Commission intended for these federal measures to be implemented, there have been significant changes in the fishery.
- In January 2024, the Board tasked the PDT to explore alternative measures to those included in Addenda XXI and XXII (i.e., trap caps) that would achieve the same goal but better align with the needs of the current fishing fleet, with consideration of the recommendations of the Lobster Conservation Management Teams (LCMTs) for Areas 2 and 3.

Presentations

- LCMT 3 Report by H. Soule

7. Update on Joint New England and Mid-Atlantic Fishery Management Council Alternative Gear Marking Amendment (3:00-3:25)

Background

- The New England and Mid-Atlantic Fishery Management Council (Councils) are developing a joint alternative gear marking framework adjustment to provide alternative fixed gear surface marking requirements in all New England and Mid-Atlantic Fishery Management Council fishery management plans. This regulatory modification would allow for the use of fixed gear without a persistent buoy line **(Briefing Materials)**.

Presentations

- Update on Joint New England and Mid-Atlantic Fishery Management Council Alternative Gear Marking Amendment by A. Murphy

8. Update on American Lobster Benchmark Stock Assessment (3:25-3:30 p.m.)
Background • The benchmark stock assessment for American lobster is in progress with results expected in October 2025. • In February 2025, a stock assessment workshop was held in Portsmouth, New Hampshire. • An assessment peer review workshop is tentatively scheduled for early September.
Presentations • Update on American Lobster Benchmark Stock Assessment by T. Pugh

8. Other Business/Adjourn (10:30 a.m.)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

AMERICAN LOBSTER MANAGEMENT BOARD

Webinar
Hybrid Meeting

March 18, 2024

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

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Renee Zobel, NH, proxy for C. Patterson (AA)
Ritchie White, NH, proxy for D. Grout (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Dan McKiernan, MA (AA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Jason McNamee, RI (AA)
David Borden, RI (GA)
Matt Gates, CT, proxy for J. Davis (AA)
Rep. Joseph Gresko, CT (LA)
Marty Gary, NY (AA)
John Maniscalco, NY, proxy for M. Gary (AA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Jeff Kaelin, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
John Clark, DE (AA)
Pat Geer, VA, proxy for J. Green (AA)
Allison Murphy, NOAA

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

Ex-Officio Members

Grant Moore, Advisory Panel Chair
Tracy Pugh, Technical Committee Chair
Rob Beal, Law Enforcement Committee Rep.

Staff

Bob Beal
Toni Kerns
Tina Berger
Caitlin Starks
Katie Drew
Jeff Kipp

The American Lobster Management Board of the Atlantic States Marine Fisheries Commission convened via webinar; Tuesday, March 18, 2024, and was called to order at 3:00 p.m. by Chair Renee Zobel.

CALL TO ORDER

CHAIR RENEE ZOBEL: Good afternoon, welcome to the American Lobster Board meeting. (Not clear reception). With the retirement of Pat Keliher last Friday, I have been pushed into the bull pen a little earlier than expected, but I am happy to be here, and happy to call this meeting to order.

APPROVAL OF AGENDA

CHAIR ZOBEL: The first item on the agenda this afternoon is the approval of the agenda from the last meeting. Are there any additions to be made to the agenda? Seeing no hands; the proceedings from the last meeting and agenda are approved. I'm sorry, the agenda is approved.

APPROVAL OF PROCEEDINGS

CHAIR ZOBEL: Next is the approval of the proceedings from February. Are there any changes to the proceedings that were included in our meeting materials? Please raise your hand if anyone has anything to add. Seeing no hands; the proceedings are approved.

PUBLIC COMMENT

CHAIR ZOBEL: Next up, the public comment on items that are not on the agenda. Are there any members of the public that would like to make a comment on an item not on the agenda, please raise your hand. Please, keep in mind if it has to do with items on the agenda there will be time for public comment on agenda items. This is specifically items not on the agenda. Raise your hand at this time if you have any items. Seeing no hands, Caitlin, make sure that's not just me.

MS. CAITLIN STARKS: I don't see any hands either.

CHAIR ZOBEL: Seeing no hands, move on to the main event of today's meeting.

CONSIDER DRAFT ADDENDUM XXXII ON REPEALING GAUGE AND VENT SIZE CHANGES OF ADDENDUM XXVII FOR PUBLIC COMMENT

CHAIR ZOBEL: I am going to pass this to Caitlin for considering Draft Addendum XXXII on Repealing Gauge and Vent Size Changes of Addendum XXVII for Public Comment. Caitlin has a presentation to give to us about this agenda item. Caitlin, without further ado.

MS. STARKS: In my presentation I'm going to start off with going over the Draft Addendum XXXII document. I'll cover the timeline, the objective, background information and a statement of the problem, and then I'll go through the proposed management options that are included in the document, and we'll wrap up with next steps.

This draft addendum was initiated in February of 2025, and at this current meeting the Board is considering this document to go out for public comment. If the draft addendum is approved for comment, we would then hold a comment period and host hearings later this month and in April, and the goal is considering the Addendum for final approval in May. The Board's motion in February gets to the objective of the Addendum, which is specifically to repeal the gauge and vent size measures of Addendum XXVII. The background on this Addendum is that Addendum XXVII was approved in May, 2023, and in recognition of low levels of settlement and declining recruitment in the Gulf of Maine from about 2012 forward, the goal of the Addendum was to increase protection of the Gulf of Maine spawning stock.

Addendum XXVII took a proactive approach, establishing a trigger mechanism based on recruitment abundance indices, whereby a series of gauge and vent size changes for LCMA 1, 3, and Outer Cape Cod would be automatically implemented if the trigger was reached. A trigger index was developed for the Addendum using three recruitment abundance indices from the Gulf of Maine stock.

The trigger point that was established in Addendum XXVII was if that trigger index declined by 35 percent from the reference period, which was the 2016 to 2018 average value of the index. In October, 2023, with the inclusion of the 2022 index data, that trigger index had declined by 39 percent, and that triggered the implementation of the series of management measures in Addendum XXVII.

The original implementation date for the first of those measures, which is the increase to the LCMA 1 minimum gauge size, was set for June 1, 2024. However, in October, 2023, the Board delayed the implementation of all of Addendum XXVII measures to January 1, 2025. Then via Addendum XXXI, the Board postponed implementation of the Outer Cape Cod maximum gauge size, v-notch possession definition, and LCMA 1 gauge and vent sizes an additional six months to July 1, 2025.

These delays were to provide the industry and gauge makers more time to prepare for changes, and also to coordinate with Canada on management and trade issues. In the meantime, the lobster industry in the Gulf of Maine continued to express concerns about potential economic impacts associated with the Addendum XXVII measures, and also uncertainty surrounding how that LCMA 1 minimum gauge size increase would affect trade with Canada.

In February, the Board agreed that consideration of alternative management measures was warranted to address these concerns, and the Gulf of Maine states committed to working with their lobster industries to identify alternative conservation strategies. That brings us to Draft Addendum XXXII, and these are the proposed management options.

There are two options included in the document; Option A, status quo and Option B, to repeal the Addendum XXVII gauge and vent size measures. Under Option A, the current implementation schedule for all Addendum XXVII measures would be maintained. This table shows when each of those changes is set to be implemented with changes shown in bold text.

The LCMA 1 minimum size increase would occur July 1, 2025. Also on July 1st this year, the maximum gauge size for all permit holders in Outer Cape Cod would be 6 and ¾ inches. Then the second LCMA 1 minimum size increase would occur July 1, 2027, and the LCMA 1 vent size change would occur July 1, 2028. Then finally, on July 1, 2029, the maximum gauge decrease for Outer Cape Cod and LCMA 3 would be implemented. Then under Option B, all of the changes to the gauge and escape vent sizes established by Addendum XXVII would be repealed, including the maximum gauge change in Outer Cape Cod under Section 3.1 of Addendum XXVII, and the minimum and maximum gauge size and vent size changes triggered under Section 3.2.

Option B would not affect the measures of Addendum XXVII that pertain to the v-notch possession definition of Outer Cape Cod, nor the issuance of trap tags. The v-notch definition change would take effect July 1, 2025, and the trap tag rules are already effective as of January 1 of this year.

With that, the actions for the Board's consideration today are to make any desired modifications to the draft addendum document before it goes out for comment, and then to consider approval of the document to be released for public comment. Our next step if the Draft Addendum is approved for comment today would be to schedule the public hearing and collect written comments.

The Board indicated at the last meeting that it intended to hold one virtual public hearing on this Draft Addendum, and then after the comment period, in May, the Board would be able to consider the Addendum for final approval. I can take any questions.

CHAIR ZOBEL: Great, thank you, Caitlin. Are there any questions from Board members for Caitlin on this presentation and on steps moving forward?

MS. STARKS: Renee, are you able to see hands?

CHAIR ZOBEL: I see no hands if there are any up. If you would help with that, it would be wonderful.

MS. STARKS: Yes, we can do that. I have David Borden, Grant Moore, Grant we'll wait on that, Emerson and Jeff Kaelin, so David, Emerson, Jeff.

MR. DAVID V. BORDEN: All right, I've got a question on Section 3.0, the second paragraph. This type of question normally goes, I think to Bob Beal, but Caitlin, if you can answer it that is fine. The issue of taking any action between what was proposed and what is now being proposed, and I'll give you two examples.

I think we're, at least I'm hearing more and more opinion from people in the industry that they want to do something, but there is no consensus, so I think we potentially could be in a situation after the hearings, where we have an option that might come forward, either on the gauge size changes or the issue of issuing extra tags. I'll give you an example of each.

If somebody wanted to propose doing a 32nd of an inch gauge increase every other year, that would clearly fall within the confines of the options that are taken out to public hearing, and on the extra tags I've heard suggestions that some individuals would think that we should have at least some tags available for fishermen to get. The specific suggestion was made to me that we be not allowed the 10 percent, but issue, allow fishermen to get 20 tags, for instance. My question is, do those types of suggestions at a public hearing fall within the confines of the statement under Section 3.0?

MS. STARKS: Thanks, David. I think I'll answer the second part.

MR. BORDEN: My answer is I think they do, but I want to just confirm that my interpretation is correct.

MS. STARKS: Yes. I believe that the tag issue is not necessarily within the confines of this Addendum, because it is not considered as part of this Addendum. I think if the Board wanted to consider something different with the trap tags, it would need to be added to the Draft Addendum for comment.

As to the gauge increase, for example changing it to 1/32, I don't know if I have a great sense. Maybe Toni can help out with this. I don't know if it is really within repealing versus not repealing, which is our two options in this Addendum. I don't know, Toni, if you want to jump in.

MS. TONI KERNS: I can help out, Caitlin. David, I would say that it is not within the confines of this document, because we're saying we're removing the requirement to have these gauge changes in total. Even if we could interpret it as potentially something within the confines.

Whatever it would be, it would have to be in place immediately, so it would have to be in place by July 1 of 2025, and I'm not sure that is within the administrative possibilities for some of the states to do so. If we wanted to go back and do a different path forward, then I would suggest we do a new addendum document for whatever new paths forward are brought forward by the states.

MR. BORDEN: Okay, so thank you, Toni. I just wanted to make sure, because I think that paragraph is going to get interpreted different ways by different members of the public, that's all.

CHAIR ZOBEL: Let's go ahead and get to Emerson.

MR. EMERSON C. HASBROUCK: Thank you, Madam Chair, and thank you, Caitlin for your presentation. My question has to do with one of the other motions that we passed at the last Lobster Board meeting, and that was to task the staff to prepare and send a letter to the Commissioners from Maine and New Hampshire, with both governors copied on that. Two-part question, one is, has that letter been sent, and

then secondly, has there been any response to the Commission from that letter?

CHAIR ZOBEL: Executive Director, I'll have you respond, if you don't mind.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Great, thank you, Madam Chair, and hey, Emerson, this is Bob Beal, how you doing? Yes, the letter we're still drafting it. We've had a number of iterations that have been going through between the Chair of the Commission and Dan McKiernan as Vice-Chair, myself, and just sort of thinking about the right tone of that letter. It has not been set yet, and there is the Maine Fish Forum took place a couple weeks ago. We were having conversations up there with the industry, you know on the side, just to see where things stood. We're wrapping up that letter right now, and we'll probably get it out and include an update on what happens in this meeting. If a document is approved for public comment by the Board before this meeting is over, we can include that current status of Draft Addendum XXXII in that letter. It's still in the works, but we're getting close to sending out, next few days, hopefully.

CHAIR ZOBEL: Jeff Kaelin.

MR. JEFF KAELIN: I had concerns similar to Mr. Borden's, and I'm glad that Mr. Emerson brought up the letter, because I was wondering about that too. I think there is a lot in this document that I think needs to be reestablished for the public that is not in here now, including the fact that there was a motion on the letter.

The way I read this, you know there wouldn't really, I think we need to clarify that we're looking for alternatives from the public, alternative conservation strategies I assume that would meet the 35 percent trigger target, which has already been triggered. But none of that is stated here at all. There is no deadline for the public to consider something being done.

This is just simply eliminating, basically the entire Amendment the way that this thing, including going back to XXVII from what we just talked about a minute ago. I think there is a lot missing here, including the fact that we're going to take final action on it in May. I supposed that will be filled in once we approve a document.

I think a timetable for next steps has to be identified in this thing, and basically, provide the public with some understanding of what the Commission's next steps are going to be. I hope it's not that we're going to put things off for another year or two, we've already done that twice. There is quite a bit here that is missing, as I just stated. Thank you for allowing me to comment.

MS. KERNS: Renee, can I jump in really quick and just follow up for a couple things? While I wasn't at the last Board meeting, I have gone back and listened to it and reread through the minutes. The Board, you know there was a motion for the letter, which requested that the three states work together in talking with their industry to develop some alternative management measures. Those management measures were not a requirement of this Addendum document for how the motion was written for writing this document.

Therefore, staff did not include any requirements of alternative measures to be developed. In addition, there was no timeline associated with those alternative measures. The Board just asked for the states to continue to come back at each quarterly meeting and provide an update of where folks were. At this time, we didn't add anything, because there wasn't any requirement associated with the motion for the Addendum.

MR. KAELIN: Madam Chair, would that be appropriate to make some kind of a motion like that today and add something like that, which is sorely missing, I think. I don't have a motion. I'm not a lobster guy; I used to be. I think a motion would be appropriate today to expand this, to have something that talks about where we're headed when we go out to the public, because again, I think that is missing. Thanks, Toni, I

appreciate recognizing exactly where we are. I'll just stand by, thank you, Madam Chair.

CHAIR ZOBEL: Yes, thanks, Jeff, and I can take those motions or just commenting questions, and we'll certainly get to that motion. Next up, Dennis Abbott.

MR. DENNIS ABBOTT: Jeff Kaelin hit on a lot of things that were concerning me. When I read Paragraph 2.2, the last sentence says that concurrently with this action the Gulf of Maine states will hold scoping discussions with their lobster industries to identify alternative conservation strategies, to protect the long-term health of the resource.

It just strikes me as we can't require the industry to do anything, but at the last meeting the industry representatives unanimously spoke up and said they wanted to be involved. But them wanting to be involved, and us requiring them to furnish us with anything, is beyond our scope, I think.

We can deal with LCMTs, but my question that goes into my mind is, when would we be expecting any input from industry? Are we going to wait until the assessment is given to us, and then at that point have a tasking to do something, because I feel that without any industry input, we won't be able to go anywhere.

Because we're now dealing in the political realm with the governors of Maine and New Hampshire in particular, you know as far as going anywhere. We need some input at this point in time, or soon, from the industry to alternatives to what we can do for lobster management. Everything that Jeff Kaelin said, I agree with 100 percent, and I'll stop there.

CHAIR ZOBEL: Megan Ware.

MS. MEGAN WARE: Yes, I just wanted to acknowledge people's concerns and give an update from Maine. Maine, even though we have not received the letter yet, we have started a round of Zone Council meetings, so we've only had two of those at this point, but we should complete that round. We have seven different zones in Maine.

We should complete that ahead of the May Board meeting. Some of the things we've been doing at the Zone Council meetings this round has been providing folks an update on what has happened at the February Board meeting, some of the comments that were given, and then going through recent landings and effort data and trying to understand if people are agreeing with the trends they're seeing, disagreeing, are they concerned, if not, why, and having that conversation.

We have started that in the absence of the letter, and I'm happy to provide an update at the May Board meeting. I think it may take two rounds to have the full conversation, a lot of digesting and questions at this point, but wanted to give an update from Maine.

CHAIR ZOBEL: Thank you for that, Megan. I had a couple of hands. I just wanted to make sure that these aren't still lingering. David Borden, your hand is up, is that fresh? Emerson, your hand is also up. Did you have follow-up comments you wanted to make?

MR. HASBROUCK: I have the same concerns as Jeff Kaelin and Dennis Abbot, which is why I asked that question about the letter. When you're ready, Madam Chair, I have a draft motion that I can put up for discussion.

CHAIR ZOBEL: Thanks, Emerson. I'll go around one more time. Any other Board members that have questions or comments regarding this? Seeing no hands, at this time we'll entertain some motions and to the public, I know there have been numbers predicted. We'll go out to the public for public comment as well. Emerson, if you have something you wanted to put forth, go for it.

MR. HASBROUCK: This is a draft, and if it gets seconded, I am open to friendly modifications to

it. I would **move to add an item to Option B in the Addendum that says that Maine, New Hampshire and Massachusetts will provide to the Board by the Winter 2026 meeting consensus positions to be the basis of future addendum actions affecting the biological productivity in the Gulf of Maine lobster fishery.**

CHAIR ZOBEL: A move by Emerson Hasbrouck, do we have a second? Jeff, are you seconding the motion?

MR. KAELIN: Yes, I am, Madam Chair.

CHAIR ZOBEL: Seconded by Jeff Kaelin. Emerson, back to you for any rationale.

MR. HASBROUCK: The rationale is kind of what Jeff and Dennis have already stated, as well as the issue that Dave Borden brought up, about options that may not be specific in this document. I don't think that we want to just leave it at repealing the items that are going to be repealed in this addendum. I think we need to chart a path forward to get back on track, to address biological productivity of the Gulf of Maine lobster fishery. That is my primary concern, my primary reason for making this motion.

CHAIR ZOBEL: Jeff, over to you as the seconder and your rationale or comment.

MR. KAELIN: Yes, so why wouldn't this say Winter of 2025, because that is a long time to wait for the industry to come back to us on a bunch of issues that they are intimately familiar with puts it off a long time. I like the motion generally, that is why I seconded it, but I have a question about that. Then to me, I think it should say Winter of 2025, with the intention that changes be put into effect by, I don't know, April 1 of 2026, or something like that?

Some kind of a complete timetable for the public to understand, in terms of our taking some action. We know that lobster landings went down to a 15 year low in 2024, for example. I like the motion, I'm speaking in support of it, but when we get to the friendly amendment part, as I just mentioned, I have a couple of ideas possibly to improve it, at least from my perspective.

CHAIR ZOBEL: I do see hands from the public as well, so I will get to you. Next up, David Borden.

MR. BORDEN: Just a quick question for Caitlin. Will the results of the benchmark stock assessment be available at the fall meeting, 2025 Fall Meeting? Is that correct?

MS. STARKS: Yes, it will be peer reviewed and ready for the Board to review in the October meeting.

MR. BORDEN: Personally, I like the motion and I commend Emerson and Jeff for making it, but I agree with Jeff's suggestion that I think it should be 2025 if Mr. Hasbrouck and Jeff would consider that perfection, I would be happy to support it.

MS. KERNS: Renee, just to jump in that the Winter Meeting is February, so that meeting has already passed. I think maybe you're wanting the Annual Meeting of 2025, perhaps, but I'm not sure.

MR. KAELIN: That's a good point. Yes, I think Annual Meeting would be better than the winter meeting in 2026. Thanks, Toni, I'm glad you're on.

MS. KERNS: Then, I will just say that if you're saying that there needs to be some information provided to the Board at the annual meeting in 2025, having an addendum be finalized by April of the following year could be very tight. It depends on what product is given to the Board at that annual meeting. I just would want the Board to recognize that you may need a little wiggle room there.

MR. KAELIN: Would July be a better timeframe?

MS. KERNS: I would suggest August, since that is when our summer meeting would be.

MR. KAELIN: Well, Emerson, it is your motion, but I think changing those dates would be an improvement.

MR. HASBROUCK: Yes, can I respond, Madam Chair?

CHAIR ZOBEL: Yes, of course. Go ahead, Emerson.

MR. HASBROUCK: I just put that in there as a draft, because I wasn't sure when our stock assessment was going to be available, and I wasn't sure how quickly the states were going to be able to meet with their industry. But originally, I had thought that maybe the annual meeting would be appropriate. But I just delayed for no particular reason, other than to give those three states time to meet with their fishermen. I'm fine with changing this to the Annual 2026 Meeting.

Also, we just heard from Maine that they've already initiated discussions with their industry. I'm willing to change it to August even, if the states of Maine, New Hampshire and Massachusetts think that they will have had meaningful discussions and input from their industry by that point in time.

MS. STARKS: Madam Chair, could I jump in with a question? I think Emerson just stated Annual 2026, but I think he meant 2025, so I want to clarify that.

MR. HASBROUCK: Yes, I'm getting my years mixed up here, sorry.

MS. STARKS: Then my additional question is, the motion says that the states would provide consensus positions to be the basis of future addendum actions, and I want to know what consensus positions means to you, and what we would be looking for from them, specifically.

MR. HASBROUCK: To me it means specifically what is in the letter that is being sent to those states. I think that is what was part of the motion, wasn't it? For those states to meet with their industry and develop consensus actions?

MS. STARKS: So possible management actions to pursue.

MR. HASBROUCK: Yes, in fact I'm looking now at the motion that was passed, and one of the bullets is request Maine officials to begin scoping discussions with industry leaders, Maine's Marine Fisheries Advisory Council, Maine Zone Councils and the Canadian government and Canadian lobster fishing area representatives to identify mutually agreeable conservation strategies and schedules, future addenda.

That is what I am referring to. The next bullet says, ensure Maine entities develop consensus positions to the degree possible, before the Board considers incorporating them in any future addendum affecting the biological productivity of a Gulf of Maine lobster fishery. I'm just taking that from the motion that was passed sending out that letter. Whatever the final version of that letter is, relative to the biological productivity of Gulf of Maine lobster fishery.

MS. STARKS: Thanks, Emerson.

CHAIR ZOBEL: Thanks, Emerson, next up I have Ritchie White. Ritchie, go ahead.

MR. G. RITCHIE WHITE: Yes, I'm still not clear on consensus. Does that mean that the three states have to be in consensus? Is that consensus just industry, is that consensus the decision of the state to back a proposal from industry? I'm still not quite sure of exactly what you're looking for there. Secondly, I think this is probably premature, in that the stock assessment we will be getting at the annual meeting.

I think it's not smart to take action prior to that, because the action that we might take might not be enough if the stock is overfished or overfishing is occurring. I think that waiting until we get the stock assessment, and then take action to address this issue, as well as any issues that might come up at the stock assessment, I think would be a smarter path. Thank you, but otherwise I think the idea of the motion is a good idea to start, to make

sure that we're going to have the discussions, and that we are definitely going to get back to the Commission.

CHAIR ZOBEL: Emerson, did you want to respond at all to the intent of consensus in your motion?

MR. HASBROUCK: Well, again, similar to what I previously answered, it kind of depends on how the letter to those states is worded. I understand from Bob's earlier response to my question that that still is being worked at. I am going by what was in the Board's approved motion, to have those states identify mutually agreeable conservative strategies, and to develop consensus positions.

I think the consensus positions need to be between the states and their fishermen, and then if the states can also get together to provide consensus amongst the states that's even better. But I think the initial step is for the states to have discussion with their fishermen, because it sounds like Maine is already doing it. I'm willing to change this to either the August 2025 meeting or the Annual 2025 meeting, depending on what the states of Maine, New Hampshire and Massachusetts think their timeline is going to be.

CHAIR ZOBEL: Go ahead, Dan.

MR. DANIEL McKIERNAN: I'm opposed to the motion. The way I see this, is we have a very tight timeframe between now and July 1, when two states are going to be found out of compliance, that is an important deadline. We also have the expectation of the assessment coming out in October. We can anticipate a few scenarios coming out of the assessment, including whether or not the stock is overfished, and whether or not overfishing is occurring.

If a scenario plays out, where there is no overfishing and overfishing is not occurring, then I go back to the original premise of Maine Commissioner's goals, former Maine Commissioner, who was concerned that given the decline in stocks that it would inflict a lot of pain on the waterfront in Maine, because of the dependence of the industry on lobster.

I think it is important to understand that we may need to address the economics of this fishery, but beyond the conservation issues within the fishery. That's why I think it's appropriate to pass the original proposal that is in the Addendum, and then wait until October and take a look at what the new mandates are going to be on us.

I want to remind the Board, and Emerson, I don't mean to pick on you, but I just want to clarify that consensus is what I'm asking for to come out of the state of Maine, because it was basically the Maine industry that undermined this, or the Maine scene that undermined this Addendum. My regulations are enacted. I have to go in and unravel them.

What I want to do is I want to have Maine come to a consensus, and then we'll take a look at it, because if we just go forward with three states like we did before, the delegations voting and have one or two states pull the plug on it, that is not acceptable to me. I want to see what Maine wants to do, because the decline in Maine is way more severe than the other two states in the Gulf of Maine.

As far as Massachusetts meeting with this industry, this letter was being sent to New Hampshire and Maine, because Massachusetts adopted the rules and we don't have any intention of repealing them, unless of course the Board votes to do that and we'll comply with the Board. I would urge the Board, and I appreciate the sentiment that I think it's very important to be responsible and to try to do what is best for this industry, but I think timing is important. I'm thrilled that Maine has already begun those conversations. There may be ways to improve this fishery, in terms of the economics and the conduct in many ways. But I think the outcome of that assessment could change things a lot, in terms of what our mandates are. I think it's best, as Ritchie said, to wait until the outcome of the assessment.

CHAIR ZOBEL: I'm putting on my New Hampshire hat for just a moment here. New Hampshire has every intention of beginning industry meetings in early May, just to chime in on that at this time. Next up is Dennis Abbott.

MR. ABBOTT: Again, in agreement with just about everything that has been said. One thing is I'm not sure if we're putting the cart ahead of the horse, because we don't know what the results of the assessment is going to be. It's possible that the assessment might say that we're down below the 35 percent trigger and no action is required.

Although, going back to Pat Keliher's reason for doing this, he was trying to be on the safe side of things. I am very interested in what's going to come out of the state of Maine. I would like to see the industry step up and say, based on the decline that we've seen in the trigger index, then what are your alternatives? What alternatives do you want to do?

Another point, there are a lot of moving parts there. We haven't even mentioned the fact of where is Canada on this? Is Canada still going to be influencing our final decisions? Also, I might note that New Hampshire did adopt the Addendum XXVII or XXXI requirements, and rules were put in place. I'm not sure, Renee can probably clarify whether you've had to rescind them, based on what our governor did a couple months ago.

Again, I think that I would like to see something before the assessment comes out of what tools we could put in our toolbox that are acceptable to the industry in Maine in particular, and then based on the results of the assessment, then we would be looking forward to either having an addendum or not. You know give us some direction at that point in time.

CHAIR ZOBEL: Megan Ware. Megan, your hand is down.

MS. WARE: I was just saying, you know I appreciate the Board's concerns here, and I think what I'm hearing is a desire to outline clear expectations, which I'm not opposed to it by any means. I do think something we haven't talked yet about is the layers of everything that is going on. We talked about the assessment coming out in October.

I think that is going to be really important, as others have mentioned to understand it for overfished or overfishing and what is getting triggered for that. Also, the important, in terms of kind of grounding the industry as to what we've seen since the last assessment, which I suspect will have very different results than the 2018 assessment, or 2020 assessment, excuse me.

Then I think the other thing that is happening here is the whale conversation. We are expected to start TRT discussions in November, and then vote on a final package in January. From my perspective, I think if this motion is going to move forward, the Winter 2026 meeting has some advantages, just to understand the playing field a little bit better. But I do agree. I think timeliness of this Addendum that we are voting on today is paramount, in terms of two states essentially going out of compliance, which we want to avoid. I think at the February Policy Board meeting I had suggested that by May, Maine will have gone through a round of Zone Council meetings.

Happy to provide an update on what we've heard at that point. We may have a better understanding as a state of how many rounds of Zone Council meetings we need to do, and our timeline to be able to provide some positions. That might be a good opportunity, particularly in person, to discuss the best path forward.

CHAIR ZOBEL: I have Bob Beal, please.

EXECUTIVE DIRECTOR BEAL: Megan said a lot of what I was going to say, actually. But just folks have asked about the letter. It's still in the works, but one of the closing sentences in the letter currently is that the Board requests an update from Maine at each of the quarterly meetings

coming up. Maine will be asked to give an update in May and August and October.

I'm not speaking for or against this motion, I just want folks to know that there will be regular updates on how the conversations are going up in Maine, coming back to the Board, and maybe based on the progress or lack of progress, the Board can see where things are coming out of the New England states, and decide if a timeline is needed then, or they can do it now. The other thing to think about is, if a date or a timeline gets put into this draft document, it's just going out to public hearing, and the public can then comment on it.

The Board can take it out later if they would like. The other way to look at it is, will a timeline make these public hearings or public hearing, singular, more difficult, and be a distraction from the core of just trying to repeal the gauge size changes and vent size changes that are sort of coming up fast on a couple of the states here. Just some thoughts, but you know, the Board will get an update at each of the quarterly meetings on how the conversations are going.

CHAIR ZOBEL: Next, I have Joe Cimino.

MR. JOE CIMINO: I'm against this motion for the same reasons that Dan spoke to. You know I guess wearing my Chairman hat, I think it was a more elegant solution. I think I share the same concerns for the stock, but I think this may actually tie up the process. It may force us into another addendum process before we're ready to go there.

I haven't heard anything talked about, but I am also assuming that some of the options that may be drafted for a new addendum would have to run through a Technical Committee. I would like to make sure that there is good time for all that to play out. We have committed to having updates at every quarterly meeting.

I think this Board will have a chance to pivot and take the actions they think appropriate as we move forward. But there are a lot of moving parts, as Megan talked about, and I think the premiere thing is to get this document out, so that we can do that repeal if that is what we think is necessary.

CHAIR ZOBEL: Jeff, you have an additional comment?

MR. KAELIN: I think it's been a good conversation, and if this dies, and I imagine it will, the document still is silent on what our plans are, as described by both the Commission Chair and Vice-Chair in the last few minutes. None of that is in this document. I think it ought to be in there. Apparently, we need a motion to add anything, but this is important, I understand that, in terms of avoiding any potential for finding states out of compliance.

I'm not interested in that at all. But I think we could do a much better job with a document in describing for the public what the Commission's expectations are, relative to the assessment coming in, the timing of that and so forth. Ideally, to me it makes sense to have the states consider consensus positions.

Frankly, what I would do if this was going to survive, is I would change consensus positions and stick in the language from the letter, to be a little clearer what our expectations are. What is the timing on that? When do we expect that to happen? It might be a good idea for the states to come in and tell us in our August meeting what is going to happen, with the assessment coming up in October.

Then have some ability for the Technical Committee to crank away at some of those ideas that come from the public. Again, none of that is outlined in the document, and I still have, even if this goes down in flames, just want to go on record in saying I think the document needs to be improved in that area. That's all I have to say, thanks.

CHAIR ZOBEL: Seeing no other members of the Board, I am going to go out to the public on this motion. Virginia Olsen, you've had your hand up for a bit now, go ahead.

MS. VIRGINIA OLSEN: I appreciate all the conversation that has taken place today. I would like to see everyone hold for a pause. Maine fishermen are engaged. We had a problem where they did not receive any democratic process to LCMTs. We were denied those meetings. We need to be able to speak with fishermen, so we have their buy-in on a change. If we don't have their buy-in, we'll just be sitting right where we are at the end of this. Thank you.

CHAIR ZOBEL: Thanks, Virginia. Back to the Board one more time before we call a vote on this motion. David, I see your hand.

MR. BORDEN: I mean I've listened to the Commission Chairman and Vice-Chair's comments. I would like to suggest **a substitute**, and I'm happy to do it as a perfection if the maker and the seconder of the motion agree. Basically, to **have the first four lines would remain the same, down to Winter 2026. Change 2026 to 2025, and then after that say meetings, and then before consensus add the word state consensus positions with a period, and remove the rest. I'll suggest that as a substitute motion.**

CHAIR ZOBEL: It sounds like we have a move to substitute. Caitlin or Toni, feel free to chime in if you feel a friendly amendment to this with the approval of the maker and seconder would be more appropriate.

MS. KERNS: I think a substitute is probably cleanest. I mean we can get a seconder, but it might be good to get this substitute up before we can all see what we are actually talking about here. Again, I'll say that the Winter 2025 meeting has already passed, so that is not quite whatever date you're looking for.

MR. BORDEN: Winter 2026 then.

MS. KERNS: Okay, that stays the same. Then I guess my other question to you, David, is by adding this to the Option B, you are stating that there will be requirements for the states to have a consensus position by Winter of 2026. I'm just making sure that that is clear. On something that I don't know what that consensus position is.

MR. BORDEN: I think, Madam Chair, it's probably best to try to get a second on this. Then if we do get a second, I would like you to come back to me. I'll give you the logic for it, and factor in the points that Toni made.

MR. ABBOTT: I'll second.

MR. ERIC REID: I had my hand up for a second too, go ahead Dennis.

MR. BORDEN: As I indicated before, I listened to the Chair and the Vice-Chair, and I think they made really good points that it is premature to be talking about another addendum at this point. I think the critical issue at this juncture is to get the three states, two of which have the governor's offices heavily involved in the issue, to meet with their industry and come back with recommendations to the Board.

With this deadline, we'll be in a position where we have the benchmark stock assessment concluded, so we'll remove the uncertainty that we have right now, about stock status and basically be in a position where we have recommendations from each of the jurisdictions that are involved in that area.

That would include, I would point out, Area 3, so you are going to have not only Area 1, but Area 3 recommendations, and we'll have the benchmark. We can put all of those factors together, have a discussion whether or not we need to do more and why, and then decide whether or not we need to do an addendum.

I think to me this is the correct way to do it, that way the states have some deadline. It's not an open-ended deadline where the industry groups are basically going to go off and meet and have endless discussions for two, three, five years. We need something that forces a resolution of a consensus at some point. That is all I'm trying to accomplish with this. I like the original motion,

but there were valid concerns raised, so I think we should pare it down.

CHAIR ZOBEL: Dennis, to you as the seconder.

MR. ABBOTT: Again, agreeing with what David just said, and it kind of follows my thinking. I would also comment that I've been informed that New Hampshire will be starting discussions with industry, I believe in early May.

CHAIR ZOBEL: Ritchie White.

MR. WHITE: Again, I think that the states will probably not have time to get proper feedback from the stock assessment in November. It' s released to the public in the winter meeting, to then get input from industry, a consensus from industry in the various states on changes that may not be the same as what we're dealing with now. I mean we can do this, but I doubt that there will be time to get proper consensus from industry between November and February. Anyway, just a thought.

CHAIR ZOBEL: David, a follow up?

MR. BORDEN: No, thank you.

CHAIR ZOBEL: Okay, we've had pretty extensive discussion about this. Anything additional? Emerson.

MR. HASBROUCK: I'm actually fine with this substitute, it gets to the point that I was trying to make. I introduced that motion to generate discussion about having something in the document that says we are going to do something by a date certain. I'm fine with this substitute.

CHAIR ZOBEL: Dan McKiernan.

MR. McKIERNAN: Yes, and I'm going to repeat my opposition to this motion. I think the Board should take a pass, well should have approved the original premise of this Addendum and then take a pass, wait for the stock assessment in October, and then there will be clearer mandates. Whether they be biological reference points or targets for fishing mortality, et cetera, or alternatively, if the industry wants to roll up their sleeves and discuss the economics of this fishery being problematic and want to make those changes, then that is the conversation that they will have. Then they will deliver some of those ideas to us. I really do not want to convene my industry until the seven Maine Zone Councils have a chance to come up with what I hope to be a consensus Maine position.

CHAIR ZOBEL: Joe Cimino.

MR. CIMINO: I guess the question, and I apologize. I really meant to ask this first time around as well. Since this is getting added to Option B then we can't repeal without also having this requirement of consensus by Winter of 2026, or after going out to public comment would there be a way to split this again?

MS. STARKS: If I could jump in. I believe that because of the language that we have in our Draft Addenda that says that the Board at final action can combine or choose options within the range of things that are considered. Then I do think it would be able to implement Option B without this clause. I think that would be within bounds, but Bob, correct me if I'm wrong.

CHAIR ZOBEL: Go ahead, Bob.

EXECUTIVE DIRECTOR BEAL: Yes, Caitlin is right. These items could be separated, even if they both fall under Option B for public comment. If this is approved, public comment happens and at the Spring meeting the Board decides they don't want to include this date, then they can just go with the repealing of the gauge size changes.

CHAIR ZOBEL: Thanks, Joe, I believe that answers your question.

MR. CIMINO: Yes, I appreciate that.

CHAIR ZOBEL: You're welcome. Go ahead.

MS. KERNS: Renee, I just want to clarify, because, I don't know, maybe I should wait if this passes or not, but I am concerned about how this reads; "state consensus positions" and exactly what that means. Caitlin will have to explain this during public hearings, and I think what I'm hearing is that these positions could be either ways to bolster that Gulf of Maine stock, it could be a response to the stock assessment.

I just want to make sure I'm understanding that, and then a consensus position is that just consensus position is with the three states? I just want to make sure I am correct on that.

CHAIR ZOBEL: David, as the maker, I'll let you respond to that.

MR. BORDEN: Yes, as far as the consensus, let me just say, I'm just trying to get the three jurisdictions to meet with their industry and have exactly the discussion that was just characterized, and then come back to us with their specific recommendations for that jurisdiction. I would envision, so the deadline is a target.

It's not a hard date, other than the fact that we want everybody to bring us recommendations by that point. If we require more time then we obviously have the right to provide more time. As to the Vice-Chair's comment about economics. I think economics should be a part of the discussion that is taking place between now and then.

Because I readily envision that economics is going to play a big role in the formulation of any recommendations that come out of this process, whether it takes place in the next year or two years. I mean that's one of the things that is driving this whole issue, the economics are going to deteriorate, I think dramatically for the industry, because of the points that I've made at prior meetings. I think all of this comes together. I think people are overreading what is required here. It's just a deadline. We need a report by a certain deadline.

MS. KERNS: One more thing to jump in, I'm sorry, Renee. When we put options in an addendum document, it locks us in to compliance criteria. This is very different than the Board giving some direction to the states to provide some information back to them through a Board motion.

That you're seeking management approaches by a certain time, so that then you can populate an addendum or not populate an addendum how we move forward. By putting it in the Addendum you are locking yourself into this timeline. It might be more comfortable with the flexibility that it sounds like you're seeking, of the different types of information, is having a separate motion and not locking this into the Addendum Document.

But giving those states this direction of what you could do in lieu of these management approaches. It could be a way to give yourselves the flexibility and not lock us into some more compliance criteria that you're not sure you are going to be able to meet in the assessment.

CHAIR ZOBEL: Thanks, Toni, Dennis.

MR. ABBOTT: Basically, what is in this motion is very similar to what is in 2.2 at the present time, it says the Gulf of Maine states will hold scoping discussion with their lobster industries. All we want is to, at some point in time, is to have them provide that information to us. It's very possible that the states of Maine, New Hampshire and Massachusetts, their consensus individual state consensus position may be very different.

All we're really looking for is some sort of information and guidance from the industry of where we're going to go. We're going to have to digest whatever we get from the three states in the event that we're going to have to take or choose to take some action next year or some downstream time, that's all.

CHAIR ZOBEL: Jeff and then we've had a lot of discussion here, so unless it is substantially different, we'll try to move ourselves forward. But Jeff, go ahead.

MR. KAELIN: No, it's not. I'm just taking the right to respond as a sponsor of the previous motion. Just to say that I do support this, I think it's an improvement. But I made the point earlier that I think it would be helpful for the public to realize the timing that was discussed by Dan, including the timing of when we would expect the new assessment.

I think without a motion I am hoping that that information could be added to a preamble, just to help the public with a little better understanding of where we are, particularly with the new assessment coming in. But I do support the motion. I'll stop there, thank you.

CHAIR ZOBEL: Megan.

MS. WARE: Yes, this has been a really interesting conversation. I think this provides a lot of clarity for Maine that folks are looking for clear expectations in timeline, which I can't argue with. I think if the Board wants to pass this type of motion, my recommendation would be to actually do this outside of the Addendum, because I think that does get into some rocky territory on compliance criteria. I just don't know how to interpret that or answer questions on that. Again, I think that makes me a little nervous on this. But I understand the intent and what people are trying to do. Perhaps this is best, again as a discussion in May, where this similar type of motion comes up, kind of disassociated from the Addendum. I think that might be a better path.

CHAIR ZOBEL: Ritchie.

MR. WHITE: I agree with Megan and Dan, and I think we're all in agreement for this information to come back to the Board to help the Board make a decision in the future. But I don't think this is the place to do that, and therefore, I'll be opposing this motion.

CHAIR ZOBEL: I did see a public hand a little while back, so I'm just going to very briefly go out to the public, make sure that we didn't miss any comments specific to this motion. David, I see your hand, one moment. Go ahead, David.

MS. KERNS: David, you're self-muted.

MR. BORDEN: Excuse me, I double clicked. I'm not opposed to the point that has been made by Megan and Ritchie. Let me just suggest, I don't want to do this myself, because I don't think I can legally do it. Have somebody table this until the May meeting, and then we'll reconsider whether or not we need to do something.

MS. KERNS: You can postpone your own motion, it's fine, David.

MR. BORDEN: Well, I think it would be better if another Board member did that, thank you.

MS. STARKS: That being said, this is still a motion to substitute, so I do think we need to get back to a main motion, right?

MS. KERNS: I don't believe so. I think you can postpone the whole concept.

CHAIR ZOBEL: Megan Ware.

MS. WARE: Given that comment, then I'll make the motion to table until the May Board meeting. I think it's a little weird with the option in the Addendum, for this proposing an option in the Addendum, but I think this will bring us to a conversation in May where we can pass or consider this type of motion again, kind of disassociated from the Addendum. I **move to table until May.**

MS. STARKS: **It would be postpone until May, correct?** Tabling is within a meeting, I think.

MS. WARE: **Postponed sounds great.**

CHAIR ZOBEL: Matt Gates, I see your hand up, was that to second the motion?

MR. MATTHEW GATES: Yes, I think that is a good idea.

CHAIR ZOBEL: I don't know that we need any additional rationale there, but if either of you have a burning desire, feel free to add some. Megan, I don't know if you have anything additional.

MS. WARE: I think I've said my piece, thank you though.

CHAIR ZOBEL: Matt, anything to add?

MR. GATES: No, I think Megan made some good points there. I think perhaps moving this outside of the addendum process might be more appropriate, so I think if we just have that discussion in May, it would be best.

CHAIR ZOBEL: David, I see your hand up. Is that residual? Your hand is down. Dennis, go ahead.

MR. ABBOTT: Is that me that you just called?

CHAIR ZOBEL: Yes, go ahead, Dennis.

MR. ABBOTT: I'll pull a Pat Augustine here and move the question and have us vote on this at this time, thank you.

CHAIR ZOBEL: That was my next step, you beat me to it. Let's go ahead and call the question. Let me try this first. Is there any opposition to the motion on the board. I see Alli Murphy from NOAA Fisheries. Alli, go ahead.

MS. ALLISON MURPHY: Thank you, Madam Chair, no opposition from me, but I would like to abstain.

CHAIR ZOBEL: Okay, great, thank you so much. Seeing additional hands, Toni does that lead us to calling the vote here?

MS. KERNS: If New York is voting in opposition, then yes, we would need to call the vote.

MR. HASBROUCK: Oppose.

CHAIR ZOBEL: Okay, let's call the vote then.

MS. WARE: This is Megan, it says May, 2026. I think the idea was 2025, thank you.

CHAIR ZOBEL: **Those that are in favor of the motion on the board, please raise your hand.**

MS. KERNS: I'm just going to let the hands settle for a second. I have Virginia, Rhode Island, Massachusetts, Connecticut, New Jersey, Delaware, New Hampshirem, and Maine. I will lower the hands for you guys. Opposition.

MR. HASBROUCK: New York is going to vote null.

CHAIR ZOBEL: Thanks, Emerson, and abstentions.

MS. KERNS: NOAA Fisheries.

CHAIR ZOBEL: Any additional null votes. Seeing none; Toni, do you mind helping me with the count on this one?

MS. KERNS: Caitlin, am I correct it's an 8, 0, 1, 1.

MS. STARKS: That's what I got.

CHAIR ZOBEL: Okay, the motion carries. Are there any other motions to come before the Board? We still have a document to get out to the public. Megan Ware, go ahead.

MS. WARE**: I would move to approve Addendum XXXII for public comment**.

CHAIR ZOBEL: David, I see your hand, is that a second?

MR. BORDEN: That's a second.

CHAIR ZOBEL: Megan, any rationale?

MS. WARE: No, I think we've had a lengthy discussion.

CHAIR ZOBEL: As do I, David, anything additional?

MR. BORDEN: Nothing additional.

CHAIR ZOBEL: Does anybody have any burning comments on this before we call the vote?

MS. KERNS: It's not a burning comment, but just to let you know that Caitlin and I will work in the timing of the assessment to the background section of the document so it's not a surprise.

CHAIR ZOBEL: Thanks, Toni. Thank you for responding to the Board member's request there. Let's call the question, try this one more time. **Do we have any opposition to the motion on the board to approve Draft Addendum XXXII for public comment. I see NOAA Fisheries, Alli, is that an abstention?**

MS. MURPHY: Correct, thank you, Madam Chair.

CHAIR ZOBEL: Toni, I believe we can move forward by consensus, is that correct?

MS. KERNS: Yes, you just say it would carry by consensus with one abstention from NOAA Fisheries.

CHAIR ZOBEL: Great, motion passes with consensus, NOAA Fisheries with one abstention. The main event for today, is there any other business to come before the Lobster Board today? Seeing no hands; thank you all for your support in my first meeting, and thank you for the robust discussion, it was helpful for all of us. Thank you to the public for their attendance. We have one hand up, is this Other Business to come before the Board.

MR. SAMUEL P. BLATCHLEY: I just was wondering about public comment, when that would come out.

CHAIR ZOBEL: Sure, Caitlin, do you want to review the public comment timeline in the presentation?

MR. BLATCHLEY: We could make a public comment now.

MS. KERNS: Sam, we did it at the beginning of the meeting, but if you can keep it very fast. Renee had asked for public comment at the very beginning of the meeting.

MR. BLATCHLEY: Okay, I will go very quickly, if that is okay.

CHAIR ZOBEL: Go ahead, Sam, just keep it brief, thanks.

MR. BLATCHLEY: Good day, Madam Chair, Board members and members of the Atlantic States Marine Fisheries Commission. I'm Sam Blatchley, I'm counsel for the Outer Cape Lobstermen's Association. We have 34 permit holders. We submitted a detailed written comment opposing Draft Addendum XXXII's proposal to standardize the v-notch possession definition for the OCC permit holders to 1/8 inch, with or without setal hairs.

I just want to note as we referenced in a written comment, in 2000, following a federal lawsuit, the Outer Cape Lobstermen's Association and ASMFC and the Mass DMF, reached a judicially supervised settlement agreement. The agreement, which was informed by a scientific analysis allowed the OCC to adopt a conservation equivalency measure, a minimum gauge size increase to 3 and 5/16 inch in lieu of mandatory v-notching.

I just want to mention Bruce Estrella, the then senior marine fisheries biologist at DMF and Robert Glenn, then a marine fisheries biologist and now Deputy Director of the DMF, conducted a conservation equivalency review in using the egg per recruit model developed by Josef Idoine of NMFS, employed by ASMFC across U.S. lobster stock.

Deputy Director Glenn's 2000 analysis demonstrated that the OCC Plan yielded a 1.338 percent increase in egg production, over 2.5 times the 0.502 percent increase under the ASMFC then existing measures of a 3 and ¼ inch gauge and v-notching. Former DMF Director Phil Coates stated in the Cape Cod Times, our most important coastal species, and we're not going to save the lobster resource with v-notching and a maximum gauge.

In my heart I know the Outer Cape Lobstermen are correct. There should be real trap reduction and increase in the minimum size. His successor, Paul Diodati sought to extend this model statewide to recognizes its efficacy.

Just briefly, the Outer Cape Lobstermen's Association membership is notably younger than other lobster management areas, and reflect the thriving fishery that attracts new entrants. We believe Addendum XXXII threatens to unravel this proven framework, lacks a conservation phase and breaches a legally binding agreement upheld by the OCC for 24 years.

Meanwhile, it spares Maine from gauge increases to fight Addendum XXVII's original intent to protect the Gulf of Maine/Georges Bank spawning stock. Bowing to political pressure from the many at the expense of a few, this is not repealed, as Draft Addendum XXXII claims, but a selective rollback that undermines the OCCs contributions, which have boosted egg production by 2.5 times.

It is not contrary to law; it is poor fishery management. It dismisses science, fairness and precedent, risking litigation that the OCLA, Outer Cape Lobstermen's Association, though reluctant, stands ready to pursue by reopening our federal case to enforce the 2000 settlement. Then in closing, we urge that the ASMFC reject Draft Addendum XXXIIs proposal to standardize the v-notch possession definition for OCC permit holders to 1/8 inch with or without setal hairs. Thank you for your consideration and thank you for letting me talk out of order there.

CHAIR ZOBEL: Thanks for your comment, Sam. Matt Gates, I saw your hand. Did you have some additional business for the Board? That's okay.

ADJOURNMENT

CHAIR ZOBEL: All that said, we are adjourned for today. Thank you all for your time.

(Whereupon the meeting adjourned at 4:16 p.m. on March 18, 2025.)

April 21, 2025

Caitlin Starks
Atlantic States Marine Fisheries Commission
Suite 200 A-N
Arlington, VA 22201

RE: American Lobster Management Board Spring Meeting and Draft Addendum XXXII

Dear Ms. Starks,

The Lobster Institute at the University of Maine has worked since 1987 to foster collaboration and communication in support of a sustainable and profitable lobster industry. To that end, we recently hosted an online meeting of leaders from seven lobster fishing associations and the Maine Lobster Marketing Collaborative to discuss Draft Addendum XXXII and other pressing issues. Attendees included the leaders of: Atlantic Offshore Lobstermen's Association, Downeast Lobstermen's Association, Maine Lobstering Union: Local 207, Maine Lobstermen's Association, Massachusetts Lobstermen's Association, New England Fishermen's Stewardship Association, and New Hampshire Commercial Fishermen's Association.

These leaders have been engaging with their respective constituents to understand the level of concern over the health of the lobster resource and to discuss ideas on how to ensure the resilience of both the stock and the fishery. They are continuing to meet with lobstermen in their areas and stressed that lobstermen want assurance that potential management approaches must be informed by the most up to date data and the upcoming October 2025 stock assessment.

These industry leaders have committed to work together, to share progress, and collaborate on strategies to identify scientifically and economically sound measures that will ensure future resilience of the fishery. The group is also considering the development of educational materials to support their conversations with lobstermen.

There is no doubt that proactively identifying management approaches that will have broad acceptance among lobstermen is extremely challenging. Nevertheless, it is clear that these industry leaders remain committed to doing this work and collaborating on outreach strategies to help industry members engage more effectively in future management decision-making. The Lobster Institute has committed to convene this group on a quarterly basis and support this outreach work.

Sincerely,

Chris Cash
Executive Director
Lobster Institute

Atlantic States Marine Fisheries Commission

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

Repealing Addendum XXVII Measures

March 2025

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

American Lobster Draft Addendum XXXII for Public Comment

Public Comment Process and Proposed Timeline

In February 2025, the American Lobster Management Board (Board) initiated Draft Addendum XXXII to consider repealing certain measures of Addendum XXVII. Addendum XXVII established a trigger mechanism to automatically implement management measures to provide additional protection of the Gulf of Maine/Georges Bank (GOM/GBK) spawning stock biomass. Under Addendum XXVII, changes to gauge and escape vent sizes in Lobster Conservation Management Areas (LCMAs) 1 (Gulf of Maine), 3 (offshore federal waters) and Outer Cape Cod (OCC) were triggered in October 2023 based on an observed decline in recruit abundance indices of >35% from the reference level (equal to the three-year average from 2016-2018. The Board established the implementation date of the series of changes to gauge and vent size to begin July 1, 2025 to allow the Gulf of Maine states the opportunity to coordinate with Canada regarding possible trade implications, and give the industry and gauge makers additional time to prepare for these changes.

Draft Addendum XXXII considers repealing all measures from Addendum XXVII pertaining to gauge and escape vent sizes.

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 **April 25, 2025 at 11:59 p.m**. **EST.** Comments may be submitted by mail, email or online. If you have any questions or would like to submit comments, please use the contact information below.

1. **Mail**: Caitlin Starks, Atlantic States Marine Fisheries Commission, 1050 N. Highland St. Suite 200A-N, Arlington, VA 22201
2. **Email:** comments@asmfc.org (Subject line: Lobster Draft Addendum XXXII)
3. **Online:** https://asmfc.org/actions/american-lobster-draft-addendum-xxxii/

Date	Action
February 2025	Board initiated Draft Addendum XXXII
February 2025	Plan Development Team (PDT) develops Draft Addendum document
March 2025	Board reviews and approves Draft Addendum XXXII for public comment
March – April 2025	Public comment period, including public hearings
May 2025	Board reviews public comment, selects management measures, final approval of Addendum XXXII

Table of Contents

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-XXXI 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 LCMAs 1 (GOM), 3 (federal waters), and Outer Cape Cod (OCC). 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 their state.

In February 2025, the Board passed the following motion:

> *Move to initiate an Addendum to repeal all gauge and vent size changes in Addendum XXVII. The other sections of Addendum XXVII will remain in effect.*

This Draft Addendum considers repealing the gauge and escape vent size changes in section 3.1 and 3.2 of Addendum XXVII. The Draft Addendum does not consider repealing v-notch regulations nor regulations prohibiting the issuance of 10% additional trap tags in Areas 1 and 3 above the trap limit or allocation.

2.0 Overview

2.1 Background

Addendum XXVII was approved on May 2023, establishing a trigger mechanism to automatically implement management measures to provide additional protection of the GOM/GBK spawning stock biomass. Under Addendum XXVII, changes to gauge and escape vent sizes LCMAs 1, 3, and OCC would be initiated based on an observed decline in recruit abundance indices of 35% from the reference level (equal to the three-year average from 2016-2018). This was a proactive approach responding to declines in young-of-year settlement and recruitment abundance indices (abundance of lobsters just below the legal minimum size), although the 2020 Benchmark Stock Assessment indicated the GOM/GBK stock was not overfished and overfishing was not occurring. A new benchmark stock assessment is in progress, and results are expected to be presented to the Board in October 2025 to provide more current information on the status of the stock.

In October 2023, the American Lobster Technical Committee reported that with the inclusion of 2022 data in the index time series, the trigger index had declined by 39%, surpassing the trigger point of a 35% decline. The original implementation date for the series of required gauge and vent size changes, starting with the first decrease to the LCMA 1 minimum gauge size, was June

1, 2024. However, in October 2023 the Board delayed the implementation of the measures in Addendum XXVII to January 1, 2025. The extension aimed to provide the Gulf of Maine states the opportunity to coordinate with Canada regarding possible trade implications and give the industry and gauge makers additional time to prepare for the changes.

In October 2024, the Board approved Addendum XXXI, which postponed implementation of the biological management measures (OCC maximum gauge size, v-notch definition, and LCMA 1 gauge and vent sizes) of Addendum XXVII an additional six months to July 1, 2025. The additional delay was intended to reduce negative impacts to the US and Canadian lobster industries in 2025 and allow Canada more time to consider implementing complementary management measures. For LCMA 1 and 3 permit holders, Addendum XXVII required states to implement regulations to limit the issuance of trap tags to equal the harvester trap tag allocations unless trap losses are documented. Implementation of this measure was required by January 1, 2025.

2.2 Statement of the Problem

Following the approval of Addendum XXXI in October 2024, lobster industry members in the states of Maine, New Hampshire, and Massachusetts expressed significant concern regarding the potential economic impacts of increasing the minimum gauge size in LCMA 1 and about the uncertainty surrounding the implications for trade with Canada. The Board agreed that consideration of alternative management measures was warranted to address these concerns. Concurrently with this action, the Gulf of Maine states will hold scoping discussions with their lobster industries to identify alternative conservation strategies to protect the long-term health of the resource.

3.0 Proposed Management Options

The following management options consider repealing measures under Section 3.1 and 3.2 of Addendum XXVII pertaining to gauge and escape vent sizes. It does not consider changes to the regulations prohibiting the issuance of 10% additional trap tags in Areas 1 and 3 above the trap limit or allocation.

When the Board takes final action on the addendum, there is the opportunity to select any measure within the range of options that went out for public comment, including combining options across issues.

Option A: Status Quo

This option would maintain the current implementation schedule adopted under Addendum XXXI for all Addendum XXVII management measures.

Implementation of Management Measures Under Option A			
Area	**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
July 1, 2025	**Minimum gauge size: 3 $^{5}/_{16}$" (84 mm)**	*Status quo*	*Status quo*
July 1, 2027	**Minimum gauge size: 3 $^{3}/_{8}$" (86 mm)**	*Status quo*	*Status quo*
July 1, 2028	**Vent size: 2 x 5 $^{3}/_{4}$" rectangular; 2 $^{5}/_{8}$" circular**	*Status quo*	*Status quo*
July 1, 2029	*Status quo*	**Maximum gauge size: 6 ½"**	**Maximum gauge size: 6 ½"**

Option B: Repeal Addendum XXVII Gauge and Vent Size Measures
Under this option, all changes to gauge and escape vent sizes established by Addendum XXVII would be repealed. These include:

- The change to the maximum gauge size required in OCC established in Section 3.1 of Addendum. This would result in a maximum gauge size of 6-$^{3}/_{4}$" for federal permit holders, and no maximum gauge size for state-waters only permit holders.
- The minimum and maximum gauge size changes triggered under Section 3.2 of Addendum XXVII. The minimum size for LCMA 1 would be 3 ¼" and there would be no additional changes to the maximum gauge size for LCMA 3 and OCC.

If this option is adopted, the following provisions of Addendum XXVII would be maintained:

- Standardize the v-notch possession definition for all permit holders in OCC to $^{1}/_{8}$" with or without setal hairs. The implementation date for this measure would be July 1, 2025.
- Implement regulations for LCMAs 1 and 3 to limit the issuance of trap tags to equal the harvester trap tag allocation. This means no surplus trap tags will be automatically issued to permit holders for these areas until trap losses occur and are documented. The implementation deadline for this measure was January 1, 2025.

Proposed Management Measures Under Option B			
Area	**LCMA 1**	**LCMA 3**	**OCC**
Current Measures	Minimum gauge: 3 ¼" Maximum gauge: 5" Vent size (rectangular): 1 $^{15}/_{16}$ x 5 ¾" Vent size (circular): 2 $^{7}/_{16}$"	Minimum gauge: 3$^{17}/_{32}$" Maximum gauge: 6 ¾" Vent size (rectangular): 2 $^{1}/_{16}$ x 5 ¾" Vent size (circular): 2 $^{11}/_{16}$"	Minimum gauge: 3 $^{3}/_{8}$" Maximum gauge: 6 ¾" Vent size (rectangular): 2 x 5 ¾" Vent size (circular): 2 $^{5}/_{8}$"
July 1, 2025	*Status quo*	*Status quo*	***V-notch possession definition for all permit holders: 1 /8" with or w/out setal hairs***

4.0 Compliance

If the existing FMP is revised by approval of this Draft Addendum, the Board will designate dates by which states will be required to implement the provisions included in the addendum, if necessary.

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. If this Draft Addendum is approved, the Atlantic States Marine Fisheries Commission would withdraw its recommendations to the federal government to promulgate regulations to implement measures repealed by this addendum.

6.0 References

Atlantic States Marine Fisheries Commission (ASMFC). 1997. Amendment 3 to the Interstate Fishery Management Plan for American Lobster.

ASMFC. 2023. Addendum XXVII to Amendment 3 to the Interstate Fishery Management Plan for American Lobster.

ASMFC. 2024. Addendum XXXI to Amendment 3 to the Interstate Fishery Management Plan for American Lobster.

4/2/2025 LCMT 3 Meeting Summary

Attendance:

- Industry: Hank Soule (representing Jon Shafmaster, NH), Dennis Colbert (MA), Grant Moore (MA), Joseph Clancy (ME), Roy Campanale (RI)
- MA DMF: Dan McKiernan, Tracy Pugh, Jillian Swinford, Story Reed
- ASMFC: Caitlin Starks
- NOAA: Allison Murphy
- NH F&G: Cheri Patterson

The goals of the meeting were 1) to elect a new chairman, to 2) review the PDT Report on Area 3 lobster fishery relative to mandates applied by Addenda XXI and XXII, 3) to make management recommendations for Area 3 regarding the goals of Addenda XXI and XXII, and to 4) discuss future concerns and goals for the LCMT 3.

Hank Soule, Jon Shafmaster's alternate, was elected as the new chairperson for the LCMT 3. Furthermore, there was a consensus in allowing for appointing alternates to stand in for all LCMT 3 members. This would allow for increased attendance and engagement from industry members. As such, any LCMT 3 member who wants to request an alternate should provide their alternate's email and phone number to Jillian Swinford (MA DMF, Jillian.Swinford@mass.gov). Alternates will be able to speak and vote on issues in the interest of their members when the primary member is unable to attend the meeting.

The results of the PDT report were presented by Caitlin Starks (ASMFC) and Allison Murphy (NOAA). Results indicate that overall fishing effort has declined in SNE and effort has been shifting to the GOM/GBK area. There has been a 28% decline in permits across all LMA 3 states, a 20% reduction in total trap allocations, a 4.3% reduction in traps reported fished, and a 64% latent trap reduction. By 2023, fishing effort in Area 3 between GOM/GBK and SNE was split 70-30%, and effort in SNE went from 30% of landings in 2013 to less than 10% by 2023. While the group felt the data accurately captured the general trends of the fishery, the data was limited by federal permit holder reporting and due to multi-area permit holders. Federal lobster permit holders have not always been required to report, though the presentation indicated that approximately 80% of federal permit holders had reporting requirements during the time series analyzed. Additional information about the results can be found in the PDT report, see attached.

Discussion at this meeting addressed two goals of the Addenda: 1) to reduce effort (via trap allocation) in the SNE fishery by 25% and 2) to limit permit consolidation within LMA 3 by establishing ownership caps. In response to goal one, it was concluded that all data indicated that the effort reduction in SNE fishery has been achieved and that the stock assessment indicates the stock is not overfishing, however, industry members requested additional data (specifically trap hauls and catch per haul numbers). In response to goal two, it was determined that the objective to prevent consolidation can no longer be met, as consolidation of the

industry in LMA 3 has already happened in the last 10 years due to the implementation of the trap allocation transfer programs. An additional follow up LCMT 3 meeting will be held with the objective to discuss the further consolidation of the fishery, specifically discussing whether Area 3 participants are interested in continuing consolidation or implementing management to constrain further consolidation. The overall conclusion of the meeting by the LCMT 3 members was that further measures to reduce effort in the SNE fishery are not warranted at this time.

Action Plan for
Joint New England and Mid-Atlantic Council Alternative Gear Marking Framework Adjustment
January 22, 2025

This Plan Development Team/Fishery Management Action Team (PDT/FMAT) has been formed to develop a joint New England and Mid-Atlantic Fishery Management Council (Councils) alternative gear marking framework adjustment. The PDT/FMAT will assist the Councils by creating the documents and conducting the analysis needed to comply with all applicable laws. This includes producing National Environmental Policy Act, Endangered Species Act, and Regulatory Flexibility Act analyses, and demonstrating compliance with other applicable laws.

Terms of Reference

1. The PDT/FMAT will finalize the purpose and need for the action, finalize alternatives, and draft all necessary analyses for the framework adjustment.
2. The PDT/FMAT will make recommendations on fishery management plans requiring modification.
3. The PDT/FMAT may, through the framework adjustment, make recommendations for gear performance standards and a future approval process for such alternative gears.

Fishery Management Plans
All FMPs

Title of Action
Joint Omnibus Alternative Gear Marking Framework Adjustment

Draft Purpose of Action
The purpose for this framework adjustment is to provide alternative fixed gear surface marking requirements in all New England and Mid-Atlantic Fishery Management Council fishery management plans. This regulatory modification would allow for the use of fixed gear without a persistent buoy line.

Draft Need of Action
The need for this framework adjustment is to provide fishermen the ability to fish in areas and during times where the use of persistent buoy lines is restricted by providing alternative surface marking requirements to allow the use of gear without a persistent buoy line.

Draft Alternatives

- Alternative 1: No Action. This alternative would not allow for alternative gear marking and would continue to require current surface markings (radar reflectors, highflyers, etc.).
- Alternative 2: Alternative gear marking. This alternative would allow the use of approved gear marking alternatives.

    - Sub-Alternative 2a: Limited alternative gear marking. This alternative would limit the use of alternative gear marking to Atlantic Large Whale Take Reduction Plan restricted areas.
    - Sub-Alternative 2b: Region-wide alternative gear marking. This alternative would consider the use of alternative gear marking in all federal waters within the Greater Atlantic Region.
- Consider whether additional Alternative 2 sub-alternatives should include training requirements.

Type of NEPA Analysis Expected (EIS/EA/CE/SIR)
This action is expected to require an environmental assessment.

Endangered Species Act/Marine Mammal Protection Act
Type of ESA Consultation Expected (Informal/Formal): This action is expected to have an informal ESA consultation.

Timeline

Late February 2025	PDT/FMAT Meeting 1: Present decision doc, discuss purpose, need, and alternatives, task out framework adjustment sections and analysis, and establish completion timeline
March 2025	PDT/FMAT Meeting 2
April 2025	NEFMC & MAFMC Meeting - provide guidance on draft alternatives and analyses
April/May 2025	PDT/FMAT Meeting 3
May	ASMFC Meeting - provide update on ongoing work
June 2025	NEFMC & MAFMC - potential updates
July 2025	PDT/FMAT Meeting 4
August	ASMFC - potential updates
September 2025	NEFMC take final action
October 2025	MAFMC take final action ASMFC - provide update on final action

PDT/FMAT Membership

Member	**Affiliation**	**Contact**
Allison Murphy (Lead)	GARFO, SFD	allison.murphy@noaa.gov

		978-281-9122
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Writing Responsibilities

Gear Marking Framework Adjustment	**Person(s) Responsible**
Title Pages	Leads
1. Executive Summary	Leads
2. Table of Contents, Tables, Figures, Maps, Appendices, Acronyms	Leads
3. Background and Purpose	Leads
4. Alternatives Under Consideration	Leads
5. Affected Environment	
5.1 Introduction	Leads
5.2 Affected Species	Leads
5.3 Protected Species	Jen Goebel/Leads
5.4 Physical Environment and Essential Fish Habitat	Leads
5.5 Human Communities	Chao Zou

6. Environmental Impacts of Alternatives	
6.1 Introduction	Leads
6.2 Impacts on Species	Leads
6.3 Impacts on Protected Species	Leads
6.4 Impacts on Physical Environment and Essential Fish Habitat	Leads
6.5 Impacts on Human Communities	Chao Zou
6.6 Cumulative Effects Analysis	Leads
7. Applicable Laws/Executive Orders	
Magnuson-Stevens Fishery Conservation and Management Act (MSA)	Leads
Atlantic Coastal Fisheries Cooperative Management Act (ACA)	Leads
National Environmental Policy Act (NEPA)	Leads
Marine Mammal Protection Act (MMPA)	Leads
Endangered Species Act (ESA)	Leads
Administrative Procedure Act (APA)	Leads
Paperwork Reduction Act (PRA)	Leads
Coastal Zone Management Act (CZMA)	Leads
Information Quality Act (IQA)	Leads
Executive Order 13158 (Marine Protected Areas)	Leads
Executive Order 13132 (Federalism)	Leads
Regulatory Flexibility Act (RFAI)	Chao Zou
Executive Order 12866 (Regulatory Planning and Review)	Chao Zou
References	All Writers
Appendices	

Reference Materials

Append ODWG gear marking summary

Joint New England and Mid-Atlantic Council Omnibus Alternative Gear-Marking Framework Adjustment

Decision Document

April 2025

Proposed Management Changes in this Framework Adjustment

- Provide alternative surface marking provisions for fixed-gear fisheries in the Greater Atlantic Region to allow the use of fixed gear without a persistent buoy line and reconcile fishery management plan regulations with recent and potential future changes to Marine Mammal Protection Act regulations.

Background

This framework adjustment is intended to provide fishermen additional harvest opportunities and greater flexibility in their business operations. To ensure that fishermen are allowed as many fishing opportunities as possible, this framework adjustment would modify current gear-marking regulations to provide increased access to areas where traditional fixed gear with persistent buoy lines is restricted. Also, by allowing additional types of gear to be approved for use, this framework adjustment would provide fishermen increased gear options.

Section 118 of the Marine Mammal Protection Act (MMPA) mandates that NOAA's National Marine Fisheries Service (NMFS) develop and implement Take Reduction Plans that prevent the depletion, and assist in the recovery, of certain marine mammal stocks that are killed or seriously injured in commercial fishing gear. The MMPA requires a Take Reduction Plan to (1) reduce mortality and serious injury to less than a marine mammal stock's Potential Biological Removal (PBR) within six months of the plan's implementation date, and (2) establishes a long term goal of reducing serious injury and mortality to insignificant levels approaching a zero rate, which is defined as 10 percent of a stock's PBR, within five years. The MMPA defines PBR as the maximum number of animals, excluding natural mortalities, which may be removed from a stock while allowing that stock to reach or maintain its optimum sustainable population. In accordance with the MMPA, NMFS implemented the Atlantic Large Whale Take Reduction Plan (TRP) in 1997 to reduce deaths and serious injuries of large whales from incidental entanglement in U.S. fixed-gear commercial fisheries. NMFS receives recommendations from the Atlantic Large Whale Take Reduction Team (TRT) on measures to bring fisheries covered by the TRP into compliance with the MMPA.

The TRP was last amended in 2021 (86 FR 51970; September 17, 2021) and 2024 (89 FR 8333, February 7, 2024) to reduce risk of serious injury and mortality to North Atlantic right whales caused by entanglement in the Northeast American lobster and Jonah crab trap/pot fisheries. Measures included:

- increasing the minimum number of traps per trawl based on area fished and distance fished from shore in the Greater Atlantic Region;
- modifying existing restricted areas from seasonal fishing closures to seasonal closures to fishing with persistent buoy lines (i.e., fishing with on-demand/ropeless gear is allowed but only under select exempted fishing permits);
- expanding the geographic extent of the Massachusetts Restricted Area to include Massachusetts state waters north to the New Hampshire border; in 2024, further expanding the Massachusetts Restricted Area to include federal waters between the state and 2021 federal waters restricted areas;
- establishing two new restricted areas that are seasonally closed to fishing for lobster or Jonah crab with persistent buoy lines;
- requiring modified buoy lines to incorporate rope engineered to break at no more than 1,700 pounds (lb) (771.1 kilograms (kg)) or weak insertion configurations that break at no more than 1,700 lb (771.1 kg); and
- requiring additional marks on buoy lines to differentiate vertical buoy lines by principal port state, including unique marks for Federal waters, and expanding requirements into areas previously exempt from gear marking.

However, incidental deaths and serious injuries from commercial fishing gear continue to exceed the North Atlantic right whale's PBR level, and compliance with the MMPA requires additional protective measures. In 2022, the TRT began developing additional recommendations for take reduction measures in all East Coast fixed-gear fisheries managed under the TRP, which includes gillnet and trap/pot fisheries from Maine to Florida. Also in 2022, Congress passed the Consolidated Appropriations Act, 2023, which deemed the 2021 rule sufficient for the authorization of American lobster and Jonah crab trap/pot fisheries to be in full compliance with the MMPA and Endangered Species Act (ESA) until December 31, 2028. The Consolidated Appropriations Act also requires NMFS to issue ". . . new regulations for the American lobster and Jonah crab fisheries consistent with the [MMPA and ESA] . . . utilizing existing and *innovative gear technologies* [emphasis added], as appropriate" that "take effect by December 31, 2028." The TRT plans to meet to develop a suite of recommendations to reduce entanglement risk. The TRT will consider various measures, which may include seasonal restricted areas (which restrict the use of persistent buoy lines) and areas where only one endline per trawl or set would be allowed. Because seasonal restricted areas are an effective tool at reducing right whale entanglement risk, it is anticipated that they will be part of the TRT's recommended TRP modifications. After receiving recommendations from the TRT, NMFS will consider those recommendations in a proposed rule that would bring the TRP fisheries into compliance with the MMPA, review recommendations and make necessary modifications, and then publish a final rule with an expected implementation date of December 31, 2028.

Although the recent changes to the TRP allow pot/trap fishing without persistent buoy lines in seasonal restricted areas, pot/trap fishermen cannot take advantage of the opportunity to fish in these areas due to gear-marking regulations in Fishery Management Plans (FMPs) promulgated under the Magnuson-Stevens Act. Currently, in the Greater Atlantic Region, FMP measures for the Northeast multispecies fishery require bottom-tending fixed gear to be marked with surface buoys, tetrahedral radar reflectors, and/or pennants (50 CFR 648.84(b)). Regional prohibitions extend these gear-marking requirements to any person fishing with bottom-tending fixed gear

(50 CFR 648.14(k)(10)). In addition, red crab regulations require buoys on trap trawls to be marked with fishery and vessel identification marks, high flyers, and radar reflectors (50 CFR 648.264(a)(5)). Similarly, Atlantic Coastal Fisheries Cooperative Management Act regulations require lobster trap trawls of three or fewer traps to be attached to and marked with a single buoy, and lobster trap trawls consisting of more than three traps must have a radar reflectors and a flag or pennant (50 CFR 697.21(b)). See Appendix A for relevant gear-marking regulations.

Because of these surface marking requirements, fixed gear without a persistent buoy line can only be fished in the Greater Atlantic Region with an exempted fishing permit or letter of acknowledgment, which is obtained for scientific research. In addition, if future modifications to the TRP include additional seasonal restricted areas or areas where only one endline per trawl or set would be allowed, fixed-gear fishermen could lose access to currently fished areas because of the incompatibility with existing gear-marking regulations. To allow fishermen the opportunity to fish in these areas, current fixed-gear fisheries regulations in 50 CFR 648 and 50 CFR 697 would need to be changed to allow alternatives to the current surface marking requirements.

Fishing gear rigged with an on-demand or timed-retrieval device could provide a means for fixed-gear fishermen to access fishing grounds that have restrictions on the use of persistent buoy lines. Instead of using a persistent buoy line to connect a trap/pot trawl or gillnet string to a surface buoy, an on-demand device uses acoustic technology to activate a retrieval mechanism such as a pop-up buoy, inflatable lift bag, or buoyant rope spool. Timed-retrieval devices are designed to function similarly, except they utilize a timer or galvanic link to activate a device retrieval mechanism. These devices do not eliminate the use of rope in fishing gear. Rather, they minimize the duration of time the rope is in the water column to the time that a fisherman is on-site to retrieve the gear, greatly reducing entanglement risk. Permitting an on-demand or timed-retrieval system as an alternative to current gear-marking requirements would allow fixed-gear fishermen to access areas where traditional fishing gear with persistent buoy lines is currently or may be restricted.

Objectives for this Meeting

- Review purpose and need statements and action alternatives.
- Initiate action.
- Provide guidance on further development of purpose and need statements and action alternatives, if necessary.

Framework Adjustment Timeline

April 2025	**NEFMC & MAFMC initiate action**
May 2025	ASMFC receives updates
June 2025	NEFMC & MAFMC receive updates (tentative)
August 2025	ASMFC receives updates (tentative)

September 2025	NEFMC takes final action
October 2025	MAFMC takes final action; ASMFC receives updates on final action

Action Alternatives

Alternative Set 1: Authorization of approved gear-marking alternatives

Purpose: The purpose of Alternative Set 1 of this framework adjustment is to establish optional surface marking provisions for fixed-gear fisheries in the Greater Atlantic Region. This regulatory modification would allow for the use of fixed gear without a persistent buoy line.

Need: The need for Alternative Set 1 of this framework adjustment is to provide fishermen additional opportunities to fish in areas where and during times when the use of persistent buoy lines is restricted.

Alternative 1A: No Action. This alternative would not allow for alternative gear marking and would continue to require current surface markings (radar reflectors, highflyers, etc.).

Alternative 1B: Region-wide alternative gear marking. This alternative would allow the use of alternative gear marking in all Federal waters within the Greater Atlantic Region.

Alternative 1C: Limited alternative gear marking. This alternative would allow alternative gear marking but limit use to restricted areas established by the Atlantic Large Whale Take Reduction Plan.

Discussion

Some fishery management plans, such as those for groundfish, lobster, and Jonah crab, currently require surface gear marks on fixed fishing gear. Under the Atlantic Large Whale Take Reduction Plan, there are four restricted areas that are closed to all fixed-gear fishing with persistent buoy lines for 3 or 4 months of the year, totaling about 13,494 square miles (34,849 square km). Under **Alternative 1A (No Action)**, fixed-gear fishermen may not access these areas during the restricted periods unless they are issued an exempted fishing permit for that purpose. Under **Alternatives 1B** or **1C**, fixed-gear fishermen would have the option of fishing in these restricted areas if they use "ropeless" or "on-demand" fishing gear with an alternative form of gear marking approved by the Greater Atlantic Regional Administrator. The Administrator would consider and approve gear-marking alternatives based on considerations such as their functional equivalence to current gear marking. **Alternatives 1B** and **1C** would not *require* any fishermen to use alternative gear markings, nor would they limit the use of traditional fishing gear with persistent buoy lines. In fact, allowing gear-marking alternatives would increase fishing opportunities for the fixed-gear fishing industry in the Greater Atlantic Region by providing access in current Atlantic Large Whale Take Reduction Plan restricted areas and any future areas that may restrict the use of vertical buoy lines. Allowing the use of gear-marking

alternatives in the entire Greater Atlantic Region (**Alternative 1B**) would provide further flexibility for fishermen to fish with their preferred gear in both restricted and open areas.

Alternative Set 2: Requirements to use approved gear-marking alternatives

Alternative Set 2 would only be considered if the Councils choose **Alternative 1B** or **1C**.

Purpose: The purpose of Alternative Set 2 of this framework adjustment is to reduce the likelihood of incorrect use of approved gear-marking alternatives.

Need: The need for Alternative Set 2 of this framework adjustment is to increase fishermen safety and reduce untimely releases of device retrieval mechanisms and unsuccessful gear retrievals.

Alternative 2A: No Action. This alternative would not require a person to demonstrate knowledge of any approved gear-marking alternatives.

Alternative 2B: Educational Requirement. This alternative would require a person to demonstrate knowledge of an approved gear-marking alternative.

Discussion
The concept for a requirement to demonstrate some level of knowledge and/or experience with on-demand or timed-retrieval technology in order to be authorized to use an approved gear-marking alternative is drawn from similar requirements in other fisheries. The intent is to ensure these gear technologies are being used correctly. Examples of how such a requirement could be structured can be drawn from the Harbor Porpoise Take Reduction Plan's pinger training program, shark endorsements, and electronic monitoring (EM).

- Under the Harbor Porpoise Take Reduction Plan, gillnet gear used in specific areas during specific times are required to be equipped with pingers. The operator of a vessel may not fish with, set, or haul back sink gillnets or gillnet gear, or allow such gear to be in closed areas where pingers are required unless the operator has satisfactorily completed the pinger training program and possesses on board the vessel a valid pinger training authorization issued by NOAA Fisheries. After completing training, the pinger training authorization does not expire. The relevant regulatory text is located at 50 CFR 229.33(c).

- To fish for sharks, a vessel owner must obtain a shark endorsement on their Highly Migratory Species permit. To obtain the endorsement, a vessel owner must watch an educational video and complete an accompanying quiz. The vessel owner would be prompted to do this along with the permit application. The quiz does not require a set score to pass but is only intended to educate the permit applicant. The relevant regulatory text is located at 50 CFR 229.33(c). Similarly, Atlantic shark dealers are required to complete an identification workshop (50 CFR 635.8(b)).

- Amendment 23 to the Northeast Multispecies Fishery Management Plan approved EM technologies as an alternative to human at-sea monitors. Regulations at 50 CFR

648.11(l)(10)(i) establish EM system requirements for vessels, including the need for a vessel monitoring plan (§648.11(l)(10)(i)(B)). GARFO's annual sector operations plan guidance provides additional information on vessel operator and vessel monitoring plan requirements and roles and responsibilities. Among these is a requirement to demonstrate competency with the equipment after installation and before usage by completing one "burn-in trip" that demonstrates the vessel's EM system is fully operational (i.e., the system is working properly, camera views are adequate, and the captain and crew are familiar with and capable of complying with the catch handling requirements). Additional burn-in trips may be required, if necessary, to sufficiently demonstrate the system is fully operational and/or to demonstrate the crew understands how to handle catch. Northeast Fisheries Science Center staff ensure that the electronic monitoring data collected are sufficient to meet data collection standards and approve vessel monitoring plans.

The Plan Development Team/Fishery Management Action Team (PDT/FMAT) was not in consensus on whether Alterative Set 2 should be included in this action and, thus, decided it should be presented to the Councils for their consideration. At its second meeting, the PDT/FMAT expressed various opinions to the below italicized discussion questions.

Is Alternative Set 2 outside of the scale and scope of this action? Do we know enough about gear-marking alternatives to be able to describe and prescribe requirements? Does including Set 2 in this action convey unintended messages to the fishing industry about gear-marking alternatives?

Due to the unique nature of gear-marking alternatives, and the possibility of gear conflict, if fishermen do not have the requisite knowledge/experience to deploy the gear or locate the gear, an educational requirement may be necessary to have a well-managed fishery. An educational requirement would help reduce the likelihood of improper gear use and demonstrate that fishermen have the requisite knowledge/experience to fish with the gear as intended. Even so, some PDT/FMAT members believed that a training requirement was likely outside the scale and scope of this action and not enough is known about what approved gear-marking alternatives would be in order to appropriately describe and prescribe requirements. However, any requirements would not necessarily need to be described in detail within this action and thus could be further developed in the future.

Whom should the requirement be placed upon? When/where would the requirements need to be met (i.e., in person, virtually, at a pool, on the water, required to be accomplish at certain times of year or whenever it is needed by an individual)?

The answers to these questions partially depend on the geographical scope of where alterative gear marking is allowed. If it is *limited to vertical line restricted areas*, perhaps all fishermen fishing in that area could be required to undergo a form of training or demonstrate proof of knowledge/experience. Some members of the PDT/FMAT expressed that if it is allowed *in all waters* of the Greater Atlantic Region, perhaps all fishermen who may encounter gear using alternative gear markings should be subject to an educational requirement. However, including such a requirement that applies to fishermen other than the ones deploying gear using alternative gear markings is outside the scope of this action. The On-Demand Fishing Gear Conflict Working Group would be a more appropriate venue for discussions regarding developing

requirements or suggesting best practices that would apply to mobile fishermen because of the concern for gear conflict.

When attempting to determine who should be required to meet some form of education, training, or proof of knowledge/experience requirement, is it vital to consider how the requirement would be logistically administered. This is challenging because gear-marking alternatives would not be associated with one particular fishery or permit. Furthermore, decisions on who, when, and where of an educational requirement could limit the adoption of gear-marking alternatives.

Who provides the educational material or conducts training (e.g., manufacturers, system providers, distributors, NOAA Fisheries)?

The answer to this question affects the feasibility of the answers to the previous questions. Some entities may be more capable of providing a comprehensive program than others. It may not be feasible for some entities to provide an educational program at a large scale. One PDT/FMAT member suggested that the entity that is leasing, selling, or running a gear library could offer training. Perhaps on-demand or timed-retrieval device manufacturers should offer training as part of the sale of the device. If so, the planned educational component could be included in the application to the Greater Atlantic Regional Administrator for approval of the gear-marking alterative.

Alternatively, authorization to fish with alternative gear markings could be tied to a letter of authorization (LOA) issued by the Greater Atlantic Regional Fisheries Office. Similar to LOAs issued for other fisheries, (such as the summer flounder small-mesh exemption area fishery, the whiting raised-footrope trawl fishery, and several others) issuance of an LOA can be contingent on vessel operators complying with additional requirements in order to satisfy the conditions of the exemptions or special program authorized through the LOA. Issuance of such an LOA for alternative gear-marking systems could require completion of an educational component as described above.

Council Action:

Initiate action and provide guidance on the further development of the action.

Appendix A. Current Gear-Marking Regulations

Magnuson Stevens Act

General Prohibitions at § 648.14(k)(10): ***Gear marking requirement for all persons.*** It is unlawful for any person, including any owner or operator of a vessel issued a valid NE multispecies permit or letter under § 648.4(a)(1)(i), unless otherwise specified in § 648.17, to fail to comply with the gear-marking requirements of § 648.84.

Management Measures for the Northeast Multispecies and Monkfish Fisheries at 50 CFR 648.84: (b) Bottom-tending fixed gear, including, but not limited to gillnets or longline gear, must be marked so that the westernmost end (measuring the half compass circle from magnetic south through west to, and including, north) of the gear displays a standard 12-inch (30.5-cm) tetrahedral corner radar reflector and a pennant positioned on a staff at least 6 ft (1.8 m) above the buoy. The easternmost end (meaning the half compass circle from magnetic north through east to, and including, south) of the gear need display only the standard 12-inch (30.5-cm) tetrahedral radar reflector positioned in the same way.

Management Measures for Red Crab at § 648.264(a)(5): ***Gear markings.*** The following is required on all buoys used at the end of each red crab trawl:

> (i) The letters "RC" in letters at least 3 inches (7.62 cm) in height must be painted on top of each buoy.
>
> (ii) The vessel's permit number in numerals at least 3 inches (7.62 cm) in height must be painted on the side of each buoy to clearly identify the vessel.
>
> (iii) The number of each trap trawl relative to the total number of trawls used by the vessel (i.e., "3 of 6") must be painted in numerals at least 3 inches (7.62 cm) in height on the side of each buoy.
>
> (iv) High flyers and radar reflectors are required on each trap trawl.

Management Measures for Black Sea Bass § 648.144(b)(1): ***Gear marking.*** The owner of a vessel issued a black sea bass moratorium permit must mark all black sea bass pots or traps with the vessel's USCG documentation number or state registration number.

- Buoy assumed, but not explicitly required.
- No additional gear-marking requirements in the ASMFC's BSB Interstate FMP.

Management Measures for Scup § 648.125(b)(3): **Pot and trap identification**. Pots or traps used in fishing for scup must be marked with a code of identification that may be the number assigned by the Regional Administrator and/or the identification marking as required by the vessel's home port state.

Atlantic Coastal Act

Lobster Gear Marking at § 697.21(b) ***Deployment and gear configuration***. In the areas of the EEZ described in paragraph (b)(4) of this section, lobster trap trawls are to be displayed and configured as follows:

(1) Lobster trap trawls of three or fewer traps deployed in the EEZ must be attached to and marked with a single buoy.

(2) With the exception of Maine permitted vessels fishing in Maine Lobster Management Zones that can fish up to ten lobster traps on a trawl with one buoy line, lobster trap trawls consisting of more than three traps must have a radar reflector and a single flag or pennant on the westernmost end (marking the half compass circle from magnetic south through west, to and including north), while the easternmost end (meaning the half compass circle from magnetic north through east, to and including south) of an American lobster trap trawl must be configured with a radar reflector only. Standard tetrahedral corner radar reflectors of at least 8 inches (20.32 cm) (both in height and width, and made from metal) must be employed. (A copy of a diagram showing a standard tetrahedral corner radar reflector is available upon request to the Office of the Greater Atlantic Regional Administrator.)

Atlantic States Marine Fisheries Commission

Spiny Dogfish Management Board

May 5, 2025
3:45 – 4:15 p.m.

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. Geer*)	3:45 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from February 2025	3:45 p.m.
3.	Public Comment	3:50 p.m.
4.	Consider Technical Addendum I to Spiny Dogfish Addendum VII for Final Approval *(J. Boyle)* **Final Action**	4:00 p.m.
5.	Other Business/Adjourn	4:15 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.

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEETING OVERVIEW

Spiny Dogfish Management Board
May 5, 2025
3:45 – 4:15 p.m.

Chair: Pat Geer (VA) Assumed Chairmanship: 1/24	Technical Committee Chair: Scott Newlin (DE)	Law Enforcement Committee Rep: Brian Scott (NJ)
Vice Chair: Joe Cimino (NJ)	Advisory Panel Chair: Vacant	Previous Board Meeting: February 4, 2025
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 February 2025

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 Technical Addendum I to Spiny Dogfish Addendum VII for Final Approval (4:00 - 4:15 p.m.) Final Action

Background

- In February 2025, the Board approved Addendum VII to implement complementary action to Spiny Dogfish Framework Adjustment 6 to reduce sturgeon bycatch in state spiny dogfish fisheries.
- After approval of Addendum VII, Staff discovered that the Addendum inadvertently included a mistake in the longitude of one point of the Delaware and Maryland bycatch reduction area and did not contain language to specify which ends of the gillnet mesh size range were included in the prohibition.
- Staff is recommending approval of Technical Addendum I to correct the two issues **(Briefing Materials).**

Presentations

- Overview of Technical Addendum I to Addendum VII by J. Boyle

Board Actions for Consideration

- Consider approval of Technical Addendum I

5. Other Business/Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

SPINY DOGFISH MANAGEMENT BOARD

The Westin Crystal City
Arlington, Virginia
Hybrid Meeting

February 4, 2025

These minutes are draft and subject to approval by the Spiny Dogfish 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 Pat Keliher (AA)
Rep. Allison Hepler, ME (LA)
Renee Zobel, NH, proxy for C. Patterson (AA)
Doug Grout, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Nichola Meserve, MA, proxy for D. McKiernan (AA)
Ray Kane, MA (GA)
Rep. Jennifer Armini, MA (LA)
Jason McNamee, RI (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Matt Gates, CT, proxy for Justin Davis (AA)
Bill Hyatt, CT (GA)
Jesse Hornstein, NY, proxy for M. Gary (AA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Jeff Kaelin, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Michael Luisi, MD, proxy for L. Fegley (AA)
Pat Geer, VA, proxy for Jamie Green (AA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Allison Murphy, NMFS

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

Ex-Officio Members

Brian Scott, Law Enforcement Committee Rep.

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
James Boyle
Katie Drew
Jeff Kipp
Kurt Blanchard

The Spiny Dogfish Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, via hybrid meeting, in-person and webinar; Tuesday, February 4, 2025, and was called to order at 11:25 a.m. by Chair Pat Geer.

CALL TO ORDER

CHAIR PATRICK GEER: Good morning, everybody, my name is Pat Geer. I am the Administrative Proxy for the Commonwealth of Virginia; I am your chairman today. To my right is James Boyle; who is the FMP Coordinator. On the phone we have Brian Scott from New Jersey, who is the Law Enforcement representative, and we have Kurt Blanchard somewhere in the room, who is also Law Enforcement, he's waiting back there, who is the LE Coordinator for ASMFC.

APPROVAL OF AGEDA

CHAIR GEER: First item on the agenda is for Board Consent the approval of the agenda. Are there any changes or modifications to the agenda? Hearing none; the agenda is approved by consent.

APPROVAL OF PROCEEDINGS

CHAIR GEER: Approval of the proceedings from the annual meeting in October 2024. Are there any modifications or additions or edits to the proceedings? Hearing none; carried by consent.

PUBLIC COMMENT

CHAIR GEER: We will now have Public Comment. Is there any Public Comment from the audience to start with? James is running to the back of the room. Is there anybody online who wants to have public comment, hearing none. All right we have two items on the agenda today, Final Consideration for Addendum VII, which is the Atlantic Sturgeon Bycatch Reduction for Final Approval, and Revision of the Specifications for the 2025/2026 Fishing Year. Those are the ones we have, and I'm waiting for James to sit down, because he's up on the agenda. We're going to start off with Item Number 4, which is the Draft Addendum VII. James, you have the floor.

CONSIDER ADDENDUM VII ON ATLANTIC STURGEON BYCATCH REDUCTION FOR FINAL APPROVAL

MR. JAMES BOYLE IV: In this presentation I want to start with a quick overview and recap of the process of Draft Addendum VII up until this point, then I'll move on to covering the contents of the Addendum, as well as comments from the public, AP, and a reminder of past comments in the Law Enforcement Committee. The goal of today's meeting is to choose the final options for implementation.

The Board initiated the development of Draft Addendum VII in August last year, and approved the draft for public comment in October. Public comments were accepted from early November through January 3rd of 2025, and summarized for the Board to consider for final approval at today's meeting. As a brief reminder of the background, a 2021 Biological Opinion and 2022 Action Plan required federal action to reduce Atlantic Sturgeon bycatch, and specifically highlighted the gillnet fisheries for both monkfish and spiny dogfish.

As a result, in August 2024, NOAA Fisheries published a proposed rule that corresponded to recommendations from the Mid-Atlantic and New England Fisheries Management Councils to prohibit overnight soaks for certain gillnet mesh sizes in specific times and areas to reduce sturgeon bycatch. These areas included both federal and state waters, and one objective of the Spiny Dogfish Fishery Management Plan is to strive for complementary management, which led to the initiation of this Addendum, to implement corresponding measures for harvesters that do not have a federal permit and only fish in state waters.

The Final Rule from NOAA Fisheries was published on December 18, and the Federal Spiny Dogfish

measures will be implemented on May 1, 2025. The Federal Rule prohibits overnight soaks, which is defined from 8:00 p.m. to 5:00 a.m. within three polygons, as shown in the figures, for federal spiny dogfish permit holders.

The New Jersey Area is shown in purple, and the blue polygons from north to south are the Delaware and Maryland Area and the Virginia Area, respectively. The PDT maintained this naming convention in the Addendum for consistency with the Federal Action, but note that the Delaware and Maryland Area is adjacent to, but does not overlap with Delaware state waters.

In the New Jersey Area, the prohibition is in place during the months of May and November for mesh sizes between 5 and 10 inches, in the Delaware and Maryland and the Virginia areas it lasts from November through March, for mesh sizes between 5.25 and 10 inches. However, some states have different permitting structures than the federal system.

Instead of using permits by species, New Jersey issues licenses by gear, and has a gillnet permit for their drift, anchored, and stake gillnets. Maryland has a tiered system, where different permits allowed to harvest spiny dogfish had different trip limits. A general finfish license permits harvest of 1,000 pounds of spiny dogfish. If a harvester also has a striped bass permit, they can take 2,500 pounds of spiny dogfish, and a spiny dogfish specific permit can harvest a maximum of 10,000 pounds. Virginia issues permit by species, and has a spiny dogfish specific permit.

There are three options in the proposed management program, Option 1 is the status quo, where spiny dogfish harvesters that do not have a federal permit and fish only in state waters may continue to soak their gillnets of those net mesh sizes overnight in the state waters portions of the bycatch reduction areas.

Option two would apply the overnight soak restrictions to state spiny dogfish permit holders. Therefore, since New Jersey does not have a spiny dogfish specific permit, they would not need to take any action. Additionally, as a note, New Jersey already requires harvesters to have a federal spiny dogfish permit if they are to possess spiny dogfish for sale, and federally permitted vessels will already be beholden to the rule published by NOAA Fisheries.

In Maryland and Virginia, Option 2 would apply the overnight soak prohibitions for the Delaware and Maryland and the Virginia areas for their state spiny dogfish permit holders. This means that in Maryland their striped bass and finfish permit holders that do not also possess a spiny dogfish permit, may continue to harvest spiny dogfish at reduced trip limits within the Maryland state waters of those bycatch reduction areas.

Option 3 is similar but with a slight wording change to prohibit all spiny dogfish harvest from overnight soaks for those mesh sizes, times and areas regardless of permit. This would look similar to the federal action as shown in the slide. Under this option for New Jersey, a gillnet between 5- and 10-inch mesh in May and November could not harvest spiny dogfish from an overnight soak within the New Jersey area. For Maryland and Virginia, a gillnet between 5.25- and 10-inch mesh from November through March could not harvest spiny dogfish from an overnight soak within those two areas. However, by not limiting the measure by permit type, this wording would cover the tiered system in Maryland by removing the ability for people to harvest spiny dogfish under the finfish or striped bass permits if again it was in those times and areas.

As a reminder, the Law Enforcement Committee provided comment at the annual meeting and determined that while Option 3 eliminate directed harvest that would otherwise be permitted under Option 2, it does present additional enforcement challenges. No written comments were received regarding Draft Addendum VII.

REVIEW PUBLIC COMMENT SUMMARY

MR. BOYLE: Three public hearings were held from December 11 through December 18, 2024; all via webinar. Four individuals attended one of those hearings, which was intended for the Maryland and Virginia participants. The other two hearings did not have any public attendees. All commenters were in favor of Option 1, the status quo, and additional comments specified that their primary concern was with the mesh size.

Those commenters preferred increasing the minimum prohibited mesh size within the Virginia areas specifically, from 5.25 to 5.5 inches.

REVIEW ADVISORY PANEL REPORT

MR. BOYLE: The AP met via webinar on January 16 with two members present. During the meeting the discussion focused on concerns over the potential impacts to a subset of the Maryland striped bass fishery, and the members chose not to comment at the time, although in written comment after the meeting, one member did express support for Option 2. With that, I'm happy to take any questions.

CHAIR GEER: Thank you, James, are there any questions for James? Nichola Meserve.

MS. NICHOLA MESERVE**:** Just wondering if there has been any input from staff or from the Service, in terms of are, are both Options 2 and 3 viewed as being complementary? Is the Board pursuing its role, you know and providing complementary measures with either Option 2 or 3?

MR. BOYLE: Yes, in discussions with NOAA Fisheries, they expressed that both would be acceptable, Options 2 and 3, yes.

CHAIR GEER: Any other questions or comments? Hearing none; I guess I'm looking for a motion. Mr. Luisi.

CONSIDER FINAL APPROVAL OF ADDENDUM VII

MR. MICHAEL LUISI: James and I spoke a minute ago, and he said there was a motion prepared. I would like to **move to adopt Draft Addendum VII to the Spiny Dogfish Management Plan with Option 2: Prohibit Overnight Soaks for Specific Times and Areas for Spiny Dogfish Permits with an implementation date effective May 1, 2025.**

CHAIR GEER: Do I get a second to the motion? We'll go with Eric Reid. Mike, you didn't say the word state.

MR. LUISI: Let me put my glasses on and I'll read it off of my screen. **Move to adopt Draft Addendum VII to the Spiny Dogfish Management Plan with Option 2: Prohibit Overnight Soaks for Specified times and areas for State Spiny Dogfish Permits with an implementation date effective May 1, 2025.**

CHAIR GEER: Thank you very much, Mike. I have a second from Eric Reid. Any further discussion on the matter? Joe Cimino.

MR. JOE CIMINO: Yes, thank you, Mr. Chair. I support the motion, I support Law Enforcement's comments addressing conservation issues for another species, and that is Atlantic sturgeon. The states of New York, New Jersey and Delaware are working towards an incidental take permit for that species. I've said it on the record before, I just want to say it again, but you know there is going to be more to come, especially in New Jersey. This unfortunately doesn't go far enough, but it needs to be handled in a different place, so I support this motion.

CHAIR GEER: Any other comments? Yes, Allison.

MS. ALLISON MURPHY: I also support the motion, and just wanted to express my thanks to the Board for their willingness to work to close this loophole that the Council action may have created.

CHAIR GEER: Anyone else? All right, I'll read the motion in one more time. Move to adopt Draft

Addendum VII to the Spiny Dogfish Management Plan for Option 2: Prohibit Overnight Soaks for Specified times and areas for State Spiny Dogfish Permits with an implementation date effective May 1, 2025. Motion by Mr. Luisi, seconded by Mr. Reid. Since this is a final action, I am going to ask for a show of hands**. All those in favor, please raise your hand.**

MR. BOYLE: Rhode Island, Massachusetts, Connecticut, New York, New Jersey, NOAA Fisheries, North Carolina, Virginia, Maryland, Delaware, Maine, New Hampshire, Potomac River Fisheries Commission.

CHAIR GEER: Those opposed. Any abstentions, and null votes? Thank you for the formality, the motion caries unanimously. Thank you very much, do we need the number on that? It carried 13 to 0 to 0. Thank you very much for the formality on that, I appreciate that. Moving on to the next topic, which is the discussion on the revised commercial quota. James.

REVISE SPECIFICATIONS FOR THE 2025/2026 FISHING YEAR

MR. BOYLE: In January of last year, the Board approved quotas for the 2024/2025, 2025/'26 and '26/'27 fishing years consistent with those adopted at the time by the Mid-Atlantic Council, and pending approval by NOAA Fisheries. Therefore, if NOAA Fisheries enacts a different federal quota for '25/'26, then there is a trigger in the motion to negate the Board approved quota, and the Board would need to establish a new one.

For 2025 and '26, the current quota is 10,972,394 pounds. Higher revised catch estimates led to new projections in September of 2024, from the Council Science and Statistical Committee, that lowered the acceptable biological catch estimate and, consequently, the projected commercial quota. To mitigate potential socioeconomic impacts, the Councils voted to suspend their Risk Policy and allow the Acceptable Biological Catch to be equal to the overfishing level and recommended that NOAA Fisheries approved those measures, which would establish a commercial quota of 9,338,770 pounds. NOAA Fisheries has not published a proposed rule as of today.

The Board action for consideration is to revise the 2025/2026 coastwide quota to 9,338,770 pounds to match the recommended federal quota. However, since NOAA Fisheries has not yet approved a different quota than the previously approved value by the Board, this action would be revising a final action and require a 2/3 majority of the Board. Additionally, the Board could choose to wait until the Final Rule is published, and potentially approve a new quota over e-mail before the start of the fishing year on May 1st. With that I am happy to take any questions.

CHAIR GEER: Any questions for James? Emerson Hasbrouck.

MR. EMERSON HASBROUCK: Thank you, James, for your presentation. I'm going to ask the question. I'm not sure if you are the person to answer it, but maybe somebody in this room can. We've heard from, I believe the only processor on the East Coast who process dogfish, that they need 10 million pounds to remain in business. Does anybody know how this change in quota is going to impact that company? Will there be a company to process dogfish, if they need 10 million pounds, and they go out of business?

CHAIR GEER: Nichola.

MS. MESERVE: As the home state of that processing facility, we've certainly heard their concerns with the reductions in the quota. I don't think I can provide a clear answer as to the future of the company. But I don't see that we have another option right here then to adopt the revised quota.

CHAIR GEER: Ray Kane.

MR. RAYMOND W. KANE: Yes, speaking of harvesters and some administrative people. There are plenty of dogfish still down off New England, but with the price the harvesters are being paid, it doesn't warrant the fuel consumption, boat time, crew. I think one of the ways around this would be for the buyers, the processors, and I won't name the one name that processes, paid the harvesters more money.

CHAIR GEER: David Borden.

MR. DAVID V. BORDEN: Just a follow up on Ray's observation. I would have a slightly different perspective on that. I think given what is going on with climate change at this point, at some point we need to revisit the whole scheme of how we manage this on trip limits, and maybe do two-day limits and that type of thing, so that we get some economic efficiency in the industry.

CHAIR GEER: I believe that was brought up in the public meetings in Virginia. Are there any other comments? Mike Luisi.

MR. LUISI: I've mentioned many times before when we've talked about spiny dogfish, that I think the complementary nature of the work between the Board, the Commission and the Councils is important. I would hope that this Board would maintain that consistency that we've had for years now, and provide it in establishing those complementary measures. I'm just wondering, I mean I'm comfortable in setting that and taking action today.

But I would be curious as to whether or not other members of the Board would like to wait to see what NOAA decides first, before we go ahead and accept the quota, only to maybe have something different occur, which would then, we would have to then revisit it, in order to be complementary with NOAA Fisheries on this and the Councils. I'm curious as to your thought, maybe Mr. Chairman, about do we take the action today or is it something we can do over e-mail as was suggested in James's presentation?

CHAIR GEER: I believe we can do it through e-mail. If we had to, we could have another meeting in May. Well, we have to do it before that. We could do it by e-mail. Nichola.

MS. MESERVE: In thinking about Mike's comments, I think we might be able to save ourself that additional step if we were to approve it today, having observed the process and knowing kind of the extraordinary steps the Mid-Atlantic Council took to suspend its Risk Policy against the entire quota, which was initially suggested by NOAA Fisheries, the Regional Administrator at that meeting.

Unless some other lever is pulled to get a higher quota, and I don't really know what that is at this time, so I have some confidence in approving the quota now that we might not need to have that follow up meeting.

CHAIR GEER: Yes.

MS. MURPHY: I just wanted to give everyone an update on where NOAA Fisheries is with the rulemaking. We've, I think received the recommendations from the New England and Mid-Atlantic Fishery Management Councils, and are developing a proposed rule currently. That is still in house under review. As is typical with administration changes, we're under a regulatory freeze, with no sense of kind of when we will be able to publish that rule. I don't have a great sense on when we might finalize a Final Rule for the Specs.

CHAIR GEER: I'm going to call on John Whiteside, who is an AP member at this time. John, you should be unmuted.

MR. JOHN F. WHITESIDE JR. ESQ: Yes, thank you, Mr. Chair. Yes, I'm on record both as AP and on the Monitoring Committee, and I represent East Coast Sea, the last dogfish processor for the last few years, saying that we need as many pounds as we

can get, and it's a very low margin fishery on all ends.

We were looking for 13 million, so never mind 10. The more that we can get the better, and try and hold to that and I'm monitoring on a regular basis, where landings are. We're doing the best we can. There is no hard number that I've been told, but it is something that is there, and it will be very, very difficult for someone to come in behand. It's a very limited market here for selling it. If there is any other direct question, please send it my way, otherwise thank you.

CHAIR GEER: Are there any questions for John? Not hearing any. I know in Virginia we went through that with our dealer retired. We had a single dealer retired and it took a fair amount of work and some grant money to get some of these up and running to do that, otherwise we would have no one to ship the product to Massachusetts for processing. John.

MR. JOHN CLARK: I'm just a little confused, based on what Allison said about the rulemaking right now. What happens if the rulemaking is delayed for months and months? Is the previous quota in effect until the new rules are put into place, in which case we probably should hold off taking action until we know?

CHAIR GEER: Allison.

MS. MURPHY: I believe for fishing year 2024, NOAA Fisheries published specifications under an Emergency Rule, so yes, the fishery has rollover of quota. But I believe it would go back to the 2023 fishing year's quota. I believe it was around 12 million pounds, but I will phone a friend, I'm getting a nod, so around 12 million pounds.

MR. CLARK: In other words, if we don't take action right now, and the rulemaking takes an extended period of time, then the quota is actually 12 million pounds. This is confusing.

CHAIR GEER: Okay, I had a lot of hands go up after that one. Let's start with Adam and then Nichola.

MR. ADAM NOWALSKY: Even though the federal quota would be at that level, this Board has already voted on a quota that is below this number on the board. We would want to, in order to remain complementary do something. That number though, to your point in waiting, may be even different than this number.

CHAIR GEER: Nichola.

MS. MESERVE: I just want to raise the prospect that even if there is a delayed implementation on NOAAs part, there could still be accountability measures, and they would come into place in the following year, for the quota, even if it was implemented at the right time, I think. That might be a risk that we don't want to take.

CHAIR GEER: Are there any other questions or comments? The decision today is whether or not to vote on this today or to delay it and do it over the e-mail or phone when we have NOAAs final recommendations. I can see both points of view, but it's up to the Board, if anyone has a preference on what to do. I mean we can approve this today. If NOAA comes back and it's two pounds different, we would still have to go ahead into a second vote. John.

MR. CLARK: In that case, I would be willing to make a motion to go ahead and approve the revised quota today. Then as you said, if we have to change it yet again, we can change it yet again.

CHAIR GEER: John, do you want to read this motion in?

MR. CLARK: Certainly. **Move to amend the Spiny Dogfish commercial quota to 9,338,770 pounds for the 2025/2026 fishing year, consistent with that adopted by the Mid-Atlantic and New England Fishery Management Councils, pending approval by NOAA Fisheries.**

CHAIR GEER: I have a second by Mike Luisi. **We have to have a 2/3 vote, but is there any objection or any further discussion on this? Hearing none; is there anybody online? Hearing nothing online. Hearing no further objections this is approved by consent, a unanimous decision**. We'll just wait and see what happens with NOAA with their Final Action, and we can do this through an e-mail is what we're saying.

ADJOURNMENT

CHAIR GEER: It will still require 2/3 vote, regardless what the change may be. Thank you very much for that. I think that is all we had on the agenda. Is there anything else to come up before this Board today? Hearing nothing, and I'm assuming everybody is hungry, I'll take a motion to adjourn. This meeting is adjourned, thank you very much, folks.

(Whereupon the meeting adjourned at 12:02 p.m. on Tuesday, February 4, 2025)

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: Spiny Dogfish Management Board

FROM: James Boyle, FMP Coordinator

DATE: April 23, 2025

SUBJECT: Recommendation for Technical Addendum to Addendum VII

Addendum VII to the Interstate Fishery Management Plan for Spiny Dogfish implements complementary measures to Spiny Dogfish Framework Adjustment 6 by prohibiting overnight soaks for gillnets between 5.25" and 10" mesh in November through March in specific areas off of Maryland and Virginia for harvesters with state spiny dogfish permits but do not possess a federal spiny dogfish permit.

However, the Addendum inadvertently did not include the underlined language from the Final Rule published by NOAA Fisheries that specified which end of the mesh size range was included within the management measures. Note that identical language applies to the Virginia Atlantic Sturgeon Bycatch Reduction Area.

From November 1 through March 31 of each year, vessels issued a Federal spiny dogfish permit must remove roundfish gillnets with a mesh size equal to or greater than 5.25 inches (13.3 cm) and less than 10 inches (25.4 cm) from the water within the Delaware and Maryland Atlantic Sturgeon Bycatch Reduction Area from 8 p.m. eastern time each day through 5 a.m. eastern time the following day.

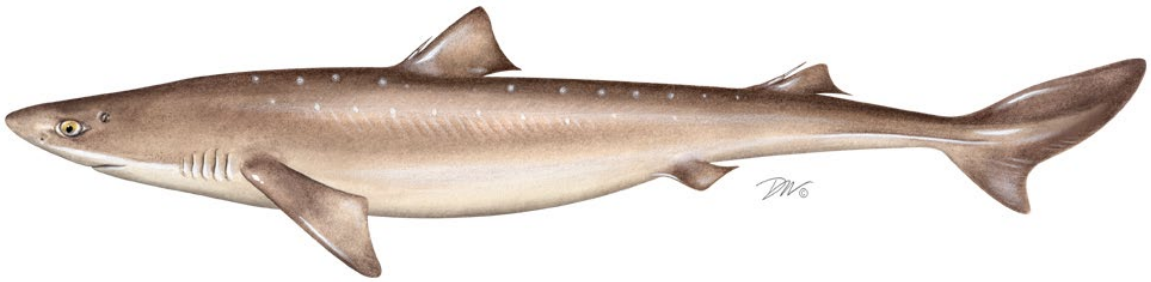
Additionally, in the Final Rule, there was a mistake in the longitude of the first and last point in the Delaware and Maryland bycatch reduction area. Instead of reading 75°60' W, the longitude should be 75°06' W.

Therefore, Staff is recommending a technical addendum to correct the coordinates of the Delaware and Maryland bycatch reduction area, as well as add the language to clarify the inclusion or exclusion of the ends of the mesh size range. Per the ISFMP Charter, a technical addendum can be used to make technical corrections to an approved FMP, amendment, or addendum without use of the public review process. This flexibility is for the correction of accidental omissions, erroneous inclusions, and/or to address non-substantive editorial issues.

For questions, please contact me at jboyle@asmfc.org or (703)-842-0740.

Atlantic States Marine Fisheries Commission

Draft Technical Addendum I
to
ADDENDUM VII TO THE SPINY DOGFISH INTERSTATE FISHERY MANAGEMENT PLAN



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. Comments on this draft document may be given at the appropriate time on the agenda during the scheduled meeting.

May 2025

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Draft Document for Board Review. Not for Public comment.

INTRODUCTION

At the February 2025 Spiny Dogfish Management Board (Board) meeting, the Board approved Addendum VII to the Interstate Fishery Management Plan for Spiny Dogfish, which prohibits overnight soaks for specific times and areas in the state waters of Maryland and Virginia for certain mesh sizes of gillnets to reduce Atlantic sturgeon bycatch and maintain consistency with the federal Fishery Management Plan.

STATEMENT OF THE PROBLEM

The stated objective of Addendum VII is to implement corresponding measures to be consistent with Spiny Dogfish Framework Adjustment 6. However, the Addendum inadvertently did not include the underlined language from the Final Rule published by NOAA Fisheries that specified which end of the mesh size range was included within the management measures. Note that identical language applies to the Virginia Atlantic Sturgeon Bycatch Reduction Area.

> *From November 1 through March 31 of each year, vessels issued a Federal spiny dogfish permit must remove roundfish gillnets with a mesh size equal to or greater than 5.25 inches (13.3 cm) and less than 10 inches (25.4 cm) from the water within the Delaware and Maryland Atlantic Sturgeon Bycatch Reduction Area from 8 p.m. eastern time each day through 5 a.m. eastern time the following day.*

The option approved by the Board in adopting Addendum VII reads:

> *Harvesters that possess a Maryland Spiny Dogfish Permit or Virginia Spiny Dogfish Permit using roundfish gillnets (i.e., not tie-down gillnets) with a* **mesh size between 5.25 and 10 inches (13.34 to 25.4 cm)** *would be required to remove nets from the water by 8:00 p.m. ET each day until 5:00 a.m. ET the following day from November 1 through March 31 each year within the state waters portion of the Delaware and Maryland and the Virginia Sturgeon Bycatch Reduction Areas.*

Additionally, in the Final Rule, there was a mistake in the longitude of the first and last point in the Delaware and Maryland bycatch reduction area. Instead of reading 75°60’ W, the longitude should be 75°06’ W. The correct value is displayed in decimal form (75.1 W) in Figure 1., as included in Addendum VII.

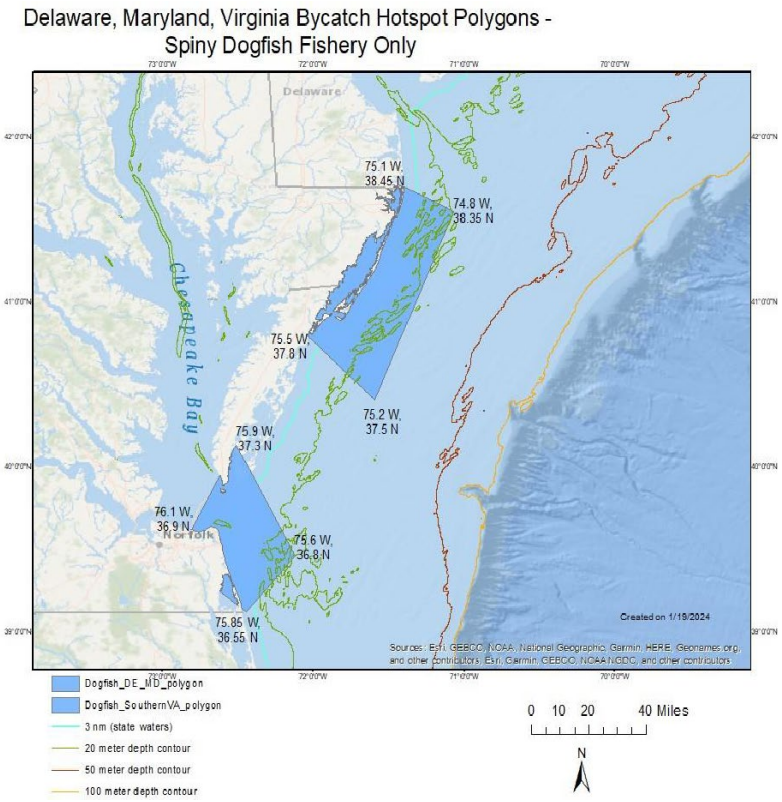


Figure 1. Delaware, Maryland, and Virginia Atlantic Sturgeon Bycatch Reduction Areas from Spiny Dogfish Framework Adjustment 6.

PROPOSED MANAGEMENT MEASURES

Section 3 *(Management Program)* of Addendum VII will be replaced by the following text:

Prohibit Overnight Soaks for Specified Times and Areas for State Spiny Dogfish Permits
Delaware, Maryland, and Virginia Atlantic Sturgeon Bycatch Reduction Areas

> *Harvesters that possess a Maryland Spiny Dogfish Permit or Virginia Spiny Dogfish Permit using roundfish gillnets (i.e., not tie-down gillnets) with a mesh size equal to or greater than 5.25 inches (13.3 cm) and less than 10 inches (25.4 cm) are required to remove nets from the water by 8:00 p.m. ET each day until 5:00 a.m. ET the following day from November 1 through March 31 each year within the state waters portion of the Delaware and Maryland and the Virginia Atlantic Sturgeon Bycatch Reduction Areas.*

Additionally, the following table replaces the definition of the Delaware and Maryland Atlantic Sturgeon Bycatch Reduction Area in Section 2.2.1 of Addendum VII (*Spiny Dogfish Framework Adjustment 6*):

Delaware and Maryland Atlantic Sturgeon Bycatch Reduction Area	38°27'N, 75°06' W
	38°21'N, 74°48' W
	37°30'N, 75°12' W
	37°48'N, 75°30' W
	38°27'N, 75°06' W

COMPLIANCE

This Technical Addendum will become effective immediately.

Atlantic States Marine Fisheries Commission

Atlantic Herring Management Board

May 5, 2025
4:30 – 5:00 p.m.

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 *(D. Grout)*	4:30 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from October 2024	4:30 p.m.
3.	Public Comment	4:35 p.m.
4.	Consider Revised Specifications for the 2025-2027 Fishing Years *(E. Franke)* **Final Action**	4:45 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 Herring Management Board
May 5, 2025
4:30 – 5:00 p.m.

Chair: Doug Grout Assumed Chairmanship: 09/24	Technical Committee Chair: Vacant	Law Enforcement Committee Representative: Delayne Brown (NH)
Vice Chair: Vacant	Advisory Panel Chair: Vacant	Previous Board Meeting: October 21, 2024
Voting Members: ME, NH, MA, RI, CT, NY, NJ, NMFS, NEFMC (9 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from October 2024

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 Revised Specifications for 2025-2027 Fishing Years (4:45-5:00p.m.) Final Action

Background

- In October 2024, the Board adopted the 2025-2027 specifications package for Atlantic herring as recommended by the New England Fishery Management Council (NEFMC).
- In January 2025, NEFMC requested its Scientific and Statistical Committee (SSC) provide updated specification recommendations based on 2024 catch information.
- The NEFMC Plan Development Team (PDT) and the ASMFC Atlantic Herring Technical Committee (TC) met in February and March 2025 to compile updated projections and a risk analysis, and the SSC met in April 2025 to provide recommendations to the Council **(Briefing Materials).**
- In April 2025, NEFMC received the SSC report and recommended revising the 2025-2027 specifications **(Supplemental Materials).**

Presentations

- Overview of Council-recommended revised 2025-2027 specifications by E. Franke

Board action for consideration at this meeting

- Revise specifications for the 2025-2027 fishing years for Atlantic herring, pending release of a rule by NOAA Fisheries

5. Other Business/Adjourn

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.

- TC and NEFMC PDT jointly prepare OFL and ABC recommendations for 2025-2027
- 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

Matt Cieri (ME DMR), Robert Atwood (NHFG), Micah Dean (MA DMF), JA Macfarlan (RI DEM), Kurt Gottschall (CT DMF), Rich Pendleton (NY DEC), Conor Davis (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 Westin
Annapolis, Maryland
Hybrid Meeting

October 21, 2024

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 Pat Keliher (AA)
Rep. Allison Hepler, ME (LA)
Steve Train, ME (GA)
Cheri Patterson, NH (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Doug Grout, NH (GA)
Melanie Griffin, MA, proxy for D. McKiernan (AA)
Rep. Jennifer Armini, MA (LA)
Ray Kane, MA (GA)
Nicole Lengyel Costa, RI, proxy for J.McNamee (AA)
David Borden, RI (GA)
Matt Gates, CT, proxy for Justin Davis (AA)
Rep. Joseph Gresko (CT) (LA)
Robert LaFrance, CT, proxy for Bill Hyatt (GA)
John Maniscalco, NY, proxy for Marty Gary (AA)
Jim Gilmore, NY, proxy for Assy. Thiele (LA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Jeff Kaelin, NJ (GA)
Allison Murphy, NMFS

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

Ex-Officio Members

Delayne Brown, Law Enforcement Committee Rep.

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
Caitlin Starks
Jeff Kipp
Tracy Bauer
James Boyle
Katie Drew
Jainita Patel
Chelsea Tuohy
Emilie Franke

The Atlantic Herring Management Board of the Atlantic States Marine Fisheries Commission convened in the Capitol Ballroom via hybrid meeting, in-person, and webinar; Monday, October 21, 2024, and was called to order at 9:00 a.m. by Chair Douglas E. Grout.

CALL TO ORDER

CHAIR DOUGLAS E. GROUT: Good morning if everybody could take their seats. This is a meeting of the Atlantic Herring Management Board. My name is Doug Grout; I'll be your Chair for the next two years. I'll try and make this a very efficient meeting. Hopefully, we'll all be cooperative.

Our main goals here are to consider setting the specifications for this year, and then also setting the quota period for 2025 for Area 1A. In your meeting materials there is an Agenda. I would like to see if there are any additions, or subtractions or any comments on the agenda. Megan.

MS. MEGAN WARE: I just wanted to have one thing under Other Business, really quick.

CHAIR GROUT: Anybody else? Seeing none; we'll consider the agenda approved by unanimous consent.

APPROVAL OF PROCEEDINGS

CHAIR GROUT: Also in your meeting materials are the Proceedings from the August, 2024 meetings, are there any edits or comments or adjustments that you would like to make to those? Seeing none; we will consider those approved by unanimous consent.

PUBLIC COMMENT

The next item on our agenda is Public Comment. These are for comments that are on items that are not on the agenda. Is there anybody in the public that would like to make a comment right now, please raise your hand? Seeing none; is there anybody online? Okay, we'll now move on to setting the specifications for 2025 to 2027 fishing years. Emilie.

SET SPECIFICATIONS FOR THE 2025-2027 FISHING YEARS

MS. EMILIE FRANKE: I will provide an overview of the specifications process for 2025 through 2027. In September, just last month, the New England Fishery Management Council took final action on a specifications package for fishing years 2025 through 2027, to be submitted to NOAA Fisheries.

Overall, the specifications, particularly for 2025 are very low, and the 2025 Annual Catch Limit would be the lowest in the history of the FMP. These specifications are based on the 2024 management track assessment, and also use the Council's ABC Control Rule for Atlantic herring. Just a couple of summary points from the assessment. As a reminder, the assessment indicated the stock is overfished, but overfishing is not occurring. However, there is a high possibility of overfishing if the full 2024 ABC is utilized. The assessment also noted that recruitment for Atlantic herring remains very low, and Atlantic herring is under a rebuilding plan, and the most recent projections indicate the stock will be rebuilt by 2031. In addition to the typical specifications package, the Council also put forward two requests to NOAA Fisheries. First, the Council requested an in-season adjustment to reduce the default 2025 specifications down to the new revised specifications for 2025.

As a reminder, those default 2025 specifications were put in place a couple of years ago, as part of the 2023 through 2025 specs package. Those are still in place until the new specifications are implemented. Since the 2025 revised specifications are much lower, the Council is concerned that if the revised specifications aren't implemented by January 1, then the fishery could run the risk of catching the entire annual catch limit before those new specs are implemented.

Again, so the Council is asking NOAA Fisheries for that in-season adjustment to get those 2025 revised specs in place more quickly. Then the second

request to NOAA Fisheries from the Council was a request to nullify the quota carryover from 2023 to 2025. In 2023 there were underages in two areas, 1B and 2, so up to 10 percent of those sub-ACLs could be carried over into 2025.

However, the Council is concerned about the magnitude of those carryover amounts relative to the very low quotas for 2025. The next two slides show the specifications selected by the Council, which were also in your meeting materials. You can see for 2025 the Annual Catch Limit is quite low.

There is a slight increase in 2026 and 2027, but overall, quite low. Just as a reminder, for the management uncertainty buffer. If the Canadian New Brunswick weir fishery catch is less than the specified trigger level, then 1,000 metric tons from that management uncertainty buffer can be reallocated to Area 1A.

That evaluation of whether or not that thousand metric tons can be reallocated typically happens around October every year. Then this slide shows the sub-ACLs for each management area. Again, you can see 2025 is quite low. For example, Area 1A would be 783 metric tons, slight increase in '26 and '27, but again, overall, quite low.

Then finally, the Council agreed to maintain the same current river herring and shad catch caps for the specification package, and the current catch caps have been in place for the past few specification cycles. Just to finish up, just summarizing some of the discussion from the Council meeting last month.

The Council noted concern about the magnitude of the reduction for 2025, and the associated social and economic impacts. Again, the new 2025 ACL would be the lowest in the FMP history, and the Council noted that these new catch limits would not support a directed commercial fishery. Happy to take any questions. Just as a reminder, the Board is considering today setting these specifications, contingent on a Rule being published by NOAA.

CHAIR GROUT: Any questions for Emilie? Dave Borden.

MR. DAVID V. BORDEN: I'm not sure this is a question for Emilie, or one of the New England Council members present. Having served on the Council for a long period of time, I'm kind of tuned in to the issue of U.S./Canada. Now are the Canadians restraining their catch in a similar manner, and then the related question is, if they catch more than has been projected, what are the consequences for U.S. fishermen? If someone could answer that, that would be great, and if not, I'll seek guidance elsewhere.

MS. FRANKE: I'll see if anyone else can answer that. We have Council staff online, so Jamie has her hand up.

CHAIR GROUT: Go ahead, Jamie.

MS. JAMIE M. COURNANE: Good morning, everyone, this is Jamie Cournane, lead Council staff for herring for the New England Fishery Management Council. The herring fishery in Canada in the fixed gear fishery is managed by effort controls, and that portion of the fishery does not have a quota-based system. We are in close coordination with them through GARFO, to understand through the year what catch looks like. They do provide information annually on what is going on in their fishery.

The second question, what happens if the amount that we've set aside as an uncertainty buffer is exceeded? In future years when we update this work, what we've been doing so far is taking a ten-year average of recent Canadian catches. Some years it's high, some years it's low. As long as it stays within the average of the ten years, there is probably no short-term impact, but if that started to trend up the Council would need to take a closer look on how that management uncertainty buffer is set, to avoid the risk of overfishing.

CHAIR GROUT: Any other questions for Emilie? Rob LaFrance.

MR. ROBERT LaFRANCE: It's not really a question, it's more of a comment. It goes to the specifications having to do with the catch caps. These catch caps, I think you said had been in place for some time. Southern New England, at least Connecticut in particular, is having difficulty with our rebuilding some of our river herring.

We're concerned, I would say we're very seriously concerned, not about all of the work that is happening with regard to this particular species of Atlantic herring, but we are concerned that we're not getting the kind of improvement with all of the habitat restoration that we've done in those areas. It is something that as a concern for that I'll be flagging today as probably a no vote on this whole package, because of the fact that we feel that more needs to be done.

I appreciate, I see Sherry here and other folks who are working on this at the New England Council area, and I appreciate the hard work that is happening there. This is really just something we want to make certain we kind of try to address in the future. How are we going to deal with the bycatch issue? I recognize it's complicated, but that is what I wanted to put on the record. Thank you.

CHAIR GROUT: Thank you. Any other questions? Yes, Jeff Kaelin.

MR. JEFF KAELIN: I don't really have a question, but yes, I think we need to keep in mind the directed fishery is going to be around 2,000 tons coastwide, and that is why the Council decided to leave the catch caps where they are. I mean it's no threat to the rivers of Connecticut or anywhere else. There is no fishery, it's a bycatch fishery. I had to respond because of that last comment, thank you. That is why the Council did not take action and change the caps.

CHAIR GROUT: Anybody else with questions for Emilie? Jamie.

MS. COURNANE: To understand why the Council decided to do the status quo on river herring, shad catch caps is a little bit informed by the fact that we are undertaking an amendment, Amendment 10, and in that action the Council is exploring two things. Right now, adjustments to the current catch cap approach, as well as the possibility of primary closures. Because that amendment allows for a more holistic look at bycatch management and incidental catch management, the Council decided to keep the catch cap status quo for now, but is still exploring that towards Amendment 10.

CHAIR GROUT: Ray Kane.

MR. RAYMOND W. KANE: Thank you, Jamie, for your explanation on where the Council stands.

CHAIR GROUT: Any other questions for Emilie? Emerson.

MR. EMERSON C. HASBROUCK: I don't have a question, but I don't see anybody else with their hand up for a question, so do you need a motion to move us forward here?

CHAIR GROUT: Yes, we do. Cheri.

MS. CHERI PATTERSON: I had already had that all planned, Emerson.

MR. HASBROUCK: Do you want to make the motion then, Cheri?

MS. PATTERSON: Yes, I can make the motion if you want to second it.

MR. HASBROUCK: Sure, go ahead.

MS. PATTERSON: I would like **to move to adopt the following specifications for the 2025 through 2027 fishing years for Atlantic herring as recommended by the New England Fisheries Management Council, contingent on the Final Rule being published by NOAA Fisheries. For 2025, the annual**

catch limit, domestic annual harvest equals 2,710 metric tons, Area 1A sub-ACLs 783 metric tons, Area 1B sub-ACL 117 metric tons, Area 2 sub-ACL 753 metric tons, Area 3 sub-ACL 1,057 metric tons.

For 2026 and 2027, the ACL domestic annual harvest would equal 6,854 metric tons. Area 1A sub-ACL 1,981 metric tons, Area 1B sub-ACL 295 metric tons, Area 2 sub-ACL 1,905 metric tons. Area 3 sub-ACL at 2,673 metric tons. For all three years of border transfer would be 0 metric tons each year, the fixed gear set aside 30 metric tons each year, the research set aside as a percentage of sub-ACLs would be 0 percent each year.

CHAIR GROUT: Seconded by Emerson.

MR. HASBROUCK: Yes.

CHAIR GROUT: Cheri, would you like to provide justification for this?

MS. PATTERSON: This justification would be, being aligned with the New England Fisheries Management Council.

CHAIR GROUT: Emerson, do you have any comments you would like to provide?

MR. HASBROUCK: No, I don't have anything else to add.

CHAIR GROUT: Discussion on this motion. Bob LaFrance.

MR. LaFRANCE: Just to reiterate, I also understand that Amendment 10 is in fact in place, I think it's really good work, but I think I'll still be a no vote.

CHAIR GROUT: Any other discussion? Seeing none; is there any objection to this motion? All right then we need a vote on this, because this is a final action and we have an objection. Correct?

MS. TONI KERNS: If it's unanimous then we can.

CHAIR GROUT: It's not unanimous.

MS. KERNS: Okay, then we will call it out.

CHAIR GROUT: **All those in favor raise their hand.**

MS. KERNS: **Rhode Island, Massachusetts, New York, New Jersey, NOAA Fisheries, Maine, New Hampshire.**

CHAIR GROUT: **All those opposed**.

MS. KERNS: **Connecticut**.

CHAIR GROUT: Are there any abstentions? Any null votes? **The motion carries 7 to 1.**

SET QUOTA PERIOD FOR THE 2025 AREA 1A FISHERY

CHAIR GROUT: Okay, the next item on our agenda is to set the quota period for the 2025 Area 1A fishery.

MS. FRANKE: For the quota periods today, I will review the quota period system from Amendment 3, for the Board to consider for the 2025 Area 1A fishery. Per Amendment 3, quota periods shall be set annually for Area 1A. The Board can consider distributing the Area 1A sub-ACL in three different ways, either bimonthly, by trimester or seasonally. The Board can also decide whether quota from January 1 to May 31st will be allocated later in the fishing season, so June 1 or later, and the Board can also specify if underages can be rolled from one period to the next within the same year. Here on the screen are the three quota period options from Amendment 3.

It's important to note that all of these options and allocation percentages are fixed, so these can only be changed through an addendum. Up on the top of the screen is the bimonthly quota period categories, so you have quota allocated in two-month periods throughout the year, and then there

is also an option for having landings before June 1st, or not until after June 1st.

In the bottom left is the trimester option, so this is three quota periods throughout the year, and then finally on the bottom right you have the seasonal quota period option, so there are just two seasons throughout the year. There is one option for allowing landings before June 1st, and one option for not allowing landings before June 1st.

For reference, here are the quota periods approved by the Board in recent years. In 2019 the Board chose to use the bimonthly option for Area 1A, with no landings prior to June 1st. Then for the most recent five years, 2020 through 2024, the Board has used the seasonal quota period option, with no landings prior to June 1st, and the Board has allowed underages to be rolled from one period into the next. I'm happy to take any questions, and again, just as a reminder the proposed sub-ACL for Area 1A for reference next year is 783 metric tons.

CHAIR GROUT: Any questions for Emilie? Jeff Kaelin.

MR. KAELIN: Can this motion extend to the '26 and '27 fishing years also, since we just set specs for three years? Would that be in order, Mr. Chairman, to make a motion that would accomplish that? I have a motion to that effect.

MS. FRANKE: I think Toni already might have quickly looked that up to see if the Board can do that, exactly what the FMP says.

CHAIR GROUT: While they are looking that up, are there any other questions? Okay, we'll wait.

MS. FRANKE: The FMP says quota periods shall be determined annually, so I think we're just at one year at a time.

CHAIR GROUT: Okay, with that, is there a motion? Cheri Patterson.

MS. PATTERSON: **Move that the Board implement seasonal distribution of quota for the 2025 Area 1A sub-ACL with 72.8 percent available from June through September, and 27.2 percent allocated from October to December, with no landings prior to June 1st, and for underages to be rolled over into the next quota period. The fishery will close when 92 percent of the seasonal period's quota has been projected to be harvested.**

CHAIR GROUT: Jeff Kaelin, are you seconding?

MR. KAELIN: Yes, Sir.

CHAIR GROUT: Okay, Jeff Kaelin seconded. Any discussion? First of all, rationale. Cheri.

MS. PATTERSON: The rationale is this is consistent with what happened last year. We do have days out meetings on an annual basis, two of them, so that we can react pretty quickly if there were any sort of changes within the fishery during those two periods. Thank you.

CHAIR GROUT: Jeff, as seconder, would you like to provide some input on this?

MR. KAELIN: Just that this was an equitable outcome for all the fishing sectors that are taking herring this next year.

CHAIR GROUT: Any other discussion on this motion? Megan Ware.

MS. WARE: Thanks, I'm going to support the motion, because I think it's our best option. But I do want to point out that with the sub-ACL we just set, the thousand metric ton transfer we typically get is now more than the quota for the full year. While we are making a motion and probably approving a motion for a 72/27 split.

The reality is the vast majority of quota is going to be available in the fall, rather than the summer. I want to highlight that, and I think it's going to be incumbent upon this Board, and particularly the days out states to think creatively about how we try and balance fishing opportunity next year, given the

imbalance of the yearly quota versus that thousand metric ton transfer.

CHAIR GROUT: Further discussion on this motion? Seeing none; is there any objection to the motion? Allison.

MS. ALLISON MURPHY: No objection, but I am going to abstain from this. Thank you.

CHAIR GROUT: With that I see, **this carries unanimously with one abstention.**

OTHER BUSINESS

CHAIR GROUT: Okay, on to Item 6. Megan, you had some Other Business.

MS. WARE: At our September days out meeting we received several comments from industry members asking for the ability to set a weekly truck limit in the fall season. Not surprisingly, prompted by the very low quotas, and I think for some boats a desire to minimize overages and maximize the number of fishing days.

I wanted to bring that forward to the Board for the Board's awareness, since not everyone participates on those Days-Out calls. I think on the one hand we have a pretty diverse herring fishery with different capacity boats, so a weekly truck limit is going to impact those boats differently. On the other hand, if we don't get that thousand metric ton transfer in the fall, I'm not sure we could open in the fall season without some sort of truck limit, because I do think the capacity of the fleet actually could exceed that 27 percent. I just wanted the Board to be aware of those comments and that conversation that happened, just to think about this. Obviously, you know no one wants to be at these really low quotas, and I think we all hoped we would be rebounding at this point, but we aren't. I'm personally recalibrating a little bit, to think about what do we need to manage this fishery at lower quotas than we've seen. Thanks.

CHAIR GROUT: Great, thank you, Dennis Abbott.

MR. DENNIS ABBOTT: I agree with what Megan said, I was part of that conversation. But my concern would be if we set truck limits in the fall, when there are different sized boats operating, that we could end up with having to throw herring overboard, because they could be catching over truck limits, bring into port. I think that is something that we probably ought to just deal with as we do our Days Out meetings during the season, because there was differing opinions on whether we should have limits on the amount of herring landed by the beach vessel.

CHAIR GROUT: Ray Kane.

MR. KANE: I support Megan's thoughts, but I also support Dennis with whoever, we meet at least twice a year. My question is, when is the last time we didn't get the thousand-ton rollover from Canada? We usually get it. Let's not put the carrot before the cart or the horse before the cart, let's deal with it come next fall.

ADJOURNMENT

CHAIR GROUT: Keep in mind that, and correct me if I'm wrong, Emilie, but I think we have to go through an addendum to allow truck limits in Period 3. Okay, with that, is there any other, Other Business? I haven't seen any. Okay, thank you very much for a very efficient meeting. This meeting is adjourned.

(Whereupon the meeting adjourned at 9:30 a.m. on October 21, 2024)

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492
Rick Bellavance, *Chair* | Cate O'Keefe, PhD, *Executive Director*

MEMORANDUM

DATE: April 10, 2025

TO: Cate O'Keefe, Ph.D., Executive Director

FROM: Scientific and Statistical Committee

SUBJECT: Response to Terms of Reference - Overfishing Limits and Acceptable Biological Catches for Atlantic herring for FY 2025 and 2026 and FY 2027 default

The Scientific and Statistical Committee (SSC) met via webinar on April 4, 2025, to address Terms of Reference (TOR) for Atlantic herring.

SSC members in attendance: Dr. Lisa Kerr (Chair), Dr. Conor McManus (Vice-Chair), Dr. Anna Birkenbach, Dr. Edward Camp, Dr. Adam Delargy, Dr. Adrian Jordaan, Dr. Gareth Lawson, Dr. Kai Lorenzen, Dr. Jason McNamee, Dr. Richard Merrick, Dr. Mateja Nenadovic, Dr. Fred Serchuk, and Dr. Hiro Uchida.

TERMS OF REFERENCE

A. Consider the information provided by the Council's Atlantic Herring Plan Development Team (PDT) and ASMFC's Technical Committee (TC) on stock projections with an updated fishing year (FY) 2024 fishery catch estimate, a risk analysis, and outcomes from the Research Track Stock Assessment and peer review.

B. Recommend overfishing limits (OFL) and acceptable biological catches (ABC) for Atlantic herring for FYs 2025 and 2026 and default specifications for FY 2027 that will prevent overfishing, meet the management objective to rebuild, are consistent with the Council's ABC control rule and rebuilding plan for Atlantic herring, and consider the Council's Risk Policy Statement and Concept.

DOCUMENTS

To address the TORs, the SSC considered the information listed at the end of this memo.

ATLANTIC HERRING

The SSC met on July 31, 2024 and provided recommendations for the OFLs and ABCs for Atlantic herring for FY 2025 to 2027 based on the information available at the time. In their August 14, 2024 report, the SSC recommended an OFL of 18,273 mt for FY 2025, 21,659 mt for FY 2026, and 30,050 mt for FY 2027, and ABCs of 6,741 mt for FY 2025, 10,885 mt for FY

2026, and 15,435 mt for FY 2027 for the herring stock. At the September 2024 Council meeting, after taking final action on the 2025-2027 fishery specifications and in-season action for 2025, the Council tasked the PDT to review preliminary 2024 year-end catch information. The proposed specifications for 2025-2027 were based on assuming the ABC for 2024 would be fully caught, however, the Council anticipated that the ABC for 2024 would not be fully caught based on fishery performance and outlook. At the January 2025 Council meeting, the PDT presented preliminary 2024 year-end catch information, which indicated that the ABC was not fully caught. Based on this new information, the Council requested that the SSC consider this information and make recommendations on any updates to OFLs and ABCs recommendations, based on new information.

On April 4, 2025, the SSC received a presentation from the Atlantic Herring Plan Development Team and Technical Committee on the setting of FY 2025-2027 specifications and the Council's request to the SSC to revisit its OFL and ABC recommendations. The PDT and TC presented projections updated with preliminary FY 2024 catch data and a risk analysis. The Atlantic Herring Research Track Working Group also summarized the outcomes of the Atlantic Herring Research Track assessment and the Chair of the Assessment Peer Review Panel presented a summary of its review report. Stock status was not updated through the research track assessment. Based on the 2024 management track stock assessment, the stock status is overfished, but overfishing is not occurring.

TERMS OF REFERENCE FINDINGS

The SSC recommends an OFL of 20,802 mt for FY 2025, 23,491 mt for FY 2026, and 31,075 mt for 2027, and ABCs of 8,587 mt for FY 2025, 13,165 mt for FY 2026, and 17,187 mt for FY 2027 for the herring stock. The recommended OFLs and ABCs aim to prevent overfishing, are consistent with the Council's ABC control rule for Atlantic herring, and consider the Council's Risk Policy Statement.

RATIONALE INCLUDING SIGNIFICANT SOURCES OF UNCERTAINTY

The SSCs recommended revision aligns with the rationale presented by the SSC in its August 15, 2025 report when previously recommending FY 2025-2027 ABCs and OFLs. The SSC recommendation applies the Council's management strategy evaluation (MSE) derived ABC control rule for herring which is consistent with the rebuilding plan (following Amendment 8 and Framework Adjustment 9). The SSC felt it was important to use the Council's ABC control rule which accounts for the role of herring as forage in the ecosystem and integrated stakeholders' input through the MSE process. Previous projections assumed the FY 2024 ABC would be fully utilized; these new recommendations reflect projections conducted using revised catch information from 2024 in which 51% of the ACL was utilized (accounting for the increase in ACL in October 2024 due to adjusting the management uncertainty buffer). The SSC noted that these adjusted OFLs and ABCs still represent a decrease in catch advice compared to prior herring specifications (FY 2023-2025). The revised projections that account for the updated 2024 catch information indicated the stock has a 50% chance of rebuilding by 2031, which is within 10 years of the start of the plan and the same timeline for rebuilding as projected under the prior catch assumption.

The SSC highlighted some important sources of uncertainty to consider for this stock. The SSC emphasized its previous concern from its 2024 report regarding recent poor recruitment patterns for the stock and concern about the assumptions of future recruitment that inform short-term projections since recent projections have proved optimistic.

The SSC discussed possible reasons why the 2024 quota was underutilized including management constraints, fishing logistics, or if there may be less herring available. The SSC's discussions and recommendations were informed by public comment from members of the fishing industry who indicated that underutilizing the quota can result from several factors, including lack of stability in ACLs (e.g., makes it hard to plan and ensure the needed resources such as crew are available), interaction with constraining stocks (e.g. Atlantic mackerel), and changes in where fish occur (e.g., increasing challenge of finding fish in Area 2). While the ACL was underutilized this year (2024), with the FY 2025-2027 ABCs being lower than the FY 2024 ABC, it is not clear whether underutilization will persist. Continued monitoring and discussions with industry to understand factors that constrain the utilization of ACLs will be helpful context in future decision making.

ADDITIONAL COMMENTS AND RESEARCH RECOMMENDATIONS

The SSC notes that the FY 2027 OFL and ABC will likely be revised by a Atlantic herring Management Track Assessment in 2026 using the Woods Hole Assessment Model (WHAM) projection methods as developed through the recent research track assessment. The SSC noted that they remain concerned about the future performance of short-term projections for Atlantic herring based on the revised approach to projections in the WHAM stock assessment platform and whether this approach will fully address previous concerns. The SSC recommends continued research be conducted on Atlantic herring projections (either independently prior to the next Management Track Assessment or as part of the Projections Research Track) as recommended by the research track peer review panel.

The SSC discussed the Council's previous action to hold the FY 2027 OFL and ABC constant at FY 2026 values. This led to a discussion of whether a similar recommendation should be provided by the SSC to align with perceptions of the Council's risk tolerance given concerns over fishery stability, poor recruitment trends and associated potential for over-optimistic projections and likelihood of rebuilding on time. However, the SSC ultimately decided not to deviate from the control rule recognizing that the Council has the prerogative to make this same determination again if they wish based on their assessment of risk.

SUMMARY OF RECOMMENDATIONS

1. The SSC recommends OFLs of 20,802 mt for FY 2025, 23,491 mt for FY 2026, and 31,075 mt for 2027 for Atlantic herring.
2. The SSC recommends ABCs of 8,587 mt for FY 2025, 13,165 mt for FY 2026, and 17,187 mt for FY 2027.
3. The SSC recommends additional development in WHAM projection methods prior to the next Management Track Assessment, and monitoring ACL utilization of the fleet.

Fishing Year	OFL (mt)	ABC (mt)
2025	20,802	8,587
2026	23,491	13,165
2027	31,075	17,187

DOCUMENTS

1. Atlantic Herring Plan Development Team
    a. Presentation by Council staff
    b. Atlantic Herring PDT and TC memo to SSC re OFLs and ABCs for Atlantic herring, FYs 2025-2027
    c. Risk analysis for Atlantic herring
2. Research Track Stock Assessment
    a. Presentation on the stock assessment by research track assessment working group members
    b. Presentation of peer review report by the chair
    c. Assessment summary report
    d. Assessment supporting documents
    e. Peer review panel report
3. Background Documents
    a. Atlantic Herring 2024 Management Track Stock Assessment Report, July 2, 2024
    b. SSC memo to Council re 2025-2027 OFLs and ABCs for Atlantic herring, July 30, 2024
    c. Atlantic Herring Specifications In-Season Adjustment for 2025, GARFO, December 19, 2024
    d. Atlantic Herring Specifications for 2025-2027, Supplemental Information Report, Preliminary Submission, NEFMC, October 8, 2024
    e. Atlantic Herring SAFE Report, including background information on the social and economic status of the fishery and prior management actions

General Background Documents

1. The Council's Risk Policy Road Map (2016), which includes the Risk Policy Statement and Implementation Plan, see pp. 4-5
2. 2024 State of the Ecosystem – New England. NOAA/NEFSC

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Rick Bellavance, *Chair* | Cate O'Keefe, PhD, *Executive Director*

MEMORANDUM

DATE: March 28, 2025

TO: Scientific and Statistical Committee

FROM: Herring Plan Development Team (PDT) and Technical Committee (TC)

CC: Atlantic Herring Committee

SUBJECT: **Possible OFLs and ABCs for Atlantic herring, FYs 2025-2027**

1. Background

Over the summer of 2024, the Council developed FYs 2025-2027 specifications for Atlantic herring based on results from the 2024 management track stock assessment. The Scientific and Statistical Committee (SSC) reviewed the results of the management track stock assessment, in addition to a memorandum from the Atlantic Herring Plan Development Team (PDT) and Atlantic States Marine Fisheries Commission's Atlantic Herring Technical Committee (TC) with recommendations to the SSC for 2025-2027 acceptable biological catches (ABCs) and overfishing limits (OFLs) for Atlantic herring at its July 30-31, 2024 meeting. The SSC made the following recommendations (Table 1):

Table 1. SSC recommendations to the Council for Atlantic herring OFLs and ABCs for FY 2025 through FY 2027.

Year	ABC	OFL
2025	6,741	18,273
2026	10,885	21,659
2027	15,435	30,050
Source: August 16, 2024 SSC Report re Atlantic Herring		

The Atlantic Herring Committee and Advisory Panel met once jointly (August 22, 2024) and again separately (September 12, 2024 AP and Committee) to discuss the SSC recommendations and prepare recommendations for discussion at the Council. The Council recommended the 2025-2027 specifications at their September 2024 meeting (Table 2), and a preliminary submission of their proposal was transmitted to GARFO in October 2024[1]. The Council

[1] https://www.nefmc.org/library/2025-2027-atlantic-herring-specifications

recommended the specifications for FY 2026 remain the same in FY 2027 (rather than increase). 2027 specifications are considered default specifications. Based on past management experience, this constant approach could alleviate management challenges possibly arising from the next management track stock assessment in 2026. Setting the third year (2027) of the specifications equal to the second year (2026) may avoid having to initiate an in-season adjustment in the future should the updated values for the 2027-2029 specifications be lower than what was projected for 2025-2027. Alternatively, should the first year (2027) of the FYs 2027-2029 specifications be higher than what is already in regulation, fishing could still occur without risk, while the updated values are implemented through the specifications process.

Table 2. Summary of Atlantic herring fishery specifications (mt) as proposed by the NEFMC, October 2024 SIR.

	Proposed Action		
	2025	**2026**	**2027**
Overfishing Limit (OFL)	18,273	21,659	21,659
Acceptable Biological Catch (ABC)	6,741	10,885	10,885
Management Uncertainty*	4,031	4,031	4,031
Optimum Yield (OY)/Annual Catch Limit (ACL)	2,710	6,854	6,854
Domestic Annual Harvest (DAH)	2,710	6,854	8,854
Border Transfer (BT)	0	0	0
Domestic Annual Processing (DAP)	2,710	6,854	6,854
US At-Sea Processing (USAP)	0	0	0
Area 1A sub-ACL (28.9%)	783	1,981	1,981
Area 1B sub-ACL (4.3%)	117	295	295
Area 2 sub-ACL (27.8%)	753	1,905	1,905
Area 3 sub-ACL (39%)	1,057	2,673	2,673
Fixed Gear Set-Aside	30	30	30
Research Set-Aside (RSA) as % of sub-ACL	0%	0%	0%
* If the New Brunswick weir fishery landings through October 1 are less than the associated "trigger," then 1,000 mt will be subtracted from the management uncertainty buffer and added to the Area 1A sub-ACL and the ACL.			

In addition, due to concerns about the implementation timeline for the proposed specifications and low incoming quotas for 2025, the Council requested that GARFO make an in-season adjustment to the FY 2025 specifications at the September meeting. The interim final rule for this action went into place on December 19, 2024, and will remain in effect through 2025[2].

At the September 2024 Council meeting, after taking final action on the 2025-2027 fishery specifications and in-season action for 2025, the Council tasked the PDT to review preliminary 2024 year-end catch information. The proposed specifications for 2025-2027 were based on assuming the ABC for 2024 (23,409 mt) would be fully caught. However, the Council expected that the ABC for 2024 would not be fully caught based on fishery performance and outlook.

[2] https://www.nefmc.org/library/2025-herring-in-season-adjustment; September 2024 Council motion regarding in-season adjustment: https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-September-2024.pdf

At the January 2025 Council meeting, the PDT presented preliminary 2024 year-end catch information, which indicated that the ABC was not fully caught. Based on the PDT's report, the Council passed the following motion by unanimous consent:

> *To request the Scientific and Statistical Committee provide updated fishing years 2025 and 2026 OFLs and ABCs recommendations, based on new information:*
>
> - *Preliminary 2024 catch estimate, prepared by the Plan Development Team (PDT),*
> - *Results of the peer review of the Research Track Stock Assessment in March, and*
> - *Risk analysis, prepared by the PDT.*

After the Council meeting, GARFO and Council staff further clarified that the regulations require three years of specifications. Thus, the SSC is also being asked to consider the default specifications for FY 2027.

The PDT and TC met on February 28, 2025 and March 27, 2025 to discuss information to include in this report and a risk analysis (see separate memo). Based on the available data and timing to prepare information for the SSC, the PDT opted not to re-run projections beyond the runs completed in January 2025.

Recent Stock Assessments

Atlantic herring was assessed in 2024 as a level 1 (direct delivery) management track stock assessment. The Atlantic herring stock is overfished, but overfishing is not occurring, consistent with the results of the 2022 management track stock assessment.

The Atlantic Herring Research Track Working Group developed a new state-space assessment model that was peer reviewed March 10-14, 2025. The new model will be used in future management track stock assessments. While the model and projections from the research track assessment are not available for use at this time, the outcomes of this assessment could be informative for the SSC in addressing the Terms of Reference. See risk analysis memo for additional details.

Council's ABC Control Rule

Established in January 2021 via Amendment 8 to the Atlantic Herring Fishery Management Plan, the Council's Atlantic herring ABC control rule is biomass-based:

- When biomass is greater than 0.5 for the ratio of SSB/SSBMSY, the maximum fishing mortality allowed is 80% of FMSY.
- As biomass declines, fishing mortality declines linearly, and if biomass falls below 0.1 for the ratio of SSB/SSBMSY, then ABC is set to zero, no fishery allocation.

Atlantic Herring Rebuilding Plan

The Atlantic herring rebuilding plan became effective in August 2022 (Framework Adjustment 9). The rebuilding plan continues to use the ABC control rule that was established in Amendment 8. At the time, rebuilding projections indicated the stock could rebuild in five years (by FY 2026) with a 50% chance of rebuilding, assuming long-term average recruitment.

Updated projections run in the summer of 2024 indicated the stock has a 50% chance of rebuilding by 2031, which is within 10 years of the start of the plan (Table 4).

2. Preliminary 2024 Catch Data

The preliminary 2024 year-end catch for the US fishery is 10,315 mt, representing 51% of the total ACL, which is 20,141 mt (Table 3). This catch estimate is subject to change upon finalization of the fishery catch data later this year. In general, in early January, most of the landings are included in the estimate for the prior year. Once observer data is finalized, discard estimates may change, but discards are relatively low in this fishery. The PDT and TC do not anticipate substantial changes to these estimates, but notes that the final values could differ from the numbers presented in Table 3.

The initial 2024 New Brunswick weir landings estimate is 2,014 mt (A. Debertin, Canada DFO, pers. comm., January 6, 2025). It is likely the Canadian landings estimate will increase as year-end reports are finalized in that fishery.

Table 3. Preliminary 2024 US Atlantic herring landings and discards (MT).

Area	Quota (mt)	Landings (mt)	Discards (mt)	% Quota Caught
1A	6,504	5,987	0	92%
1B	819	82	0	10%
2	5,449	67	0	1%
3	7,484	4,178	1	56%
ACL	**20,141**	**10,314**	**1**	**51%**
Note: These estimates are subject to change as part of NOAA's QA/QC process and as additional data are reported. Source: CAMS, NOAA GARFO, January 10, 2025.				

3. Updated Projections

In January 2025, The PDT and TC ran new 10-year projections with the updated 2024 catch estimates for the US (10,315 mt) and Canadian (3,220 mt[3]) fisheries (Table 5), rather than the 2024 ABC (23,409 mt), which represents a difference of 9,874 mt less catch in 2024. No other changes to the projections were made from those developed for the 2025-2027 specifications (Table 4). In addition, no model changes were made. The PDT and TC notes that projections for Atlantic herring are subject to some uncertainty, particularly regarding recruitment, and have historically been overly optimistic. Figure 1 compares the projections and 95% confidence intervals for the mobile fleet F, SSB, and SSB/SSB_{MSY}.

[3] This reflects the transfer of 1,000 mt from the management uncertainty buffer to Area 1A and the total ACL (4,220 mt uncertainty buffer – 1,000 mt transfer), which was effective October 8, 2024. See: https://www.fisheries.noaa.gov/bulletin/season-adjustment-2024-atlantic-herring-specifications

Table 4. 10-year term projections of future stock status, as presented to the SSC in July 2024.

Year	Mobile Fleet F	SSB	P (overfishing)	P (overfished)	OFL	ABC	SSB/SSBmsy	P(rebuild)
2024	0.593	34450	0.923	1.000	-	-	0.185	0.000
2025	0.076	51905	0.000	0.886	18272	6741	0.279	0.009
2026	0.161	56730	0.005	0.857	21653	10882	0.304	0.014
2027	0.184	86578	0.035	0.567	30078	15450	0.465	0.057
2028	0.328	119449	0.300	0.321	40029	31117	0.641	0.221
2029	0.360	144384	0.375	0.236	48649	40581	0.775	0.348
2030	0.360	168847	0.389	0.182	56715	47209	0.906	0.443
2031	**0.360**	**188966**	**0.395**	**0.147**	**63880**	**53116**	**1.014**	**0.508**
2032	0.360	204360	0.396	0.123	69715	57953	1.097	0.554
2033	0.360	215281	0.399	0.108	74081	61555	1.155	0.583
2034	0.360	222616	0.398	0.097	77072	64038	1.195	0.601
2035	0.360	227582	0.397	0.091	79082	65692	1.221	0.616

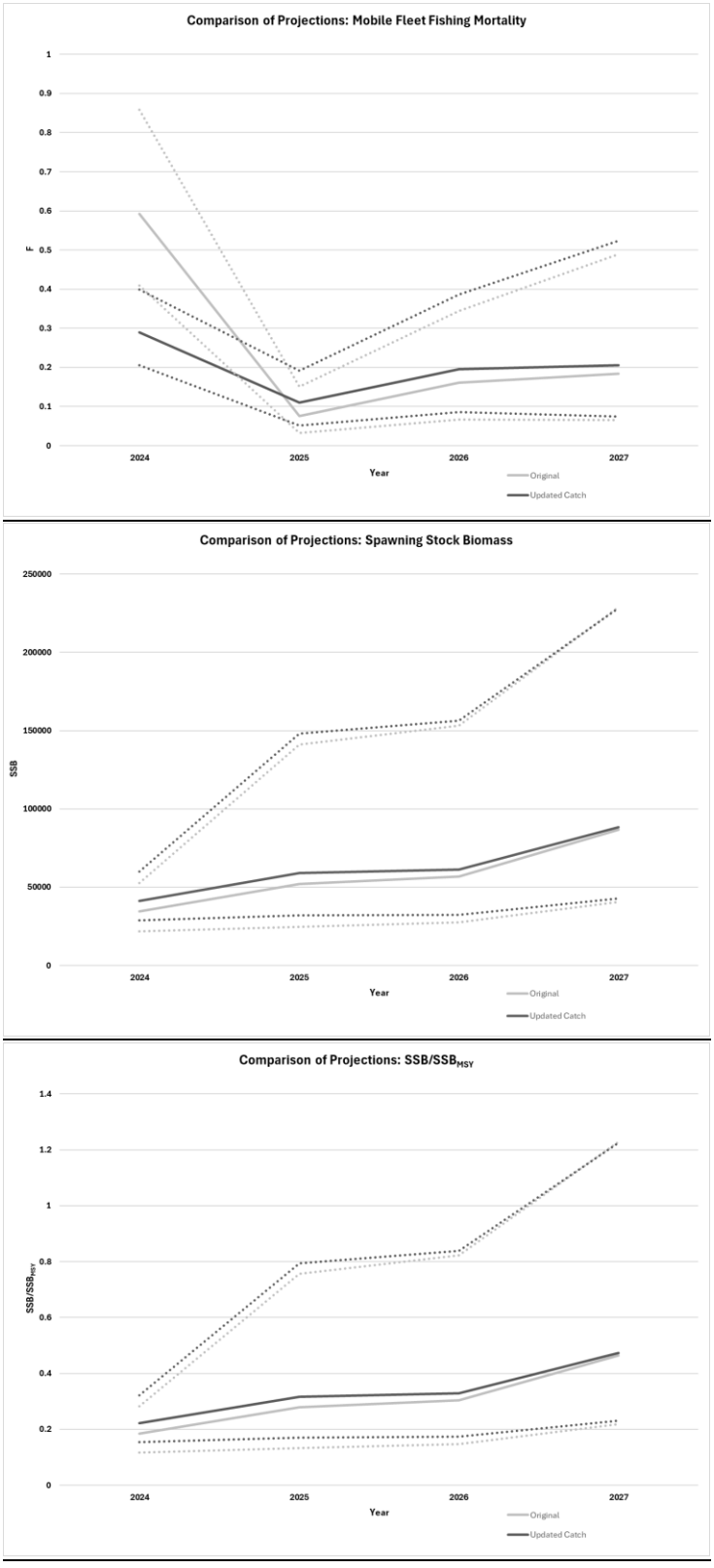
Note: Fixed gear catches were assumed equal to their 10-year averages with Canadian catch = 4,031 mt, US Fixed = 16 mt. The ABC harvest control rule was applied to define the mobile fleet catches. Bold indicates the year when the probability of rebuilding is greater than 50%.

Table 5. New projection run of 10-year projections of future stock status of Atlantic herring, conducted January 2025.

Year	Mobile Fleet F	SSB	P(overfishing)	P(overfished)	OFL	ABC	SSB/SSBmsy	P(rebuild)
2024	0.289	41341	0.008	1.000	–	–	0.222	0.000
2025	0.110	59143	0.000	0.860	20802	8587	0.317	0.011
2026	0.196	61126	0.009	0.837	23491	13165	0.328	0.014
2027	0.205	88181	0.049	0.552	31075	17187	0.473	0.057
2028	0.336	119431	0.311	0.319	40392	31998	0.641	0.219
2029	0.360	144072	0.375	0.236	48630	40573	0.773	0.347
2030	0.360	168499	0.388	0.183	56615	47117	0.904	0.441
2031	**0.360**	**188678**	**0.394**	**0.148**	**63764**	**53030**	**1.012**	**0.507**
2032	0.360	204194	0.396	0.123	69641	57892	1.096	0.554
2033	0.360	215211	0.399	0.108	74039	61518	1.155	0.583
2034	0.360	222547	0.398	0.098	77052	64017	1.194	0.601
2035	0.360	227559	0.396	0.091	79068	65681	1.221	0.616

Note: US mobile fleet bridge year catch in 2024 as preliminary catch of 10,315 mt and Canadian catch as the adjusted management uncertainty buffer of 3,220 mt, with all other assumptions the same as the standard projections used to develop 2025-2027 specifications. Fixed gear catches were assumed equal to their 10-year averages with Canadian Catch= 4,031 mt US Fixed= 16 mt. The ABC harvest control rule was applied to define the mobile fleet catches. Bold indicates the year when the probability of rebuilding is greater than 50%.

Figure 1. Comparison of projections for the mobile fleet F, SSB and ratio of SSB to SSBMSY. Dotted lines indicate 95% confidence intervals.



4. Possible updated OFLs and ABCs

Table 6 includes possible OFLs and ABCs based on the updated projections. The PDT and TC did not make a recommendation.

Table 6. Summary possible updated 2025 through 2027 OFLs and ABCs for Atlantic herring based on updated 2024 catch data. Fixed gear catches were assumed equal to their 10-year averages with Canadian Catch = 4,031 mt and US Fixed Catch = 16 mt and are included in these projections.

Year	OFL (mt)	ABC (mt)
2025	20,802	8,587
2026	23,491	13,165
2027	31,075	17,187

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MEMORANDUM

DATE: March 31, 2025

TO: Scientific and Statistical Committee

FROM: Herring Plan Development Team (PDT) and Technical Committee (TC)

CC: Atlantic Herring Committee (TC)

SUBJECT: **Risk Analysis for Atlantic Herring**

Background

This document is intended to provide the Scientific and Statistical Committee (SSC) with additional information regarding Atlantic herring and the fishery to help inform SSC recommendations for FY 2025 through FY 2027 OFLs and ABCs. The risk policy matrix is also attached.

For background on the FY 2025-2027 specifications process to date, please refer to the Atlantic Herring PDT and TC memo titled "Possible OFLs and ABCs for Atlantic herring, FY 2025-2027". A comparison of the specifications from the Council's proposal from September 2024 (Table 1) and possible updated specifications (Table 2) is provided in Table 3.

Table 1. Council recommended 2025-2027 Atlantic herring specifications (mt) from September 2024..

Year	OFL	ABC
2025	18,273	6,741
2026	21,659	10,885
2027	21,659	10,885

Table 2. Possible updated Atlantic Herring FY 2025-2027 specifications (mt) based on revised projections.

Year	OFL	ABC
2025	20,802	8,587
2026	23,491	13,165
2027	31,075	17,187

Table 3. Comparison of current 2025-2027 specifications (mt) recommendations and updated specifications based on revised projections.

Year	2025			2026			2027		
Specifications	**Current**	**Updated**	**% Change**	**Current**	**Updated**	**% Change**	**Current**	**Updated**	**% Change**
OFL	18,273	20,802	+14%	21,659	23,491	+8%	21,659	31,075	+44%
ABC	6,741	8,587	+27%	10,885	13,165	+21%	10,885	17,187	+58%
ACL	2,710	4,556	+68 %	6,854	9,134	+33%	6,854	13,156	+92%
Area 1A Sub-ACL (28.9%)	783	1,317	+68%	1,981	2,640	+33%	1,981	3,802	+92%
Area 1B sub-ACL (4.3%)	117	196	+68%	295	393	+33%	295	566	+92%
Area 2 sub-ACL (27.8%)	753	1,267	+68%	1,905	2,539	+33%	1,905	3,657	+92%
Area 3 sub-ACL (39%)	1,057	1,777	+68%	2,673	3,562	+33%	2,673	5,131	+92%

2. Risk Analysis

Biological and Ecological

Stock Status and Rebuilding

Atlantic herring underwent a management track stock assessment in 2024, which indicated that the stock was overfished but not subject to overfishing[1]. The Atlantic herring stock is currently in a rebuilding plan, initiated in 2022 through Framework Adjustment 9 to the Atlantic herring FMP. The rebuilding plan implemented a fishing mortality strategy ($F_{rebuild}$) consistent with the ABC control rule adopted in A8 (Figure 1) and was expected to rebuild the stock by fishing year 2026, with an effective date of August 18, 2022. Projections prepared for the 2024 management track stock assessment indicate that the stock has a 50% chance of rebuilding by 2031, which is within 10 years of the start of the plan.

Uncertainty

Recruitment - The cause of continued poor recruitment has not been identified and has remained an uncertainty for decades.

Projections - The projections are uncertain, especially regarding recruitment. Without other information about recruitment, the likelihood penalty has the effect of pulling the more recent recruitment estimates (i.e., 2022 and 2023) upwards towards the median. This upward increase in recent recruitment estimates was partially offset in the projections by applying a retrospective adjustment. This uncertainty can result in overly optimistic projections, especially in years 2 and 3 of the projections.

[1] https://d23h0vhsm26o6d.cloudfront.net/4.c_Atlantic_Herring_2024-Management-Track-Stock-Assessment-Report.pdf

Natural Mortality (M) - Natural mortality remained an uncertainty in the 2024 stock assessment and was assumed constant, as in the 2020 and 2022 management tracks and SAW 65, but M is likely to vary among time and age (size).

Stock Structure - Stock structure remains an uncertainty for this stock assessment, particularly mixing with the Nova Scotian stock. Migration can be conflated with changes in mortality or fishery selectivity and contribute to retrospective patterns.

2023 Spring Trawl Survey - Another source of uncertainty was that the 2023 spring NEFSC bottom-trawl survey did not cover the entire stock area for Atlantic herring (i.e., limited sampling on Georges Bank). Therefore, the survey was treated as missing in the model.

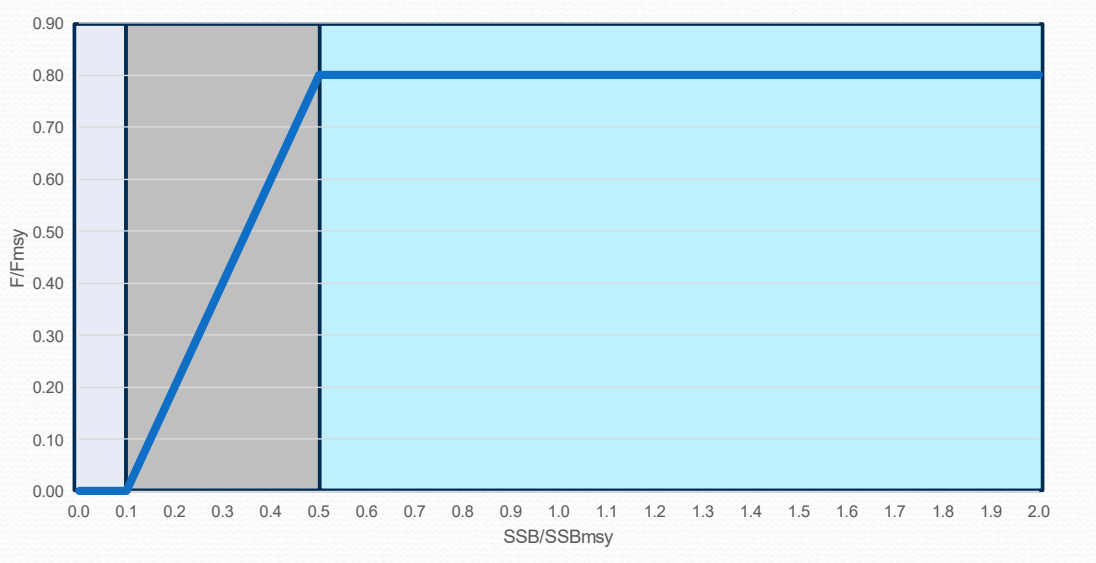
ABC Control Rule

Established in January 2021 via Amendment 8 to the Atlantic Herring Fishery Management Plan, the Council's Atlantic herring ABC control rule is biomass-based:

- When biomass is greater than 0.5 for the ratio of SSB/SSBMSY, the maximum fishing mortality allowed is 80% of FMSY.
- As biomass declines, fishing mortality declines linearly, and if biomass falls below 0.1 for the ratio of SSB/SSBMSY, then ABC is set to zero, no fishery allocation.

The herring ABC control rule accounts for the role of herring as forage in the ecosystem by capping the maximum fishing mortality at 80% of FMSY when biomass is high and setting it at zero when biomass is low.

Figure 1. Atlantic herring ABC control rule used for specification setting since Amendment 8.



Economic and Social

Recent Catch and Fishery Effort

The ACL and catch of Atlantic herring have fluctuated in recent years, but both are generally lower than years past. Herring ACLs and catch declined substantially in FY 2018 following the implementation of catch limit restrictions in response to a decreasing Atlantic herring stock. In that timeframe, the spatial distribution of landings and revenues of herring has contracted, with the majority of effort occurring in the Gulf of Maine, on the northern portion of Georges Bank, and off of Rhode Island (Figure 5, Figure 6). Recent years have also shown a notable decline in landings and revenues generated in the Mid-Atlantic region.

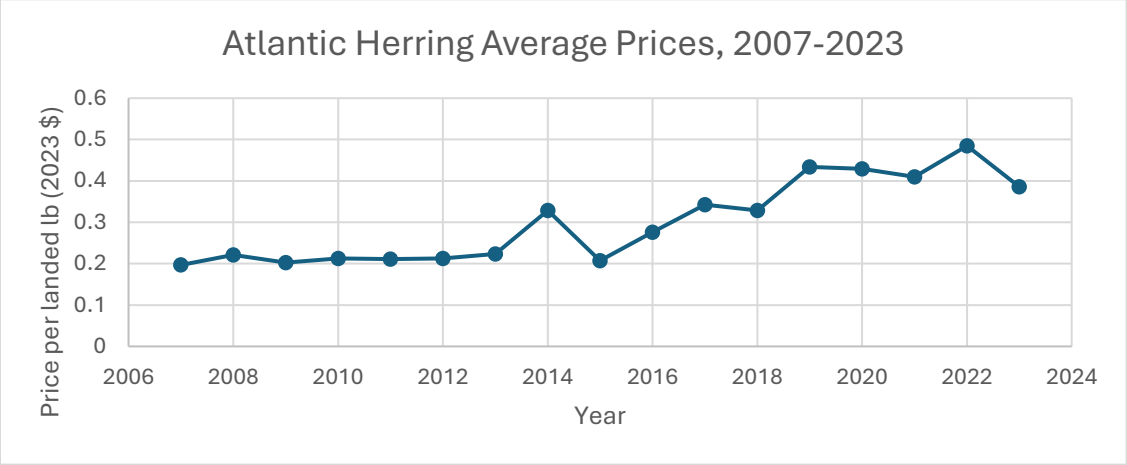
Table 4. Summary of US Atlantic herring fishery performance including US quota (mt), catch (mt), and utilization, 2008-2024. Source: NOAA Fisheries/GARFO.

Year	ACL (mt)	Catch (mt)	Utilization
2008	143,350	83,239	58.1%
2009	143,350	103,942	72.5%
2010	91,200	72,851	79.9%
2011	93,905	86,245	91.8%
2012	90,683	90,561	99.9%
2013	106,375	95,764	90.0%
2014	104,088	93,247	89.6%
2015	104,566	80,011	76.5%
2016	101,135	63,581	62.9%
2017	102,656	49,072	47.8%
2018	50,195	43,878	87.4%
2019	15,613	13,079	83.8%
2020	12,225	9,591	78.5%
2021	5,128	5,268	102.7%
2022	4,813	4,234	88.0%
2023	13,287	10,228	77.0%
2024*	20,141	10,314	51.2%
**Note: 2024 data are preliminary. 2024 Data Source: CAMS, NOAA GARFO, January 10, 2025.*			

Herring Prices over Time

Overall, the average price of Atlantic herring has increased in recent years with some fluctuations, increasing from approximately $0.20/lb in 2007 to a peak of $0.49/lb in 2022.

Figure 2. Average price of Atlantic herring, 2007-2023. Data Source: NOAA Fisheries Performance Measures.



Econometric Model

The econometric model was first used for Atlantic herring in Amendment 8. This model can be used to predict prices of herring under a defined amount of landings, such as the ABC or ACL. For this iteration, the model has been updated with data through 2023. Projected landings equivalent to the ACLs possible under revised 2025-2027 specifications were compared to two baselines: Baseline A, 2023 actual landings (10,194 mt); and Baseline 2, the current 2025 ACL (2,710 mt) (Table 5). Compared to actual 2023 landings, projected landings based on the revised projections would result in lower revenues in 2025 and 2026, with a higher revenue in 2027. However, projected landings based on revised projections would result in increases in revenues when compared with the current 2025 ACL. Overall, the projected revenues are low compared to the long-term historical average.

Table 5. Projected landings, prices, revenues and revenue change relative to baselines A and B. Source: NEFSC SSB.

Year	Projected Landings (mt)	Price (real 2023 $/mt)	Revenue (real 2023 $)	Revenue Change from Baseline A	Revenue Change from Baseline B
2025	4,556	$862	$3,925,000	-$4,512,000	$1,560,000
2026	9,134	$834	$7,618,000	-$819,000	$5,253,000
2027	13,156	$810	$10,654,000	$2,217,000	$8,289,000

In-Season Catch Data and Management

The PDT and TC discussed the potential implications of implementing revised OFLs and ABCs based on updated projections for each herring management area. Revising the 2025-2027 specifications based on updated projections would increase the total ACL by 1,846 mt, or roughly 68%. This would result in increases for each sub-ACL: Area 1A sub-ACL would increase by 534 mt; Area 1B would increase by 79 mt; Area 2 would increase by 514 mt; and Area 3 would increase by 720 mt (Table 3). Fishing effort and seasonality differs between the herring management areas; therefore, an increase in specifications mid-year could impact each

area differently (Figure 3). The Council will consider the SSC's recommendations at its April Council meeting, after which, if recommended, revised specifications could be implemented by early to mid-summer.

Additional management measures for Area 1A are implemented each year by the states through ASMFC, including allocating the Area 1A sub-ACL throughout the year. For 2025, the Atlantic Herring Management Board allocated the Area 1A sub-ACL seasonally with 72.8% available for season 1 (June 1 – September 30) and 27.2% available for season 2 (October 1 – December 31). The Area 1A sub-ACL catch is currently at 0 mt due to these measures (Table 6). If the 2025 Area 1A sub-ACL is updated, those seasonal allocation percentages would be applied to the updated sub-ACL.

The second type of Area 1A management measures implemented by the states are effort controls, particularly from June-September, to extend the Area 1A fishery to provide a consistent supply of herring during peak market demand for bait. Effort controls include setting 'days out' of the fishery when possession and/or landing are prohibited, weekly landing limits, and restrictions on at-sea transfers. An important aspect of the 'days out' is considering when landing days will be allowed, which could be as early as June 1. Over the past few years, landing days have been allowed starting in late June or early July (i.e., landing days are set at zero until the first day landings are allowed), but the states could allow landing days as early as June 1. If the 2025 Area 1A sub-ACL is updated, the timing of NOAA Fisheries' rule to implement the updated sub-ACL will need to be considered relative to Area 1A effort controls for June through September.

To set the effort controls for the June-September season, Board members from Area 1A states (Maine, New Hampshire, and Massachusetts) typically meet in late April. However, due to the possibility of the Council considering recommended changes to the 2025 specifications, the 'days out' meeting will likely be delayed until early May after any recommended changes are also considered by ASMFC.

As of March 27, 2025, Area 1B has exceeded its sub-ACL by 80.5 mt, which is extremely close to the potential increase of 79 mt (Table 6Figure ***1***Figure 4). Based on this overage, Area 1B is unlikely to reopen for the 2025 fishing year, but the increased quota would reduce the overage substantially. The Area 2 sub-ACL has generally gone underutilized in recent years but has not been constrained by quota. With only 6% of quota caught as of March 27, 2025 (Table 6), an increased sub-ACL is not likely change fishing effort in the area, but would provide additional quota should there be more fishing activity in the fall or early winter. Area 3 has reached its current 2025 sub-ACL (Table 6Figure ***1***Figure 4), so re-opening the area based on an increase in the sub-ACL under revised projections could be considered, taking into account the amount of the increase and the potential for harvest. There was some effort in Area 3 at the end of FY 2024, and it is unknown whether there would be a similar late fall-early winter increase in effort in FY 2025.

Figure 3. Atlantic herring sub-ACL use by month and herring management area, FY 2018-2022.

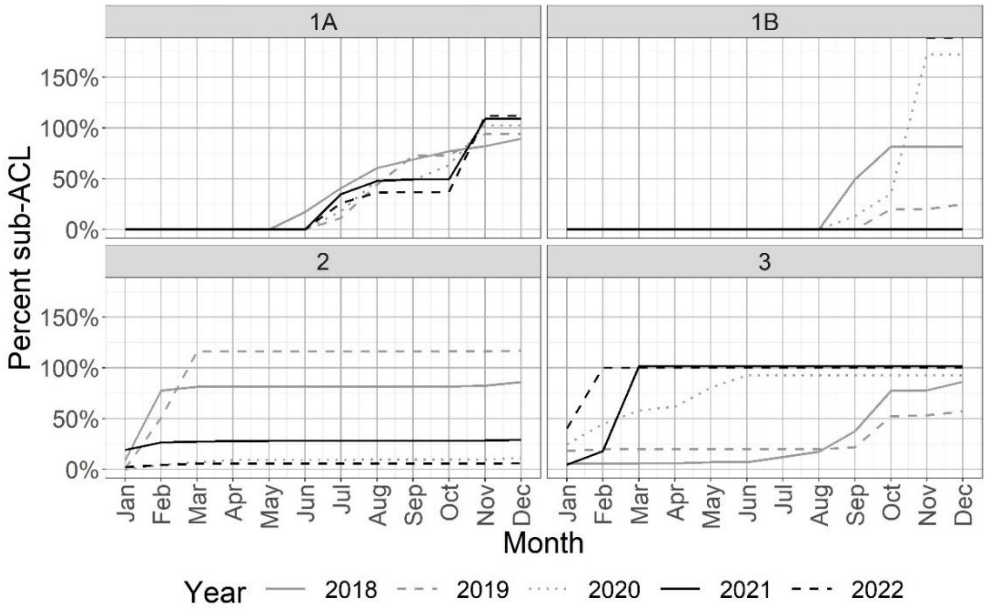
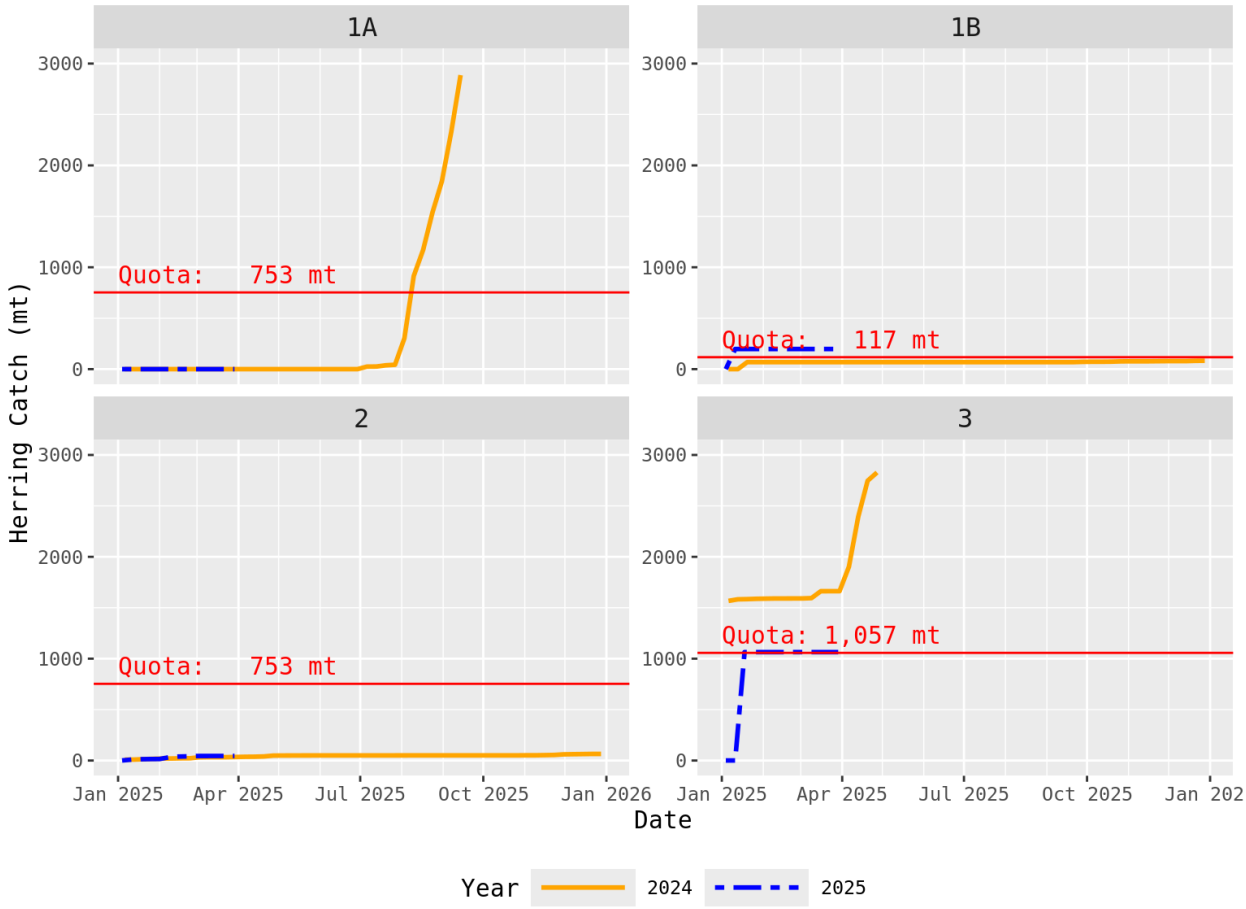


Table 6. NOAA Fisheries Atlantic herring quota monitoring data, as of March 27, 2025.

Area	Quota (mt)	Cumulative Catch (mt)	Percent Quota Caught
1A	753	0.0	0.0%
1B	117	197.5	168.8%
2	753	44.7	5.9%
3	1,057	1,064.3	100.7%
ACL	2,710	1,306.6	48.2%
Data Source: NOAA Fisheries Quota Monitoring, reported March 27, 2025. https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/herring/qm_herring.html			

Figure 4. Atlantic herring quota monitoring as of March 27, 2025. Source: GARFO Quota Monitoring.

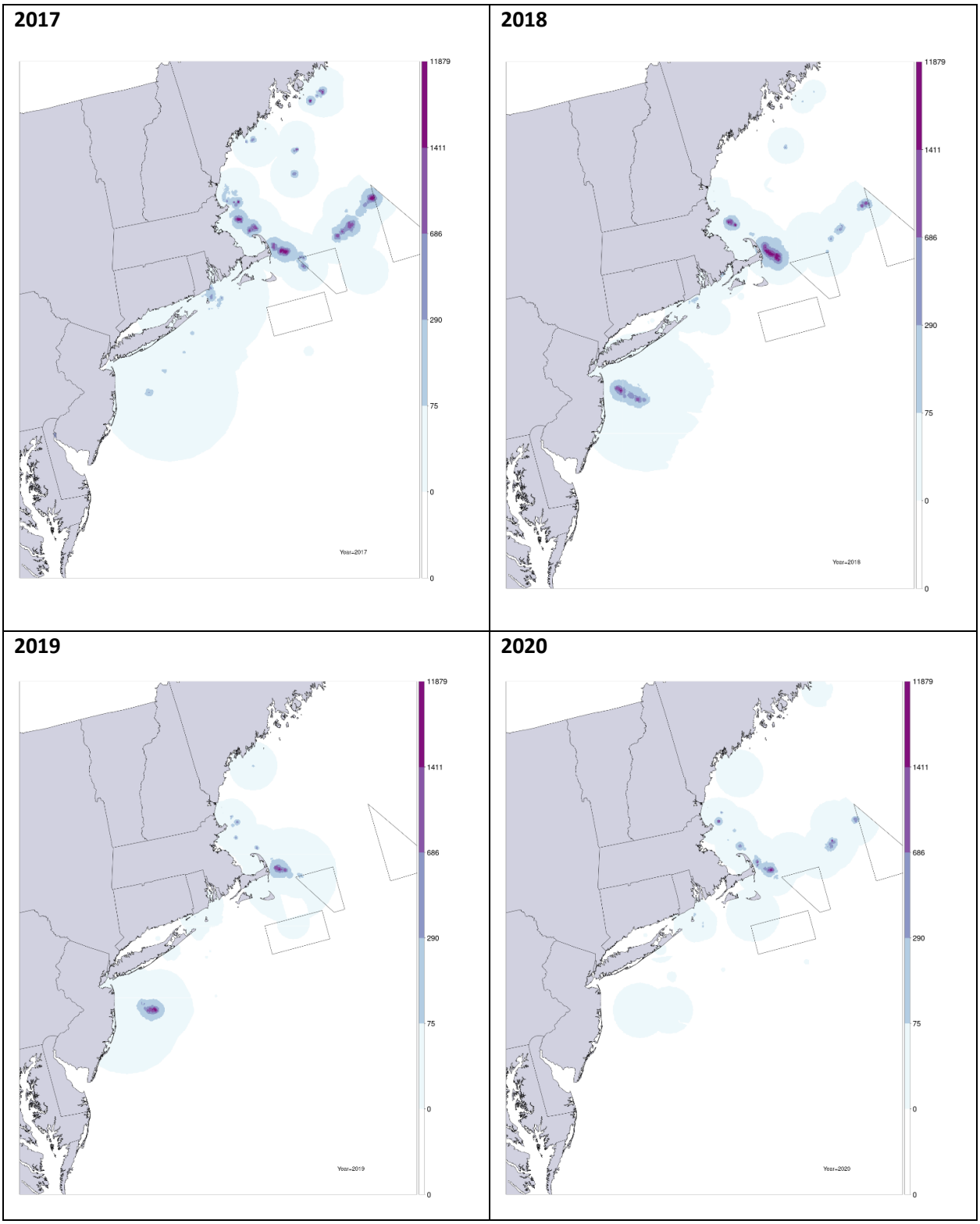


Spatial Analysis of Landings and Revenue

Building on similar analyses conducted during the development of Amendment 8 and Framework Adjustment 7 to the Atlantic Herring Fishery Management Plan, the following figures illustrate Atlantic Herring fishing effort through landings (Figure 5) and revenue data (Figure 6) for the years 2017-2021. Data from vessel trip reports (VTR) was collected and interpreted to create the visualizations, variations of which can be found on NOAA Fisheries' Fishing Footprints webpage for many commercially fished species. Polygons designating the Nantucket Lightship, Closed Area I, and Closed Area II groundfish closure areas (from left to right) are included in each figure for reference.

Additionally, Atlantic herring landings and revenues are plotted for 2016-2020 (Figure 7 and Figure 8).

Figure 5. Atlantic herring landings (lbs per square kilometer) from the midwater trawl and small mesh otter trawl fleets, 2017-2021. Source: NOAA Fisheries



2021

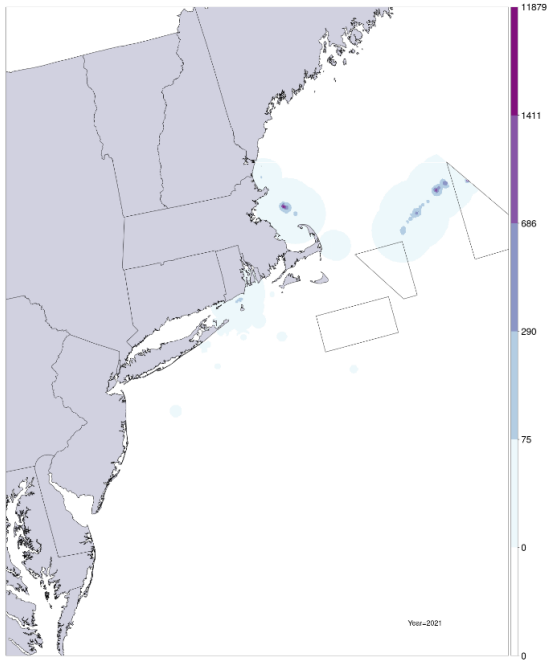
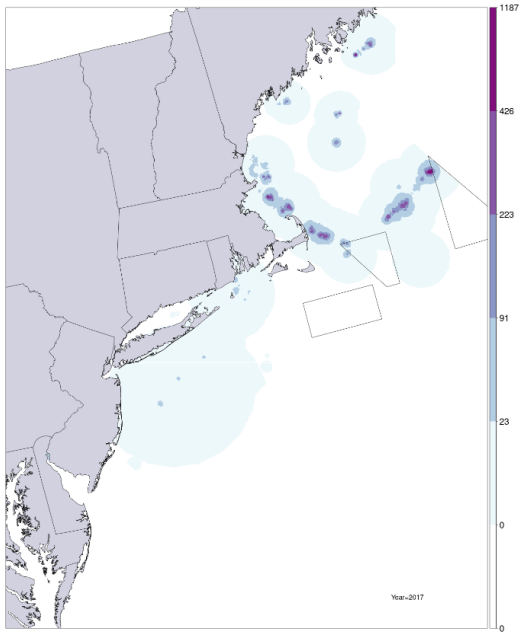
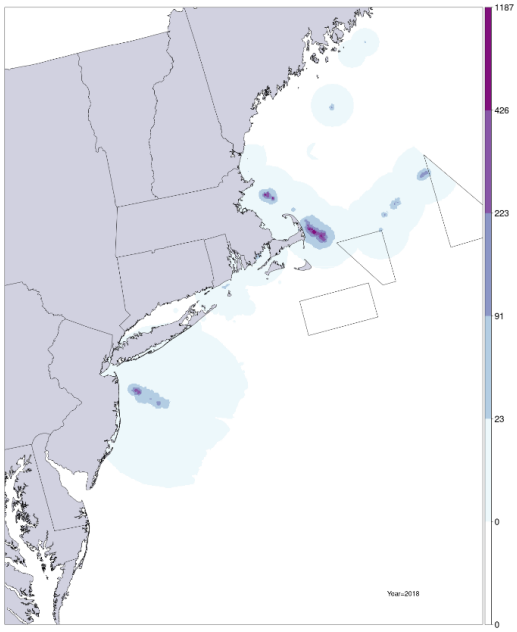


Figure 6. Atlantic Herring Revenue (real 2020 Q2 dollars per square kilometer) combined from the midwater and small mesh otter trawl fleets, 2017-2021. Source: NOAA Fisheries

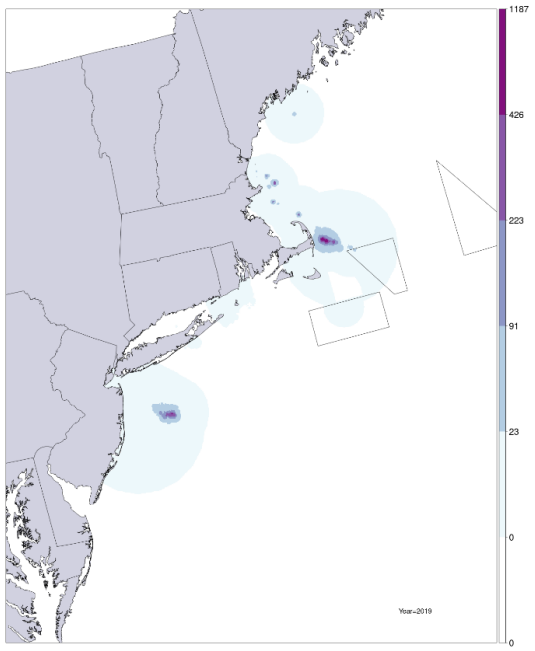
2017



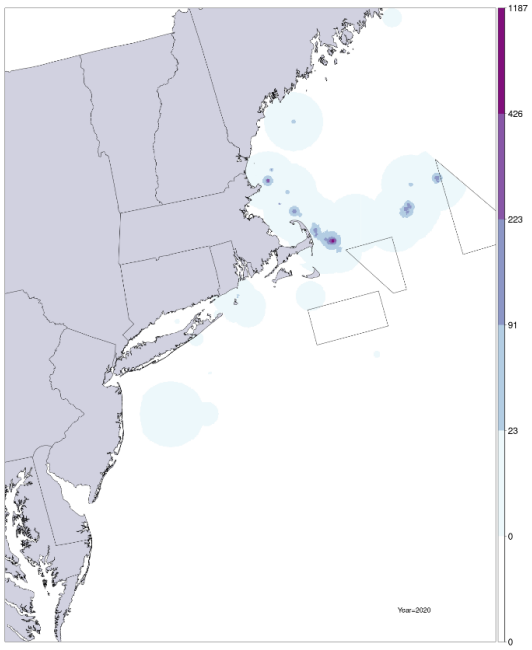
2018



2019



2020



2021

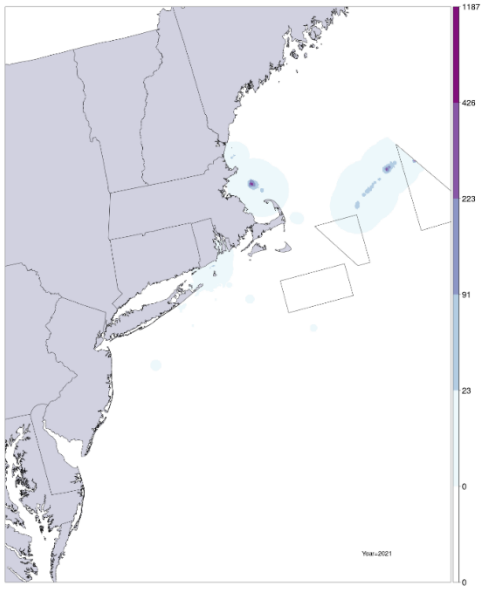
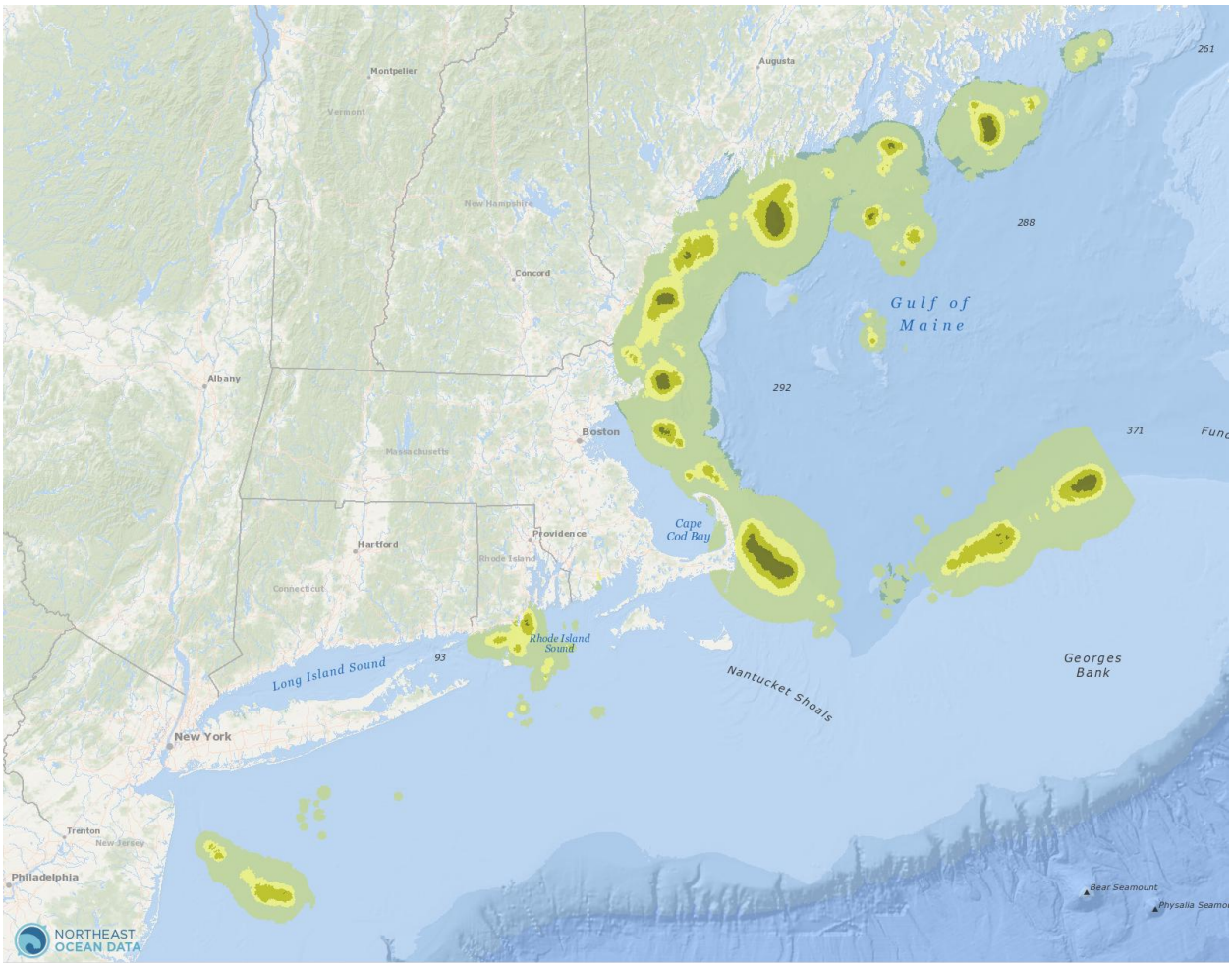


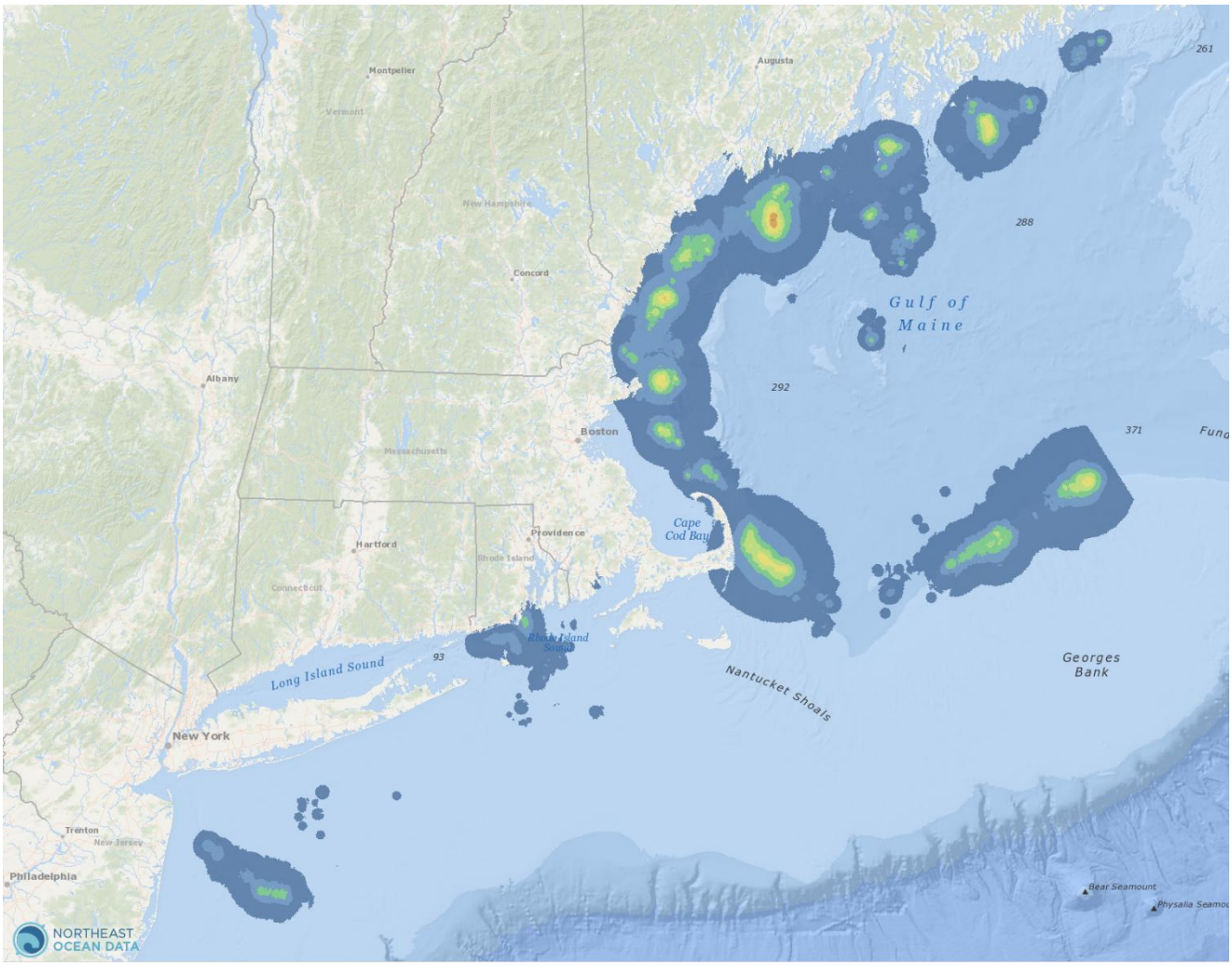
Figure 7. Annual Average Atlantic Herring FMP Landings, 2016-2020. Source: Northeast Ocean Data Portal, Accessed 3/7/2025.



Atlantic Herring Landings 2016-2020

- 1 - 10 lbs
- 10 - 50 lbs
- 50 - 100 lbs
- 100 - 500 lbs
- 500 - 1,000 lbs
- 1,000 - 2,500 lbs
- 2,500 - 11,493 lbs

Figure 8. Annual Average Atlantic Herring FMP Revenue, 2016-2020. Source: Northeast Ocean Data Portal, accessed 3/7/2025.



Other Impacted Fisheries

Atlantic herring catches and quotas can have impacts in other related fisheries, notably the Atlantic mackerel fishery and the American lobster fishery. Atlantic mackerel are often co-caught with Atlantic herring; therefore, effort shifts in the herring fishery could impact the mackerel fishery. The mackerel fishery is currently operating under relatively low commercial quotas and has accountability measures in place, so the original proposed FY 2025-2027 Atlantic herring specifications were not anticipated to have a substantial impact on the mackerel fishery.

The American lobster fishery utilizes herring as bait. The proposed 2025-2027 specifications represented a decrease in quota, which could limit the supply of fresh Atlantic herring for bait. Attendees at the June 13, 2024 Atlantic Herring Stakeholder Engagement Meeting (see below for additional information) relayed that herring quotas can impact market conditions, such as the price of herring as bait for the lobster fishery. Less consistent herring catch in recent years has led to a market shift towards other products, such as fresh or frozen menhaden[2].

Social Impacts

The reduced quotas proposed in the FY 2025-2027 specifications action were anticipated to have negative impacts on Atlantic herring fishery related businesses and communities[3]. The current 2025 ACL of 2,710 mt is the lowest in the history of the fishery, likely leading to continued reductions in fishing effort. The Herring AP, Herring Committee, SSC, and Council heard directly from stakeholders on the potential impacts of the recommended specifications, including reduced participation in the fishery.

As part of the 2024 Atlantic herring research track stock assessment, the Northeast Fisheries Science Center and the NEFMC hosted an Atlantic Herring Stakeholder Engagement Meeting on June 13, 2024 immediately following a Herring Advisory Panel meeting. Around 41 individuals attended, including Research Track Working Group members, Herring Advisory Panel and Committee members, Council staff, GARFO staff, ASMFC staff, and other members of the public. Participants responded to a series of questions developed by the working group, which provided helpful information about the current status of the Atlantic herring fishery and other stakeholder observations.

[2] The Stakeholder Engagement Meeting Summary is available here: https://d23h0vhsm26o6d.cloudfront.net/240613-Atlantic-Herring-RTWG-Stakeholder-Engagement-Summary.pdf. The summary and a summary presentation prepared for the Atlantic Herring Research Track Stock Assessment are available here: https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php

[3] For additional information, see https://d23h0vhsm26o6d.cloudfront.net/241008-2025-2027_Atlantic_Herring_Specifications_SIR_preliminary-submission.pdf

FMP ATLANTIC HERRING FMP
STOCK(S) ATLANTIC HERRING
LAST ASSESSMENT Management Track, June 2024

Assessment Model, Terminal Year	Description of Assessment Model	Overfishing?/ Overfished?	In Rebuilding Program?	OFL	ABC/ABC CR	ACL	ACT
ASAP Model, 2023	Statistical Age-Structured Model	No/Yes	Yes: 5 year rebuilding plan, 2022 through 2026, based on ABC control rule	**Fmax x $B_{CURRENT}$** (F_{MAX} = F_{MSY} or FMSY proxy or F_{REB}, depending on stock status) 18,273 mt in 2025 FMSYproxy = 0.45	**When biomass is >0.5 for the ratio of SSB/SSBMSY, Fmax is 80% of FMSY. As B declines, F declines linearly, and if B falls below 0.1, then ABC is set to zero**. 6,741 mt in 2025	**ABC - Management Uncertainty,** determined by Council; Stock wide ACL = U.S. OY	N/A

	MSY/OY	AMs	Discards	State Waters
US fishery prosecuted primarily with midwater trawls (single/paired), purse seines, and small mesh bottom trawls; there is also a small fixed gear fishery in state waters. Recent management challenges include minimizing interactions with non-target species like river herring and shad (RH/S) and haddock. The role of herring as a forage species and importance of herring to the ecosystem are also important management considerations. The New Brunswick, Canada fishery is a source of uncertainty.	MSY = 78,710 mt OY = Stock wide ACL	In-season possession limit changes to prevent exceeding sub-ACLs or total ACL; overage deductions and carryover provisions; AM to close large areas when GB or GOM haddock sub-ACLs or RH/S catch caps are reached	Less than 1% of total catch; added to landings for assessment; counted against management area sub-ACLs	Deducted from ABC as part of management uncertainty, if necessary (currently no deduction)

Availability of Biological and Assessment Data	Used in Assessment: spring/summer/fall NEFSC trawl surveys (highly variable for herring); catch data from VTRs; observer data; age data for catches (port samples) and trawl surveys (not summer); diet/consumption data (imprecise); catch-at-age data from port samples and survey - ageing fish is an ongoing source of uncertainty; Other Data: Hydroacoustic surveys recently added into assessment; larval surveys, state surveys, other sources of data are identified in assessment literature but not used in assessment model
Recent Performance Against Harvest Control Rule	Overfishing not occurring. Catch is 78% of ACL in 2020, 103% of ACL in 2021, 88% of ACL in 2022, 77% of ACL in 2023, and 51% of ACL in 2024 (Preliminary).
Current Management Program	Limited access fishery (4 limited access categories, 2 open access categories); Catch quotas (TACs/ACLs), divided by management area since 2000; 3-year specifications; AMs to prevent ACLs/sub-ACLs from being exceeded and to address overages; carryovers (up to 10%) for sub-ACL underage; catch caps to manage interactions haddock and river herring/shad; seasonal gear restrictions (mwt) in the inshore GOM; seasonal availability of management area sub-ACLs (1A); observer coverage and other monitoring/reporting requirements; measures to address net slippage
Catch, Revenues, and Variability	Total catch averaged just under 42,000 mt from 2013-2023, with a high of 93,500 mt in 2013 and low of 4,220 mt in 2022 (NOAA OST Commercial Landings Query, March 28, 2025). In the same time period, annual average price of Atlantic herring increased from about $400 to a high of $935 per metric ton in 2022 (https://apps-nefsc.fisheries.noaa.gov/pm/index.php/programs/1). During this time, landings declined. Prices are generally highest in the late spring through summer and lowest in the winter. In recent years, landings have been low in late spring/summer often for regulatory reasons.
Data - Vessels, Permits, Dealers, Processors, Employment	~20 Cat. A/B (LA directed fishery) vessels were active in recent years - these vessels landed >98% of the total catch; ~10 Cat. C vessels (LA incidental catch) are active; over 1,700 open access (Cat. D) permits that land <1% of total ~100 active dealers, mostly bait
% Food, % Recreational	100% commercial fishery, no recreational fishery 70% commercial fishery utilized for lobster bait (and recreational fishery bait); 30% for food and other uses including aquaculture feed, canned pet food, livestock food, and industrial and biomedical purposes. Primary market is for lobster bait (June - November), food export is primarily for overseas markets.
Fishing Communities	The top five highly engaged commercial ports (2018-2022) are: Portland, ME, Gloucester, MA, Rockland, ME, New Bedford, MA, and Narragansett/Point Judith, RI (NEFSC Fishery Performance Indicators).
Other Economic/Social Factors	Direct linkage between lobster fishery and herring (utilization of herring for bait); linkage between herring and recreational fishing industry; linkage between herring and eco-tourism industry
Major Sources of Scientific Uncertainty	From the 2024 Assessment - recruitment, natural mortality, stock structure
Major Sources of Management Uncertainty	Canadian catch (NB weir fishery) currently the only source of management uncertainty accounted for in buffer between ABC and stock wide ACL (uncertainty re. discards and state waters catch also considered, but not accounted for recently since catches very low and accounted for in fixed gear set-aside and part of catch). For six of the last ten years final landings of herring exceeded what the transfer trigger threshold was set at.
How is the probability of overfishing addressed?	Currently, the FMP focuses on reducing the risk of overfishing - metrics available include OFL distribution, probability of exceeding OFL (assessment); MSE completed in Amendment 8 evaluated the probability of overfishing under various control rule alternatives.
What is the consequence of overfishing?	If F exceeds the target F or F MSY, legal mandates apply. If overfishing occurs, fishery yield would be reduced in the following year(s). In the short-term, B would be reduced. Long-term impacts on other species/ecosystem of prolonged overfishing was examined in MSE in Amendment 8.
How are expected net benefits to the Nation currently measured/evaluated?	Yield (mt and $); limited data on costs
Interactions with Other Fisheries/Stocks, Bycatch Issues	• Atlantic Mackerel (southern New England/Mid-Atlantic fishery overlap); • Northeast Multispecies, especially haddock (GOM and GB haddock catch caps for midwater trawl vessels); • River Herring and Shad (RH/S catch caps by gear type and area) • Direct linkage to lobster fishery (bait) and other substitute bait fisheries like menhaden

Ecosystem Considerations: Trophic Interactions	Important forage for fish, mammals, seabirds; Diet and consumption considered in M assumption in stock assessment; -Herring's role as a consumer and competitor in the ecosystem
Ecosystem Considerations: Habitat	OHA2 evaluated risks on herring EFH- spawning measures in place in GOM and under consideration in FW7 -MSA language re. habitat of prey species (EFH); EFH designations will be updated for Atlantic herring in 2025
Ecosystem Considerations: Climate	Climate change may be affecting important prey/forage species for herring (Calanus); vulnerability considered low to temperature change; distribution of species does not appear to be changing significantly due to climate change
Other Important Considerations/Notes	• Sub-ACLs are allocated to reduce the risk of overfishing one of the stock components (inshore/offshore); • Important overlap with Canadian (New Brunswick) weir fishery - all catch assumed to come from inshore component of Atlantic herring stock, accounted for in management uncertainty buffer between ABC and ACL; • ASFMC Spawning Restrictions apply seasonally in inshore GOM to reduce risk of impacting spawning herring, and days out and weekly landing limits used to spread effort over season; • The inshore midwater trawl restricted area implemented through Amendment 8 was vacated in March 2022; • In September 2023, the Council initiated Amendment 10 to minimize user conflicts, contribute to optimum yield, support rebuilding of the resource, and enhance river herring and shad avoidance and other catch reduction measures ; • The industry-funded monitoring program for Atlantic herring was suspended in April 2023; • A research track stock assessment for Atlantic herring was recently completed and was approved by a Peer Review panel in March 2025.

Atlantic States Marine Fisheries Commission

ISFMP Policy Board

May 6, 2025, 9:00 - 10:00 a.m.
May 8, 2025, 10:30 - 11:45 a.m.

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. Cimino)*	9:00 a.m.
2. Board Consent *(J. Cimino)* • Approval of Agenda • Approval of Proceedings from February 2025	9:00 a.m.
3. Public Comment	9:05 a.m.
4. Review and Consider Conservation Equivalency: Policy and Technical Guidance Document (*T. Kerns*) **Final Action**	9:15 a.m.
5. Progress Update on On-Going Stock Assessments (*K. Drew*)	9:55 a.m.
6. Recess	10:00 a.m.
7. Reconvene May 8, 2025	10:30 a.m.
8. Executive Committee Report (*J. Cimino*)	10:30 a.m.
9. Review Discussion Paper on Declared Interests and Voting Privileges – Issues 1 & 2 (*R. Beal)* **Possible Action**	10:40 a.m.
10. Law Enforcement Committee Report (*K. Blanchard*)	11:10 a.m.
11. Review Noncompliance Findings (If Necessary) **Action**	11:20 a.m.
12. Other Business	11:25 a.m.
13. Adjourn	11:45 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
Tuesday May 6 and Thursday May 8, 2025
9:00-10:00 a.m. and 10:30-11:45 a.m.

Chair: Joe Cimino (NJ) Assumed Chairmanship: 10/23	Vice Chair: Dan McKiernan (MA)	Previous Board Meetings: February 5, 2025
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 February 2025

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 Conservation Equivalency: Policy and Technical Guidance Document (9:15-9:55 a.m.) Final Action
Background • The Policy Board approved revisions to the Conservation Equivalency: Policy and Technical Guidance Document to reflect current application of conservation equivalency (CE) in Commission fishery management plans and provide new guidance on the use of CE, including stock status in October 2023. Clarification and guidance are needed on some of the new directives in the Policy and Technical Guidance Document (**Meeting Materials**).
Presentations • T. Kerns will review questions regarding the CE Guidance Document and present draft revisions.
Board discussion for consideration at this meeting • Consider approval of the revised Conservation Equivalency: Policy and Technical Guidance Document

5. Update on Ongoing Stock Assessments Action

6. Recess

7. Reconvene May 8, 2025

8. Executive Committee Report (10:30-10:40 a.m.)
Background • The Executive Committee will meet on May 7, 2025
Presentations • J. Cimino will provide an update of the Executive Committee's work
Board action for consideration at this meeting • None

9. Discuss White Paper on Declared Interest and Voting Privileges –Issues 1 & 2 (10:40-11:10 a.m.) Possible Action
Background • The Executive Committee will discuss a policy paper on declared interest and voting privileges (**Supplemental Materials**).
Presentations • R. Beal will present the white paper and guidance from the Executive Committee (if any)
Board action for consideration at this meeting • Provide possible guidance on declared interest and voting privileges if needed

10. Law Enforcement Committee Report (11:10-11:20 a.m.)
Background • The Law Enforcement Committee will meet on May 6 and 7, 2025
Presentations • K. Blanchard will provide an update of the Executive Committee's work
Board action for consideration at this meeting • None

11. Review Non-Compliance Findings, if Necessary Action

12. Other Business

13. Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ISFMP POLICY BOARD

The Westin Crystal City
Arlington, Virginia
Hybrid Meeting

February 5, 2025

TABLE OF CONTENTS

INDEX OF MOTIONS

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Rep. Allison Hepler, ME (LA)
Cheri 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. Sosnowski (LA)
Jason McNamee, RI (AA)
David Borden, RI (GA)
Matt Gates, CT, proxy for J. Davis (AA)
William Hyatt, CT (GA)
Marty Gary, NY (AA)
Joe Cimino, NJ (AA)
Jeff Kaelin, 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)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (DE)
Mike Luisi, MD, proxy for L. Fegley (AA)
Russel Dize, MD (GA)
James Minor, VA (GA)
Joe Grist, VA, proxy for Sen. Diggs (LA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Ben Dyar, SC, proxy for B. Keppler (AA)
Malcolm Rhodes, SC (GA)
Mel Bell, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Marina Owens, FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Ron Owens, PRFC
Lowell Whitney, NOAA

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

Staff

Bob Beal
Toni Kerns
Tina Berger
Alexander Law
Madeline Musante
Chelsea Tuohy
Caitlin Starks
Emily Franke
James Boyle
Tracey Bauer
Katie Drew

The ISFMP Policy Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, via hybrid meeting, in-person and webinar; Wednesday, February 5, 2025, and was called to order at 10:15 a.m. by Chair Joe Cimino.

CALL TO ORDER

CHAIR JOE CIMINO: Good morning, everyone, I'm going to call the Policy Board to order here. My name is Joe Cimino; I am the Administrative Commissioner for New Jersey. I'll be chairing the meeting today, so let's get started.

APPROVAL OF AGENDA

CHAIR CIMINO: Go through the approval of the agenda. Are there any items that folks want to add to the agenda today? Not seeing any; I'll consider the agenda approved.

APPROVAL OF PROCEEDINGS

CHAIR CIMINO: Approval of the proceedings from the October '24 meeting, any concerns with what was put forward for the proceedings for the October meeting? Not seeing any, okay great.

PUBLIC COMMENT

CHAIR CIMINO: We'll go to public comment. Is there any public comment to come before the Policy Board? Not seeing any on public comment.

EXECUTIVE COMMITTEE REPORT

CHAIR CIMINO: We do have one item that we would like to add to the agenda, so I'm going to go to Dan for a second.

MR. DANIEL McKIERNAN: There is a letter that we intend to ask, the Lobster Board has created a motion to ask this Policy Board to draft a letter to the states of Maine and New Hampshire, concerning the reneguing on Addendum XXVII, which is the minimum size increase es predominantly, among some other measures, and so that should be added to this agenda this morning.

CHAIR CIMINO: It's not uncommon for letters to come before the Policy Board, we typically take that up towards the end of the agenda. I think we could give a little bit of background, since obviously not all of our Policy Board members are on Lobster Board, and there is a lot going on there. We'll give a little bit of a background before we vote on that letter. We'll move into the Executive Committee Report. I'm so mad at Dan for making me eat something, because I have a mouthful. I don't know why I did that. We can go to Bob for a second.

EXECUTIVE DIRECTOR ROBERT E. BEAL: I'm just making stuff up so you can finish chewing. No, there is one Other Business item with the Mid-Atlantic Council and their consideration for a potential Control Rule that we wanted to talk about. Chelsea and Tracey will give a quick background on that under Other Business as well.

CHAIR CIMINO: We had some very good discussions at Executive Committee, and actually I am going to start by turning it back over to Bob for an update on particularly the CARES update and NOAA Grants management.

EXECUTIVE DIRECTOR BEAL: I think looking around the table, a lot of folks were in here during the Executive Committee when I gave this update. The Commission staff, Laura and I in particular, continue to wrestle with this grants management issue within NOAA. I think everyone has heard the background on it.

We distributed money through working with the states under the CARES Act, and some of those distributions were declared to be unallowable, to a total of about 7.3 million. We're working with NOAA Grants Management to resolve that issue. We've got the total down to about 5.8, 5.9 million now.

We've got a lot of other paperwork that is being transmitted to NOAA, and we're hopeful that that will get us down to about 3 million, if all those different documentations and different analyses are in auditing, and everything else is accepted by Grants Management, we'll get down to that lower number.

But as I talked about earlier, 3 million-ish is still a very big number for the Commission, we don't have that kind of money available. We're going to keep working with the individuals that were determined to be unallowable, but at the end of this process, we are not going to be able to recoup all the funds that NOAA Grants Management indicates ASMFC owes back to the Federal Government.

As I mentioned earlier, unfortunately two of the individuals have passed away that are from New Jersey, and how do we go out to those funds, and those are big checks, you know hundreds of thousands of dollars each, actually. We're going to continue to work on this, it does take a lot of time. We were granted a one-year extension, so we have until December 4th of this year to work through this, before we have to start any repayment in the eyes of the Federal Government.

We are not accruing interest right now, which is a good thing. But, somewhere at the end of this, no matter how hard we try, we're not going to get all that money back. How do we seek forgiveness or a legislative fix is something we're actively talking about. Alexander and I have a couple meetings on the Hill on Friday to have some initial conversations with a few New Jersey Offices to figure out a potential legislative fix.

You know there are other forgiveness options, but they are pretty lengthy, and maybe this is very self-serving, but if we could not have this hanging over us for multiple years, I think that would be a good thing. We're going to keep working on it. Happy to answer any questions. It's a big issue that we need to sort out, and we're working pretty hard on it. Happy to answer any questions if you have any.

CHAIR CIMINO: Thanks, Bob, any questions for Bob? Not seeing any. We'll move on to the next update from ExCom, and I'll go through the Executive Committee reviewed a white paper provided by staff that looked at declared interest and voting procedures, in particular the difference between virtual meetings, in person only or hybrid meetings. You know there was actually a fairly lengthy discussion by ExCom members confirming how valuable the ability to have hybrid meetings has been, including public participation. But there was some discussion about guardrails on voting for certain items, if an entire state delegation is not able to make it to a particular meeting.

A motion came out of the Executive Committee. Perhaps if we can get that motion up to put before Policy Board. I don't know that we necessarily need a motion to approve that. But I would like all the Commissioners to see that if some of the folks around the table were not at ExCom. I would like just any hands if there is discussion that needs to be had, or concerns with this idea that ExCom would like to move forward with.

Let me just read that out. **On behalf of the Executive Committee, move for meetings where the whole of a state delegation cannot attend in person a meeting for reasons beyond their control, the delegation may request to the Executive Director, the Commission Chair, and Board Chair, for a postponement of a particular action for consideration at the next scheduled regular meeting or out of cycle meeting.**

I can get into that a little bit, but that could be a lot to unpack if you have not been following this discussion. You know the idea behind this is, it is always more beneficial to be here in person to have discussions. I personally know that after well over a decade on the Board, trying to describe to the higher ups what may happen at a Board meeting is a complete challenge.

Because we all have material that is prepped, but we don't know where a discussion may go. We don't know, without the sideboards that we have on discussions for motions, and so the idea behind this is there may be a need to delay, if a delegation is not able to be there in person. However, there is some odd potential that without any accusations that a delegation may purposely not show up, if there was a very tough decision to make.

That gets to the, if an item is out of their control, they may request this. Then I think the idea that there are going to be times where an item is so time sensitive,

that it is going to be very tough to say, we'll just delay this until another meeting. Part of this motion is that we would be able to delay, but create a special meeting for this or simply deny the request.

I hope that is enough background on this. Is there any discussion on this motion coming through from the Executive Committee? **Is there any objection to this? Not seeing any, okay, I appreciate that**. The Executive Committee is going to continue to discuss the declared interest element of this.

I don't think that has been revisited in quite some time. That is in the Commission's Rules and Regulations on how a state can declare interest, so we do have the ability to revisit that. It is not part of the Atlantic Coastal Act. We'll continue to have discussions on that, and also on the state management units and de minimis.

As those discussions move forward, we will continue to bring those to Policy Board. We had a legislative update from Alexander. You know he went through a summary of what happened in the last Congress, and then talked to us about the turnover that's happened. As always, the Commissioners offered states the ability to meet their new legislators, and I will just say, well I'll just open it up if there are any questions for Alexander on that. Great, not seeing any. We also talked about future meetings. I'll just go to the two most recent.

We'll be in Dewey Beach, Delaware in October this year, and then we'll be somewhere in Rhode Island next year. That covers the ExCom Summary. Any questions on what happened in ExCom? Great, not seeing any. I'm going to turn it over to Alexander for the Review of the 2024 Commissioner Survey.

REVIEW AND DISCUSS 2024 COMMISSIONER SURVEY RESULTS

MR. ALEXANDER LAW: I have a brief presentation on the 2024 Commissioner Survey Results. In 2024, 28 Commissioners completed this year's survey, this was a decrease by 5 from 2023 Survey. The average score of all the questions has hovered around 8.0 for the last three years. Highlights from the Ten Point Scale questions.

Question 4, cooperation with our Federal Partners is consistently, year after year, scored as our lowest question, with an average of 6.87 over 16 years. Sentiment has declined dramatically since a high of 7.97 in 2018. Some of the discussion around this question points to NOAAs handling of the New Jersey CARES Act issue, as damaging our relationships with our Federal Partners.

Question 3, satisfaction with cooperation between Commissioners to achieve Commission's vision, saw the largest drop off this year by 0.65 points. In some of the longer open-ended questions, people pointed to political issues, and putting politics over the needs of the biology of the resource as a large reason for decline in cooperation between Commissioners.

Utilization and availability of Commission resources consistently scores at the top of our survey. Efficient and effective utilization of fiscal and human resources is a particular highlight, with a 15-year average of 8.94. Question 10, engagement with state legislators and members of Congress saw the largest score increase in the survey by 0.72 points.

This may be a potential source of bias is the fact that I send out the survey each year. Those who are likely to engage and read my e-mails, may be more likely to view my activities favorably. The Discussion Question Summaries, it was difficult to summarize many of these questions, because they address such wide-ranging issues.

I really encourage each of you to go back and look at some of the unabridged answers that are included in the memo. They tackle lots of different issues. As I mentioned before, Question 17, Obstacles to the Commission's Success in Rebuilding Stocks. One of the comments I red this year that was new, was politics being and stakeholder impacts/economic impacts being prioritized over the resource management. That was a new one this year.

Question 18, useful product produced by Commission was easy to summarize, because nearly

every product was mentioned. Additional products the Commission could provide, many of these questions pointed at the need to communicate more concisely, communicate in a way that was targeted at folks who are not necessarily well versed in fisheries management. You know we use a lot of acronyms, reduce our amount of acronyms that we use would be good, and really just produce more products written with the layman in mind. Issues of the Commission should focus more on, a lot of these mentioned the kind of obstacles to Commission's success, and a lot of existential issues that the Commission faces.

This includes addressing climate change impacts, incorporation of socioeconomics was mentioned multiple times. Innovating our communication strategies, like in Question 19. Those are the main highlights. Additional comments, Question 21. Many Commissioners defined the answer to the question, but many of those who did, commented on how thankful they are for the staff, which was appreciated.

One comment showed concern about political influence of the management of Horseshoe crab and menhaden, another mentioned concerns about keeping up with the demands for non-administrative Commissioners. Those are the main highlights of the 2024 Commissioner Survey Results, thank you.

CHAIR CIMINO: I'll look for any questions, but also just any general comments that Commissioners may want to make on the survey, or questions for Alexander. All right, not seeing, oh, there we go. John.

MR. JOHN CLARK: Yes, I just had a question on, and I may have asked this before. Is there any way that when we do the survey, we can get a copy of our answers? Because every year it's pretty much the same survey, and I keep wondering, what did I do last year on this one?

MR. LAW: Yes, I can certainly look into that, thank you.

CHAIR CIMINO: Any other questions or comments on the survey? Not seeing any, okay.

DISCUSS WHITE PAPER ON BOARD VOTING AND VIRTUAL MEETING STANDARD OPERATING PRACTICES AND PROCEDURES

CHAIR CIMINO: Our next agenda item is actually, we thought we might need to spend more time on the white paper on voting procedures that went through ExCom. Very briefly, I'll look to see if there are any comments on that. I am not going to go back through it, I think I covered it, you know as best I could in the Executive Committee Summary. Not seeing anything, that's good, we can move on. Oh, go ahead, Dan.

MR. McKIERNAN: Just a minor issue, and this kind of got bypassed, because we had more substantive conversations about remote meetings. I'm wondering if it would be appropriate for staff to announce at the beginning of a meeting, which of the Board members are remote, and are acting as voting members, because I mean just that would be helpful.

Then alternatively, sometimes there could be a Board member like myself, who sat at the Striped Bass meeting, but I had no placard. I just wanted the front row seat, but I wasn't a voting member of the Board. If the Board Chair could also explain that, just so other Board members are clear about who is present and accounted for.

CHAIR CIMINO: Thanks, Dan, Dennis.

MR. DENNIS ABBOTT: You know to that, Dan, at the Striped Bass meeting, you were sitting there and I think there was another Commissioner, but you appropriately didn't participate, and that has always been a clear way of how we operate that normally you might sit at the back of the table, but in instances, I think, where you announce that you're not a participating member, that is fine.

MR. McKIERNAN: I guess I'm requesting, maybe as a protocol, the Board Chair could work with staff and identify, A, who is online as an active Board member, and who is here and is not. That would be great, yes.

CHAIR CIMINO: I think that is a very reasonable request. I know as a Mid-Atlantic Council Rep, some of our most important species are actually jointly managed, and it is very important to know what Board members are actually represented, and need to have a different priority level of recognition during discussions. That is a good recommendation important practice.

As far as Board members that may sit at the table that aren't on a particular board. I think that would be kind of, I would say, up to that Board member to point it out first to staff, why they are there at the table and that they have no intent to participate. Then yes, we could go that step further of bringing that to the Board chair for discussion, so I appreciate that. Any other comments on that? Not seeing any, then I will turn it over to Katie for an update on the ongoing stock assessments.

UPDATE ON ONGOING STOCK ASSESSMENTS

DR. KATIE DREW: The first issue is an issue that has been referred to the Policy Board by the Striped Bass Board. If you recall yesterday, we talked about the fact that we have begun the 2027 Benchmark Assessment for striped bass, and because of the workload of that assessment, the TC recommended that the tentatively scheduled 2026 update for striped bass not be conducted.

The Board agreed with the TC on that recommendation, and so is recommending that the Policy Board remove that tentatively scheduled assessment update for striped bass in 2026 from the assessment schedule. I don't believe the Policy Board needs to make a formal motion, but I think the Policy Board does need to provide consensus on that recommendation. I'll pause here and see if there are any questions or discussion on that.

MR. CIMINO: Question, if I may, as a Board member. I will just reiterate, since not everyone is on that Board, my support for that. Part of the reasoning is, you know benchmarks are so important to revisit all the elements, and hopefully move forward, you know our understanding of the science. My particular concern with striped bass is if, if we got an update on what we are currently doing that talks about, you know the projections for the stock, and then just a few months later we had a different assessment.

I think there could be a great deal of confusion for Board members or the public on what that means for our understanding of the stock. I fully support this notion of, you know peer review is in the spring of March of 2027, that is really not that far away. A lot of preparatory work is going to go into this. There is a continuity run, so we still will have that understanding of looking back at what the old assessment would have told us. I just wanted to add that. Yes, I don't see any objections or hands, so I will assume that there is consensus then that we can move forward. Skipping the 2026 update and moving on with the benchmark in 2027. I'm seeing heads nod, thank you.

DR. DREW: The only other issues we wanted to bring before the Board were just some updates on species that have current assessments ongoing, but did not have a Board meeting this cycle. First, probably most important would be, weakfish, which was scheduled to have the assessment update presented at this winter meeting.

However, we are behind schedule on some of the data preparation and model runs, and we're not able to present at this meeting. But we plan to present at the May meeting, and we plan to still have those runs completed in time to support the ongoing ERP Assessment. The ERP Assessment will have an assessment workshop the first week of March, that is the last in-person workshop for this group, as we proceed to peer review in mid-August of this year.

The M Workgroup, the Natural Mortality Workgroup, is still working to finalize their decision and recommendation on their potential change to the M estimate for the base run of the single-species menhaden model. That will be, again, also completed in time to support the ERP Assessment, so that decision and that change can be peer reviewed as well.

Finally, the Tautaug Assessment Update is scheduled for completion at the end of this year, and we would be done that data process. The tautaug SAS has been quite depleted by some departures and retirement, so we will be reaching out to the Tautaug Board to approve sort of a refreshed SAS.

We will not be doing a full nomination process to completely revise the SAS, but we will be replacing some members and getting Board approval on that front. But we've already put out the call for data, so that we can get this assessment going, and completed at the end of this year to be presented at annual meeting for 2025. That is all the updates that I have, I'm happy to take questions.

CHAIR CIMINO: Questions for Katie on any of those updates? Jay.

DR. JASON McNAMEE: Yes, thanks, Katie. Sorry, tautaug is an update or a benchmark?

DR. DREW: It is an update at this point. We don't have it on the schedule for a benchmark, but I think that is something that the Assessment Science Committee and the Board could discuss going forward, but for this one it's purely an update.

DR. McNAMEE: I don't think maybe right now is the time to talk about, but I think getting a benchmark on. A lot has changed with the tools for assessing stocks, in particular the way tautaug is done now, it's just kind of like a bunch of standalone statistical catch at age models, and now a lot of models are moving away from that particular software, and the spatial aspect of it is something else that can be accommodated now in a benchmark process. I think it would be a big step forward for tautaug, and would be good to get that on the schedule at some point.

CHAIR CIMINO: I'll look to either Bob or Katie, because I apologize for my ignorance, but the process to make that decision on, are we ready, and does that come back to us to make that decision?

DR. DREW: Yes, so I think the process would be, as we go through the assessment update this year we'll consult with the TC and the SAS and talk about, like what progress have we made in terms of, are there any new data sources, are there new modeling approaches that we could use, et cetera. Is a benchmark warranted, and what kind of a timeline are we doing? I'm assuming we cannot just turn around and do it next year, but are we talking like two years, three years, and what else is on the schedule.

The TC can make a recommendation to the Assessment Science Committee, the Assessment Science Committee can then consider that recommendation, along with the other assessments on the schedule over the next couple of years, and recommend a time to add tautaug as a benchmark assessment, which would then come back to the Policy Board for the final approval on that front.

CHAIR CIMINO: Perfect, thank you, I appreciate that. Any other questions or comments on that update?

EXECUTIVE DIRECTOR BEAL: Just not anything to do with what Katie updated, but the SEDAR Steering Committee is meeting right now down in Charleston, maybe, I don't know, down south somewhere, and one of the species they are talking about is cobia. I talked with a couple of you offline about this.

The lead analyst that was going to do the cobia work left NOAA Fisheries, and now they are in a hiring freeze, so there is a hiccup in the cobia assessment again. It appears there are two options that are available. One is a 2026 update to the BAM Model, which would be essentially a turn of the crank, but it wouldn't allow for consideration of some of the new tagging information, and some of the new data streams that are available potentially for cobia.

The other option would be a full benchmark assessment, but that would not be done until 2028. You know the Cobia Board right now, the projections that are used to manage cobia are based on assessments from, five years ago maybe Katie, "ish", so they are pretty old. It appears we're not going to have great scientific advice for short term cobia management decisions.

But what I've asked Pat Campfield, who is down at the SEDAR Steering Committee to ask for, is can we get both rather than either/or? Can we have both 2026 BAM update and a benchmark in 2028? I don't know if there is capacity to do that through the SEDAR process, but we'll see. No decisions today, or no final news for the Board today.

We'll monitor that, see where the SEDAR Steering Committee ends up. The South Atlantic Council will have a SEDAR meeting at their meeting that first week of March, and they'll review what comes out of this Steering Committee meeting. More to follow, I just want to let folks know that cobia assessment work is still in limbo at best, so we'll see.

CHAIR CIMINO: Well, I have a comment on that, I don't know if any others do. We've been in some tough spots before, but for those of us that are involved in cobia management, what we're looking at is kind of petrifying. We're looking at maybe a decade out. I think maybe that update, the last assessment might have had a terminal year like 2018.

We might not get a new assessment until after 2028. I think there is potential for that, especially if this is a completely recreational driven species, and we know that we're going to be seeing another MRIP recalibration. I personally don't know what value there would be to update it before that. It's going to be very challenging, and we're going to have to get creative and possibly pretty conservative on how we handle that species for the next couple years. Any other comments on cobia? Jay.

DR. McNAMEE: Yes, I share your concern, and it is a pretty high-profile species on top of it. Just two things. I think the reliance on a turn of the crank of BAM. If my memory serves me, we shouldn't be like super optimistic about that. I think there were troubling signals, in the last time, and that sort of propagates into, and then we're relying on projections from the model.

I like the idea even like coupling it directly, in the benchmark and update, if they can get somebody onboard. I support that. Then I think we maybe talked about this before, but we may want to think about a contingency, and have some like data limited approaches run to patch us through as well.

You know it's a lot to think about there, but if those tend to be not as, you know they can be difficult to run, but the idea is its data limited. There are simpler approaches. It might be valuable to have that in our back pocket, depending on what plays out here.

CHAIR CIMINO: I appreciate that. You know we have had a chance to at least have some of these discussions. Although, as Bob pointed out, we may get an update soon on what the potential is. Going past that, I think, yes. I think there may be a standing order as a task to see what can be done to provide, you know information and guidance on management. I think once we get past what information Pat could give us, then I think that would be kind of a standing order for that group on what management advice could be provided.

I think we've had that discussion at the Pelagics Board before. Not seeing any other hands, then thank you, Katie. I think you're good. The next item up is Review of Noncompliance Findings. Fortunately, there aren't any, which also means no need for a Business Session following up after this. I will ask this Board, is there any other business to come before the Board? Oh right, right, sorry. I guess we're going to go to Dan for his action.

MR. McKIERNAN: Cheri mentioned earlier at our Executive Committee meeting how a bunch of the states in the New England Area, Rhode Island to Maine, got together Monday night to talk about the challenges that came about over the last month, when the infamous Addendum XXVII of the American Lobster Plan, which was passed in May of 2023 and then delayed twice, to accommodate the challenges that the industry had.

At the eleventh hour it got basically scuttled, because Maine announced, well, actually Commissioner Keliher announced at a public hearing that he was going to withdraw the most significant rule, which was the minimum size increase. Then New Hampshire governor jumped onboard and said

that her state wouldn't follow it, and that kind of left the third state in Area 1, mine, that already had regulations that were fully enacted.

We're going to have to go in and repeal those regulations. Going forward, based on the proceedings of what occurred yesterday, which was the Board voting to initiate a new Addendum to replace certain aspects, essentially, withdrawing that which Maine and New Hampshire decided together that they wanted to pull back on.

I have a motion that I would like this Policy Board to approve, to request staff to write a letter to those two states, and cc the respective governors. It would be a combination of sort of an information, criticism and pleasures of support to proceed with some form of lobster management going forward.

But kind of put the onus on those two states, to lead the way on developing those proposals, because I'm fearful and others are fearful, that if we go through this kind of a process again and it becomes so political, even after states have enacted the regulations. It's really an unacceptable process.

It was impressive to see the level of energy, I'm being euphemistic, the level of energy displayed at some of the Maine public hearings, and the unfortunate disrespect toward Commissioner Keliher. But I really think the onus is on those industry groups that have kind of risen up and demanded that they face no regulations, or at least not this particular regulation, to replace that with something different.

Many of you remember David Pierce, and I know he used to have really long motions. I didn't mean to make it so long, but the motion essentially is the top paragraph, and then the five bullets are just some details that I would ask as part of this motion, to have the staff incorporate into the letter. I know there has been some initial conversations among the folks who are on the Lobster Board about some minor changes. Shall I read the motion?

MS. CAITLIN STARKS: Before you read the motion, Dan, I think this doesn't reflect the final motion you wanted to make, so I can change the text before you read it, if you would like, to what you sent me.

MR. McKIERNAN: Please, do. Joe, do you want to take any questions from the larger group, while she's working on that?

CHAIR CIMINO: Yes, or comments or discussions from those that were on the Lobster Board, because the impacts and ramifications of this go well beyond lobster. This is a very difficult decision. You know we were moving forward with, I think, not just proactive management, but I think doing so in a way that really may need to be part of our future management, and that is, vetting these issues through a public comment process, through our process, and then saying, we're doing this through a set of triggers, and you all know what will happen if those triggers are hit. It's an ability to act more quickly, which is something that we've all discussed that was part of our Climate Scenario Planning, and how do we handle issues? Here we are, backing away from something. I'm not going to just open questions up and say, for Dan. I would open the discussion up to the floor.

It wouldn't' be fair to just say that Dan will have to answer questions, but if there are questions, you know we'll all do our best to answer them. Comments or questions on this motion? I had a feeling. I'll start with David and then Doug, then there was another hand. We'll go with David and Doug first.

DAVID V. BORDEN: Really brief comment. The comment and concern that I heard from a lot of Commissioners after that discussion, was the need for us to set a deadline, include a deadline. My suggestion is, I don't think it needs to be folded into the motion, but I think an appropriate deadline is by the annual meeting that these reports and actions would take place.

It sets some bounds on how long the discussions can go in these other jurisdictions. There are other ways we can address this, and if we're going to utilize some of those other methodologies, I think we need to know sooner rather than later.

EXECUTIVE DIRECTOR BEAL: Yes, David, you know it is up to the Policy Board regarding timelines. I think one of the difficulties for Maine might be that the benchmark assessment is not coming out until the annual meeting. They may get some new information at that meeting that their industry may want to consider, as they're coming up with options to move forward.

I think Mr. Keliher indicated he would give an update at each quarterly meeting moving forward, and we get a check in, in May, and see where things are. If the Lobster Board feels things aren't moving fast enough, maybe that is a good time to chime in with something to move it along.

CHAIR CIMINO: Follow up, Dave?

MR. BORDEN: It would be perfectly acceptable to me to make that deadline in the winter meeting, but we need a deadline in this. We need to set some bounds on this, so that we get some action. We've given the industry the opportunity to put together the alternative and bring back alternatives that allay some of their concerns. If they haven't done it, then we have to figure out how to handle this and do what is correct for the resource.

CHAIR CIMINO: I had a few hands up and I'm going to go to them before I look for a possible motion. My intent was that I felt we could, as we have many times, have the Policy Board move a letter forward through consent. But if there is an intent to change this motion, then we'll need a motion here. But before I look for that, I have several hands that I saw. I'm going to go to Doug, and then Matt, and then Jeff Kaelin.

MR. DOUGLAS E. GROUT: I just wanted to make the Policy Board, and those that weren't involved with this aware that we in New Hampshire are fully supportive of this motion, and want to go back to the industry, since we were put in the position where we had already implemented the rules, and now are going to have to remove them. We recognize there is an issue. We tried to be proactive with this type of management. But now we're going to go back and have a discussion with the industry, as is Maine, which is really the elephant in this room, to see if there are other ways that we can accomplish the same goals. I just want you all to know that we're fully supportive, and we will move as fast as possible with this, because we recognize that we do have a declining stock right now. We want to put something in place so that there will be a soft landing.

CHAIR CIMINO: Matt.

MR. MATTHEW GATES: I have a question for Dan, actually. I understand putting the onus on Maine and New Hampshire Industry to come up with a solution. But I just wanted to ensure that the industry in Massachusetts, that something doesn't come up out of that discussion that is not acceptable in Massachusetts, and then we have another situation to deal with down the road. Obviously, it ought to be Industry from all three states to work together on this.

MR. McKIERNAN: Fair point, but we've had so many experiences where negotiations are happening at a table, like this Board, for the Large Whale Take Reduction Team, and people go home and get ready to enact rules or enact rules, and one state just simply deviates from that. I guess out of my frustration, I kind of wanted to put some of the industry groups and even the folks at highest levels of state government in those states.

Please, if you're going to have opposition tell us before a process like this gets dragged out so far. I mean it's ridiculous. My theme, and I said it yesterday is, you broke it you own it. I do want to make sure my industry is involved in those conversations, but I don't want anybody to even perceive that, well especially in Maine, that well the Massachusetts fishermen wanted this, so we don't' want it. I want them to originate that and then bring it forward.

CHAIR CIMINO: Matt, I appreciate that. I looked at this as the idea behind this letter is just, it's the starting point before we go through a whole new process of, what is the baseline that we can work with for a stock that needs a new direction. There are

quite a few hands still, so I'm going to go to Jeff Kaelin and then Megan Ware online.

MR. JEFF KAELIN: I didn't have my hand up, but I did have a question yesterday about Bullet 3, and I had a chance to talk to Dan a little bit about it. The thing that makes me uncomfortable about this language that says that Maine, I guess all those bullet points with New Hampshire would be added, of course.

You know that Maine would sit down, New Hampshire would sit down with their industry and come up with a solution to become compliant with this Addendum. That to me is the priority. It muddies the water, I think, to basically say that Maine and New Hampshire also need to start talking to the Canadian Government about mutually agreeable conservation strategies.

I said yesterday, I dealt with the Canadians for decades in my past life in the sardine business and salmon farming business. They are good people, but it's all about Canada up there, and I don't like the language in Bullet 3 that seems to indicate we would wait around for Canada to come up with a mutually agreeable solution to our states being compliant with the Addendum. I don't know how to fix that, but that was my concern yesterday.

MR. McKIERNAN: Jeff, great point, and let me just say that what I was hoping to accomplish there is that the conversations would begin with Canada well in advance of us ever seeing a proposed Addendum. What we heard in Canada, I'm sorry, it's close to Canada, Bar Harbor, with a lot of Canadians.

Some of the Canadians kind of took offense to the fact that we kind of went up to Canada and asked them if they would consider gauge increases in the LFA, the fishing areas adjacent to Maine and the Gulf of Maine, that we went up there after we had done it. Do you know what I mean? I want to say it was a level of respect that they were looking for. I'm suggesting that, like for example, if we were to go to a 32nd inch increases instead of 1/16th.

If we talked to Canada in advance maybe they would embrace that. I don't mean all of Canada, but some of these LFAs that are seeing the same declines as Maine, New Hampshire and Mass have seen over the last couple years. That is really the thought is to try to bring them in early, but not make it a situation where if they didn't agree then we wouldn't proceed.

MR. KAELIN: When we talked offline this morning you made that clear to me, but this is an American lobster fishery, we're an American Organization, and if they didn't realize that we were going down this road months ago, then somebody up there wasn't paying attention, likely. You can tell I'm not very sanguine with the Canadian attitude to American fishing. I'll let you artfully draft a letter. I've made my reservations clear.

MR. McKIERNAN: Jeff, if I could. I'm just reacting to these press accounts that I'm seeing coming out of the states of Maine and New Hampshire. They keep referencing different rules across the Border. I'm just trying to sort of pay respect to that by having those conversations started.

MR. KAELIN: Like I said yesterday, we were in the same situation 1982, and we went ahead and changed the damn gauge size, and they ended up buying our lobsters. That is where we are today, I think too, so anyway, thank you.

CHAIR CIMINO: Thanks, Jeff, I do appreciate that concern. You know I think part of this is that the idea behind this is just to start a discussion. Not that we will not take action until this is lockstep action. I hope that helps a little.

MR. KAELIN: I appreciate that, it does. Thank you very much for letting me vent a little bit again.

CHAIR CIMINO: We have a few more hands and then I will ask if we're looking for an amendment or substitution. I'm going to go to Megan Ware, and then Mike Luisi and then Cheri. Megan.

MS. MEGAN WARE: I just wanted to express Maine's full support for this motion, and agree with the comments that I think the two states are in support of receiving this letter. Understand the desire for

some clarity on the timeline. I think what I might propose or what I think would be helpful for Maine is, for us to be able to come to the May meeting with a bit of a strategy.

We haven't had a chance yet internally to talk about how we want to navigate with the zone councils, the Lobster Advisory Council, our DMR Advisory Council. There are a lot of different bodies at play here in Maine. I think I personally would find it helpful to have a moment to kind of effectively strategize how we want to engage those groups, when, and bring that to the Board in May.

If the Board is not satisfied with the timeline we've put forward, then we'll take that feedback and try and make the changes as necessary. But I do understand why folks don't want this dragging on forever. I certainly don't want this dragging on forever, but I think it's about trying to plan and be efficient as we can. That would be my suggestion.

CHAIR CIMINO: Thank you, Megan, I appreciate that. Yes, I think moving forward, as much input that can happen and get to the full Lobster Board and then eventually Policy Board is important. I don't think we need to take any action on that suggestion, but I think I'll look to see if there is any concern with that. If not, I think that is a great idea on how to move forward. Not seeing any, so again, I'm going to go to Mike Luisi and then Cheri.

MR. MICHAEL LUISI: I'll be quick and brief on this, I just wanted to put my thoughts out there on the record. I supported this moving forward yesterday. But I did want to express how concerned and how uncomfortable I was just making that decision. I feel like we are tiptoeing on a razors edge when it comes to what compliance with ASMFC is, when we're dealing with this.

I realize there are extenuating circumstances here, we're dealing with another country. We have internal issues within the industry that need to be resolved. But if what transpired over the last few weeks with the letter writing from the governors of Maine and New Hampshire to the Commission. If that wasn't noncompliance, I don't know what is noncompliance. My concern as a commissioner and as an Administrative Commissioner in taking the steps that we're taking now.

I feel like we'll be challenged even more by our stakeholders, in every decision that's made, as to whether or not we should have our governor write a letter to buy us time, or to extend the seven, I think it was seven or eight years this Addendum was being worked on. To get to the last second and just say no, it really bothers me.

I hope, and I think that with quick expedited handling of this situation, to the point where something occurs, there is an action taken soon, will be much better than if this drags on for another couple years. I come from a state that is politically charged. We have very passionate fishermen, and this, to me, kind of cracks-the-door open a little bit for those questions and concerns about why and when and how we follow this guidance of ASMFC in moving forward in the actions that we take. Just wanted to put that out there, Mr. Chairman, but I plan to support this moving forward.

CHAIR CIMINO: You spent a long time as Council Chair, so I think you understand my position here, which is it's an uncomfortable conversation, but what you said is, I think, 100 percent true, and very important for every member of this Board to understand that. If, again, because plenty of states aren't on the Lobster Board to understand what went into this decision.

But we have states that have gone so far as to enact these regulations, to protect the stock that we have concerns about, and then to be in this position. It is, I agree, a precarious place to be. I hope everyone appreciates that. I'll go to Cheri.

MS. CHERI PATTERSON: Mike, I agree completely with your thoughts. Right now, New Hampshire is in compliance. We won't be out of compliance until July 1st, as well as Maine, in regards to the gauge. We do have it on our books, we went through rulemaking processes that we always do, and then found out that that decision was reversed outside

our ability or outside of our knowledge, until a letter came out.

I am with Megan; I completely assure this body that I will be addressing this with our lobster industry as soon as possible. I didn't want to see this linger anymore than anybody else. Again, I think that this is a tenuous spot to put ASMFC in. I admire this group of people, and I admire how the Commission operates. I'm sorry that we're at this level, at this juncture, and that as the Administrative Commissioner for New Hampshire, I intend to move as quickly as possible to resolve this issue.

CHAIR CIMINO: Thank you very much for those comments, Cheri. I am going to ask, do we have a need to kind of I guess adjust what is in this motion, or are we at this point comfortable with this motion, and if so. I think if everyone is comfortable, then by consent. I'll look for a hand for any objections, if not then we'll move this letter forward.

There is a clock ticking, and our intent is to keep this at the forefront and moving forward. **I don't see any hands in objection, so in that case, by consent we'll move this letter forward to Maine and New Hampshire**, and I appreciate all that very much. We do have one other item of business, and I'm going to turn to Chelsea to discuss the Control Date for the upcoming Mid-Atlantic Fishery Management Council.

MS. CHELSEA TUOHY: I just have a quick update on some Mid-Atlantic Council happenings. Back in December, the Council and Policy Board approved the Draft Scoping Document for the Recreational Sector Separation and Data Collection Amendment for Summer Flounder, Scup, Black Sea Bass and Bluefish.

During that discussion some Council members questioned if the Council should ask the National Marine Fishery Service to publish control dates for the recreational for-hire fisheries covered by this Amendment. This is an optional step that the Council can take to limit speculative behavior in these fisheries, if they believe that for-hire limited access options may need to be explored through this current Amendment, or through future action. At their upcoming meeting next week, the Council is going to consider requesting that the National Marine Fishery Service establish control dates for the recreational for-hire sectors. That meeting is on February 11 from 11:00 to 11:30 a.m. It is entirely virtual. If this motion goes forward at the Council, the control date does not commit the Council to development of a particular action to implement the control date.

There is a memo in the Council's meeting material that explains more for folks that are interested. This is not a joint meeting between the Policy Board and the Council, but we have been notified that Policy Board members will be given priority to ask questions during that meeting.

Then the last update from Tracey and I is that last week we sent around a survey to the Administrative Commissioners about the for-hire permits for these four species in your state, and just to help us get a better understanding about what the possible impacts of federal control dates could be on Commission states. If you haven't filled that out yet, please fill that out, you know within the next week or so, and we can move forward from there. Happy to take any questions if there are any.

CHAIR CIMINO: Yes, thank you, and thank you and Tracey for all the work you've done on this, and for putting out that survey. I think that is a great idea and very helpful. I fully admit, I didn't fill it out yet. Are there any questions for Chelsea, or any comments on this notion? Jeff.

MR. KAELIN: Chelsea, the actual control date doesn't end up being next week, it ends up being when the action is published in the Federal Register, which could be after the cows come home right now, given the state of politics in America right now. Is that right? Once it is published then that is the date, correct?

MS. TUOHY: Yes, correct, the control date is usually the date of the Federal Register notice and there will be, if it's published, a public comment period on that. But the Council doesn't have to, I guess, use that. If

they want to take action in the future they don't have to use that date of the Federal Register notice, they could use a different date.

MR. KAELIN: Okay, thank you for clarifying that.

CHAIR CIMINO: I think this is going to be a discussion on what may be an appropriate date, and I'm not going to try to put Mike Ruccio on the spot. I thought that it is even possible to set a control date that is in the past. But with the discussion and of course the validity of that control date happens when it goes through the Federal Register. Go ahead, Mike, thank you.

MR. MICHAEL RUCCIO: Testing my historic knowledge on control dates here. No, I think that is fair, both can be true. If the Council's will is to select a date from some time past the rationale will need to support that. If there isn't, then typically it is the date of publication, and then as has been discussed here.

As the process moves forward, if the Council in its deliberations decides that a different date is what they want to use. Again, their rationale will support it and they can either go through formal reaffirmation of another control date, establish a new control date or none of those options. It really kind of depends, but the control date function largely is a, you know lay down a marker, line in the sand, from this date we may treat history differently. That is really the extent of it. But we continue to be under a regulatory freeze.

We are seeing some movement. I think we can now publish meeting notices for Councils. We're hopeful that in-seasons will be something that we can publish soon. This usually kind of follows in a process as we gain more politicals. I saw earlier that it looks like Secretary Lutnick has been confirmed, so that is a good thing, and that might help even advance some of our rulemaking capabilities.

CHAIR CIMINO: Great, thank you very much, Mike, I appreciate that. Sorry to put you on the spot there, but I think that is helpful. I will say for the hundredth time, I think that what we have been trying to do with flounder and sea bass is kind of on the forefront of fisheries management, and have been for years.

Going through this process is part of that, and so we have to have folks paying attention that because of sector separation, the idea that this control date could be important. I think at least a discussion on that, which is what is going to be happening, is a good thing. I don't believe we have any other items before us.

ADJOURNMENT

CHAIR CIMINO: But before I look for a motion to adjourn, I just want to thank staff, I don't think I do that enough. I certainly try to, but I want to thank staff for all the work that was done. I think this was a very positive meeting. I'm glad everyone that is here was able to make it, and I want to wish everyone safe travels home. With that I'll look for a motion to adjourn. I see Malcolm Rhodes, a second by Doug Grout. With that we are adjourned, thank you everyone, take care.

(Whereupon the meeting adjourned at 11:20 a.m. on Wednesday, February 5, 2025)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **ISFMP Policy Board**

FROM: **Toni Kerns, Fisheries Policy Director**

DATE: **April 7, 2025**

SUBJECT: **Direction on sections of the Conservation Equivalency: Policy and Technical Guidance Document**

The ISFMP Policy Board approved revisions to the Conservation Equivalency: Policy and Technical Guidance Document to reflect current application of conservation equivalency (CE) in Commission fishery management plans (FMPs) and provide new guidance on the use of CE, including stock status in October 2023. Clarification and guidance are needed on some of the new directives in the Policy and Technical Guidance Document.

Stock Status Determination

One of the new directives is to not allow the use of Conservation Equivalency if a stock is overfished or depleted, unless allowed by a 2/3 majority vote of the species management board. Based on the discussions during the October 2023 Policy Board meeting[1], the intention is to have the species board review the use of conservation equivalency after each stock assessment. The language in the Policy and Technical Guidance Document is not consistently applied to each assessment. In the *general guidance section* it does not reference "each" assessment while in the *stock status section* it is specific to each assessment. **Staff is seeking confirmation it was the intention to review the use of conservation equivalency after each stock assessment (update or benchmark).**

In addition, the discussion was silent on, if after the stock assessment the stock status has not changed, should a review of conservation equivalency take place. The discussion focused on the review occurring after each assessment. Staff recommends a review occurs, regardless of status change since a Board has the ability to consider other factors besides stock status in allowing the use of conservation equivalency. The review will allow for those other factors be considered each time an assessment occurs instead locking in the ability to use or not use conservation equivalency until the stock status changes. **Staff is seeking clarification if conservation equivalency use should be considered regardless if stock status has changed or not in the most recent stock assessment.**

Fishery Management Plans with Conservation Equivalency Restrictions

An FMP could have conservation equivalency restrictions outside of or similar to those in the Policy and Technical Guidance Document. Staff is seeking clarity in how to apply the rules of the FMP and the Policy

[1] October 2023 Policy Board Proceedings Pages 3-19

and Technical Guidance Document together, particularly if the FMP has stock conditions which apply to conservation equivalency but may not include all the details of Policy and Technical Guidance Document. For example, the Striped Bass FMP does not allow the use of conservation equivalency in non-quota managed fisheries [2] if the stock is overfished. The FMP does allow the use of conservation equivalency for quota managed fisheries. It is not clear to staff if the use of conservation equivalency in the quota managed fisheries should be evaluated after each stock assessment per the Policy and Technical Guidance Document or do the measures of the FMP negate that specific directive**. Staff recommends if an FMP contains conservation equivalency measures, it would include direction on the specifics of the Policy and Technical Guidance Document.** For example, if it is the intention of the Board to not evaluate the use of conservation equivalency after each stock assessment because of the FMP's specific conservation equivalency requirements, then the FMP would clearly state what aspects of the Policy and Technical Guidance Document will not apply.

Process To Evaluate Conservation Equivalency

Staff recommends the Policy Board consider adding a new section to the Policy and Technical Guidance Document to clarify the process to evaluate the use of conservation equivalency after a stock assessment. With the addition of the stock status guidance in the Policy and Technical Guidance Document, the information, timing and steps a species board will need to determine if the use of conservation equivalency will be allowed is not clear. A process will ensure the reviews are done consistently and provide the species boards with the necessary information to make an informed decision. It will also set up the needed follow up steps if necessary. Draft text is suggested in the Draft Revisions to the Policy and Technical Guidance Document for Policy Board Review May 2025.

The Policy Board discussion indicated states would need to change existing conservation programs if conservation equivalency is no longer allowed. This would mean it would apply to future actions of the board and existing conservation equivalency programs. If this is the intention of the Policy Board, the proposed language in the *process to evaluate the use of conservation equivalency after a stock assessment* section should be considered, in addition to the revision on page 3 of the draft.

[2] With the exception of the Hudson River, Delaware River, and Delaware Bay recreational fisheries (page 57-59 of Amendment 7)

Draft Revisions for Policy Board Review May 2025

Proposed Draft Revisions

Atlantic States Marine Fisheries Commission

CONSERVATION EQUIVALENCY:

Policy and Technical Guidance Document

Draft Revisions for Policy Board Review May 2025

First Edition Approved May 2004
Revised and Approved October 2016
Revised and Approved October 2023

Draft Revisions for Policy Board Review May 2025

Introduction

The purpose of this document is to provide policy and technical guidance on the application of conservation equivalency in interstate fisheries management programs developed by the Atlantic States Marine Fisheries Commission. The document provides specific guidance on development, submission, review and approval of conservation equivalency proposals.

Background

The Atlantic States Marine Fisheries Commission (Commission) employs the concept of conservation equivalency[1] in a number of interstate fishery management programs. Conservation equivalency allows states/jurisdictions (hereafter states) flexibility to develop alternative regulations that address specific state or regional differences while still achieving the goals and objectives of Interstate Fishery Management Plans (FMPs). Allowing states to tailor their management programs in this way avoids the difficult task of developing one-size-fits-all management measures while still achieving equivalent conservation benefits to the resource.

Conservation equivalency is defined in the Interstate Fisheries Management Program (ISFMP) Charter as:

> *"Actions taken by a state which differ from the specific requirements of the FMP, but which achieve the same quantified level of conservation for the resource under management. One example can be, various combinations of size limits, gear restrictions, and season length can be demonstrated to achieve the same targeted level of fishing mortality. The appropriate Management Board/Section will determine conservation equivalency." The application of conservation equivalency is described in the document Conservation Equivalency Policy and Technical Guidance Document*

In practice, the Commission frequently uses the term "conservation equivalency" in different ways depending on the language included in the FMP. Due to concerns over the lack of guidance on the use of conservation equivalency and the lack of consistency between fishery management programs, the ISFMP Policy Board (Policy Board) approved a policy guidance document on conservation equivalency in 2004. In 2016 and 2023, the Policy Board recognized some of the practices of the Commission

[1] At the time of approval of this policy, the Summer Flounder, Scup and Black Sea Bass FMP includes conservation equivalency provisions that allow the Board and MAFMC set state specific/regional recreational measures in leu of a coastwide measure. This application of conservation equivalency is different than the conservation equivalency described in this document and the guidelines in this document do not apply to that specific application of conservation equivalency in the Summer Flounder, Scup and Black Sea Bass FMP.

regarding conservation equivalency had changed and revised the guidance. The Policy Board is considering revisions to the guidance to better clarify the revisions from 2023.

General Policy Guidance

The use of conservation equivalency is an integral part of the Commission management process that allows the use of alternative management programs from FMP standards.

During the development of a management document the Plan Development Team (PDT) should recommend if conservation equivalency should not be permitted for that species action. The default is that any management measure is subject to conservation equivalency unless otherwise specified in the FMP. The Management B~~b~~oard (board) will provide a specific determination if conservation equivalency is not allowed for the measure approved in the fishery management document, since conservation equivalency may not be appropriate or necessary for all management actions. During the approval of a management document the board will make the final decision on the exclusion of conservation equivalency.

States have the responsibility of developing conservation equivalency proposals for submission to the Board Chair (see standards detailed below) and the Plan Review Team (PRT) will serve as the "clearing house" for review of conservation equivalency proposals. Upon receiving a conservation equivalency proposal, the PRT will initiate a formal review process as detailed in this guidance document. The PRT will collect all necessary input from the appropriate committee (e.g., the technical committee, Law Enforcement Committee, Committee on Economics and Social Sciences and the Advisory Panel). The state submitting the proposal has the obligation to ensure proposed measures are enforceable. The PRT will compile input and forward a report to the Board, and the Board will make the final determination on approval of the proposed program.

Upon approval of a conservation equivalency proposal, the implementation of the program becomes a compliance requirement for the state. Each of the approved programs will be described and evaluated in the annual compliance review and included in annual FMP Reviews, unless different timing is approved by the board.

~~Management boards should place a limit on the length of time that a conservation equivalency program can remain in place without re-approval by the board.~~ The board will evaluate conservation equivalency programs after each stock assessment. ~~s if the stock status has changed.~~ Some approved management programs may require additional data to evaluate effects of the management measures. The burden of collecting the data falls on the state that has implemented such a conservation equivalency program. Approval of a conservation equivalency program may be

Commented [TK1]: Based on the Board discussion in 2023 this should have been deleted.

Commented [TK2]: Based on the 2023 discussion after each assessment the Board should determine if the use of CE has changed regardless of stock status. The Board discussion focused on each assessment and did not discuss state changing.

terminated if the state is not completing the necessary monitoring to evaluate the effects of the program.

Conservation equivalency proposals and board approval are not required when states adopt a single more restrictive measure than those required in the FMP (e.g., higher minimum size, lower bag limit, lower quota, lower trip limit, closed or shorter seasons), as long as it does not have impacts to another measure (e.g., in striped bass changing the size limit in the commercial fishery can also trigger a quota adjustment). These changes to the management program will be included in a state's annual compliance report or state implementation plan. If states intend to change more than one regulation where one is more restrictive but the other is less restrictive, even if the combined impact is more restrictive, states must submit a conservation equivalency proposal for Board approval. ~~due to unexpected consequences that may arise (e.g., a larger minimum size limit could increase discards).~~

When Conservation Equivalency will not be Permitted

Stock Status Conditions

The board will consider if a change in the use of conservation equivalency is necessary after each stock assessment. ~~where,~~ Conservation Equivalency is not permitted if the stock is overfished or depleted, unless allowed by a board via a 2/3 majority vote (the rules on voting in Article II. Section 1 of the Rules and Regulations apply). If the board determines conservation equivalency is not permitted, it will apply to future actions of the board and existing conservation equivalency programs. The board can determine if conservation equivalency is not permitted across the entire FMP or for a specific sector of the fishery within the FMP, (e.g., commercial measures or recreational measures).

Commented [TK3]: Confirming it was the Board's intention for this to be after each assessment, **regardless if stock status has changed or not**

Commented [TK4]: Should this be revised because the Board does need to evaluate the current CE programs if the ability to use CE changes. See new text at the end of the document

There were specific comments on the record that a decision to restrict **would** apply to currently existing CE programs

Measures that cannot be Quantified

Only measures that have a quantifiable impact on achieving the FMP standards will be considered when calculating and approving conservation equivalency proposals. Measures that can't be quantified can be implemented as a buffer but will not be considered in conservation equivalency calculation credit. The state submitting a proposed measure for credit must be able to demonstrate, to the satisfaction of the TC, the measure has a measurable impact on the removals or management target the action is intended to achieve. The TC will provide feedback to the board if a measure is quantifiable or non-quantifiable. Non-quantifiable measures could include[2] circle hooks, non-targeting zones/period, no gaffing, outreach promoting best practices for release, and other measures expected to reduce release mortality or overall discards.

Combining Coastwide and Conservation Equivalency

[2] These are a few examples of non-quantifiable measures at the time of approval of this document. Methods to demonstrate it is quantifiable may be developed in the future that would change the status of a tool.

Draft Revisions for Policy Board Review May 2025

Coastwide measures are intended to achieve a specific result when all states implement the measures. However, at the state level the impact on removals or other metric may be different, therefore, if a state proposes conservation equivalency, that conservation equivalency proposal must demonstrate equivalency with the state level impact of the coastwide measure, if the coastwide measure were implemented in that state. For example, a coastwide measure may be projected to achieve a 10% coastwide reduction. However, in a particular state, the coastwide measure may be projected to achieve a 15% reduction in that state alone. If that state wants to propose a conservation equivalency program, that conservation equivalency program must demonstrate a 15% reduction, not a 10% reduction.

Standards for state conservation equivalency proposals

The state seeking conservation equivalency has the burden of proving its proposed measure provides at least as much conservation as the FMP standard. Each state seeking to implement a conservation equivalency program must submit a proposal to the Board Chair for board review and approval. Proposals will keep the number of options to a reasonable limit; those proposals that include an excessive number of options may delay timely review by the PRT and other groups and may ultimately delay the report to the board. Boards may set a cap on the number of options submitted.

State conservation equivalency proposals will contain the following information:

1. Rationale: Why or how an alternate management program is needed in the state. Rationale may include, but are not limited to, socio-economic grounds, fish distribution considerations, size of fish in state waters, interactions with other fisheries, protected resource issues and enforcement efficiency.

2. Description of how the alternative management program meets all relevant FMP objectives and management measures (FMP standards, targets, and reference points). States are responsible for supplying adequate detail and analysis to confirm conservation equivalency based on the most recent stock assessment.

3. A description of:
    - Available datasets used in the analysis and data collection method, including sample size and coefficient of variation, explicitly state any assumptions used for each data set.
    - Limitations of data and any data aggregation or pooling.
        - If data allows, the TC should establish minimum standards for the types and quality of data that can be used in a proposal. Examples include, but should not be limited to: minimum sample size, amount of imputed/borrowed data points, limit on PSE, types of data allowed and minimum number of years, survey design, data caveats and analytical assumptions, and consider previous conservation

equivalency proposals and build on their strengths (e.g., length of closed season). Some states may not be able to participate in conservation equivalency because their data will not meet the standards established by the TC. The TC may suggest the state consider alternative criteria, or multi-state alternatives, such as submitting a joint proposal with neighboring states. It remains the states responsibility to draft the proposal it seeks to advance to the board.

- When evaluating closed periods, availability will be considered (even within a month, availability can be very different, particularly when comparing the beginning and end). Any closed period must include at least two consecutive weekend periods (Friday, Saturday and Sunday). Pooling of several years' worth of data should be encouraged for evaluation.

4. Each proposal must justify any deviations from the conservation equivalency procedures detailed in this document. The state should conduct analyses to compare new procedures to procedures included in the plan, as appropriate, including corroborative information where available.

5. Include a plan describing the monitoring schedule, reporting requirements and documentation process of evaluating the impacts of the conservation equivalency measures.

Review Process

The following is a list of the steps and timelines for review and approval of conservation equivalency proposals.

1. Conservation equivalency will be approved by the board and where possible implemented at the beginning of the fishing year.

2. If a state is submitting a proposal outside of an implementation plan process, it will provide the proposal at least two months in advance of the next board meeting to allow committees sufficient time to review the proposal and to allow states to respond to any requests for additional data or analyses. States may submit conservation equivalency proposals less than two months in advance of the next board meeting, but the review and approval at the upcoming board meeting is at the discretion of the Board Chair (the Chair will consult with the appropriate committee if necessary). Proposals submitted less than two weeks before a meeting will not be considered for approval at that meeting.

3. The Board Chair will submit the proposal to the Plan Review Team (PRT) for review. The PRT will notify the state if the proposal is missing required components.

4. Upon receipt of the proposal, the PRT will determine what additional committee input will be needed: the Technical Committee (TC), Law Enforcement Committee (LEC), or Committee on Economic and Social Sciences (CESS). The PRT will distribute the proposal to all necessary committees for comment. The review should include a description of the impacts on or from adjoining jurisdictions or other management entities (Councils and/or NMFS). If possible, this description should include qualitative descriptions addressing enforcement, socio-economic issues and expectations from other states' perspective (e.g., shifts in effort). The review should highlight efforts to make regulations consistent across waterbodies.

5. The PRT will compile all of the input and forward the proposal and comments to the Advisory Panel (AP) when possible. However, when there are time limitations, the AP may be asked for comments on a proposal prior to completion of other committee reviews. The chair of the Advisory Panel (AP) will compile the AP comments and provide a report to the board.

6. The PRT will forward to the board the proposal and all committee reviews, including any minority reports. The PRT will provide comment on whether the proposal is or is not equivalent to the standards within the FMP. If possible, the PRT will identify potential cumulative effects of all conservation equivalency plans under individual FMPs (e.g., impacts on stock parameters).

7. The PRT reviews will address whether a state's proposal followed the conservation equivalency standards outlined in this policy, and any additional specifications included in the FMP.

8. The board will decide whether to approve the conservation equivalency proposal and will set an implementation date, taking into account the requested implementation date in the proposal. Board action should be based on the PRT report as well as other factors such as impacts to adjoining states and federal management programs. Ultimately, the board must determine whether the proposed action provides at least as much conservation as the measure the proposals intends to replace. When a board cannot meet in a timely manner and at the discretion of the board and Commission Chair, a board has the option to have the ISFMP Policy Board approve the conservation equivalency proposal.

Plan Review Following Approval and Implementation

1. Annually thereafter, states will evaluate the performance of the approved conservation equivalency programs in their compliance reports submitted for annual FMP Reviews, unless otherwise specified. The PRT will annually review the conservation equivalency program.

2. The PRT is responsible for evaluating all conservation equivalency programs during annual FMP reviews to determine if the conditions and goals of the FMP are maintained, unless a different timeline was established through board approval. If the state is not completing the necessary monitoring to evaluate their approved conservation equivalency program, this may be grounds for termination of the plan. The PRT will report to the board on the performance of the conservation equivalency program, and can make recommendations to the board if changes are deemed necessary.

Coordination Guidance

The Commission's interstate management program has a number of joint or complementary management programs with NOAA Fisheries and Regional Fishery Management Councils. Conservation equivalency creates additional burden on the Commission to coordinate with our federal fishery management partners. To facilitate cooperation among partners, the Commission should observe the following considerations.

- The Commission's FMPs may include recommendations to NOAA Fisheries for complementary EEZ regulations. Conservation equivalency measures may alter some of the recommendations contained in the FMPs, which would require the Commission notify NOAA Fisheries of any changes. The Commission should consider the length of time that it will take for regulations to be implemented in the EEZ, whether NOAA Fisheries considers federal regulation possible under the National Standards and try to minimize the frequency of requests to the federal government.

- The protocol for NOAA fisheries implementing changes varies for the different species managed by the Commission. The varying protocols need to be considered as conservation equivalency proposals are being developed and reviewed.

- When necessary for complementary management of the stock, the Commission Chair will request federal partners to consider changes to federal regulations.

Post Stock Assessment Evaluation Process

After the presentation of a new stock assessment, staff will remind the Board of the current conservation equivalency status for the FMP. This will include if conservation

Commented [TK5]: This section is to set up a framework of what to do after each assessment but still allow for board flexibility

equivalency is allowed under the FMP, including any sector specific limits/requirements and a list of active conservation equivalency programs. The Board will determine if a change to the conservation equivalency allowance is needed or if additional information is necessary to make a determination. If conservation equivalency is no longer allowed under the FMP, the Board will determine a timeframe for states with existing conservation equivalency programs to adjust regulations back to the standards of the FMP.

Atlantic States Marine Fisheries Commission

Sciaenids Management Board

May 6, 2025
10:15 – 11:45 a.m.

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 *(D. Haymans)*	10:15 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from February 2025	10:15 a.m.
3.	Public Comment	10:20 a.m.
4.	Red Drum Technical Committee Report (*E. Simpson*) **Possible Action** • Recommendations on Benchmark Stock Assessment Follow-up Tasks	10:30 a.m.
5.	Progress Update on Atlantic Croaker Benchmark Stock Assessment (*J. Kipp*)	11:40 a.m.
6.	Other Business/Adjourn	11:45 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.

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEETING OVERVIEW

Sciaenids Management Board
May 6, 2025
10:15 a.m. – 11:45 a.m.

Chair: Doug Haymans (GA) Assumed Chairmanship: 02/24	Technical Committee Chairs: Black Drum: Harry Rickabaugh (MD) Atlantic Croaker: Margaret Finch (SC) Red Drum: Ethan Simpson (VA) Spot: Harry Rickabaugh (MD)	Law Enforcement Committee Representative: Col. Matthew Rogers (VA)
Vice Chair: Ben Dyer (SC)	Advisory Panel Chair: Craig Freeman (VA)	Previous Board Meeting: February 4, 2025
Voting Members: NJ, DE, MD, PRFC, VA, NC, SC, GA, FL, NMFS (10 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2025

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. Red Drum Technical Committee Report (10:30-11:40 a.m.) Possible Action

Background

- The Red Drum Benchmark Stock Assessment and Peer Review Report was approved for management use by the Scianeids Management Board (Board) in October 2024. The benchmark stock assessment indicated the southern stock is overfished and experiencing overfishing, while the northern stock not overfished and not experiencing overfishing.
- To evaluate potential paths forward for red drum management, the Board tasked the Red Drum Technical Committee (TC) with 1) calculating the catch reduction needed for the southern stock to fish at $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$ as well as the projected timeline to reach the threshold and target SSBs under each F scenario; 2) clarifying interpretation of the "Moderate Action" outcome from the traffic light analysis and developing methods for estimating bag and slot size limit regulation change impacts on the northern stock.
- The Red Drum TC prepared a memo addressing the Board's tasks (**Briefing Materials**).

Presentations

- Presentation of Red Drum Technical Committee Report by E. Simpson

Board actions for consideration at this meeting

- Consider initiating an addendum for red drum

5. Progress Update on Atlantic Croaker Benchmark Stock Assessment (11:40-11:45 a.m.)
Background • Work on the Atlantic croaker benchmark stock assessment was initiated in early 2023. A Data Workshop was held virtually May 15-18, 2023. An Assessment Workshop was held virtually September 11-14, 2023. A sub-group of the Stock Assessment Subcommittee met biweekly in 2024 to discuss Atlantic croaker modeling progress.
Presentations • Stock assessment update by J. Kipp

6. Other Business/Adjourn

Sciaenids Management Board

Activity level: High

Committee Overlap Score: Moderate (American Eel TC, Cobia TC, Horseshoe Crab TC, Weakfish TC)

Committee Task List

- Atlantic Croaker and Spot SAS – Conduct Atlantic Croaker and Spot Benchmark Assessments
- Black Drum TC – Update indicators
- Atlantic Croaker TC – Gather data and assist with Atlantic Croaker Benchmark Assessment; Conduct Traffic Light Analysis
- Spot TC – Gather data and assist with Spot Benchmark Assessment; Conduct Traffic Light Analysis
- Atlantic Croaker TC/PRT – July 1: Compliance Reports Due
- Red Drum TC/PRT – July 1: Compliance Reports Due
- Black Drum TC/PRT – August 1: Compliance Reports Due
- Spotted Seatrout PRT – September 1: Compliance Reports Due
- Spot TC/PRT – November 1: Compliance Reports Due

TC Members:

Atlantic Croaker: Margaret Finch (SC, Chair), Tracey Bauer (ASMFC), Stacy VanMorter (NJ), Devon Scott (DE), Harry Rickabaugh (MD), Ingrid Braun (PRFC), Catherine Wilhelm (VA), Willow Patten (NC), Dawn Franco (GA), Halie OFarrell (FL)

Black Drum: Harry Rickabaugh (MD, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Jennifer Pyle (NJ), Jordan Zimmerman (DE), Ethan Simpson (VA), Chris Stewart (NC), Chris McDonough (SC), Ryan Harrell (GA), Rebecca Scott (FL)

Red Drum: Ethan Simpson (VA, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Samara Nehemiah (ASMFC), Alissa Wilson (NJ), Matthew Jargowsky (MD), Cara Kowalchyk (NC, Vice-Chair), Joey Ballenger (SC), Chris Kalinowsky (GA), Sarah Burnsed (FL)

***Spot*:** Harry Rickabaugh (MD, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Samara Nehemiah (ASMFC), Stacy VanMorter (NJ), Devon Scott (DE), Ingrid Braun (PRFC), Catherine Wilhelm (VA), Willow Patten (NC), Michelle Willis (SC), Britney Hall (GA), Halie OFarrell (FL)

Plan Review Team Members:

Atlantic Croaker: Harry Rickabaugh (MD), Ingrid Braun (PRFC), Ethan Simpson (VA), Willow Patten (NC), Chris McDonough (SC), Tracey Bauer (ASMFC)

Black Drum: Jordan Zimmerman (DE), Chris Stewart (NC), Chris McDonough (SC), Tracey Bauer (ASMFC)

Red Drum: Matthew Jargowsky (MD), Ethan Simpson (VA), Cara Kowalchyk (NC), Joey Ballenger (SC), Matt Kenworthy (FL), Tracey Bauer (ASMFC)

Spot**:** Harry Rickabaugh (MD), Ethan Simpson (VA), Chris McDonough (SC), Dawn Franco (GA), Tracey Bauer (ASMFC)

Spotted Seatrout**:** Tracey Bauer (ASMFC), Lucas Pensinger (NC), Brad Floyd (SC), Chris Kalinowsky (GA)

SAS Members:

Red Drum: Joey Ballenger (SC, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Angela Giuliano (MD), CJ Schlick (SC), Jared Flowers (GA), Chris Swanson (FL), Ethan Simpson (VA)

Atlantic Croaker and Spot: Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Samara Nehemiah (ASMFC), Harry Rickabaugh (MD), Brooke Lowman (VA), Trey Mace (MD), Margaret Finch (SC), CJ Schlick (SC)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

SCIAENIDS MANAGEMENT BOARD

The Westin Crystal City
Arlington, Virginia
Hybrid Meeting

February 4, 2025

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

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ATTENDANCE

Board Members

Joe Cimino, NJ (AA)
Jeff Kaelin, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Carrie Kennedy, MD, proxy for Lynn Fegley (AA)
Russ Dize, MD (GA)
Pat Geer, VA, proxy for Jamie Green (AA)
Chris Batsavage, NC, proxy for Kathy Rawls (AA)
Ben Dyar, SC, proxy for Blaik Keppler (AA)
Malcolm Rhodes, SC (GA)
Mel Bell, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Marina Owens, FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Ron Owens, PRFC
Frank Helies, NMFS

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

Ex-Officio Members

Ethan Simpson, Red Drum TC Chair
Joey Ballenger, Red Drum SAS Chair
Col. Matthew Rogers, LEC Representative

Staff

Bob Beal
Tina Berger
Tracey Bauer
Toni Kerns
Madeline Musante
Jeff Kipp

The Sciaenids Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, via hybrid meeting, in-person and webinar; Tuesday, February 4, 2025, and was called to order at 1:30 p.m. by Chair Doug Haymans.

CALL TO ORDER

CHAIR DOUG HAYMANS: I will call to order the February meeting of the Sciaenids Management Board.

APPROVAL OF AGENDA

CHAIR HAYMANS: First of all, we need to take a look at the agenda. Hopefully, you have had a chance to review the agenda. Are there any additions? Seeing none; we'll approve the agenda by consent.

APPROVAL OF PROCEEDINGS

CHAIR HAYMANS: Secondly, we have two sets of proceedings. We had a webinar on October 3, followed by the annual meeting of October 24. Hopefully you've had a chance to read those word for word, and are there any changes to the proceedings? Seeing none; we'll consider those approved by consent.

PUBLIC COMMENT

CHAIR HAYMANS: It is now time for public comment on items not included on the agenda. Is there anyone in that beautiful audience back there that wants to comment? Seeing none.

UPDATE ON BOARD TASKS TO RED DRUM TECHNICAL COMMITTEE

CHAIR HAYMANS: We will continue to move forward, and that gets us to Jeff. Jeff is going to update us on the Technical Committee's reports and actions, and that is as of this past Friday. Let's sit up, pay attention, and listen to Jeff.

MR. JEFF J. KIPP: Just as a refresher, this is the Board Task up on the screen, and some additional guidance sought during the Commission's Annual Meeting back in October of last year. That original task included in the Board motion was, produce the static spawning potential ratio for a range of slot limits between 14 and 27 inches, associated with bag limits ranging from 0 to 5 fish per person, for the southern region and/or South Carolina, Georgia or Florida individually.

There was also some additional guidance requested verbally on the northern stock that included interpretation of the yellow traffic light results, and to determine if there are methods for providing estimates of bag and slot limit regulation change impacts on the northern stock, despite not having a Stock Synthesis model to provide projections.

On the TC's first call to address these tasks, the TC determined that the southern stock task could not be addressed in a reasonable timeframe without a narrower set of management options to consider. If you think back to that task that you showed, a combination of potential size limit changes across 13 inches of spread between minimum and maximum sizes, and six different bag limits resulted in potentially thousands of regulation combinations. The way the task read is that we would go through and determine what catch reductions each of those combinations would produce, and then we would have to run those projected catches through the stock assessment model, to estimate what those catches resulted in spawning potential ratio.

We did talk at the TC about identifying a small set of management options that each state was interested in considering. But the TC indicated that that set of management options could not be brought forth, particularly not knowing how they would impact SPR first. It was a little bit circular in this discussion.

It was also not clear from the motion if the management target identified in the FMP, which is SPR 40% was the goal or alternate SPR levels were acceptable to the Board or the target of the Board. In consultation with the TC, the Board revised the tasking. This came from the Administrative Commissioners from the southern stock states via e-mail.

The task was revised to determine the stock wide catch reduction necessary to achieve the management target of $SPR_{40\%}$, and regulation changes that will achieve the necessary catch reduction. It is sort of the reverse of how the task read initially from the Board. Here we're doing projections of the assessment model, determining the catch reductions needed to achieve the target SPR, and then going to catch reduction analyses with the potential management changes, to determine which of those meets that catch reduction needed.

The TC has met several times since the Board meeting in October. The TC met on November 7 of last year for their initial meeting to address the Board tasks. That is where they developed their request for Board guidance on the tasking, and it was also determined that from that point, despite not having guidance from the Board at that point, we could start working on catch reduction analyses and how those would be developed in the tools to support those.

We did form a working group to develop those methods and tools. That working group met twice, shortly after in November of last year, and then again, this past January to flesh out those methods and review the tools that were developed to apply those methods. Then the TC as a whole met again just this past Friday.

As part of that call, they reviewed catch reduction methods and tools proposed by the working group. They reviewed southern stock projections and discussed guidance on the northern stock items.

Just the details of these catch reduction analyses. The idea here is that the status quo catch that was observed at the end of the assessment time series will be adjusted according to a set of proposed bag, vessel and/or size limit changes.

You'll see that vessel limit is added there, although it was not captured in the original Board motion. But in discussions with the Technical Committee, we became aware that Florida had already implemented vessel limit changes since the assessment, and also some of the other states expressed some interest in considering vessel limits. That was added to these analyses as a potential management tool that might be changed.

Those catch adjustments that are made to the status quo catch will account for dead discards, due to shifting of harvest under a new, for example, a new bag limit to those fish now being released, and then an 8 percent discard mortality is applied to those new releases, which is consistent with the discard mortality used in the stock assessment.

Then at the end of the analysis the adjusted catch is compared to the status quo catch, to determine reduction in dead catch. That is going to be total removals including harvest and dead discards that result from the proposed regulations being put forth. The catch reduction analyses will use the MRIP data from 2018 through the 2021 fishing years as the status quo catch.

The Technical Committee decided on this because there were consistent management measures across states during those years, and so there are no impacts on changing regulations to the catch within those four years at the end of the assessment time period. The analyses are set up to account for additional documented mortality.

What I mean by additional documented mortality is both some observed noncompliance, where it appears in the MRIP data that anglers intercepted fish outside of the regulations on the books, but that could also include things like reported dead discards. When anglers go out, they get interviewed on their catch, and if they threw back a fish due to regulations and saw that it was dead, they could report that as a dead fish, and that technically gets counted as a harvest in the MRIP data. We're using this term "additional documented mortality" to capture both of those types of situations.

The TC reviewed and approved the methods and tools put forth by the working group, and will now

apply these to their data under the proposed regulation changes they are not interested in considering for their state.

One part that came up in these catch reduction analyses the TC debated for a while was the assumption of constant effort. That is a typical assumption in these catch reduction analyses, but the Technical Committee was concerned that there is pretty strong information that effort has been changing.

They did recommend putting forward some sensitivity analyses at the end of this process in the report that the TC puts together, and the intention of those would be to inform the Board of risk due to increasing efforts, and these three figures here just show the observed directed trips, that is trips that anglers indicated red drum are either the primary or the secondary target of that trip by states.

Sort of open circles projected through that observed timeseries in the solid line with circles, is just a linear extrapolation of that effort. The table below shows the change in effort projected into the future years relative to the effort observed in the 2018 to 2021 fishing years, and the percent increase for each of those states.

This is sort of the idea of the data that we would be using for the sensitivities, to give the Board some information on how these catch reduction analyses could shake out, if in fact effort continues to change. But I think the Technical Committee also provides the caveat here that although there are some pretty clean relationships looking into the past, effort is notoriously difficult to predict into the future, because of various factor that could impact that.

Then moving on from the catch reduction analyses to the projections. We'll use the stock synthesis assessment model that we used in the benchmark stock assessment, and we'll project the stock forward from the terminal year. The stock is projected until equilibrium catches are reached, and I'll show what that looks like on upcoming slides. Then we would compare the catch at the end of the projection period under the status quo F or the F at the end of the assessment time series, to the projected catch under an $F_{40\%}$ F level to determine the stock wide catch reduction needed to achieve that $F_{40\%}$ fishing mortality level.

That $F_{40\%}$, it's just the fishing mortality reference point that is associated with the $SPR_{40\%}$, the management target identified in the FMP. There ae a couple specifications for these projections needed. The first is recruitment, how are we going to specify recruitment into the future projection years?

The way this is done in the model is you take an average over a specified year range. The Technical Committee decided to use the full model time series that is used for management advice, which would be 1981 to 2021. The 2022 model estimates, they were made by the model. There were some partial 2022 data, but those 2022 model estimates were not recommended for status estimates.

On the right you can see the model estimated recruitment across the assessment time series in the open circles, and the black dash line shows the time series average from 1981 to 2021, which ultimately is very similar to the average recruitment from the terminal status years of 2019 through 2021, which is that short red dash line at the end of the time series.

The other specification needed is a fishing mortality level. There are two projections that are done here to get us the estimated catch reduction needed. The first projection is we're going to project the stock forward under the status quo F levels. Those status quo F levels are the average F estimated at the end of the assessment during the years we used for stock status, which is 2019 through 2021, and is a value of 0.526.

Then we do a second projection where we project the stock forward under a $F_{40\%}$ fishing mortality level, so that target fishing mortality level, and that

F level is the model estimated $F_{40\%}$ reference point of 0.301. The first figure at the top on the right shows those F levels that are used in the projection years to project the stock forward.

The orange is that status quo F, and then the black is the projection using the $F_{40\%}$ F level. That F has been partitioned amongst fleets in the model. The model includes three fleets, one for each of the three southern stock states. The F is partitioned amongst those fleets according to the relative F amongst those fleets in the terminal years of the assessment from 2019 to 2021.

That is what is shown in the lower right figure with the dashed line at the end of the time series for each state showing that relative F level that is used to project the Fs forward. Of note here, there were Florida regulation changes that occurred in September of 2022. These are not accounted for in the time series used for stock status determination. They kicked in immediately after the assessment time series used for management advice, which ends in August of 2022. The idea here is that Florida would get credit for those regulation changes that occurred after the assessment model time series by applying these catch reduction analyses to show what catch reduction they've already put in place with their regulation changes that occurred after the assessment.

This next slide shows some of the projected quantities. This is a 15-year projection, and up on the top right is the projected total removals from the stock across all three fleets. Again, this uses a constant F level in all of these years, and projects the stock forward under the two different fishing mortality levels.

You can see that there is an initial bump due to a large recruitment estimated in the model at the very end of the time series. As soon as that large year class works its way through the vulnerable part of the population, you can see that catch starting to settle in on an equilibrium. Ultimately, what we're using for the estimated catch reduction needed to get the stock back to an $F_{40\%}$ target fishing mortality level are the two data points at the end of the time series.

We're just comparing that higher catch under the status quo F to a catch produced under the lower F, according to the $F_{40\%}$ reference point. That is what gives us our catch reduction percentage down in that last bullet of 28.7%. That is the reduction you see from those two points to get from the status quo F to the $F_{40\%}$ level.

Below the catch plot is the full time series of spawning stock biomass estimates relative to the spawning stock biomass at 40%. The dashed line would show any time that spawning stock biomass is at its target level. You can see the response in the different projection scenarios, with the black being that lower reduced $F_{40\%}$ target level, where the spawning stock biomass begins to increase into the projection period, whereas, under the status quo F, that F continues to decline.

Those are the projections and then the catch reduction analyses that we've put together so far. For next steps here, the southern stock Technical Committee members will use the catch reduction analyses to determine proposed regulations that meet that specified percent reduction. The TC will meet again to review those proposed regulations from the Southern Stock TC members, and to finalize guidance on those northern stock items being sought from the Board.

Then a final report will be provided in meeting materials for the May Board meeting coming up in May. Maybe for discussion purposes here today, as the Technical Committee has been working through this, there have been a couple of points that have come up and have been debated a bit at the Technical Committee.

The first, and this would be helpful to have guidance on these items, so that the Technical Committee can complete their analyses and know what to package together into a final report for you all to see in May. The TC does recommend that that

additional documented mortality be accounted for in the catch reduction analyses. Again, this is going to be truly noncompliant fish that have been observed, and then also could potentially be observed dead discards to come through in the MRIP data. We're just curious if the Board does agree with that, or if they feel that this additional documented mortality should not be included in these catch reduction analyses, and we should do them as though compliance will be perfect into the future.

The TC recommends sensitivity analysis on changing effort on catch reductions, going back to the slide I showed earlier. Just to give the Board some information on risk, and how these catch reduction analyses could shake out if effort does in fact increase. Whereas for these sorts of baseline catch reduction analyses, the underlying assumption is that effort is constant. The Technical Committee is curious if this is something the Board would like to see in that final report.

Then sort of how to break up the percent reductions needed for the southern stock states. The TC would like to know if all states should aim for even catch reductions equal to that stock wide reduction estimated, or if they should collaborate to reach that stock wide reduction, so more of a collaborative process among the three states where that percentage could vary across the three states, but ultimately, at the end of the day, all three states collectively get to that reduction needed. That is what I have for an update, I can take any questions.

CHAIR HAYMANS: Mr. Batsavage.

MR. CHRIS BATSAVAGE: Thank you for the presentation, Jeff. A couple questions for the Board feedback questions you posted. I listened to the TC meeting for a little bit last week, I had to jump off. But I was wondering for kind of the size limit change analysis to get reductions, did the TC talk at all about just a very fast growth rate of red drum at that size, especially the lower end of the slot. At least in the northern zone they could grow up to an inch a month during times of year, and how that could offset any expected reductions that would be calculated, and after that I have an unrelated question, thanks.

MR. KIPP: The Technical Committee did not specifically talk about growth rates. I think the underlying assumption of those size limit change analyses that we put together are that essentially angler behavior doesn't change. They are going out, they are targeting the same sizes.

They are fishing at the same time of year, and so that those growth rates that are being experienced by the population that was caught in the 2020, 2021 years would be comparable to what they would catch into the future. That seasonality type of aspect would be the same or consistent, so those are the assumptions under that size limit change analyses.

MR. BATSAVAGE: In your presentation where you showed the projections for F of 40%, and recovering the stock, it looked like under the $F_{40\%}$ that the projections kind of just fall short of hitting the target biomass. Is it safe to assume that if the goal of the Board was to rebuild the spawning stock, we would need to come up with like an estimate of F rebuild, which would be a lower fishing mortality to meet that spawning stock biomass target, and therefore probably be a higher reduction, if I understand that correctly.

MR. KIPP: There would be the different level, potentially. If you wanted to use the same timeframe as what we have up here, 15 years, or it could be a longer timeframe at this current F level that is showing here, and it would just be a longer period for that SSB to hit that SSB target.

CHAIR HAYMANS: Ben.

MR. BEN DYAR: Can we go back one slide, just so I can ask a question. Documented mortality and talking about the noncompliance fish. You mentioned in a previous slide that we are going to

kind of look at maybe looking at a different way to phrase that or a different name. In this request, are we specifically talking about noncompliance fish or are we talking about both, the observed and the noncompliance as well?

MR. KIPP: We're talking about both here and it's a little tricky to partition those out. You could dive into the MRIP data further, and basically what MRIP reports are two types of harvest. There is A, which is available for the interviewer to actually see and confirm that it was harvested, and then there is B1, which are reported by the angler as dead. That could be anything from filleted at sea to observed dead, thrown back, they know it's dead, so they are not going to say that it was released alive.

You could partition the data out into what was actually brought back and landed and reported harvested, versus those B1s that are just reported dead. But it is kind of hard to further differentiate those, because there is not necessarily disposition reported with those. It could be all of them were filleted at sea, it could be some of them were and some of them were reported dead discards, or all were dead discards, and we don't know exactly how that would shake out.

It's a little tricky to partition all of that out. But what we're talking about here would be inclusive of both those B1 fish that were reported as dead, and then also true noncompliance, where there is information that suggests that maybe a number of fish well below the size limit were landed, and that is like a true noncompliance issue. It would be inclusive of both of those issues.

MR. DYAR: Thank you, I appreciate that. Follow up. I mean not to go down a rabbit hole. I don't know about, I'm not quite clear on Georgia or Florida, but I know in South Carolina they can't be filleted at sea. I don't know if that helps or not, or makes things more difficult. But I appreciate that. That was my secondary question is how difficult would it be, understanding it is how they are reported is the issue with how difficult it would be to separate those two.

CHAIR HAYMANS: I think we have Marina online. Marina, you are unmuted.

MS. MARINA OWENS: I wanted to say thank you to Jeff for putting this together. This was great, thank you so much. I wanted to ask, has noncompliance ever been used for other species when assessing catch reductions?

MR. KIPP: Yes, so I can offer one example and that is striped bass. For striped bass, you know going back into time different catch reduction analyses applied for striped bass have accounted for this sort of noncompliance issue. There are some nuances for striped bass where they have like bonus programs that some states or areas are allowed to retain fish that are sort of outside of the size limits that are more widely applied to the coast. In their noncompliance analyses it captures that, but also truly noncompliant fish, which there is some indication in other areas where there is true noncompliance. That is one example where another species accounts for noncompliance on the technical side of thing in these catch reduction analyses that then go to the Board.

MS. OWENS: Okay, thank you, that makes sense. Just wanting to make the comment about Florida's concerns with including noncompliance. You know we feel we should address noncompliance through enforcement and education, as opposed to potentially penalizing those anglers that do follow the rules. But I appreciate you answering my question, thank you.

CHAIR HAYMANS: Kipp, I also had concerns over the perceived recorded increase in effort. I mean that 33 percent increase, and that is the most recent three years that you used compared to the long term, right? That was how you achieved the increase.

MR. KIPP: That was the 2018 through 2021 years that we're using for the catch reduction analyses.

The average effort over that period compared to the extrapolated effort following that trend out into future years. That was compared to what we would get from expanding that relationship out to 2025 through 2028, taking the average over those years and comparing those.

CHAIR HAYMANS: Yes, and though I have no doubt that effort is increasing in the state of Georgia, I do know that two of those years were COVID years where effort went through the roof in Georgia, because hey, we stayed open and people were buying boats and going fishing, right. I'm a little hesitant to use increased effort based on those three years, because it does look pretty high. Ben.

MR. DYAR: In that same vein on effort that Doug is mentioning, is there any account for, because the timeframe for the projection's occurrence was 2018 to '22, is that correct, '21. With the MRIP noting some concerns with the FES projections, which started in 2018, if we were to extend that timeline of effort, I don't know if we were to see that increase during that same timeframe. Given those concerns, not to say that it's not important to utilize for use if trying to show some concerning trends or being cautious, but just wanted to throw it out there. I didn't know if that was something that was brought up within the TC and those discussions, and that would be a point of some concern.

MR. KIPP: Yes, so particularly the FES issue with MRIP was not really brought up amongst the TC and discussed. I think there was some comments from the Technical Committee that the relationship that we saw going back into earlier years, holding and looking relatively clean, gave them confidence that those effort data were capturing real changes that were happening.

I would just add that I think the Technical Committee's perspective here is that they would just put forward the impacts of the catch reduction analyses as sort of like a sensitivity and upper bound on what impact that could have to catch reductions, but that the catch reductions under a constant F or assumption would be sort of the baseline that they would recommend. I just wanted to add that comment.

MR. DYAR: Thank you very much, that has helped me.

CHAIR HAYMANS: Marina, your hand is still up. Do you have continued input, questions?

MS. OWENS: No, sorry, just a lingering hand.

CHAIR HAYMANS: Just trying to understand the next step. My TC member has already provided me with a use of the tool, right, 28.7 percent reduction, here is the possible creel, vessel, size. Are we expecting each of the three states TC members, if what I heard you say, the TC members will provide those reductions, those needs to you, and that will be a recommendation from the TC?

MR. KIPP: Yes, so they will report back to the Technical Committee, and ultimately the Technical Committee would include in their report a recommendation of, we believe these sets of management options from this state meet the necessary percent reduction or they do not, and this is what we think they need.

I think that would be the product provided from the TC, and we have not talked about specific stuff like what number of combinations we would be looking for from each TC member, whether it's one, a set of four. We have not gone into those details. But ultimately would be a report back of, these are the proposed regulation changes, these are the percent reduction in catch that they would achieve, and this compares to what is needed from the projections.

CHAIR HAYMANS: Forgive me for my lack of understanding of it. If that then comes back as a recommendation from the TC, then I as the state manager who has that TC representative working for him, has to go back, if I so choose, go back and refute or argue against whatever that

recommendation may be, if it's set for conservation equivalency purposes, if it refutes in any way the tool that was provided for them. Does that make sense?

The TC has developed a tool that our TC member can go back and develop these options. Well, here are a few options that he's got. I as the manager, may not want to use those, so that I've got to come back at this group with an equivalency request, as opposed to being able to do it on the front end. Am I missing it?

MS. TRACEY BAUER: Jeff, you can correct me if I'm wrong here, but I believe you can work with your TC member to propose options that Georgia is comfortable with, so the TC member does not have to operate in a vacuum.

CHAIR HAYMANS: Spud and then Chris.

MR. SPUD WOODWARD: If the TC generates the analyses that tell us what state-specific reductions need to be made to reach the target, 28%, how would we take those and combine them back together to address this third bullet here, if we wanted to collaborate to reach the reduction on a stock wide basis? They won't be additive. I mean it's not like, well, if Florida accounted for 50% of the 28%, then that means that South Carolina and Georgia have to come up with the remaining 50% or the 28%. How would we use those numbers to do what I think we will be doing is that third bullet? I think that is what we'll agree on, so how will the information they provide us allow us to do that?

MR. KIPP: I think we could look at magnitude of these catches. We could add those together across states, and determine if it hits that 28.7 percent, even though each state might have something that is different than 28.7 percent. We can take those catches that generated their percentage at their state level, and add those catches up on both the status quo level and then on the adjusted level, and calculate a coastwide reduction percentage, to see if it matches that.

For example, you know if the states got together, the three states got together, and they were all comfortable with the set of regulations within their own state that achieve different percentages than that 28.7 percent. But when you add up those catches across states and look at them compared to those status quo catches before those regulation changes. If it hits that 28.7% that would be on target collectively across the stock.

CHAIR HAYMANS: Spud, continue?

MR. WOODWARD: Basically, it's kind of like a weighting process, to make sure that they are weighted appropriately, that the reductions are weighted equally to the contribution to the fishing mortality. Right? Okay.

MR. KIPP: Yes, exactly.

MR. BATSAVAGE: I'm going to provide some Board feedback, Doug, just thinking about the next steps you were discussing. This is probably to Tracey, I think I know the answer, but when we come back here in May with this information. In order to move forward through the FMP, then the Board is going to need to take action to initiate either an addendum or an amendment to actually get this into the plan, am I correct on that?

MS. BAUER: I believe so, yes.

MR. BATSAVAGE: All right, thanks, definitely more steps on the way. Yes, since the Board feedback is keyed up here, I think trying to estimate future effort is problematic. I think for the TC to assume that effort could increase, either through more people fishing or just the existing gear and technology getting even better than it is right now, which is way better than it was 20 years ago, should be probably considered when we ultimately decide what management to make.

But trying to have a linear relationship is really hard, especially for a fish like red drum, where effort is driven by availability, and you get these pulses of

good year classes coming through. Then everyone is a red drum fisherman, and then you go back to normal our below average year classes, and it's really just the diehard drum fishermen fishing.

To the top bullet, regarding a documenting undersized, oversized fish, and the reductions are accounted for. Yes, I fully support that, Jeff, you mentioned that has been done for striped bass. I know it's been done for summer flounder. It's, regardless of how much enforcement and education and outreach you may have, you are always going to have undersized or oversized fish, and some people are nice enough to let the MRIP folks measure them, so we can document it. We make a lot of enforcement cases on oversized and undersize and over the bag limit fish. I think it's the cleanest way to do this, and make sure we meet the management goals through these reductions is to account for it at this level.

CHAIR HAYMANS: Before you, Spud, I do know that there was concern, at least from my APAIS person, right. We're measuring fish in fork length, and there may be some estimation there or some calculation errors there, as well as and they also measure in millimeters, when we get to the upper end.

In other words, when I look at 13-inch fish in Georgia, I'm like 7% of our harvest was from illegal fish in a 13-inch bin. But there is concern from our APAIS member that that may not be necessarily the case. It may be that rounding error. I'm a little cautious to necessarily use all. To that point, Chris.

MR. BATSAVAGE: Yes, to that point. That is a good point, Doug. I listened to that part. But thinking about, since there is a slot, we have a lot of fish that are measured in fork length through our APAIS sampling, right at 27 inches, which total length is going to put it at 28 plus, which is oversized, so you kind of get that uncertainty with fork length total length on both ends, which basically shows you are getting fish that are harvested outside of the slot limit.

CHAIR HAYMANS: Spud.

MR. WOODWARD: Yes, just to follow up on that theme. We've been grappling with this. I mean we measure in millimeters and manage in inches, you know, and it just creates this ongoing predicament of how to deal with the uncertainty that that creates. Then the thing about this that also troubles me is the self-reported dead discards, and the fact that they are not validated, they are self-reported.

You're counting on a fisherman to give you an accurate determination of the status of that fish, when it may have gone in the water and been temporarily stunned, but it was perfectly fine later on. But you're just kind of categorically counting those as dead fish. You also are not getting length measurements on them.

How do you assign them to a size and age category? It layers another level of uncertainty for a species where we've always struggled with a high degree of uncertainty. Unlike striped bass, where at least you're getting some harvest of larger fish. You know we're crossing these fish off at juvenile ages.

I don't know that I just totally oppose that, but it gives me great concern when you see those estimates generated by a very low number of intercepts. All it takes is the typical thing we see with MRIP, with one intercept, boom, it blows up and you have a disproportionate impact on mortality.

CHAIR HAYMANS: Marina, I've got you coming up, just hold one second. Kipp, looking at reported dead discards versus calculated dead discards, versus the mortality rate, you use the mortality rate against everything that was just released. Did you look at which was greater?

MR. KIPP: Well, we don't have like a fraction of those reported discards that die and don't die, so it's either an angler will report and say, I threw a

fish back, it was dead, so it should be counted as harvest. Those are those B1s, and then we have those B2s, which we have the total number that anglers said, these were all released alive. Then we used some rate from published literature or other sources to say, we think after this fish swims away from the boat, this number of them are going to die.

We don't have sort of that comparison to make from those B1 fish. We don't know what the starting number of fish that they would be releasing, and then what proportion of those that die to compare to that assumed rate.

CHAIR HAYMANS: Because to Spud's point, not necessarily knowing whether the fish lived or died, it just floated away. It would seem to me that if you applied the 8% accepted mortality rate across the board to releases, you would get a lower total number of dead discards. But backwards way of thinking, maybe.

MR. KIPP: I could add to it. You know there is something that the TC could do. The TC could further dive into these data, and determine what proportion of the harvested fish were reported as B1s as opposed to Type A fish, that were seen at the dock as confirmed harvest. I don't have those numbers off the top of my head.

That is something that we could dig into, just to provide the Board more information as to how many of these fish may be accounted for through this B1 sector, this reported dead for some reason. I heard the comment that, you know you can't fillet them at sea. I don't know the full list of dispositions that might make up.

But I don't know if that is the only other disposition is, if it's a B1 and it's a red drum, does that mean that it was discarded dead, or is there some other reason that accounts for that B1. I would have to look into those details further. But that is something we can provide, is that how many of those B1 fish are in these datasets, to have some better confidence about what of those were reported harvest and what of those were actually seen as harvested fish.

CHAIR HAYMANS: Marina.

MS. OWENS: Yes, I just again wanted to reiterate the concerns with the uncertainty with MRIP estimates. As Jeff mentioned, Florida has recently made management changes to address stock concerns, so we have had the benefit of ground truthing these catch reductions. The model, as you mentioned, estimates a 16.8% reduction or 14% with noncompliance.

With our regulation changes that went into effect, the data two years post regulation changes Florida has actually realized a 21.6% catch reduction. This kind of makes it seem like the model is already conservative enough, without adding the noncompliance, and we feel that the noncompliance is overly conservative compared to what reality is actually showing, and what we've actually seen in our trends.

MR. KIPP: Yes, thanks for that. I would just add the comment that yes, Florida is in a unique situation, as opposed to the other states, because they do have these observed catches post assessment model. There is two years of data. I would just note that there are other factors going into those realized catches.

There are things like variability and year class strength that are going to lead to different catches, whereas these catch reduction analyses basically are assuming sort of a constant recruitment, to generate what those catch reductions would be. That is one distinction to keep in mind with the sort of realized data, and with these catch reduction sort of simulations that are done.

CHAIR HAYMANS: I know that 28.7% number caused a lot of consternation in the southeast corner this past Friday through the weekend. There had been some discussion about additional request for the TC. Is anybody interested in discussing that? Marina or Ben? If not, Marina, you have your hand up still?

MS. OWENS: Yes, I would like to make a motion if now is the time for that. Again, I want to thank ASMFC staff for putting this together, and Jeff, everything was very well done, thank you so much.

But I would like to make a **motion to direct the TC to calculate the catch reduction needed for the southern stock to fish at an F of 30%, 35%, and 40%, just to see what those differences would be, and as well as the projected timeline to reach the threshold and target SPRs associated with each of those F scenarios. We would also like to not incorporate effort trends or incorporate noncompliance.** As I've reiterated a couple times with that as well.

CHAIR HAYMANS: Okay, so I think we captured that, Marina. Do you see it there on your screen? Can you verify that that is what you're asking for?

MS. OWENS: Yes, I can see it. Yes, that looks good, thank you.

CHAIR HAYMANS: Before I ask for a second, Kipp, you wanted to get some clarification.

MR. KIPP: Yes, I just wanted to clarify some of the language here. It reads that we're looking for the timeline to reach the threshold and target SPRs. I just wanted to clarify that in these projections, when we set an F level and project the stock under a specified F level, we are setting the SPRs. When we set that F at that $F_{40\%}$ F level, we are setting the stock to be fished at a level that gives us SPRs of 40%, that target level.

I think what this shows, maybe what the intention here is, to identify the timeline to reach the threshold and target SSBs, like what I showed on that figure a little bit earlier. You see that response when you project the stock forward under a constant F, you see what the response in that SSB is, and how it either approaches or moves away from the target SSB level. I just wanted to clarify and make sure that that was the intent.

CHAIR HAYMANS: Marina.

MS. OWENS: Yes, that sounds good, you interpreted that good.

CHAIR HAYMANS: Okay, we have a motion, is there a second? Spud. Any additional discussion on the motion? Ben.

MR. DYAR: I actually would like to make an **amendment to this motion**.

CHAIR HAYMANS: Go ahead.

MR. DYAR: The motion can read as follows. For the first sentence, I don't know if I need to read the whole thing again, I think it's keyed up well. I'll read it. **Direct the TC to calculate the catch reduction needed for the southern stock to fish at $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$, as well as the projected timeline to reach the threshold and target SSB under each F scenario. These analysis should not incorporate effort trends and should include the F calculations of noncompliance fish, as well as calculations excluding noncompliance fish.**

CHAIR HAYMANS: You basically, we're going to not include effort, but do look at it both with noncompliance and compliance.

MR. DYAR: That is correct.

CHAIR HAYMANS: We'll look at Kipp as he's reading it, to see if it makes sense to you.

MR. KIPP: Yes, the only thing I would look for clarification on here is where it says should include in the F calculations. I think that is intended to read something like, should include in, I think you could leave it as just should include in calculations noncompliance fish, because we're calculating catch reductions and not Fs.

CHAIR HAYMANS: Are you good with that, Ben, I see a shaking of the head, **so remove the F.**

MR. DYAR: Yes, that's fine, I apologize. When you have 30 or 35, yes thank you, I appreciate that.

CHAIR HAYMANS: Okay, does everybody understand the amended? Is there a second? Chris Batsavage, thank you. Any additional discussion on the amendment? Marina, does that cause you any concern as the maker of the main motion, before I ask for a vote on the amended?

MS. OWENS: No, we're good with that amendment. That sounds good, thank you.

CHAIR HAYMANS: Okay, Ben, go ahead.

MR. DYAR: I did have a question, and Jeff, you brought it up, about potentially diving into looking at the differences between A and B1s. Would that need to be included in some way, or is that kind of verbally? Again, I don't know what that amounts to or the task there.

MR. KIPP: Yes, I think verbally, since it's on the record, we can take that back to the TC, and that would be enough.

CHAIR HAYMANS: All right, any other discussion on the amendment to the motion: Seeing none**; all those in favor, is there any opposition? Seeing none; we will consider the amended motion the main motion,** and I'm going to piece it together now.

It should read, **Direct the TC to calculate the catch reduction needed for the southern stock to fish at $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$, as well as the projected timeline to reach the threshold and target SSBs under each F scenario. These analyses should include in calculations noncompliance fish, as well as calculations excluding noncompliance fish.**

Is there any additional discussion? Is there any opposition? Seeing none; the motion carries. Kipp, is there anything else that we should expect, or will we hear from the TC before we get to May?

MR. KIPP: Nothing else from the TC to the Board, I don't think at this point. I think we're good on guidance. I think there will probably be at least two full Technical Committee calls between now and May, so just an FYI on that. But I think we're good right now.

CHAIR HAYMANS: I'll ask sort of a procedural question. That back corner, we pretty much chat on a regular basis, right. We talk between the states a good bit. I assume that there is not a formal Commission process that we need to go through, in order for us to talk about what are those options, we work amongst ourselves to come up with the solution.

It's not a full process, right? Bob is shaking his head no, so I take that as good. Anything else on the TC report? Jeff, I can't appreciate enough what you've all done at this point. I was hoping we'd have it full by February, then we heard May. But now you've come back with an awful lot by February, so I appreciate that very much.

ELECT VICE-CHAIR

CHAIR HAYMANS: All right, Item Number 5, we need a Vice-Chair. Do I see a motion from Mr. Woodward?

MR. WOODWARD: Yes sir, Mr. Chairman, **it is my honor to nominate Ben Dyar from the Palmetto State as Vice-Chair.**

CHAIR HAYMANS: Excellent, is there a second? Oh, Mr. Cimino, thank you very much, sir, appreciate that. Is there any opposition? Well, is there any discussion on this? **Is there any opposition? Seeing none; congratulations, Mr. Dyar**.

ADJOURNMENT

Mr. Executive Director, thank you very much for getting us moved up. I think we used the hour and giving back 15 minutes extra, so I appreciate it. Is

there any other business? We are adjourned, thank you.

(Whereupon the meeting adjourned at 2:24 p.m. on Tuesday, February 4, 2025)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Sciaenids Management Board**

FROM: **Red Drum Technical Committee and Stock Assessment Subcommittee**

DATE: **April 21, 2025**

SUBJECT: **Red Drum TC/SAS Report on Board Tasks as Follow-up to 2024 Benchmark Assessment**

Summary

Task 1: Calculate the catch reduction needed for the southern stock to fish at $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$ as well as the projected timeline to reach the threshold and target spawning stock biomasses (SSB) under each fishing mortality (F) scenario.

- The TC/SAS conducted projections of the Stock Synthesis (SS) assessment model to calculate the stockwide catch reductions necessary to reduce *F* from the average of the final three years of the stock assessment (2019-2021) to lower levels requested by the Board ($F_{30\%}$, $F_{35\%}$, and $F_{40\%}$).
- The TC/SAS also developed a methodology to estimate catch reductions achieved by changes to slot size limits, bag limits, and/or vessel limits with two different assumptions about angler compliance with regulations. This catch reduction analysis was applied to Florida data to estimate reductions already achieved from regulation changes following the stock assessment.
- Projections indicate the requested *F* scenarios of $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$ would require stockwide catch reductions of 14.4%, 21.4%, and 28.1% from catches under the 2019-2021 average *F* level, respectively. *SSB* was only projected to reach the target in the $F_{40\%}$ scenario with a timeline of 32 years. *SSB* was projected to reach the threshold in the reduced *F* scenarios ranging from 23 years in the $F_{30\%}$ scenario to 5 years in the $F_{40\%}$ scenario. *SSB* was projected to remain below the target and threshold with 2019-2021 average *F*.
- Under a perfect compliance assumption, Florida's catch reduction from regulation changes following the stock assessment was estimated to be 16.8%. Incorporating additional mortality from potential noncompliance, the estimated average catch reduction was 14.9% (range of 12.8% to 15.2%). These catch reductions would result in a stockwide catch reduction of 9.3% and 8.3%, respectively, if other southern stock states were to maintain their current regulations.

Task 2: Discuss how to interpret the TLA result of "Moderate Action", as well as methods for estimating regulation change impacts for the northern stock.

- The TC/SAS concluded an investment by the northern stock states to improve the quantity and quality of their monitoring efforts, adherence to status-quo regulations, and a Traffic Light Analysis (TLA) update between assessments would all constitute "Moderate Action". The TC/SAS do not recommend specific regulatory changes in response to a "Moderate Action" result.
- The TC/SAS recommend using the same bag, vessel, and slot size catch reduction methods as those developed for the southern stock if the Board wishes to estimate catch reductions of regulatory changes for the northern stock. However, if estimated stockwide catch reductions associated with specified *F* scenarios are desired, a method to estimate these reductions would also need to be identified given that the TLA is a qualitative tool and does not have the same projection functionality as the SS model used for the southern stock.

Background

The 2024 Red Drum Benchmark Stock Assessment and Peer Review Report (ASMFC 2024) were presented to the Sciaenids Management Board (Board) at the 2024 ASMFC Annual Meeting and subsequently approved by the Board for management use. The assessment indicated the southern stock (South Carolina through the east coast of Florida) is overfished and experiencing overfishing, while the northern stock (New Jersey through North Carolina) is not overfished and not experiencing overfishing.

Stock status for the southern stock was determined using a Stock Synthesis model (SS; Methot et al. 2023), which estimates fishing mortality (*F*), annual spawning potential ratio (*SPR*), and spawning stock biomass (*SSB*). Reference points previously established in Amendment 2 to the Red Drum Interstate Fishery Management Plan (FMP) include $F_{30\%}$ and $SPR_{30\%}$ as overfishing thresholds and $F_{40\%}$ and $SPR_{40\%}$ as fishing mortality targets (ASMFC 2002). *SSB* reference points had not previously been defined for red drum but were recommended during the 2024 benchmark assessment as the *SSB* produced when fishing at the overfishing threshold (i.e., $SSB_{30\%}$, *SSB* threshold) and the fishing mortality target ($SSB_{40\%}$, *SSB* target). Stock status determinations are based on terminal three-year (2019-2021) averages of *F, SPR,* and *SSB* relative to these reference points. Terminal age-2 *F* (0.526) was above the *F* threshold (0.396) and *F* target (0.301), while *SPR* (0.207) was below the *SPR* threshold (0.300) and *SPR* target (0.400). In addition, the stock is below the *SSB* target (13,250 mt) and *SSB* threshold (9,917 mt) with a terminal *SSB* of 8,737 mt. These stock status determinations need to be addressed through regulatory changes to return the stock to a favorable stock status.

The appropriateness of the *SPR* reference points for red drum has been evaluated by the Red Drum Technical Committee (TC) and Stock Assessment Subcommittee (SAS) in the past. In May 2016, the Red Drum TC/SAS was tasked, in part, by the Board to "investigate whether the current biological reference point for overfishing ($SPR_{30\%}$ threshold) is appropriate given the species' long life history." After a literature review, the TC and SAS concluded that spawning

potential ratios, including the current threshold (30%) and target (40%), are appropriate metrics for red drum management. Reference points were evaluated again according to a term of reference of the 2024 stock assessment and peer review and the SPR reference points were again endorsed for red drum by the TC, SAS, and Peer Review Panel.

The northern stock uses a Traffic Light Analysis (TLA) to determine stock status with reference points established in the 2024 Red Drum Benchmark Stock Assessment. Reference points consist of specified color proportion thresholds and number of years. Red drum adult abundance (via fishery-independent surveys) and fishery performance (calculated as fishery harvest divided by abundance of slot-sized fish) metrics were used to determine overfished and overfishing stock status, respectively.

Annual metric color results (proportions of green, yellow, and red) from the TLA are tabulated across consecutive years, including the year of interest and a number of preceding years. The number of proceeding years is dependent on the metric and stock being evaluated. These tabulated metric summaries are colored according to the most favorable annual metric result across the years being summarized and are used to assess stock status. For example, fishery performance is tabulated over 7 years in the northern stock and, if the TLA proportion red in all seven individual years exceeds the color threshold set for this metric, the tabulated metric summary for the final year is red. If the TLA proportion red does not exceed the color threshold in at least one of the 7 years but the proportion yellow does, the tabulated metric summary for the final year is yellow. Lastly, if neither the proportion red or yellow for any of the 7 annual metric results exceeds the color threshold, the tabulated metric summary is green. To maintain consistency between the TLA stock status determinations and the SS stock status determinations, the TLA identified an overfished or overfishing status if tabulated metric summaries for any of the last three years of the assessment were red. As with the SPR reference points used with SS model results, the TLA reference points were endorsed as proxies for red drum by the TC, SAS, and Peer Review Panel.

The northern stock's TLA tabulated metric summaries for the fishery performance and adult abundance metrics were yellow and green, respectively, for each of the last three years of the assessment (i.e., 2019, 2020, or 2021). However, the TLA also showed increased occurrence of yellow and red annual metrics in recent years for adult abundance and fishery performance, indicating the northern red drum stock may be experiencing unfavorable trends for both metrics that may need correction with regulatory changes if they continue into the future. Additionally, yellow TLA tabulated metric summaries were assigned the terminology "Moderate Action" in the stock assessment report, but details on the meaning of this terminology were not provided.

Following approval of the 2024 Red Drum Benchmark Stock Assessment and Peer Review Report for management use, the Board tasked the Red Drum TC and SAS to conduct several analyses related to the southern and northern red drum stocks to assist with determining next steps.

1. Calculate the catch reduction needed for the southern stock to fish at $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$ as well as the projected timeline to reach the threshold and target *SSBs* under each *F* scenario. These analyses should not incorporate effort trends and should include alternative analyses with and without noncompliance assumptions.[1]
2. Discuss how to interpret the TLA result of "Moderate Action", as well as methods for estimating regulation change impacts for the northern stock.

The Red Drum TC/SAS met to discuss these tasks on November 6, 2024, January 31, 2025, and March 6, 2025. A Catch Reduction Sub-Group of the TC/SAS met on November 20, 2024 and January 13, 2025 to develop the methodology for calculating the catch reductions.

As a reminder, throughout this memo, "year" refers to a fishing year of September 1 of calendar year "y" through August 31 of calendar year "y+1".

Task 1: *Calculate the catch reduction needed for the southern stock to fish at $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$ as well as the projected timeline to reach the threshold and target SSBs under each F scenario. These analyses should not incorporate effort trends and should include alternative analyses with and without noncompliance assumptions.*

Projection Methodology

A series of stock projections were conducted for the southern stock to address the Board's first task. The SS forecast feature was used for projections. This is the internal projection feature of the modeling platform used in the benchmark stock assessment and uses population dynamics equations consistent with those used to estimate stock status. Projections use specified forecast fishing mortality levels and recruitment to project the stock in the terminal year of the assessment forward for a user-specified number of years. Here, some initial testing was done to determine the forecast period necessary for spawning stock biomass to reach equilibrium in all projection scenarios, which found that 40 years was sufficient. All projections used the same recruitment specifications which are the recruitment levels expected from the model stock-recruitment relationship given the spawning stock biomass level at the time of spawning. Due to uncertainty about this relationship and lack of data to estimate it, this relationship essentially simplifies to a constant average recruitment level expected across spawning stock biomass levels, except for when the spawning stock biomass has crashed to very low levels near zero which does not occur in the assessment or projection time series.

[1] The initial motion by the Sciaenids Management Board (Board) at their October 2024 meeting read: "Motion to request the Stock Assessment Subcommittee/Technical Committee to produce the static spawning potential ratio for a range of slot size limits (between 14" and 27") associated with bag limits ranging from 0 to 5 fish per person for: (a) the southern region and/or (b) SC, GA, FL individually." However, after some initial discussion, the TC/SAS determined this analysis would not be possible. At the February 2025 Board meeting, a second motion was passed, as seen here. Further discussion with the southern states Administrative Commissioners provided clarification that this motion was intended to replace the October 2024 motion.

The goals of projections were to (1) determine stockwide catch reductions necessary to reduce fishing mortality from the average of the final three years of the stock assessment time series (2019-2021) when the stock was declared to be experiencing overfishing to lower levels requested by the Board ($F_{30\%}$, $F_{35\%}$, and $F_{40\%}$) and (2) determine the number of years under these lower levels of fishing mortality necessary to reach spawning stock biomass reference points within 0.5%[2]. Catch was calculated as total fishery removals from all fleets including harvest and dead discards (8% of live releases calculated using the same discard mortality rate used in the stock assessment). First, a baseline projection was completed projecting the population under the 2019-2021 average fishing mortality used for stock status determination (Table 1, Figure 1) to determine equilibrium catch levels expected under status quo fishing mortality. Fishing mortality was partitioned among the three state-specific fleets in the model according to average estimated contributions during the final three years of the assessment. Secondly, a projection was completed with the population projected under each lower fishing mortality scenario requested by the Board. Fishing mortality was partitioned among fleets in each of these projection scenarios as it was in the baseline projection. The final step was to compare the catch from the baseline projection to catch under each lower fishing mortality scenario projection in the final year of the forecast to determine the precent reduction in catch needed to move fishing mortality from the 2019-2021 average to the lower specified level using the following equation:

$$Percent\ reduction = \frac{\overline{2019\ through\ 2021\ F}\ Catch_{y40} - Lower\ F\ Scenario\ Catch_{y40}}{\overline{2019\ through\ 2021\ F}\ Catch_{y40}}\ x\ 100$$

Florida made regulatory changes immediately following the stock assessment time series (September 2022), so the impacts of these changes are not accounted for in the stock assessment or projections. These changes are expected to have changed selectivity estimated in the stock assessment, so impacts of these regulations were estimated through bag and vessel limit catch reduction analyses instead (see the next section). Additionally, these projections do not explicitly make any assumptions about effort change or compliance with regulations. Rather, they just provide expected equilibrium catch levels under specified fishing mortality levels that can be compared across scenarios to determine relative catch changes. Impacts of effort changes and/or non-compliance with regulations are evaluated with bag, vessel, and size limit catch reduction analyses.

Projection Results

Catches vary in the first few years of the projections (Figure 2) due to varying year class strengths in the stock during the terminal years of the assessment, including a well above average 2022-year class. This above average year class leads to an initial increase in catches. As

[2] The tolerance of 0.5% for spawning stock biomass rebuilding calculations is due to the asymptotic nature of projections. For example, projecting the stock at $F_{30\%}$ would project the spawning stock biomass to approach an asymptote equal to the $SSB_{30\%}$ threshold, but never actually meet or exceed this asymptote. If specified rebuilding timeframes and/or years to meet or exceed that exact reference point level is desired, fishing mortality levels necessary to achieve these specifications can be determined during next steps.

this year class ages out of the slot and migrates offshore, subsequent average recruitment levels lead to catches and spawning stock biomass hitting equilibriums (Figure 3). Once catches have reached equilibrium levels, projections indicate the requested fishing mortality levels of $F_{30\%}$, $F_{35\%}$, and $F_{40\%}$ would require catch reductions of 14.4%, 21.4%, and 28.1% from catches under the 2019-2021 average fishing mortality levels, respectively (Table 1). Spawning stock biomass reaches threshold levels more quickly under lower fishing mortality levels, ranging from 23 years under $F_{30\%}$ to 5 years under $F_{40\%}$ (Table 1). The population is not projected to reach the spawning stock biomass target under the two higher fishing mortality scenarios (i.e., $F_{30\%}$ and $F_{35\%}$), as it reaches an equilibrium at spawning stock biomass levels associated with the specified fishing mortality level (e.g., $SSB_{30\%}$ when fished at $F_{30\%}$). Spawning stock biomass is projected to reach the target after 32 years of fishing at the $F_{40\%}$ level. Spawning stock biomass is projected to decline further from the terminal year estimate and remain well below the target and threshold levels under long-term equilibrium conditions if the 2019-2021 average fishing mortality is maintained. It is important to note that if reduced spawning potential (i.e., spawning stock biomass consistently lower than the threshold) leads to lower-than-average recruitment estimated during the stock assessment time series, declines in spawning stock biomass would be more pronounced.

Only a single projection was done for each scenario to understand reductions and rebuilding timeframes under average, equilibrium conditions. Additional projections can be done with an iterative approach to provide information on risk and uncertainty, if desired, during next steps. Objectives for such risk and uncertainty information from the Board would assist the TC with determining the most appropriate changes to the projection methodology to provide this information.

Catch Reduction Analysis Methodology

Each of the *F* scenarios examined in projections ($F_{30\%}$, $F_{35\%}$, and $F_{40\%}$) require a reduction in catch to reduce the 2019-2021 average *F* levels from the end of the stock assessment. To estimate the expected catch reduction from specific regulation changes, the TC developed tools to evaluate the impacts of state-specific changes to slot limits, bag limits, or vessel limits. However, these tools are limited to evaluating catch reductions within what was allowable under the regulations during the terminal year of the assessment. Therefore, these tools cannot be used to evaluate how catch may change if a bag, vessel, or slot limit is liberalized from what the regulations allowed during the assessment terminal year because there is no catch data to inform the analyses under less restrictive regulations.

The catch reduction analysis tool for bag and vessel limit changes uses Marine Recreational Information Program (MRIP) data from the most recent four-year period where regulations were consistent within each state in the southern stock assessment region (September 2018 through August 2022). Using those data, the tool reduces the number of red drum harvested per trip by an individual or party if it is greater than the bag or vessel limit being analyzed. The reduction in number of fish harvested would then be added to the total amount of released fish. The number of dead discards attributed to a bag and vessel limit is then calculated using the 8% dead discard rate used in the 2024 benchmark stock assessment. The number of dead

discards and harvested fish with and without the regulation changes are compared to estimate the catch reduction achieved under a specific bag or vessel limit change.

Similarly, the catch reduction tool used to assess the impact of slot limit changes uses the same data range (September 2018 through August 2022). However, only the MRIP Access Point Angler Intercept Survey (APAIS) data could be used for this analysis because it contains length measurements. This analysis uses the length frequencies of harvested red drum to estimate how much catch could be reduced by narrowing the existing slot limit. To create the one-inch length bins, the MRIP data is converted from fork length (FL) to total length (TL) using conversion from the stock assessment and then rounded down to the nearest inch. Then the slot limit can be changed to estimate the number of harvested fish that would be reduced, and that reduced harvest is added to the number of released fish, with the number of dead discards calculated as described for the bag and vessel limit analysis. When both slot limit changes and bag or vessel limit changes are examined, the total estimated catch reduction is calculated using the following equation:

$$Percent\ reduction = A + B + A * B,$$

where A is the percent reduction estimated with the bag and vessel limit catch reduction tool and B is the percent reduction estimated with the slot size catch reduction tool.

This calculation adjusts the individual reductions so as not to double count reductions when both regulation change types are implemented on the same population (Chen and Rao 2007).

Since each state has different regulations, the catch reduction tools are set up to estimate impacts of state-specific potential regulation changes. The catch reduction tools are further refined into three regions for Florida for a more accurate catch reduction estimate, as the state has divided its east coast into three management regions with different regulations since September 2022. Florida regulations include reduced bag and vessel limit for its Northeast region (FL_NE), catch-and-release only in the Indian River Lagoon region (FL_IRL), and a reduced vessel limit in the Southeast region (FL_SE).

When states put forward proposals with their respective calculated catch reductions, the total catch reduction expected to be achieved can be estimated. This would be done by summing the reduced total catch for each state and dividing the sum by the total catch before reductions. Therefore, the total catch reduction for the southern stock would be more heavily influenced by regulations in states with greater removals. If one state does not achieve a proportional catch reduction equivalent to the overall stockwide reduction required, the remaining states would have to take proportionally larger reductions to achieve the overall stockwide reduction necessary.

The catch reduction tools make several assumptions. These methods assume constant effort. Based on data from the MRIP Fishing Effort Survey (FES), in recent years the number of angler trips in South Carolina and Georgia has trended upward while the number of angler trips in Florida has generally declined since a peak in 2018 (Figure 4). Additionally, the projection does

not account for changes in angler behavior in response to regulation changes. It assumes the catch rates recorded in the MRIP samples from September 2018 through August 2022 are representative of what will be observed in the future. It is also important to consider that the time period being used for this catch reduction analysis includes years where angler behavior may have been influenced by COVID and COVID-era restrictions/behavioral changes. Some states reported higher-than-expected fishing effort during COVID, though the effort in these years is not outside the observed range during the time series (2000-2023; Figure 4). Due to the uncertainty with projecting future changes in effort and the ongoing issue of MRIP FES overestimating effort, the Board directed the TC to use constant effort for analyses.

The TC was also directed to consider noncompliance when estimating potential catch reductions from different regulation changes. For the purposes of bag/vessel limit catch reduction analyses, the TC considers noncompliance to mean trips where the combination of observed harvest and unavailable harvest for a trip was either greater than the vessel limit or greater than the maximum possible bag limit for a single angler or a group of anglers if on a vessel. For size limit catch reduction analyses, the TC considers noncompliance to mean when red drum length measurements converted from FL in mm (measurement from MRIP) to TL and rounded down to the nearest inch (measurement used for management) were outside the slot limit. Using these definitions, data were flagged and used to calculate a noncompliance rate. The TC further evaluated catch data to provide additional context on this issue given the uncertainty as to whether all catch flagged is truly noncompliant.

For the catch reduction analysis tools, the analyses use the number of red drum harvested, which is a combination of observed harvest and unavailable harvest. “Observed harvest” is when the MRIP APAIS sampler is able to visually confirm that a fish was harvested, while “unavailable harvest” is based on what the angler tells the MRIP APAIS sampler and falls under a variety of disposition categories. The disposition categories that could be included in “unavailable harvest” include when red drum are released dead, those cut up for bait (although this is illegal for red drum in some cases), and those harvested but that are not visually confirmed by the MRIP APAIS sampler (e.g., buried at the bottom of a cooler and anglers decline inspection). Because of the various dispositions included in “unavailable harvest,” especially the released dead category, there could be instances where the analyses used in the tool indicate a trip harvested more than the bag or vessel limit, but, in reality, the “harvest” was fish lost to depredation or a dead discard from another cause.

Disposition information is not included in the publicly available MRIP data from NOAA Fisheries, so staff from states within the southern stock range reached out to their MRIP samplers to assess the disposition categories. Each state analyzed the disposition categories and determined that the dead discard disposition code was rarely reported. Percentage of red drum harvest reported as released dead is provided for South Carolina, Georgia, and Florida in Tables 2, 3, and 4 respectively, and range from 0-5% of harvest, with only four of eighteen time periods evaluated with positive percentages.

For red drum recorded as being outside the slot size limit, the uncertainty about noncompliance comes from length measurements near the minimum and maximum size limits. Although red drum slot limits are set and enforced using TL by inch, MRIP APAIS samplers measure red drum using FL by mm. To assess noncompliance with slot limits, the MRIP APAIS FL samples were converted to TL using the length-length conversions from the 2024 red drum benchmark assessment and compared to the slot limit within the region in which it was caught. Although red drum tails are not heavily forked, every length-length conversion has some associated error, thus, red drum lengths converted from mm FL to inches TL that are just below or just above the slot limit may not truly represent angler noncompliance with slot limits. This difference between original measurement and conversion to enforcement measurement complicates estimation of this uncertainty, but converted length composition data available for size limit catch reduction analyses are reported in Table 5 to provide context on this issue.

The Board also requested that the TC show the impact of including noncompliance in the catch reduction estimates. Noncompliance rates were calculated for MRIP trip data within each state for each regulation (bag limit, vessel limit, slot limit), but the impact of incorporating noncompliance into the catch reduction analyses will change based on the regulations being considered by each state.

Catch Reduction Analysis on Florida's Current Regulations

Though states have not yet put forward any potential regulation packages to be analyzed for catch reductions in response to the stock assessment findings, we can test these tools on Florida because they are in the unique situation of already having implemented more restrictive regulations in 2022 immediately following the assessment time series. Further, the impact of those changes was not incorporated into the model projections for estimating catch reductions required to achieve a specific *F* scenario. As an example, Florida's new red drum regulations can be input into the catch reduction analysis tools to estimate the catch reduction achieved, and how incorporating noncompliance influences the catch reduction estimation for Florida. This would also provide insight into the potential catch reduction already achieved for the southern red drum stock from Florida's regulation changes.

To better visualize the impact of including additional documented mortality from potential noncompliance trips, the estimated catch reduction achieved from Florida's recent regulation changes was calculated under different scenarios. Under a perfect compliance assumption, Florida's catch reduction was estimated to be 16.8% (Table 6). For context, this would result in an overall catch reduction of 9.3% for the southern stock if all other states were to maintain their current regulations and be insufficient to meet the reductions necessary for the Board-requested *F* scenarios. Different draws of non-compliance data, over 1,000 iterations, were then used to estimate a minimum, maximum, and mean noncompliance rate. Providing a range around the catch reduction estimates with noncompliance helps to account for the rarity of noncompliant trips and the uncertainty of how noncompliance rates will change following regulation changes. Incorporating additional mortality from potential noncompliance, the estimated catch reduction range for Florida was 12.8% to 15.2% with an average catch reduction of 14.9% (Table 7). This average catch reduction would result in an overall catch

reduction of 8.3% for the southern stock if all other states were to maintain their current regulations and would also be insufficient to meet the reductions necessary for the Board-requested *F* scenarios. Incorporating additional documented mortality into catch reduction analyses has been done for striped bass and provides a more conservative catch reduction estimate than assuming 100% compliance.

Although the catch reduction achieved by Florida's regulations can be estimated using the tools developed by the TC, some of the reduction in catch has already been realized since the regulations were implemented over two years ago. Comparing the average annual MRIP catch data from September 2022 through August 2024 (preliminary data since January 2024) to the average annual catch from September 2018 through August 2021, catch from the east coast of Florida has actually declined by 21.6%. However, this only uses two years of MRIP data, and more years of data would be needed to account for potential inter-annual variation in year class strength.

Task 2: *Discuss how to interpret the TLA result of "Moderate Action", as well as methods for estimating regulation change impacts for the northern stock.*

The TLA, used for the northern stock as the primary status determination methodology, established that the northern stock is neither experiencing overfishing nor is the stock overfished. Overfishing is defined by fishery performance, the threshold for which is a red tabulated metric summary in any one of the last three terminal years. In the case of the northern stock, the TLA has shown yellow tabulated metric summaries for all three of the previous three years, suggesting levels of "Moderate Action" from management as described in the stock assessment report. However, the report did not describe how to interpret the "Moderate Action" determination.

The TC and SAS recommend managers continue to monitor these trends and do not relax existing management measures for the northern stock. The TC and SAS conclude that this constitutes "Moderate Action" in this scenario and do not recommend specific regulatory changes for the northern stock at this time. However, fishery performance has been showing increasing proportions of red in annual metric results since the mid-2000s. Specifically, five of the seven terminal years for which data are available had red exceeding the color threshold (2016-2022), while from 2003-2015 only one year (2011) resulted in red exceeding the color threshold and three years (2003-2005) had green results. This trend points to increased fishing effort across the northern stock, consistently approaching threshold values. To monitor this trend moving forward, the TC and SAS recommend updating the TLA for both stocks between assessments. It is important to note that such an update would not trigger a new overfishing determination for the northern stock considering determinations of the terminal years of the assessment report and the seven-year period to trigger fisheries performance. However, such an update could benefit managers as they navigate managing this fishery and prepare for future assessments.

Per the TLA reference points, an overfished status is only triggered when the tabulated metric summary for adult abundance is red in any one of three previous years. The northern stock was

not determined to be overfished as none of the three previous years were red ("Elevated Action"). However, similar to fishery performance, recent annual metrics of adult abundance have been trending towards yellow and red designations. Specifically, from 2019 to 2022 two years had yellow exceeding the color threshold and the terminal year (2022) had red exceeding the color threshold. This contrasts with the period from 2012 to 2018 in which six years had green results and only one had yellow exceeding the color threshold. Considering the long-lived nature of this species, the indications of decreasing adult abundance substantiate the recommendation to more closely monitor the population and to not relax existing protections for the adult or sub-adult populations in the northern stock. Future assessments would greatly benefit from the development of abundance indices, most notably from the northern edge of the stock, including Virginia northward. An investment by the northern states to improve the quantity and quality of their red drum monitoring efforts, adherence to current status-quo protection measures, and a TLA update between assessments would all constitute "moderate action" on the part of managers and partner states.

To assist with continued monitoring efforts of the northern stock, the TC and SAS developed additional TLA scenarios for tabulated metric summaries during the benchmark stock assessment that represent concerning conditions managers would likely need to address via regulatory changes. Note, none of these scenarios were observed as of the most recent stock assessment and instead represent potential warning signs to be monitored in future TLA updates.

1. If fishery performance is yellow in any of the past three years and recruitment is red for five consecutive years (a generation of the vulnerable population), there has been consistent below average recruitment and increasing catch and/or decreasing sub-adult abundance.
2. If both fishery performance and adult abundance in any of the past three years are yellow, the stock is experiencing increasing catch and/or decreasing sub-adult abundance which is leading to declines in adult abundance.
3. If recruitment is red for five consecutive years and adult abundance is yellow in any of the past three years, there has been consistent below average recruitment representing concern for the future of the adult abundance.

Although the SS method was the primary method of stock status determination for the southern stock, the TLA for the southern stock did display an increased quantity of red results compared to the northern stock. This agreement between the two methods gives the TC and SAS confidence in utilizing the TLA for current and future stock determinations for the northern stock in the absence of formal integrated assessment models. Further, scenarios 2 and 3 above were both observed for the southern stock, adding further evidence of agreement between SS and TLA methods. These triggers offer the opportunity to utilize these cautionary scenarios to inform management decisions, as intended.

As a complementary analysis to the TLA, the Skate Method was used and included in the stock assessment for the northern stock. This method identified an extended period of overfishing

utilizing a North Carolina index and regional catch data. This methodology indicated *F* values have been steadily increasing since the beginning of the time series (2005), exceeding the overfishing threshold associated with this method since 2015. To prevent this designation, a relative decrease in catch on the order of 23% would have been needed in North Carolina since approximately 2015. The Skate Method represents a more risk-averse approach to management due to its shorter integration period (3 years) vs. the longer integration period needed for the TLA (7 years for fishery performance and 10 years for adult abundance), which is why it exceeded its threshold sooner than the TLA. This analysis also suggests recent increasing trends in *F* in the northern stock.

If the Board wishes to estimate the impacts of regulatory changes for the northern stock, the TC recommends using the same bag, vessel, and slot size catch reduction methods as those described above for the southern stock. Consistent with its recommendation that specific regulatory changes are not necessary for the northern stock at this time, the TC did not conduct any catch reduction analyses for the northern stock. If estimated stockwide catch reductions associated with specified *F* scenarios are desired in the future, a method to estimate these reductions would also need to be identified given that the TLA is a qualitative tool and does not have the same projection functionality as the SS model used for the southern stock.

References

ASMFC. 2002. Amendment 2 to the Interstate Fishery Management Plan for Red Drum; Fishery Management Report No. 38 of the Atlantic States Marine Fisheries Commission. ASMFC.

ASMFC. 2024. Red Drum Benchmark Stock Assessment and Peer Review Report. Atlantic States Marine Fisheries Commission, Stock Assessment Report, 457 p.

Chen, H. and A. R. Rao. 2007. When two plus two is not equal to four: errors in processing multiple percentage changes. *Journal of Consumer Research*, 34.

Methot, R.D., C.R. Wetzel, I.G. Taylor, K.L. Doering, and K.F. Johnson. 2023. Stock Synthesis User Manual Version 3.30.21. NOAA Fisheries, Seattle, WA.

Tables

Table 1. Red drum southern stock projection scenario results. Age-2 fishing mortalities are reported here with fishing mortality for other ages determined according to model-estimated fleet selectivities.

Scenario	Projected Age-2 Fishing Mortality	Catch Reduction Needed from 2019-2021 Average F Catch	Years to SSB Threshold (9,917 mt)	Years to SSB Target (13,250 mt)
$F_{40\%}$	0.301	28.1%	5	32
$F_{35\%}$	0.345	21.4%	6	NA
$F_{30\%}$	0.396	14.4%	23	NA
2019-2021 Average *F*	0.526	NA	NA	NA

Table 2. Percentages of reported dead fish in South Carolina MRIP intercept data by disposition.

Time Period	Type A Fish (i.e., Claim)	Type B1 Fish (i.e., Harvest)	
	Observed Harvest	Reported Harvest	Reported Released Dead
2018 (Sep-Dec)	89%	11%	0%
2019 (Mar-Aug)	92%	8%	0%
2019 (Sept-Dec)	92%	8%	0%
2020 (Mar-Aug)	93%	7%	0%
2020 (Sept-Dec)	88%	12%	0%
2021 (Mar-Aug)	88%	12%	0%
2021 (Sept-Dec)	83%	16%	1%
2022 (March-Aug)	72%	18%	0%

Table 3. Percentages of reported dead fish in Georgia MRIP intercept data by disposition.

Time Period	Type A Fish (i.e., Claim)	Type B1 Fish (i.e., Harvest)	
	Observed Harvest	Reported Harvest	Reported Released Dead
2018 (Sep-Dec)	87%	13%	0%
2019	85%	11%	5%
2020	84%	16%	0%
2021	92%	8%	0%
2022 (March-Aug)	96%	4%	0%

Table 4. Percentages of reported dead fish in Florida MRIP intercept data by disposition.

Time Period	Type A Fish (i.e., Claim)	Type B1 Fish (i.e. Harvest)	
	Observed Harvest	Reported Harvest	Reported Released Dead
2018 (Sep-Dec)	83.7%	16.3%	0.0%
2019	92.7%	6.7%	0.6%
2020	95.6%	4.4%	0.0%
2021	93.7%	5.8%	0.5%
2022 (March-Aug)	94.6%	5.4%	0.0%

Table 5. Percentage of red drum harvest-at-size from 2018-2021 MRIP data available for catch reduction analyses. Grey shaded cells show catch treated as compliant with slot size limits in place during these years.

Total Length (inches)	SC	GA	NE FL	IRL FL	SE FL
10		0.2%			
11		0.0%			
12	0.1%	0.2%			
13	0.2%	1.7%			
14	0.5%	13.5%	7.9%		
15	12.6%	20.3%			
16	20.5%	18.6%			
17	14.1%	14.1%	2.6%	10.5%	
18	9.6%	9.0%	9.4%	7.1%	
19	11.3%	7.0%	6.9%	3.5%	
20	11.3%	4.3%	5.4%	2.2%	
21	5.5%	5.9%	18.0%	21.5%	
22	7.7%	2.0%	10.9%	8.1%	
23	3.9%	1.8%	9.5%	9.4%	
24	0.7%	0.8%	8.9%	18.1%	
25	1.4%	0.2%	5.7%	8.5%	No Data
26	0.0%		4.9%	7.6%	
27			7.7%	3.1%	
28	0.2%	0.2%	2.1%	0.5%	
29			0.1%		
30					
31	0.4%				
32					
33					
34					
35					
36					
37					
38	0.1%				
39		0.1%			
40	0.1%				

Table 6. Catch reductions estimated for regulation changes that occurred following the stock assessment assuming perfect compliance with regulations.

Jurisdiction	2022 Regulation Changes	Removals		Reduction
		With 2018-2021 Regulations	With Current Regulations	
South Carolina	None	1,651,574	1,651,574	0.0%
Georgia	None	1,709,947	1,709,947	0.0%
Florida		4,207,205	3,499,687	16.8%
Northeast	*Reduced vessel and bag limits*	*3,479,763*	*3,129,735*	*10.1%*
Indian River Lagoon	*Catch-and-release only*	*725,409*	*367,919*	*49.3%*
Southeast	*Reduced vessel limit*	*2,033*	*2,033*	*0.0%**
Southern Stock	N/A	7,568,726	6,861,208	9.3%

**All removals from the Southeast Florida management region from 2018-2021 were due to discard mortality of released fish, hence no reduction to removals from regulation changes designed to reduce harvest.*

Table 7. Catch reductions estimated for regulation changes that occurred following the stock assessment assuming noncompliance with regulations based on rates observed from 2018-2021. Ranges on reductions are reported for 1,000 analysis iterations due to the random selection process for noncompliance rate calculations used in the analysis.

Jurisdiction	Removals				Reduction		
	With 2018-2021 Regulations	With Current Regulations					
		Minimum	Mean	Maximum	Minimum**	Mean	Maximum**
South Carolina	1,651,574	1,651,574	1,651,574	1,651,574	0.0%	0.0%	0.0%
Georgia	1,709,947	1,709,947	1,709,947	1,709,947	0.0%	0.0%	0.0%
Florida	4,207,205	3,566,826	3,581,553	3,668,650	12.8%	14.9%	15.2%
Northeast	*3,479,763*	*3,170,789*	*3,178,253*	*3,237,547*	*7.0%*	*8.7%*	*8.9%*
Indian River Lagoon	*725,409*	*394,005*	*401,267*	*429,070*	*40.9%*	*44.7%*	*45.7%*
Southeast	*2,033*	*2,033*	*2,033*	*2,033*	*0.0%**	*0.0%**	*0.0%**
Southern Stock	7,568,726	6,928,348	6,943,074	7,030,171	7.1%	8.3%	8.5%

All removals from the Southeast Florida management region from 2018-2021 were due to discard mortality of released fish, hence no reduction to removals from regulation changes designed to reduce harvest. Minimum reductions are calculated with the maximum removals across iterations, while the maximum reductions are calculated with the minimum removals across iterations.*

Figures

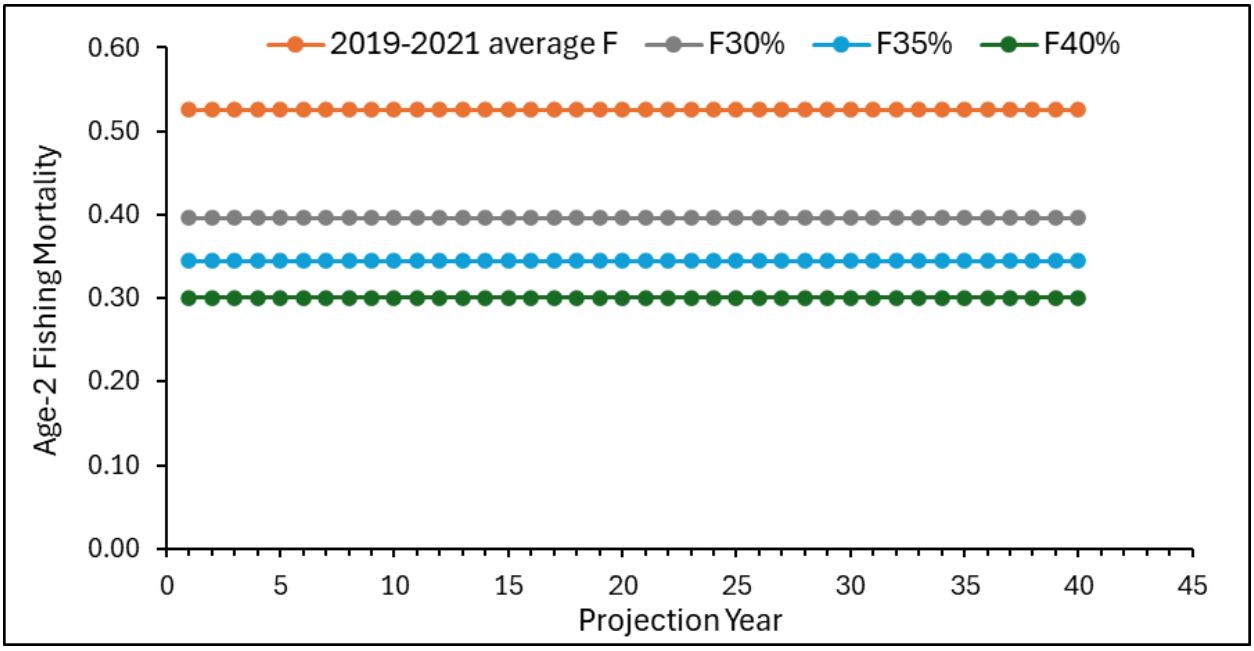

Figure 1. Red drum southern stock projection scenario fishing mortality for age-2 fish.

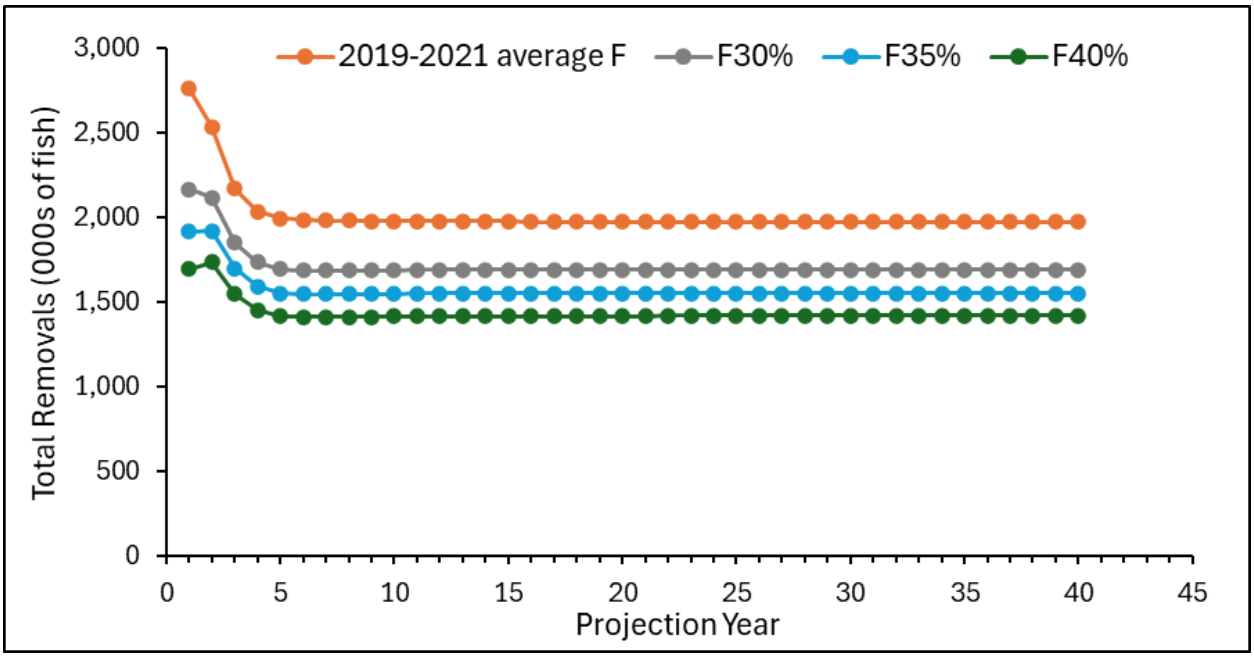

Figure 2. Red drum southern stock projection scenario total removals (harvest and dead discards).

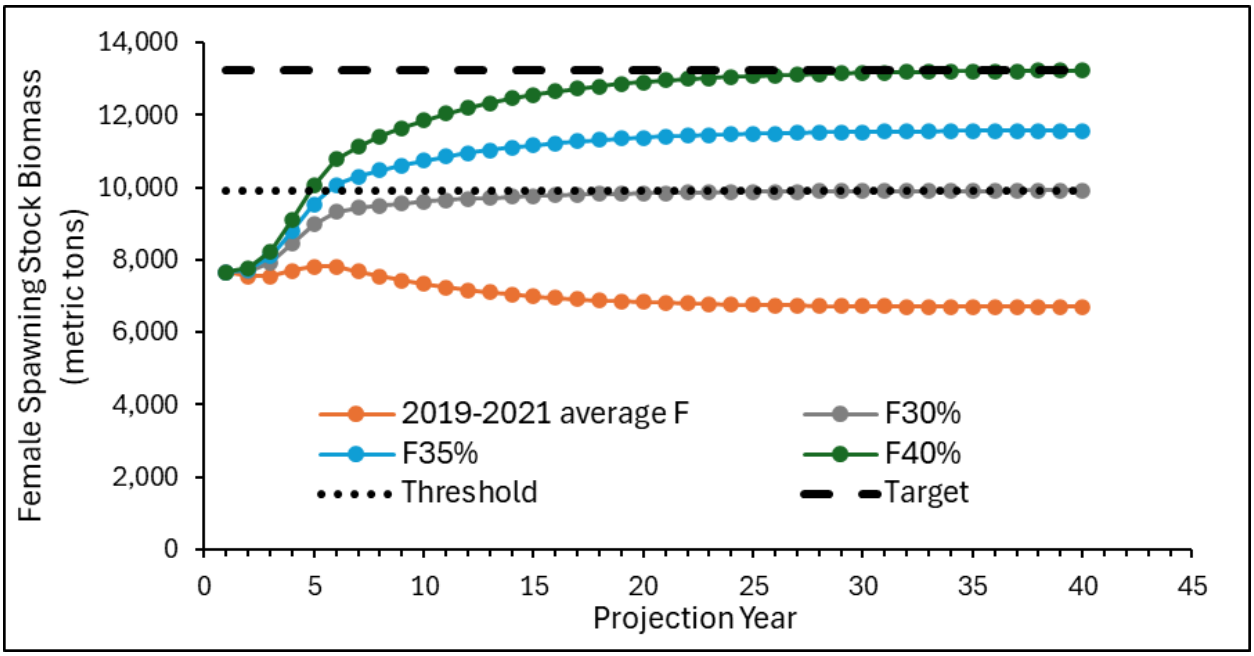

Figure 3. Red drum southern stock projection scenario female spawning stock biomass.

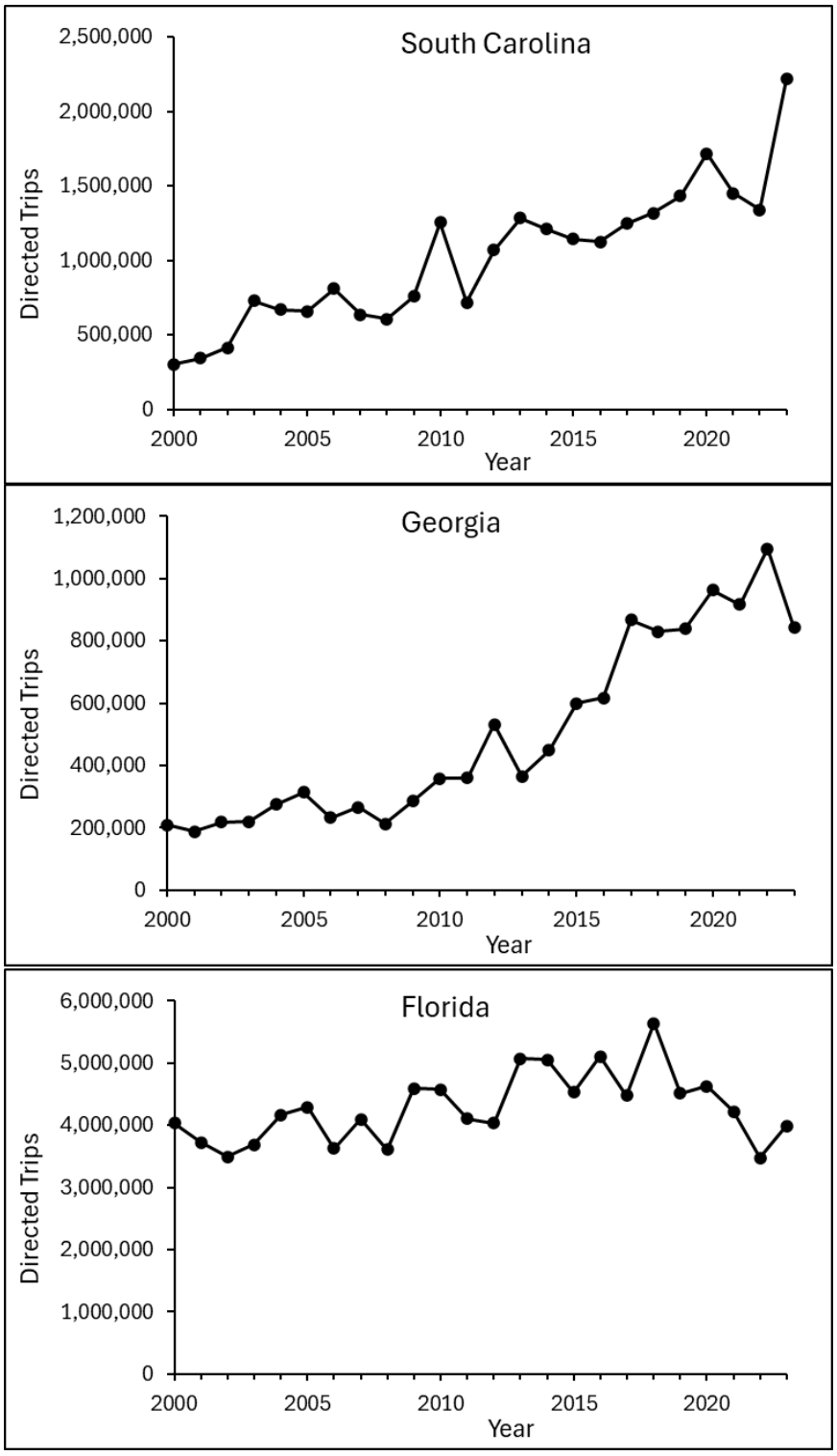

Figure 4. Recreational fishing trips directed at red drum in southern stock states. Directed is defined as red drum reported by the angler(s) as primary or secondary target species of the fishing trip. 2023 data are preliminary.

From: ASMFC
To: Comments
Subject: [External] New public comment for 2025 Spring Meeting
Date: Thursday, April 17, 2025 9:41:54 AM

2025 Spring Meeting

Action Title
2025 Spring Meeting
Action URL
https://asmfc.org/events/2025-spring-meeting/
Name
Mark McGarity
Email
markmg22@yahoo.com
State
Georgia
Comment

As a Savannah resident with over 30 years of inshore angling experience, a founding member of GeorgiaRedfish.com (org that initiated gamefish status push in 2013) and a member of Georgia DNR's Marine Fishery Advisory Council, I've witnessed a dramatic and alarming decline in our Red Drum fishery since about 2010. This is confirmed by the 2024 ASMFC assessment (overfished, overfishing, declining recruitment) and the overwhelming public support for regulatory change (75% of 1,300+ comments) during CRD's public comment period in 2022.

In my opinion, the state's proposed changes from 2022 are insufficient to save this already collapsing fishery. That proposal, according to GA DNR's own numbers would only result in an 11% reduction in harvest which doesn't match the scale needed to rebuild the stocks. GA now has a fishery comprised primarily of old offshore bulls and their 1-2 year old slot size offspring, very little in between. Our coastal flats used to teem with massive schools of over slot fish from Savannah to Cumberland. For the most part, all those fish vanished from our flats about 15 years ago. If we don't act now, and act aggressively there won't be enough young fish surviving the slot to replace our disappearing bulls.

Suggestions have been made that FL and SC may have reduced their take enough recently, so perhaps GA doesn't need to make any changes. This is a concerning argument to say the least, but in line with GA's 30+ year history of inaction. We are completely out of line with the other southern stock states. It's time we stop undermining their responsible efforts and start doing our part.

Given our fishery's current downward trajectory, Georgia's exploding coastal population/fishing pressure and red drum's slow growth rate, a reasonable change would be: (2) Fish limit, 18-25 slot, (4) vessel limit and no captains take. Personally I would like to see a (1) fish limit but compromise is important, hence (2) larger fish, which will yield more meat than (5) 14 inch fish that are currently allowed by GA regs.

Thank you for all of your efforts and attention to this long overdue issue. There are many people in GA that have hoped this day would eventually come, so please take strong and decisive action.

Have a great day.

From: ASMFC
To: Comments
Subject: [External] New public comment for 2025 Spring Meeting
Date: Thursday, April 17, 2025 11:18:05 AM

2025 Spring Meeting

Action Title
2025 Spring Meeting
Action URL
https://asmfc.org/events/2025-spring-meeting/
Name
Matt Amman
Email
mattamman28@gmail.com
State
Georgia
Comment
Reduce the kill limits to 2 fish per person between 18-27”. Same length limits as FL. Stop these clowns from killing our reds.

From: ASMFC
To: Comments
Subject: [External] New public comment for 2025 Spring Meeting
Date: Thursday, April 17, 2025 11:14:06 AM

2025 Spring Meeting

Action Title
2025 Spring Meeting
Action URL
https://asmfc.org/events/2025-spring-meeting/
Name
Brent Goodman
Email
Brentgoodman@coastalsashanddoor.com
State
Georgia
Comment
The red drum fishery in the greater Savannah area is at an all time high in regards to fishing pressure. While some anglers practicing catch and release on slot reds - most do not. 5 red drum per person is a ridiculous per day, per angler harvest amount. The harvest should be more in line with FL which for the most part is 1 fish per day per angler. Vessel max should be 3. Slot size should be 14-18”… fish greater than 18” typically the meat quality starts to decrease. I have fished Savannah since the 80’s… and it is obvious the red drum population takes a hit year after year. It’s sad it has taken this long to finally address, but I hope it is addressed soon and with much lower harvest amounts. Thank you for considering my input on the matter.

From: ASMFC
To: Comments
Subject: [External] New public comment for 2025 Spring Meeting
Date: Thursday, April 17, 2025 10:48:29 AM

2025 Spring Meeting

Action Title
2025 Spring Meeting
Action URL
https://asmfc.org/events/2025-spring-meeting/
Name
Ben Austin
Email
banjoaustin@gmail.com
State
Georgia
Comment
Please save the Georgia Redfish Population! Please reduce the limit to 1 fish a day per person and 2 per boat w/a slot of 18-24" and Charter Captains cannot keep fish in addition to their anglers: "no captains take". This would better align GA w/SC and FL regulations and give the population a chance to recover.

From: ASMFC
To: Comments
Subject: [External] New public comment for 2025 Spring Meeting
Date: Thursday, April 17, 2025 11:22:49 AM

2025 Spring Meeting

Action Title
2025 Spring Meeting
Action URL
https://asmfc.org/events/2025-spring-meeting/
Name
Simon Belcher
Email
simonbelcher1325@gmail.com
State
Georgia
Comment
All limits need to be cut. Penalties increased for violation. Circle hook use only for bait fishing. Redfish limit set at 1 per person 2 per boat. We can clearly see that when harvest limits are set and moratoriums are in place fisheries bounce back stronger. Migratory fish limits need to be looked at as well….moratorium on cobia

Atlantic States Marine Fisheries Commission

Atlantic Striped Bass Management Board

May 6, 2025
1:15 – 5:15 p.m.

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)*	1:15 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from February 2025	1:15 p.m.
3.	Public Comment	1:20 p.m.
4.	Update on 2027 Benchmark Stock Assessment (*K. Drew)* **Action** • Review and Consider Stock Assessment Terms of Reference • Review and Populate Stock Assessment Subcommittee Membership	1:30 p.m.
5.	Consider Approval of Draft Addendum III on Future Management Measures, Commercial Tagging, and Total Length Measurement for Public Comment *(E. Franke)* **Action** • Technical Committee Report on Stock Projections *(K. Drew)* • Maryland Proposal for Recreational Season Baseline Option *(M. Luisi)*	2:05 p.m.
6.	Other Business/Adjourn	5:15 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

Atlantic Striped Bass Management Board
May 6, 2025
1:15 – 5:15 p.m.

Chair: Megan Ware (ME) Assumed Chairmanship: 1/24	Technical Committee Chair: Tyler Grabowski (PA)	Law Enforcement Committee Rep: Sgt. Jeff Mercer (RI)
Vice Chair: Chris Batsavage (NC)	Advisory Panel Chair: Vacant	Previous Board Meeting: February 4, 2025
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 February 2025

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. Update on 2027 Benchmark Stock Assessment (1:30-2:05 p.m.) Action

Background

- Work on the 2027 Benchmark Stock Assessment for Atlantic Striped Bass has begun and is scheduled to be presented to the Board in May or August 2027.
- The Technical Committee (TC) and met in March 2025 to develop draft terms of reference **(Briefing Materials)**.
- Board members submitted nominations for the 2027 Benchmark Stock Assessment Subcommittee **(Briefing Materials)**.

Presentations

- Overview of draft terms of reference and stock assessment subcommittee nominations by K. Drew

Board actions for consideration at this meeting

- Approve stock assessment Terms of Reference
- Approve Stock Assessment Subcommittee Membership

5. Draft Addendum III (2:05-5:15 p.m.)

Background

- The Board initiated an addendum in December 2024 to consider changing management measures in 2026 to support stock rebuilding.
- The Board provided guidance to the Plan Development Team (PDT) in February 2025 on the scope of options for recreational and commercial measures and added options to consider commercial tagging and a coastwide definition of measuring 'total length'.
- The Board also agreed to consider in May 2025 whether to include an option allowing Maryland to change its baseline recreational season **(Supplemental Materials).**
- The TC met in March 2025 to discuss projections and associated reductions for 2026, to address recreational measures analysis methods, and to review Maryland's recreational season baseline methods **(Briefing Materials).**
- The Board requested projection sensitivity runs extending the projections beyond 2029 and using a lower recruitment assumption **(Supplemental Materials).**
- The PDT requested input from the Striped Bass Advisory Panel on the total length issue and from the Law Enforcement Committee on all three addendum issues **(Briefing Materials)**.
- The PDT developed the draft addendum for Board review and provided an accompanying memo with specific points for Board discussion **(Briefing Materials)**.

Presentations

- TC Report on Stock Projections by K. Drew
- Overview of Draft Addendum III for public comment by E. Franke
- Maryland proposal for baseline recreational season option by M. Luisi

Board action for consideration at this meeting

- Approve Draft Addendum III for public comment

6. Other Business/Adjourn (5:15 p.m.)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ATLANTIC STRIPED BASS MANAGEMENT BOARD

The Westin Crystal City
Annapolis, Maryland
Hybrid Meeting

February 4, 2025

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ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)
Steve Train, ME (GA)
Rep. Allison Hepler, ME (LA)
Cheri Patterson, NH (AA)
Doug Grout, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Nichola Meserve, MA, proxy for D. McKiernan (AA)
Raymond Kane, MA (GA)
Rep. Jennifer Armini, MA (LA)
Jason McNamee, RI (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Matt Gates, CT, proxy for J. Davis (AA)
Bill Hyatt, CT (GA)
Craig Miner, CT proxy for Rep. Gresko, CT (LA)
Marty Gary, NY (AA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NY (AA)
Jeff Kaelin, NJ (GA)
Adam Nowalsky, proxy for Sen. Gopal (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)
Michael Luisi, MD, proxy for L. Fegley (AA)
Russel Dize, MD (GA)
Pat Geer, VA, proxy for J. Green (AA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Daniel Ryan, DC, proxy for R. Cloyd
Lowell Whitney, US FWS
Max Appelman, NMFS

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

Ex-Officio Members

Tyler Grabowski, Technical Committee Chair
Mike Celestino, Stk. Assmnt. Subcommittee Chair
Sgt. Jeff Mercer, Law Enforcement Committee Rep.

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
Emilie Franke
Katie Drew

The Atlantic Striped Bass Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, via hybrid meeting, in-person and webinar; Tuesday, February 4, 2025, and was called to order at 2:45 p.m. by Chair Megan Ware.

CALL TO ORDER

CHAIR MEGAN WARE: It's 2:45, so we're going to call to order the Striped Bass Board.

APPROVAL OF AGENDA

CHAIR WARE: We'll start with Approval of the Agenda. Are there any additions or modifications to today's agenda? Seeing none; the agenda is approved by consent. Next is approval of proceedings from our December, 2024 meeting.

APPROVAL OF PROCEEDINGS

CHAIR WARE: Are there any edits to the proceedings from December, 2024? Seeing none; the proceedings are approved by consent.

PUBLIC COMMENT

CHAIR WARE: Next is public comment, so we're looking for comments on items that are not on the agenda. I'll look for a show of hands either in the room or on the webinar, and we'll go from there. I am not seeing any hands on the webinar or in the room. Giving folks one more opportunity.

REVIEW AND CONSIDER STOCK ASSESSMENT SCHEDULE

CHAIR WARE: Okay, we will move on to Item Number 4, which is Review and Consider the Stock Assessment Schedule. Today we're going to review the timeline for our 2027 Benchmark Stock Assessment and the Technical Committee recommendations on the assessment schedule. I will pass it over to Katie Drew.

DR. KATIE DREW: I know it feels like we just finished the 2024 assessments, but it is in fact time to start thinking about the 2027 Benchmark Assessment timeline. Part of the reason we're maybe going a little faster than usual is striped bass is on the NRCC schedule to be reviewed through a spring 2027 research track process, which means it will get reviewed in mid-March 2027. In the past we've been on the fall schedule, so October or November-Ish.

This means we do need to be done about six months sooner than we have been for previous benchmarks, so we are starting now, essentially. This timeline will allow us to include the recalibrated MRIP data, because that is scheduled to be released in April of 2026, but that does mean that we will only have data through 2025. We will not have time to get 2026 data into the assessment for this review.

REVIEW TIMELINE FOR 2027 BENCHMARK STOCK ASSESSMENT AND TECHNICAL COMMITTEE RECOMMENDATION ON ASSESSMENT SCHEDULE

DR. DREW: Here is kind of a maybe too detailed assessment timeline. The point I just wanted to highlight here is that a couple of the next steps will be approving the TORs in the Stock Assessment Subcommittee, and we already have put out the call for the 2024 data as a TC. We'll also be doing, because this is a benchmark, a full press release to allow other sources of data, new sources of data to be brought to the table by people outside of the usual Technical Committee process, to be considered at a data workshop in July of this year. We will sort of be finishing up with an Assessment Workshop in August of 2026, in order to have the assessment sort of completed and reviewed at the Technical Committee level by January in 2027, so that that report can go to

the Panel in mid-February, and then to the Review Workshop in mid-March.

In theory, this means it could be presented to the Board at spring meeting in 2027. However, in the past, we sent both to get the final assessment and peer reports from the NRCC, and so this may end up getting pushed back until August if the materials are not available in time. But either way, we're talking about either May or August, so spring or summer of 2027, having the completed benchmark assessment.

In terms of immediate Board tasks that are coming up, we do need to nominate and approve the SAS, so a call for nominations with that go out via e-mail after this meeting, and the SAS will be approved by the Board at the spring meeting. Similarly, we need to approve the TORs.

The TC will meet and provide a set of draft TORs as part of the materials for the spring meeting. At which point the Board can have a chance to provide edits or ask questions or provide feedback, and approve the TORs during that spring meeting, which will be then sent to the NRCC for their consideration and approval as part of their process. But those are two of the immediate things that we're going to look at the Board for coming up.

We also, technically, on the assessment schedule have a little tentative assessment update scheduled for 2026, following the usual two-year cycle for striped bass. If you remember, we were supposed to have, after the most recent stock assessment, a benchmark stock assessment in 2019. We were supposed to do an update in '21, '23, '25 and then a benchmark in '27.

Because the 2021 assessment update would have had 2020 as the terminal year, the TC recommended and the Board agreed to push that back a year, so that we could have a non-COVID year as the terminal year, and avoid some of that uncertainty around the 2020 data. But as a result, we sort of bumped up now into having an assessment technically scheduled for 2026, right in front of this benchmark assessment.

CONSIDER WHETHER TO CONDUCT 2026 STOCK ASSESSMENT UPDATE

DR. DREW: The TC is recommending that this update not be conducted, that we just skip this 2026 update, for a number of reasons. Mainly, the 2026 update would overlap, basically completely with the 2027 benchmark work and that to have the update completed by annual meeting, we would actually need to move up the deadline for our 2025 data, which would put additional pressure on the TC and the SAS with that release of the calibrated numbers, to basically put in a shorter turnaround time to incorporate this new time series into the assessment update.

It's not just a matter of adding a new year of data, we have to redo the whole time series to include those calibrated numbers, and then after all of this work, the 2027 benchmark would be available less than a year later with a potentially new model, potentially new reference point, et cetera. I think the TC questions whether the Board would actually use the information in the 2026 assessment in any way, knowing that a benchmark assessment will be available less than a year later. The TC and the SAS can provide the Board with data checking throughout the benchmark assessment process, so we can provide a summary of removals and the two indices in 2025 and 2026, and we can if the Board is interested provide updated projections with the current model and the uncalibrated data when the 2025 data are available is desired to help the Board sort of check in on progress.

But the TC feels very strongly that doing the 2026 assessment would just be an untenable workload, and the priority should be the

completion of the 2027 benchmark assessment. With that I am happy to take any questions.

CHAIR WARE: The Board action today is whether to make a recommendation on removing that 2026 stock assessment update. If we come to a consensus, I'm hoping we don't need a motion, but we'll get to that point after some questions. Are there any questions for Katie on her presentation? Mike Luisi.

MR. MICHAEL LUISI: In reality we're talking about probably a six-month period of time between what would be the result of a 2026 assessment update that would be delivered, let's say in October at an annual meeting, and then the benchmark assessment, which would be the spring of the following year, which is only six months' time. I'm getting nods, so that helps me understand the timing.

DR. DREW: Yes, that's correct.

MR. LUISI: With that understanding I think I would be supportive of following the guidance of the Technical Committee at this point and just waiting until that benchmark. I think that is going to be our next bigger opportunity to have a comprehensive discussion about the state of this resource, and the status of the stock. I think by doing both, we're just going to compound the concerns and confusion, even by the public.

CHAIR WARE: Next I have Joe Cimino.

MR. JOE CIMINO: Not truly a question. I agree with Mike; I worry about the confusion. You know the whole intent of a benchmark is to perhaps bring something new forward. The question part of it would be, just to confirm, there is going to be a continuity run, and that as Mike pointed out, the timeline for that will happen within maybe six to eight months from what we would have seen as an update. But my concern would be the confusion here if the benchmark does pivot in any way, that the information in that update that the Board got may not be as relevant.

CHAIR WARE: I'm not seeing any other questions. Is there anyone who is uncomfortable or disagrees with the TC recommendation not to conduct that 2026 stock assessment update? Nichola Meserve.

MS. NICHOLA MESERVE: Not opposition to that. I fully support the Technical Committee's recommendation. I did want to ask, I guess, about the prospect of an update immediately after the benchmark assessment. The benchmark is going to have data through 2025, and particularly if we were to change management measures in 2026, having an update sooner rather than later would be of interest, to make sure that we're not in a similar situation, the last assessment where we were making projections about how management measures have impacted our fishery performance.

DR. DREW: Yes, I think if the Board was interested in doing an assessment update in sort of, I guess, almost a federal model of, you have your research track and then you would base management on that immediate subsequent management track or update. I think that is something the Board could definitely consider.

In terms of timeline, I think we would be looking at presenting that update in November or at the annual meeting, instead of, would that be able to have the 2026 data versus say presenting it in, I mean we can present the benchmark when it is available, which would be May or August, but there is no way that we could do an update before November, to include 2026 data.

I think maybe if you get closer to that the Board can think about, do you want to respond based on the 2025 terminal year and some projections based on what we see happen in 2026. Do you want to wait and see, do a real quick update,

which is definitely additional work for the TC after they just went through a benchmark, or there are options for the Board to consider. But it would add additional time to get that 2026 data and add it to the assessment.

CHAIR WARE: Do you have a response, Nichola?

MS. MESERVE: Just to confirm. That is a discussion that we'll have a year or two from now as to when the next assessment would be.

DR. DREW: I mean if you guys have an opinion on that right now and are ready to make a decision you could definitely make that, but I think the schedule is definitely still open, in terms of like what happens after that benchmark. We don't really have anything set in stone at the moment.

MS. MESERVE: Okay, thank you.

DR. DREW: IN terms of when you would like what the drop-dead date would be, I think probably sometime next year would be the latest, just in terms of everybody's understanding, everybody's workload, and kind of what we would need to do coming out of that assessment. I think the focus is going to be 100 percent on the benchmark until we're done with it, but then like knowing for 2027, what do we need to be prepared to talk to you guys about?

Like do you want to see a lot of projections right away, do you want to wait for that update, you know that kind of stuff. Maybe sometime in mid to late 2026, you guys can talk about what you're feeling. I do feel a little bit like you guys are probably not going to want to make the decision until you see the answer, but maybe that is my own cynicism here. I think there is not a hard, necessarily, a hard deadline at this point, but late 2026.

CHAIR WARE: I think what I'm hearing is we can see how Addendum III progresses and help that inform our decision, so that would be my recommendation. Is there anyone who is opposed to the TC recommendation to not do the 2026 stock assessment update? Seeing no hands, I'm going to take that as a consensus position from the Board to not do that 2026 assessment update. That recommendation will go to the Policy Board tomorrow. Thank you, Katie. We're now going to move on to starting to talk about Addendum III, which is for the 2026 measures.

Emilie is going to review our timeline for that Draft Addendum and highlight some questions for the Board today, and we're hoping to get some feedback for the Plan Development Team, so that we can come back to the May meeting with a fairly solid draft of that Addendum, and continue to get more feedback. I will pass it over to Emilie.

DISCUSS SCOPE OF DRAFT ADDENDUM III FOR 2026 MEASURES

MS. EMILIE FRANKE: I will jump right in here to talk about Draft Addendum III. I just want to first refresh everyone's memory of the motion that the Board approved a little less than two months ago. Move to initiate an Addendum to support striped bass rebuilding by 2029, in consideration of 2024 recreational and commercial mortality, while balancing socioeconomic impacts.

Options should include, if needed, a range of overall reductions, consideration of recreational versus commercial contributions to the reductions, recreational season and size changes, taking into account regional variability of availability and no harvest versus no targeting closures. Final action should be taken by the annual 2025 meeting, in order to be in place for the 2026 fisheries.

REVIEW TIMELINE AND INITIAL SCOPE

MS. FRANKE: First, I just want to talk about the timeline piece. The motion specified taking final action by the annual meeting, and the Board discussed sort of two potential timelines. The fastest potential timeline would actually be completing the Addendum by August, so in that scenario we're here today in February, where the Board will be providing guidance to the PDT.

PROVIDE GUIDANCE TO PLAN DEVELOPMENT TEAM

MS. FRANKE: Then the PDT can come back to the Board at the spring meeting in May with a Draft Addendum. If the Board approves the Draft Addendum for public comment at that May meeting, we would have public hearings on the public comment in May and June, and then it would come back to the Board in August to select final measures and approve the Addendum.

Alternatively, for taking final action in October, that would provide some more time if the Board had additional guidance or modifications they wanted to see for the Draft Addendum through this process. You know we would start the same way. The PDT would start work after today, come back in the spring with a draft document.

In May, if the Board decides that they would like to see the document modified, the PDT could go back, make the modifications over the summer, and then come back to the Board again in August, with the updated Draft Addendum. The Board could then approve it for public comment in August. You would have public hearings and a comment period in August and September, and then the Board would take action in October.

Those are the two potential timelines here. Then to address the motion, in terms of what the motion specified for the Draft Addendum. Based on that motion, the PDT has been assembled, and the PDT will look at potential reductions for 2026 based on TC projections that will incorporate preliminary 2024 data. That data from MRIP should be available mid to later this month. The Technical Committee will meet sometime in March to discuss those projections. The projections will continue to use target 50 percent probability of rebuilding, unless the Board indicated otherwise today. Then of course, also according to the motion, the PDT will consider different options for how the sectors would contribute to that reduction.

For any reduction, for any reduction on the commercial side, the PDT would consider commercial quota reductions. For any reductions on the recreational side, the PDT would consider size limit changes and/or season closures, as specified in the motion, both no harvest and no targeting closures.

But today we are requesting some additional guidance from the Board to further narrow the scope of these potential options. I think there was a lot of discussion at the last meeting about, you know the TC report from December had a lot of different options, particularly for seasonal closures. This is a new management tool for the Board, so there is a lot of things to think about with regard to seasonal closures especially, but also for size limits and a couple of other things.

We're hoping today to get some guidance to help the PDT really focus on what the Board wants to see in this Addendum. The first question, these questions were all laid out in a memo to the Board that was in Main Materials, so I'm just going to go over the questions. First is on recreational mode splits.

This topic has come up at the Board in recent management actions, so it would be helpful to know up front if the PDT should be considering mode splits for recreational options, so that we know what we should be looking at. The next set of questions is on recreational size limits.

The first is the Board looking for slot limits or minimum size limits or both.
For any size limit, how small or how large would the Board want to go? For example, is a 2-inch slot feasible? How low do you want to go for the ocean? How large would you want to go for the ocean, that sort of thing. For the ocean size limits as well, is the Board still interested in a small fish analysis or looking at fish under 28 inches for the ocean?

Then also, is the Board's intent here to protect the remaining strong year classes by having size limit options that avoid them? A couple things to think about here in terms of size limits. Then we have several questions on seasonal closures. The first topic, this came up also a lot at the December Board meeting as equity.

What type of equity is the Board looking for in seasonal closures? The TC report in December presented options with equity, in terms of how long each region would close. It sounded like there was some discussion about looking at equity from the perspective of each region having the same percent reduction overall with the closure, even for different lengths, as long as they both have the same estimated percent reduction.

Any guidance folks have on what form of equity you are looking for, in terms of seasonal closures, would be really helpful. There are a couple questions about regions. For ocean seasonal closures the first question is, is the Board still interested in any sort of coastwide closures? There was a lot of discussion in December about the regional closures, so we're wondering if we should just take coastwide closures off the table, and only have regional options, or if the Board was still looking to see a coastwide closure option. Then for the ocean, are there specific regional breakdowns the Board would like to see? The PDT can start with the regional breakdown that the Board discussed in December, and that was Maine through Rhode Island and then Connecticut through North Carolina.

If there are others the Board would specifically like to see, that would be helpful to hear as well. Then there was a question, how small should the regions be? There was some discussion, I think some public comments about perhaps having a single state be its own region. If the Board had any guidance on that, that would also be helpful.

Then the final few questions for seasonal closures are about timing. First, should the PDT consider the options that split a closure reduction between two waves? Instead of closing, for example, for four weeks consecutively to meet a reduction, should we have, you know close two weeks at the beginning of the season, close two weeks at the end of the season, so should we have options like that, that split the closure?

Then also, in terms of the timing. The TC Report presented options that prioritized closures that would be the shortest possible closure to achieve a reduction. Obviously, those closures would take place when the most removals are occurring, so when the fishery is most active. There was some discussion about potential impacts of course of closures, so if there are other timing considerations, you know if the PDT should not only be looking at the shortest possible closures, they should be thinking about other things. That would be helpful to know as well.

Then finally, the last question is, is there anything else that you would like to see in the Addendum. Again, as much guidance as we can get today is helpful. As I mentioned, you know there are a lot of options in the TC Report. I think it would be really helpful for the Board and the PDT if you had any guidance on where to focus this Addendum today. That would be really helpful. That's it, happy to take any questions, and then we can move into discussion.

CHAIR WARE: Great, thanks, Emilie. I'm going to propose we structure the conversation as;

we'll start with any clarifying questions on the presentation. Then I think the best way to approach this is going topic by topic. I'm hoping to avoid motions if we can, although if there is strong opposition from a Board member to an idea, we will move to a motion in that situation.

I do think there is a potential here that we will get a lot of different ideas, so at some point we may need to start prioritizing that. But we will let you know when we need to start doing that. We'll start with any clarifying questions for Emilie. David Borden.

MR. DAVID V. BORDEN: I'm just curious about the socioeconomic impacts. What process and what data are we going to use to do that? That is one question.

MS. FRANKE: Yes, I'll respond to that question first. I have met with the SES members, the reps for striped bass, and in the last few management documents for striped bass, Addendum II and Amendment 7, there was some socioeconomic content, and that was a summary of some past studies that have been done for striped bass. Several years ago, there was, I think a stated preference survey to understand angler preferences for striped bass, so there is some older work for a subset of states, and the management documents typically summarize the sort of major findings from that work. But there is no coastwide dataset to enumerate or quantify the socioeconomic impacts of different management options. You know we will continue to provide that summary of past economic studies that have been done for striped bass, but we're not going to be able to quantify for this option, this has a greater impact in this option.

We have discussed potentially putting together the available MRIP data, so for example directed trips in trying to provide as much information to the Board as we can about what data are available, about directed trips by region by Wave, so the Board can understand how the fishery is occurring, to sort of potentially consider those impacts of different closures. But at that point it will be mostly a summary of past economic studies and the available MRIP data.

MR. BORDEN: Thanks, Emilie, and then the other question is on the timeline. We're basically talking about a timeline that would result in October implementation. I guess my question is, and I'll direct this to mid-states primarily. Does that timeline accommodate changes in the commercial fisheries? I think it does, but how late can we go? Let's say we get to October, there is a little bit more work that has to be done. How late can we go and still affect the commercial fishery in the mid, is my question.

CHAIR WARE: I'll turn to any of the Mid-Atlantic states or states with commercial fisheries, if they would like to respond to that. Mike Luisi, thank you.

MR. LUISI: Thank you, Madam Chair, I was waiting for somebody else's hand. We talked about this a number of times before. I think October is really the time where a final decision will need to be made. If we wait until November, and try to have a special meeting, that could be doable, but it would be more challenging. Anything in December is a no-go, as far as affecting the upcoming commercial season, which for Maryland starts on January 1st.

Hopefully, we had this discussion in December. Hopefully we're on a path that will have final action either in August or October of this year. If we hold to that timeline, Maryland will have no problem in incorporating any changes to the commercial fishery for the upcoming season, which would be 2026.

CHAIR WARE: I did just confirm the annual meeting this year is the week of October 27th, in case that date is important to folks. Any

other questions before we get into discussion? Yes, John Clark.

MR. JOHN CLARK: Thanks, Emilie, I was just curious. I thought it might have come up at the last meeting, but the states that have these like kind of specific fisheries like Delaware summer slot. Would those still be intact with what we had considered, of is that kind of not part of the motion?

MS. FRANKE: It wasn't part of the Board's motion for this Addendum, but the other motion that the PDT was considering for 2025 stated that the Delaware Summer Slot Fishery, the Pennsylvania Spring Fishery and the Hudson River Fishery would have to come up with measures to meet whatever the reduction is. I think a logical starting point for the PDT would be to include similar language for 2026.

CHAIR WARE: Last check of clarifying questions. Okay, not seeing any other hands, we will get into discussion, and we'll go topic by topic here. I think staff has some slides to help guide us through this, again looking for answers to these questions, and if folks are strongly opposed to a suggestion that is made, at that point we'll move to a motion. We're starting with projections. Bill Hyatt, do you have a suggestion on projections?

MR. WILLIAM HYATT: Well, I do have what I think is a relatively easy suggestion or recommendation that doesn't fall within the question list. Is this a good time to bring it up quickly?

CHAIR WARE: Sure.

MR. HYATT: This is a follow up to some of the discussion that took place at the last meeting. At the last meeting you'll recall that we were presented with four spawning stock projections. All four of them converged at the target and all four of them ended at 2029. There were a number of us that asked questions of what things would look like projected out beyond 2029, for the obvious reason that that was influential to our thinking on this issue.

This is just a simple request, and that is that we rerun these striped bass spawning stock biomass projections out to at least 2035, and would request that again, there be four projections done. One of them with low recruitment, mean recruitment equivalent to the last six years, where we've seen extremely low recruitment.

Another scenario where mean recruitment is averaged over the 12-year timeframe, and then each of those with low fishing mortality and moderate fishing mortality applied. Then the hope is and the belief is that this will give those of us around the table and the public with sort of a more realistic understanding of what we're up against here. It is my understanding that this can be relatively easily done.

DR. DREW: That is definitely easily done, I think. You know I would just caution the Board to make sure that we're not overwhelming the document with too much information, but if these scenarios are agreeable to the Board, we can definitely provide you those as part of that. If there going to use kind of changes or modifications or concerns that the Board level was providing that information, you know we can have that discussion. From a technical standpoint it is definitely doable that we can provide that for the PDT to incorporate into the document.

MS. FRANKE: Just for recruitment you mentioned a recent sort of super low recruitment that we've been seeing, and then I think you said average of 12-year recruitment. But I was wondering if you were maybe thinking about the low recruitment assumption we used for the assessment, which is basically 2008 forward, or if you had a specific timing you were thinking of.

MR. HYATT: Most important from my way of thinking is that one of the projections had to be

built off of what we're seeing over the last six years. As far as the other, you know I picked 12 years as an average, just to bring that up a bit, but if there is a better number, we would certainly want that to be used.

MS. FRANKE: Thanks, Bill, and just one other follow-up. For these additional projections, are you thinking these would be sensitivity runs and sort of the TC and PDT would have, I guess essentially, you know these could be four different projections with maybe four different potential reductions for 2026.

Just thinking about sort of, are these just sensitivity runs to whatever the TC and PDT sort of identify as sort of the reduction scenario and these are sort of sensitivities around that, or are you looking for options for potentially a couple different reductions?

MR. HYATT: I believe the answer is, these are sensitivity runs. I was not looking for them to build in various management decisions into these.

CHAIR WARE: Joe Cimino.

MR. CIMINO: I have a level of discomfort with that. We have any number of species. I'm thinking of cobia, where at some point the projections are just, I guess unhelpful. I appreciate Bill's concern, but the idea that we're giving someone a realistic picture ten years out, with all these assumptions that kind of de-evolve year after year. I'm just kind of concerned that the idea is we're helping the situation, when we might be not getting a more realistic picture.

CHAIR WARE: The question is, can you live with it come May, so if the answer to that question is no, I would recommend you make a motion.

MR. CIMINO: Katie, do you feel at this point you could give, or is that something that you feel you need to look into a little bit. Then my suggestion would be, can you please look into it a little bit. If you feel you could give an answer now.

DR. DREW: I guess I would just say, for sure there are elements of this that we will not have a good handle on, mainly fishing mortality. We're struggling with what is going to happen next year or the year after that, let alone where are things going to be in ten years? But I will say for striped bass, they are a little more unique than some of our fish species, which is that they do take so long to mature.

Ten years out is basically when some of these really poor year classes will finally be in the SSB. Right now, our rebuilding deadline and our rebuilding trajectory is supported by the 2018 and the 2015-year classes, and the recent really 2020 forward low recruitment that we've seen, has not had a chance to percolate through to the SSB yet, because they are not mature yet.

Basically, that ten years out is this series of poor recruits finally maturing into the SSB, and what does that say about, you know what is the trajectory after we get to 2029, which I think is part of the concern here is that we are rebuilding on the basis of one very strong and one above average year class, and if we were so focused on 2029, what is going to happen after 2029 for this stock? What does it mean when we get to be rebuilt, is where I think some of this concern is coming from. I think I would agree that there is certainly uncertainty around that. But striped bass is a little unique in that there is a longer lag between the poor recruitment we see now, and kind of when that will get past the SSB down the road. I don't know if that helps or not, but that is sort of my perspective.

MR. CIMINO: Well, thank you, very much appreciate that. I won't oppose this, but I think each of us should use a level of caution as these are given to us.

CHAIR WARE: One more clarification for you.

DR. DREW: Just to say like, these projections, as you just discussed, will not affect, or like we did similar projections, similar sensitivity runs, and like your probability are the reductions that you need, et cetera. That was not strongly affected by that 2029 deadline. This is just going to be what is going out beyond it, so it should not affect the management options that we will be presenting or any of those analyses. It's more just about some context for what the potential projectory after the 2029 date is. Did that help or does not help?

CHAIR WARE: We are talking about projections, Board guidance and projections, any other Board guidance? Yes, Chris Batsavage.

MR. CHRIS BATSAVAGE: Something for the Board to consider for projections is maybe including a 60 percent probability of rebuilding the stock, so looking at options for meeting that in the short term. Not replace the 50 percent, but see what it looks like at 60 percent.

MS. FRANKE: Just to clarify, are you looking for one set of options for a 50 percent probability reduction and then a second set of options for a 60 percent probability reduction?

MR. BATSAVAGE: Yes. I think to kind of account for, I think some inherent management uncertainty we'll be facing, depending on what other options we include in this Addendum. The 60 percent probability provides a little buffer of actually rebuilding the stock. At least the 50 percent, we aim for 60 and hope for at least 50.

CHAIR WARE: Any other Board guidance on projections? Nichola.

MS. MESERVE: Not projections, but to the point of these different ranges of options for the different scenarios and probabilities. The way that the TC structured the options in the potential Board action memo allowed for the Board, there was different percentages all throughout the reductions. The Board could pull from some places to achieve various reductions. I was just going to make a suggestion that it be presented similarly to the prior analyses, so that the Board has that flexibility. If we make a determination on one projection or another, you know it provided a way for the Board to kind of pick and choose a little bit.

CHAIR WARE: We're going to move on to recreational mode splits, and I think the question here is, what is our guidance to the Plan Development Team on recreational mode splits in the development of management options? Nichola.

MS. MESERVE: My preference would be to exclude mode split options from Draft Addendum III. We recently considered them in Draft Addendum II and did not adopt them, they had limited public support at the time. There are many commenters who supported equal opportunities across the recreational mode, as well as equal participation in rebuilding the stock.

I don't think that now is the time for us to be considering carve outs during the rebuilding time period. The Law Enforcement Committee also spoke to how mode splits erode compliance and enforcement. There are a number of reasons that I think this is one area we could slim down the potential range of options, in hopes of getting to final action by August or October if necessary. Based on the discussion, I do want to make that in a motion, if necessary.

CHAIR WARE: I saw Mike Luisi, do you want to comment on that?

MR. LUISI: Unsurprisingly to many of you, I kind of think the opposite of what Nichola just presented. It was a year ago now when we convened here as a Board, and it was decided at that time that mode splits were not going to be something that would be allowed in the

recreational fishery. The state of Maryland did just that.

We moved around from mode splits and implemented a one-fish bag limit for all of our anglers. The consequences of that action have been dire. When I look at the motion that is before us today about the initiation of this Addendum. The Addendum was initiated in consideration of the 2024 recreational and commercial mortality, while balancing socioeconomic impacts.

Those socioeconomic impacts are absolutely real. One decision made a really big difference in my state. You'll hear numbers that will be presented as part of public comment, I'm sure, as this Addendum continues to develop. We're looking at 60, 70, 80 percent down on trips in the charterboat community in the state of Maryland, and it has been a really, really difficult thing to try to overcome.

While I realize we had this debate only a year ago, I think that I also came to the conclusion in my mind at the meeting last year that this conversation about mode splits goes another step beyond considering conservation. This is more of a philosophical type of discussion about equity and what is the right thing to do.

I feel like the public should have another opportunity through this Addendum, since it is being developed based on the challenges of 2024 and the socioeconomic impacts is one of the things that we're supposed to be focusing on. I don't know how we don't have that as a follow up discussion, based on the changes that occurred and the impacts that happened as a result of it. I feel like we should have this as part of the Addendum, and I would support mode splits being incorporated into this plan.

CHAIR WARE: Next I have Jay. I'm sensing we'll do a motion on this, but we'll offer some discussion to start. Go ahead, Jay.

DR. JASON McNAMEE: I also support keeping mode splits in there. I guess as I started thinking about it though, and kind of the continuum now of, now if we're doing 50 percent and 60 percent that is a quick doubling of the central options. We make these documents really difficult for the public really quickly, trying to make inflexibility. I think we're doing it for a good reason, but. I guess what I was wondering is, do we have to be for the modes, say we do a couple of mode split options.

Do we have to be explicit, like the options that show up in the Addendum. Is that what has to be done in the end, or is there flexibility with that? I guess what I'm getting at is, there may be a way to kind of shrink down a number of options by just offering some middling option, but then allowing during the public process, or when we come back to the Board, allowing that to move away from what was explicit in the Addendum. I guess I just have that question posed to you, but in the end, I would like to see the mode split stay in the document.

MS. FRANKE: In response to your question, I think maybe you're referring to if we included some sort of range of options the Board could go between, I guess in terms of seeing the math, the analysis for a particular option. The Draft Addendum would be, I think very explicit about, here's this option and this potential reduction. I mean there could be a range of options without that analysis, but in order to have that analysis attached to it with a potential reduction with this particular combination. I think it would have to be pretty explicit.

For example, the Board could say, you know we're only looking at mode splits for size limits, or only looking at mode splits for season closures. The Board could sort of say, for certain types of options we want a mode split. That could help narrow it, but I think if you want to see a percent reduction attached to an option, you have to be pretty explicit about what the option is.

CHAIR WARE: All right, so I've heard different opinions here. At this point I've heard support from two people for the mode splits. If that is not something you can live with or you strongly oppose, this would be your opportunity to make a motion. Nichola.

MS. MESERVE: I would **move to exclude recreational mode split options from Draft Addendum III.**

CHAIR WARE: let's give staff a second to put that up, and then we'll look for a second. All right, so we have a motion to exclude recreational mode split options from Draft Addendum III. Is there a second to that motion? Chris Batsavage. Nichola, I know you provided some comments, any additional rationale?

MS. MESERVE: Not at this time, thank you.

CHAIR WARE: Chris, as the seconder, do you have any rationale you would like to flag?

MR. BATSAVAGE: Nichola covered everything, thanks.
CHAIR WARE: Is there any other discussion on this motion? Eric Reid.

MR. ERIC REID: I'll be brief. I do agree with Mr. Luisi and Dr. McNamee. This is not only about saving striped bass, it's saving a longstanding tradition of the way of life, which is the for-hire sector, and it would be really unfortunate if that happened. The numbers that Mr. Luisi spoke about in decline; I think those are probably underestimated at some point, so I would oppose this motion for sure.

CHAIR WARE: Jeff Kaelin.

MR. JEFF KAELIN: I'm going to oppose this also. I think we're working on considering mode splits in the recreational sector separation data collection amendment or addendum right now with fluke, scup and black sea bass here at the Commission, at the Council. I think that we ought to leave this option in for this striped bass addendum. I'm opposed to the motion, personally.

CHAIR WARE: Any other discussion on the motion? Yes, Bill Hyatt.

MR. HYATT: I have a question. I know that a few years back, and I think we had a workgroup on mode splits. I am embarrassed to say that I cannot remember the outcome of that workgroup, what happened. I wasn't personally involved, but I would just be curious if somebody could refresh my memory.

CHAIR WARE: We're going to go to the Executive Director for that.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Yes, thanks, Bill. You are right, it was a working group and at the same time we were working on de minimis and allocation. We had about, if only Spud was in here, he was Chair. We had like four different working groups going on at the same time, and the Policy Board prioritized the other work over mode splits, because the Mid-Atlantic Council was working through their process of recreational reform.

Our Board and the Mid-Atlantic Council were working together on it, and one of those provisions in the recreational reform work was mode splits. We stepped back from our working group and let the Summer Flounder, Scup, Black Sea Bass Board and the Mid-Atlantic Council move forward, and they are still working on that. That group never really completed its task here at the Commission.

MR. HYATT: Thank you, Bob, I'm not as forgetful as I had feared.

CHAIR WARE: Marty Gary.

MR. MARTIN GARY: Like Maryland, well like Mike, and Eric from Rhode Island, Joe, our for-hire sector has been strongly advocating to

explore mode splits, so I'm also going to be opposed to this motion.

CHAIR WARE: All right, seeing no other hands, I'm going to do a one-minute caucus, because I know states have some folks online, so we'll do a one-minute caucus then come back and vote. Okay, I appreciate everyone's patience, particularly with Maine, as we might have been the last ones here. Is everyone ready to vote on this? We'll first see those in favor of the motion, so that would be excluding mode split options, raise your hand.

MS. FRANKE: Okay**, in favor of the motion I have Massachusetts, Pennsylvania, North Carolina, Virginia.**

CHAIR WARE: All those opposed.

MS. FRANKE: Okay, opposed I have Rhode Island, Connecticut, New York, New Jersey, D.C., PRFC, Maryland, Delaware, Maine, and that's it.

CHAIR WARE: Any abstentions?

MS. FRANKE: For abstentions I have NOAA Fisheries and New Hampshire and U.S. Fish and Wildlife Service.

CHAIR WARE: Any null votes? Motion fails 4 to 9 with 3 abstentions. This is including mode split options in the Draft Addendum III.

MS. FRANKE: One further clarification now that we have mode splits for the PDT To consider. Does the Board have any guidance about where you want to see these mode split options? I heard Mr. Luisi talk about the bag limit, potentially for a mode split option. Are there other types? Are you looking for mode split options for size limits, different size limits for different modes? Are you looking for different seasons for different modes? If you have any other thoughts at this time that would be helpful.

CHAIR WARE: Any thoughts for the Plan Development Team on further guidance on mode splits? Yes, Nichola.

MS. MESERVE: I just wanted to clarify. The motion to initiate this Addendum does not consider recreational possession limit changes, so you just raised that Emilie as a potential place for a mode split. But in my understanding of the motion that initiated this Addendum, possession limit changes are not in the Draft Addendum.

MS. FRANKE: Thanks, Nichola. I'm just going to read that part, this is the motion Nichola is referring to, it is the motion from the December Board meeting. It says that options should include, if needed, a range of overall reductions, consideration of recreational versus commercial contributions to the reductions, recreational season and size limit changes, taking into account regional availability. The motion does not specify possession limit changes, but it says option to include, so I think it's potentially open.

MS. MESERVE: That is not my understanding of the motion that I voted for back in December. I thought it was pretty specific as to what was included here, and it does not include changes to the bag limit.

EXECUTIVE DIRECTOR BEAL: It's up to the Board. You know if the Board feels this motion has some room for changes to possession limits or other things, and then they can do that. I think the way these motions usually work is this is kind of a starting point, and we bring things back.

More questions back from the Plan Development Team, and that is kind of where we are. If the Board wants to change some things through another motion, they have the flexibility to do that. It's up to the Board, more than a staff interpretation it's the Board's interpretation of how they want to handle it.

CHAIR WARE: I think one approach, Nichola, is we have a topic of other measures, we can bring possession limits up under that topic if you would like. All right, any other discussion on mode splits? Yes, Roy Miller.

MR. ROY W. MILLER: Very quickly, I can see considering mode splits for daily harvest limits, but I really fail to understand the reason for mode splits with regard to size limits.

CHAIR WARE: Thanks, Roy, Jay.

DR. McNAMEE: Yes, this sort of in response to Roy, not helpful to you guys. I think the idea would be, just to offer an example. I think often party and charter for-hire, whatever, they will often lean towards a larger fish, because they can pursue those fish, they know where they are. What they might want to do, if there is an option with a really constrained season, they might opt into a much larger fish to get a reduction from that and keep the season open. It's sort of why I said what I said earlier. You shouldn't listen to me for like what they might want.

I'm just offering you things that I've heard. But I would think you would want to keep minimum sizes in the mix. I wonder if there was a way to get some feedback, if the PDT could reach out to some party and charter operations to get some feedback on things they might like to see. I don't know that we're going to be able. We probably should have done that before this meeting, but I'm trying to find a way to narrow things down for you guys but keep this in there. I don't have a good way to do that.

CHAIR WARE: All right, I saw Matt Gates, Roy Miller and then we're going to move on to the next topic.

MR. MATTHEW GATES: Yes, I think I'm sure Jay covered most of what I want to say. The only additional thing, I wasn't really interested in pursuing the possession limit or the bag limit change. I think my primary thought was the season for the mode split, but definitely not a possession limit.

CHAIR WARE: Roy Miller, you get the last bite of the apple on this.

MR. MILLER: Just very quickly, thinking about other examples of mode splits, with regard to size limits. The only one I can think of right off the top of my head was summer flounder. A couple of states, I think it was New Jersey and Connecticut have a smaller size limit for shore-based fishermen catching summer flounder. That is the only example I can think of, and I'm not sure that that even correlates with what we're talking about, in terms of striped bass.

CHAIR WARE: I think we've had a good discussion on mode splits here. I am going to move us on to our next topic, which is the recreational size limits, and there were several questions in the PDT memo to the Board. Those are up on the screen now, so I'll let folks read this, but looking for any guidance on recreational size limit options. Doug Grout.

MR. DOUGLAS E. GROUT: I would like to include both slot limits and a couple of minimum size limits. I still would like to have explored a lower slot limit that would be no larger, or a minimum of at least three inches in width. You could have it at whatever width, but as far as how low it would go; I would like to have it targeted away from the existing spawning stock biomass.

This would be for coastal size limits or slot limits. I can give an example of 20 to 26, but if the TC and PDT look and see that, well to protect our last spawning stock strong year class we have to go down lower. I would like to see what the analysis would be for that. As far as large minimum size limits, I would say anywhere between 36 and 40. I think that covers it for size limits on the coast.

MS. FRANKE: Just clarifying that the PDT will pursue that analysis for the less than 28 inches for the ocean as a slot. I'll do that.

CHAIR WARE: Joe Cimino.

MR. CIMINO: A question, I mean hasn't that already been done? Haven't we had kind of a recommendation that that is a bad idea?

DR. DREW: The TC did some preliminary analyses with this, and felt that showed that going down to a lower size limit in the ocean or lower slot in the ocean would increase removals, and I think we got a lot of public comment that people had concerns about the analysis. This was an analysis that the TC had not really tried before.

I think maybe what the Board could consider is if you would like to see if we could do some more due diligence on this topic, so that we can refine our methods, as far as either verify or find out that we were wrong originally, and see if we can get a reduction out of this. I think the TC has some plans to develop these methods further, to get a better handle on what those reductions would look like.

Maybe even revisit some other assumptions that Board members and the public had concerns about, so we can kind of refine this approach. But it was initially, the initial analysis was not promising, in terms of getting a reduction, and that was even before we consider, you know the potential loss of spawning potential by focusing harvest on small fish.

MR. CIMINO: Yes, just a follow, I appreciate that. I guess folks don't realize this, but as New Jersey goes through calculations for what the Striped Bass Bonus Program would look like. We've reviewed this within the state, and obviously we're talking about a state with a lot of fishing power. That loss of spawning potential is pretty intense, so basically the penalties of that have always kept us away from this. I do worry that we've already had some suggestions that this is not good. New Jersey has explored this, and you know we're a pretty considerable player, that out of the things that we could cut out, I think we should really consider not looking at this once again.

CHAIR WARE: I'm hearing some differing opinions on exploring a slot under 28 inches. Any other Board discussion on that? Nichola.

MS. MESERVE: I agree with Joe. I have a lot of concerns about going to that smaller slot limit. I would also remind the Board that our Advisory Panel, which hardly agrees on anything altogether, it's usually 9 to 9, 9 to 8 type votes. This is the one issue that they were unanimous on, I believe, when they talked about it for a Board action item. I don't support our looking at it in this Draft Addendum.

CHAIR WARE: Doug Grout, do you want another comment on this?

MR. GROUT: Yes, just a follow up on that. You know the main purpose of this, we have spawning stock biomass that is going to start shrinking in size. Protecting smaller fish that are always very weak in strength is also, if you start targeting those your catches, they have to go down. Yes, there will be an impact on that three inch or whatever size limit.

But I think we've got to do our best at the situation that we are in right now, at least consider a smaller slot limit on the coast. Now, if it comes up after the TC's analysis that this just is a totally bad idea I'm fine. But the original analysis was originally done very rapidly, and I appreciate them taking the time when we've given them a huge workload to try and come up with something.

But it wasn't using some of the current length frequencies that we have in the Volunteer Angler Survey Programs. If they could use that, which is more what is in the system right now,

as opposed to what happened back in, what was the timeframe year using, like 2008?

DR. DREW: We were using 2018 as a proxy for when the 2011-year class was 7 years old.

MR. GROUT: Right, that is what I am trying to get is a new analysis using the more current empirical data that we have, as to what the impacts might be.

CHAIR WARE: Okay, so we have an ask from a Board member to include a slot limit less than 28 inches. If this is something someone cannot live with, or is strongly opposed to, now would be the time for a motion. Joe Cimino.

MR. CIMINO: I would move to remove this as an option from this Addendum. I appreciate what you said, and I do think the idea that it needs to be, well the idea that a better analysis would be helpful is important. But we know going forward, when we get past this benchmark that the whole idea of what striped bass management is, is going to change. That may be a better time to have that discussion than in this interim, I think. I would move to have this removed from this current Amendment.

CHAIR WARE: I'm just going to have staff put that up on the board, then I'll have you read it into the record. All right, do you want to read that in, Joe?

MR. CIMINO: Yes, thank you. **Move to not include options for an ocean recreational size limit under 28 inches in Draft Addendum III.**

CHAIR WARE: Do we have a second to that motion? Nichola Meserve. Joe, do you want to provide any rationale or are you good? Nichola? Yes, go for it.

MS. MESERVE: Overall I am a little bit hesitant about any changes to the size limits right now in this Draft Addendum. The Technical Committee had some pretty strong words about how the changes in the selectivity are adding uncertainty to the work that they are doing to the stock assessment for the projections.

I hesitate to have much drastic movement in the size limits at this point, in terms of, you know compliance and enforcement as well. But if we can narrow it down to a reasonable set of options that exclude this. I think that is at least a step towards a little bit more certainty.

CHAIR WARE: Anymore discussion on this motion? Jay.

DR. McNAMEE: Yes, just quickly. I'm going to support the motion here, not that I didn't appreciate Doug's reasoning. But I think there is an added element here that is concerning to me, and that is kind of focusing the fishery now on sub-mature fish or a high proportion of sub-mature fish seems like, I don't know it adds a lot of uncertainty that we're not going to know for some period of time, so it doesn't seem like a good idea. I am going to support the motion.

CHAIR WARE: Seeing no other hands, we'll do a one-minute caucus again, and the negative motions are for this, so I'll just say a motion in favor is to not include a slot limit under 28 inches, a motion opposed would include that, so one-minute caucus. All right, is everyone ready: Again, I think as we move forward, we're going to try and avoid negative motions, because they are very confusing.

But again, a motion in favor does not include a slot limit under 28 inches, a motion opposed would include a slot limit under 28 inches. That is my fault, Joe, but we'll move forward, not with negative motions. Okay, so everyone is ready to vote. Those in favor, please raise your hand.

MS. FRANKE: Okay, **in favor I have Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, North Carolina, Virginia, D.C., PRFC, Maryland, Delaware and Maine.**

CHAIR WARE: All those opposed.

MS. FRANKE: Opposed I have New Hampshire.

CHAIR WARE: Any abstentions?

MS. FRANKE: Abstentions, I have NOAA and U.S. Fish and Wildlife Service.

CHAIR WARE: Any null votes? All right, the motion passes 13 to 1 with 2 abstentions. Is there any other discussion on rec size limits?

MS. FRANKE: Just one clarification. I heard a suggestion from Doug about only looking at slot limits that are three inches, nothing below, did I misinterpret that?

MR. GROUT: I was saying that we shouldn't have a slot limit less than three inches, but it could go larger or whatever.

MS. FRANKE: Great, thank you for clarifying. The PDT your suggestion would not look at any two-inch slot limits, for example. Okay, I'm just clarifying that suggestion is out on the table, and was wondering if any Board members had differing suggestions. Otherwise, the PDT is not going to look at any two-inch slots.

CHAIR WARE: Okay, I think we are in consensus on that. Thanks for that discussion, we're now going to move on to recreational season closures, and again there is another slide with questions. Looking for Board guidance, a lot of different actions we had at the December Commission meeting for striped bass. Doug Grout, do you want to start us off?

MR. GROUT: One of the concepts when we're talking about equity, I know a lot of times we're going to be looking at, okay what is the reduction in harvest and combined with what's the reduction of catch and release mortality as a percentage. One concept that I would like to see if the Board would be willing to explore, particularly if we start going down the road of no target, is the concept that when people are recreational fishing, they are out for a recreational fishing opportunity, whether we have a catch and release fishery or if we have a one-fish per day.

In some cases, the availability of striped bass in certain states is much shorter than in other states. For example, in the state of New Hampshire, if we put in a one-month no target closure, that is a 25 percent reduction in the ability to go fishing for striped bass. Quite frankly, in our state there probably isn't a lot of alternatives during the summer other than mackerel, and they're overfished too.

You compare that to some states that may have the availability of striped bass in their waters up to 10 months. If they take a one-month closure for no targeting, that is only a 10 percent reduction in the ability to go fishing for striped bass. I would like that concept, if the rest of the Commission would support this, at least put in the document as a type of analysis that would say, this is what would more equity might be in fishing opportunities. Am I clear on that? I'm not sure.

CHAIR WARE: Those on the webinar, we were just having a discussion at the head of the table.

MS. FRANKE: Sorry, we were just having a sidebar to clarify what you were thinking. You're thinking, looking at options where, I guess for regions, let's say a region typically their average season is a couple months, and for another region their average season is 10 months. You're looking at closing the same proportion of their season, so like 25 percent of the northern region season and closing 25 percent of the southern region season.

MR. GROUT: Yes, and also there has been talk in the previous Addendum of looking at the state-by-state impact too, of the reductions we're looking at, just like we're looking at reductions in harvest and catch and release mortality. We should also be looking, particularly with the concept of no target

closures. What is the impact, the percent reduction in the ability to go fishing, because they are going to be different between states?

MS. FRANKE: Just to clarify, you're looking for, you know if the Addendum had regional closures, obviously the Addendum would show the percent reduction in each region, but you would also be looking for some context. What does that mean, also state-by-state?

MR. GROUT: Yes.

CHAIR WARE: Okay, so we have one concept of equity from Doug, other hands. Joe.

MR. CIMINO: I apologize to Doug more than anyone, but I think what he's describing kind of gets towards conservation equivalency, which was killed. I hope just not at this time, but I think that is kind of the discussion that is being proposed.

MS. FRANKE: I guess to Joe and Doug's comments, for me to clarify. I guess one question is, are either of you proposing state-by-state closures, or Doug, are you proposing still looking at regional closures, but understanding just having the calculations next to it showing the impact by state, or were you looking for state-by-state closures?

MR. GROUT: No, I wasn't looking for state-by-state closures at all. I just was looking at in the analysis, what is going to be the impact from a state-by-state basis? Just as I've heard asked in the previous Addendum that we needed to look at what is the impact on harvest and catch and release mortality on a state-by-state basis, even if they're in a big region?

MS. FRANKE: Was that helpful, Joe? Okay. The PDT will look at regional options and look at the percent reductions, for example, and each region sort of on the side provide also the state-by-state reductions for context.

CHAIR WARE: Adam Nowalsky.

MR. ADAM NOWALSKY: I completely understand, Doug, what you're talking about with regards to differing levels of equity. It is easy for us to sit here and say, everybody is going to make a similar level of contributions to conservation. Everybody is going to take a 10 percent cut; we're going to achieve that by changing size or limiting seasons or whatever it is. But a similar change in contribution to conservation does not mean equity in all levels, including access. In Doug's example he was saying, if you implemented a one-month ocean closure, that would eliminate 25 percent of its seasonal access, while in other states it might only be a 10 percent limit on their seasonal access. Most people would probably look at that and say wow, you took 25 percent of my access to the fishery away, while you only took 10 percent of his away, regardless of what that max act would be on paper as a percent on pounds, SSB, F.

That is very different impact. The challenge here, I think, for the PDT in this, is that it is not just limited to a state or regional level, it exists in comparison for modes, shore-based angler, private boat anglers, for-hire anglers. This challenge exists within modes, within those that are truly interested in access to the resource from a sport perspective, versus those that are interested in it from a harvest perspective.

The challenge here to the PDT, you're looking for additional definitions of equity. The original motion that the Board passed talked about socioeconomic or other factors. This is what I think ultimately, we're looking for solutions for; to initially say we want everybody to provide an equal contribution to conservation.

That is our starting point for equity. But then we have to look at, what does this do in terms of access and the economics of those fishermen, the retailers, the area boat sales. You get a more comprehensive picture of what that equity is. This is support for what you're saying, Doug. This builds upon it a little bit, and I hope this gives some more context about what

I hope options can ultimately be in this Addendum, to say, we considered this in the name of equity.

MS. FRANKE: I'm going to just quickly respond. I think that is helpful, maybe for the PDT in terms of a place to start. We have this concept of maybe an equal reduction by region, but then if we look at, for example, how long the seasons are or what the availability is like for different regions, sort of try to take that into account.

Maybe that is a different option, and then maybe you have an option that is looking at, you know we have the data for MRIP directed trips, so what portion of directed trips are occurring within a particular season closure. Maybe that sort of gets at the socioeconomic point as well. Maybe sort of the PDT can look at a few different sorts of concepts of equity here, and come back to the Board with what they've discussed.

CHAIR WARE: Dennis.

MR. DENNIS ABBOTT: Everything you said, Adam, I agree with. But looking at the situation that we have in New Hampshire, this is somewhat similar to what we talked about in lobsters, the effect that it has on people. In our state, where we have such a short fishing season, a month closure might prompt people to stop fishing, might stop people from buying boats.

They might say that, you know if they are going to lose June and July fishing, what is the point? They don't have a lot of alternatives. I've heard people speak about that. You know it would have a devastating effect on the amount of people that are going fishing, which would be good for conservation, but not good for their economics or the pleasure of people who enjoy recreational fishing. It's a tough nut to consider, but I think that it is worth considering.

CHAIR WARE: I would like to have the Board focus a little bit on some of the seasonal options, in terms of like a coastwide season, state-by-state season. We heard no state-by-state from one Board member, regional. I think there were a lot of different options at the December Striped Bass Board meeting, and that would be helpful guidance for the PDT. Nichola, you want to work on that?

MS. MESERVE: I'll try, I think there are a lot of topics there to cover. Generally, the historical approach for striped bass management has been one of coastwide consistency as much as possible. We have the same size limits and bag limits along the coast right now. That is really difficult when it comes to seasonal closures though, because of the migration of this fish.

But generally, my interest is in the largest regions as possible that achieves enough equity for us to live with, while balancing consistency across adjacent border states, so that measures don't differ between many states when it comes to closures, because that will erode the conservation benefit if you can go to the neighboring state and fish, when you can't in your own state, as well as compliance and enforcement as well.

Generally, the smallest number of regions as possible. I think that a coastwide closure is nearly off the table, unless it were split between two different waves, so that it does impact different regions differently. I think that might be one way to consider a uniform set of closures along the coast where one hits the north in one way and one hits the south in another way.

But that doesn't speak to my support for the PDT to consider closures that do split between two waves. I did have interest in exploring the Maine through Rhode Island and then Connecticut south regions that we discussed at the last Board meeting, and I am opposed to having a single state be a region.

CHAIR WARE: Other Board guidance on the topic of recreational season closures. Joe.

MR. CIMINO: I appreciate Nichola's comments, I know she has listened to this quite a bit. I appreciate that Rhode Island was moved. I am curious, to folks south of New Jersey, I do worry about what the idea of a Delaware south reduction would mean. The idea of a season that works for Connecticut all the way down.

I'm just curious on input there. I don't want to put into it, I could absolutely live with Connecticut south. I think Connecticut through New Jersey especially the vast majority of fish in that New York/New Jersey area, I think we need very much to be on the same page. Jut curious what happens south of us, and if there are thoughts about a difference even.

CHAIR WARE: To summarize what I heard is, probably coastwide is a no go, unless it is a split between two waves. I've not heard any support for a single state closure, so each state having a different season. I've heard support for the regional options that were explored in December; Maine through Rhode Island, Connecticut south, and then Joe proposing maybe splitting up that southern region into two. Any other thoughts on this? I'm sure I've missed something, but that is kind of what I've heard. Marty.

MR. GARY: I think if you go around the table everybody will give you their perspective on what region works best. Selfishly, from New York's perspective, I think Connecticut, because we found each other on the side of Long Island Sound. I think I totally agree with Joe. That fall run of fish, at least for now, spatially they're inhabiting Wave 6 in our waters, and we have to be together. I think I would advocate for a region Connecticut to New Jersey to be included in this.

CHAIR WARE: Anything else?

MS. FRANKE: I think the only question left on this slide that hasn't been explicitly addressed is the last bullet. This is the sort of assumption. You know the TC Report with all the options operate on the assumption that you are trying to find the shortest closure possible to achieve the reduction. But that does mean the closure would occur during the peak of fishing activity.

If the Board has any concerns about that or recommendations for other ways to see if you should think about it, beside saving the most number of fish, the most fish per day, it will be helpful. Otherwise, I think the PDT would proceed with looking at the shortest possible closures to get you the reduction.

CHAIR WARE: Doug, Roy Miller and then we're going to move on to the last topic.

MR. GROUT: I would hope that that would not be the only option, the shortest possible closure. I would hope that there would be some other options that may be a little bit longer. But clearly, the shortest possible closure in some places might be July. While we could accomplish the same thing in different parts of the season.

CHAIR WARE: Roy Miller, last comment on this.

MR. MILLER: I'm just remembering when we had to institute mid-summer closures for summer flounder, it was grossly unpopular. You wouldn't believe some of the calls we got at our office and some of the threats we received. The reason was, you've taken those two weeks and you've done away with my vacation recreation, because that is when we go on vacation.

What I'm saying is, a closure in July or August may have a vastly different socioeconomic impact than a closure in April, for instance. We need to keep that in mind. I guess I agree with the comment that the shortest possible closure doesn't capture it all. I think we need more flexibility than that.

CHAIR WARE: Marty Gary, one more bite at the apple here?

MR. GARY: Again, we could dice the regions up as much as possible, but I did mess it up a little bit. In a perfect world we do have the Block Island Transit Area, which is challenging. But I also realize probably Maine south to Mass might make a similar argument to have Rhode Island in their region. I don't know if it's too much to try to look at both of those scenarios or not, but maybe a recalibrated region would be Rhode Island to Jersey.

CHAIR WARE: I'm going to move us on to Other Measures. This would be possession limits, if folks want to talk about that. I've heard other Board members with some ideas as well, so this is an attempt at that discussion. Okay, Nichola then Mike.

MS. MESERVE: I have a new topic that is not the possession limit, so I don't know if you want to deal with that issue first or not.

CHAIR WARE: I'll take whatever topic you have.

MS. MESERVE: I have a topic to introduce, I would like to include an option that standardizes the method of taking a total length measurement for striped bass for compliance with the size limits. As we all know, the FMP establishes total length as our method of measurement for striped bass, but it doesn't really define how that measurement is taken.

What I mean is that the caudal fin, the tail, in some of our regulations it says we pinch the tail, in some of them it says you leave it natural. What we have found in our state, we started to get reports of this. Once a maximum size is put in place in the recreational fishery, is that because of the way that our rule is kind of vague about pinching the tail or not, the anglers are forcibly fanning out the tail, in order to keep it in the slot limit.

We actually did some sampling in the fall, sampled hundreds of striped bass for a pinch tail measurement, a natural tail measurement and then a fanned tail measurement, and found that you could take almost a 32.5-inch striped bass and get it into the slot limit by fanning out that tail. I've looked at some of the state rules, and the majority of the states do either seem to have it in their regulations or in your recreational fishing guides that the method of measurement should be a pinched tail, but it's not uniform.

DMF has initiated a rulemaking for this year to go to that pinch tail measurement for striped bass, but it is consistent. I believe that is also how samples are measured for commercial market sampling in our states, so I think it would be most consistent with the stock assessment and provide for uniformity along the coast.

Now particularly as the focus on the size limits in striped bass is this key to our management, our conservation approach right now. I think that this difference has an opportunity to really erode the conservation benefit of our size limit. I would like to include this as something for the Plan Development Team to consider standardizing the method of measurement of total length.

CHAIR WARE: Mike Luisi.

MR. LUISI: I have an idea. It's something that has been rumbling around in my head for a while. After the last meeting when we decided not to take action, and we decided as a Board to begin to work on an Addendum. I started to think back over the last 10 years, and all of the different actions that we've taken as a Board and as states.

When I go back and look and do that review, in the state of Maryland since 2015, we have taken 8 different regulatory actions, either to reduce size limits or increase size limits, or implement seasonal closures. We have no

harvest closures, we have no targeting closures, catch and release seasons, harvest seasons all throughout the 365 days that makes up a year in the Chesapeake Bay in Maryland. The combination of all of those rules as they have stacked upon themselves over the past 10 years, has gotten us to the point where we think that this Addendum is an opportunity for us.

Not just Maryland, but for other states to potentially take a step back and consider whether or not a new baseline could be developed that would be initiated through this Addendum, and would carry on as that new baseline moving forward through the benchmark assessment and forward. What I mean by a baseline is a consideration of the different types of effort controls that we have in place.

We have catch and release or no harvest seasons. We have no targeting seasons and we have harvest seasons all scattered throughout as I mentioned. What we would like to do as a state is to hit pause for a second, work internally, so the request of the Board to consider with this idea, would not put any additional work at this time on the Plan Development Team.

My team back at work would work on trying to develop this new baseline, for which we could carry things forward. The reason why I think this is important, and something that we should be thinking about, and I'm hoping that the Board would approve, I guess you could say, our state working on this and developing its own. It would basically be another section within the Addendum that would address the establishment of a baseline.

I think it's important that we as managers respond to new information. There was some really great work done over the past few years, Massachusetts catch and release mortality study that we've heard presented to this group. We also have the working group that was looking at discard mortality in the fishery.

As we've applied all of these different rule changes over time, I think we can do a better job in our state protecting the resource by implementing those effort controls in a way that is more meaningful than the way they are currently outlined in our regulations. I've spoken to Megan and a handful of you over the last couple of weeks, kind of pitching this concept of being able tot do this work and present it back to the Board in May, before it goes out to the public.

What we would not be discussing with this baseline readjustment are things like our slot limit. Our slot limit, we would want to maintain that consistency with the other Chesapeake Bay jurisdictions. Whatever seasonal changes that might be required through Addendum III, they would be added on to the new baseline, rather than adding more to the last 10 years of piecing things together.

I hope that this Board, with the discussions that we've had today about trying to be able to respond to the management, and to what we know about the fishery, and where we could implement meaningful measures, would be something that you would support us working on, with the idea that we would come back or this would be presented in the Draft Document in May.

I think the Board would have an opportunity to review what we've prepared, and decide at that time whether or not it is something with whether or not you would be comfortable sending out to the public for comment. I hope to be able to have that work done within our Agency, and with our stakeholders.

The idea would be to form a committee of recreational, commercial, charter, this that, you name them, they will be part of this group to help guide us and inform us as we work through this Addendum process. I am happy to answer

questions if anyone has any questions. Again, this is a concept. We haven't started the work, because I didn't want to get things started before the Board was comfortable with us taking this approach.

CHAIR WARE: I'm just going to ask some clarifying questions to help the conversation, if that's okay. I heard you talk about catch and release seasons, no targeting, harvest seasons. Are you focused on realigning all state seasons? Is that your focus, or are there measures?

MR. LUISI: It would be the seasons. I'll give you an example. I think an example would be helpful. We have a no targeting season closure in the spring. There are benefits to that, but that period of closure that we have in the spring is a six-week time period for when nobody can access striped bass, the resource is off limits.

We would like to be able to have the conversation with our stakeholders, and then have the ability to potentially readjust that season, and maybe let's just say we add more time in the summer to our closure period in the summer, when we know that the meaningful benefit of reduced dead discard during that time is going to be better for the stock than that closure in the spring.

We want to be able to have the ability to make those adjustments, and to kind of slide the pieces around to create a season that is equivalent to the conservation effort that we have now. But it is a readjustment of all of these pieces of the puzzle that have been lumped together for quite some time.

At the end of the day, if we cannot come to some agreement with our stakeholders, we will be the first to come back to this table and say, we were not able to reach something that everyone could live with, therefore we will stick with our status quo. We just want to have the ability to be able to work on something to present back to this Board, before it goes out to the public.

MS. FRANKE: Just a clarification from a staff perspective in terms of what this means for the Addendum. I think what I'm hearing you say is, you know currently Maryland has a season that is in place this year, a current recreational season. From a PDT perspective, you know for striped bass management documents we'll have the status quo option.

Usually, a striped bass management document would say, typically the past few documents have said, you know states maintain their recreational seasons from 2024. Of course, for this document we'll have options where states would have seasonal closures sort of on top of their current season. It sounds like what you're proposing is that regardless of whether or not the Board actually takes a reduction, you're saying for sort of the status quo.

Maryland would like to potentially modify their status quo season. You would modify your status quo season, and of course if there was a reduction you would take whatever the reduction is on top of that, that you're looking to modify your status quo baseline season, instead of having to keep your current season. Is that what I think?

MR. LUISI: That's correct.

CHAIR WARE: Thank you for that clarification. Let's have a Board discussion on this idea. Doug Grout.

MR. GROUT: Doesn't that sound like conservation equivalency under a new name? Really, you're just changing your seasons to make them equally conservative, but something that the public may or may not be more in favor of. If that is the case, isn't that really just putting a new name on something that isn't currently permitted? I like the idea, but I don't think it's permitted under the plan, at least the actual mechanics of it.

MS. FRANKE: Right, so currently conservation equivalency is not permitted, which would be, if

you have an Addendum that has a measure that's what has to be implemented. A state can't say, we're going to do something different than what the Addendum says. But the Board can choose to include whatever they would like in the Addendum, so if this were in the Addendum, you know that would be a measure that could be implemented.

CHAIR WARE: I've got quite a list here. Let's start with Dennis Abbott.

MR. ABBOTT: I just listened to Mike Luisi's proposal and it's probably a good proposal, but I don't think it should be part of what we're working on now on this Addendum. I don't know if it would put us in cross purposes. I don't know if it would delay anything in whatever we're doing.

I would suggest that Maryland go ahead in their own singular effort, and come up with whatever they want and present it to the Board at some point in time. But I just don't think it gets us to October as easily as it should. I'm not in favor of us waiting for a proposal from Maryland in May to have entered into this Addendum. I don't think it's a great idea. But it is a great idea to give it some thought.

MR. BORDEN: I agree with Dennis' point. You know I raised this whole issue of timing and the need to meet the October deadline. Throughout this discussion, every time somebody hangs another ornament on the tree, I think to myself, what types of delays are we going to get exposed to? If every state does this and then wants the Technical Committee to review it, we'll never meet our deadline.

I don't see how we can possibly do that. I'm opposed to including it in the Addendum. I have no objections if Mike wants to pursue it individually as a state agency, and then present those results, and maybe we can develop a model that we could add into a subsequent Addendum. But I am opposed to including it in this one.

CHAIR WARE: Marty Gary.

MR. GARY: Yes, I understand where Mike is coming from after spending 37 years down there and understanding the fisheries. Spatially/temporally I think in essence Mike is looking for some commonsense opportunity to shift and provide enhanced conservation where it is most needed, and maybe provide opportunities in other areas where it was.

These are, I think tools that all of us hope we can implement. The only question for my mind, so I understand where Mike is going, I'm supportive of that. The only concern I had was what Dennis and David said, how does it fit into our Addendum III process? Maybe, I guess where I land is in concurrence with Dennis and David. Let them go ahead and do that exploration with their stakeholders and bring it back to us, if that works.

MS. FRANKE: Yes, so I guess to that timeline piece. If Maryland were to consider changing their baseline status quo season, obviously that might impact any new seasonal closures on top of that. I think in order to meet having a draft for May, DNR would have to provide that analysis to the PDT in a couple of weeks, like in the next few weeks, so that the PDT could include that in options. I think that would be if DNR could provide that analysis for inclusion in the options that is the only way we could meet the timeline.

CHAIR WARE: Pat Geer and then Nichola.

MR. PATRICK GEER: I've already talked to Mike's staff about some of these things and Dennis, I had the same concerns with that. What happens if all the states do this? I see where Mike is coming from on this. The question I have for Mike is, I'm assuming that you go through these measures and you would still meet the goals and reductions that we've done to date. That would be the ultimate goal. Your staff would be able to show that whatever

you do would still meet all the reductions we've done so far.

MR. LUISI: Yes.

CHAIR WARE: Nichola.

MS. MESERVE: I'm curious to see what Maryland might propose here, in terms of trying to put its no targeting closures in the place where release mortality is the worst. That makes a lot of sense. I'm interested to see what you can bring forward, provided it can be integrated without slowing down the rest of the Addendum. I think that's it.

CHAIR WARE: I'm going to go to Emerson and then Mike, I'll come to you.

MR. EMERSON C. HASBROUCK: In theory I support what Maryland would like to do. I just don't know if this is the right time and place to do that. I'm thinking that of the eight regulatory measures that Mike mentioned and Maryland has had to implement since 2015. Those were all probably relative to reductions that were required during that time period.

Some of those measures, as I recall going back to 2015, included conservation equivalency to meet the required reduction. If Maryland then is going to kind of go back and reconfigure the actions that they put in place through conservation equivalency to meet reductions, then we're getting into conservation equivalency, which we're not supposed to do at this point in time. But then also, the Board has to approve any conservation equivalency. Each of those individual items as I see it has to come back to us for approval as conservation equivalency, but if we're not looking at conservation equivalency it's kind of a circular argument here. I applaud what Maryland wants to do, I just don't know if this is the right time.

CHAIR WARE: Mike and then Jay.

MR. LUISI: To a couple of the points. The first is, for anyone who is concerned that this proposal and the work that we would do would slow things down at all, that shouldn't be something you would be concerned about. We will pull the concept out of the Addendum before it starts to delay anything, if that is your major concern about this.

If we can't do the work on our end quickly enough, we'll stop, and we'll wait until another opportunity arises for this. The reason I'm bringing this up today is because this is the first time in a while where we have done an addendum with a little bit of time built in, so that we're not rapid fire reacting to some value or some catch estimate or something from an assessment, where we're trying to take action within a matter of weeks or months after that information is available.

This is an opportunity to rethink all of the actions that we've taken over the course of the last ten years. It will not slow things down. I don't see it as a conservation equivalency. The way I understand conservation equivalency is that the Board directs states to achieve a certain level of reduction and then we go home and craft something to bring back, in order to achieve that level of reduction.

We're not striving to achieve any level of reduction with this project. This would be to try to find something equivalent to what we have that we can reestablish at that baseline. My question to the Board is, for ten years we've been adding on and adding on and adding on to the rules that we have, which has created a very complicated array of what you can catch, when you can fish, when you can't fish, what type of bait you can use, what type of hooks you can have, how many trolling rods can you have on the boat at one time.

It's gotten a little out of control. My question to the Board is, if we can't do this now, now that we have a year ahead of us in order to get something done, when are we going to have the

ability to do it? We can't do conservation equivalency to make the adjustments. I've been asking for two years, I think, when the opportunity may arise.

I've been told by staff and by others that when there is an Addendum you can propose something in an Addendum, because it is not officially conservation equivalency, and so here I am today presenting this idea, planning to come back to you guys in May, or I guess as Emilie mentioned maybe this is work that, I had April 15th kind of in my mind, as when we would need to have information to staff.

If it's earlier than that, then we'll have to try to work under a more condensed timeline. But I just don't know where we go from here. If there is no ability to modify anything, given all the new information that we have about catch and release mortality. There are all these fish dying because of climate change and environmental conditions are driving mortality in certain places at certain times. If we can't make any changes then I don't know why we're here. This is why we're here, to have these discussions, and to try to be creative to build a fishery for my state.

I'm looking to build a fishery that meets all of the needed levels of conservation, but provides access so that the individuals most affected by the rules that we made can find some time to get on the water to make a few bucks, so that they can keep their business going over the course of the next few years, until we reach the benchmark, and then maybe we'll have to rethink all this all over again.

That is the last I'll say, I hope I cleared up questions that people had in their mind. I'm happy to answer any more questions. Sorry I don't have the details for you yet. But if the Board thinks we can still work on something like this and present it, we would be happy to do what the Board suggests.

CHAIR WARE: Mike, while you have the mic, I have two clarifying questions for you. Are you thinking of readjusting both Bay and Ocean seasons, and is it recreational and commercial or just recreational or just commercial?

MR. LUISI: We would be focused on the Bay, and we also have discussed with our commercial industry bringing them in as well, to think through what their seasons look like when fish are available for certain years, when it may not be a reasonable approach to continue fishing in the dead of the summer, when all other recreational fisheries are closed to striped bass fishing. We want to have those conversations with the commercial industry too. But the focus right now is Bay recreational, but the commercial, they will be part of that open discussion as well.

CHAIR WARE: Thanks for the clarification. I have Jay and then Dennis, and then we're going to assess where we're at and if we need a motion.

DR. McNAMEE: You know I find myself most aligned with what Nichola offered earlier. I am kind of curious about this, might just give us some confidence that he thinks with some criteria they can get this done and if not, they will kind of hold off, so that is good that answer, you know that concern that I had.

I was just thinking, you know there may be some benefit to the rest of us in the precedent. You know I think Maryland has probably the most intricate regulations, so this is most relevant for them. But you get stuck in this, you know when you are kind of boxed in like that you get stuck, and Mike, I can see that.

Having an opportunity to kind of like just get out of that pit that you're in, to kind of relook at things. Because when you get kind of trapped with this inertia of your regulations, the environment is changing, right, and so you just kind of keep propagating things that you've been doing, when the situation may have

changed out on the water. I like the idea of kind of pulling back, reanalyzing everything, getting at some of these other ideas that we've talked about like discard mortality concept and things like that. Maybe there is some way that they can look at it to reduce that, so I'm supportive of that. I might come back to this, I know you're trying to move off this, so I'm going to stop and then maybe raise my hand again in a little bit.

CHAIR WARE: Dennis and then we're going to assess where we're at.

MR. ABBOTT: I surely can't match Mike's eloquence in presenting points as he does. But again, I'm going to reiterate the fact that we're doing an Addendum, and I think inserting one state into providing input at this point in time does not get us to our Colberg. I would like to see Mike move ahead with what he's doing and bring that back, and maybe at some point in time we have to reanalyze how we're managing striped bass, because it sure has been taking us in different directions.

CHAIR WARE: I'm going to assess where we're at here. I've heard lots of different opinions on this. At this point I'm taking it that we have a request from Maryland to add this topic to the Addendum. Is there anyone that is opposed to or cannot live with that addition? I would just be looking for a hand. I'm not asking for a vote; I'm trying to assess if we need a motion. If you are strongly opposed or cannot live with the Maryland proposal to add this, raise your hand. You have a question, David Borden.

MR. BORDEN: If we proceed down this road, when is this Board going to see a document from Mike? My assumption is the next follow up question is, you need a date, I think. Then the follow up question is, are we then going to task the same technical people that we're asking to do this other work with analyzing this, or are we just going to accept whatever they bring forward?

MS. FRANKE: I can maybe start to speak to that. I think if Maryland DNR can provide the PDT with their proposed new baseline season in the next few weeks, the PDT could potentially incorporate it into their calculation of options. If the Board is not comfortable with that, and would like the PDT to move ahead with the assumption that Maryland is not changing the status quo season. Sort of have this Maryland proposal separately come to the Board also in May, and then the PDT could potentially combine it with the other options after the May meeting.

That is an option as well. I think the Board could ask the TC to review the analysis if needed, but it is just sort of a matter of, is the Board comfortable with Maryland proposing an analysis in the next month and the PDT sort of rolling that analysis into their development of options for any additional reductions, or does the Board want to see the Maryland analysis separately in May, alongside an Addendum that just assumes Maryland season would be the same?

CHAIR WARE: Just to clarify, I'm not anticipating a Board meeting between now and May. You would not see that analysis or the TC review until May, which is fine if we're trying to wait until August to go out for public comment then. Just acknowledging some of the time constraints. Eric Reid.

MR. REID: I'm just trying to understand what exactly the product Maryland is going to produce for the Board. Is it going to be a baseline of measures that are by consent accepted by all the stakeholders, or is it going to be, we couldn't come to an agreement and we don't have anything for you, or is there going to be some other giant document in the middle of that? I'm not understanding what we should expect, other than those two things.

CHAIR WARE: Mike, do you want to answer that?

MR. LUISI: Well, it won't be a giant document, I'll tell you that. It will likely be, we haven't done the work yet, but it will likely be very simple, where there will be our current season structure, taking out the size limits and bag limits, just looking at the structure of the season and what's allowed. When you wake up on February 12, what can you do today? What are you allowed to do fishing wise?

Can you keep fish? Can you catch and release them only? What are those rules, what do they look like? We will take what we have and the tradeoff being, so let's say we reopen a portion of the winter fishery and we have closed winter/spring, but we accommodate that reopening of that fishery by closing an additional two or three weeks in the summer.

That's what we're talking about. It's pieces on the board, moving those pieces in a meaningful way to reshape the structure of the fishery. It will not be a complicated analysis, because the data within the waves of what is caught, what is released. All of those data exist. We're talking about kind of looking at this wave by wave, to see what we can accomplish in a restructuring of those rules.

Therefore, that would be produced and presented by the May meeting. Like I said before, if we cannot get, I don't want to sit down with our stakeholders and then have a similar discussion that we're having now with just new rules. I forget who said it earlier, when we were talking about lobster, it might have been Dan McKiernan who said, the balls in your court.

Tell us what you need to do for lobster, in order to achieve what we're striving for. That is my plan is to go back to our stakeholders and say, tell me what we can do to make a season for you that you can live with for the next few years. There is going to have to be tradeoffs, and people are going to have to compromise. If they can't compromise, if they are unwilling to compromise, and everybody just digs in and sets up for battle, well then, the project is over. I'll be the first person to come back to say that that was a failed experiment, given the constraints of timing that we have, and maybe that will be something that we look at in the future, but not today. I hope that we'll find success in this, but that is all to be determined, I guess.

CHAIR WARE: We had a question from Cheri.

MS. CHERI PATTERSON: Mike, this is really intriguing. However, I have a question in regards to, we just got done with a conversation pertaining to achieving reductions from a regional perspective, and there seemed to be some push back on having it a single-state perspective. I see you headed in a single-state perspective, how is that going to roll into a regional perspective of achieving reductions?

CHAIR WARE: I'm going to have Emilie answer that.

MS. FRANKE: Thanks, Cheri, for bringing that up. I guess when we were talking about seasonal closures a little bit ago, I think we were sort of subconsciously maybe focused on the ocean. I did want to clarify that in the TC Report in December for the Chesapeake Bay, Chesapeake Bay options did include separate closures for Maryland and Virginia. If the Board is opposed to that you can definitely let me know.

But I think the PDT was planning to just start with what the TC Report had, which did allow Maryland and Virginia to have separate closures in the Bay, but you have regions in the ocean. If the Board is opposed to that let me know, but I apologize for not clarifying that earlier.

MS. PATTERSON: Thank you, I appreciate that.

CHAIR WARE: Doug, do you have a question?

MR. GROUT: It's not a question, it's just if this is something that is going to be moving forward, I would hope that when Maryland brings this to the PDT that they would run it by the Technical Committee, to make sure that their analysis that this is meeting our conservation goals is also something that they believe achieves it.

CHAIR WARE: We're just going to take a minute at the head of the table to chat, and we will be right back.

MS. FRANKE: Just from a staff timing perspective, we're just trying to think through. If Maryland presents an analysis with the modified baseline, and the Board wants that to go in front of the TC as well, it just becomes a question of does the PDT calculate the Chesapeake Bay closure options, assuming this new Maryland baseline, or assuming their current baseline season? I think that is the question we're just trying to grapple with as staff.

You know, assuming the TC, if the TC approves Maryland's analysis is reasonable, does the PDT calculate any new reduction seasonal closures based on this new Maryland season that the Board hasn't seen yet, or does the PDT first calculate the options based on the current Maryland season, and then we sort of see what happens with Maryland's proposal for an alternative season. That is what I'm grappling with, I guess if anyone has any thoughts of if Megan has any thoughts.

CHAIR WARE: I'm just thinking out loud. I think you might need both, because there will be an option in the Addendum, status quo for Maryland versus Option 2 is the new baseline. I don't think we would know as a Board which one we've selected until Final Action.

MS. FRANKE: What I can say is I think by May the PDT can calculate seasonal closure options for the Bay, including Maryland, based on their current season. I think based on what I've heard, there is some interest in Maryland exploring their proposal of an alternative new status quo baseline that they can bring. Hopefully we can get it in front of the TC before the May Board meeting, and I'll talk to the PDT members to see if the Board decides at the May Board meeting that this new Maryland baseline is reasonable, how quickly we could sort of add a set of options with that new baseline. It's possible, depending on what we need to tweak in the spreadsheets. Maybe that's something we can do within a week or two of the May Board meeting and still be able to go out for public comment in late May.

If that makes sense just to reiterate, the PDT can calculate options right now using Maryland's current season. Maryland can also pursue potentially a new baseline. Then if the Board wants to move forward with this option for a new Maryland baseline, it's possible the PDT could work that into the document before it goes out for public comment, if that sounds reasonable to people.

CHAIR WARE: Okay, Matt and then we're going to assess where we're at.

MR. GATES: Thanks, Mike, for this discussion, I really appreciate that. I think maybe I would put the onus maybe on Maryland, if we're going to go forward with this, to at least coordinate with the TC and come up with, have them produce the options to put in the document that will meet the reduction required, an equivalent reduction required from their new, whatever they come up with as their new baseline.

CHAIR WARE: Ray and then we're really going to assess where we're at.

MR. RAYMOND W. KANE: I like your ideas, Mike, but I want time certain on this like we spoke earlier about the August meeting, or the annual meeting. I want time certain on this.

CHAIR WARE: I appreciate that, Ray. I don't know if that was a question to us or not, but

what I'll say is I think it is too early, for me at least, to have a vision of whether we would be ready in May or not, regardless of Maryland's proposal. Right, we have given the Plan Development Team a lot to work on.

I think they are going to try their best, and we'll see where we're at in May. Okay, so we are going to assess where we are at. At this point I'm taking that Maryland has put forward a proposal. Unless I hear someone say that they cannot live with that or are strongly opposed, we are going to assume that that is the process that we're going to move forward with. This is someone's opportunity to say that. Yes.

MR. DANIEL RYAN: I am strongly opposed to this, unless Maryland can guarantee that the six-week period from April 1 to May 15, where it states all areas are closed to striped bass fishing, if that time period remains as is, then I could support this. If this gives Maryland the flexibility to adjust that season, then I can't live with this.

CHAIR WARE: I appreciate that. I think those are some of the specifics, perhaps, that the Board would need to consider in May, so I don't have an answer for you on that now. I think it's a question of if folks need a motion on this. At this point I am not hearing that folks need a motion on this. Eric Reid.

MR. REID: I really applaud Maryland for doing this, but they can do it anytime they like. I hope you are wildly successful, because then all the rest of us are going to want to do it too. Good luck to you and Pandora and the box with that. I'm opposed to this. I think the timeline is too uncertain, the Addendum is too important, and I commend Maryland, they can do whatever they want. I would love to see the results of that. But I don't think it fits in here at all.

CHAIR WARE: To avoid a negative motion, Mike, I am going to have you make a motion to add this into the Addendum. You don't have to make it. Someone should make a motion to add this into the Addendum, sorry, Mike.

MR. LUISI: I would be happy to make it, Megan. I **move to include the concepts of Maryland's baseline adjustment approach to Addendum III.**

CHAIR WARE: We're going to call them seasonal baseline, season closure baseline?

MR. LUISI: You call them anything you want, as long as it's not conservation equivalency.

CHAIR WARE: We'll let staff get that up on the screen, and then we'll see if there is a second. Okay, so we have a motion to include the process of the Maryland season closure baseline adjustment approach in Addendum III, is there a second to the motion? John Clark. We've had a lot of discussion on this. Has anyone not had an opportunity to speak on this? Okay, Adam, Joe, Doug, I'm going to cut you off, you've had some opportunity.

MR. GROUT: What I'm asking is, is this saying that yes, absolutely this was going to be in the Addendum without us seeing it, you know what comes out of it, or is this to consider in May that we will allow Maryland to include this new baseline? If it's saying we're giving approval to go into the Addendum right now, I'm opposed.

CHAIR WARE: I'll say what I'm thinking this motion says to me. I'm taking this motion to say, this is saying that Maryland should go and work with our constituents, and put forward a proposal that will come to the Board in May. I think it's likely that between now and May the TC would do some sort of review of that proposal.

The Plan Development Team may also work on seasonal closure options that are off of this proposal from Maryland. Certainly, the Board from my perspective, in May could always remove this from the document if you do not like what you see.

MR. LUISI: I will go as far as to say that if this doesn't end up where we need it to be by May, I will make the motion to remove it from the document, if it's not where it needs to be by the time we meet in May.

CHAIR WARE: Okay, so I think it was Adam and Joe. I'm going to give you guys two comments here, and then we are going to caucus.

MR. NOWALSKY: I like how you just rephased this, Madam Chair, because we don't actually have a baseline adjustment approach that Maryland has developed yet to even thing about putting in here. As I view this, Maryland wants to go off and do some work. They are going to give that work to the TC and/or PDT to look at, at some point in time prior to May, assuming that they can get their constituents at home to agree to the work that they do. Maryland is going to do work. If their constituents agree to it, they would like the PDT and/or TC to take a look at it, and then if it passes muster, we would put this into the Addendum in May. That is what I'm really envisioning here. I really see the element of making the decision whether or not to include this now, as somewhat premature for us the Board.

I understand the situation however, that Maryland is in, is that they don't want to go off and do this work if there is no chance of this being included in the document anyway. There is a part of me that wants to make a motion right now to postpone this, let Maryland go off and do the work, if they so desire. They've heard the conversation around the table. They've heard the concerns that people have said. If they want to go off and do this work, okay.

At some point in time, all we would really need to do today is say, if Maryland does this work, we'll let the TC take a look at it at some point in time between now and May. That to me is really all we would sign off on here. I would make a motion we postpone this, we have the conversation say, if Maryland develops this work they would show it to the TC.

The TC would bring it back to us in May, and then we would put this in the Addendum at that time. We sat down here, had other conversations about other addendums. We added an entire section to an Addendum today. We would be doing the same thing in this particular case. If you like that idea, I will make that motion. If that really isn't in the spirit of what we're trying to accomplish, then I'll just let you go forward with the vote.

CHAIR WARE: I think that might be a good approach, Adam, and I'll just say for the record this is saying, Maryland should go do your work. This is the Board acknowledging that the TC will review it and the Plan Development Team may start to work on it between now and May. If everyone is under that same understanding, then I will take your motion to postpone, Adam.

MR. NOWALSKY: I'm not seeing anyone telling me no, so **I would like to make the motion to postpone until the Spring Meeting.**

CHAIR WARE: You have a second by Eric Reid. We've moved to postpone the motion until the Spring Atlantic Striped Bass Management Board Meeting. Motion by Adam Nowalsky, second by Eric Reid. I feel like we've had a very robust discussion. Has anyone not had an opportunity to comment on this topic? Joe.

MR. CIMINO: I don't think this motion changes if there is a single state involved here. I very much appreciate what Maryland is trying to do, all the comments around the table. Eric said if this is successful a lot of states want to do it. Going back to Mike Luisi's comment, if not now, when? The idea that other states would review their baseline is then years out.

You know it is going to be very tough to go home and say, well, we don't have the time to do this. I do think there is an awkward timing issue. This reminds me of the bluefish sector

separation vote that we went back home and said, sorry, this was a surprise. The lesson there was like, don't ever do that again. This is like, well, we allowed one state to try something and yes, it would be great for us. It's a great notion. But sometime down the road the rest of us will get to try this too. I do not want to be opposed to this, because I believe in it as a great conservation measure. In a way, I'm sorry, Mike, but to me the timing is wrong. Adam's motion to postpone still only leaves this on the table for Maryland, as I understand it.

CHAIR WARE: That's correct this is only on the table, as I see it right now, for Maryland. I would say Joe, one option given the motion how they are currently drafted is, if someone is not in favor of the concept overall, I think your option is to vote no on both of these motions. Then I would take that to mean the Board is not interested in Maryland convening their group and coming forward with a proposal.

I'm sure we've thoroughly confused everyone at this point, so we're going to do a two-minute caucus, and we'll assess where we're at after two minutes. We are currently focused on the motion to postpone. If that motion to postpone passes, my understanding is that Maryland will work with their constituents. They will bring a proposal to the PDT and the TC, and then at the May Board meeting the Board can decide whether to add this to the Addendum or not. I think we're ready to vote, so **all those in favor of the motion to postpone, please raise your hand.**

MS. FRANKE: In favor I have Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, PRFC, Maryland, Delaware, Maine and New Hampshire.

CHAIR WARE: Are there any votes in opposition?

MS. FRANKE: In opposition I have North Carolina, Virginia and D.C.

CHAIR WARE: Are there any abstentions?

MS. FRANKE: Abstentions, I have U.S. Fish and Wildlife Service and NOAA Fisheries.

CHAIR WARE: Any null votes? The motion to postpone passes, 11 to 3 to 2. The underlying motion will come back to the Board in May, and at that point we will have a better sense of Maryland's work with their constituents. Okay, are there any other topics for the Addendum that folks want to bring forward? John Clark.

MR. JOHN CLARK: Yes, thank you, Madam Chair, and I have one that would be a commercial topic that I would like the PDT to look into. Hopefully it won't be as long as the last topic that came up. As we know, in the more than 10 years that we've been cutting back on the removals of striped bass, on the recreational side we've gone from directly quantifiable measures to much less and less quantifiable. But on the commercial side it's always been quota reduction, which is of course a very quantifiable measure.

I would like the PDT to take a look at a somewhat less quantifiable commercial measure, but one that I think will have an impact on reducing removals. That is to look at, currently we have point of sale requirement for tagging commercially caught striped bass. I would like the PDT to look at both Point of Harvest, which was recommended by the LEC before Addendum III to Amendment 6 was passed in 2012, and also Point of Landing, which full disclosure that is what Delaware has right now. As my fellow commissioner from Delaware pointed out that Point of Landing makes a safer opportunity to tag the fish, because it can be very difficult on rough days to tag the fish at sea, but it still, I think, provides more opportunity for Law Enforcement. My view of human nature, which seems to be confirmed all the time is that most people will follow the rules, but if you give people the opportunity to cheat, the bigger the

opportunity to cheat is then more cheating occurs.

I mean I think we've just seen a real-life example of this over the past few years, as many states have reduced penalties for shoplifting and enforcement of shoplifting. Now it seems like even in a place like Dover you've got half the toiletries are locked up in the store and you've got to get somebody to come open it up. Again, I'm not trying to impugn anybody here, but I'm just saying that I think that the more we can get a reduction in the number of commercial removals by looking at the timing of tagging the commercial catch.

The other benefit of this, I think, one of the things that comes up is we hear so many of the recreational anglers that are so opposed to the commercial fishery is they think that the quotas are always being exceeded, and we have better accountability of what is actually being removed by the commercial fishery, which I think would improve the confidence of recreational anglers, that the commercial fishery is indeed catching just its quota. I would like them to, as I said, take a look at those two options before this next Addendum.

CHAIR WARE: Given the time, I'll just ask, is there anyone that cannot live without or is strongly opposed to considering that in the Addendum? Okay, I think you're all set, John. Any other measures to consider in this Addendum? Jay.

DR. McNAMEE: It's not new, but revisiting. I'm sorry, something happened. This is a revisit. I was feeling guilty, you know we kept the mode separation stuff in there, like I was an opponent of them then gave you no guidance. I have been kind of struggling with that. The discussion with Maryland made me thing, well, maybe there is actually some time here.

I guess what I'm suggesting is, I wonder if there is an opportunity to do some scoping with party and charter operators to get some feedback on measures that are relevant and meaningful for them, to kind of constrain the universe a bit for you guys. If it's not possible, I understand, but given that last discussion I thought maybe it was in play.

CHAIR WARE: What I'm going to recommend is, I'm going to empower the states to do that. If states want to talk with their party/charter industries and come back to the May Board Meeting with information or provide that to the Plan Development Team through e-mail, that would be great. But I think that is the best way to handle that.

MS. FRANKE: From a staff perspective I would say, if you could bring that back to the PDT as soon as possible, I would think by early March would be, I know that is not a lot of time, but if you're looking for the PDT to develop options with that in mind, I think the PDT needs to start as soon as possible. Maybe I'll send a follow-up e-mail to think a little bit more about timing, but if you're hoping to scope then also have the PDT develop options for May, the PDT needs to know soon for how to structure the analysis.

CHAIR WARE: Nichola, I saw your hand for other measures.

MS. MESERVE: Yes, thank you. I just wanted to return to the topic of whether or not the PDT was going to be looking at possession limit changes. As the initiating motion stands, they are not included in there, so I would implore the Board Chair to require there be a motion to add possession limit considerations. There needs to be a motion to include them, otherwise the PDT will not be considering possession limit changes.

CHAIR WARE: I'm hearing no possession limit changes as a perspective on the Board member, is there anyone that cannot live with that or is strongly opposed? Adam Nowalsky, you are strongly opposed to Mike Luisi, so I would recommend you guys craft a motion to include that in the Addendum. Sorry, go ahead, Adam.

MR. NOWALSKY: **Move to include possession change options in the Addendum.**

CHAIR WARE: We will have staff craft something up and then we'll get a second. Okay, so we have a motion to include possession limit options in Draft Addendum III by Adam Nowalsky. Is there a second to that motion? Emerson Hasbrouck, thank you. Discussion on the motion. Excuse me, let me go to Adam first and then Emerson as the seconder.

MR. NOWALSKY: There is a handful of things that we've already discussed today, such as mode split, that are not explicit in that motion. When I go back to December and the Board motion that was passed had a couple of components of recreational measures changes, but not the possession element at the time, the discussion around the table was about, let's get something here down to guide what we're going to do, with the expectation that we would have this very meeting that we're having here today, to direct the PDT what to include.

We've now talked about adding some things, giving the PDT direction to analyze things today that were not explicit in that original motion. I would hope that possession limits, particularly in mode-split conversation that we've agreed to pass, we would not remove that simply because that language wasn't there. That is my reason for making this motion at this time.

CHAIR WARE: I'll go the seconder. Emerson, anything to add?

MR. HASBROUCK: Thank you, I don't have anything additional to add.

CHAIR WARE: All right, discussion by the Board. I think I saw Nichola and then Chris Batsavage.

MS. MESERVE: I think Adam may have addressed my question. I was wondering if his motion was specific to possession limit changes for the for-hire fleet in a mode-split option.

MR. NOWALSKY: I would advocate for giving the PDT options, so I'm somewhat hesitant to add that specific language to this. However, I would offer that as a starting point for the PDT, to look at mode-split with the for-hire, as a first place to use possession limits.

If there was something that they came across in doing their work, whereby they said oh, look, possession limits somewhere else would be a good option to give the Board. I wouldn't want to restrict them from having that flexibility now, but I would agree that the specific request would be to start with mode split at the for-hire as a place to utilize possession limits.

CHAIR WARE: Follow up, Nichola?

MS. MESERVE: Thank you for the clarification, Adam. I'm going to oppose the motion. I'm under the impression that we're looking at an Addendum to potentially restrict and reduce and conserve striped bass, not to liberalize possession limits right now. We're not going to half a fish, so this is looking at a two-fish limit or more.

I think we're either just, this is opening up Pandora's box, then the sea of options that the PDT might have to consider more so than anything else. I just think it is bad guidance to give the PDT right now, if we have any hope of getting something this year. I don't know how this fits in with what the goal of this Addendum is.

CHAIR WARE: Chris Batsavage.

MR. CHRIS BATSAVAGE: Nichola basically said what I was going to say. We've really shifted toward balancing socioeconomic impacts, and pretty far away from striped bass stock rebuilding at this point of the Addendum. Oh yes, we're going to try to finish it all up by October at the latest. We're really setting ourselves up to fail.

CHAIR WARE: Mike Luisi.

MR. LUISI: Just a clarification on what my intent in supporting this is about. Mode splits doesn't mean liberalizing to me, and I think the Board was really clear about mode splits not meaning liberalizing at the meeting we had a year ago, when we decided to remove mode splits from the discussion.

I made a motion at that meeting that was more conservative, the effort was more conservative than what the Addendum was suggesting we do, and it was opposed. The intent here, I would like to be able to see how much tradeoff there would be. Say you have a three-month harvest season. But the charter boats have two fish instead of one fish.

Well, maybe that season now isn't three months anymore, it's a month and a half, to account for the difference. In order to explore what that means to the people that we're managing these resources for, we need to understand what those tradeoffs look like. There is no intent in my mind that we would be looking to liberalize our efforts.

It's about finding some balance between what gets people fishing and what keep people at home watching TV, so that we can continue to rebuild the stock as we are dedicated to do, but provide some additional flexibility and opportunity throughout the seasons that we have in the near future.

CHAIR WARE: Steve Train, you have your hand up online.

MR. STEPHEN R. TRAIN: I have a question for Adam. Mike may have answered that if Adam feels the same way. I would like to support this, because I think it may get the boats off the water soon, and less fish thrown back will be a lower mortality. Adam, do you see that as the end results of this?

CHAIR WARE: Adam, if you would like to respond, you can.

MR. NOWALSKY: I can't say with any certainty that a change in possession limit is going to get people off the water any sooner or later, but I can say with 100 percent certainty that I agree with what Mike just said, that this motion was not intended for any sense of liberalization, it was intended that we're talking about developing options with seasonal closures, potentially no targeting as well. Those are tradeoffs, that is the conversation, and just leaving the box open for the PDT to develop options within that tradeoff paradigm for any reductions that are needed.

CHAIR WARE: I'm not seeing any other hands, so we're going to do a one-minute caucus, and then we'll vote. Okay, I think we are done caucusing, so we're going to call the question on whether to include possession limit options in Draft Addendum III. **All those in favor, please raise your hand.**

MS. FRANKE: In favor I have Rhode Island, New York, New Jersey, D.C. PRFC, Maryland and Delaware.

CHAIR WARE: All those opposed.

MS. FRANKE: Opposed I have Massachusetts, Connecticut, Pennsylvania, North Carolina, Virginia, Maine and New Hampshire.

CHAIR WARE: Any abstentions?

MS. FRANKE: Abstentions, I have NOAA and U.S. Fish and Wildlife Service.

CHAIR WARE: Any null votes? No null votes. The motion fails 7 to 7 with 2 abstentions. Adam, do you have other measures to bring forward?

MR. NOWALSKY: If I understood the conversation and opposition, if you would allow it, Madam Chair, I would be inclined to make a **motion to include possession limit options for for-hire mode split options.**

CHAIR WARE: Okay. I am going to deem that to be significantly different or significantly enough different from the previous motion that we will have that motion up on the screen shortly. We have a second from Eric Reid. Adam, I will go to you for your rationale, then the seconder. We talked a lot about this, so if there are any critical comments, and then we're going to do a 30 second caucus. Then we will vote.

MR. NOWALSKY: All my previous comments still apply here. However, I would offer again that given the conversation, the concerns I heard about the previous motion, I understand from a conservation point we're not likely going back to two fish or three, or any more than that for the entirety of the recreational sector. But again, we're talking about tradeoffs within the for-hire sector, giving up seasons. This is a reasonable conversation to have, especially in light of the equity conversation we had earlier, what does equity really mean to different user groups?

CHAIR WARE: We have a motion to include possession limit options for for-hire mode split in Draft Addendum III. Anyone who has not had a chance to speak on this topic yet? Okay, we're going to do a 30 second caucus really quick. Okay, 30 seconds is up. We're going to call the question**. All those in favor of the motion, please raise your hand.**

MS. FRANKE: In favor I have Rhode Island, New York, New Jersey, D.C. PRFC, Maryland and Delaware.

CHAIR WARE: All those opposed.

MS. FRANKE: Opposed I have Massachusetts, Connecticut, Pennsylvania, North Carolina, Virginia, Maine and New Hampshire.

CHAIR WARE: Any abstentions?

MS. FRANKE: Abstentions I have U.S. Fish and Wildlife Service and NOAA Fisheries.

CHAIR WARE: Any null votes? No null votes, so I believe it's the same count, 7, 7, 2 abstentions, so the motion fails. Okay, any other measures? John Clark, you have another measure?

MR. CLARK: Yes, I do, Madam Chair, it's another commercial measure. Hopefully the Board has been so softened up by now that it can go pretty quickly. I would just like the PDT to take a look at, well, this is going to be a big one here, quota reallocation of the commercial quota, but restricted to, right now we have 6 states that actually are harvesting striped bass commercially of the coastal quota.

I just want them to be considering, this would not be any increase, just if you take all the 2024 commercial quotas together it is about 1.75 million pounds. There would be no increase there. But once again, we're working on quotas that were set in the 1970s, back when I still had hair. A long, long time ago.

But I don't see there is really any possibility of us coming up with new methodology for estimating what would be a fair distribution of the commercial quota coastal quota any more, because I don't see it ever really opening up to the point where we have kind of the free for all we had back in the seventies, which is what this is based on.

I am not talking about anything radical right now. Maybe we could look at some options. For example, I see that out of the current quota 2024, two states have about over 70 percent of the quota, and some of the other states would like a little more. I think maybe we could look at something as simple as just putting a minimal percentage of the coastal quota for the states. I mean I know Craig could speak to this better than I could. But Delaware, all our fisheries are pretty small scale.

We still have watermen communities that, you know this has been going on for generations, right Craig, the gillnetting? You know we would

like to see that continue, and there has always been a market for it. The commercial fishermen in Delaware are supplying locally, as well as the region. We're getting to the point where it is diminishing returns.

Because every time we come back, and that is why I made the other suggestion for a commercial topic is just because no matter what we come up with for recreational it's always like, well, and then we'll just cut the commercial quota another 10 percent. You know we're getting to the point of no return for our commercial fisheries. Not seeing this increase anytime soon, I just think it's time we could look at some commonsense ways to reallocate.

CHAIR WARE: I'll just say as Chair; I have some concerns about adding commercial reallocation to an Addendum where we have a motion that says we are taking final action by the October meeting. That is my personal opinion. But I would just speak that for the Board for your consideration. We have an idea to add commercial reallocation to the Addendum. Is there anyone that is strongly opposed or in opposition? Nichola, okay, so we will need a motion, John, to add commercial reallocation to the Amendment.

MR. CLARK: Okay, I can make it very simple. Are we ready? I just say, **move to ask the PDT to investigate reallocation of the commercial quota between the 6 states that are harvesting the coastal stock commercially.** It would be no increase in the amount harvested, just reallocate what has actually been allocated through the 2024 quotas.

CHAIR WARE: Is there a second to that motion? Not seeing a hand, but I'm just going to have staff check the webinar. Eric Reid is going to second that motion. I'm going to go, John, do you have any additional rationale to provide for this motion? I'm going to go to the seconder first, then I'll come back to Craig, if that is okay. I'm going to pause, actually, just to get the motion on the board really quick. John, can I have you read that motion? Read it into the record, and make sure it matches what you're looking for.

MR. CLARK: Certainly. Move to ask the Plan Development Team to investigate reallocation of the commercial quota among the 6 states that currently harvest striped bass from the coastal stock. There would be no increase from the total 2024 quota of those 6 states combined.

CHAIR WARE: I'll go to the seconder, Eric Reid for a rationale.

MR. REID: We've been having this discussion for a very long time, and I've supported it every opportunity, and I'm not going to fail that today. But I can't even imagine this will pass in any way, shape or form, to be perfectly honest with you.

CHAIR WARE: Craig, I will now go to you, thanks for your patience.

MR. CRAIG D. PUGH: As the request was for improvement or socioeconomic status, we can find results where this adds up to an 80 percent disparity on some levels. We do not see much equity balance; it's more I eventually see just unfair treatment over a long period of time. It's now entered into two generations of this disparity, which we know we can catch the fish.

We would like to have the opportunity to do so before that escapes us. I don't quite understand why this disparity seems to be so long lasting, other than I understand states not wanting to give up their quota. But I hear all of this talk today about equity and balance and socioeconomics. I've lived that within this disparity.

It's embarrassing to know that we do have such a small allocation in our state, when we have these discussions through other states, as we market our fish. Now if I ask these questions

about that, of course that comes back to the Commission. What the Commission is willing to provide and what the Commission is willing to do to help those people in those desperate positions.

We do feel we're in a desperate position. We've extended several cuts over the years at multiple times. That is because our quota is so small that impacts us greatly. We're now down to about 1100 pounds annually per fisherman in the state. It takes ordinarily two, three days to catch that. That is not really an income, that is not really a job, that is a hobby. It's a shame. Some practical talk here about this, to level off this playing field, would be appreciated. If you all would consider and extend that to us, we would appreciate it, thank you.

CHAIR WARE: Thanks, Craig. I have Ray and then Emerson Hasbrouck.

MR. KANE: Yes, I have a question about the motion. It refers to only coastal stock. Isn't there a commercial fishery in Chesapeake Bay?

CHAIR WARE: Yes, I'll let John clarify here.

MR. CLARK: Yes, there is, Ray, but these are the states that all their quota is coming out of the coastal stock. I mean two of the states have both, but this only refers to, like for Maryland and Virginia, they both have small coastal quotas also. This is just for the coastal quota, not the Chesapeake.

MS. FRANKE: Just one more clarification. This is only referring to ocean quota, and the 6 states are referring to who currently harvest striped bass commercially in the ocean that is Massachusetts, Rhode Island, New York, Delaware, Maryland and Virginia, correct? You're not including North Carolina.

CHAIR WARE: Emerson Hasbrouck.

MR. HASBROUCK: I had my hand up because I was prepared to amend this motion, but I've reconsidered that, so I'll pass for the moment. Thank you.

CHAIR WARE: John, just to clarify. Can I ask what your vision is for New Jersey? I understand they don't have a commercial fishery but they do use that quota.

MR. CLARK: Well, I wanted to leave Connecticut and New Jersey, who both turned their commercial quota into bonus fish recreationally. This is not affecting the total amount of quota out there, I wanted to leave New Jersey and Connecticut alone, they just keep what they've got for their bonus program. This is only for the states that are commercially harvesting. You take the total amount that they are harvesting, and we just reallocate it a bit among the states that are in that category.

CHAIR WARE: Okay, anyone who is burning to comment on this? Yes, Roy Miller. Then I don't see any other hands, and Pat Geer and then we will caucus.

MR. MILLER: A quick clarification, Madam Chair. Does this include North Carolina's commercial quota or not?

MR. CLARK: No.

MR. MILLER: That quota wouldn't be available for reallocation, am I correct?

CHAIR WARE: That is my understanding of the motion.

MR. CLARK: Just a little further explanation. I knew that was a very sensitive issue, I didn't want to bring that up. I mean North Carolina is that big chunk of quota that is not being used. We talked about that with the previous Addendum here, where there was a possibility of transferring that, but that is something that won't happen anytime in the near future. This is just dealing with what we're actually harvesting commercially now, and so there wouldn't be any of those other issues involved.

CHAIR WARE: Pat Geer.

MR. GEER: John, I know we talked about this before. How many pounds would you need to be whole?

MR. CLARK: Oh, a million, two million. No, one of the things I thought about here was like I said, just a minimum level, Pat, which would if for example you divided it up with a minimum amount a state could get, would be 10 percent of that entire amount. That would bring us back somewhat closer to where we were under Amendment 6, where we were at 193,000 pounds there. If 10 percent was the minimum, we would be at about 175,000 pounds. It's not a lot more but it would help.

CHAIR WARE: Seeing no other hands we're going to caucus for 30 seconds. That was 30 seconds, so I'm not seeing anyone waving their hand that they need more time, so we are going to call the question. This is asking if we should add commercial quota reallocation to this Addendum**. All those in favor, please raise your hand.**

MS. FRANKE: In favor I have Rhode Island and Delaware.

CHAIR WARE: All those opposed.

MS. FRANKE: Opposed I have Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, North Carolina, Virginia, D.C., PRFC, Maryland, Maine and New Hampshire.

CHAIR WARE: Any abstentions?

MS. FRANKE: Abstentions I have NOAA Fisheries and U.S. Fish and Wildlife Service.

CHAIR WARE: Any null votes? Not seeing any null votes. The motion fails 2 to 12 with 2 abstentions. At this point I'm not even going to ask if there are other measures. I think that we have thoroughly discussed this, and we're going to move on. The Plan Development Team has a lot of work ahead of them.

I'm going to thank them ahead of time for all of their efforts between now and May, and we will come back to this at the May Board Meeting. We're going to move on to our next agenda item, which is Review and Populate the Advisory Panel. Emilie is going to do that.

REVIEW AND POPULATE THE ADVISORY PANEL

MS. FRANKE: For your consideration in supplemental materials was a nomination from Maine for Captain Peter Fallon to joint the Atlantic Striped Bass Advisory Panel.

CHAIR WARE: We're looking for a motion. Representative Hepler.

REPRESENTATIVE ALLISON HEPLER: That's my queue. I would like to nominate Captain Peter Fallon to the Advisory Panel.

CHAIR WARE: Could I ask you to read the motion into the record?

REPRESENTATIVE HEPLER: Oh, yes, **move to approve Peter Fallon of Maine to the Atlantic Striped Bass Advisory Panel.**

CHAIR WARE: We got a **second from Eric Reid**. I just wanted to take a moment. Peter Fallon is replacing Dave Pecci, who is retiring. I went back and looked. Dave joined the AP in 2002, he has been on this AP for 22 years. I really want to thank Dave on behalf of Maine for his over two decades of service on this Advisory Panel, that is very commendable.

We wish you the best in retirement, Dave. Is there any discussion on this motion? **Any opposition to the motion? Okay, the motion is approved by unanimous consent,** thank you. We are now on to Other Business. Is there any Other Business before the Board? Dennis Abbot.

MR. ABBOTT: Reminding me, after you congratulated the leaving member. In the last month or so, I think it was in December that a longtime Maine fisherman and member of the Maine Advisory Committee on Shrimp, a gentleman named Marshall Alexander passed away after three years with dementia and a few other things. He was a wonderful man; he was a pleasure to deal with. He had a few little sayings, like every time you asked him something he would say, no, no, no, no, no, no, no, and whatever. But I will miss Marshall Alexander and I just wanted to make that mention.

ADJOURNMENT

CHAIR WARE: Thank you, Dennis for that remembrance. Any other, Other Business? Okay, we are adjourned, thank you everyone for your patience.

(Whereupon the meeting adjourned at 5:43 p.m. on Tuesday, February 4, 2025)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Atlantic Striped Bass Management Board**

FROM: **Emilie Franke, Fishery Management Plan Coordinator**

DATE: **April 22, 2025**

SUBJECT: **Review the Atlantic Striped Bass Stock Assessment Subcommittee and Terms of Reference for the 2027 Benchmark Stock Assessment**

The Atlantic Striped Bass Stock Assessment Subcommittee (SAS) is repopulated prior to each benchmark stock assessment. ASMFC Staff solicited nominations for SAS members from the Administrative Commissioners on the Atlantic Striped Bass Board and the Assessment Science Committee. The following state and federal scientists have been nominated for Board approval:

- Mike Celestino, New Jersey Department of Environmental Protection
- Margaret Conroy, Delaware Division of Fish and Wildlife
- Brooke Lowman, Virginia Marine Resources Commission
- Gary Nelson, Massachusetts Division of Marine Fisheries
- Alexei Sharov, Maryland Department of Natural Resources
- John Sweka, US Fish and Wildlife Service
- Tyler Grabowski, Technical Committee Chair, Pennsylvania Fish and Boat Commission
- Katie Drew, Atlantic States Marine Fisheries Commission

The Atlantic Striped Bass Technical Committee has recommended that the Board consider the following Terms of Reference for the 2027 Benchmark Assessment, scheduled to be peer reviewed through the Northeast Region Coordinating Council (NRCC) Research Track Assessment Process in March 2027.

TERMS OF REFERENCE

For the 2027 ASMFC Atlantic Striped Bass Benchmark Stock Assessment

Draft for Board Approval

1. Identify relevant ecosystem influences on the stock. Characterize the uncertainty in the relevant sources of data and their link to stock dynamics. Consider findings, as appropriate, in addressing other TORs. Report how the findings were considered under impacted TORs.

2. Investigate all available fisheries independent and dependent data sets, including life history, indices of abundance, and tagging data. Describe the spatial and temporal distribution of the data. Characterize the uncertainty in the data. Discuss strengths and weaknesses of the data sources and justify inclusion or elimination of datasets.

3. Estimate commercial and recreational landings and discards. Characterize the uncertainty in the data and spatial distribution of the fisheries. Review new MRIP estimates of catch, effort and the calibration method if available.

4. Use an age-based model to estimate annual fishing mortality, recruitment, total abundance and stock biomass (total and spawning stock) for the time series and estimate their uncertainty. Provide model diagnostics, retrospective analysis of the model results and historical retrospective. Provide estimates of exploitation by stock component and sex, where possible, and for total stock complex. If multiple models have been considered, compare results and performance and justify choice of preferred model.

5. Use tagging data to estimate mortality and abundance, and provide suggestions for further development.

6. Update or redefine biological reference points (BRPs; point estimates or proxies for B_{MSY}, SSB_{MSY}, F_{MSY}, MSY). Define stock status based on BRPs by stock component where possible.

7. Explore new methods to predict future catch or *F*. Provide annual projections of catch and biomass under these scenarios. Projections should estimate and report annual probabilities of exceeding threshold BRPs for *F* and probabilities of falling below threshold BRPs for biomass.

8. 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.

9. Review and evaluate the status of the Technical Committee research recommendations listed in the most recent SARC report. Identify new research recommendations. Recommend timing and frequency of future assessment updates and benchmark assessments.

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Atlantic Striped Bass Technical Committee and Stock Assessment Subcommittee Meeting Summary

Webinars
March 20, March 25, and March 28, 2025

TC-SAS Members in Attendance: Tyler Grabowski (TC Chair, PA), Mike Celestino (SAS Chair, NJ), Michael Brown (ME), Gary Nelson (MA), Nicole Lengyel Costa (RI), Kurt Gottschall (CT), Caitlin Craig (NY), Brendan Harrison (NJ), Margaret Conroy (DE), Alexei Sharov (MD), Luke Lyon (DC), Ingrid Braun-Ricks (PRFC), Shakira Goffe (VA), Brooke Lowman (VA), Jeremy McCargo (NC), Charlton Godwin (NC), John Sweka (USFWS)

ASMFC Staff in Attendance: Katie Drew, Emilie Franke, Samara Nehemiah, Toni Kerns

Others in Attendance: Gerard Addonizio, Bayleigh Albert, Max Appelman, Mike Armstrong, Rick Bellavance, Alan Bianchi, Sean Briggs, David Borden, Robert T. Brown, Jack Buchanan, Allison Colden, Russell Dize, Eric Durell, Glen Fernandes, Corrin Flora, Brandon Foor, Tony Friedrich, Angela Giuliano, Charles Green, Brian Hardman, Jesse Hornstein, Bob Humphrey, Nick Jones, Ray Kane, Carrie Kennedy, Elise Koob, Mike Luisi, Dan McKiernan, Nichola Meserve, Michael Pirri, Will Poston, Jason Seman, David Sikorski, Jeff Swayze, Kristen Thiebault, Beth Versak, Megan Ware, Mike Waine, Michael Woods, Jordan Zimmerman, Erik Zlokovitz

The Striped Bass Technical Committee (TC) and Stock Assessment Subcommittee (SAS) met via webinar on March 20, March 25, and March 28, 2025 to discuss the following items:

- Draft Addendum III Projections and 2026 Reduction
- Draft Addendum III Size and Season Closure Analysis
- Maryland Recreational Season Baseline Methods
- Terms of Reference for the 2027 Benchmark Stock Assessment
- Massachusetts Conservation Equivalency Proposal for the Commercial Fishery

Draft Addendum III Projections and 2026 Reduction

Per the Board's motion from December 2024, Draft Addendum III will consider potential reductions for 2026 based on projections incorporating preliminary estimates of 2024 removals. The Board requested projections and associated reductions for both a 50% and 60% probability of rebuilding stock by 2029. The TC used the model from the 2024 Stock Assessment Update for these projections. For fishing mortality (F) input for 2024-2029, the TC calculated a preliminary estimate of F2024 and discussed what assumptions should be used for F2025 and F2026-2029.

To estimate preliminary 2024 removals and F2024, the TC used preliminary 2024 MRIP estimates (released in February 2025) and assumed an estimated 7% decrease in commercial removals relative to 2023 due to the Addendum II quota reduction of 7%. The resulting preliminary estimate of recreational removals based on full-year 2024 data is within the range of previously projected estimates of 2024 recreational removals based on partial-year data (Figure 1).

In 2025, with no management change from 2024, F is predicted to increase as the above-average 2018 year-class enters the current ocean slot limit. The TC agreed the best assumption to use for the F2025 increase is +17% relative to 2024 based on the observed +17% increase from 2021 to 2023 when part of the 2015 year-class was still in the newly reduced ocean slot limit. The TC notes the magnitude of increase may be overestimated since the 2018 year-class is not as strong as the 2015 year-class was. The TC did discuss potentially modifying the F2025 estimate by changing or resampling the F2025 distribution to sample more heavily from the lower end of the distribution, but the TC ultimately determined this will likely not have much impact on the results and that 17% is the best assumption based on observed history. The TC continues to emphasize the uncertainty of predicting future fishing mortality.

For F2026-2029, five scenarios with different assumptions for F2026-2029 were run:

1. F2026-2029 = F_rebuild 50% (constant F for 2026-2029 necessary for SSB to be at or above the rebuilding target in 2029 with a 50% probability)
2. F2026-2029 = F_rebuild 60% (constant F for 2026-2029 necessary for SSB to be at or above the rebuilding target in 2029 with a 60% probability)
3. F2026-2029 = F2024 (normal distribution)
4. F2026-2029 = F2024 (skewed distribution)
5. F2026-2029 = Variable_F (draw from 2021-2024 Fs)

Per TC discussion in January 2025, the “variable F” scenario was included for exploration for F2026-2029. This scenario is based on TC concerns that a constant F scenario for 2026-2029 was unrealistic and a scenario with more variability in F would be more likely. For the variable F scenario, instead of drawing F from a distribution centered around F_2024 or F_rebuild (constant F scenarios), F in each year was drawn from recently observed F point estimates (F2021-2024) as a starting point for TC discussion. The TC noted that including 2021-2023 in the variable F scenario is not representative of conditions in 2026-2029. First, the ocean slot limit was seven inches in 2021-2023 vs. the current three-inch slot. Second, the strong 2015 year-class available to the ocean fishery in 2021-2023 was stronger than the 2018 year-class. Third, the resulting median F for the 2021-2024 variable F scenario would be an increase relative to 2025. This is counter to the TC’s predicted decrease in F from 2025 to 2026 as the 2018 year-class starts to grow out of the ocean slot limit. For these reasons, the TC decided the variable F scenario should not move forward for Draft Addendum III projections.

The TC agreed that assuming F2026-2029=F2024 is a reasonable assumption under the same narrow slot limit and as an above-average year-class grows out of the slot. However, TC decided to explore a modified projection by changing the distribution of F2024 that the projection is drawing from. The TC agreed to explore a skewed distribution for the F2024 scenario with a wider distribution to encompass a wider range of F values and to skew toward higher F values in the distribution (i.e., a longer "tail" on the higher end increasing the probability of a higher F value) that would still be centered on the F2024 value (Figure 2). This results in wider confidence intervals skewed to encompass more higher F values (Figure 3), which results in a slightly lower probability of rebuilding and slightly higher required percent reduction (Table 1).

Table 1. Probability of rebuilding by 2029 under different F scenarios and the reduction in 2026 removals needed to achieve a 50% or 60% probability of rebuilding. The projection selected by the TC-SAS for Draft Addendum III reduction is shaded in green.

Scenario	Prob. of Rebuild by 2029	2026 Removals	2026 Reduction in Removals to achieve F_rebuild 50%	2026 Reduction in Removals to achieve F_rebuild 60%
F2026-2029 = F_rebuild 50% = 0.122	50%	3.50 million fish	0%	-6%
F2026-2029 = F_rebuild 60% = 0.114	60%	3.29 million fish	NA	0%
F2026-2029 = F2024 = 0.123 (normal distribution)	**48.7%**	**3.54 million fish**	**-1%**	**-7%**
F2026-2029 = F2024 = 0.123 (skewed distribution)	43.6%	3.66 million fish	-4%	-10%

The TC-SAS discussed which projection should be used for Draft Addendum III, the normal or skewed distribution. First, the TC-SAS notes the projection results are very similar. While the skewed distribution does encompass more of the higher F values, the TC-SAS noted some concern that the skewed distribution might be too wide, encompassing F values even above the F threshold. The TC-SAS reiterated rationale for moving forward with the F2024 assumption in the first place, and the credible prediction that F is likely to be similar to F2024 levels. **So, the TC-SAS agreed the F2024 normal distribution is the most appropriate to move forward for Draft Addendum III.**

The TC-SAS notes both F2024 scenarios result in reductions of 10% or less, and the TC-SAS re-emphasizes previous guidance on small percent reductions. The outcome of management

changes designed to achieve small changes (i.e., reductions or liberalizations of less than 10%) would be difficult to measure given the uncertainty in the MRIP estimates. Total removals are not known to within 10%, so a reduction of less than 10% would not be statistically distinguishable from no reduction at all (i.e., status quo measures). In addition, the effectiveness of measures estimated to achieve a small percent reduction on paper for the recreational fishery would be overwhelmed by uncertainty in the reduction calculations themselves, including uncertainty around fish availability, effort, and angler behavior.

The TC-SAS also continues to highlight several major sources of uncertainty in the projections including the magnitude of the increase in F in 2025 that is expected to occur, and the F rate that the population will experience from 2026-2029.

Draft Addendum III Size and Season Closure Analysis

The same methods previously used to calculate 2025 management options (see December 2024 TC Report) are being applied to develop Draft Addendum III 2026 management options with some updates, including pooling additional data years for season closure analysis, exploring mode split options, exploring seasonal closures split between two waves, and using different data years for ocean size limit analysis to reflect 2026 fish availability.

The Plan Development Team (PDT) asked for TC input on three specific questions regarding size and season analysis for Draft Addendum III:

a. Which data year(s) should be used for ocean size limit analysis?
b. How should an outlier MRIP estimate in seasonal closure analysis be addressed?
c. Should the issue of weekday vs. weekend catch rates be further pursued?

Data for Ocean Size Limit Analysis

In previous January 2025 discussion, the TC identified a few possible data years to use for the 2026 ocean size limit analysis. In 2026, the above-average 2018 year-class will be age-8 but is preceded/followed by below-average year-classes. The TC previously identified the 2004 year-class, 2011 year-class, and 2014 year-class as possible proxies since they were above-average year-classes mostly followed by below-average year-classes and were a similar level of year-class strength as the 2018 year-class. These potential proxy year-classes would be age-8 in 2012, 2019, and 2022, respectively. The challenge with all of these potential proxy years is avoiding the impact of other strong year-classes in the length frequency data (e.g., 2015s following the 2014s).

The TC asked whether the PDT had any input on the proxy years (Figure 4). Since the Board would like to explore size limits above 35", the PDT needs proxy year data that allow such analysis. This eliminates the 2022 length frequency data from consideration since the 28"-<35" slot limit was in place in 2022, which does not allow analysis of any size limits above 35". Given that, the TC focused discussion on the 2012 and 2019 proxy years.

The TC noted the benefit of using multiple years of data, but was concerned about pooling 2012 and 2019 data together given the very high catch in 2012 likely associated with the very strong 2003 year-class, which would overtake the 2019 data. Instead **the TC recommended averaging the reductions calculated individually from the 2012 data and 2019 data.**

The TC also noted the 2019 length frequency data includes a high estimate in the 19" size bin. The TC recommended the PDT further investigate whether the estimate is an outlier by considering whether the estimate is a result of a few heavily weighted intercepts (would indicate an outlier) and whether that size class appears to progress through the sizes in following years (would indicate they are 'real' fish). If the investigation indicates this estimate is most likely an outlier, the TC recommends the PDT address the outlier estimate with an appropriate method.

Outlier: Rhode Island 2021 Wave 2 Recreational Live Releases

The PDT identified an outlier MRIP estimate included in seasonal closure analysis data. The Rhode Island 2021 Wave 2 release estimate is very high (by an order of magnitude) compared to RI Wave 2 estimates from other years (Table 2). The 2021 estimate is 1.7 million live releases, while the other estimates over the past several years range from approximately 79,000 to 493,000 live releases.

Table 2. Rhode Island Wave 2 Released Alive Estimates from MRIP.

Year	RI Wave 2 Released Alive (B2) Number of Fish	PSE
2017	176,244	69.2
2018	166,784	61.4
2019	493,117	34.7
2020	247,945	33.8
2021	**1,753,954**	**66.3**
2022	196,509	56.8
2023	251,865	58.5
2024	79,530	45.7

This Wave 2 outlier estimate is included in the ocean seasonal closure analysis. RI estimates are pooled across years and pooled with other states to comprise regions, so the impact of this one outlier may be minimized. Or, the estimate could be dropped from the analysis, but the PDT is interested in whether there are other ways to address the outlier estimate.

Initial investigation during the webinar revealed neighboring states did not see a similar Wave 2 increase, the effort estimates did not increase to the same degree, and there are a few heavily-weighted intercepts with high releases. This indicates the estimate is likely an outlier, but **the TC recommends the PDT further investigate the MRIP intercepts and then take appropriate steps to address the RI outlier estimate if indicated.** Options could include removing the estimate from the analysis, removing the outlier intercepts, or replacing the estimate with an average or value from another year.

Weekends and Weekdays in Seasonal Closure Analysis

Seasonal closure analysis assumes a constant daily savings of harvest and/or releases. The TC has acknowledged that catch is not constant per day, especially between weekdays and weekends/holidays (i.e., weekends/holidays tend to have higher effort and catch). In January 2025, the TC requested investigation into MRIP data to understand the differences between type of day (Figure 5). MRIP categorizes Monday-Thursday as weekdays and Friday-Sunday + Federal Holidays as weekends. Generally, removals are higher per day on weekends vs. weekdays, and the pooled average removals per day used in seasonal closure analysis (i.e., summed across both types of days) is somewhere in the middle.

The TC-SAS recognizes the practical difficulties of incorporating weekends vs. weekdays in the analysis, and notes the seasonal closure analysis results may not change much if weekend vs. weekday is added, especially if closures are at least 14 days long (encompassing eight weekdays and six weekend days). However, it was noted the weekend catch rate is almost double the weekday catch rate in some waves, so incorporating the weekend vs. weekday analysis should at least be explored. **The TC-SAS agreed a case study example incorporating weekend vs. weekday would be informative to compare to the current analysis and determine how adding this weekend/weekday aspect would impact the results.**

Maryland Recreational Season Baseline Methods

The Maryland Department of Natural Resources (MDDNR) is working with stakeholders to develop a proposal to change Maryland's baseline recreational season (i.e., shift the timing and/or type of closures throughout the year). In order to be equivalent to the current season, the new season baseline option cannot exceed 2024 removals. This proposal is separate from any potential reduction in Draft Addendum III, and any required seasonal closure in Draft Addendum III would be in addition to the new baseline season.

MDDNR was seeking TC input on the methods for quantifying changes to recreational closures throughout the year with two specific questions:

- Which proposed method should be used to estimate the increase in releases from opening a no-targeting closure to allow catch-and-release?
- Should the analysis incorporate varying release mortality rates by Wave? Or should the analysis apply the current standard 9% for the entire year?

On the release mortality rate, the TC-SAS agreed the current standard 9% release mortality rate should be applied. This would maintain consistency with all other striped bass analyses and

current assessment which use the 9% rate. Applying varying release mortality rates may be considered through the 2027 Benchmark Assessment, but until then all analyses should use the same rate of 9% for the entire year.

MDDNR presented two methods for estimating the increase in releases from opening a current no-targeting closure to allow catch-and-release. One method is based on 2015-2018 data from past Addendum VI analysis and the other method is based on 2024 release rates for March, which is currently a catch and release season. To estimate how releases would increase if April were opened to catch and release from the current no targeting closure, the TC-SAS agreed the March data approach should be used, but the data should be expanded to pool 2021-2024 data and the ratio of March to April releases should be calculated based on those four years of data. The same method should be applied to calculate increased releases in May if May 1-15 is opened to catch and release from the current no targeting closure. The TC-SAS emphasized the need to pool data across multiple years for this proposal, especially considering the data being used are sometimes below even the Wave level (e.g., by month).

One TC member noted concern about the different estimated changes in releases in Wave 6 for expanding the harvest season vs. shortening the harvest season. Two different ratios of harvest to releases are being applied when it seems like the same ratio should be applied to both scenarios.

The TC-SAS discussed concerns about high PSEs for this type of analysis at the Wave level (and sub-Wave) and discussed whether the Amendment 7 CE standards should apply (no PSEs over 40 and uncertainty buffer must be applied for PSEs between 30-40). Staff clarified this proposal would not be considered CE (see below). The TC-SAS broadened the discussion to note concerns about PSEs for all the options in Draft Addendum III (e.g., regional ocean options) and recommended the Draft Addendum and Maryland's season proposal include PSE estimates for the options being presented to the Board. The TC-SAS noted there is a tradeoff of implementing management measures on a state-, region-, Wave-, or mode- level with less precision and higher uncertainty around those management measures.

Regarding FMP process, there were questions about whether this Maryland option would be considered conservation equivalency (CE). If the Draft Addendum includes this option for Maryland to change their baseline, then it would not be CE because it would be written into the Addendum. It is a Board decision whether the Addendum should include this option.

Terms of Reference for the 2027 ASMFC Atlantic Striped Bass Benchmark Stock Assessment

The TC-SAS developed the attached proposed terms of reference (TORs) for the 2027 Benchmark Stock Assessment for consideration by the Striped Bass Management Board. The proposed TORs are largely based on the TORs from the 2019 Benchmark Stock Assessment with some modifications and some newly added TORs, as summarized below.

TOR #1 is a new TOR to consider relevant ecosystem and climate influences on the stock, characterize uncertainty of the associated data sources, and link to stock dynamics. This TOR is

included in the Northeast Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC) generic TORs, and the TC-SAS agreed it should be added to the striped bass assessment.

TOR #2 on fisheries independent and dependent data sets was modified to explicitly address the spatial and temporal distribution of the data, characterizing the uncertainty, and justifying whether or not a dataset is used in the assessment. The SAW/SARC generic TORs include this level of specificity, and the TC-SAS agreed it would be helpful to add to this TOR.

TOR #4 on model development was modified to explicitly state that if multiple models are being considered, the model results and performance should be compared and rationale provided on the choice of preferred model. The TC-SAS noted the possibility of exploring multiple models and acknowledging that in the TOR. This TOR was also modified to explicitly note model diagnostics will be provided. The TC-SAS notes model diagnostics are always included, but it should be explicitly included in the TOR as it is in the SAW/SARC general TORs.

TOR #7 on projections was modified to include exploring new methods to predict future catch or fishing mortality. The TC-SAS noted the challenges and recent frequency of requests from the Board for short-term projections and analysis of new management measures. The TC-SAS noted there are new methods, such as model-based methods explored for other species (e.g., Recreational Demand Model and Recreational Fleet Dynamics Model), that could be explored for application to striped bass.

TOR #8 is a new TOR explaining procedure if a minority report is filed. Based on experience with other species, the TC-SAS agreed that while they do not expect a minority report to be filed, this TOR would be beneficial in the event that occurs.

Massachusetts Conservation Equivalency Proposal for the Commercial Fishery
Note: The CE proposal has since been withdrawn by Massachusetts.

Massachusetts submitted a conservation equivalency (CE) proposal to consider changing its commercial size limit in 2025 and adjust the commercial quota accordingly based on maintaining equivalent spawning potential analysis. Massachusetts' current commercial size limit is 35" minimum, and this proposal included a range of options to implement a commercial slot limit. TC input was needed to evaluate proposed methods for the associated quota adjustment. Massachusetts outlined two methods for adjusting the commercial quota: 1) adjusting the quota to account for changes to the minimum size only, or 2) adjust the quota to account for changes to both the minimum and maximum size.

Massachusetts' proposal noted that the current spawning potential analysis does not take into account the value of large females to the stock, which are currently harvested in the Massachusetts commercial fishery. Implementing a commercial slot limit would protect those larger females from harvest, and due to the unquantified value of those large females, Massachusetts proposed not adjusting the quota for adding a maximum size limit, and only

adjusting the quota for changes to the minimum size limit. Massachusetts' proposal also noted that during Addendum IV to Amendment 6 approved in 2014, the TC guidance at the time was that establishing a maximum size limit was more conservative and did not require a quota adjustment as long as they were also increasing their minimum size back to 28".

While the TC recognized the conservation principle of protecting large females, the TC noted the most current spawning potential analysis reviewed by the TC during development of Addendum II to Amendment 7 (September 2023 TC Memo 23-85) requires adjusting the quota for changes to both the minimum and maximum size to account for changes in the size of fish harvested. **Therefore, the TC determined that in order to achieve equivalency, Massachusetts would need to adjust their quota for changes to both the minimum and maximum size limits.**

The TC recommends future discussion on how to account for the higher contribution of large females in spawning potential analysis. The TC also recommends considering how to account for discard mortality in future spawning potential analysis, as the TC noted concern about higher discards when implementing a new maximum size limit.

There was also a question about high-grading and whether that is a particular concern with a new maximum size limit in place. It was noted that a small portion of trips actually reach the daily limit on number of fish in Massachusetts so high-grading is not a specific concern, and generally high-grading is not necessarily more prevalent when there is a maximum size in place.

The TC noted the importance of communicating why quota adjustments are implemented when commercial size limits are changed, and in particular, why quotas decrease when a maximum size limit is implemented. In the commercial fishery, when the minimum size decreases (e.g., change from 35" minimum to 32" minimum) and/or when a maximum size is implemented (e.g., change from 35" minimum to 35"-40" slot), the average size of harvested fish decreases. Without a quota adjustment, total removals in numbers of fish would likely increase resulting in more smaller fish being harvested. In addition, discards of oversized fish will increase. The spawning potential calculations account for this by calculating an adjusted quota to keep a state's commercial impact on the overall spawning potential of the stock the same under the new size limits (i.e., no additional spawning potential is lost from harvesting more, smaller fish). Any state that implements a lower minimum size limit or any maximum size limit must reduce their quota to maintain equivalency.

On the other hand, if a commercial fishery increases the minimum size (e.g., change from 28" minimum to 34" minimum), spawning potential calculations allow an increase in quota since the size of harvested fish will increase (i.e., fewer fish under the same quota amount). So, a state that increases their commercial minimum size limit would increase their quota to maintain equivalency. If the state chooses to increase the commercial minimum size limit without increasing the quota, that would be more conservative.

Figures

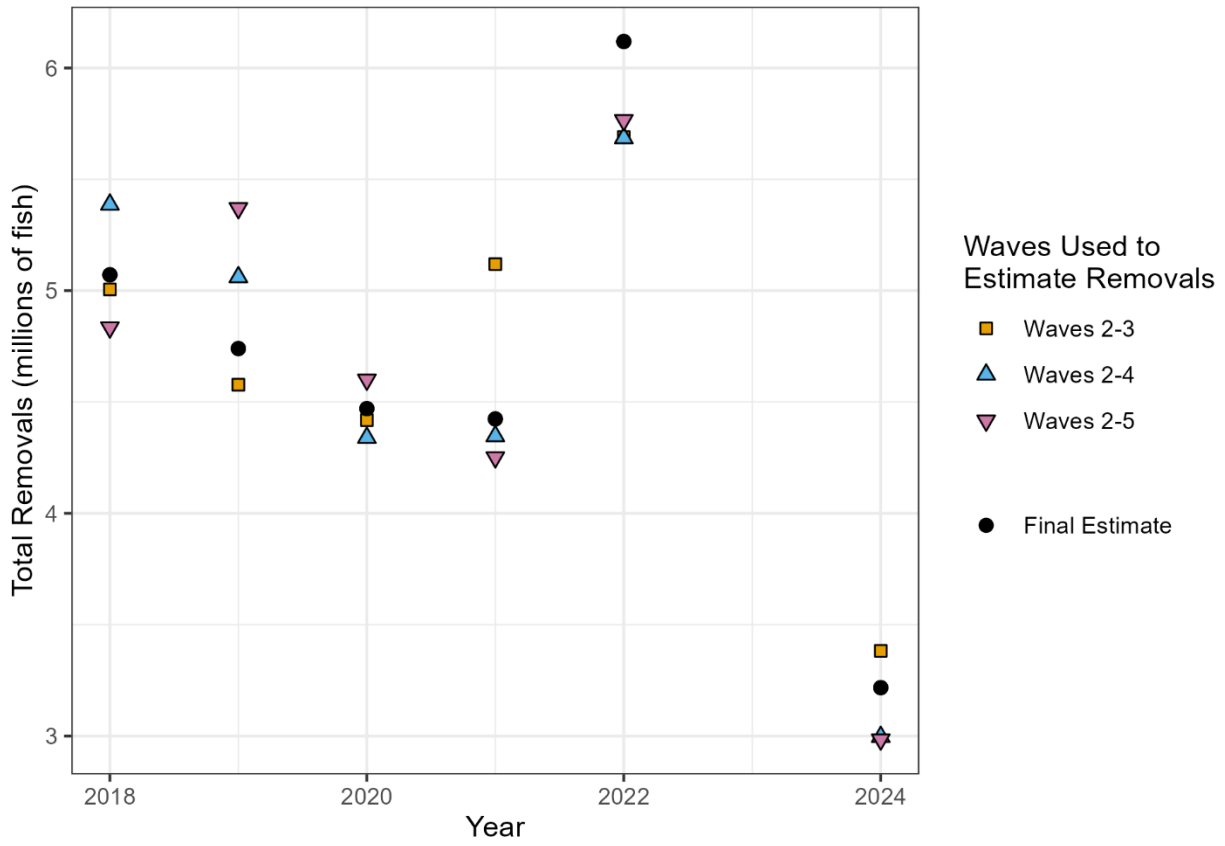

Figure 1. Comparison of estimates of MRIP removals from partial wave data compared to the final estimate using all waves of data. 2024 "Final Estimates" are preliminary but based on the full year of data.

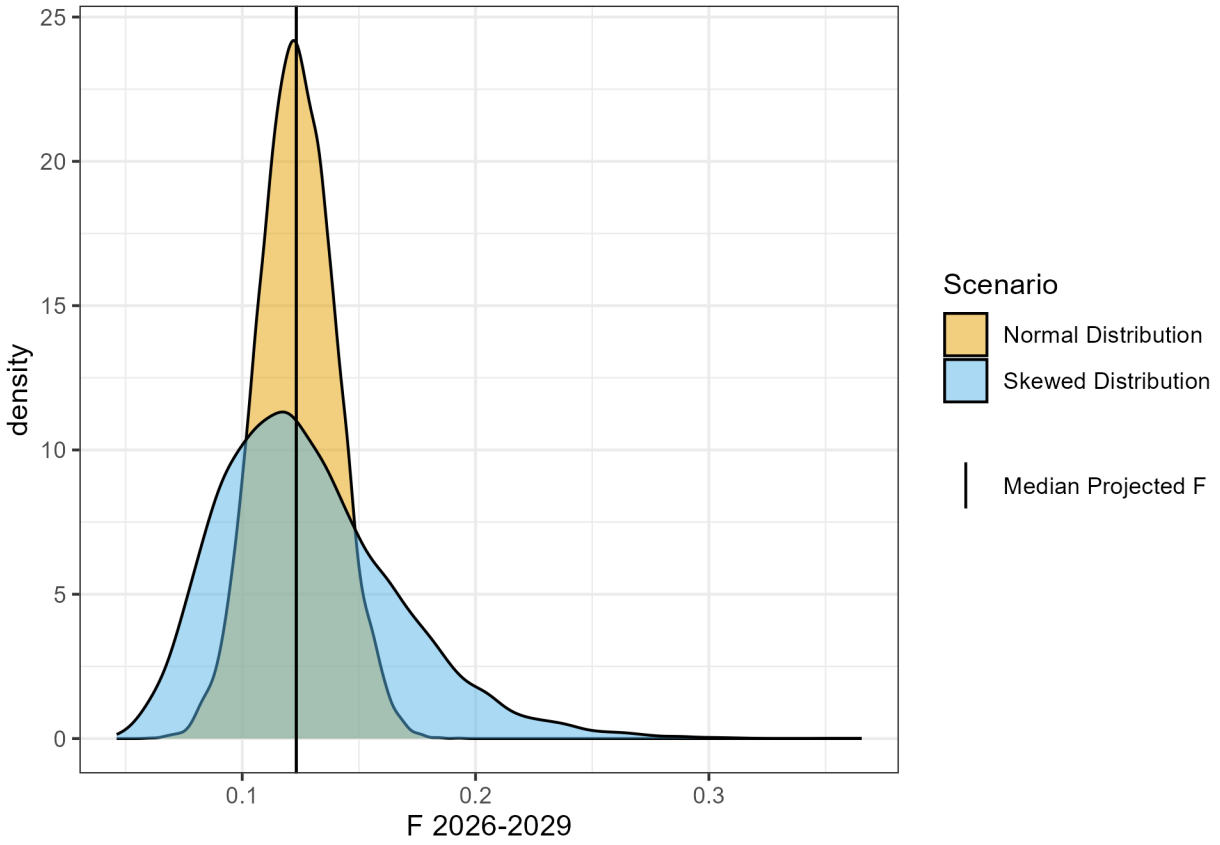

Figure 2. Distributions of F values explored for F2026-2029: F2024 normal distribution (yellow) and F2024 skewed distribution (blue).

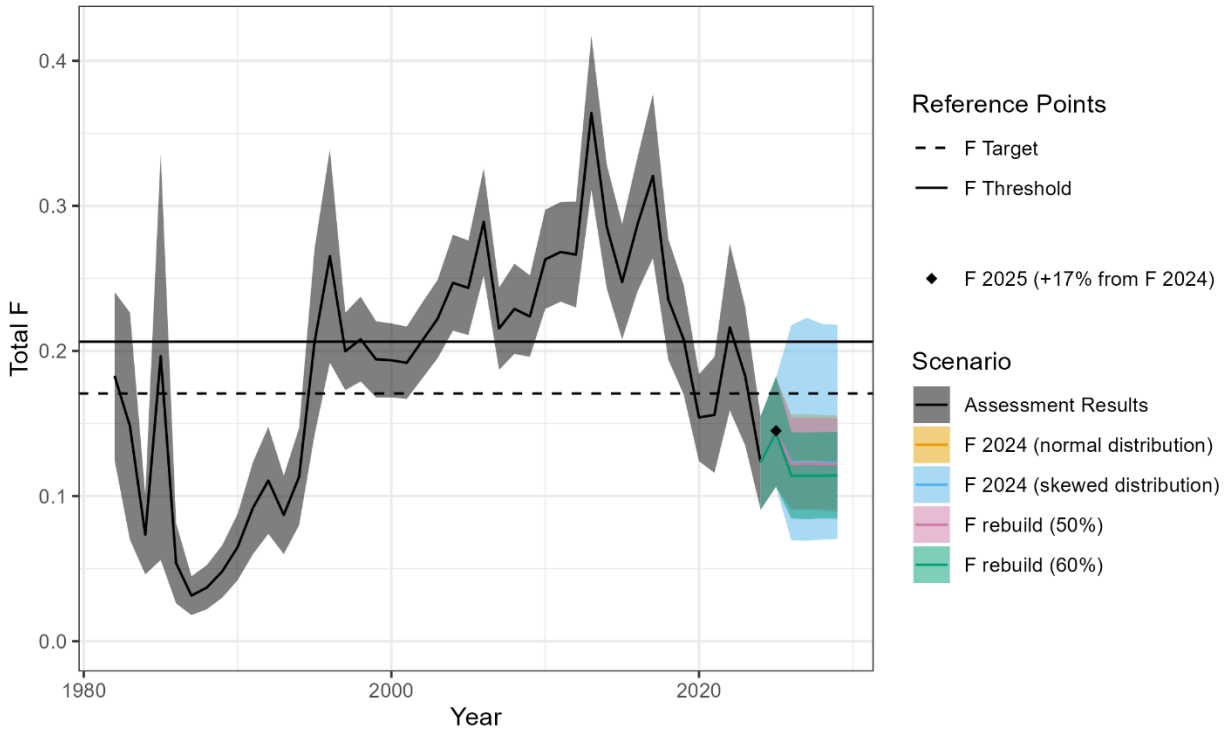

Figure 3. F trajectories used in the projection scenarios plotted with the time-series of F estimated by the assessment model. Shaded areas indicate 95% confidence intervals.

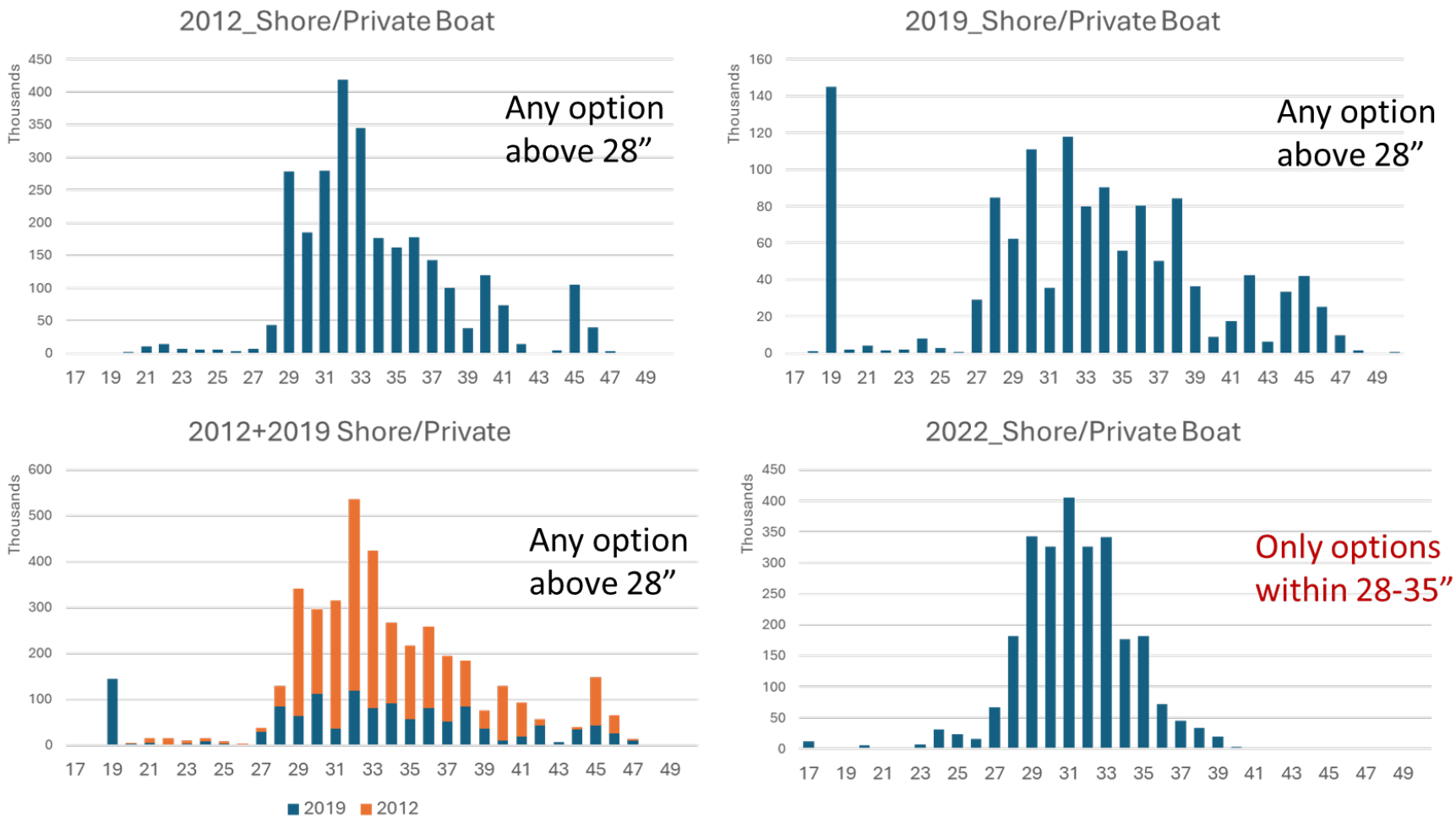

Figure 4. Length frequencies for 2026 proxy candidate years for Ocean fish availability with an above average age-8 year-class. Text indicates what type of size limit options could be explored for each proxy year.

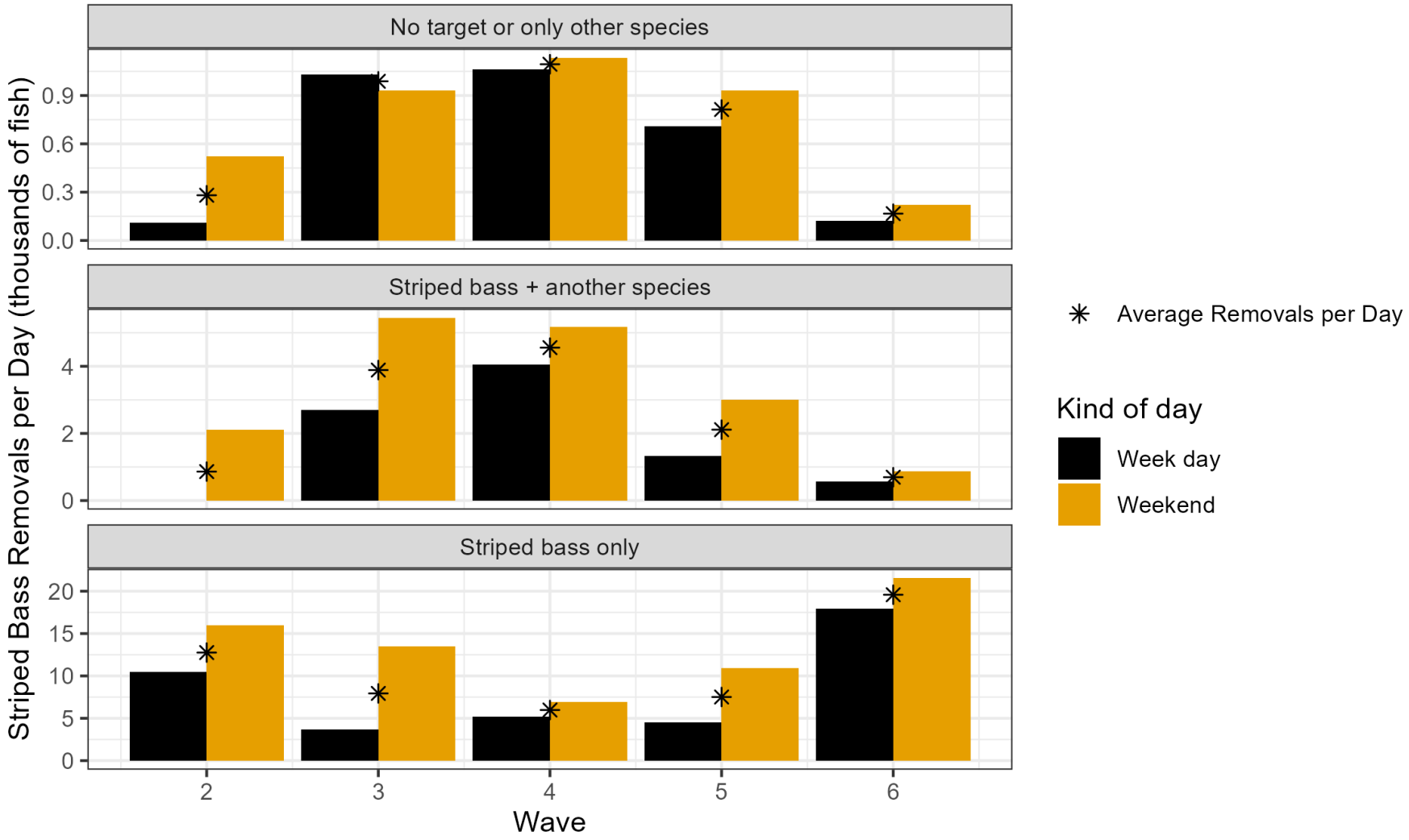

Figure 5. Ocean striped bass removals per day for weekdays (Monday-Thursday) and weekends (Friday, Saturday, Sunday, Federal Holidays). Average removals per day used in seasonal closure analysis shown with asterisk.

Atlantic States Marine Fisheries Commission

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Law Enforcement Committee
Meeting Summary

March 27, 2025

Committee Members: Scott Pearce, Chair, FL; Rob Beal, ME; Chris Baker, MA; Jeff Mercer, RI; Keith Williams, CT; Sean Reilly, NY; Nicholas Couch, DE; Doug Daniels, PA; David Bailey, MD; Matt Rogers, VA; Jason Walker, NC; Michael Paul Thomas, SC; James Cassin, NOAA OLE; Robert Hogan, NOAA GC; Tom Bleifus, USCG

ASMFC Staff: Toni Kerns, Emilie Franke, and Kurt Blanchard

Other Participants: Captain Jack Chapin, Captain Daniel Ipock, Pallavi Javor, Elise Koob, Caitlin Craig, Max Appleman, Brendan Harrison, and Glen Fernandes

The Law Enforcement Committee (LEC) conducted a virtual meeting on March 27, 2025, to discuss the Striped Bass Plan Development Team (PDT) questions related to Draft Addendum III of the Atlantic Striped Bass Fishery Management Plan.

Emilie Franke, ASMFC FMP coordinator, provided the following background to the development of this draft addendum. The PDT is currently developing draft Addendum III with options for striped bass management measures for 2026. The first issue being considered is the 2026 commercial and recreational measures to achieve a reduction in fishery removals to support stock rebuilding. Options will consider commercial quota reductions, recreational size limit changes, and/or recreational seasonal closures (prohibit harvest or prohibit targeting). Recreational mode split options will also be considered. For seasonal closures, options will consider how to split the ocean into different regions with different closures. The second and third issues being considered are requirements for commercial tagging and standardizing how to measure striped bass total length.

The discussion was broken down by specific plan topics and is as follows:

Ocean Regions for Recreational Seasonal Closures

The draft addendum will include options for the following Ocean region splits where each region may have a different recreational season closure. The two considerations are.
Should Rhode Island be grouped with New England states, or the Mid-Atlantic states; and
Should Delaware through North Carolina be a separate region?

RI with Mid-Atlantic	RI with New England
Region 1: ME-MA Region 2: RI-NC	Region 1: ME-RI Region 2: CT-NC
Region 1: ME-MA Region 2: RI-NJ Region 3: DE-NC	Region 1: ME-RI Region 2: CT-NJ Region 3: DE-NC

The PDT recognizes previous LEC input on the importance of consistency in shared waterbodies. The draft addendum will include a note that if Rhode Island were grouped with the New England states, enforcement in Block Island Sound would be more difficult because Rhode Island may have a different season than Connecticut and New York. Similarly, if New Jersey and Delaware were split into separate regions, which would create challenges in Delaware Bay. Although the PDT notes there seem to be less striped bass fishing activity in Delaware Bay in recent years (more fishing outside of Delaware Bay proper), so this may not be as much of a concern.

PDT question for the LEC:

- Does the LEC have any input on the regional split options for the Ocean?

The consensus from the LEC was to adopt a two-region approach, with Rhode Island being included in the southern region to ensure consistent regulations with the adjoining states, particularly consistency among RI-CT-NY. The rationale behind this decision was that with shared waterbodies like the Block Island Sound or Delaware Bay, consistent regulations between states would be more enforceable. This approach would minimize enforcement challenges and promote better compliance across regions.

If the Board does consider a three-region approach, it would help with enforcement challenges if Delaware were included in the same region as New Jersey. This would minimize enforcement challenges in Delaware Bay.

<u>Recreational Mode Split</u>

Recreational-mode split options will be considered with different size limits and/or different seasonal closures between for-hire (charter/head boat) vs. private/shore anglers. Options could include different size limits by mode and/or different seasons by mode. There was also a Board member request to consider setting days off per week for for-hire instead of a seasonal closure.

PDT questions for the LEC:

- Does the LEC have input on the type of mode split option: different size limit by mode vs. different season by mode?
- Are there certain regions, waterbodies, or time of year when having different regulations by mode would be more difficult?

- Are there concerns regarding differentiating vessels by mode? E.g., small for hire guide vessel vs. a private vessel.
- Any enforcement insight from species that currently have mode splits in place (e.g., black sea bass in some states)?

The LEC agrees that mode splits between Private/Shore and For Hire modes present enforceability issues. While some mode splits are implemented in other fisheries, Law Enforcement is wary of its broad application. Size and possession limits by mode are enforceable but having consistent regulations for all recreational users is more effective. Seasons by mode complicate enforcement, requiring identification of the sector a vessel belongs to and verification of for-hire trips through interviews, vessel monitoring, or other means. A particular challenge is the same vessel could be used for both private trips and for-hire trips, making it difficult to enforce seasons by mode. Specific enforcement challenges may vary by state depending on state permitting requirements and required trip reporting.

Nonetheless, it was acknowledged that for certain regions (e.g., Long Island Sound), the enforcement of distinct mode-specific regulations could be particularly challenging. The LEC emphasized the importance of clear guidelines and robust monitoring mechanisms to ensure compliance and reduce potential conflicts. They advised that careful consideration be given to the specific characteristics of each region and the type of fishing activity predominant there.

<u>Commercial Tagging</u>

Currently for commercial fisheries, states can choose to tag at point of harvest or point of sale. Draft Addendum III will consider requiring all states to tag at point of harvest due to the Board's concerns about the risk of illegal harvest in states with a point of sale tagging program. This would impact MA, RI, and NC which currently require tagging at the point of sale.

PDT questions for the LEC:

- Are there enforcement concerns in MA, RI, or NC about point of sale tagging and illegal harvest?
- Would the point of harvest tag address concerns about illegal market/personal consumption harvest?
- Are there enforcement concerns about illegal market/personal consumption harvest in state with point of harvest tagging?

The majority opinion of the LEC is to support commercial tagging at the point of harvest. This requirement would improve enforcement of possession from the total time the species is in possession, reduce the ability to hi-grade, and increase accountability. Discussion points included safety at sea, tagging at point of landing (one state has implemented this variation), tag accountability, illegal sales, and personal consumption.

An opposing opinion supported tagging at the point of sale. In this discussion, similar points were considered, as well as the need to establish new tagging programs, individual quotas,

the use of Weighmasters, tag accountability, and tracking of unused tags. Some LEC members noted the administrative burden of distributing tags to individual fishers, especially when a state's fishery is not managed with individual quotas. Concerns about sharing tags among fishers were also noted if tagging programs switch to the point of harvest, and it should be considered whether trading tags could potentially outweigh (or even increase) an illegal market fish.

Standardized Total Length Measurement

Currently, state regulations vary about how to measure striped bass for regulatory compliance. Some states already require pinching/squeezing the tail, some states allow angler discretion on whether to pinch the tail, and some states require the tail be left natural or fanned out. The Board has raised concerns that the method of measurement (i.e., fanning of the tail or pinching the tail) can effectively widen the narrow recreational slot and undermine the management program. For example, by forcefully fanning the tail to fall under the maximum size limit. MADMF collected data comparing measured length when pinching the tail to measured length when fanning the tail (MADMF research considered).

The draft addendum will consider for all states to require pinching/squeezing the tail when measuring striped bass total length to address these concerns, especially under the current narrow recreational slot limit. This would be required for both the commercial and recreational sectors. Attached is a list of current state regulatory language. Both RI and MA have nearly identical regulatory language on this issue currently going through their regulatory cycles for possible implementation this year.

PDT questions for the LEC:

- Does the LEC have any input on this measurement issue?
- Any LEC guidance on how general or specific the coastwide FMP should be in regulatory language?
- How does the requirement of 'squeezing the tail' apply to measuring racks/fillets at sea?

The LEC supports a clear definition of how to measure the length of a fish and consistency among states. A fisher-friendly measure would ensure the best voluntary compliance. The same measurement definition should apply when considering a fillet rule; a rack would be measured in the same manner.

Law Enforcement Committee - Meeting Summary - March 27, 2025 – Appendix A

The Striped Bass Plan Development Team (PDT) has requested a more detailed clarifying response from the Law Enforcement Committee (LEC) to the following questions related to the development of draft Addendum III to Amendment VII of the Atlantic Striped Bass Fishery Management Plan.

PDT Questions for the LEC:

- Are there specific enforcement concerns in Massachusetts and Rhode Island with current Point of Sale (POS) tagging programs that could be mitigated by switching to a Point of Harvest (POH) tagging program?
- Do POS tagging programs contribute more to illegal market harvests than POH tagging programs?
- Are the states with a POH tagging program experiencing similar or different enforcement challenges compared to states with a POS tagging program?

The PDT's questions were shared with LEC representatives from Massachusetts to North Carolina. Their responses are as follows:

<u>Massachusetts</u>

A Massachusetts representative offered that a POH program improves fishers' catch accountability while on the water. Catch limits can be hard to verify with multiple fishers on board, but POH tagging will help track a fisher's trip limit at sea. It may also prevent high grading of catches, as smaller possession limits would be harder to manipulate. This method offers officers an additional way to address violations related to untagged catches at the POH.

<u>Rhode Island</u>

The nature of the Rhode Island striped bass fishery differs from states with individual quotas. In states that have individual quotas, there is great incentive to sell striped bass in an illegal market and have no record of your individual quota utilization. Point of harvest (POH) tagging gives enforcement the opportunity to prevent this practice and is essential for states with individual quotas.

In Rhode Island, the only specific enforcement concerns that POH tagging could help to address is striped bass legally harvested by licensed commercial fishers being sold on the black-market and/or not being reported. However, the RIDEM Division of Law Enforcement believes that this is not a significant issue and very few fish are meeting this outcome.

Rhode Island has a striped bass season that lasts approximately 10 days with around 250-300 fishers participating, a five fish per day limit, and less than 20 dealers purchasing the fish. It would take a collective effort from fishers to all sell illegal market to increase the number of days the season is open and increase the number of fish that anyone individual could land. Therefore, there is little incentive to sell illegal market as it does not equate to additional fish that an individual fisher could sell.

Most fish being sold at an illegal market are from non-commercial recreational fishers and POH tagging would do little to aid in the enforcement of this issue and could exacerbate it. Recreational fishers would not be allowed to take a commercial-sized striped bass (there is no overlap in sizes like tautog) whether the fish were tagged at POH or not. The same enforcement efforts and actions are going to take place to combat illegal sales of recreational striped bass if there is POH or POS tagging.

The increased number of tags that would have to be distributed to accommodate POH tagging is of concern to RIDEM DLE. Rhode Island has approximately 1,100 fishers that are licensed to harvest striped bass, but only about 25% of those fishers participate in the fishery. Point of Harvest tagging would necessarily require more tags to be issued to provide for fair access for licensed fishers to harvest and tag a striped bass. RI DEM DLE is concerned that some of these additional tags could be placed on fish prior to being sold on the illegal market, making them indistinguishable from a legally sold fish through a licensed dealer. These tags could be attached to the fish after the season has closed or by recreational fishers who obtained tags from a non-participating commercial license holder. Our enforcement efforts would then be focused on the disposition of unused and unreturned tags (attached to illegal market fish, lost, broken) months after these fish were harvested and these cases would be a challenge to prosecute.

There are certainly practices that could be implemented to limit the amount of tags issued and reduce associated illegal use of the tags, but they would require increased administrative effort and cost and be an inconvenience to the fishers for such a short season.

In summary, POH tagging may aid in reducing the number of unauthorized sales by commercial fishers, but we do not see this as a significant issue with the current POS tagging. We do have concerns about the additional numbers of tags that would be issued with POH tagging and having to switch some of our enforcement efforts to determining the disposition of the unused and unreturned tags. Point of sale (POS) tagging allows RIDEM DLE to primarily focus on a limited number of dealers to monitor catch and ensure the fish are being accurately reported and tagged.

<u>New York</u>

New York uses a POH tagging program for striped bass, with serial numbered tags that include the harvester's permit number to prevent illegal tag transfers. The current tags prevent reuse, addressing past issues where tags could be manipulated. There were credible reports of wholesalers returning tags to harvesters after processing fish.

An illegal market for unpermitted harvest persists, primarily through direct sales to restaurants. Officers rarely inspect these establishments, and the fish are quickly prepared, reducing the chance of discovering untagged fish.

New Jersey

In NJ, striped bass sales are only legal if they are hybrid bass from outside of NJ. Tagging is only required for fish caught in our bonus program, which uses our commercial quota since NJ does not have a typical striped bass fishery outside this program. The bonus program mandates tagging at POH.

Compliance with POH tagging is good, but we have some violations each year. If found guilty, offenders are banned for life from the program. However, if we believe the failure to tag was an honest mistake, we usually issue a summons for undersize and/or overlimit possession.

Delaware

Delaware is a POH tagging state in which fish must be tagged prior to landing. However, to be a true POH tagging state, we would need a regulation change. Based on my experience, I do not believe that there is an illegal market for fish in Delaware.

Delaware also has a requirement that fish be taken to an "official" weight station, where they are weighted, and tagged with a second "weigh station" tag prior to being sold. These weigh stations are run by commercial fishers and/or dealers.

Maryland

Maryland is a POH tagging state. The Interstate Watershed Task Force (IWTF) investigation from 2012 and the findings from this investigation are the reason we have a POH program. Along with adjacent jurisdictions, POH addresses that the fish are tagged correctly and are trackable. The IWTF report provides examples of how POS can be abused. The following is an excerpt from the IWTS report.

LAW ENFORCEMENT RECOMMENDATIONS

As a result of the comprehensive investigation and criminal proceeding, the following recommendations were made by the Interstate Task Force and are endorsed by the Law Enforcement Committee of the Atlantic States Marine Fisheries Commission.

Recommendations to Improve Enforceability & Accountability:

- *Implement a uniform commercial tagging system among all states where striped bass are harvested and landed for sale. This includes:*
    - *Uniformity by year, style, color, and inscriptions.*
    - *Tags should be valid for one year only.*
    - *Inscriptions should include the year, state, state size limits, and a unique number.*
    - *Use standardized, tamper-proof tags.*
- *Require all fish harvested for sale to be tagged immediately upon possession.*

- *Issue a set number of tags based on a scientific sample of the average (mean) weight of legal-sized fish harvested during the open season for that gear type, divided into the weight quota.*
- *Require all unused tags to be returned annually or seasonally and prohibit license renewal if unused tags are not returned.*
- *Strengthen reporting of tag numbers used on dealer reports or trip tickets.*
- *Implement license revocation or suspension as a primary penalty for state or federal violations.*
- *Ensure that law enforcement officers have real-time access to the tag numbers issued to each fisher.*

Virginia

Since the late 1990's Virginia has had a point of harvest tagging program. In terms of which is better, I support POH tagging for enforceability especially considering the penalty for violation of the regulation. LE has and will always have those violators attempting to skirt the regulation. Charging offenders is easy, due to the tagging requirement. Conviction in court is another whole issue. Since my time with the agency, LE has prosecuted several Lacy Act cases for striped bass. Unfortunately, I do not believe there is a method that is perfect. I can see pros and cons in both.

North Carolina

NC has point of sale tagging. There has not been a commercial ocean fishing season for these fish in over 10 years, and there was minimal illegal market activity in the last open seasons.

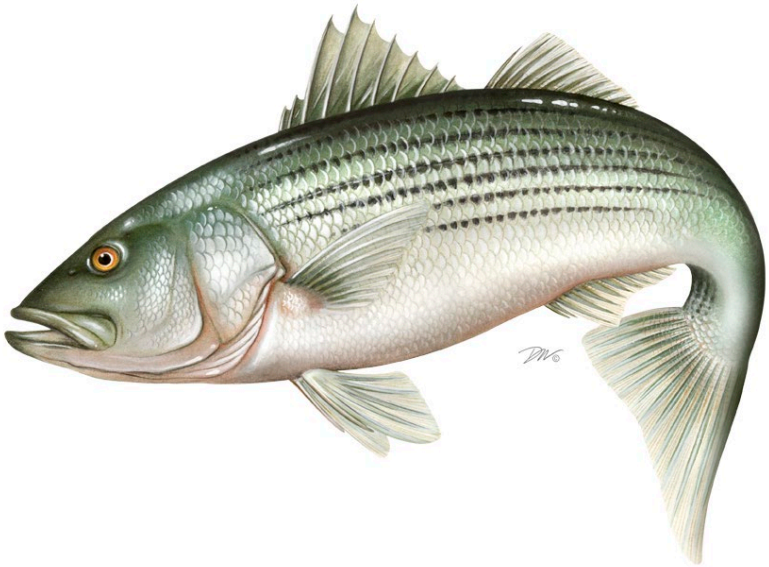
Summary

The LEC considers POH tagging to be more effective in resource protection than POS tagging. Both types of programs face similar enforcement challenges, such as proving who is in possession and who may have sold the fish. The primary concern for enforcement appears to be illegal sales of striped bass to restaurants. POH tagging mitigates these challenges by providing better accountability on the water and enabling law enforcement to track a fish from its origin. Supporters of POS programs cite tag accountability, shorter seasons, and smaller possession limits as benefits. Recommendations from the IWTF in 2012 remain relevant to today's striped bass commercial fisheries.

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM III TO AMENDMENT 7 TO THE INTERSTATE FISHERY MANAGEMENT PLAN FOR ATLANTIC STRIPED BASS FOR PUBLIC COMMENT

Recreational and Commercial Management Measures, Commercial Tagging Programs, Defining Total Length Measurement



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. Comments on this draft document may be given at the appropriate time on the agenda during the scheduled meeting. If approved, a public comment period will be established to solicit input on the issues contained in the document.

April 2025

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Public Comment Process and Proposed Timeline

In December 2024, the Atlantic Striped Bass Management Board initiated the development of Draft Addendum III to Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass to consider recreational and commercial management measures for 2026 to support rebuilding the stock by 2029. The Draft Addendum will also consider the point of harvest versus point of sale tagging for commercial tagging programs and a coastwide definition of 'total length' as it applies to striped bass size limit regulations. This Draft Addendum presents background on the Atlantic States Marine Fisheries Commission's (Commission) management of Atlantic striped bass; the addendum process and timeline; a statement of the problem; and 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 addendum process. The final date comments will be accepted is **____ at 11:59 p.m**. **EST.** Comments may be submitted by mail, email or online. If you have any questions or would like to submit comments, please use the contact information below.

1. **Mail**: Emilie Franke, Atlantic States Marine Fisheries Commission, 1050 N. Highland St. Suite 200A-N, Arlington, VA 22201
2. **Email:** comments@asmfc.org (Subject line: Striped Bass Draft Addendum III)
3. **Online: _____ [link]**

Date	Action
December 2024	Board initiated the Draft Addendum
February 2025	Board provided additional guidance on scope of options for development
February – April 2025	Plan Development Team (PDT) developed Draft Addendum document
May 2025	Board reviews and approves Draft Addendum III for public comment
June – mid July 2025	Public comment period, including public hearings
August 2025	Board reviews public comment, selects management measures, final approval of Addendum III

Table of Contents

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 NOAA Fisheries in federal waters (3–200 miles). The management unit includes the coastal migratory stock from Maine through North Carolina. State waters fisheries for Atlantic striped bass are currently managed under Amendment 7 to the Interstate Fishery Management Plan (FMP) and its Addenda (I and II). Harvesting or targeting striped bass in federal waters has been prohibited by NOAA Fisheries since 1990.

In December 2024, the Atlantic Striped Bass Management Board (Board) initiated Addendum III to Amendment 7 to support rebuilding the stock to its target spawning stock biomass level by 2029. The Board initiated the draft addendum via the following approved motion:

Move to initiate an addendum to support striped bass rebuilding by 2029 in consideration of 2024 recreational and commercial mortality while balancing socioeconomic impacts. Options should include, if needed, a range of overall reductions, consideration of recreational versus commercial contributions to the reductions, recreational season and size changes taking into account regional variability of availability, and no harvest versus no target closures. Final action shall be taken by the annual 2025 meeting to be in place for the 2026 recreational and commercial fisheries.

In February 2025, the Board requested options to achieve a 60% probability of rebuilding in addition to options for a 50% probability of rebuilding; requested recreational mode split options be developed; clarified that options should not consider changes to possession limits; provided direction on the type of recreational size limits and scope of seasonal closure options to consider; added an option to consider requiring commercial tagging at the point of harvest instead of allowing states to choose between tagging at the point of harvest or point of sale; and added an option to consider standardizing the definition of 'total length' to address concerns about the lack of consistent measurement of striped bass for regulatory compliance, particularly within narrow slot limits.

2.0 OVERVIEW

2.1 Statement of the Problem

Atlantic striped bass were declared overfished in 2019 and are subject to a rebuilding plan that requires the stock to be rebuilt to its spawning stock biomass target by 2029. The most recent stock projections estimate an increase in fishing mortality in 2025 due to the above average 2018 year-class entering the current recreational ocean slot limit, and there is concern about the lack of strong year-classes behind the 2018 year-class. Adjusting the subsequent 2026 management measures could increase the probability of rebuilding the stock by 2029.

The Atlantic Striped Bass FMP's commercial tagging requirement has been in place for over a decade. Currently, states with commercial fisheries are allowed to choose whether to tag harvested fish at the point of harvest or the point of sale. There are concerns that waiting to tag

harvested fish until the point of sale could increase the risk of illegal harvest, so this addendum considers whether to require commercial tagging at the point of harvest with the goal of improving enforcement and compliance. This would impact three states that currently require tagging at the point of sale. However, differences among states' commercial management systems and how each state manages its current tagging program make it difficult to determine whether requiring the same type of tagging program across all states would decrease the risk of illegal harvest in every state.

The Atlantic Striped Bass FMP specifies size limit regulations in total length (TL), but it does not define a specific method for measuring TL. Consequently, current state regulations vary on how to measure a striped bass for regulatory compliance. There is concern that the lack of coastwide standards for the method of measurement is undermining the intended conservation, consistency, and enforceability of the size limits. This addendum considers implementing coast-wide requirements for the states' regulatory definition of TL as it applies to striped bass size limits for the recreational and commercial fisheries.

2.2 Background

2.2.1 Status of the Stock

Female spawning stock biomass (SSB) and fishing mortality (*F*) are estimated on a regular basis and compared to target and threshold levels (i.e., biological reference points) to assess the status of the striped bass stock. The 1995 estimate of female SSB is 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.

The most recent assessment for striped bass was an update completed in 2024 with data through 2023, including a partial year of fishery data under the 2023 Emergency Action. The 2024 Stock Assessment Update found the stock was not experiencing overfishing in 2023 (*F* = 0.18, below the threshold of 0.21 but above the target of 0.17) but remained overfished (Female SSB = 191 million pounds, just below the threshold of 197 million pounds and below the target of 247 million pounds; Figure 1 and Figure 2). This was the same stock status as the prior 2022 Stock Assessment Update. Both the 2022 and 2024 assessments used the "low recruitment assumption" to calculate the reference points (per Amendment 7's requirement under a tripped recruitment trigger), which resulted in a lower, more conservative *F* target and threshold compared to the 2018 benchmark assessment. Although below the threshold and considered overfished, female SSB in 2023 increased since the prior assessment and was still estimated to be well above SSB levels from the 1980s, when the stock was considered collapsed (Figure 1).

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 period of stock collapse in the early 1980s; Figure 1). 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, respectively); however, estimates of age-1 striped bass were below the long-term average for seven of the last ten years.

The next stock assessment for striped bass is a benchmark stock assessment—in which the assessment input data and methods are fully re-evaluated—scheduled for peer review in Spring 2027. The 2027 Benchmark Stock Assessment will include data through 2025.

Stock projections were updated in March 2025 to include a preliminary estimate of 2024 fishery removals. 2024 preliminary removals were estimated using the 2024 preliminary recreational estimates from the Marine Recreational Information Program (MRIP) and accounted for an estimated 7% decrease in commercial removals due to Addendum II's 7% quota reduction implemented in 2024.

The Atlantic Striped Bass Technical Committee (TC) also reviewed assumptions about fishing mortality levels from 2025 through 2029 included in the projections. Under status quo management, 2025 fishing mortality is predicted to increase as the above average 2018 year-class enters the current recreational ocean slot limit, followed by a predicted decrease in fishing mortality in 2026 as the 2018 year-class starts to grow out of that ocean slot limit with a lack of strong year classes following. For the 2025 increase, the TC determined the best assumption is a 17% increase from the 2024 level based on the observed 17% increase from 2021 to 2023 when part of the 2015 year-class was still in the newly reduced ocean slot limit. The TC noted the magnitude of increase may be overestimated since the 2018 year-class is not as strong as the 2015 year-class was. For 2026 through 2029, the TC determined the best assumption is a decrease back to the 2024 fishing mortality level in 2026 and maintain that level through 2029. This is a reasonable assumption under the same narrow slot limit with an above-average year-class growing out of the slot.

With these assumptions about 2025-2029 fishing mortality under status quo management, the projections estimate a 49% probability of being at or above the SSB target in 2029. This would require a 1% reduction in 2026 removals to achieve *F*_rebuild 50% and a 7% reduction in 2026 removals to achieve *F*_rebuild 60%. The TC also continues to highlight several major sources of uncertainty in the projections and the difficulty of predicting future fishing mortality rates.

2.2.2 Status of Management

Atlantic striped bass were declared overfished in 2019 and are subject to a rebuilding plan that requires the stock to be rebuilt to its spawning stock biomass target by 2029. In 2020, Addendum VI to Amendment 6 implemented management measures designed to achieve an 18% reduction in fishery removals to reduce fishing mortality. Those measures were in place until 2023, when the Board approved an emergency action in May of that year to change the recreational size limit in response to the unprecedented magnitude of 2022 recreational harvest, which was nearly double that of 2021, and associated updated stock rebuilding projections. Specifically, the Board's May 2, 2023 emergency action required all states to

implement a 31-inch maximum size limit for their striped bass recreational fisheries (excluding the Chesapeake Bay striped bass trophy fisheries) as soon as possible and no later than July 2, 2023, while maintaining all other measures. The 31-inch maximum size limit was intended to reduce harvest on the strong 2015 year-class. In effect, the emergency action reduced the ocean recreational slot from 28" to <35" to 28" – 31", and added a 31" maximum size to the Chesapeake Bay's recreational measures. The emergency action was effective until May 1, 2024, at which point it was replaced by Addendum II to Amendment 7 measures.

Addendum II was approved in January 2024 to reduce fishing mortality in 2024 and support stock rebuilding. For the ocean recreational fishery, the Addendum implemented a 28" to 31" slot limit, 1-fish bag limit, and maintained 2022 season dates for all fishery participants; this maintained the same ocean recreational measures adopted under the 2023 emergency action. For the Chesapeake Bay recreational fishery, the Addendum implemented a 19" to 24" slot limit, 1-fish bag limit, and maintained 2022 season dates for all fishery participants. For the commercial fishery, the Addendum reduced commercial quotas by 7% in both the ocean and Chesapeake Bay. To address concerns about recreational filleting allowances and compliance with recreational size limits, the Addendum established two requirements for states that authorize at-sea/shore-side filleting of striped bass: racks must be retained and possession limited to no more than two fillets per legal fish. Finally, to enable an expedited response process to upcoming stock assessments, the Addendum established a mechanism allowing the Board to respond to a stock assessment via Board action if the stock is not projected to rebuild by 2029 with a probability greater than or equal to 50%. All Addendum II measures were required to be implemented by the states no later than May 1, 2024.

2.2.3 Status of the Commercial Fishery

From 2020-2023, the commercial sector accounted for on average 12% of total removals per year in numbers of fish. The commercial fishery is managed by a quota system resulting in relatively stable landings since 2004 (Figure 3). There are two regional quotas; one for the Chesapeake Bay area and one for the ocean area, which includes other bays, inland rivers, and estuaries. In 2023, the ocean commercial striped bass quota was 2.3 million pounds with roughly 1.7 million pounds harvested in the ocean region. In the Chesapeake Bay region, the 2023 commercial striped bass quota was 3.0 million pounds, and roughly 2.5 million pounds were harvested. Neither quota was exceeded in 2023. Refer to Appendix A. for 2023 commercial fishery regulations by state, including size limits, trip limits, gear restrictions, and seasons. 2024 estimates of commercial harvest will be available in Summer 2025.

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 2013) 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). The ocean commercial quota utilization was 74.5% in 2023, which was only a slight decrease from 77% quota utilization in 2022. In the ocean, each state that allows commercial harvest utilized 94-98% of their ocean quota in 2023,

with the exception of North Carolina which had zero ocean harvest. Ocean quota utilization in 2022 and 2023 was still well above the low quota utilization in 2020 at 55%.

In the Chesapeake Bay, quota utilization was about the same in 2023 as it was in 2022 at about 84%. In the past five years, 2018-2019 were the highest quota utilization years at about 91-92% utilized, while 2020 was the lowest recent quota utilization at 76%.

From 2004-2014, coastwide commercial landings averaged 6.8 million pounds per year. From 2015-2019, commercial landings decreased to an average of 4.7 million pounds due to implementation of reduced quotas through Addendum IV. From 2020-2023, coastwide commercial landings decreased again to an average 4.1 million pounds due to further reduced quotas through Addendum VI to Amendment 6 and Amendment 7.

Since 1990, commercial landings from the ocean fishery have accounted for an average 40% of total coastwide commercial landings by weight, with the other 60% coming from the Chesapeake Bay. 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.

Of total commercial harvest (combined ocean and Chesapeake Bay) by weight in 2023, Maryland landed 33%, Virginia landed 22%, Massachusetts landed 16%, and New York landed 15%. Additional harvest came from the Potomac River (9%), Delaware (3%), and Rhode Island (confidential).

Ocean commercial size limits, seasons, and gear types vary by state. Along the Atlantic coast, current legal minimum size ranges from 20” to 35”. In general, lower minimum sizes exist in the Mid-Atlantic (where fish are primarily harvested by a combination of drift and anchor gill nets), while New England states have larger minimum sizes and harvest is predominantly hook and line. In the ocean region, only New York currently has a commercial slot size with lower and upper bounds (26–38”). Chesapeake Bay commercial size limits and gear types are more uniform with an 18” minimum size for Bay states, although Maryland has a year-round maximum size (36”) while PRFC and Virginia have seasonal maximum size limits of 36” and 28”, respectively. All three Bay states employ a combination of pound net, gill nets, and hook and line gear types.

How each state manages their commercial quota varies (e.g., some states manage their quota through an ITQ system), and one state (New Jersey) currently reallocates its commercial quota to the recreational sector through a quota-managed recreational bonus program.

Participation in each state’s commercial fishery has varied over time (Table 1). There are likely several factors contributing to year-to-year participation in the fishery. These factors could include changes in available quota, state licensing and/or permitting, striped bass availability, other species availability, individual socioeconomic circumstances, changing demographics in the fishery, closed areas, and individual quota transfers/consolidation where applicable.

Table 1. Number of commercial harvesters landing striped bass by state from 2015-2024. Source: MADMF, RIDEM, NYSDEC, DENREC, MDDNR, PRFC, VMRC.

	MA	RI	NY	DE*	MD Ocean	MD Ches. Bay	PRFC	VA Ocean	VA Ches. Bay
2015	1,154	293	362	51	26	493	371	19	277
2016	1,233	267	370	45	23	494	347	18	267
2017	1,224	286	379	42	33	505	328	18	257
2018	1,308	269	345	41	33	464	282	19	260
2019	1,226	268	283	40	32	462	294	18	240
2020	658	231	346	38	44	414	264	18	218
2021	732	234	377	41	40	447	262	18	212
2022	1,038	256	376	40	41	419	264	17	231
2023	1,046	236	375	37	40	447	253	19	228
2024	940	261	377	37	43	415	Data Not Yet Available		

*Delaware number of gill net harvesters only, which account for greater than 99% of Delaware's commercial striped bass harvest.

2.2.4 Status of the Recreational Fishery

Note: This section includes preliminary 2024 MRIP estimates.

The majority of striped bass fishery removals are from the recreational sector, accounting for 88% of total removals on average per year in numbers of fish from 2020-2023. The recreational fishery is managed by bag limits, minimum size or slot size limits, and closed seasons (in some states) to restrict harvest. Gear restrictions are also in place to increase the chance of survival after a striped bass is released alive in the recreational fishery. Recreational removals (harvest and release mortality) account for a vast majority (86-90% each year) of total striped bass fishery removals (recreational and commercial sectors combined).

Total recreational removals (harvest and release mortality) coastwide were estimated at 3.2 million fish in 2024, which is a 35% decrease from recreational removals in 2023 (Figure 3). This coastwide decrease in total recreational removals was a combination of a decrease in both harvest and live releases. By mode, combined private vessel/shore modes of the recreational striped bass fishery accounted for 97% of ocean recreational removals in 2024, while for-hire components (charter and head boats) accounted for about 3% of ocean removals. In the Chesapeake Bay, private vessels/shore modes accounted for 83% of Bay recreational removals in 2024, while for-hire modes accounted for 17%.

The vast majority of recreational striped bass catch (over 90%) is released alive either due to angler preference or regulation (i.e., closed season, undersized, oversized, or already caught the bag limit). The stock assessment assumes, based on previous studies, that 9% of fish that are released alive die as a result of being caught. In 2024, recreational anglers caught and released an estimated 18.0 million fish, of which 1.6 million are assumed to have died. This

represents a 31% decrease in live releases coastwide from the 2023 level. By region in 2024, the ocean saw a 32% decrease in live releases and the Chesapeake Bay saw a 26% decrease in live releases.

Recreational harvest in 2024 decreased to 1.6 million fish (13.9 million pounds) from the 2023 level of 2.6 million fish (23.9 million pounds), which is a 39% decrease by number. By region, both the ocean and Chesapeake Bay regions saw a decrease in recreational harvest in 2024 relative to 2023, with the Bay seeing a larger reduction of 58% and the ocean seeing a 34% reduction in harvest. The larger reduction in recreational harvest in the Chesapeake Bay could be attributed, at least partly, to the implementation of a Bay wide 19”-24” slot limit in 2024 under Addendum II and to the lack of strong year-classes available in the Bay in 2024. In the ocean, most of the remaining fish from the strong 2015 year-class (age-9 in 2024) had likely grown out of the narrow 28”-31” ocean slot limit by 2024, potentially contributing to the decrease. However, it is important to note that changes in effort can also impact harvest.

In 2024, New Jersey landed the largest proportion of recreational harvest in number of fish (38%), followed by New York (21%), Massachusetts (17%), and Maryland (13%). The proportion of coastwide recreational harvest in numbers from Chesapeake Bay was estimated at 15% in 2024, which along with the 2022-2023 Chesapeake Bay proportions of 20% and 22%, respectively, are the lowest since the stock recovered in the 1990s. This decrease in the proportion of recreational harvest from the Chesapeake Bay in recent years, and therefore increased proportion of ocean recreational harvest, aligns with the availability of the strong 2015-year class in the ocean fishery in 2022-2023, implementation of a Chesapeake Bay-wide slot limit in 2024, and decrease in Maryland’s for-hire bag limit from 2-fish to 1-fish in 2024. Additionally, as the last above average year-class (2018) move out of the Chesapeake Bay after 2023, there are no strong year classes following.

Similar to the change in recreational harvest, the number of trips directed at striped bass (primary and secondary target) also shows a larger reduction in the Bay as compared to the ocean (Figure 4). In 2024, relative to 2023 the number of striped bass directed trips in the Chesapeake Bay region decreased by about 41%, while the number of striped bass directed trips in the ocean decreased by about 13%. Overall, the total number of coastwide striped bass directed trips in 2024 decreased by 16% from 2023 and is even lower than the number of directed trips in 2019-2021.

When considering recreational harvest and directed trips by mode, the magnitude of change from 2023 to 2024 differs between the for-hire modes and the private-shore modes by region. Private boat-shore harvest in 2024 decreased by 35% in the ocean and 58% in the Chesapeake Bay. For-hire harvest in the ocean decreased by only 9% while for-hire harvest in the Chesapeake Bay decreased by 57% in 2024. For directed trips, private boat-shore directed trips in 2024 decreased by about 13% in the ocean and decreased by 41% in the Chesapeake Bay. For-hire directed trips in the ocean in 2024 decreased by about 16%, while for-hire directed trips in the Chesapeake Bay decreased by 38% according to MRIP. Similar decreases in the number of Maryland Chesapeake Bay for hire trips catching striped bass were noted in

Maryland's for-hire logbooks which decreased 43% from 2023 to 2024. Again, these data indicate larger reductions in recreational harvest and directed trips in the Chesapeake Bay in 2024 relative to 2023 than the ocean region.

Overall, there are several factors that contribute to trends in recreational catch and effort, including management measures, year class availability, overall stock abundance, nearshore availability of bait and striped bass, and angler behavior. The relatively strong 2015-year class moving into the ocean and becoming available to the ocean slot (i.e., those 2015-year class fish surpassing 28-inches), was likely the primary driver of increased ocean recreational catch in 2022. The subsequent emergency action in 2023 intended to reduce harvest of the 2015-year class likely contributed to the harvest reduction observed in 2023. The 2015 year-class grew out of the ocean slot by 2024 (i.e., surpassing 31-inches) likely contributing to the decreases in ocean recreational catch in 2024. In the Chesapeake Bay, a combination of the five-inch recreational slot limit implemented in 2024 and the lack of strong year classes available after the 2018 year-class moved into the ocean likely played a role. Angler effort and behavior are also important to consider. When more fish are available in the fishery, effort can often increase in response. When narrower size limits are in place or less fish are available in the fishery, anglers may change their behavior and level of effort.

2.2.5 Social and Economic Considerations

For the commercial sector, reductions in quota would likely reduce profits for striped bass commercial harvesters and may increase the consumer price of striped bass. The impacts of a quota reduction will vary depending on individual harvester circumstances, such as what portion of a harvester's current business is dependent on striped bass and the ability to switch to commercial fisheries for other species. Since there have been multiple striped bass commercial quota reductions in the past decade, harvesters may have already had to diversify their businesses and/or could eventually reach a point where harvesting striped bass is no longer profitable.

For the recreational sector, changes in seasonal closures, size and bag limits, and other measures affect important attributes of a recreational fishing trip, such as when during the year an angler is allowed to keep a fish. In turn, these changes in trip attributes will modify the utility (i.e., level of satisfaction) an angler expects to obtain from the fishing trip (McConnell et al. 1995, Haab and McConnell 2003). As a result, the angler may shift target species, modify trip duration or location, or decide not to take the trip and do something else instead. These behavioral responses lead to changes in directed fishing effort, with accompanying changes in harvest, fishing mortality, and angler welfare.

A reduction in effort could have a negative impact on the regional economy and businesses associated with the fishing industry for striped bass. This may only be a short-term response, and stock dynamics will dictate any longer-term effects on the resource and the angling community. Impacts on for-hire businesses will likely vary depending on individual business circumstances. If changes in seasonal closures or size limits reduce the number of striped bass trips for-hire businesses are able to book, the economic impacts will likely depend on whether

the business can switch to target other species that are of interest to anglers. Managers have to weigh potential negative effects on anglers and businesses with potential long-term positive effects on the stock and future fishing experience.

Angler response to recreational seasonal closures is difficult to predict. If striped bass harvest is prohibited during a closure, anglers could choose to catch-and-release striped bass, target another species, or choose not to fish at all. If targeting striped bass is prohibited, anglers could target another species or choose not to fish at all. Individual angler preferences and availability of other species are a few of many factors that would shape angler response to seasonal closures. See the following sections 2.2.6 through 2.2.8 for context on the seasonality of the recreational striped bass fishery and other species commonly caught and targeted with striped bass.

Narrow slot limits, like the 2023 emergency action and Addendum II recreational slot limits (28" to 31" for the ocean and 19" to 24" for the Chesapeake Bay) lead to fish in the larger size range being released. Recent research into striped bass anglers' preferences and behavior found the typical striped bass angler prefers to keep larger fish (Carr-Harris and Steinback 2020). Applying this to a 28" to 31" slot limit, anglers would likely prefer to keep a fish greater than 31" rather than having to release it, which means that in the short-term, a narrow slot limit like 28" to 31" may reduce effort (i.e., reduce trips) from those anglers seeking to bring fish home in the cooler. Conversely, any high minimum size or slot limit options being considered (e.g., 37" to 40" slot) may be desirable for striped bass anglers who prefer to keep a larger fish, but this size limit would make it more difficult for shore anglers to catch a legal sized fish, given the smaller size of fish generally available inshore, which may also reduce effort and raise environmental justice issues.

To evaluate the effects of management options in the future, a bioeconomic model could be developed for striped bass to assess impacts of management options and feedback between fish stocks and angler decision-making, as currently done for other species such as summer flounder, scup, and black sea bass. Assessing the fishery impacts and potential success of proposed policy measures requires a predictive bioeconomic model that links angler participation and decision-making to changes in management measures, stock levels, and fishing conditions (Holzer and McConnell 2017, Lee et al. 2017). While there is some past striped bass work on angler preferences that could inform a potential bioeconomic model (Carr-Harris and Steinback 2020, Murphy et al. 2019), resources are needed to fully develop the economic component of the model to incorporate with the biological model. Amendment 7 outlines those and other socioeconomic research needs.

2.2.6 Seasonality of Recreational Catch and Effort

Recreational removals, including harvest and live releases, were analyzed by state and wave to inform timing of state recreational fisheries throughout the year. MRIP data were pooled from 2021 through 2024 from Maine through North Carolina to identify commonalities between states regarding availability of fish (total removals), harvest, and effort (directed striped bass trips). Data from 2023 were not included in the ocean analysis due to the mid-year regulatory

change from the ASMFC adopting the narrow 28" to 31" recreational slot limit through emergency action. North Carolina MRIP data were not included since North Carolina only attributes waves 1 and 6 ocean recreational catch to the ocean stock and that catch has been minimal (zero recreational harvest for several years, 2021-2022 releases were 0.1% of total ocean releases, zero 2024 releases). State-by-state descriptions of catch by wave are available in Appendix D.

For all states in the Ocean fishery, total recreational removals were dominated by live releases (Table 2) and trips that caught striped bass are dominated by those only releasing striped bass (Table 3). It should be noted that North Carolina is the only state to conduct MRIP sampling in wave 1 (Jan-Feb) and therefore is the only state with wave 1 (Jan-Feb) removals which are solely comprised of live releases. Massachusetts through Virginia conduct MRIP sampling from wave 2 (Mar-Apr) through wave 6 (Nov-Dec), while Maine and New Hampshire only conduct MRIP sampling from wave 3 through wave 5 (May-Oct).

In the northern states of Maine and New Hampshire, peak removals (number of fish) and effort (millions of trips) occur in wave 4 (Jul-Aug) (Figure 5, Table 4).

The states of Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Delaware all have some level of removals in waves 2 – 6 (Mar-Dec). Peak removals and effort vary by state for Massachusetts, Rhode Island, and Connecticut. Massachusetts removals peak in waves 3 – 4 (May-Aug), Rhode Island removals peak in wave 3 (May-Jun), and both states have peak effort in wave 4 (Jul-Aug). Connecticut removals peak in wave 2 (Mar-Apr) with effort peaking in wave 3 (May-June).

In the Mid-Atlantic states, availability occurs in waves 2 – 6 (Mar-Dec) with New York, New Jersey, and Delaware all having peak removals in wave 6 (Nov-Dec) and effort varying by state. Effort in New York is consistent in waves 2 – 3 (Mar-Jun) and 5 – 6 (Sep-Dec). New Jersey effort is high in wave 2 (Mar-Apr) and peaks in wave 6 (Nov-Dec) and Delaware effort is high in wave 6 (Nov-Dec) and peaks in wave 2 (Mar-Apr). Peak removals and effort for Maryland and North Carolina in the ocean peak in wave 6 (Nov-Dec) while in Virginia, peak removals occur in wave 4 (Jul-Aug) but peak effort occurs in wave 5 (Sep-Oct) for the ocean fishery. It should be noted that PSEs for Delaware through North Carolina can be relatively high.

In the Chesapeake Bay fish are available in waves 2 – 6 (Mar-Dec) with peak removals occurring in wave 6 (Nov-Dec) (Figure 7). Harvest and effort for Maryland and Virginia peak in wave 3 (May-Jun) and wave 6 (Nov-Dec), respectively (Figure 8). Note this analysis covers the time period after implementation of no-targeting closures for part of wave 2 (Mar-Apr) and wave 4 (Jul-Aug) in Maryland Chesapeake Bay; the timing of peak harvest and effort in Maryland Chesapeake Bay prior to these closures (pre-2020) may have been different.

Table 2. Percent of total striped bass removals for each state and wave that are live releases in the ocean region. Source: MRIP 2021-2022-2024 data.

Wave	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC*
Wave 1 (Jan/Feb)	X	X	X	X	X	X	X	X	X	X	100%
Wave 2 (Mar/Apr)	X	X	100%	100%	100%	93%	91%	98%	100%	0%	0%
Wave 3 (May/June)	98%	98%	96%	95%	93%	87%	84%	100%	100%	100%	0%
Wave 4 (July/Aug)	97%	97%	91%	92%	92%	86%	97%	97%	100%	100%	0%
Wave 5 (Sep/Oct)	99%	96%	94%	95%	98%	81%	89%	100%	0%	0%	0%
Wave 6 (Nov/Dec)	X	X	100%	100%	100%	94%	87%	99%	98%	0%	100%

X indicates MRIP sampling does not occur during that wave.
*NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock.

Table 3. Proportion of trips landing striped bass and trips only releasing striped bass (i.e., no harvest) for all 2021-2024 trips that caught striped bass.

	% Trips Landing SB	**% Trips Only Releasing SB**
ME	9	91
NH	11	89
MA	20	80
RI	13	87
CT	12	88
NY	29	71
NJ	35	65
DE	4	96
MD Ocean	5	95
VA Ocean	0	100
MD Ches. Bay	29	71
VA Ches. Bay	23	77

Table 4. Proportion of each state's directed striped bass trips by wave in the ocean region. Source: MRIP data 2021-2022-2024.

Wave	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC*
Wave 1 Jan/Feb	X	X	X	X	X	X	X	X	X	X	19%
Wave 2 Mar/Apr	X	X	5%	21%	23%	22%	27%	32%	10%	0%	0%
Wave 3 May/June	27%	25%	28%	24%	29%	22%	20%	22%	38%	0%	0%
Wave 4 July/Aug	47%	43%	39%	25%	19%	13%	4%	8%	3%	0%	0%
Wave 5 Sep/Oct	26%	32%	22%	19%	18%	21%	15%	9%	9%	58%	0%
Wave 6 Nov/Dec	X	X	6%	12%	10%	21%	33%	29%	40%	42%	81%

X indicates MRIP sampling does not occur during that wave.
*NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock.

2.2.7 Equity Considerations for Ocean Regions and Chesapeake Bay Season Closures

Ocean Regional Approach 1: Maine – Massachusetts and Rhode Island – North Carolina

The states of Maine, New Hampshire, and Massachusetts all have the majority of their total removals (Figure 5), all of their harvest (Figure 6), and 89 – 100 % of their directed trips (Table 4) in waves 3 – 5 (May – Oct.). A seasonal closure in waves 1 (Jan-Feb), 2 (Mar-Apr), and/or 6 (Nov-Dec) for these states will not be impactful, therefore options in the draft addendum were limited to waves 3 – 5 (May – Oct.). All 3 states have their peak removals and harvest occurring wave 4 (Jul-Aug) however Massachusetts comprises 85% of harvest, 64% of releases, and 65% of total removals in wave 4 (Jul-Aug) for these states.

For the Rhode Island through North Carolina ocean region, total removals peak in Rhode Island in wave 3 (May-Jun); CT in wave 2 (Mar-Apr); New York, New Jersey, Delaware, Maryland, and North Carolina in wave 6 (Nov-Dec); and Virginia in wave 4 (Jul-Aug). As peak total removals vary by state across four waves, a no-targeting closure in a single wave to reduce total removals in this region is likely to be inequitable. As a result, a closure across two waves, for example requiring all states to implement closures in wave 3 (May-Jun) and wave 6 (Nov-Dec), may be more effective in addressing equity concerns.

Harvest in the Rhode Island through North Carolina region peaks in wave 3 (May-Jun) for Rhode Island and Connecticut; wave 6 (Nov-Dec) for New York, New Jersey, Delaware, and Maryland; with no ocean harvest occurring in either Virginia or North Carolina. As a result, a single-wave no-harvest closure for this region would not have equal impacts across all states. A no-harvest closure across two waves in this region could address inequity closures. For example, a no-harvest closure in waves 3 (May-Jun) and 6 (Nov-Dec) would impact all states in the region with Rhode Island and Connecticut being more impacted by the wave 3 (May-Jun) closure and New York, New Jersey, Delaware, Maryland, and North Carolina being more impacted by the wave 6 (Nov-Dec) closure.

Ocean Regional Approach 2: Maine – Rhode Island and Connecticut – North Carolina

Under this regional approach, Rhode Island would be shifted and included with the northern states of Maine, New Hampshire, and Massachusetts. However, unlike Maine, New Hampshire, and Massachusetts which have peak removals, harvest, and effort in wave 4 (Jul-Aug), Rhode Island peak removals and harvest occur in wave 3 (May-Jun) with nearly equal peak effort in waves 3 (May-Jun) and 4 (Jul-Aug). A no-targeting or no-harvest closure in a single wave under this region may not be equitable across all states. Additionally, by Rhode Island being included in this region, they would likely have a different seasonal closure than Connecticut, New York, and New Jersey. This may create challenges in the state waters around Block Island as anglers from Rhode Island through New Jersey fish in these waters and would be following different regulations. The Law Enforcement Committee noted concern about different seasons for states around Block Island Sound.

For Connecticut through North Carolina, inequities would likely still exist among these states with a single wave no-harvest or no-targeting closure for the same reasons outlined in Regional Approach 1.

Chesapeake Bay State Closures

In the Chesapeake Bay, both Maryland and Virginia have peak removals in wave 6 (Nov-Dec) which could translate into an equitable single-wave no-targeting closure. Harvest in Maryland is consistent in waves 3 – 6 (May-Dec) with Virginia peak harvest occurring in wave 6 (Nov-Dec) followed by wave 3 (May-Jun). A single-wave no-harvest closure in these states could also be equitable depending on the wave chosen (i.e. depending on when each jurisdiction has season closures already in place).

2.2.8 Other Species Commonly Caught and Targeted in the Striped Bass Recreational Fishery

Effects of striped bass seasonal closures on angler behavior are highly speculative, but a possible result of such closures could be anglers switching effort to other species. This analysis considers which species are often targeted on the same trip as striped bass and which species are often caught on trips that also catch striped bass. While this may provide some insight into which other species may be available to anglers if striped bass seasonal closures are implemented, it is important to note that some of these species are only co-targeted and caught with striped bass because anglers are already targeting striped bass. If anglers are no longer targeting striped bass, anglers may not necessarily switch to these other species. They may choose not to take the trip at all or switch to other species that are not commonly caught with striped bass.

Additionally, it is important to note that bait species are often part of the total catch caught on the same trip as striped bass (Table 5). For some states like Maine and New Hampshire, bait species comprise a majority of catch on trips that also caught striped bass. Anglers are likely targeting/catching bait to then use for targeting striped bass later in the trip. If that is the case, implementation of striped bass seasonal closures may impact the catch of bait species as well during the closure period.

Table 5. Breakdown of 2021-2024 total catch by species type on trips that caught striped bass.

	% Striped Bass	% Other Non-Bait Species	% Bait Species
ME	43.4	3.2	53.3
NH	45.7	6.5	47.9
MA	57.1	15.5	27.5
RI	61.1	37.1	1.7
CT	57.5	32.4	10.1
NY	54.8	37.0	8.2
NJ	75.5	20.9	3.7
DE	43.0	55.1	1.9
MD Ocean	83.5	13.5	3.0
VA Ocean	24.2	75.8	0.0
MD Ches. Bay	42.6	49.8	7.6
VA Ches. Bay	34.9	58.4	6.7

MRIP data from 2021 through 2024 for both the ocean fishery and Chesapeake Bay fishery were compiled by state and by wave to explore *a)* the top ten species reported as either primary or secondary targets on trips that also targeted striped bass, and *b)* the top ten species caught on trips that also caught striped bass. State-specific figures and a summary by region are available in Appendix E.

2.2.9 Examples of Recent Recreational Seasonal Closures: Maryland and North Carolina

Striped bass seasonal closures have recently been implemented in Maryland's Chesapeake Bay and North Carolina's Albemarle Sound and Roanoke River. While the specific impacts of these closures may not be directly comparable to new closures considered in this addendum, particularly for the Ocean, these closures provide insight into changes in effort and angler behavior. Several factors, including angler preferences (harvest or catch-and-release fishing), accessibility of fishing areas, and availability of other species, will contribute to any changes in catch and effort from a closure.

In Maryland Chesapeake Bay, as part of Maryland's conservation equivalency program for Addendum VI to Amendment 6, striped bass no targeting closures were implemented starting in 2020 for April 1-30 (half of wave 2 (Mar-Apr)) and for 16 days during wave 4 (Jul-Aug). In 2020, the wave 4 (Jul-Aug) closure was August 16 through August 31, and from 2021 onward, the closure has been July 16 through July 31. In addition to these closures, Maryland implemented other recreational management changes at the same time, including a shortened trophy season (May 1 start date) and reduced bag limit for private boat and shore anglers (2 fish to 1 fish). The charter bag limit stayed at 2 fish for charter boat anglers if the charter boat was enrolled in the charter electronic reporting system.

MDDNR reviewed MRIP data for striped bass directed trips, harvest, and live releases in inland waters to compare effort and removals in wave 2 (Mar-Apr) and wave 4 (Jul-Aug) for the five years prior to the no targeting closures (2015-2019) to the four years since the no targeting closures were implemented (2020-2023). There was a decrease in directed fishing effort for striped bass in Maryland's Chesapeake Bay during those waves in the years since the closures were implemented. During wave 2 (Mar-Apr) when the month of April was closed to targeting, MRIP indicates a 67% decrease in striped bass directed trips in wave 2 (Mar-Apr) across all modes in the years since the closure was implemented. During wave 4 (Jul-Aug) when the summer season was closed to targeting for two weeks, MRIP indicates a 24% decrease in striped bass directed trips in wave 4 (Jul-Aug) across all modes in the years since the closure was implemented. An additional review of for-hire data collected by MDDNR through the FACTS reporting program indicates total for-hire trips decreased by 74% during the summer closure relative to the two weeks prior to the closure.

Harvest, live releases and total removals estimates also declined after Maryland's no targeting closures were implemented, particularly for private boat and shore modes. It is important to note that other factors (e.g., fish availability, year-class strength, and the private angler trip limit changing from 2 fish to 1 fish) are also contributing to these results. To reduce the effects

of changing fish availability and year class strength, the proportions of directed trips, harvest, and live releases by wave were explored and also showed a decrease in directed fishing effort, harvest, and live releases after the no targeting closures were implemented. Further, the realized reductions from the closures met or exceeded the predicted reductions. Anglers reported targeting other Bay species more heavily during the closures, such as white perch, spot, and bluefish during the summer closure, as compared to prior to the closures when striped bass was the most targeted species.

In North Carolina, as part of the State's management of the Albemarle Sound-Roanoke River (A-R) striped bass stock, the recreational season has been shortened in recent years as a result of poor stock status. Most recently, a harvest moratorium was implemented in 2024. The most recent A-R stock assessment, the 2022 Stock Assessment Update (Lee et al. 2022), indicated the stock is overfished and overfishing is occurring along with very low juvenile recruitment for several consecutive years.

In response, North Carolina implemented multiple management changes including reducing the total allowable landings (TAL), implementing a slot limit, reducing creel limits, new gear restrictions, and shortening seasons. Over the past few years, the Roanoke River Management Area (RRMA) striped bass recreational season has changed from a two-month harvest season to fourteen days in 2021 (seven days in two separate zones), four days in 2022, and six days in 2023. The Albemarle Sound Management Area (ASMA) striped bass recreational harvest season closed earlier each year as the quota decreased and was reached sooner. In 2024, a harvest moratorium for the commercial and recreational sectors in both management areas was implemented.

Since harvest restrictions shortening the recreational season have been implemented in the RRMA, effort during the traditional harvest period (March-April) has decreased. In the Upper Roanoke River, where there are few other species to target besides striped bass, effort decreased approximately 50% when the harvest season was shortened and decreased by another 50% with the full moratorium in 2024 (NCWRC unpublished data). Estimated number of angler trips targeting striped bass during March and April in the upper river averaged approximately 10,000 anglers from 2015 through 2020 but dropped to approximately 5,000 anglers in 2021 through 2023 and 2,300 anglers in 2024. Anglers participating in the Upper River fishery were assumed to be participating with the intent of harvesting a striped bass, not just catch-and-release.

In the Lower Roanoke River, although other species are available like catfish, white perch, sunfish, shad, or largemouth bass, striped bass targeted effort decreased more sharply than in the upper river when the season was shortened and there was minimal effort in 2024 with the moratorium. Lower river anglers targeting striped bass averaged approximately 12,000 trips per year from 2015-2020, but that effort decreased when the seasons were shortened (4,852 in 2021, 2,604 in 2022, and 3,110 trips in 2023). In 2024, only 244 targeted striped bass trips were estimated in the lower Roanoke River due to the harvest moratorium.

Effort during May, which is the typical catch-and-release season, on the upper Roanoke River has not shown the same decreases, likely in part due to different anglers participating in the different fisheries. Additionally, the number of guided trips has persisted due to the popularity of the catch-and-release fishery. The decrease in effort, along with a reduction in the daily creel limit from two fish to one fish, in the RRMA markedly decreased the number of striped bass landed in 2021-2023 (NCDMF 2024). However, the trend in the number of striped bass released in the RRMA remained similar to years with unrestricted seasons and is more related to availability and year class strength rather than effort.

In the ASMA, trip level effort during the traditional recreational harvest period (October through April) remains variable with the recent season restrictions. Like the RRMA, the number of for-hire trip intercepts in the ASMA has remained consistent as well as shore mode fishing; however, private boat intercepts have decreased approximately 30% from 2020-2021, 36% from 2021-2022, and 15% from 2022-2023 (NCDMF unpublished data). There was a decrease in the number of trips in 2023, but not to the same magnitude as the decrease in RRMA effort. However, even with the decrease in trips, the annual angler hour effort has not decreased. ASMA effort has historically varied year-to-year depending on striped bass abundance and year-class strength, and on the availability of other species like red drum and spotted sea trout. In general, there is a wider variety of species available in the Albemarle Sound than in the Roanoke River. However, if there is a combination of striped bass closures and low availability of other species in a particular year, that could contribute to lower effort and anglers may choose to fish somewhere else.

3.0 PROPOSED MANAGEMENT OPTIONS

This document proposes management changes for the ocean and Chesapeake Bay fisheries. The striped bass ocean fishery (also referred to as “ocean region”) is defined as all fisheries operating in coastal and estuarine areas of the U.S. Atlantic coast from Maine through North Carolina, excluding the Chesapeake Bay and Albemarle Sound-Roanoke River (A-R) management areas. The Chesapeake Bay fishery is defined as all fisheries operating within Chesapeake Bay. This document does not propose changes to the Albemarle Sound-Roanoke River fisheries, which are managed separately by the State of North Carolina.

When the Board takes final action on the addendum, there is the opportunity to select any measure within the range of options that went out for public comment, including combining options across issues.

Since the stock is currently overfished, conservation equivalency (CE) programs will not be approved for non-quota managed recreational fisheries, with the exception of the Hudson River, Delaware River, and Delaware Bay recreational fisheries. The Board has discretion whether to approve CE programs for quota-managed fisheries.

3.1 Method to Measure Total Length of a Striped Bass

The Atlantic Striped Bass FMP has specified size limits in total length (TL) since the original FMP's approval in 1981 but does not define a specific method for measuring TL for regulatory compliance. This has resulted in inconsistent state regulations and is of developing interest since the adoption of mandatory maximum size limits in the recreational striped bass fishery. Some states require squeezing the upper and lower fork of the tail, some states allow angler discretion on whether to squeeze the tail, and some states require the tail be left natural or fanned out. The total length measurement that is obtained from a striped bass differs among these three orientations of the tail (i.e., squeezed, left natural, or forcibly fanned out), whereby pinching the tail makes the fish longer and fanning the tail makes the fish shorter compared to the natural length.

A recent analysis by the Massachusetts Division of Marine Fisheries to quantify the relationship between these different measurements indicated that while there is a minor difference between a natural and pinched tail measurement (estimated 0.29"), there is a more substantial difference between a natural and forcibly fanned tail measurement which also depends on fish size (e.g., a 32.38" fish measures 31" when the tail is forcibly fanned, difference of 1.38"; Appendix C.). Consequently, loosely defined methods of TL measurement or where anglers have discretion on whether to forcefully fan the tail to make the fish shorter can effectively allow harvest of striped bass that are over the maximum size limit. This undermines the intended conservation of the management measure. Additionally, the differences among the states' definitions of TL mean that some striped bass which must be released in certain states would be allowed to be retained in other states, which is contrary to the intended consistency of a coastwide size limit.

Further review of the states' regulatory definition of total length for striped bass demonstrated several other inconsistencies that may be of interest to address. First, not all states establish that the length measurement be taken as a straight line (as opposed to over the curve of the fish' body). Second, some states specify that the fish needs to be laid on its side and/or laid as flat as possible. Third, not all states specify that the mouth of the fish must be closed.

The Law Enforcement Committee supports consistent, specific, and easily understood language on how to measure striped bass TL, which would be especially beneficial in shared waterbodies where anglers may be fishing in multiple states' waters. Although standardizing the method of measuring TL would greatly improve consistency for regulatory compliance, there could be continued inconsistencies. For example, the rack of a fillet fish may measure slightly differently than the whole fish would have using the same method of measurement. The Law Enforcement Committee noted that filleted racks would be measured in the same manner as a whole fish. Additionally, the measurement may be inconsistent between types of measuring devices (i.e., using a measuring board vs. a measuring tape).

Option A. Status Quo: No Definition of Total Length

No requirement in the Interstate FMP for Atlantic Striped Bass related to the method of measuring total length of a striped bass.

Option B. Mandatory Elements for Total Length Definition

This option would adopt mandatory elements for each state's regulatory definition of striped bass total length measurement for compliance with size limits. All states must require: 1) squeezing the tail; 2) a straight-line measurement; 3) the fish is laid flat; and 4) the mouth is closed. This applies to both the commercial and recreational sectors. States may implement the following language or submit alternative language in their implementation plans for Board consideration.

> *Total length means the greatest straight line length in inches as measured on a fish (laid flat on its side on top of the measuring device) with its mouth closed from the anterior most tip of the jaw or snout to the farthest extremity of the tail with the upper and lower fork of the tail squeezed together.*

3.2 Commercial Tagging Requirements: Point of Sale vs. Point of Harvest

The Atlantic Striped Bass FMP's commercial tagging requirement has been in place since 2012 and allows states with commercial fisheries to choose whether to tag harvested fish at the point of harvest or the point of sale. Currently, three states implement tagging at the point of sale only: Massachusetts, Rhode Island, and North Carolina.

There is concern that waiting to tag harvested fish until the point of sale increases the risk of illegal harvest. However, differences among states' commercial management systems and how each state manages its current tagging program (Table 6) make it difficult to determine whether requiring the same type of tag program across all states would decrease the risk of illegal harvest in every state. If harvesters or dealers do not return unused tags, all states with commercial tagging programs note the harvester or dealer is not able to receive the next season's tags or they receive a reduced number of tags until unused tags have been returned or a record of tag accounting/tag disposition has been submitted.

The majority opinion of the Law Enforcement Committee noted support for commercial tagging at the point of harvest to improve enforcement of possession from the total time the species is in possession, reduce the ability to high-grade, and increase accountability. Some LEC members noted the administrative burden of distributing tags to individual fishers, especially when a state's fishery is not managed with individual quotas. Concerns about sharing tags among fishers were also noted if tagging programs were required to switch to the point of harvest, and it should be considered whether trading tags could potentially outweigh (or even increase) an illegal market fish.

Table 6. State Tagging Program Key Characteristics

State	Tag at Point of Harvest or Sale	2024 Commercial Tags Issued	2024 Participants Receiving Tags	ITQ Fishery
MA	Sale	51,240	129	No
RI	Sale	9,980	18 plus Confidential # Floating Fish Trap	No
NY	Harvest	62,331	378	No^
DE	Both*	16,650	111	Yes
MD	Harvest	442,100	805	Yes
PRFC	Harvest	84,348	260	No^^
VA	Harvest	198,550	362	Yes
NC	Sale**	0	0	No

* DE number of tags listed are the tags issued to and used by harvesters. Tags are also issued to weigh stations where a second tag is attached to each striped bass, such that each fish has two tags.
** NC has reported 0 commercial striped bass harvest from the ocean in over a decade. No tags were issued or used. Tags are on hand to issue if fish come inside three miles.
^NY does not assign individuals a percentage of the quota like typical ITQ fisheries do, but each striped bass permit holder does receive a set number of tags in either a "full" or "part" share category.
^^ PRFC assigns a percentage of the quota to each gear type, and tags are distributed based on how many licenses are available for each gear type and the average fish weight for that gear.

Option A. Status Quo Point of Harvest or Point of Sale
States or jurisdictions with a commercial striped bass fishery may choose to implement their commercial tagging program at either the point of harvest or the point of sale.

Option B. Require Commercial Tagging at the Point of Harvest
States or jurisdictions with a commercial striped bass fishery must implement their commercial tagging program at the point of harvest.

> *For Board Consideration in May 2025: The FMP's current commercial tagging requirements do not define "point of harvest" (i.e., immediately upon possession or within specific parameters outlined by various state regulations). At least one state currently specifies tagging at the point of landing (i.e., before landing or putting on shore) as compared to tagging at point of harvest due to safety concerns raised by industry. The Board should consider whether the intent of this option is to allow tagging at point of landing or just at point of harvest. The Board should be as specific as possible. For example, the Tautog FMP allows tagging at either point of harvest or point of landing and specifies: "All commercially caught tautog will be tagged by the commercially-permitted harvester at the time of harvest or prior to offloading."*

Note: If Option B is implemented for commercial tagging, the Board may consider delaying implementation of this measure until 2027 or 2028 to allow a delayed implementation plan to account for the extensive administrative and regulatory changes required for those states that currently implement point-of-sale tagging.

3.3 Reduction in Fishery Removals to Support Stock Rebuilding

This issue proposes management changes for the ocean and Chesapeake Bay fisheries designed to reduce fishery removals to increase the probability of rebuilding the stock to the spawning stock biomass target by the 2029 deadline. Projection scenarios indicate a 1% and 7% reduction in 2026 total removals are required to achieve *F*_rebuild 50% and *F*_rebuild 60% in 2026, respectively. The options presented here include the 7% reduction required to achieve *F*_rebuild 60% in 2026.

It should be noted TC emphasizes that the outcome of management changes designed to achieve small changes (i.e., reductions or liberalizations of less than 10%) would be difficult to measure given the uncertainty in the MRIP estimates. Total removals are not known within 10%, so a reduction of less than 10% would not be statistically distinguishable from no reduction at all (i.e., status quo measures).

For commercial fisheries, changes to the commercial quotas are considered. All options apply the percent reduction to the quotas in place in 2024. All commercial quotas are in pounds. No changes to commercial size limits are being considered; states must maintain commercial size limits in place in 2024.

For recreational fisheries, changes to the size limit and/or season are considered. All size limits are in total length. The number of days closed indicated in the options are new days closed (i.e., in addition to any days already closed during 2024). No changes to the recreational bag limit are being considered (1 fish per person per day for the ocean and Chesapeake Bay).

New York, Pennsylvania, and Delaware may submit area-specific recreational measures to achieve the same percent reduction as the recreational sector in their area-specific fisheries listed below. These fisheries have historically targeted smaller fish to protect spawning females and/or due to availability of smaller resident fish with these fisheries occurring primarily over a two-month period:

- New York: the Hudson River management area.
- Pennsylvania: the state's April–May slot fishery in the lower Delaware River/Estuary.
- Delaware: the state's July–August slot fishery in Delaware River/Bay.

For seasonal closure options across ocean regions and Chesapeake Bay states, one of the primary tradeoffs to consider is whether to implement a shorter closure during peak striped bass season or implement a longer closure during the slower season. Another consideration is what type of closure to implement: a no-harvest closure or no-targeting closure. Angler response to a closure (e.g., target other species, do not go fishing) is difficult to predict, especially for a no-targeting closure. Two assumptions for how striped bass live releases would decrease are considered in the options. One assumption, referred to as 'SB Trips Switch Target' assumes that under a no-targeting closure, all trips that previously targeted striped bass would still occur but would shift to targeting other species where they release striped bass at a non-targeted rate (i.e., incidentally). The second assumption referred to as 'SB-only Trips Eliminated' assumes that during a no-targeting closure, trips only targeting striped bass (i.e., no other

species were targeted) would no longer occur or the trip would no longer encounter any striped bass. Trips that targeted striped bass with a second species would still release striped bass but at a non-targeted rate. For both assumptions, all striped bass releases from non-targeted trips would still occur. One factor to consider is alternative species. If few alternative species are available, that may contribute to a trip not occurring at all as compared to switching target species.

For recreational mode split options, all options result in differing size limits between the for-hire modes (FH = charter and head boat) and the private/shore modes (PS = private vessels and shore anglers). Some options result in differing seasons between FH and PS, while other options result in the same seasons for all modes. One tradeoff to consider is between equitability and enforceability. Options with different seasons by mode are based on all modes taking a longer closure to account for a different FH size limit. However, the Law Enforcement Committee noted the difficulty of enforcing differing seasons by mode due to requiring identification of the sector a vessel belongs to and verifying for-hire trips.

Percent standard error (PSE) values for harvest and live release estimates by region and by mode are available in Appendix B.

Option 1. Status Quo

The ocean commercial fisheries and Chesapeake Bay commercial fisheries will continue to be managed by their Addendum II quotas and size limits. Ocean recreational fisheries are constrained by a 1-fish bag limit and a slot limit of 28” to 31”. Chesapeake Bay recreational fisheries are constrained by a 1-fish bag limit and a slot limit of 19” to 24”. States are required to maintain the same recreational seasons that were in place in 2022. The Chesapeake Bay recreational spring trophy fisheries are managed by the same size and bag limits as the ocean fishery (1 fish at 28” to 31”) with the 2022 trophy season dates.

Option 2: Even Sector Reductions: Commercial -7% and Recreational -7%

Under Option 2, commercial quotas would be reduced by 7%. Options O2A – O2E for the Ocean and Options CB2A – CB2G for the Chesapeake Bay in Table 7 specify recreational measures designed to achieve a 7% reduction via changes to size limits and/or season closures.

Table 7. Recreational Measures for Even Sector Reductions Option 2. Ocean (O) and Chesapeake Bay (CB) recreational fisheries are constrained by a 1-fish bag limit. Each option achieves at least -7% recreational reduction.

Option 2 Ocean Recreational Fishery				
	Modes	**Size Limit**	**Season Closure Needed**	**Closure Table**
O2A	**All**	37” to 40” slot *[-7%]*	Status Quo	NA
O2B	**All**	28” to 31” slot *[0%]*	-7%	Table 10
O2C	**Split For-Hire Exemption**	PS: 28” to 31” slot FH: 28” to 33” slot *[+1%]*	-8%	Table 11
O2D	**Split Separate Equal Mode Reductions**	PS: 28” to 31” slot *[0%]*	PS: -7%	Table 13
		FH: 28” to 32” slot *[+12%]*	FH: -17%	Table 15
O2E	**Split Separate Equal Mode Reductions**	PS: 28” to 31” slot *[0%]*	PS: -7%	Table 13
		FH: 28” to 33” slot *[+28%]*	FH: -27%	Table 15
Option 2 Chesapeake Bay Recreational Fishery				
	Modes	**Size Limit**	**Season Closure Needed**	**Closure Table**
CB2A	**All**	20” to 24” slot *[-8%]*	Status Quo	NA
CB2B	**All**	22” minimum size *[-10%]*	Status Quo	NA
CB2C	**All**	19” to 24” slot *[0%]*	-7%	Table 10
CB2D	**Split For-Hire Exemption**	PS: 20” to 24” slot FH: 19” to 25” slot *[-7%]*	Status Quo	NA
CB2E	**Split For-Hire Exemption**	PS: 20” to 24” slot FH: 21” minimum size *[-7%]*	Status Quo	NA
CB2F	**Split For-Hire Exemption**	PS: 19” to 24” slot FH: 19” to 25” slot *[+1%]*	-8%	Table 11
CB2G	**Split Separate Equal Mode Reductions**	PS: 19” to 24” slot *[0%]*	PS: -7%	Table 13
		FH: 19” to 25” slot *[+13%]*	FH: -18%	Table 17

Option 3: No Commercial Reduction: Commercial -0% and Recreational -8%

Under Option 3, commercial quotas would not take a reduction. Options O3A – O3E for the Ocean and options CB3A – CB3F for the Chesapeake Bay in Table 8 specify recreational measures designed to achieve an 8% reduction via changes to size limits and/or season closures.

Option 4: Reductions based on Sector Contribution to Total Removals: Commercial -0.8% and Recreational -8%

Under Option 4, commercial quotas would be reduced by 0.8%. Options O4A – O4E for the Ocean and options CB4A – CB4F for the Chesapeake Bay in Table 8 specify recreational measures designed to achieve an 8% reduction via changes to size limits and/or season closures.

Table 8. Recreational Measures for No Commercial Reduction Option 3 and Reductions based on Sector Contribution to Total Removals Option 4. Ocean (O) and Chesapeake Bay (CB) recreational fisheries are constrained by a 1-fish bag limit. Each option achieves at least -8% recreational reduction.

Options 3/4 Ocean Fishery Recreational Fishery				
	Modes	**Size Limit**	**Season Closure Needed**	**Closure Table**
O3A/O4A	**All**	38” to 41” slot *[-8%]*	Status Quo	NA
O3B/O4B	**All**	28” to 31” slot *[0%]*	-8%	Table 11
O3C/O4C	**Split For-Hire Exemption**	PS: 28” to 31” slot FH: 28” to 33” slot *[+1%]*	-9%	Table 12
O3D/O4D	**Split Separate Equal Mode Reductions**	PS: 28” to 31” slot *[0%]*	PS: -8%	Table 14
		FH: 28” to 32” slot *[+12%]*	FH: -18%	Table 16
O3E/O4E	**Split Separate Equal Mode Reductions**	PS: 28” to 31” slot *[0%]*	PS: -8%	Table 14
		FH: 28” to 33” slot *[+28%]*	FH: -28%	Table 16

Option 3/4 Chesapeake Bay Recreational Fishery				
	Modes	**Size Limit**	**Season Closure Needed**	**Closure Table**
CB3A/CB4A	**All Modes**	20" to 24" slot *[-8%]*	Status Quo	NA
CB3B/CB4B	**All Modes**	22" minimum size *[-10%]*	Status Quo	NA
CB3C/CB4C	**All Modes**	19" to 24" slot *[0%]*	-8%	Table 11
CB3D/CB4D	**Mode Split For-Hire Exemption**	PS: 20" to 24" slot FH: 19" to 24" slot *[-8%]*	Status Quo	NA
CB3E/CB4E	**Mode Split For-Hire Exemption**	PS: 19" to 24" slot FH: 19" to 25" slot *[+1%]*	-9%	Table 12
CB3F/CB4F	**Mode Split Separate Equal Mode Reductions**	PS: 19" to 24" slot *[0%]*	PS: -8%	Table 14
		FH: 19" to 25" slot *[+13%]*	FH: -19%	Table 17

Table 9. Commercial quotas (pounds of fish) for each option in the addendum. Status quo reflects current Addendum II commercial quotas.

State/Region	Options 1 & 3. Status Quo & No Reduction	Option 2. -7% Reduction	Option 4. -0.8% Reduction
Ocean Commercial Quotas			
Maine	143	133	142
New Hampshire	3,289	3,059	3,263
Massachusetts	683,773	635,909	678,303
Rhode Island	138,467	128,774	137,359
Connecticut	13,585	12,634	13,476
New York	595,868	554,157	591,101
New Jersey	200,798	186,742	199,192
Delaware	132,501	123,226	131,441
Maryland	82,857	77,057	82,194
Virginia	116,282	108,142	115,352
North Carolina	274,810	255,573	272,612
Ocean Total	2,242,373	2,085,407	2,224,434
Chesapeake Bay Commercial Quota			
Chesapeake Bay Total	2,791,532	2,596,125	2,769,200

Recreational Seasonal Closure Tables

Below are season closure tables accompanying recreational reduction options:

- Table 10: Closures for -7% reduction for all modes
- Table 11: Closures for -8% reduction for all modes
- Table 12: Closures for -9% reduction for all modes
- Table 13: Closures for -7% reduction for Private-Shore
- Table 14: Closures for -8% reduction for Private-Shore
- Table 15: Closures for -17% and 27% reductions for Ocean For-Hire
- Table 16: Closures for -18% and 28% reductions for Ocean For-Hire
- Table 17: Closures for -18% and -19% reduction for Chesapeake Bay For-Hire

Note in the Chesapeake Bay, PRFC and DC can each choose whether to implement their closure during the same wave as Maryland or the same wave as Virginia. Although complete alignment among the four Bay jurisdictions is difficult given the current differences in seasons, the Bay jurisdictions should coordinate to align seasons as much as possible. Chesapeake Bay jurisdictions should consider whether new closures could be added to existing closures and whether the type of existing closure (no-targeting vs. no-harvest) should be consistent in a wave.

All closures are in number of days. ^ indicates closing the entire wave will not achieve the reduction.

Table 10. Recreational season closures for -7% reduction for all modes.

Closures for -7% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	9	12	18
ME-MA	Wave 3	18	40	47
ME-MA	Wave 4	12	22	23
ME-MA	Wave 5	20	29	53
RI-NC	Wave 2	17	20	42
RI-NC	Wave 3	29	34	46
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	37	49	61^
RI-NC	Wave 6	11	14	21
RI-NC	Wave 2 & Wave 3	12	13	22
RI-NC	Wave 2 & Wave 4	14	17	31
RI-NC	Wave 2 & Wave 5	12	15	25
RI-NC	Wave 3 & Wave 6	8	10	15
RI-NC	Wave 4 & Wave 6	10	13	18

Closures for -7% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
ME-RI	Wave 3	16	30	44
ME-RI	Wave 4	13	23	25
ME-RI	Wave 5	20	28	52
CT-NC	Wave 2	17	19	40
CT-NC	Wave 3	31	37	48
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	39	54	61^
CT-NC	Wave 6	10	14	20
CT-NC	Wave 2 & Wave 3	11	13	22
CT-NC	Wave 2 & Wave 4	14	17	31
CT-NC	Wave 2 & Wave 5	12	14	25
CT-NC	Wave 3 & Wave 6	8	10	14
CT-NC	Wave 4 & Wave 6	9	12	18
MD Bay	Wave 3	17	21	23
MD Bay	Wave 4	17	19	21
MD Bay	Wave 5	19	21	27
MD Bay	Wave 6	14	14	22
VA Bay	Wave 3	10	10	12
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	9	10	13

Table 11. Recreational season closures for -8% reduction for all modes.

Closures for -8% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	11	14	21
ME-MA	Wave 3	20	46	54
ME-MA	Wave 4	14	26	27
ME-MA	Wave 5	23	34	61^

Closures for -8% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
RI-NC	Wave 2	20	23	48
RI-NC	Wave 3	33	40	53
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	42	57	61^
RI-NC	Wave 6	12	16	25
RI-NC	Wave 2 & Wave 3	13	15	26
RI-NC	Wave 2 & Wave 4	16	20	36
RI-NC	Wave 2 & Wave 5	14	17	29
RI-NC	Wave 3 & Wave 6	9	12	17
RI-NC	Wave 4 & Wave 6	11	15	21
ME-RI	Wave 3	19	35	50
ME-RI	Wave 4	15	26	28
ME-RI	Wave 5	23	32	60
CT-NC	Wave 2	19	22	46
CT-NC	Wave 3	36	43	55
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	45	61^	61^
CT-NC	Wave 6	12	16	23
CT-NC	Wave 2 & Wave 3	13	15	25
CT-NC	Wave 2 & Wave 4	16	19	35
CT-NC	Wave 2 & Wave 5	14	17	28
CT-NC	Wave 3 & Wave 6	9	12	17
CT-NC	Wave 4 & Wave 6	11	14	20
MD Bay	Wave 3	20	24	27
MD Bay	Wave 4	19	22	24
MD Bay	Wave 5	22	25	32
MD Bay	Wave 6	16	17	26
VA Bay	Wave 3	11	11	14
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	10	11	15

Table 12. Recreational season closures for -9% reduction for all modes.

Closures for -9% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	12	16	23
ME-MA	Wave 3	23	52	61^
ME-MA	Wave 4	16	29	30
ME-MA	Wave 5	26	38	61^
RI-NC	Wave 2	22	26	55
RI-NC	Wave 3	37	45	60
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	48	61^	61^
RI-NC	Wave 6	14	19	28
RI-NC	Wave 2 & Wave 3	14	17	29
RI-NC	Wave 2 & Wave 4	19	22	41
RI-NC	Wave 2 & Wave 5	15	19	33
RI-NC	Wave 3 & Wave 6	10	13	19
RI-NC	Wave 4 & Wave 6	12	16	24
ME-RI	Wave 3	21	40	57
ME-RI	Wave 4	17	29	32
ME-RI	Wave 5	26	36	61^
CT-NC	Wave 2	22	25	52
CT-NC	Wave 3	41	48	0
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	50	61^	61^
CT-NC	Wave 6	13	18	26
CT-NC	Wave 2 & Wave 3	14	17	28
CT-NC	Wave 2 & Wave 4	18	22	40
CT-NC	Wave 2 & Wave 5	15	19	32
CT-NC	Wave 3 & Wave 6	10	13	19
CT-NC	Wave 4 & Wave 6	12	16	23
MD Bay	Wave 3	23	27	30
MD Bay	Wave 4	22	25	28
MD Bay	Wave 5	25	28	36
MD Bay	Wave 6	18	19	29

Closures for -9% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
VA Bay	Wave 3	13	13	16
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	11	12	17

Table 13. Recreational season closures for -7% reduction for private-shore (PS).

Closures for -7% Reduction for Private Shore				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	Dual wave closures by mode will be calculated before the document is released for public comment.		
ME-MA	Wave 3	18	44	50
ME-MA	Wave 4	13	24	25
ME-MA	Wave 5	19	28	52
RI-NC	Wave 2	17	20	41
RI-NC	Wave 3	30	36	49
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	36	49	61^
RI-NC	Wave 6	11	14	21
RI-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
RI-NC	Wave 2 & Wave 4			
RI-NC	Wave 2 & Wave 5			
RI-NC	Wave 3 & Wave 6			
RI-NC	Wave 4 & Wave 6			
ME-RI	Wave 3	17	32	47
ME-RI	Wave 4	14	24	27
ME-RI	Wave 5	19	27	51
CT-NC	Wave 2	16	19	39
CT-NC	Wave 3	33	39	51
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	39	54	61^
CT-NC	Wave 6	10	14	20

Closures for -7% Reduction for Private Shore				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
CT-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
CT-NC	Wave 2 & Wave 4			
CT-NC	Wave 2 & Wave 5			
CT-NC	Wave 3 & Wave 6			
CT-NC	Wave 4 & Wave 6			
MD Bay	Wave 3	21	27	31
MD Bay	Wave 4	19	22	26
MD Bay	Wave 5	18	21	28
MD Bay	Wave 6	13	14	23
VA Bay	Wave 3	10	10	12
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	8	9	13

Table 14. Recreational season closures for -8% reduction for Private-Shore (PS).

Closures for -8% Reduction for Private Shore				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	Dual wave closures by mode will be calculated before the document is released for public comment.		
ME-MA	Wave 3	21	51	57
ME-MA	Wave 4	15	28	29
ME-MA	Wave 5	22	33	60
RI-NC	Wave 2	19	23	47
RI-NC	Wave 3	34	41	57
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	42	57	61^
RI-NC	Wave 6	12	16	25
RI-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
RI-NC	Wave 2 & Wave 4			
RI-NC	Wave 2 & Wave 5			
RI-NC	Wave 3 & Wave 6			
RI-NC	Wave 4 & Wave 6			

Closures for -8% Reduction for Private Shore				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
ME-RI	Wave 3	19	37	54
ME-RI	Wave 4	16	28	31
ME-RI	Wave 5	22	31	59
CT-NC	Wave 2	19	22	45
CT-NC	Wave 3	37	45	59
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	44	61^	61^
CT-NC	Wave 6	12	16	23
CT-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
CT-NC	Wave 2 & Wave 4			
CT-NC	Wave 2 & Wave 5			
CT-NC	Wave 3 & Wave 6			
CT-NC	Wave 4 & Wave 6			
MD Bay	Wave 3	24	31	36
MD Bay	Wave 4	22	26	29
MD Bay	Wave 5	21	24	32
MD Bay	Wave 6	15	16	26
VA Bay	Wave 3	11	11	13
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	10	11	15

Table 15. Recreational season closures for -17% and -27% reduction for Ocean For-Hire.

Closures for -17% Reduction for Ocean For-Hire				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	Dual wave closures by mode will be calculated before the document is released for public comment.		
ME-MA	Wave 3	35	40	57
ME-MA	Wave 4	19	24	26
ME-MA	Wave 5	61^	61^	61^
RI-NC	Wave 2	61^	61^	61^
Closures for -17% Reduction for Ocean For-Hire				
RI-NC	Wave 3	33	36	39
RI-NC	Wave 4	50	53	58
RI-NC	Wave 5	61^	61^	61^
RI-NC	Wave 6	40	46	55
RI-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
RI-NC	Wave 2 & Wave 4			
RI-NC	Wave 2 & Wave 5			
RI-NC	Wave 3 & Wave 6			
RI-NC	Wave 4 & Wave 6			
ME-RI	Wave 3	32	37	52
ME-RI	Wave 4	20	24	27
ME-RI	Wave 5	61^	61^	61^
CT-NC	Wave 2	61^	61^	61^
CT-NC	Wave 3	34	38	40
CT-NC	Wave 4	52	54	59
CT-NC	Wave 5	61^	61^	61^
CT-NC	Wave 6	38	44	51
CT-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
CT-NC	Wave 2 & Wave 4			
CT-NC	Wave 2 & Wave 5			
CT-NC	Wave 3 & Wave 6			
CT-NC	Wave 4 & Wave 6			

Closures for -27% Reduction for Ocean For-Hire				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	Dual wave closures by mode will be calculated before the document is released for public comment.		
ME-MA	Wave 3	55	61^	61^
ME-MA	Wave 4	31	38	41
ME-MA	Wave 5	61^	61^	61^
RI-NC	Wave 2	61^	61^	61^
RI-NC	Wave 3	53	58	61^
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	61^	61^	61^
RI-NC	Wave 6	61^	61^	61^
Closures for -27% Reduction for Ocean For-Hire				
RI-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
RI-NC	Wave 2 & Wave 4			
RI-NC	Wave 2 & Wave 5			
RI-NC	Wave 3 & Wave 6			
RI-NC	Wave 4 & Wave 6			
ME-RI	Wave 3	52	58	61^
ME-RI	Wave 4	31	39	43
ME-RI	Wave 5	61^	61^	61^
CT-NC	Wave 2	61^	61^	61^
CT-NC	Wave 3	55	61^	61^
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	61^	61^	61^
CT-NC	Wave 6	61	61^	61^
CT-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
CT-NC	Wave 2 & Wave 4			
CT-NC	Wave 2 & Wave 5			
CT-NC	Wave 3 & Wave 6			
CT-NC	Wave 4 & Wave 6			

Table 16. Recreational season closures for -18% and -28% reduction for Ocean For-Hire.

Closures for -18% Reduction for Ocean For-Hire				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	Dual wave closures by mode will be calculated before the document is released for public comment.		
ME-MA	Wave 3	37	42	60
ME-MA	Wave 4	20	25	27
ME-MA	Wave 5	61^	61^	61^
RI-NC	Wave 2	61^	61^	61^
RI-NC	Wave 3	35	38	41
RI-NC	Wave 4	53	56	62
RI-NC	Wave 5	61^	61^	61^
RI-NC	Wave 6	43	49	58
Closures for -18% Reduction for Ocean For-Hire				
RI-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
RI-NC	Wave 2 & Wave 4			
RI-NC	Wave 2 & Wave 5			
RI-NC	Wave 3 & Wave 6			
RI-NC	Wave 4 & Wave 6			
ME-RI	Wave 3	34	39	55
ME-RI	Wave 4	21	26	28
ME-RI	Wave 5	61^	61^	61^
CT-NC	Wave 2	61^	61^	61^
CT-NC	Wave 3	37	40	42
CT-NC	Wave 4	55	58	62^
CT-NC	Wave 5	61^	61^	61^
CT-NC	Wave 6	40	47	54
CT-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
CT-NC	Wave 2 & Wave 4			
CT-NC	Wave 2 & Wave 5			
CT-NC	Wave 3 & Wave 6			
CT-NC	Wave 4 & Wave 6			

Closures for -28% Reduction for Ocean For-Hire				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	Dual wave closures by mode will be calculated before the document is released for public comment.		
ME-MA	Wave 3	57	61^	61^
ME-MA	Wave 4	32	39	43
ME-MA	Wave 5	61^	61^	61^
RI-NC	Wave 2	61^	61^	61^
RI-NC	Wave 3	54	60	61^
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	61^	61^	61^
RI-NC	Wave 6	61^	61^	61^
RI-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
RI-NC	Wave 2 & Wave 4			
RI-NC	Wave 2 & Wave 5			
RI-NC	Wave 3 & Wave 6			
RI-NC	Wave 4 & Wave 6			
Closures for -28% Reduction for Ocean For-Hire				
ME-RI	Wave 3	54	61	61^
ME-RI	Wave 4	33	40	44
ME-RI	Wave 5	61^	61^	61^
CT-NC	Wave 2	61^	61^	61^
CT-NC	Wave 3	57	61^	61^
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	61^	61^	61^
CT-NC	Wave 6	61^	61^	61^
CT-NC	Wave 2 & Wave 3	Dual wave closures by mode will be calculated before the document is released for public comment.		
CT-NC	Wave 2 & Wave 4			
CT-NC	Wave 2 & Wave 5			
CT-NC	Wave 3 & Wave 6			
CT-NC	Wave 4 & Wave 6			

Table 17. Recreational season closures for -18% and -19% reduction for Chesapeake Bay For-Hire.

Closures for -18% Reduction for Chesapeake Bay For-Hire				
MD Bay	Wave 3	27	28	31
MD Bay	Wave 4	30	31	34
MD Bay	Wave 5	0	0	0
MD Bay	Wave 6	40^	40^	40^
VA Bay	Wave 3	31^	31^	31^
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	29	29	34
Closures for -19% Reduction for Chesapeake Bay For-Hire				
MD Bay	Wave 3	28	30	33
MD Bay	Wave 4	32	32	36
MD Bay	Wave 5	0	0	0
MD Bay	Wave 6	40^	40^	40^
VA Bay	Wave 3	31^	31^	31^
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	31	31	35

4.0 COMPLIANCE SCHEDULE

If approved, states must implement Addendum III according to the following schedule to be in compliance with the Atlantic Striped Bass Interstate FMP:

[Month, Day, Year]: States submit implementation plans to meet Addendum III requirements.

[Month, Day, Year]: Board reviews and considers approving state implementation plans.

[Month Day, Year]: States implement regulations.

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FIGURES

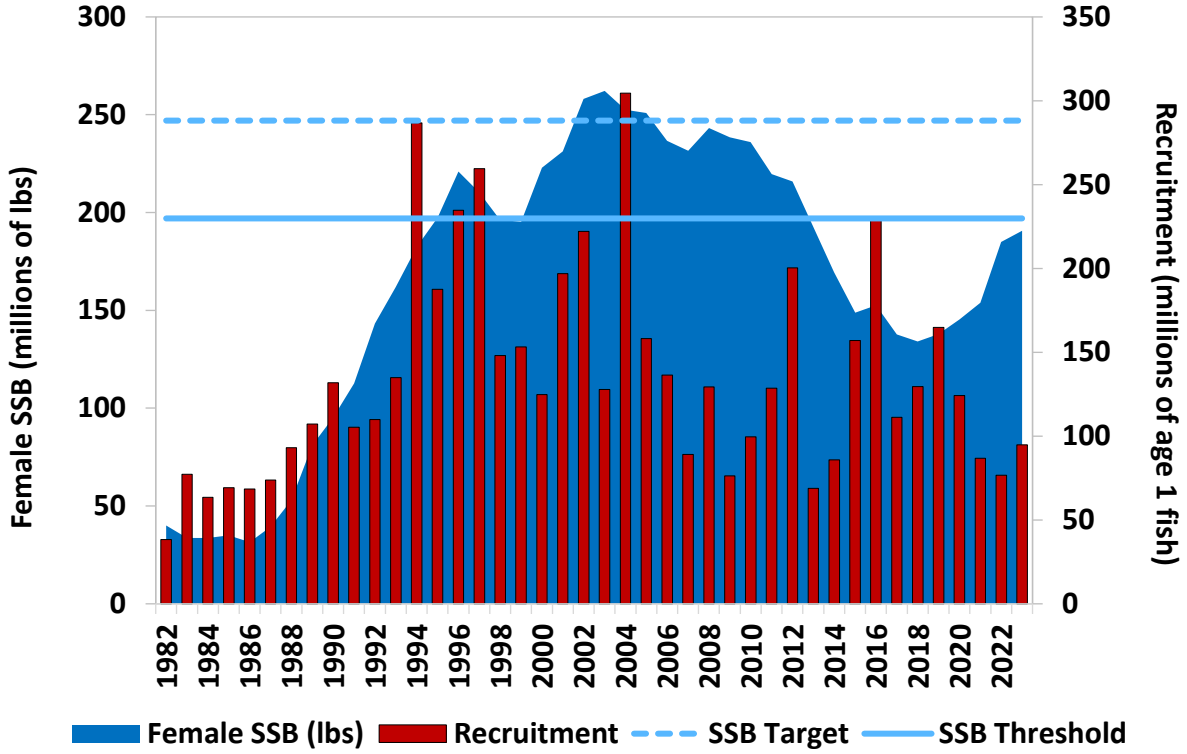

Figure 1. Atlantic striped bass female spawning stock biomass and recruitment, 1982-2023. Source: 2024 Stock Assessment Update.

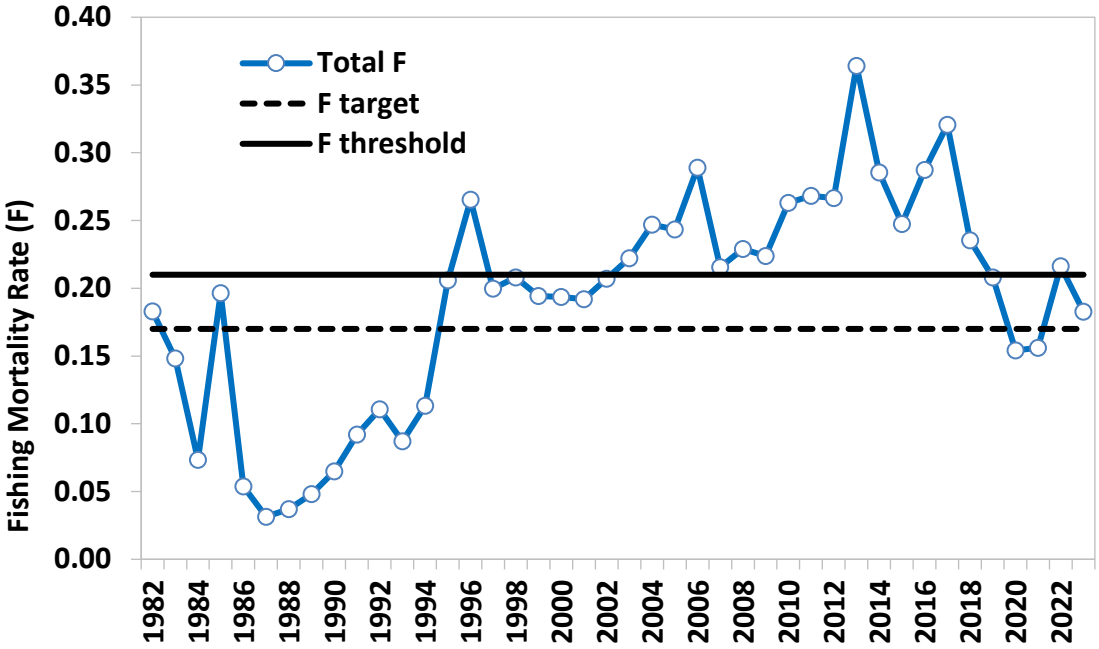

Figure 2. Atlantic striped bass fishing mortality, 1982-2023. Source: 2024 Stock Assessment Update.

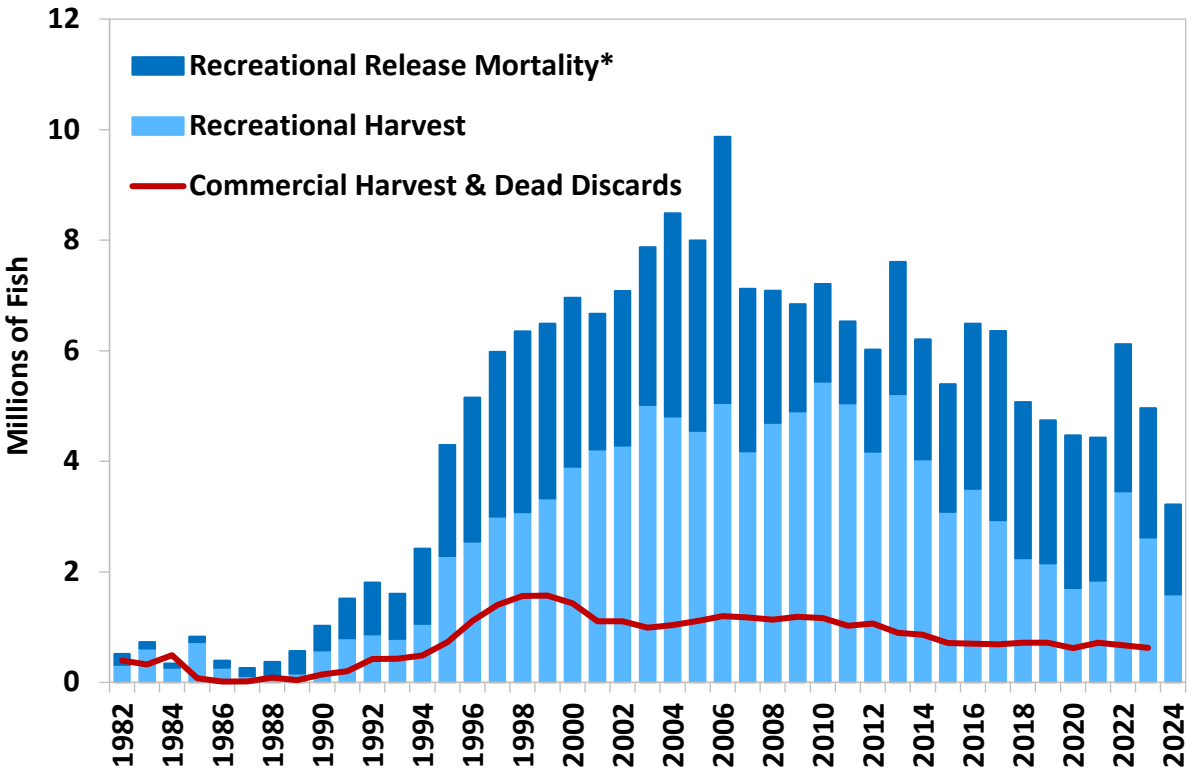

Figure 3. Atlantic striped bass commercial landings and dead discards and recreational landings and release mortality from 1982-2024 (commercial data for 2024 not yet available). * 9% of fish released alive assumed to die because of being caught. Source: 2024 Stock Assessment Update.

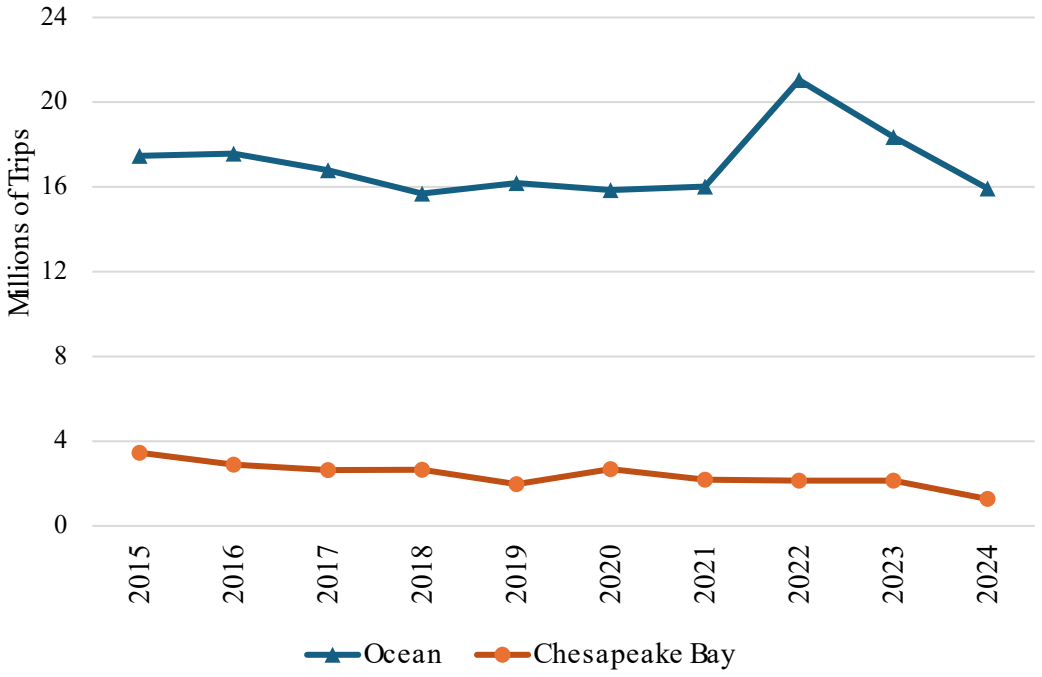

Figure 4. Number of striped bass directed trips (primary or secondary target) for the ocean in blue and Chesapeake Bay in orange from 2015-2024. Source: MRIP.

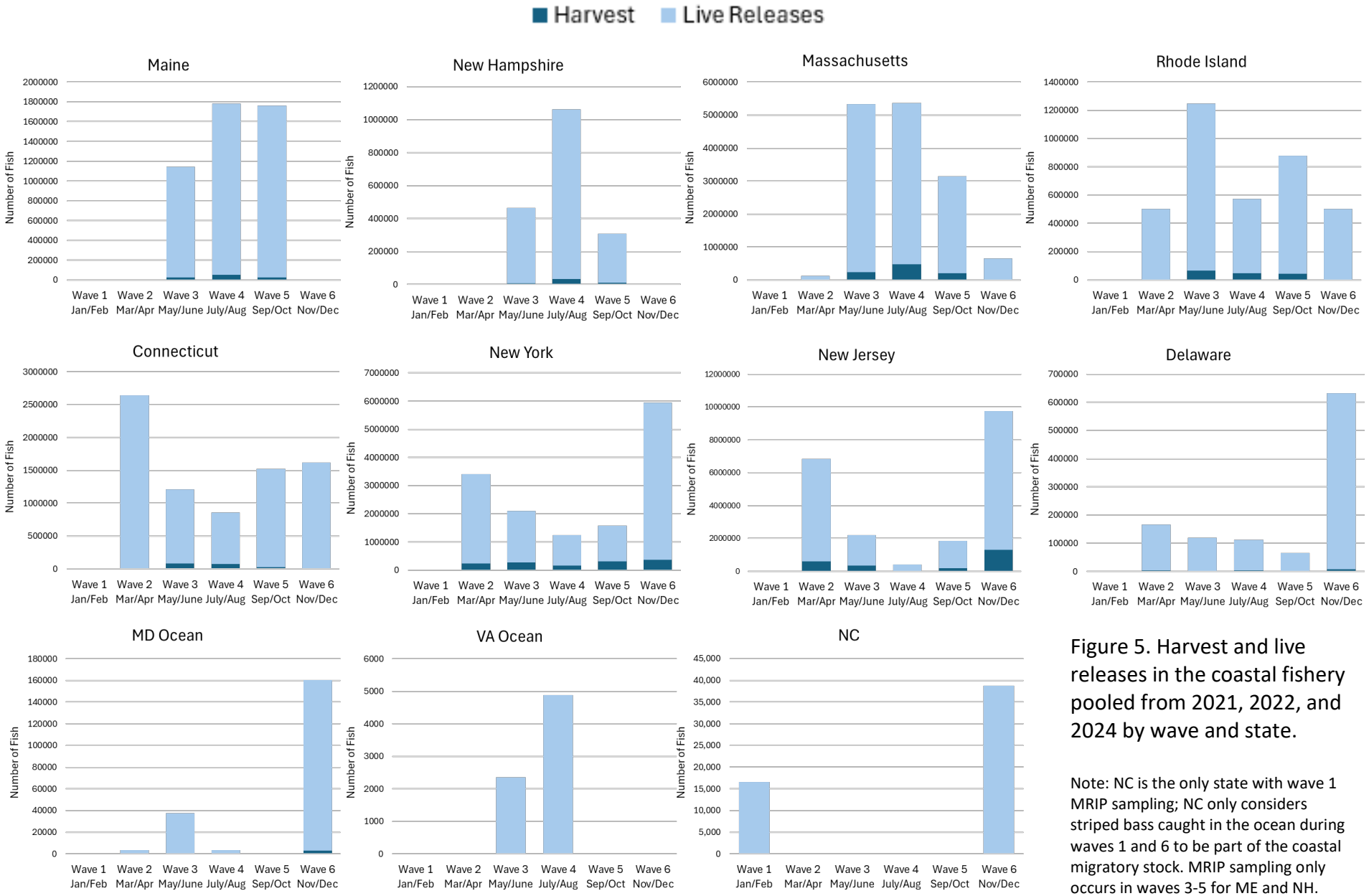

Figure 5. Harvest and live releases in the coastal fishery pooled from 2021, 2022, and 2024 by wave and state.

Note: NC is the only state with wave 1 MRIP sampling; NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock. MRIP sampling only occurs in waves 3-5 for ME and NH.

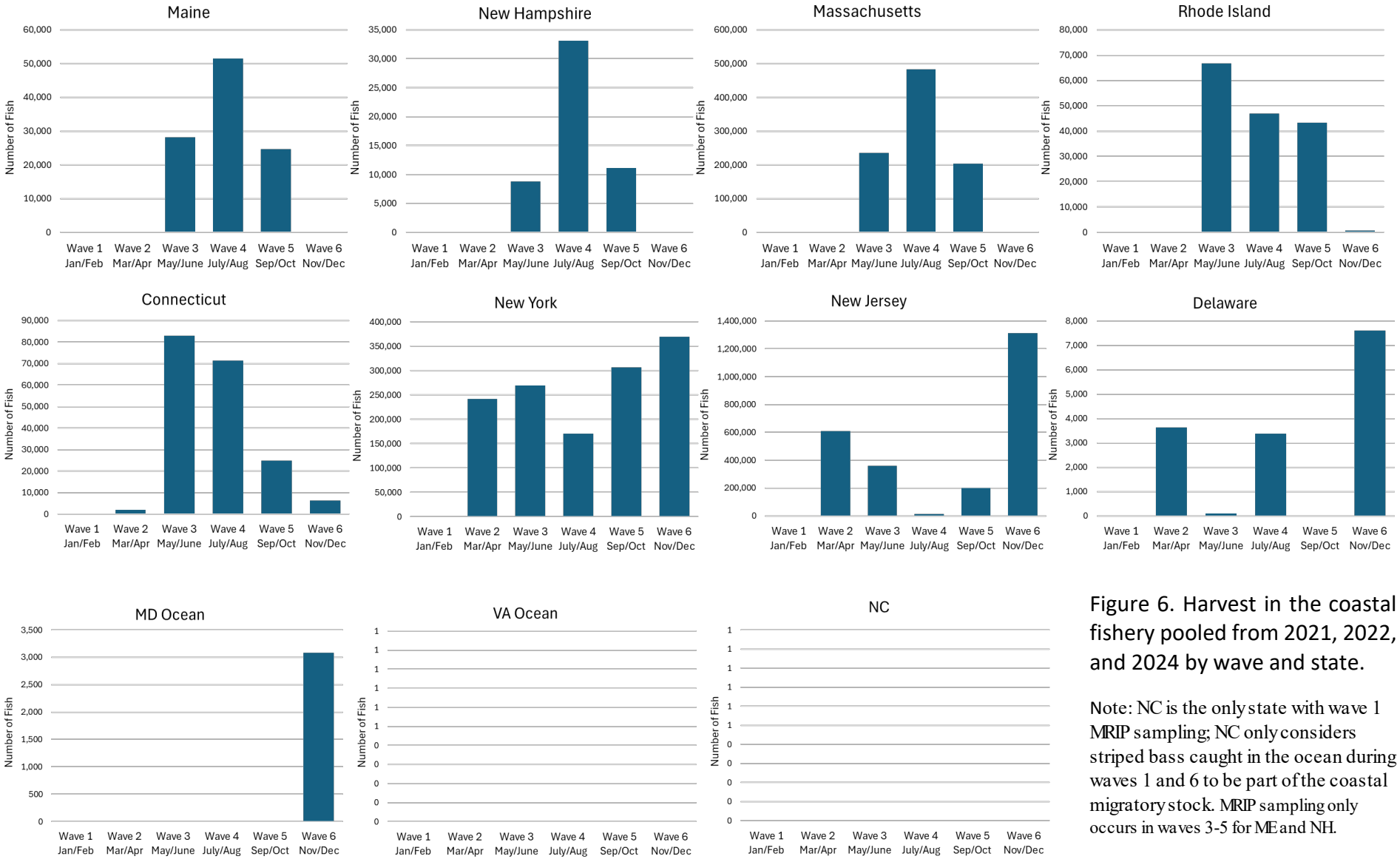

Figure 6. Harvest in the coastal fishery pooled from 2021, 2022, and 2024 by wave and state.

Note: NC is the only state with wave 1 MRIP sampling; NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock. MRIP sampling only occurs in waves 3-5 for ME and NH.

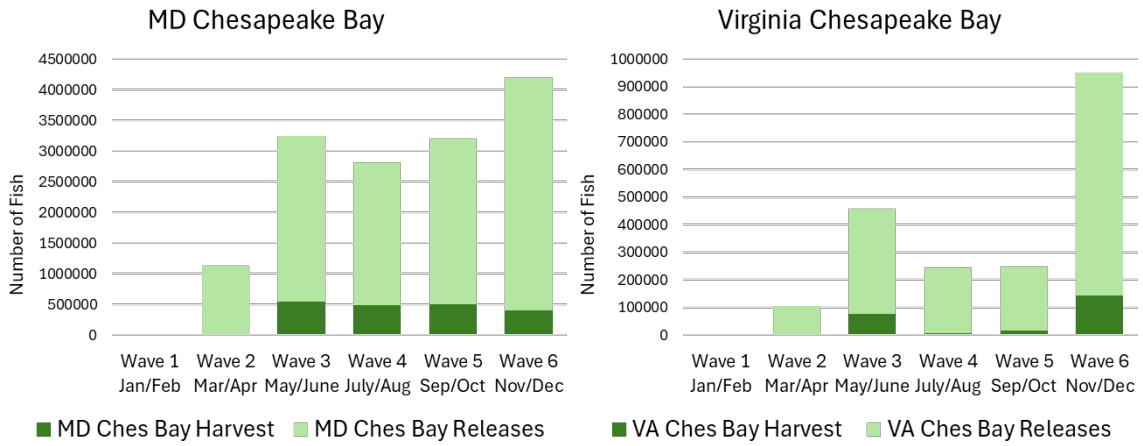

Figure 7. Harvest and live releases in the Chesapeake Bay pooled from 2021-2024 by wave and state. Source: MRIP.

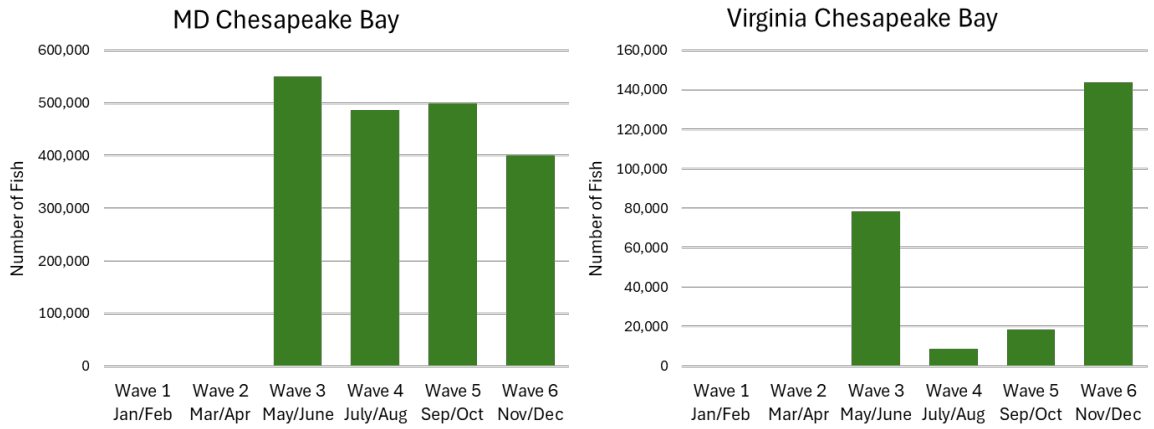

Figure 8. Harvest in the Chesapeake Bay pooled from 2021-2024 by wave and state. Source: MRIP

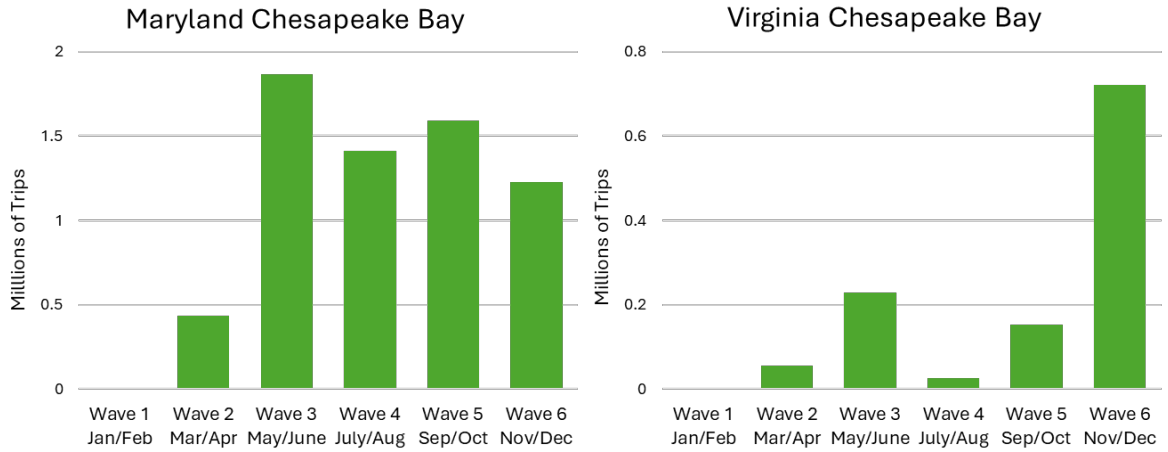

Figure 9. Striped bass directed trips in the Chesapeake Bay pooled from 2021-2024 by wave and state. Source: MRIP

Appendix A.
2024 Management Measures by State

Table A1. Summary of Atlantic striped bass **commercial** measures under Addendum II to Amendment 7 as of May 1, 2024. State implementation plans were approved in March 2024 and May 2024. Please refer to each state's regulations for additional details.

STATE	SIZE LIMITS (TL) and TRIP LIMITS	ADDENDUM II 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.	683,773 lbs. Hook & Line only.	6.18-9.30 (or when quota reached); open fishing days of Tuesday and Wednesday, with Thursday added on August 1 if >30% quota remains. Cape Cod Canal closed to commercial striped bass fishing.
RI	Floating fish trap: 26" minimum size unlimited possession limit until 80% of quota reached, then 500 lbs. per licensee per day	Total: 138,467 lbs., split 39:61 between the trap and general category. Gill netting prohibited.	4.1 – 12.31
	General category (mostly rod & reel): 34" min. Five (5) fish per person per calendar day, or if fishing from a vessel, five (5) fish per vessel per calendar day.		6.11-6.20; 7.9-12.31, or until quota reached. Closed Thursdays, 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)	595,868 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; bonus program: 1 fish/permit at 24" to <28"	200,798 lbs.	5.15 – 12.31 (permit required)

STATE	SIZE LIMITS (TL) and TRIP LIMITS	ADDENDUM II QUOTA	OPEN SEASON
PA	Commercial fishing prohibited		
DE	Gill Net: 20" min in DE Bay/River during spring season. 28" in all other waters/seasons.	Gillnet: 132,501 lbs. Split between gill net and hook and line. 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: 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	1,344,216 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: 82,857 lbs.	1.1-5.31, 10.1-12.31
PRFC	18" min all year; 36" max 2.15–3.25	532,761 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: 11.9.2021-3.25.2022 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	914,555 lbs. (part of Bay-wide quota)	1.16-12.31
	Ocean: 28" min	116,282 lbs.	
NC	Ocean: 28" min	274,810 lbs. (split between gear types)	Seine fishery was not opened Gill net fishery was not opened Trawl fishery was not opened

Table A2. Summary of Atlantic striped bass **recreational** size limits, bag limits, and seasons under Addendum II to Amendment 7 as of May 1, 2024. State implementation plans were approved in March 2024 and May 2024. Please refer to each state's regulations for gear/fishing restrictions in that state.

STATE	SIZE LIMITS (TL)/REGION	BAG LIMIT	OPEN SEASON
ME	28" to 31"	1 fish/day	All year, except spawning areas are closed 12.1-4.30 and C&R only 5.1-6.30
NH	28" to <31"	1 fish/day	All year
MA	28" to <31"	1 fish/day	All year
RI	28" to <31"	1 fish/day	All year
CT	28" to 31"	1 fish/day	All year
NY	Ocean and Delaware River: 28" to 31"	1 fish/day	Ocean: 4.15-12.15 Delaware River: All year
	Hudson River: 23" to 28"	1 fish/day	Hudson River: 4.1-11.30
NJ	28" to 31"	1 fish/day	Closed 1.1 – Feb 28 in all waters except in the Atlantic Ocean, and closed 4.1-5.31 in the lower DE River and tribs
PA	Upstream from Calhoun St Bridge: 28" to <31", 1 fish/day		All year
	Downstream from Calhoun St Bridge: 28" to <31", 1 fish/day* *except from 4.1-5.31: 22" to <26", 1 fish/day		All year. 1 fish/day at 22" to <26" slot from 4.1-5.31

STATE	SIZE LIMITS (TL)/REGION	BAG LIMIT	OPEN SEASON
DE	28” to 31”	1 fish/day	All year. C&R only 4.1-5.31 in spawning grounds. 20” to 24” slot from 7.1-8.31 in DE River, Bay & tributaries
MD	Ocean: 28” to 31”	1 fish/day	All year
	Chesapeake Bay and tribs^	C&R only	1.1-2.28, 3.1-3.31, 12.11-12.31
	Chesapeake Bay and tribs^	No targeting	4.1-5.31, 7.16-7.31
	Chesapeake Bay: 19” to 24” 1 fish/day^		5.16-5.31
	Chesapeake Bay and tribs: 19” to 24”, 1 fish/day^		6.1-7.15, 8.1-12.10
PRFC	Summer/Fall: 19” to 24”		1 fish/day
DC	19” to 24”		1 fish/day
VA	Ocean: 28” to 31”		1 fish/day
	Bay Spring/Summer/Fall: 19” to 24”		1 fish/day
NC	Ocean: 28” to 31”		1 fish/day

^ MD Susquehanna Flats: C&R only 1.1-3.31 and 12.11-12.31; No targeting 4.1-5.31; 1 fish at 19”-24” slot 6.1-7.15 and 8.1-12.10; No targeting 7.16-7.31

Appendix B.
Percent Standard Error (PSE) for Seasonal Closure Options

Percent standard error (PSE) for MRIP estimates of striped bass harvest and live releases pooled across states, modes, and years (2021-2022-2024 for ocean; 2021-2022-2023-2024 for Chesapeake Bay). Data pooled using methodology provided by MRIP in 2024. PSEs shaded based on MRIP's guidance: MRIP cautions use of the estimate in fisheries management when the PSE is over 30 (yellow) and does not support use of the estimate when the PSE exceeds 50 (red). PSE 30 or below is green. The higher an estimate's Percent Standard Error, or PSE, the larger the margin of error and uncertainty around the estimate.

Region	Mode	Harvest					Live Releases				
		2	3	4	5	6	2	3	4	5	6
ME-MA	All Modes		12	10.4	17.9	103.8	63.3	9.2	8.7	10.6	68.7
	For-Hire		19.2	13.9	25.2			15.4	13.5	21.8	
	Private/Shore		13.3	11.7	18.4	103.8	63.3	9.4	9	10.7	68.7
ME-RI	All Modes		10.3	9.7	16.2	79.1	54.3	8.2	8.2	9.6	41.8
	For-Hire		16.5	13.2	22.4			14.5	13	19.9	65.2
	Private/Shore		11.5	10.9	16.6	79.1	54.3	8.5	8.5	9.7	41.8
RI-NJ	All Modes	18.1	13	13.7	18.9	12.8	17	9	12.8	11.9	15.7
	For-Hire	30.5	11.8	13.4	18.9	9.9	25.9	13.2	13.2	26.8	12.8
	Private/Shore	18.2	14.3	16.1	19.4	13.2	17	9.3	13.4	12.2	15.8
RI-VA	All Modes	18	13	13.6	18.9	12.8	16.8	8.8	12.4	11.7	15.1
	For-Hire	30.5	11.8	13.4	18.9	9.9	25.9	13.2	13.2	26.8	12.8
	Private/Shore	18.1	14.3	15.9	19.4	13.2	16.8	9.1	12.9	12.1	15.2
CT-NJ	All Modes	18.1	14.2	15.8	20.2	12.8	17.3	10.4	15.1	13.4	16.1
	For-Hire	30.5	12.8	14.4	20.3	9.9	25.9	14.1	14	27.6	12.8
	Private/Shore	18.2	15.6	18.9	20.7	13.2	17.3	10.7	15.9	13.9	16.3
CT-VA	All Modes	18	14.2	15.6	20.2	12.8	17.1	10.1	14.5	13.2	15.5
	For-Hire	30.5	12.8	14.4	20.3	9.9	25.9	14.1	14	27.6	12.8
	Private/Shore	18.1	15.6	18.7	20.7	13.2	17.1	10.4	15.2	13.7	15.6
DE-VA	All Modes	50.8	102.9	61.8		66.7	20.6	21.4	35.3	28.7	38.8
	For-Hire			107.2				108.8	107.6		
	Private/Shore	50.8	102.9	61.8		66.7	20.6	21.4	35.3	28.7	38.8
CB-MD	All Modes		11.7	14.1	17.5	14.4	21.5	15.1	18.5	15	23.2
	For-Hire		12.4	13	17.1	22.3	71.3	15.9	16.6	22.6	27.2
	Private/Shore		17.8	20.3	21.6	17.4	21.6	16.1	19.5	15.4	24
CB-VA	All Modes		30.7	74.7	41	32.4	60	33.4	43	29.8	26.7
	For-Hire		93	119.4	31.7	26.6		93	64.8	34.8	34.3
	Private/Shore		31.1	94.6	43.6	33.7	60	34.6	45.4	33.1	26.8

The Commonwealth of Massachusetts
Division of Marine Fisheries
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MAURA T. HEALEY, Governor
KIMBERLEY DRISCOLL, Lt. Governor
REBECCA L. TEPPER, Secretary
THOMAS K. O'SHEA, Commissioner
DANIEL J. MCKIERNAN, Director

Appendix C.

Striped Bass Total Length Measurement Analysis

Ben Gahagan, Recreational Fisheries Program Leader
December 2024

To examine the implications of Massachusetts' current striped bass total length measurement definition—specifically, that anglers have discretion to either squeeze or leave fanned the upper and lower fork of the tail to measure the tail extremity—DMF biologists made a series of measurements on live and dead bass in the fall of 2024. During the annual USFWS striped bass tagging effort off Cape Cod, Recreational Fisheries Program staff took measurements from 413 striped bass with the tail naturally fanned (i.e., the tail was not manipulated to increase spread) and with the tail pinched. Age and Growth Project staff took measurements from 80 striped bass that were collected in the Recreational Rack data collection program. With these striped bass, measurements were made with the tail spread to the greatest extent possible and pinched. All measurements were rounded to the nearest 0.5 cm and then converted to inches.

The collected data were analyzed to create relationships between the three length types (pinched, natural fan, and forced fan) so that pinched lengths and predicted lengths for natural and forced fanning could be used to evaluate the potential increase in harvestable size due to current measurement regulations. Relative to a natural fanned length, pinching slightly increased the measured length while forcing the fan produced a larger decrease in measured length. Additionally, the increase in pinched length was almost constant as fish size increased while the decrease from forcing the caudal apart grew larger with fish size. Taken in combination, the ability to pinch or forcefully fan the caudal fin expands the current three-inch slot limit, relative to a natural fanned-length, by at least 1.67" (27.71" – 32.38"; Figure C1).

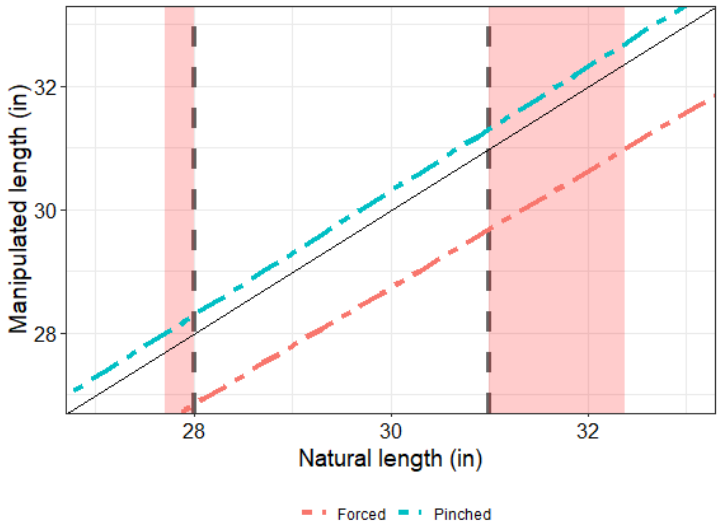


Figure C1. Potential increase in slot size (shaded red) by allowing both pinched (teal dashed line) and forced fanning (orange dashed line) measures for striped bass. A 1:1 line (thin black line) is provided for reference.

Appendix D.

State-Specific Recreational Seasonality Summary

Recreational catch (harvest and live releases) was analyzed by state and wave with MRIP data pooled from 2021, 2022, and 2024 (Figure 5 through Figure 8). Massachusetts through Virginia conduct MRIP sampling from wave 2 (Mar-Apr) through wave 6 (Nov-Dec), while Maine and New Hampshire only conduct MRIP sampling from wave 3 through wave 5 (May-Oct). North Carolina is the only state to conduct MRIP sampling in wave 1 (Jan-Feb).

Maine

Fish are caught in waves 3 – 5 (May-Oct) with total removals peaking in waves 4 – 5 -(Jul-Oct). Wave 4 (Jul-Aug) and wave 5 (Sep-Oct) total removals are nearly equal in magnitude with their combined total removals making up 76% of total removals for Maine. Harvest in Maine peaks in wave 4 (Jul-Aug) at 49% followed by wave 3 (May-Jun) at 27% and wave 5 (Sep-Oct) at 25%.

New Hampshire

Fish are caught in waves 3 – 5 (May-Oct) with total removals peaking in wave 4 (Jul-Aug) and making up 58% of total removals for New Hampshire. Harvest in New Hampshire peaks in wave 4 (Jul-Aug) at 63% followed by wave 5 (Sep-Oct) at 21% and wave 3 (May-Jun) at 17%.

Massachusetts

Fish are caught in waves 2 – 6 (Mar-Dec) with total removals peaking in waves 3 – 4 (May-Aug) wave 3 (May-Jun) and wave 4 (Jul-Aug) total removals are nearly equal in magnitude with their combined total removals making up 73% of total removals for Massachusetts. Harvest in Massachusetts peaks in wave 4 (Jul-Aug) at 52% followed by wave 3 (May-Jun) at 26% and wave 5 (Sep-Oct) at 22%.

Rhode Island

Fish are caught in waves 2 – 6 (Mar-Dec) with total removals peaking in wave 3 (May-Jun) making up 34% of total removals for Rhode Island. Harvest in Rhode Island peaks in wave 3 (May-Jun) at 42% followed by wave 4 (Jul-Aug) at 30% and wave 5 (Sep-Oct) at 27%. Rhode Island does have wave 6 (Nov-Dec) harvest but the magnitude is trivial and comprises < 0.5% of the total harvest for Rhode Island.

Connecticut

Fish are caught in waves 2 – 6 (Mar-Dec) with total removals peaking in wave 2 (Mar-Apr) making up 34% of total removals for Connecticut. Harvest in Connecticut peaks in wave 3 (May-Jun) at 44% followed by wave 4 (Jul-Aug) at 38%, wave 5 (Sep-Oct) at 13%, and wave 6 (Nov-Dec) at 3%.

New York

Fish are caught in waves 2 – 6 (Mar-Dec) with total removals peaking in wave 6 (Nov-Dec) making up 42% of total removals for New York. Harvest in New York also peaks in wave 6 (Noc-Dec) at 27% followed by wave 5 (Sep-Oct) at 23%, wave 3 (May-Jun) at 20%, wave 2 (Mar-Apr) at 18%, and wave 4 (July-Aug) at 13%.

New Jersey

Fish are caught in waves 2 – 6 (Mar-Dec) with total removals peaking in wave 6 (Nov-Dec) making up 46% of total removals for New Jersey. Harvest in New Jersey also peaks in wave 6 (Nov-Dec) at 53% followed by wave 2 (Mar-Apr) at 24%, wave 3 (May-Jun) at 14%, wave 5 (Sep-Oct) at 8%, and wave 4 (Jul-Aug) at 1%.

Delaware

Fish are caught in waves 2 – 6 (Mar-Dec) with total removals peaking in wave 6 (Nov-Dec) making up 58% of total removals for Delaware. Harvest in Delaware also peaks in wave 6 (Nov-Dec) at 52% followed by wave 2 (Mar-Apr) at 25%, wave 4 (July-Aug at 23%, and wave 3 (May-Jun) at 1%. Delaware has no wave 5 (Sep-Oct) harvest and although the wave 3 (May-Jun) harvest is 1%, that equates to < 100 fish for Delaware.

Maryland Ocean

Fish are caught in wave 2 (Mar-Apr), wave 3 (May-June), wave 4 (Jul-Aug), and wave 6 (Nov-Dec). Total removals peak in wave 6 (Nov-Dec) making up 78% of total removals for Maryland ocean. Harvest in Maryland ocean occurs in wave 6 (Nov-Dec) only with total harvest at ~ 3,000 fish.

Virginia Ocean

Fish are caught in wave 3 (May-Jun) and wave 4 (Jul-Aug) with total removals peaking in wave 4 (Jul-Aug) making up 67% of total removals for Virginia ocean. Total removals are entirely live releases with no harvest occurring in Virginia ocean.

North Carolina

North Carolina only considers striped bass caught in the ocean during waves 1 (Jan-Feb) and 6 (Nov-Dec) to be part of the coastal migratory stock. Total removals peaked in wave 6 (Nov-Dec) making up 70% of wave 1 and 6 ocean removals for North Carolina. Total removals are entirely live releases with no harvest in the ocean during these waves for several years. 2021-2022 live releases were 0.1% of total ocean releases and 2024 releases were zero.

Maryland Chesapeake Bay

Fish are caught e in waves 2 – 6 (Mar-Dec) with total removals peaking in wave 6 (Nov-Dec) making up 29% of total removals for Maryland. Harvest in Maryland is similar across waves 3 – 6 (May-Dec) with peak harvest in wave 3 (May-Jun) at 28% followed by wave 5 (Sep-Oct) at 26%, wave 4 (Jul-Aug) at 25%, and wave 6 (Nov-Dec) at 21%.

Virginia Chesapeake Bay

Fish are caught in waves 2 – 6 (Mar-Dec) with total removals peaking in wave 6 (Nov-Dec) making up 47% of total removals for Virginia. Harvest in Virginia peaks in wave 6 (Nov-Dec) at 58% followed by wave 3 (May-Jun) at 31%, 5 (Sep-Oct) at 7%, and wave 4 (Jul-Aug) at 3%.

Appendix E.
Other Species Analysis and Figures

MRIP data from 2021 through 2024 for both the ocean fishery and Chesapeake Bay fishery were compiled by state and by wave to explore *a)* the top ten species reported as either primary or secondary targets on trips that also targeted striped bass, and *b)* the top ten species caught on trips that also caught striped bass. This section summarizes results for species most commonly targeted/caught with striped bass.

New England: species targeted on trips that also targeted striped bass
In New England, waves 4 (Jul-Aug) and 5 (Sep-Oct) tend to have the highest diversity of species co-targeted with striped bass. In Maine and New Hampshire, a majority of trips targeting striped bass and trips where striped bass are caught, are also targeting/catching bait species. When fishing in the ocean, anglers from Maine and New Hampshire often target groundfish, but will actively look for opportunistic fishing (striped bass and bluefish) if they happen upon them working a school of baitfish. Most anglers supply their own bait and will begin their trip fishing for baitfish. This is why a large proportion of the total catch on trips where striped bass are caught in Maine and New Hampshire is baitfish, mainly Atlantic mackerel and Atlantic menhaden. In Maine and New Hampshire, when bait fish are removed from the analysis, pollock is the majority of non-bait catch.

Aside from baitfish in Maine and New Hampshire, bluefish is the most co-targeted species with striped bass in New England across most waves. Both scup and summer flounder are reported as targeted in Massachusetts through Connecticut, and in higher proportions as you move southward. Black sea bass is reported as targeted with higher proportion in waves 3-5 (May-Oct) in Rhode Island and Connecticut, but only during waves 3 (May-Jun) and 4 (Jul-Aug) in Massachusetts. Rhode Island and Connecticut have similar trends in proportions of reported targeted species, with some notable variation in the proportion of reported targeting of tautog between the waves. Tautog is targeted in relatively small proportion in all waves in Massachusetts.

New England: species caught on trips that also caught striped bass
In New England, waves 2 (Mar-Apr) and 6 (Nov-Dec) generally show minimal amounts of other species caught with striped bass, with most other species being caught consistently during waves 3-5 (May-Oct). Bluefish, black sea bass, summer flounder, and scup are commonly caught from Massachusetts through Rhode Island on trips where striped bass is also caught from waves 3 -5 (May-Oct). During waves 2 – 6 (Mar-Dec) in Massachusetts, Atlantic mackerel, is caught in the highest proportions compared to other species. Atlantic mackerel is not reported south of Rhode Island, with the dominant bait species switching to Atlantic menhaden south of this state.

Mid-Atlantic: species targeted on trips that also targeted striped bass
Overall, there is high variability of reported targeted species throughout the Mid-Atlantic states with some notable overlap occurring between neighboring states. From New York through

Maryland, bluefish remains the dominant species that is reported as targeted on trips that also target striped bass. Bluefish are reported as targeted in all states in all waves, except Maryland which only reports co-targeting in some waves. Summer flounder are reported as targeted in New York through Delaware in relatively large proportions during waves 3-5 (May-Oct), and during wave 2 (Mar-Apr) in New York. Black sea bass are only reported as targeted in notable proportions in New York and New Jersey, although both in relatively low proportion compared to other species. During wave 6 (Nov-Dec) all states have a relatively high proportion of trips targeting tautog, particularly Delaware.

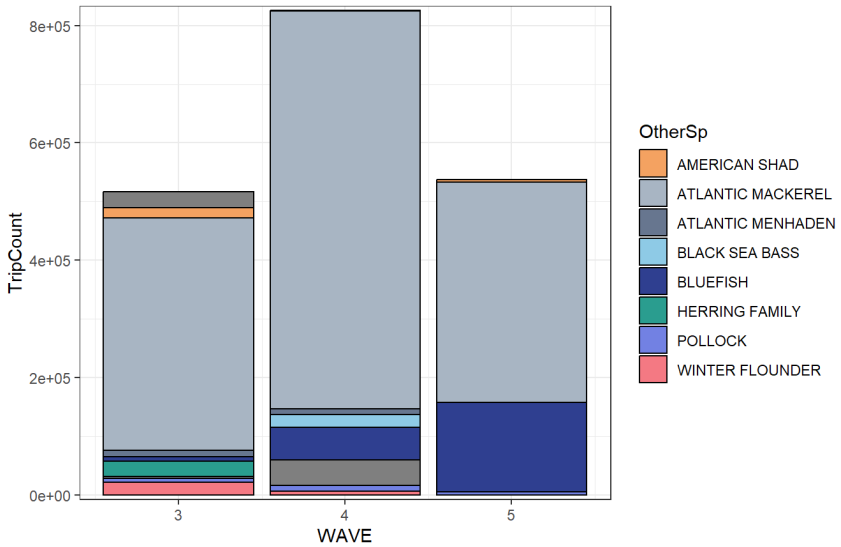
Mid-Atlantic: species caught on trips that also caught striped bass
Bluefish are caught in all the Mid-Atlantic states on trips that also caught striped bass but are not caught during wave 2 (Mar-Apr) until you reach Delaware. New York and New Jersey both have the highest proportion of catch as black sea bass and bluefish through most waves. These states also both have notable catches of summer flounder and tautog in waves 3-6, with the addition of scup in New York and white perch in New Jersey during this timeframe. Summer flounder are caught in small amounts in Delaware, and only during wave 4 (Jul-Aug) in Maryland. Similar to the New England states, there is notable variation in tautog catch between states and waves, however, tautog are caught in all states New York through Delaware during wave 6 (Nov-Dec). White perch are caught during all waves in both New Jersey and Delaware, which may be catch in Delaware Bay.

Chesapeake Bay: species targeted on trips that also targeted striped bass
White perch and red drum are commonly targeted with striped bass in the Chesapeake Bay, with white perch being reported more frequently in Maryland and red drum more frequently in Virginia. Blue catfish are targeted in significant proportion during waves 3-6 (May-Dec) in both states. Spot are targeted in relatively large proportion in Maryland during waves 3-5 (May-Oct), although this is likely the result of being used as bait while fishing for striped bass. Overall, Maryland has more variety of species that are reported as targeted with striped bass in each wave than in Virginia.

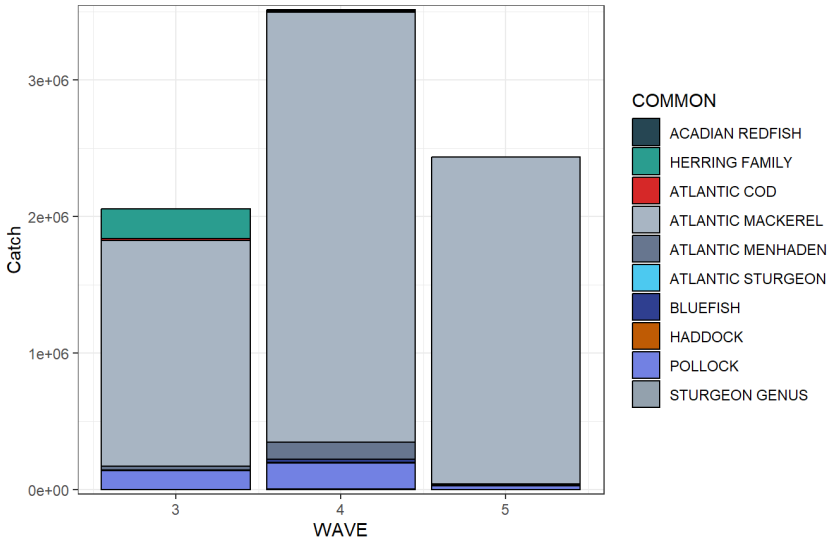
Chesapeake Bay: species caught on trips that also caught striped bass
White perch are caught during all waves in Maryland with particularly high catch during waves 3 -5 (May-Oct). Virginia had white perch reported for waves 2 -6 (Mar-Dec), but at much lower proportions than what was seen in Maryland. Blue catfish were caught, but at relatively low proportions in both states for all waves except wave 2 (Mar-Apr) in Virginia. Atlantic croaker made up a large proportion of total catch in Virginia for waves 3 (May-Jun) and 4 (July-Aug). Spotted sea trout were caught in small proportions in Maryland during waves 4 (Jul-Aug) and 5 (Sep-Oct) but it was caught during all waves in Virginia with the highest proportion during waves 5 (Sep-Oct) and 6 (Nov-Dec). Red drum catch was low in Maryland, but increased in Virginia from waves 3 – 6 (May-Dec). In both Maryland and Virginia, waves 3 -5 (May-Oct) show greater diversity in total catch than compared to waves 2 (Mar-Apr) and 6 (Nov-Dec).

Maine

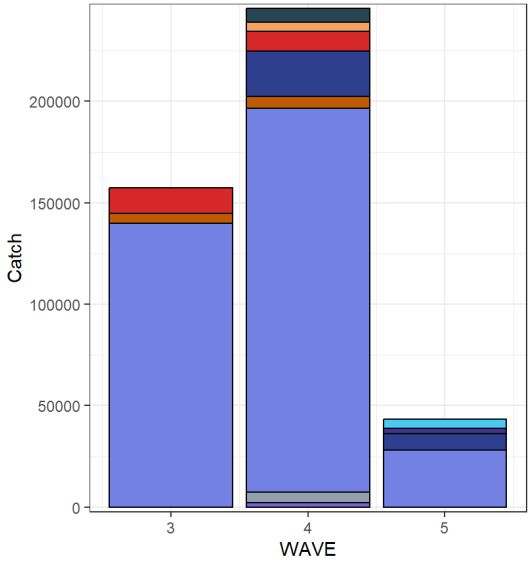
Top 10 Species Targeted with Striped Bass by Wave (2021-2024): ME



Top 10 Species Caught (Total Catch) with Striped Bass by Wave (2021-2024): ME

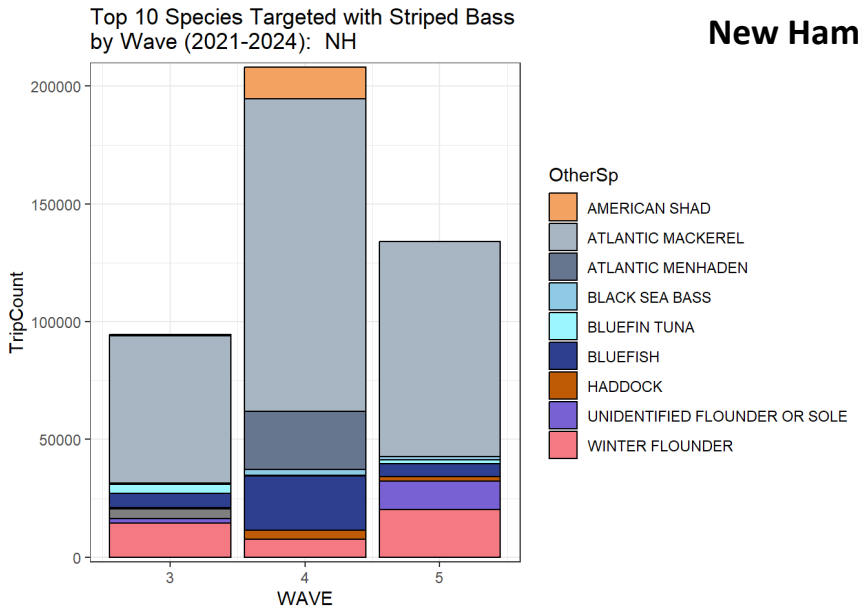


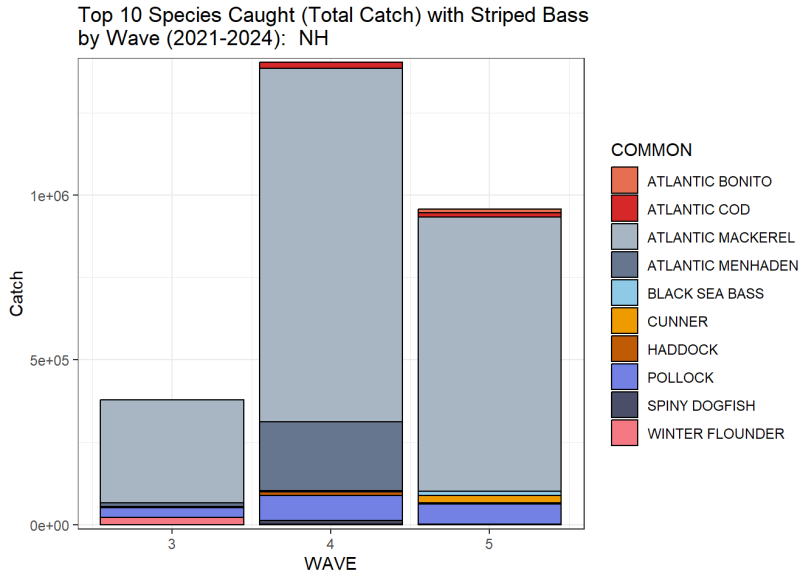
Top 10 Species Caught (Total Catch) with Striped Bass by Wave (2021-2024): ME

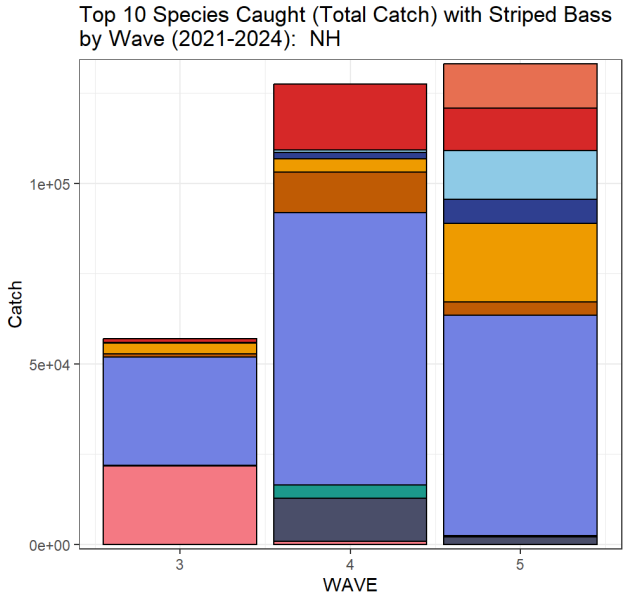


Bait species removed from this bottom catch figure for reference

New Hampshire







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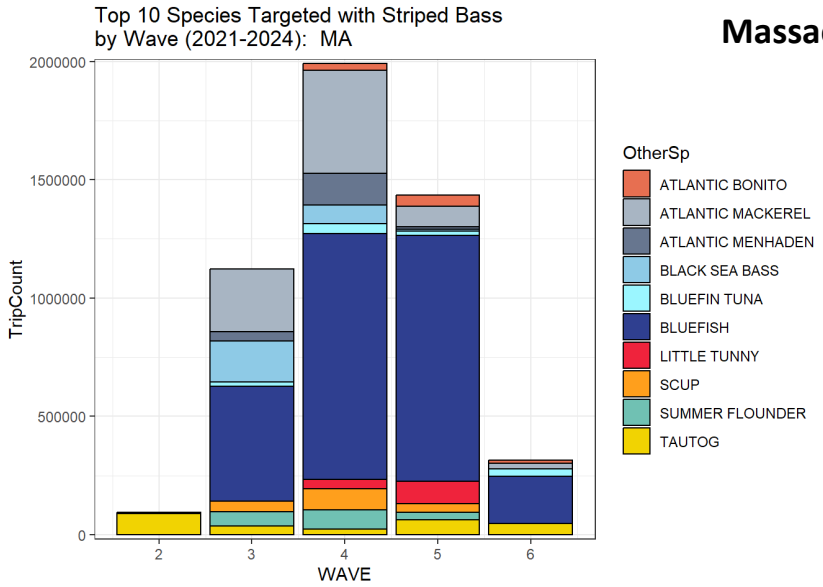
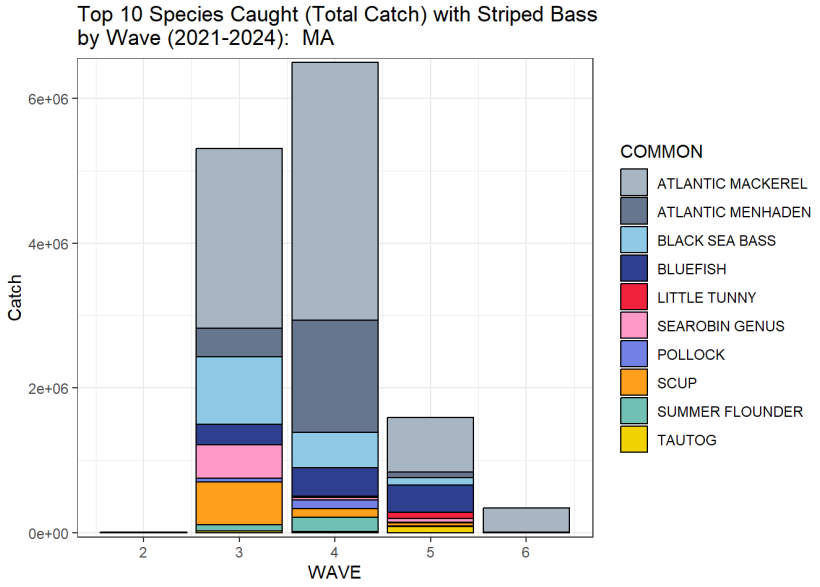
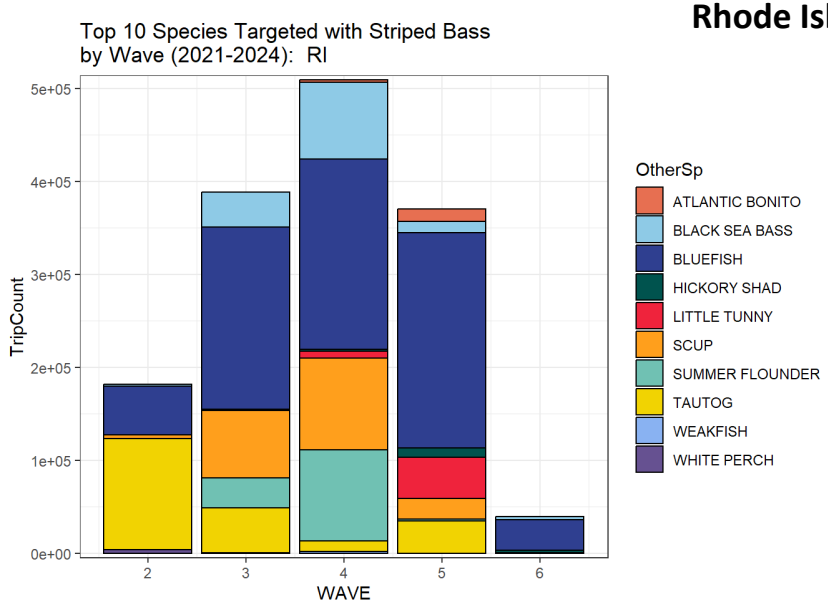
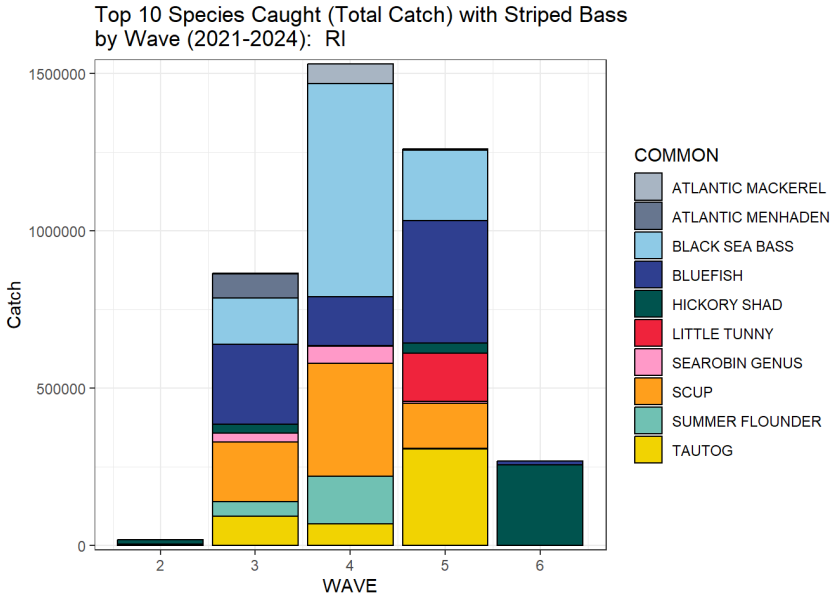
Massachusetts



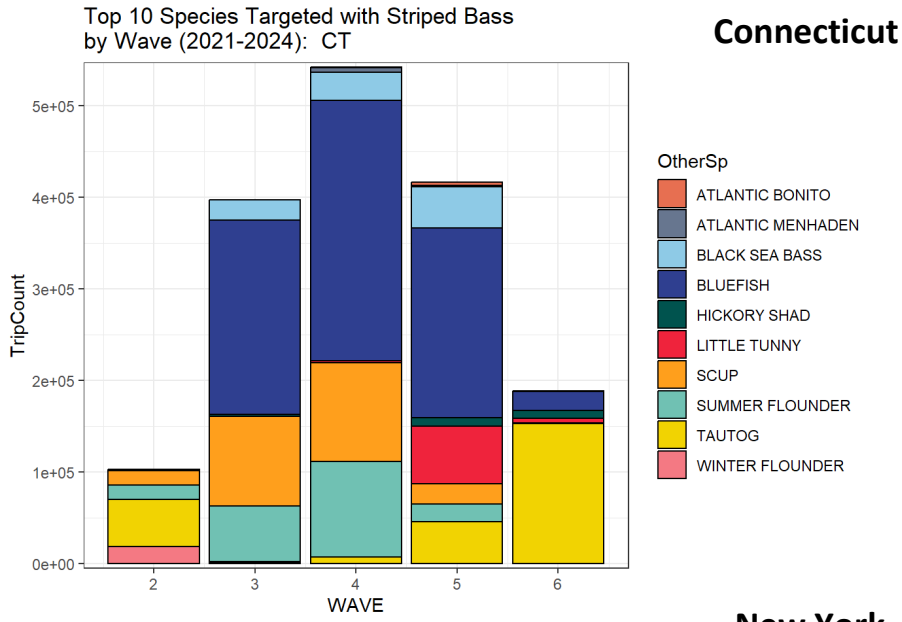


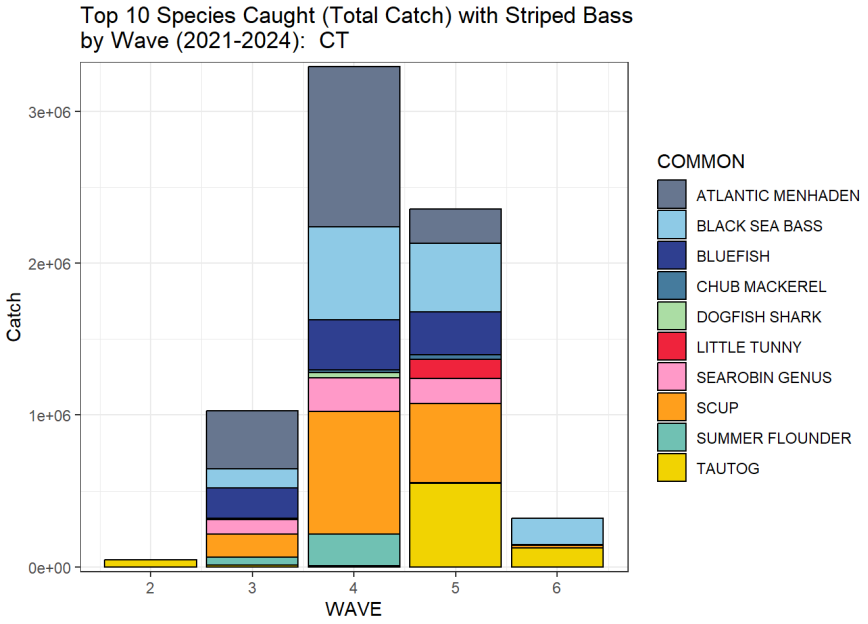
Rhode Island



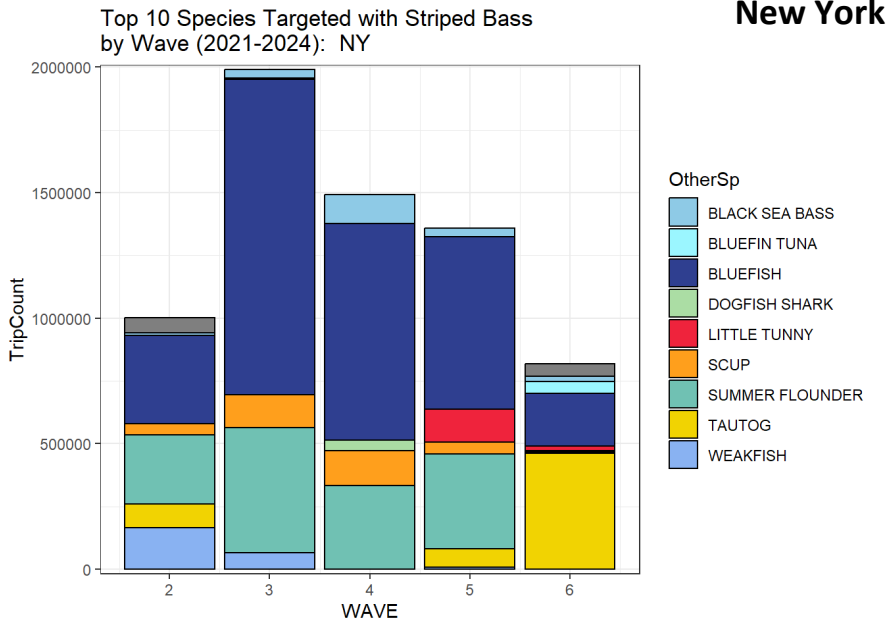


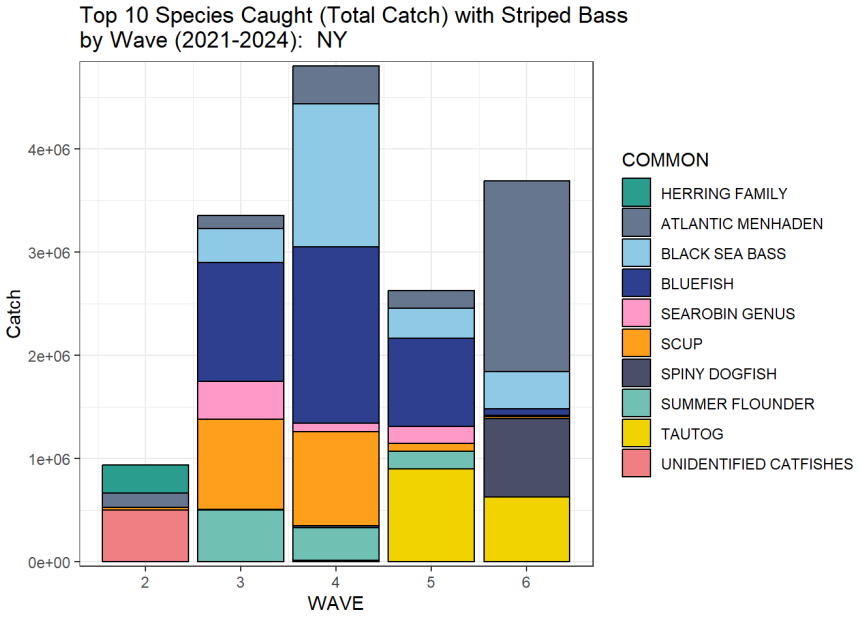
Connecticut





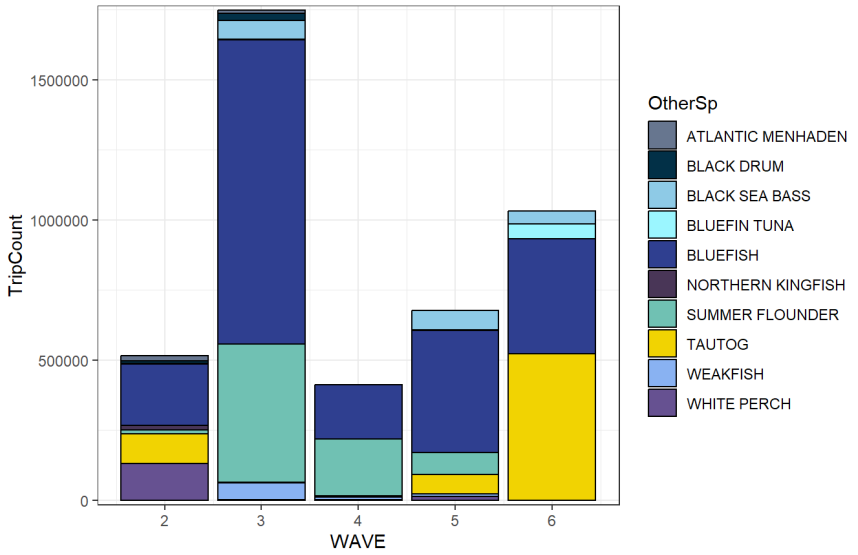
New York



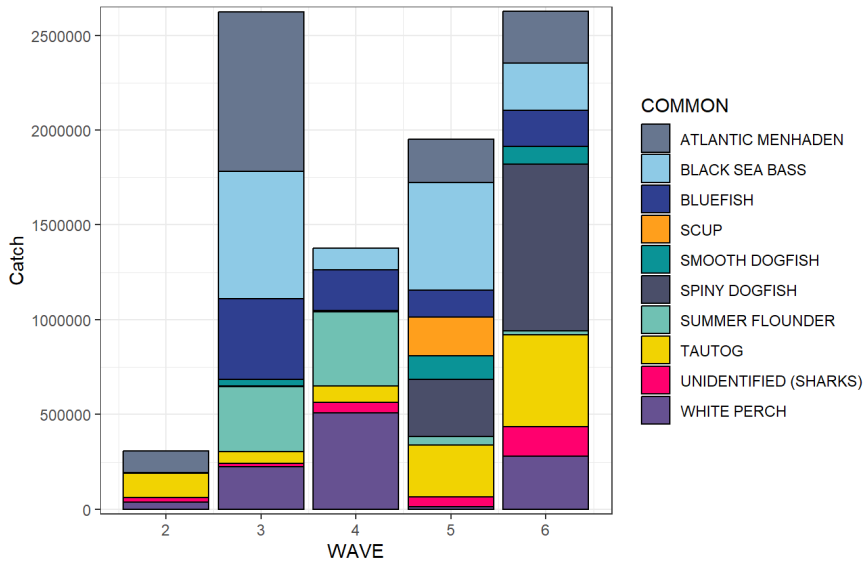


New Jersey

Top 10 Species Targeted with Striped Bass by Wave (2021-2024): NJ

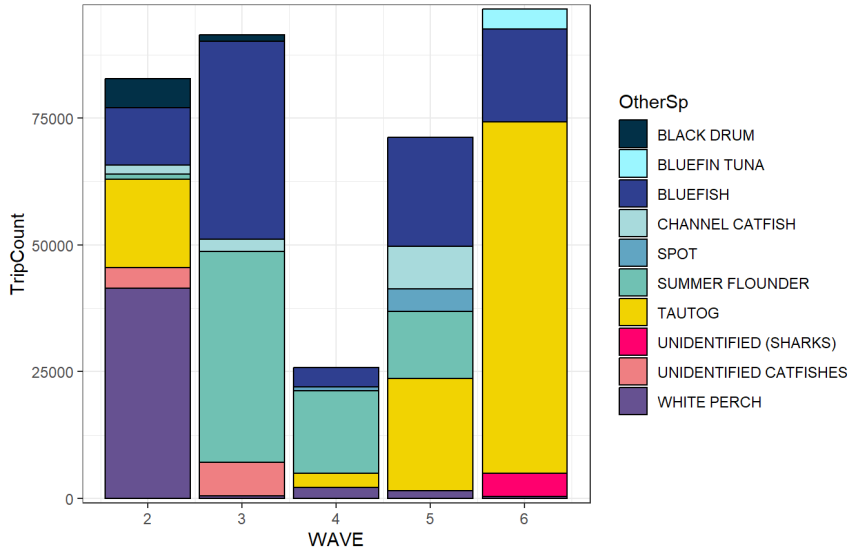


Top 10 Species Caught (Total Catch) with Striped Bass by Wave (2021-2024): NJ

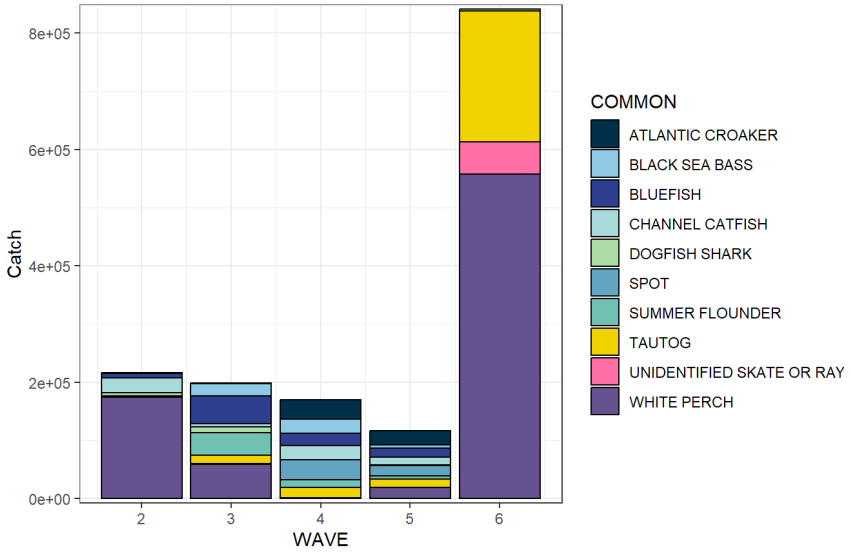


Delaware

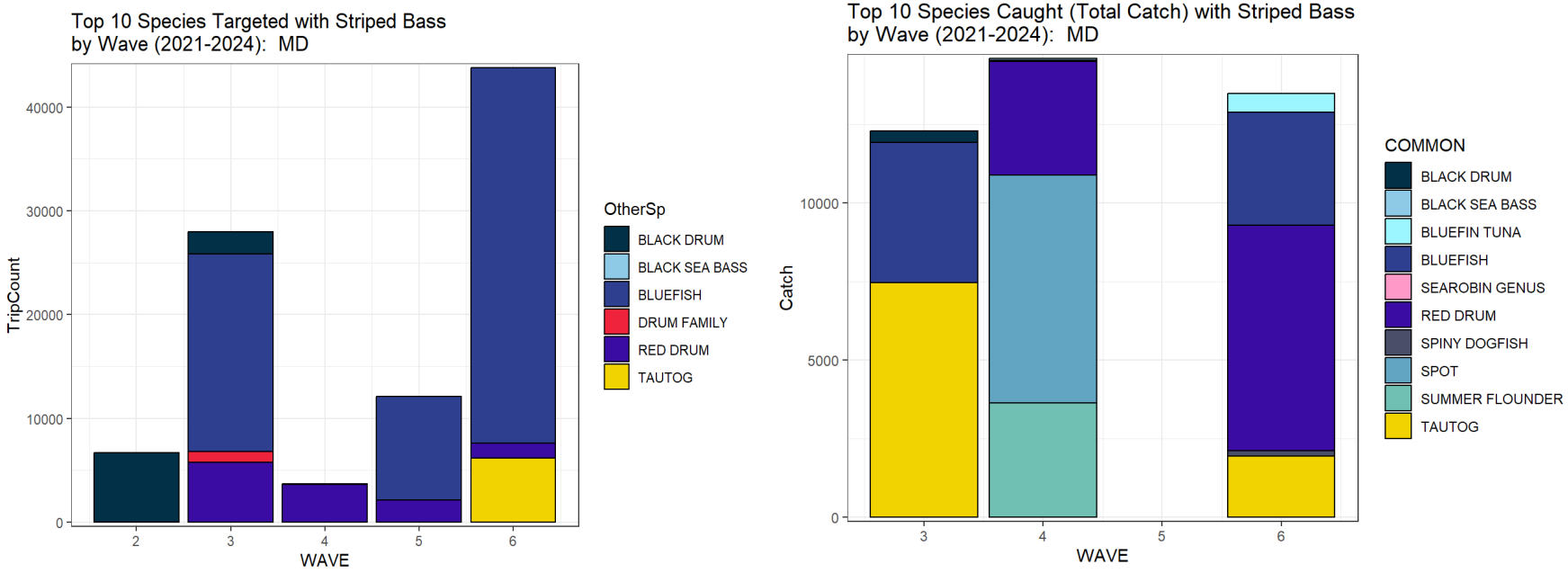
Top 10 Species Targeted with Striped Bass by Wave (2021-2024): DE



Top 10 Species Caught (Total Catch) with Striped Bass by Wave (2021-2024): DE

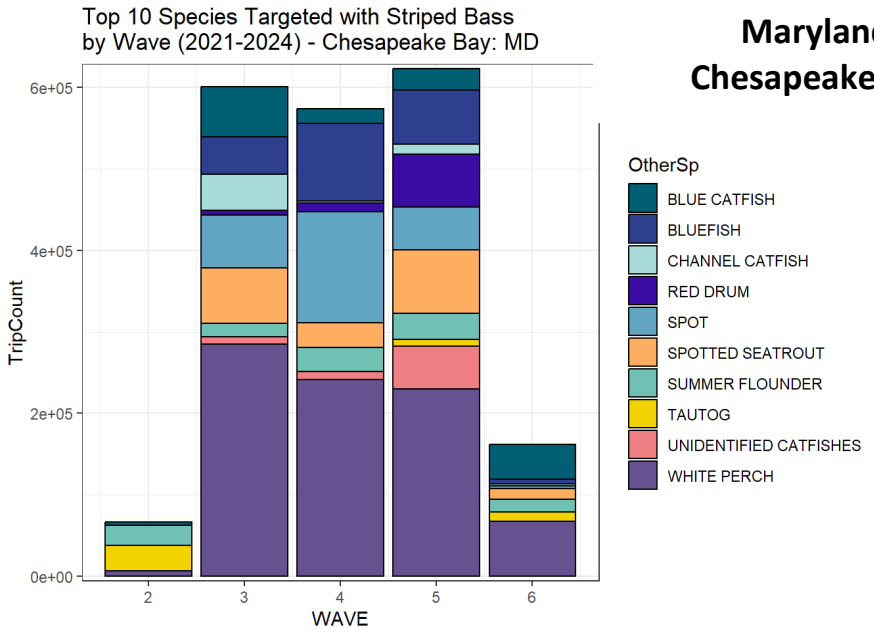


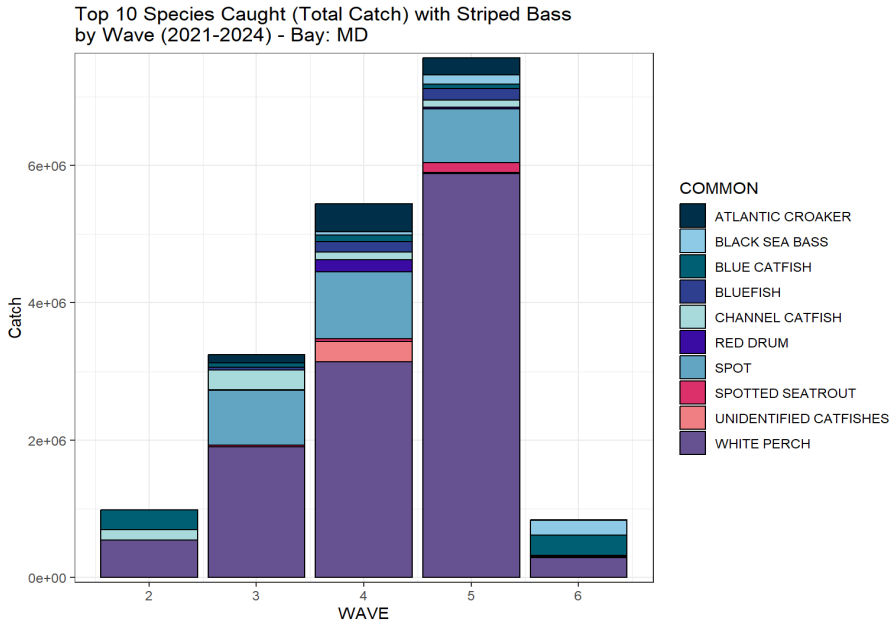
Maryland Ocean



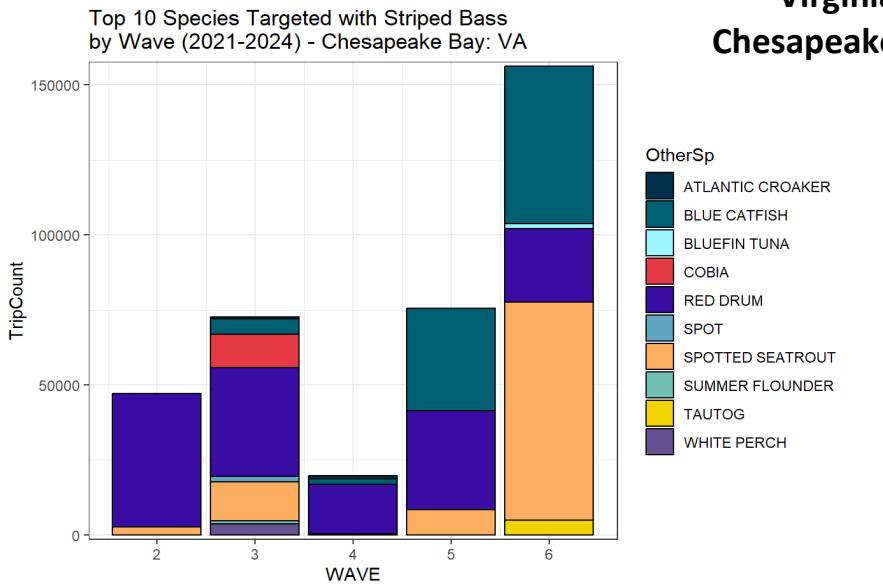
No figures available for Virginia ocean or North Carolina ocean due to limited data.

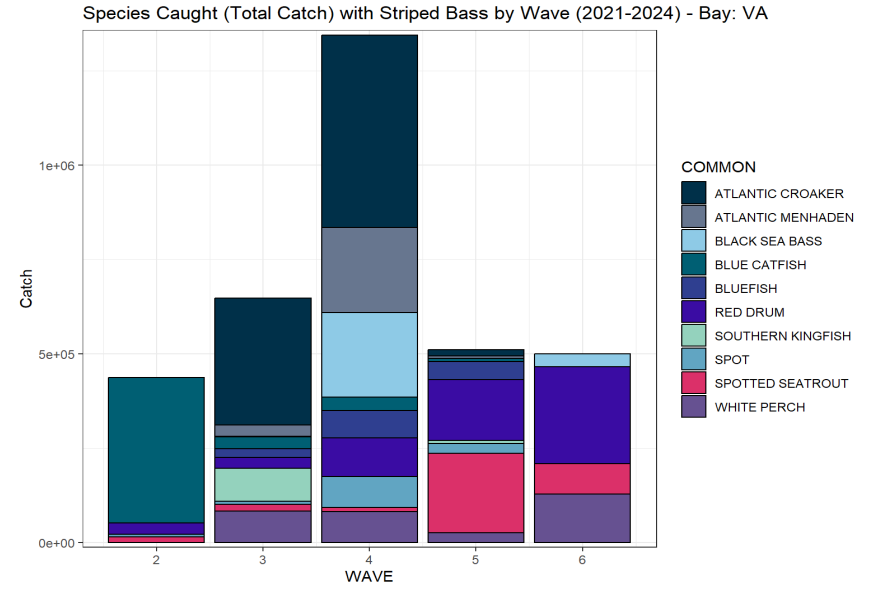
Maryland Chesapeake Bay





Virginia Chesapeake Bay





Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Atlantic Striped Bass Management Board**

FROM: **Atlantic Striped Bass Plan Development Team**

DATE: **April 22, 2025**

SUBJECT: **Draft Addendum III Topics for Board Discussion and PDT Supporting Information**

This memorandum outlines additional information from the Plan Development Team for the Board's May 2025 discussion on Draft Addendum III. The PDT notes issues for Board discussion regarding seasonal closure and commercial tagging options; provides rationale for some options that were excluded from the document; and notes possible additional options the Board may discuss.

Seasonal Closure Issues for Board Discussion

First, the Board should discuss whether the draft addendum should include options for seasonal closures less than 14 days, or whether those options should be listed as 14 days. The Technical Committee (TC) has previously noted season closures less than two weeks in duration are unlikely to be effective due to concerns of effort shifting as well as the calculations which assume the average reductions from both weekends and weekdays. Therefore, for example, if a closure option is estimated to achieve the 7% reduction with a 10-day closure, should the document indicate the option is a 10-day closure or a 14-day closure?

Second, the Board should discuss the timing of seasonal closure options for New York. New York is one of only two ocean states with state-wide ocean closures during the year. Virginia also has an ocean closure (during March and part of April), but Virginia has had zero ocean harvest and very few releases the past several years, therefore Virginia's current closure has minimal impact on the seasonal closure analysis. New York's ocean fishery is open from April 15 through December 15 with catch-and-release fishing allowed while the season is closed. This means New York is open for harvest for 16 of 61 days during Wave 2 (Mar-Apr) and 45 of 61 days in Wave 6 (Nov-Dec). New York's Hudson River season is open two weeks earlier, from April 1 through November 30.

The ocean season closure analysis for Draft Addendum III assumes a constant daily harvest rate for the ocean across the entire Wave. In reality, daily harvest is not constant and varies depending on type of day (weekend, weekday, holiday) and can vary if fish are more available during one part of a Wave (e.g., fish may be more available near the end of Wave 2 vs. early in Wave 2). For New York, this constant daily harvest rate assumption means that the closure analysis slightly overestimates fish saved per day for the Mid-Atlantic region if a Wave 2 or 6 closure is implemented when New York is already closed (i.e., NY not actually reducing harvest when already closed) and slightly underestimates fish saved per day if a Wave 2 or 6 closure is implemented during New York's open period (i.e., NY would be reducing more harvest per day in reality than is assumed in the analysis). Since New York is already closed for most of Wave 2, any new harvest closure during New York's current open window of April 15-30 will impact a larger portion of New York's Wave 2 fishery as compared to the same closure impacting a smaller portion of other states' Wave 2 fisheries. Any new harvest closure in Wave 6 during New York's

current open window of November 1-December 15 would also impact a larger portion of New York's fishery as compared to other states, but it would have a lesser impact than Wave 2.

The Board should discuss how Wave 2 or Wave 6 season closures would apply to New York. Would New York need to implement the new required closure days during their current open period, which may result in differing closure dates for New York compared to the other states in that region? For example, if a 14-day closure is required during Wave 6 and the other Mid-Atlantic states close from December 18-31, would New York implement the 14-day closure starting December 2 (i.e., shift their current first day of closure, December 16, back 14 days)? For any Wave 2 closure in the Mid-Atlantic, would New York only close for a maximum of 16 days, which would eliminate its Wave 2 fishery? From an enforcement perspective, NY's existing closure already contributes to different season dates between neighboring states.

Third, the Board should discuss the timing of seasonal closure options for North Carolina. North Carolina only considers striped bass caught in the ocean during Wave 1 and Wave 6 (Jan-Feb and Nov-Dec) to be part of the coastal migratory stock. North Carolina ocean catch in Waves 1 and 6 has been very low, with no harvest since 2011 and very low release estimates for five of the last thirteen years (the other year eight years' estimates were 0 releases). For Draft Addendum III, the Board should consider if North Carolina should align its closure with the Mid-Atlantic region, even if the closure is not during Wave 1 or Wave 6 when coastal migratory striped bass may be available, or if North Carolina should implement the same-length closure during Wave 1 or Wave 6 and potentially differ from the other Mid-Atlantic states.

Commercial Tagging Issues for Board Discussion

The FMP's current commercial tagging requirements do not define "point of harvest" (i.e., immediately upon possession or within specific parameters outlined by various state regulations). At least one state currently specifies tagging at the point of landing (i.e., before landing or putting on shore) as compared to tagging at point of harvest due to safety concerns raised by industry. For the option that would require tagging at the point of harvest, the Board should consider whether the intent of this option is to allow tagging at point of landing or just at point of harvest. The Board should be as specific as possible. For example, if the Board wanted to include point of landing for consideration, the Tautog FMP allows tagging at either point of harvest or point of landing and specifies: *"All commercially caught tautog will be tagged by the commercially-permitted harvester at the time of harvest or prior to offloading."*

Excluded Option: Delaware through North Carolina as Separate Region

The Board requested the PDT consider whether Delaware through North Carolina should be a separate region from the Mid-Atlantic states (New Jersey north to Connecticut or Rhode Island). The season analysis was conducted for this three-region split with DE-NC as its own region. The season analysis excludes NC data since no other states have wave 1 sampling and there has been zero ocean harvest and very few releases that only occur during wave 6 of the analysis. The primary issue for this separate region is limited data. Fishery activity in the ocean has been relatively low in these states so catch and effort are very low. There are very few options for this region alone to achieve a 7% reduction since harvest is so low and fishery activity is sporadic. Additionally, the PSEs for this region are higher than PSEs for the other regions. The PDT decided the best approach is to combine Delaware through North Carolina with the other Mid-Atlantic states, and to consider dual Wave closure options for the large Mid-Atlantic region to address equity concerns (i.e., if states close for X days during Wave A and X days during Wave B, all states would be impacted by at least one of those closures).

Excluded Option: Days Off Per Week for Mode Splits

Following the February 2025 Board meeting, Board members provided guidance to the PDT about what type of recreational mode split options would be of interest to stakeholders. The guidance included a request to explore an option that considered implementing seasonal closures in the for-hire fishery using a "days off per week" approach instead of closing for consecutive days (e.g., close every Monday for X weeks, instead of closing for X consecutive days). One primary concern about this approach is how any reduction would be quantified given the current analysis averages the reductions achieved over weekdays vs. weekends and holidays. There is also concern that for-hire boats could simply shift effort to other days of the week which could result in a limited reduction. There may still be some reduction but it would be difficult to quantify and the PDT would need to explore what assumptions to make for any such analysis. If the day off is on a weekday, the realized reduction could end up less than estimated. This approach would also not align with the TC guidance that season closures less than two weeks in duration are unlikely to be effective.

The PDT also discussed equity considerations for a "days off per week" approach. Impacts on part-time and full-time for-hire businesses could differ. Part-time charters may have the flexibility to shift trips around a "days off per week" closure and still book the same number of trips in a Wave. A full-time business which operates 7 days per week would not have the same flexibility and therefore could experience a greater impact from the closure. However, the PDT did note that a "days off per week" closure could help address equity issues between states since the days off would span an entire Wave and likely span multiple Waves in a region. Therefore, this could potentially have a more even impact across states due to varying regional fish availability as compared to selecting one finite time period for a closure.

Potential Additional Option: Modified Maryland Season Closure Options for New Season Baseline

If the Board adds an option to Draft Addendum III for a new recreational season baseline for Maryland Chesapeake Bay, a new set of closure options for Maryland Chesapeake Bay would be added to reflect the baseline proposal. The season closure analysis is based on the proportion of harvest and releases occurring during each Wave and takes into the account the number of days currently open in each Wave for Maryland and Virginia Chesapeake Bay. A new season baseline for Maryland would change the baseline proportion of expected harvest and releases in each Wave due to shorter closures in some Waves and longer closures in others as the starting point before any new closure days are added.

Potential Additional Option: 10% Reduction

Projection scenarios indicate a 1% and 7% reduction in 2026 total removals are required to achieve *F_rebuild* 50% and *F_rebuild* 60% in 2026, respectively. The TC notes the outcome of management changes designed to achieve small changes (i.e., reductions or liberalizations of less than 10%) would be difficult to measure given the uncertainty in the MRIP estimates. Total removals are not known within 10%, so a reduction of less than 10% would not be statistically distinguishable from no reduction at all (i.e., status quo measures). In addition, the effectiveness of measures estimated to achieve a small percent reduction on paper for the recreational fishery would be overwhelmed by uncertainty in the reduction calculations themselves, including uncertainty around fish availability, effort, and angler behavior.

Because none of the options in the Draft addendum align with guidance from the Technical Committee on the magnitude of reductions, enclosed is an outline of management options to achieve a 10% reduction in fishery removals. **The PDT is not making a recommendation on whether to include these 10% reduction options but is providing the information for completeness recognizing the TC guidance.**

Option Outline for a 10% Coastwide Reduction

Even Sector Reductions: Commercial -10% and Recreational -10%
Under each option, commercial quotas would be reduced by 10%. The following table specifies recreational measures designed to achieve a 10% reduction via changes to size limits and/or season closures.

Ocean Recreational Fishery for 10% Recreational Reduction				
	Modes	**Size Limit**	**Season Closure Needed**	**Closure Table**
	All	28" to 31" slot *[0%]*	-10%	Enclosed
	Split For-Hire Exemption	PS: 28" to 31" slot FH: 28" to 33" slot *[+1%]*	-11%	TBD
	Split Separate Equal Mode Reductions	PS: 28" to 31" slot *[0%]*	PS: -10%	TBD
		FH: 28" to 32" slot *[+12%]*	FH: -20%	TBD
	Split Separate Equal Mode Reductions	PS: 28" to 31" slot *[0%]*	PS: -10%	TBD
		FH: 28" to 33" slot *[+28%]*	FH: -30%	TBD
Chesapeake Bay Fishery for 10% Recreational Reduction				
	Modes	**Size Limit**	**Season Closure Needed**	**Closure Table**
	All	19" to 22" slot *[-15%]*	Status Quo	NA
	All	22" minimum size *[-10%]*	Status Quo	NA
	All	19" to 24" slot [0%]	-10%	Enclosed
	Split For-Hire Exemption	PS: 19" to 22" slot FH: 19" to 24" slot *[-14%]*	Status Quo	NA
	Split For-Hire Exemption	PS: 19" to 24" slot FH: 19" to 25" slot *[+1%]*	-11%	TBD
	Split Separate Equal Mode Reductions	PS: 19" to 24" slot *[0%]*	PS: -10%	TBD
		FH: 19" to 25" slot *[+13%]*	FH: -20%	TBD

No Commercial Reduction: Commercial -0% and Recreational -11%
Under each option, commercial quotas would not take a reduction. The following table specifies recreational measures designed to achieve an 11% reduction via changes to size limits and/or season closures.

Reductions based on Sector Contribution to Total Removals: Commercial -1.1% and Recreational -11%
Under each option, commercial quotas would be reduced by 1.1%. The following table specifies recreational measures designed to achieve an 11% reduction via changes to size limits and/or season closures.

Ocean Recreational Fishery for 11% Recreational Reduction				
	Modes	**Size Limit**	**Season Closure Needed**	**Closure Table**
	All	28" to 31" slot *[0%]*	-11%	TBD
	Split For-Hire Exemption	PS: 28" to 31" slot FH: 28" to 33" slot *[+1%]*	-12%	TBD
	Split Separate Equal Mode Reductions	PS: 28" to 31" slot *[0%]*	PS: -11%	TBD
		FH: 28" to 32" slot *[+12%]*	FH: -21%	TBD
	Split Separate Equal Mode Reductions	PS: 28" to 31" slot *[0%]*	PS: -11%	TBD
		FH: 28" to 33" slot *[+28%]*	FH: -31%	TBD
Chesapeake Bay Recreational Fishery for 11% Recreational Reduction				
		Size Limit	**Season Closure Needed**	**Closure Table**
	All	19" to 22" slot *[-15%]*	Status Quo	NA
	All	23" minimum size *[-19%]*	Status Quo	NA
	All	19" to 24" slot *[0%]*	-11%	TBD
	Split For-Hire Exemption	PS: 19" to 22" slot FH: 19" to 24" slot *[-14%]*	Status Quo	NA
	Split For-Hire Exemption	PS: 19" to 24" slot FH: 19" to 25" slot *[+1%]*	-12%	TBD
	Split Separate Equal Mode Reductions	PS: 19" to 24" slot *[0%]*	PS: -11%	TBD
		FH: 19" to 25" slot *[+13%]*	FH: -21%	TBD

Commercial quotas (pounds of fish) for the 10% reduction options. Status quo reflects current Addendum II commercial quotas.

State/Region	Status Quo & No Reduction	-10% Reduction	-1.1% Reduction
Ocean Commercial Quotas			
Maine	143	129	141
New Hampshire	3,289	2,960	3,253
Massachusetts	683,773	615,396	676,251
Rhode Island	138,467	124,620	136,944
Connecticut	13,585	12,227	13,436
New York	595,868	536,281	589,313
New Jersey	200,798	180,718	198,589
Delaware	132,501	119,251	131,043
Maryland	82,857	74,571	81,946
Virginia	116,282	104,654	115,003
North Carolina	274,810	247,329	271,787
Ocean Total	2,242,373	2,018,136	2,217,707
Chesapeake Bay Commercial Quota			
Chesapeake Bay Total	2,791,533	2,512,379	2,760,825

Season Closure Tables

The season closure table for the Even Sector Reduction option for all modes requiring a 10% reduction via seasonal closure is included here for context. If the Board adds the coastwide 10% reduction option to the draft addendum, the tables for the mode split options and tables for the -0% Commercial Reduction/-11% Recreational Reduction Option and the -1.1% Commercial Reduction/-11% Recreational Reduction Option will be added.

Recreational season closures to achieve a 10% or 11% reduction in recreational removals will be longer than the options listed in the draft addendum document for a 7% or 8% reduction.

Note in the Chesapeake Bay, PRFC and DC can each choose whether to implement their closure during the same wave as Maryland or the same wave as Virginia. Although complete alignment among the four Bay jurisdictions is difficult given the current differences in seasons, the Bay jurisdictions should coordinate to align seasons as much as possible. Chesapeake Bay jurisdictions should consider whether new closures could be added to existing closures and whether the type of existing closure (no-targeting vs. no-harvest) should be consistent in a wave.

All closures are in number of days. ^ indicates closing the entire wave will not achieve the reduction.

Closures for -10% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
All Ocean	Wave 3 & Wave 6	13	18	26
ME-MA	Wave 3	25	58	61^
ME-MA	Wave 4	18	32	33
ME-MA	Wave 5	29	43	61^
RI-NC	Wave 2	25	29	61
RI-NC	Wave 3	42	50	61^
RI-NC	Wave 4	62^	62^	62^
RI-NC	Wave 5	53	61^	61^
RI-NC	Wave 6	16	21	31
RI-NC	Wave 2 & Wave 3	16	19	32
RI-NC	Wave 2 & Wave 4	21	25	45
RI-NC	Wave 2 & Wave 5	17	21	37
RI-NC	Wave 3 & Wave 6	12	15	22
RI-NC	Wave 4 & Wave 6	14	18	27
ME-RI	Wave 3	24	44	61^
ME-RI	Wave 4	19	33	36
ME-RI	Wave 5	29	40	61^
CT-NC	Wave 2	24	28	58
CT-NC	Wave 3	45	54	61^
CT-NC	Wave 4	62^	62^	62^
CT-NC	Wave 5	56	61^	61^
CT-NC	Wave 6	15	20	29
CT-NC	Wave 2 & Wave 3	16	19	32
CT-NC	Wave 2 & Wave 4	20	24	45
CT-NC	Wave 2 & Wave 5	17	21	36
CT-NC	Wave 3 & Wave 6	11	15	21
CT-NC	Wave 4 & Wave 6	13	18	26

Closures for -10% Reduction for All Modes				
Region	**Waves**	**No Target (SB only trips eliminated)**	**No Target (SB trips switch targets)**	**No Harvest**
MD Bay	Wave 3	25	30	34
MD Bay	Wave 4	24	28	31
MD Bay	Wave 5	27	31	40
MD Bay	Wave 6	20	21	33
VA Bay	Wave 3	14	14	17
VA Bay	Wave 4	Already closed all of Wave 4		
VA Bay	Wave 5	28^	28^	28^
VA Bay	Wave 6	12	14	19

From: G2W2
To: Emilie Franke
Subject: FW: Striped Bass
Date: Thursday, February 6, 2025 4:35:25 PM

From: Gerard C Addonizio <gaddoniz@med.cornell.edu>
Sent: Thursday, February 6, 2025 1:32 PM
To: G2W2 <G2W2@asmfc.org>
Subject: [External] Striped Bass

To ASMFC: As someone who has fished recreationally on Cape Cod for striped bass and bluefish, I am shocked by your option of "no targeting of striped bass". I have spoken to many recreational anglers and the response has been the same. If there is "no targeting" of striped bass, they will continue to fish for bluefish which, as you know, have very similar fishing seasons and are caught using the same lures that attract striped bass. Therefore, the "no targeting" option is useless and should be discarded. Realistically you have two options: 1) less or no harvesting of striped bass 2) periods of time where there is no fishing at all. The latter option would be painful for recreational and commercial fishermen but at least this option could be enforced and would avoid the "make believe" no targeting fantasy. Thank you for listening. Gerard Addonizio

From:	Comments
To:	Emilie Franke
Subject:	FW: [External] Atlantic Stiped Bass
Date:	Monday, February 24, 2025 10:49:59 AM

From: John Giannini <johngiannini72@gmail.com>
Sent: Sunday, February 23, 2025 3:24 PM
To: Comments <comments@asmfc.org>
Subject: [External] Atlantic Stiped Bass

Gentlemen:
I would like to offer my thoughts on the situation with Striped Bass stocks and the proposed amendments to fishing regulations that are being considered. I have been fishing recreationally for striped bass for almost 50 years and have seen both good years and bad and am not in favor of any closure to recreational fishing. I recognize that stocks are in trouble, but I think any closure would be detrimental to the fishery and disastrous for hundreds of businesses that depend on revenue derived from this great sport. The effects on Tackle shops, sporting goods stores, marinas, charter boats and businesses down stream such as tackle manufacturers, hotels, restaurants etc. could be disastrous. Instead of addressing just one facet of the problem (recreational fishing) I suggest a more comprehensive approach to give the species the best chance of reproducing and thriving:

1. Do away with the bonus tag program and make adjustments as required to the size limits so that the appropriate year classes are protected.
2. Strengthen regulations on commercial exploitation of atlantic menhaden and other forage species. I personally have seen bunker boats setting their nets within site of the beach. .
3. Water quality: Strengthen regulations on discharges and pollution of key watersheds such as the Hudson, the Delaware and the Chesapeake Bay where striped bass spawn so that spawning is more successful and fish fry have a better chance at survival.

I think that only by addressing all of the problems that the fishery faces will we be able to successfully increase the population of this great fish. I also believe that all players in the game must make contributions to the solution rather than saddling one group with all of the pain in order to get the desired result.

Thank you for your time. Feel free to contact me by return email if you have any questions.

Respectfully,

John P. Giannini, P.E.

From: Info (ASMFC)
To: Emilie Franke
Subject: FW: [External] New website contact submission from Contact Us
Date: Tuesday, March 11, 2025 10:43:50 AM

From: info@asmfc.org <info@asmfc.org>
Sent: Thursday, March 6, 2025 3:41 PM
To: Info (ASMFC) <info@ASMFC.ORG>
Subject: [External] New website contact submission from Contact Us

Name
Charlie Labar
Email
lunchbox1157@gmail.com
Comments
I have a serious question, amfc is supposed to be protecting the striper population , so you restrict anglers to 28 to 31 inch fish @1 fish per day , buy new york party boats sell excess fish caught by anglers , really , are you dumb or just plain stupid, this is the most retarded abuse of power, I hope new york boat capt are paying you people well under the table , my email is lunchbox1157@gmail.com if you have and questions about my statement

From: Earl Granderath
To: Comments
Subject: [External] Stripes
Date: Tuesday, April 22, 2025 1:27:31 PM

Stop the before George Washington bridge foolish harvest. That's where your spawning fish are getting decimated

Atlantic States Marine Fisheries Commission

Executive Committee

May 7, 2025
8:00 – 10:00 a.m.

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.

A portion of this meeting will be a closed session for Committee members and Commissioners only.

1. Welcome/Call to Order *(J. Cimino)*

2. Board Consent
   - Approval of Agenda
   - Approval of Meeting Summary from February 2025

3. Public Comment

4. Report of the Administrative Oversight Committee **Final Approval** (*D. McKiernan*)
   - Review and Consider Approval of FY26 Budget

5. Legislative Update (A. Law)

6. Review Discussion Paper on Declared Interests and Voting Privileges - Issues 1 & 2 (*R. Beal)*

7. Future Annual Meetings Update (*L. Leach*)
   - October 26 – 30, 2025 – Dewey Beach, Delaware
   - 2026 – Rhode Island
   - 2027 – South Carolina
   - 2028 – Massachusetts
   - 2029 – Pennsylvania
   - 2030 – Georgia

8. Other Business

9. ***Closed Session***
   - Litigation Update (*R. Beal*)
   - Update on CARES Act Repayment Progress (*R. Beal*)
   - Conduct Executive Director Performance Review

10. Adjourn

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 Westin Crystal City
Arlington, Virginia
February 5, 2025

For Review and Action by the Executive Committee May 5, 2025

INDEX OF MOTIONS

1. Approval of Agenda by Consent (Page 1)

2. For meetings where the whole of a state delegation cannot attend an in-person meeting for reasons beyond their control, the delegation may request the postponement of a particular action for consideration at the next meeting.
   Motion made by Mr. Haymans and seconded by Mr. Dyar. Motion substituted.

   Motion to Substitute
   Move to substitute, for meetings where the whole of a state delegation cannot attend in person a meeting for reasons beyond their control, the delegation may request to the Executive Director, Commission Chair, and Board Chair, for a postponement of a particular action for consideration at the next scheduled regular meeting or out of cycle meeting.
   Motion made by Mr. Keliher and seconded by Mr. Abbott. Motion passes by unanimous consent.

   Main Motion as Substituted
   Move for meetings where the whole of a state delegation cannot attend in person a meeting for reasons beyond their control, the delegation may request to the executive director, commission chair, and board chair, for a postponement of a particular action for consideration at the next scheduled regular meeting or out of cycle meeting. Motion passes by unanimous consent. (Page 1)

ATTENDANCE

Committee Members

Pat Keliher, ME
Cheri Patterson, NH
Dennis Abbott, NH (LA Chair)
Dan McKiernan, MA, Vice Chair
Jason McNamee, RI
Justin Davis, CT
Marty Gary, NY
Joe Cimino, NJ, Chair
Kris Kuhn, PA
Roy Miller, DE (GA Chair)
John Clark, DE
Lynn Fegley, MD
Jamie Green, VA
Chris Batsavage, proxy for Kathy Rawls, NC
Ben Dyar, SC
Doug Haymans, GA
Erika Burgess, FL

Other Commissioners/Proxies

Pat Geer, VMRC AA proxy
Jim Gilmore, NY
Allison Hepler, ME LA
Gary Jennings, FL GA
Ray Kane, MA GA
Robert LaFrance, CT GA Proxy
John Maniscalco, NY DEC
Nichola Meserve, MA DMF
Marina Owens, FFWC
Eric Reid, RI LA proxy
Dave Sikorski, MD LA proxy
Megan Ware, ME DMR
Renee Zobel, NH F&G

Staff

Bob Beal
Alexander Law
Laura Leach
Madeline Musante
Tina Berger

Guests

Margaret Conroy, DEDNREC
Chip Lynch, NOAA
Brian McManus, FFWC
Allison Murphy, NMFS
Ronald Owens, PRFC
Will Poston, ASGA

CALL TO ORDER

The Executive Committee of the Atlantic States Marine Fisheries Commission convened February 5, 2025 in the Jefferson Ballroom at The Westin in Crystal City, Virginia. The meeting was called to order at 8:00 a.m. by Chair Joe Cimino.

APPROVAL OF AGENDA

The agenda was approved as presented.

APPROVAL OF SUMMARY MINUTES

The summary minutes from the October 23, 2024 meeting were approved as presented.

PUBLIC COMMENT

There was no public comment.

CARES UPDATE

Mr. Beal provided an update on the status of the remaining issues with New Jersey and Florida CARES payments due to be repaid after audits found funds made some more than whole or ineligible to receive any funds at all.

BOARD VOTING AND VIRTUAL PARTICIPATION

A lengthy discussion was held on the *White Paper on Board Voting and Virtual Meeting Standard Operating Practices and Procedures*. The Committee decided to deal with Issue 3 first; *Virtual and Hybrid Meeting Participation.*
The Commission adapted to the COVID pandemic by conducting its business virtually. Fortunately, the Commission is now able to meet in-person but has retained the option to conduct fully virtual meetings or provide a virtual participation option for in-person meetings ("hybrid meetings").

The Commission does not have guidelines on the conduct of hybrid or virtual meetings. Overall, the hybrid meeting process has worked well, but guidelines may be helpful to ensure a consistent approach across all meetings.

After discussion, the following motion passed by unanimous consent. *Move for meetings where the whole of a state delegation cannot attend in person a meeting for reasons beyond their control, the delegation may request to the executive director, commission chair, and board chair, for a postponement of a particular action for consideration at the next scheduled regular meeting or out of cycle meeting.*

LEGISLATIVE COMMITTEE UPDATE

Legislative Program Coordinator Alexander Law provided an update to the Executive Committee on legislative successes for the Commission in the 118th Congress, challenges ahead, and on the composition of the legislative and executive branches.

FUTURE ANNUAL MEETING LOCATIONS

Mrs. Leach provided an update on future Annual Meeting locations. October 26 -30, 2025 the Annual Meeting will be in Dewey Beach, Delaware; in 2026 Rhode Island; 2027 South Carolina; 2028 Massachusetts; 2029 Pennsylvania and 2030 Georgia.

ADJOURN

The Executive Committee went into a closed session at 8:45 a.m. and adjourned at 10:00 a.m.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ACQUISITION AND GRANTS OFFICE

April 3, 2024

Robert Beal
Executive Director
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 2220

Subject: Analysis of Progress Report and Supporting Documentation for:

- State of New Jersey Office of the Comptroller Review of COVID-19 CARES Act Marine Fisheries Assistance Grant Program issued March 24, 2022, and supplemental issued June 20, 2023.
- CARES Act, Administrative Recovery Case No. 23-0758-P, NOAA Fisheries Cares Act and ACC.
- Independent Program Evaluation of National Oceanic and Atmospheric Administration (NOAA) Fisheries Pandemic Relief Program Final Report No. OIG-24-018-I, issued April 4, 2024.

Dear Mr. Beal,

The National Oceanic and Atmospheric Administration's Grants Management Division (NOAA GMD) has reviewed the documentation submitted by the Atlantic States Marine Fisheries Commission (ASMFC) on January 14, 2025, concerning the extension request letter issued on December 4, 2024. NOAA GMD analyzed these documents and has provided its assessment.

We would like to thank ASMFC for its continued cooperation as we address the findings of the investigation. If you have any questions regarding the documentation review, please contact Andrea Sexton, Lead Audit Specialist, at Andrea.Sexton@NOAA.Gov.

Sincerely,

Timothy Carrigan
Acting Director, Grants Management Division

c: Laura Leach, Director of Finance & Administration

Attachment - Document Analysis

Documentation Analysis

State of New Jersey Office of the Comptroller Review of COVID-19 CARES Act Marine Fisheries Assistance Grant Program issued March 24, 2022, reported $7,050,002 in unallowed expenditures.

Finding Summary: The Integrity Monitoring audit of the State of New Jersey and the September 2022 State of New Jersey's Department of the Comptroller audit reported that $7,050,02 in unallowed costs must be returned to NOAA.

Recipient Response: The response included a letter from Robert Beal, Executive Director of the Atlantic States Marine Fisheries Commission, dated January 14, 2025. In addition contained Attachment #1, the NJ CARES Reconciliation as of December 31, 2024, and Attachment #2, detailing the NJ Funds Returned as of December 31, 2024. Furthermore, it provided the State of New Jersey's recalculation for 15 direct assistance recipients, along with backup documentation and the state's findings regarding these recalculations.

GMD Analysis: The Audit Resolution Determination letter issued on October 2, 2024, requested that the Atlantic States Marine Fisheries Commission (ASMFC) submit appropriate documentation to support the debt reduction from $7,049,988 to $4,808,985. The letter specified that the supporting documentation must include the relevant documents that formed the basis for the recalculated debt amount, the calculations used, and a certification from either the New Jersey Office of the State Comptroller (NJ OSC) or the Vander Weele Group (VWG), New Jersey's Integrity Monitor, confirming that the additional documentation would adequately support a recalculation under their original audit methodology.

NOAA's Grants Management Division (GMD) reviewed Attachment #1, NJ CARES Reconciliation, Attachment #2 detailing the NJ Funds Returned and the recalculation documentation for 15 recipients. Through the documentation review NOAA confirmed a credited amount of $2,650,808 from recalculations and adjustments. Attachment #2, NJ Funds Returned, also identified $1,066,772 in funding returned to the ASAP system for recipients identified as made more than whole —the remaining balance of $3,332,402. The remaining balance includes the unallowed costs from the two recipients who have passed away since receiving the CARES Act assistance. At this time, NOAA encourages ASMFC to work with the State of New Jersey to recoup the unallowed costs for these recipients and provide updates in future responses.

The response did not address the pending court cases. Moving forward, ASMFC should collaborate with its subrecipients to ensure that updates on the pending cases are provided. On January 30, 2025, a call occurred between NOAA GMD and ASMFC, during which they began to progress. The ASMFC agreed to update the pending cases as soon as the information was available.

Remaining Actions:

- $3,332,402 in unallowed costs identified in the State of New Jersey audit must be recouped.
- ASMFC should submit information on ongoing recoupment of funding from Direct Aid recipients.

- Provide updates for the cases submitted to the state of New Jersey Attorney General's office.

Status: Open.

CARES Act, Administrative Recovery Memo 1, Case Number 23-0758-P, NOAA Fisheries Cares Act, and CAA, found $25,266 in unallowed costs for two fishermen.

Finding Summary: OIG found one applicant should have included all revenue for the reporting period on the CARES application, resulting in revenue for 2020 being understated by $42,363 that resulted in $10,679 in unallowed costs and a second applicant should have reported all revenue in their CARES application that resulted in $14,547 in unallowed costs.

Recipient Response: A written response submitted by Robert Beal, Executive Director of the Atlantic States Marine Fisheries Commission dated January 14, 2025, and Attachment #4 Florida Unallowable CARES Payments Return Tracking

GMD Analysis: The Audit Resolution Determination letter stated that the ASMFC should recover unallowed costs totaling $28,618 from two fishermen in Florida. During the audit, the OIG investigator reviewed one payment from each recipient identified above as a part of their sample; however, the State of Florida found that these recipients had received multiple payments. The attachment title Attachment #4 Florida Unallowable CARES Payments Return Tracking shows that the total Applicant One received was $11,443, and Applicant Two received $17,175. The adjusted amount of $28,618 mentioned in the finding includes all payments received by each recipient. In Attachment 4, ASMFC provided an update on the two applicants referenced in the memo, indicating that both are currently in a repayment plan.

Remaining Actions:

- Recoup the unallowed costs of $28,618 from two fishermen in Florida identified in the OIG Case Number 23-0758-P.
- ASMFC should continue to provide updates on the repayment plan in the quarterly progress reports.

Status: Open.

CARES Act, Administrative Recovery Memo 2, Case Number 23-0758-P, NOAA Fisheries Cares Act, and CAA, found $55,990 in unallowed costs for one fishery-related business.

Finding Summary: A business received $55,990 in CARES financial assistance due to an in-house accountant's math error on the application. After correcting the math error, the calculation showed that the applicant had a 33 percent loss. Per the program, the percentage had to be above 35 percent to qualify for a payment, so the applicant did not qualify for a payment of $55,990.

Recipient Response: A written response submitted by Robert Beal, Executive Director of the Atlantic States Marine Fisheries Commission dated January 14, 2025, and Attachment #4 Florida Unallowable CARES Payments Return Tracking.

GMD Analysis: The Audit Resolution Determination letter stated that ASMFC should recoup the unallowed costs of $59,995 from a commercial fisherman in Florida identified in OIG Case Number 23-0758-P. The OIG investigator reviewed one payment from this recipient as part of their sample; however, the State of Florida found that this recipient had received multiple payments. The attachment title, Attachment #4 Florida Unallowable CARES Payments Return Tracking, shows all the payments the recipients received, for a total of unallowed costs of $59,995. In Attachment 4, ASMFC provided an update on this recipient that shows they are working to set up a repayment plan.

Remaining Actions:

- Recoup the unallowed costs of $59,995 for a commercial fisheries business in the state of Florida identified in the OIG Case Number 23-0758-P.
- ASMFC should continue to provide updates on the repayment plan in the quarterly progress reports.

Status: Open.

Independent Program Evaluation of National Oceanic and Atmospheric Administration (NOAA) Fisheries Pandemic Relief Program Final Report No. OIG-24-018-I issued April 4, 2024.

Finding Summary: OIG Report Number OIG-24-018-I identified unallowed costs due to errors in the 35 percent calculation or payment calculation.

- Seven applicants claimed a greater than 35 percent loss for $198,823 in questioned costs, but the calculated loss from the yearly data does not support a 35 percent loss.
- One applicant received an overpayment of $458 due to a calculation error that showed a 54 percent loss, but the data supports a 46 percent loss.

Recipient Response: A written response submitted by Robert Beal, Executive Director of the Atlantic States Marine Fisheries Commission dated January 14, 2025, and Attachment #4 Florida Unallowable CARES Payments Return Tracking

GMD Analysis: The Audit Resolution Determination letter requested that ASMFC recover unallowed costs totaling $213,096 from seven ineligible recipients receiving direct assistance payments. Additionally, $513 in unallowed costs were identified from one eligible recipient due to a calculation error and who was made more than whole for a total of $213,609.

The OIG investigator reviewed one payment from these recipients as part of their sample; however, the State of Florida found that these recipients had received multiple payments. The attachment title, Attachment #4 Florida Unallowable CARES Payments Return Tracking, shows that the seven ineligible recipients should return $213,096, and the one recipient who was eligible but was made more than whole should return $513 in unallowable costs due to the additional payments received.

Additionally, attachment #4, ASMFC provided a status update for the direct assistance recipients identified in the OIG Audit. According to this update, two recipients are currently on a repayment plan, one is establishing a repayment plan, and one requested a reduced amount due.

However, ASMFC also reported that three recipients did not respond to the communications. Furthermore, one recipient claimed they had already paid taxes on the direct assistance and would not be making a repayment. NOAA GMD has determined that these funds must be returned.

Remaining Actions:

- Recoup the unallowed costs of $213,096 from seven ineligible recipients who received payments in the direct assistance program.
- Recoup $513 in unallowed costs identified from one recipient not made more than whole but had a calculation error.
- ASMFC should continue to provide updates on the repayment plans in the quarterly progress reports.

Status: Open.

Atlantic States Marine Fisheries Commission

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703.842.0740 • www.asmfc.org

Joseph Cimino (NJ), Chair *Dan McKiernan (MA), Vice-Chair* *Robert E. Beal, Executive Director*

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

April 14, 2025

Timothy Carrigan
Acting Director, Grants Management Division (GMD)
National Oceanic and Atmospheric Administration

Dear Mr. Carrigan:

This is in response to the Audit Resolution Determination (ARD) Letter Extension approval dated December 4, 2024, which requires *ASMFC to submit quarterly reports updating the status of the cases for the state of New Jersey, as well as the progress of the documentation submission and payment collection for both Florida and New Jersey. The progress reports should contain supporting documentation for the progress report.*

The ARD attachment labeled "Documentation Analysis" from the April 3, 2025 letter included the following text:

"State of New Jersey Office of the Comptroller Review of COVID-19 CARES Act Marine Fisheries Assistance Grant Program issued March 24, 2022, reported $7,050,002 in unallowed expenditures."

The remaining actions as detailed by GMD are:
- *$3,332,402 in unallowed costs identified in the State of New Jersey audit must be recouped.*
- *ASMFC should submit information on ongoing recoupment of funding from Direct Aid recipients.*
- *Provide updates for the cases submitted to the state of New Jersey Attorney General's office.*

Attachment #1 is a simplified spreadsheet detailing the status of the remaining CARES funds deemed unallowable. In short, $189,661.11 has been collected from one recipient (ASAP documentation attachment #2); six lien letters have been sent via Federal Express; six recipients have requested hearings, five of which are currently in the discovery phase; two recipients have not responded and have been referred to the NJ Attorney General's office and one recipient's attorney and accountant have a scheduled meeting to discuss this matter. NJ DEP is not planning to pursue repayment from the estates of the two recipients who are deceased.

CARES Act, Administrative Recovery Memo 1, Case Number 23-0758-P, NOAA Fisheries Cares Act, and CAA, found $25,266 in unallowed costs for two fishermen.

The remaining actions as detailed by GMD are:
- *Recoup the unallowed costs of $28,618 from two fishermen in Florida identified in the OIG Case Number 23-0758-P.*
- *ASMFC should continue to provide updates on the repayment plan in the quarterly progress reports.*

The two fishers in the above-mentioned case have entered into repayment agreements with the Commission. These agreements require 12 equal monthly payments beginning on May 1, 2025.

CARES Act, Administrative Recovery Memo 2, Case Number 23-0758-P, NOAA Fisheries Cares Act, and CAA, found $55,990 in unallowed costs for one fishery-related business.

The remaining actions as detailed by GMD are:
● *Recoup the unallowed costs of $59,995 for a commercial fisheries business in the state of Florida identified in the OIG Case Number 23-0758-P.*

The commercial fisheries business in the above-mentioned case has agreed to enter into a repayment plan, which has been sent to them for signature.

Independent Program Evaluation of National Oceanic and Atmospheric Administration (NOAA) Fisheries Pandemic Relief Program Final Report No. OIG-24-018-I issued April 4, 2024.

The remaining actions as detailed by GMD are:
● *Recoup the unallowed costs of $213,096 from seven ineligible recipients who received payments in the direct assistance program.*
● *Recoup $513 in unallowed costs identified from one recipient not made more than whole but had a calculation error.*

With regard to the seven ineligible recipients, one has entered into a repayment agreement. This agreement requires 24 equal monthly payments beginning on May 1, 2025. We have sent repayment plans to five recipients and are trying to connect via telephone with one recipient.

Regarding the $513 in unallowed costs identified from one recipient, we were under the impression we needed to get receipts equal to the unallowed costs and that would satisfy the error.

Attachment #3 details the status of all Florida cases at this time.

Both the States of New Jersey and Florida continue to engage with their fishery assistance recipients to recoup the funds deemed to be unallowable.

The Commission will submit a third quarterly report on July 15, 2025, detailing progress on recouping the funds determined to be unallowable.

Thank you for continuing to work the Commission to resolve this issue.

Sincerely,

Robert E. Beal
Executive Director

cc: Laura Leach
Andrea Sexton

Atlantic States Marine Fisheries Commission

Atlantic Coastal Cooperative Statistics Program Coordinating Council

May 7, 2025
10:15 p.m. – 12:15 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. Call to Order / Welcome / Introductions *(G. White / K. Knowlton)*
2. Council Consent
   - Approval of Agenda
   - Approval of Draft Proceedings from October 2024
3. Public Comment
4. Consider Funding Decision Document and FY2026 Request for Proposals *(J. Simpson)* **Action**
5. Update on Program and Committee Activities (*G. White, J. Simpson*)
6. Other Business
7. Adjourn

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

ACCSP COORDINATING COUNCIL

The Westin
Annapolis, Maryland
Hybrid Meeting

October 21, 2024

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ATTENDANCE

Board Members

Pat Keliher, ME (AA)
Renee Zobel, NH, proxy for Cheri Patterson (AA)
Dan McKiernan, MA (AA)
Ray Kane, MA (GA)
Jason McNamee, RI (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
David Borden, RI (GA)
Marty Gary, NY (AA)
Heather Corbett, NJ, proxy for J. Cimino (AA)
Jeff Kaelin, NJ (GA)
John Clark, DE (AA)
Carrie Kennedy, MD, proxy for L. Fegley (AA)
David Sikorski, MD, proxy for Del. Stein (LA)
S. Iverson-Cason, VA, proxy for J. Green (AA)
Ben Dyar, SC, proxy for Sen. Cromer (LA)
Mel Bell, SC, proxy for Sen. Cromer (LA)
Kathy Knowlton, GA, proxy for D. Haymans (AA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Ron Owens, PRFC
John Carmichael, SAFMC
Brandi Salmon, NCDMF

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

Staff

Bob Beal
Geoff White
Alex DiJohnson
Julie Simpson
Toni Kerns
Tina Berger
Madeline Musante
Caitlin Starks
Jeff Kipp
Tracy Bauer
James Boyle
Emilie Franke
Katie Drew
Jainita Patel
Chelsea Tuohy

The Atlantic Coastal Cooperative Statistics Program Coordinating Council of the Atlantic States Marine Fisheries Commission convened in the Capitol Ballroom via hybrid meeting, in-person and webinar; Monday, October 21, 2024, and was called to order at 1:00 p.m. by Chair Jason McNamee.

CALL TO ORDER

CHAIR JASON McNAMEE: All right, everybody, I think we're going to get started here. Looks like we've got enough folks at the table. I'm calling to order the October 21, 2024 meeting of the ACCSP Coordinating Council, so welcome, everybody.

APPROVAL OF AGENDA

CHAIR McNAMEE: We'll start off with a couple of housekeeping items, the first is Approval of the Agenda.

Are there any additions, deletions, changes to the agenda that anybody would like to make? Looking around the room, not seeing any hands in the room, anyone online with a hand up, virtual hand? No one on line. I will propose that we approve the agenda as submitted, anybody willing to make that motion? Thank you, Pat. Motion made by Pat, is there a second? Thank you, Ray. Any objections to the motion? Seeing none; the agenda is approved.

APPROVAL OF PROCEEDINGS

CHAIR McNAMEE: Next up is Approval of the Proceedings from our last meeting in April, 2024. Any edits, changes, additions, anything to the meeting minutes from the last meeting? Not seeing any in the room, any hands online? Okay, any objections to approving the minutes as submitted? No hands in the room, we'll consider the minutes approved as submitted.

PUBLIC COMMENT

CHAIR McNAMEE: Next up is Public Comment. Is there anybody in the public, all three of you in the room that would like to say anything that is not currently covered on the agenda? No hands in the room, any hands online? No hands online. Okay, with that let's get into the heart of our agenda here.

CONSIDER FY2025 PROJECT AND ADMINISTRATIVE PROPOSALS FOR FUNDING

CHAIR McNAMEE: The first thing we're going to do is to Consider the FY2025 Project and Administrative Proposals for Funding, and I am going to turn that over to Julie to take us through. Thanks, Julie.

MS. JULIE DEFILIPPI SIMPSON: The first slide we're going to have, is the comparison of the rankings of the maintenance projects. It was important for the Operations and Advisors that we show you both of their rankings, because there were differences in how those turned out, although they did come to consensus on their recommendations.

The Operations Committee ranking is on the left-hand side and the Advisors ranking is on the right-hand side. For a little bit of ease, they are highlighted in the colors that match, so you can kind of cross the colors a little bit to see the order of the rankings. These are the three maintenance proposals. These were ranked using the consolidated rankings. For those of you that are familiar with that, there is less questions on that form, because not all of the funding was necessary to cover the maintenance proposals, not all 75 percent of that. The next slide gives the comparison of the rankings of new projects.

Again, these are in order by their rankings, with the Operations Committee on the left-hand side and the Advisors ranking on the right-hand side. Please note that the recommendation for funding is indicated by the dark green squares, so the projects that are recommended for funding are the top five on the left-hand column, and then the top four in Number 6 on the right-hand column.

The three projects that do not have green are not recommended for funding in the recommendations from the, it was consensus. The funding summary,

we have an expected level of 3.5 million. The Administrative Proposal is 2.35 million, and then the three maintenance proposals come in at 602,000. Again, this is under the 75 percent rate.

Then the eight new project proposals come in at a little over a million dollars. The request for funding is at about 4 million, so that is about half a million more requested than what we have. We did want to note that the Administrative Proposal, and this will be part of our discussion later, is that the Administrative Proposal is now approximately 67 percent of the 3.5 million for ACCSP funding.

It is slightly larger than last years, but we have increases due to full staff support, and the ability for more in-person meetings. However, we also have significant increases in equipment and supplies, but it wasn't necessary to put those costs in the administrative branch, because we were able to secure funding for those things through IRA and FIS funding that ACCSP staff was able to arrange.

The average ranking of maintenance projects, all three projects were ranked for funding. Again, the maintenance proposals are 58 percent of the one million available for project funds, which is below the 75 percent split, and it is recommended that all the proposals be supported. We did also include in the titles for each proposal the year of funding that they're in.

Right now, the 100 percent lobster harvesting is in Year 4. You'll note that that is not an actual calendar year, it's Year 4 of funding, because there were years that Maine did not actually apply for that project. The Potomac River is in Year 5, so this is their first year of stepdown. They'll do stepdown again next year, and then no longer be eligible for funding.

The North Carolina Socioeconomic Database is in Year 2 of funding. We do want to note, however, that the cost on both this page and the next page are different from your materials. Late last week, Maine did indicate that there has been a change in their indirect rate that decreased by about 8 percent, and that was across all three of their proposals.

That added about $24,000.00 back into the pot, so thank you very much, Maine, for making that adjustment for us. That does adjust some of those numbers, and those are what appears on the slide, so that is why it differs slightly from your materials. In the average ranking for the new projects, the top three projects there did fall above the line. Then you'll see that the next two projects there on expanding the commercial fishery research foundations, black sea bass, and then also the Maine halibut fishery. Those are the ones in yellow. That is because they are recommended for funding, but there are not quite enough funds to make all of that, to actually fund all of those projects. That will have to be a discussion for today.

The Operations and Advisors, as I mentioned, did come to consensus on their average rankings. They recommend that all maintenance proposals and the administrative budget should be funded in full, and they recommend support for new proposals by the average rankings, with the suggestions below, to fund the top three projects. They did want to note that the Enhancing Recruitment and Retention for the South Atlantic Release Citizen Science Project was not ranked as highly by the Advisors as it was by the Operations Committee.

But the Operations and Advisory's Committees both agree that the following projects that are listed in priority or order, should be funded. That is 1, Expanding the Commercial Fisheries Research Foundation's Black Sea Bass Research Fleet into the Gulf of Maine, and then 2, Port Sampling for the Maine Halibut Fishery. I'm going to turn it back over to Geoff and Jay, thank you.

MR. GEOFF WHITE: Thank you, Julie, and thank you to both the Operations and Advisory Committee for preparing all this and doing all the hard work of the proposal reviews. On this slide, this gets a bit more to the conversation at Coordinating Council, of

where to go with the funds. What I've done is remove the three projects at the bottom that were below the line for funding.

Again, because Maine has reduced their indirect rate, the Black Sea Bass Project, the fourth in the list is really what I would consider above the line for funding. It's just under $6,000.00 short, but we can figure out that to make the Black Sea Bass one whole. The discussions about the Maine halibut fishery are really the focus for discussion. I wanted to extend the thought that at this point we are entering the fifth year of the ACCSP cooperative agreement.

There is the capability to extend that, but given the unknowns of what the fiscal climate is going to be in a few months, the question comes up of, where does the Coordinating Council want to go at this point, in terms of supporting the four projects that have expected available funding, assuming we are level funded at 3.5 million, or whether there is a desire to try and find the funds to include the halibut fishery proposal, and an additional $30,000.00 for that.

Really, it's the question of, what if any buffer or reserve should be considered as halibut, kind of at the Admin Grant for unforeseen events. We've had a few of those this year, in the spring as well as what may happen with the fall election. Again, we're in the fifth year of this funding cycle.

Those were a few of the questions that I wanted to at least put forth for discussion, in terms of how far to go with this. As we are in the fifth year, I do want to remind folks that the savings that we had during years one through four was allocated to projects last year. That was an additional $250,000.00 that was in the Admin Grant that was selected for project funding last year. With that I'm going to turn it over to Jay, to lead this discussion about where you all want to go in the balance of funding projects.

CHAIR McNAMEE: Great, thank you so much, Julie and thank you, Geoff, and thanks to the Ops Committee and the Advisors as well for those solid recommendations. I think at this point what we're looking for, one structure that we could use for this is to break this up into three separate motions.

One for the Administrative Grant, one for the Maintenance Proposals, and then the New Proposals there is some nuance there. That is where we're at. Do we have any questions from folks before we get into the deliberations on this? Anyone with questions? Yes, down in the back, and I apologize, I can't see your name.

MS. BRANDI SALMON: It's Brandi Salmon, sorry, I was trying to turn it earlier. Question about, if we decide to try to dedicate some funds for the new project, the fifth one, what does that look like if we can't find the funding for it? Like how does that play out in the long run?

CHAIR McNAMEE: Great question, Geoff or Julie, do you want to field that one?

MR. WHITE: I'll partially start with that and then hand it over to Mr. Keliher in Maine. The first question is really, we don't know at this point if the 3.5 million is what will actually come through as the funding, so there is a bit of a curiosity there, is it going to be 3.50, 3.53?

There is the opportunity to support the Ops and Advisors recommendation of, if there is available funding when we know what it is, to support the Halibut Project. If the available funding comes in lower, then we'll have to figure that out. I'm not expecting that finding this money would have to come out of the Other Projects at the moment, that you have other places to look. Pat, what would it look like if halibut was not funded?

MR. PATRICK C. KELIHER: I think from the state's viewpoint on the Halibut, first it's clear not looking for pulling money from other projects, so it's not my intent to go in that direction. I think I'm not quite understanding the timing Geoff, of when you might know about the full allotment that would come in,

and whether we would have potentially any additional dollars that could fund halibut.

But from the state's perspective, I'm not going to be able to hire any contract staff, or do any staffing up of that project for the Port Sampling, until we know the data is coming. We're entering a very, very tight fiscal climate in the state of Maine. Any flexibility I would have with discretionary funds within the agency, I've got a tight hold on those right now, so I can't open the door to start funding, with not knowing that it's there. We're kind of in a wait and see mode.

MR. WHITE: Unfortunately, I can't answer the question of when we'll know, because that is up to Congress, unless, Bob, you have more information, possibly a crystal ball?

EXECUTIVE DIRECTOR ROBERT E. BEAL: Yes, I can't predict Congress any better than anyone else here can. But if there is a continuing resolution, then theoretically we would be at the 3.5 million. If they get hung up and are unable to pass a new budget for this fiscal year, then we would continue the resolution would be good in a sense for this project or this program at 3.5. But we don't know. All we know is through mid-December right now, and we'll have to see what happens.

CHAIR McNAMEE: Great, thank you. Brandi, all set with that? Renee.

MS. RENEE ZOBEL: I just had a question, thinking kind of back on the history of this type of thing. I know there is a lot of precedent for us kind of supporting maintenance projects that fall below the line. But have we had this as a discussion before for a new project that was recommended, but fell below the line? This is not to poo-poo Mr. Keliher's project here; I know there is support for it. But I'm just trying to think back in discussions, sitting on Ops as well, whether we've had this scenario before where we say, oh, let's go look for money for a new project.

CHAIR McNAMEE: Geoff or Julie.

MR. WHITE: I would say yes, there is precedent to have the discussion. The Herring Proposal had come up several times in the past about how to fund staff to do herring sampling. In this case this is, I think all equipment for the aging, and the equipment can go with the Halibut fishery. This was a proposal that was submitted last year that happened to bump below the line, for what that matters. It has been discussed before, and it is up to the Coordinating Council to have the flexibility and latitude to decide where to go with these things.

CHAIR McNAMEE: Good Renee? Okay, anyone else with questions? All right, not seeing any around. Oh, yes, Carrie.

MS. CARRIE KENNEDY: I'm curious about Maine's timeline for meeting the materials, you know the equipment. What if we sort of hedged our bets and decided or recommended to maybe not immediately find the funds, but wait and see through some portion of the fiscal year, before it felt, I don't know, safe enough that those funds could be allocated to a project at a later time.

CHAIR McNAMEE: Able to respond, Pat?

MR. KELIHER: We would probably need to know sometime in February, in order to make sure its implemented prior to the halibut season.

CHAIR McNAMEE: Okay, not seeing any more hands around the table, any hands online? Oh, go ahead, Pat.

MR. KELIHER: I'm just thinking about the Administrative Proposal and I certainly don't want to discount the fact that we're dealing with cost increase. But I think what Julie mentioned earlier, that it's about 60 percent of the total, if I recall correctly. Has it always been greater than 50 percent? It seemed like the administrative side is growing, it's impacting the state proposals more and more. I don't think there is anything we can do about it now. I'm not here to speak against the

administrative budget. I think it's just something we need to keep an eye on, just from the standpoint of, the states kind of losing out as the administrative side grows. If that is the case, then maybe we need to put this on our priority list from Congressional ask for money, because that is a good story to tell, I think, as far as our Hill visits.

CHAIR McNAMEE: Thanks for that, Pat. Did you need a response to the proportion there?

MR. KELIHER: In having an idea, I mean I didn't look it up, so having some idea would be great, I think.

CHAIR McNAMEE: Yes, so Geoff, Julie, the question is, if there has been like a trend in the Admin Grant over time. Is this the highest it's been?

MS. SIMPSON: Right now, it's at 67 percent. It is a trend, it has gone up, not in a completely linear fashion, but in kind of a very slow, slow fashion. But it did come up. In the joint meeting, but then also the Advisors have their own meeting, and they did bring up, they asked the question of when the last time ACCSP had an entry in our line item, and the answer is never. They were interested in how they could help with that, which is not easy to for that. But that is to answer your question.

CHAIR McNAMEE: Your comment is well taken, thank you, Pat. Not seeing any other hands around the table, what we're looking for are some motions. I'm looking for somebody to be bold here and offer a motion. We're looking one for the Admin Proposal, one for the Maintenance Proposals, and then maybe a more nuanced one with the new proposals. Okay, Brandi.

MS. SALMON: Yes, I **move to approve the ACCSP Administrative Proposal**.

CHAIR McNAMEE: Thank you, Brandi, seconded by Marty Gary, thank you, Marty. Any discussion on the motion? Brandi or Marty, anything you wish to offer? Pretty straightforward. Thanks for that. Can somebody flag me down if you need some time? I don't know that there is anyone for you to caucus with, now that I think about it.

Let's go ahead and vote. All those in favor of the motion, please raise your hand. Geoff is tracking it. Just to check**. That was 16 in favor. Is there anyone opposed? Same sign, I didn't think so. Any abstentions, just a check. Any null votes?** It's not possible here. Good, all right. **Unanimous approval of the motion**, thanks everybody. One motion down, two to go. Carrie, go ahead.

MS. KENNEDY: I **move to approve the three maintenance proposals as recommended by the Operations and Advisory Committees.**

CHAIR McNAMEE: Is there a second to that motion? Second by Ben. Thank you, Ben. Any discussion on the motion? Okay, maybe I can just do, are there any objections to the motion? Any hands online objecting? Okay, good. We'll consider that **motion approved by unanimous consent**. Two down, one to go. This is the more challenging one. John in the back, go ahead, John.

MR. JOHN CARMICHAEL: **Move to approve the top four ranking new proposals through the Maine Black Sea Bass Project.**

CHAIR McNAMEE: First, are you seconding, Pat? Okay, let me see if there is a second for John's motion first. Okay there is a second by Ron Owens, thank you. Pat.

MR. KELIHER: I'm just wondering if there is any willingness to, in case we get additional funds available through the appropriations process, that the Halibut Project could remain above the line, with the idea that it will not be funded unless available funds come into ACCSP.

CHAIR McNAMEE: We could do that in one of two ways. We could, if somebody would agree to add that into the existing motion. I'm not sure if you're offering that as an amendment.

MR. KELIHER: I would offer it as a friendly. I mean it's been motioned and second, so the motion now belongs to the Board, so however you want to handle it. Do you want to use Pat's Rules of Order or Roberts Rules of Order? It all depends.

CHAIR McNAMEE: Maybe because I am not good enough at that stuff to know whether that is appropriate, we can handle it as a separate motion. This is not exclusive of that. Why don't we dispense with this one and then we can come back to it. Okay. We've got a motion, it's been seconded, a little discussion there. Any other discussion? I think that was John who made the motion. Anything from you, John, on this? Okay, John is good, and then Ron, anything?

All right, let's get to it then. Are there any objections to the motion on the table? Not seeing any hands around the table, anyone online? All right, no objections online either, so we will consider **that motion approved by unanimous consent.** Then if there is anything anyone else wants to add, Pat, go ahead.

MR. KELIHER: I'll try to wing a very simple motion here for staff to keep up. I would **move that the Maine Halibut Proposal remain above the line to be funded if additional funds become available.**

CHAIR McNAMEE: Great, thank you, Pat, seconded by let's see I'll go the second with Erika. Thank you, Erika. Okay, we've got a motion, it's been seconded. Any discussion on the motion? Eric.

MR. ERIC REID: Thank you, Mr. Chair, I'm not even sure if I'm supposed to comment here. But there is a lot of things going on with halibut besides what's happening in Maine. I think that this motion is totally appropriate to support the Maine fishery, but it's also going to help support the American fisheries in international waters at some point. I would support that.

CHAIR McNAMEE: Thank you, Eric. All right, we've got a motion, we've had a little discussion. Anyone else before we call the question? All right, not seeing any hands, are there any objections to the motion on the table? Seeing no hands around the table, anyone online? No objections online, so we'll consider this **motion approved by consent**. I think that does it for that. The next agenda item is to move on to Program Updates, which Geoff will take us through, so whenever you're ready, Geoff.

PROGRAM AND COMMITTEE UPDATES

MR. WHITE: Just before we step into the update, thank you everybody for supporting the funding process, a critical piece of ACCSP. Before we get to the Program Updates, we don't need to identify all the members right now. But I did want to highlight that the ACCSP Funding Subcommittee is up for reconstitution.

Confirming that membership over the winter, this is a group that historically has represented by ASMFC Bob Beal and NOAA with a council chair kind of north/south representation. The Operations Committee Chair, with north/south representation, and Advisor and then of course ACCSP staff.

During the Operations Committee in Advisory meeting, they did reappoint membership to include Nichole Lengyel Costa from Rhode Island, Maryellen Gordon in Jersey, and Julia Byrd in South Atlantic Council, and for the Advisors Fran Carp. I hadn't prepared the conversation in you all before this: It's probably best to e-mail folks and kind of have them appointed outside of this meeting, unless you wanted to handle it during the meeting.

Unless there is a volunteer. We'll do it after. Not to vote, if there are volunteers on the Coordinating Council that wanted to be members of the Funding Subcommittee, Bob may take their Chair role. I don't think you can hand that one off. If there are other volunteers that want to be part of this, please raise your hand, otherwise we'll handle that elsewhere. Kathy. Outstanding, thank you, Kathy for volunteering.

CHAIR McNAMEE: Any other volunteers? Okay, and so we can follow up on this afterwards.

MR. WHITE: We'll fill in the gaps after the meeting over e-mail.

CHAIR McNAMEE: Very good, thank you, Geoff.

MR. WHITE: Then that group will have probably the winter meeting to discuss next year's RFP and possibly rising the scoring beyond the catch effort and biological, as opposed to top lines for funding, as well as extending this conversation that we just started about the balance between future projects and Admin passed and searching for ACCSP funding.

Again, something that was brought up at the Operations and Advisors Committee and touched on during your conversation today. With that we'll move to the Program Updates. The first thing is really to look back a little bit at completed items that were from the 2024 Action Plan. Definitely some excitement here.

We have been able to implement expanded at entry quality control checks for SAFIS eTRIPS submissions, so a lot of partner attributes, though we're not getting the same data quality checks as other core elements that has had a workshop in 2023, we got FIS fundings to complete that, and that work is largely complete and set for implementation in eTRIPS now. We were able to continue to extend one-stop trip reporting across the federal permit, so that is getting HMS, Southeast Logbook Requirements, as well as GARFO requirements into SAFIS eTRIPS, so really the one submission technically can cover for sharing the data in the background, and making that a lesser burden on the fishermen. We've been able to support collection and management of spatial data, the lobster vessel tracking devices.

Also, launched the SciFish mobile application and project builder for standardizing Citizen Science data collection. Exciting movements on all of those things that were highlighted in the 2024 Action Plan. We've also made significant progress in data distribution and use. The first, there was the completion of the North Carolina Biological Data Feed, to get all that information to ACCSP.

The next step of that is for it to go from ACCSP down to Miami, the Southeast Fisheries Science Center. They are actively working on that with a goal date of finishing that in November. The other thing that is going to follow from that is getting the Southeast Tip Data sent to the ACCSP Data Warehouse, so again, populating the biological data module, which is a big step for us.

In the longer bullet there is all of the stock assessments, SEDARS that ACCSP was able to provide commercial landings data that were validated by the states, so thanks to all of you who have been doing that. Moving to the 2025 Action Plan. Highlighting here things that will be discussed and approved at the Business Session on Wednesday.

But really partnerships are a core component of the National Collaboration of Fishery Data Collection. We are continuing to improve our overall efficiencies, by sharing knowledge, technical approaches, and yes, even direct sharing of software, to enable some more progress in parallel jurisdictions.

One example of that is with MRIP APAIS, we were able to share that software program with the Gulf of Mexico, then actually with NOAA Offices of Science and Technology, to implement out in Hawaii, and there are ongoing efforts to do that with the SciFish application, which I will touch on a little bit later.

In the coming year, we're going to get to the development and implementation of modernized dealer reporting application and data processing by January, 2026. This is something that was slated. We wanted to get completed by January, 2025, but we made a large number of changes early in the year to help GARFO move some of their dealers

from a File Upward application to an API, that is a precursor to this step of dealer reporting.

Then we had some slowdowns, because of other intervening activities in the spring, and some staffing issues and other projects that were running long. That is really moving to, we'll probably get the programming done for EDR in the middle of 2025, but we will also listen to the partners and saying, when that rolls out it should be the entire package all at once.

That means online, mobile, upload, data queries coming back out. Those four parts will get developed and tested throughout the year. The good news with this, even if we're ready early, it will allow a little extra time for the outreach and if we're patient to get that out to dealers before that needs to happen. Generally, the partners have not wanted us to change the dealer reporting system mid fishery season, which would be a little more difficult. Within SAFIS we also want to extend the One-Stop-Reporting Initiative to convene a workshop on state requirements. As the federal things come together, really looking to see what are the additional state needs that we can extend that program with.

Then under recreational surveys, we want to continue to develop and seek certification of the for-hire methodology for logbook estimates of catch and effort with dockside validation. This is really working with MRIP to continue a bunch of work we've already started, some mathematical analysis of existing datasets, and though make the map more consistent and answer some of the questions that their consultants had about sensitivity analysis.

That timing is actually in parallel with some actions by the Councils on SEFIER and Do Not Fish Reports that ACCSP remains involved in with these conversations, so again, a lot of partnerships that are helping to drive those activities in our coming year. Other items for 2025 in the Action Plan under New Tasks, already mentioned the state requirements under Recreational Surveys.

The recreational group is really supporting data collection of pilot finder, so there was the discard project that was just supported for funding under the new projects, as well as large pelagic pilot surveys, because these are items that are happening through MRIP. They are supported by state staff to actually do the fieldwork, and ACCSP staff to get the data coordinated and passed through the middle of that.

Then also, work on our standards to really define the data consolidation standards and presentation for release catch discards and add to observer data across dealer trip and citizen science records. What that really means is it is collected in many ways, and we need to discern how to put that puzzle together and still preset it in a useful way on the discard information, to help out with the stock assessments.

Other new tasks under the Action Plan are data distribution and use. We've got a new list of stock assessments for the Commission and SEDAR process. We have an annual data load process for commercial data. Now that we're populating the biological module a bit more, we need to come up with that annual data load process for the biological information, whether that is lobster, herring, Southeast Tip Data, ultimately Northeast Fisheries Observer Program as well.

That is a task to do all that coordination and set up the planning for that. Then finally, to expand the Data Warehouse content, with emphasis on presentation of the recreational directed trips and catch frequency queries. Those are things that had been around a while back and we're needing to update the map and presentation on, and so Alex and his team will be working on that throughout the coming year.

The last items under the Action Plan for new tasks, are really to improve the IT hosting scalability to address the increased data demands, so this has to do partially with overall increases in electronic trip

reporting, as Ed Martino presented to you in April. That pales in comparison to the positional tracker information, in terms of numbers of rows. It's not a huge volume of data storage, but it is a huge number of connections to either database, to make that more stable, reliable and consistent, ACCSP staff reached out and did a proposal through FIS for IRA funds, and we were approved for a project.

I think we're about getting the funds are in place now, but it's 350 some odd thousand dollars over two years to work on that infrastructure, whether that is equipment within ACCSP or a cloud-based approach, just to make all that more scalable and stable. We want to promote and support communication.

The ACCSP activities by Committee members within their agencies, so we've done great with getting the newsletters out on a monthly basis of what committee activities and program activities are occurring. We heard good feedback from you all in the past that that is an appropriate way to go. But sometimes there is additional messaging and important tasks that aren't being shared back out within the agencies.

The Operations Committee and Advisors came up with an idea that we want to promote through next year, which is coming up with a item to share within the meeting summary, so a top couple of bullets of, these were common themes or important actions that occurred that may not have been caught in each individual's notes or task list, but would be something to take back and share within your agencies and beyond, or maybe you can collect feedback.

Then the last item is really, as always too, continuous improvement on our website, which remains a focus to both maximize information sharing and data availability, engaging our website and our users to provide information on to folks. Those are the major items in the Action Plan for next year.

I do want to highlight that we have more advisors at this point, and we still do need more. A task request for you is to go back and work on finding more advisors. Between your last meeting and now, Maryland took this to heart, and had a very successful campaign to advertise and request for more advisors. They got many more applicants than they expected, and they were able to find two new members that were able to participate in the ranking process this fall.

The current advisory members are on the screen for you to see now. But again, we can share that successful campaign message back out with you, and hopefully those that are ready to expand your advisory capacity will be able to do so. Another highlight is on SciFish. The project builder and application have been launched. This was a three plus year effort, including Julie and Kathy and Julia Byrd, and a full SciFish Organizing Committee.

The SciFish Advisory Panel has been reviewing some applications, there are two new projects within the approval process now, and this is another one of those places that we call luck. I tend to call it a surprising example of government efficiency, so the Pacific states and the Gulf state Commissions are interested in hosting SciFish architecture for their partner agencies.

But speaking with our MOU, we're keeping to the Atlantic coast, sharing the technology for them to deploy and work with their partners on their coast. We're kind of excited about that development as well. Next highlight is on the Atlantic Recreational Discards Pilot Projects. Again, this was something that was developed through the Rec-Tec Committee, developed with MRIP staff guidance. There are seven states that want to be part of this pilot and you had all just approved that for funding.

The goals are really to analyze with potential digit bias, collect additional lengths of released fish. The approach of this is to use a catch card, a paper catch card. It's a little bit of a low-tech approach, but that is its genius, and the group worked really hard to make that work. The Chair and Vice-Chair, Angela Giuliano and Don Franco were able to go to the Gulf

States Commission workshop on released catch methodologies this summer, because they were presenting it as the states.

It was very well received by the Gulf group, and there is a whole Gulf contingent that now wants to try this, to develop a proposal for the Gulf IRA Red Snapper Funding, to try that Gulf wide. Again, kudos to that Subcommittee for coming up with the approach, and sharing that with our partners.

There has also been progress in data collection for MRIP in unsampled waves. This was raised as South Carolina wanted to do this for Wave 1, 2025. Since then, the Rec-Tech Committee and others have been discussing the ability to do the for-hire telephone survey. That is possible with his existing staff and budgets. It's looking right now like we'll be able to do Maryland through Georgia for January/February 2025, to begin getting for-hire effort in Wave 1.

The desire for fishing effort survey or dockside intercepts is there, but the timing is just not right for that, that would require additional funding, and with the FES going through its pilot cuts to the design changes, there is potential for the Private Angler Fishing Effort Survey to collect Wave 1 data in 2026.

But again, the state range for that would be unknown right now, so after this meeting if you guys are interested in creating a block of states to record that, that would be good to do so. The next item is admittedly a busy slide. But a place that we're looking to go and identify feedback from Coordinating Council, as well as Operations Committee, is the primary data collection initiative that ACCSP has taken part in, and already kind of committed to.

The eTRIPS validations are fully on their way to get out there. The One Stop Reporting and state needs I had mentioned already. The items that are kind of in the background portion of the arrow, are things like Electronic Dealer Reporting Redesign and Registration Tracking, getting more information of the fishing entities into the software programs with the ongoing activity. In addition to those planned activities, we have these pentagons of things that are coming up for us.

There are opportunities for biological data loads and display, mentioned that as part of the Action Plan already. There are opportunities to extend charter observer data from North Carolina to Georgia, supported through the Southeast Fishery Science Center in the same methodology that is being used in Florida and throughout the Gulf of Mexico. Then also looking forward to the For-Hire Logbooks and Dockside Sampling, the ACCSP certification methodology. There are going to be efforts to get it certified in 2025, and then kind of see what can happen for implementation forward to there. These different perspectives, focus areas, are things that we're trying to work out. Do we have the right staff and the balance of staff and contractors to kind of get these tasks done, to answer the needs of the partners. That is where I wanted to share with you. The plate is kind of full now, and looking forward, but there are still opportunities to shift that, depending on the priorities of the Coordinating Council. With that I will pause.

CHAIR McNAMEE: Thank you so much, Geoff, appreciate that. Time for questions, and I see Dan McKiernan, go ahead.

MR. DANIEL McKIERNAN: Thank you, Geoff, I have two questions. In an earlier slide you mentioned one of the tasks is collection and management of spatial data. Could you help me understand? I'm thinking the lobster tracker data, there is probably a lot of applications that have to be written, so that we can work at this data on a subregional basis. Could you describe what those challenges are, and how quickly there may be some tools for states to use some of that data?

MR. WHITE: I can, and I'm also going to phone a friend next to me here. One of the supported projects for today was an extension of those VMS applications. As that was put in place this year, learning the challenges of what comes in, in the

data, what are the states interested in pulling back out of that information.

Then how to do that efficiently, so that it is fast enough to answer the needs of the partners, and doesn't crash the system on our end, and be flexible with that. That is a proposal that you all supported funding, and it will probably take place in the coming year, and I want to pause and hand it over to Julie to add information.

MS. SIMPSON: Yes, a big part of that is the framework. Right now, it results for the lobster framework, so we have the vessels that are expected to have lobster trackers. As you mentioned in lobster meeting, Massachusetts is already working to have other fisheries be part of this, and we need frameworks for those that will include those business roles. We're going to develop an adaptive module, so that new frameworks can just be built without further programming, and that is a big part of it.

Another big part of it is making sure that the data are acceptable in ways, in that sort of raw data way, so that folks could get those down for analyses. But then we've also been working with folks on sort of essentially tiered material so that they can be available beyond the basic data for a sort of higher-level analyses. But we need to work with the stakeholders on exactly what that looks like at this point.

MR. McKIERNAN: Thank you, I really appreciate that, where we're going with some of that tracker data, especially with that next fleet is really innovative. We want to map eel grass beds and have geofencing techniques, so we're kind of way out forward of that. But I truly appreciate whatever help you can give us to get there.

I did have a second question. Geoff, I know that the New England Council recently kind of echoed a DMF request of ours to have the APAIS interviewers ask anglers to sort of identify fishing location. Can you give us an update as to if this is going to be possible in the next year or two?

MR. WHITE: Yes, I just got the letter Friday from New England Council, and thanks for kind of giving me a heads up that that was coming as well. It fits very well that letter, and the request from Massachusetts fits well into what the ACCSP Recreational Technical Committee is already got their eyes on.

We got a letter from Massachusetts requesting that. We did get a request, Rec-Tech is going to be talking about it on October 30, and their December 5th in-person meeting. Really to take that request, scope it out, in terms of how would that apply to a question within APAIS, or questions. How would that map look? How would anglers actually identify where it would go?

How many states are interested in this map grid going up and down the coast, to really identify that either the ten-minute grid square or a different methodology to do that. Once those parameters are set by Rec-Tech, and how many states that want to do it. It then goes to MRIP and their PRA process for additional questions.

I believe the next time that comes up is preparation '25, and the PRA questions in '26, and we would need a few months to program that into the tablets. It's definitely on track for discussion. We're taking it seriously, but it's a process to add those questions and fit it in with the Paperwork Reduction Act.

CHAIR McKIERNAN: Good, Dan? All right, thanks for that. Next, I'll go to Kathy.

MS. KATHY KNOWLTON: Great presentation, Geoff, thank you very much. Two questions, the first one is going to be one slide back, with the data priorities slide. Fantastic, so the items there that are in the aqua colored pentagons that have to do with expanding or building out new initiatives. Is that a good way of kind of thinking about them? It's work to come, it's additional work to come. Do we think, in light of the conversations that came up originally through Ops and Advisors and was touched on

today, particularly with task comments, in terms of Funding Subcommittee.

Having more conversation about the impacts of the Administrative Grant. When we see information like this, reminding us to sort of have that sidebar conversation about how much these new items, and maybe starting to get into some kind of a symbol or a metric or something that kind of identifies this would be a low-medium or high addition, in terms of staff or these new initiatives would be primarily contracted out and have no effect on Admin.

I think that might help us moving forward, as we try to keep this idea at the front of our mind, and whether we can or can't get more money coming to ACCSP, because of the buildup of the administrative budget, in terms of the functionality that all of the partners are now reliant on. I think that would be particularly helpful, as we start to continue to talk about changes in the Admin Budget relative to whether you get the approval or the direction to add new work. That would be one comment, I don't know if you wanted to respond.

MR. WHITE: Thanks, Kathy, and I think those are definitely good conversations to keep going with, and I probably glossed over a few things on the slide that I just want to add in for your awareness today. When it comes to biological data loads, that is work that is capable to be done by existing staff. Most of that data would be, it's setting up the processes and data flows for it to get sent to ACCSP and loaded on a regular basis.

That one is pretty well approached in scoping out what that presentation methodology would need to be. It might take an FIS Grant. We would probably find that as a contract approach, one time development, and then we would maintain that inhouse. We've got a long track record of doing that with different projects.

When it comes to the charter observer data for North Carolina through Georgia, the Southeast Fisheries Science Center has identified funds to go directly to those three states, to hire staff and go out and do charter boat at-sea observers, and the piece for ACCSP would be to take a component already developed by the Gulf Commission, and Karen Cannell as the APAX Interface.

Sorry, Application Express is the Oracle Web Interface, and literally take what has already been built and paid for, and with some support from Southeast Fisheries Science Center, to install and modify that for ACCSP. Again, it's contract staff, it's a maintenance load, but it's not a major initiative for our software programming staff to take on.

Then the for-hire logbooks and dockside sampling are putting a lot of staff time into developing a methodology theory and design before that goes out into a field. Once that design is approved once, and certified by MRIP, then it's open for implementation by any Atlantic Coast partner again and again and again, when they are ready for it.

Whether that was a federal or a state logbook program that wanted to meet those parameters. Again, it's work at the beginning, but once that is developed it is not a workload on ACCSP staff or the Admin Grant to put that design in the field. That would be funded either by MRIP or by a state, and the data flow through with the data processing that is already a part of the Admin Grant.

MS. KNOWLTON: Could they come to ACCSP with a new proposal to implement, after it was gone through the MRIP approval process?

MR. WHITE: I would think, yes.

MS. KNOWLTON: Okay, that's one, second question had to do, if you don't mind, if you'll humor me with going back a few more slides, when you talked about the data standards for, it included Citizen Science right at the very bottom of it. It was nearer the beginning. There we go, there we go.

ACCSPs meat and potatoes is defining data standards. I'm excited to see on there the components that will be coming in through the new discard catch cards and lengths of discarded fish. The one that I was intrigued with most and didn't expect was the Citizen Science records.

How does that interaction, how do you see that interaction occurring with developing data standards for the citizen science records, when programs that are successful with going through the SciFish process and the SciFish Advisory Panel, and we have made standards using current ACCSP approved data fields. They can only choose from those. We frontloaded that to streamline consistent data standards. What portion of that is needed in the Citizen Science records moving forward? Do you understand my question?

MR. WHITE: I do, and it's not about the data collection. In my view it is something that has to be worked out about data presentation. Right now, we get biological data in from different places on discards. Trip Report has the information on released catch. APAIS Interview, an Observer Trip, a citizen science record.

They are stored in four different places. How do you pull the right information from each of those four places, and rebuild a coherent picture that answers the questions that the users need? It's less about redefining how citizen science should ask the question and more asking the data users, what is the best way to present the background.

MS. KNOWLTON: Do you see that happening through the Rec-Tech Committee, or is that more of a developmental thing?

MR. WHITE: I think partially Rec-Tech. I think it's really a collaborative effort across several committees, because I don't think any one of us knows the answer.

CHAIR McNAMEE: All right, great discussion. Other questions for Geoff? No hands in the room, any hands online? No hands online. All right, so I think Geoff, unless there is. Oh yes, no, I'm not going to forget that, don't worry. I'm just making sure we're done with the program updates.

ELECT CHAIR AND VICE CHAIR

CHAIR McNAMEE: Okay, so we're done with that part of the agenda and now we're on to the Election of the Next Chair and Vice-Chair. I'll start with the Chair, and first I'll start by saying it's been a lot of fun chairing this committee. I think this Committee is super important and enables a lot of both fundamental and cutting-edge stuff that we're doing with data that allows us to do our work.

It's been a real pleasure being a part of that. But alas, all good things must come to an end, so I'll be turning over the Chairmanship after this meeting. To my left here, Ms. Kathy Knowlton has been riding along shotgun. She's been super helpful, super engaged, and so unless there are any objections, I think it would be prudent to appoint Kathy as our next Chair.

Looking around the table, I wasn't anticipating anyone flagging me down, so. I don't think we need a motion, as long as nobody jumps up and shouts, then I think we're good. We'll consider Kathy to be our new Chair for the Coordinating Council. Congratulations, Kathy. I promised Kathy I would finish up this meeting, and she'll take over with a clean slate next time. There is the Chair, so next we need now a new Vice-Chair. I will look over to Bob for a nomination.

EXECUTIVE DIRECTOR BEAL: Thank you, Mr. Chair, and thank you for your two years of service to the Coordinating Council, we appreciate it. I can sit here and I usually can't vote or make motions. I'm going to take advantage of this opportunity and nominate Renee Zobel to my right for Vice-Chair of the ACCSP Coordinating Council.

CHAIR McNAMEE: Great, so we've got a nomination, is there a second to that nomination,

by Dan McKiernan. Great, are there any objections to the nomination of Renee for the Vice-Chair position? Seeing none; congratulations, Renee to the Vice-Chairmanship. Okay, that takes care of the elections, Geoff, go ahead.

MR. WHITE: I just wanted to take a moment and say thank you to Jason for his two years as being Chair. We've got your name added to the official plaque of those who served as Coordinating Council Chairs. I will certainly miss your efficient meeting running style, as well as having a bowtie next to me up here in the front, trying to copy you, or stay stylish for once. Thank you for your leadership and your help in keeping ACCSP moving forward.

CHAIR McNAMEE: Thank you very much, Geoff. (Applause) Yes, go ahead, Geoff.

MR. WHITE: While I have the floor, and saying thank you, I did want to look across the table at Mel Bell, so glad to have you here. In your official retirement meeting you were not with us; you were at another event. I appreciate your being able to be here with us again, appreciate your years of time and service to ACCSP on the Coordinating Council, and your mentorship both as a fisheries professional and a friend to get us through all this. Thank you once again for all your time and efforts with us.

MR. MEL BELL: Thanks, Geoff.

ADJOURNMENT

CHAIR McNAMEE: Thank you, Mel. That takes us to the end of the agenda, unless anybody has Other Business, not seeing anyone raise a hand around the table. I think we can go ahead and adjourn if we get a motion to do so. Motion made by Dan, is there a second? Seconded, I'm going to assume there are no objections to that, so thank you, everybody, we're adjourned.

(Whereupon the meeting adjourned at 2:07 p.m. on October 21, 2024)

FY2026 ACCSP Request for Proposals Summary

During the October 2024 ASMFC annual meeting, the Coordinating Council tasked the ACCSP Funding Subcommittee to review how updated ACCSP module priorities and scoring may impact overall ranking. The Funding Subcommittee was reconvened with the following membership: Bob Beal (Chair), Julia Byrd, Nicole Lengyel Costa, Maryellen Gordon, Fran Karp, Carrie Kennedy, Kathy Knowlton, and Renee Zobel. The subcommittee met three times between December 2024 and March 2025. The recommendations of the subcommittee included:

- adjusting the primary program priorities to elevate the socioeconomic module and decrease the catch-effort module to reflect past accomplishments and future direction of the ACCSP,
- adjusting the secondary program priorities to align the socioeconomic module with the three other modules, and
- adding an Impact on Management row similar to the existing Impact on Stock Assessment.

The Operations and Advisory Committees met April 7, 2025, and supported the inclusion of the Funding Subcommittee's recommendations and chose to set the secondary priorities to be half of the existing primary priority scores. The ACCSP FY2026 RFP summary of changes includes the details for Coordinating Council consideration and action.

Recommendations from Funding Subcommittee

a. Funding Subcommittee Review

   i. Analysis of how changing the scoring would impact overall ranking

   ii. Open discussion of priorities

   iii. The subcommittee determined that there was not a significant impact by implementing the changes suggested below. They emphasized that it will be important for proposals to be specific in how the project will have an impact on stock assessment or useful for management. For example, this was a research recommendation from X or this Council specifically requested this information. Encourage proposers to be get letters of support from those that would be using the data.

b. Recommendations

   i. Primary Priority

      i. Decrease catch and effort range from 0 - 10 to 0 - 8.

      ii. Increase socioeconomic range from 0 - 4 to 0 - 6.

   ii. Secondary priority

      i. Socio-economic is the only one that is different (0-1). All the others are 0-3.

      ii. The Operations and Advisors should determine the change to be made increasing the socio-economic. Options:

         1. Make all three equal

         2. Make each secondary half of the existing primary

   iii. Add Useful to Management row with a range of 0 - 3 that is the same as Impact on Stock Assessment.

ACCSP FY26 RFP Summary of Changes

1. RFP

1.1. General Changes

1.1.1. Updated dates appropriately

1.1.2. Changes to the priorities section based on review of funding subcommittee recommendations by Operations Committee and Advisory Panel

1.1.2.1. Updated language (based on details outlined in Ranking Criteria below)

1. Biological data;

2. catch, effort, and landings data (including licensing, permit and vessel registration data);

3a. releases, discards and protected species data; and,

3b. economic and sociological data (equal to 3a).

2. Funding Decision Document

2.1. General changes

2.1.1. All dates have been updated

2.2. General Proposal Guidelines (**PAGE 5**)

2.2.1. Added bullets

2.2.2. Language: Proposals that request funding to purchase 3rd party data or develop/purchase 3rd party software that is similar (i.e. performing existing functions) to software offered by ACCSP may not be recommended for funding.

2.2.3. Language: Proposal summaries should be specific on how the project will have an impact on stock assessments or be useful for management. For example, this was a research recommendation from X or this Council specifically requested this information. Proposers are encouraged to get letters of support from those that would be using the data.

2.3. Appendix A (**PAGE 15**)

2.3.1. Added Year 6 (final year) value ($71,172) for PRFC electronic reporting project

2.4. Appendix B (**PAGE 16**)

2.4.1. Changes to the ranking section based on review of funding subcommittee recommendations by Operations Committee and Advisory Panel (see details in Ranking Criteria below)

3. Biological Priority Matrix

3.1 Updated based on the matrix review held at the Biological Review Panel meeting held in February of 2025.

4. Bycatch Priority Matrix

3.1 Updated based on the matrix review held at the Bycatch Prioritization Committee meeting held in February of 2025.

5. Recreational Technical Committee Priorities – No Changes

6. Socioeconomic Priority Data Elements – No Changes

7. Timeline for Proposal Review

7.1. Dates are updated

7.2. Overall timeline remains relatively the same

8. Ranking Criteria Document

8.1. Updates based on review of funding subcommittee recommendations by Operations Committee and Advisory Panel

8.1.1. Primary Program Priority (updated)

Biological Sampling Catch and Effort Bycatch/Species Interactions Social and Economic	0 – 10 0 – 8 0 – 6 0 - 6	Rank based on range within module and level of sampling defined under Program design. When considering biological, bycatch or recreational funding, rank according to priority matrices.

8.1.2. Secondary Program Priority (updated)

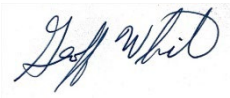
Potential secondary module as a by-product (In program priority order)	0 – 5 0 – 4 0 – 3 0 - 3	Ranked based on additional module data collection and level of collection as defined within the Program design of individual module.

8.1.3. Impact on Management (added)

Impact on management	0 - 3	Rank based on the level of data collection that leads to new or greatly improved management as specified in the proposal.

Atlantic Coastal Cooperative Statistics Program
1050 N. Highland Street, Suite 200A-N | Arlington, VA 22201
703.842.0780 | 703.842.0779 (fax) | www.accsp.org

TO: ACCSP Coordinating Council and All ACCSP Committees

FROM: Geoff White, ACCSP Director 

SUBJECT: ACCSP Request for 2026 Proposals

The Atlantic Coastal Cooperative Statistics Program (Program or ACCSP) is issuing a Request for Proposals (RFP) to Program Partners and Committees for FY26 funding.

ACCSP's Funding Decision Document (FDD) provides an overview of the funding decision process, guidance for preparing and submitting proposals, and information on funding recipients' post-award responsibilities. Projects in areas not specifically addressed in the FDD may still be considered for funding if they help achieve Program goals. These goals, listed by priority, are improvements in:

1. Biological data;
2. catch, effort, and landings data (including licensing, permit and vessel registration data);

3a. releases, discards and protected species data; and,

3b. economic and sociological data (equal to 3a).

Project activities that will be considered according to priority may include:

- Partner implementation of data collection programs;
- Continuation of current Program-funded partner programs;
- Funding for personnel required to implement Program related projects/proposals; and
- Data management system upgrades or establishment of partner data feeds to the Data Warehouse and/or Standard Atlantic Fisheries Information System.

Proposals for biological sampling should target priority species in the top quartile (Attachment II) of the Biological Priority Matrix. Proposals for observer coverage should align with fisheries affecting the top quartile priority species (Attachment III) of the Bycatch Priority Matrix. Brief descriptions of the current levels of biological or bycatch sampling by any of the Partners would be helpful to the review process. Projects for recreational catch and effort data should target the priorities set by the Recreational Technical Committee (Attachment IV). Projects involving socioeconomic data should reference the Socioeconomic Priority Data Elements (Attachment V).

Proposals to continue Program-funded partner projects ("maintenance proposals") may not contain significant changes in scope (for example the addition of bycatch data collection to a dealer reporting project), and must include in the cover letter whether there are any changes in the current proposal from prior years' and, if so, provide a brief summary of those changes.

Additionally, in FY16 a long-term funding strategy policy was instituted to limit the duration of maintenance projects. Maintenance projects are now subject to a funding reduction following their fourth year of maintenance funding. For maintenance projects entering year 6, a further 33 percent cut will be applied and funding will cease in year 7.

All project submissions must comply with the Program Standards found here. Please consider using this successful project proposal as a template. Overhead rates may not exceed 25% of total costs unless mandated by law or policy. Items included within overhead should not also be listed as in-kind match.

Submissions will be reviewed in accordance with the FDD (Attachment I), ranking criteria (Attachment VII), and funding allocation. Current funding allocation guidelines are 75% for maintenance projects and 25% for new projects within the Program priorities. If either allocation is not fully utilized, remaining funds will be available to approved projects in the other category. For example, if maintenance projects only use 67% of the total available funds, the remaining balance would be added to the 25% new project allocation to fund new projects as approved by the Coordinating Council.

Attachment VI provides a timeline for the FY26 funding process. The final decision on proposals to be funded for FY26 will be made in October 2025. Project awards will be subject to funding availability and, if there is a funding shortfall, awards may be adjusted in accordance with the FDD. Successful applicants will be notified when funding becomes available.

Project Investigators will be required to report progress directly to the Program's Operations and Advisory Committees in addition to meeting the standard Federal reporting requirements.

Please submit initial proposals as Microsoft Word and Excel files no later than **June 13, 2025** by email to Julie DeFilippi Simpson, ACCSP Deputy Director julie.simpson@accsp.org. If you have any questions about the funding decision process, please contact your agency's Operations Committee member (http://www.accsp.org/committees) or ACCSP staff (703-842-0780).

RELEVANT ATTACHMENTS

ATTACHMENT I	FY2026 Funding Decision Document
ATTACHMENT II	FY2026 Biological Priority Matrix
ATTACHMENT III	FY2026 Bycatch Priority Matrix
ATTACHMENT IV	FY2026 Recreational Technical Committee Priorities
ATTACHMENT V	FY2026 Socioeconomic Priority Data Elements
ATTACHMENT VI	FY2026 Timeline for Proposal Review
ATTACHMENT VII	FY2026 Ranking Criteria Document

Funding Decision Process
Atlantic Coastal Cooperative Statistics Program
May 2025

The Atlantic Coastal Cooperative Statistics Program (the Program) is a state-federal cooperative initiative to improve recreational and commercial fisheries data collection and data management activities on the Atlantic coast. The program supports further innovation in fisheries-dependent data collection and management technology through its annual funding process.

Each year, ACCSP issues a Request for Proposals (RFP) to its Program Partners. The ACCSP Operations and Advisory Committees review submitted project proposals and make funding recommendations to the Deputy Director and the Coordinating Council.

This document provides an overview of the funding decision process, guidance for preparing and submitting proposals, and information on funding recipients' post-award responsibilities, including providing reports on project progress.

Overview of the Funding Decision Process

Funding Decision Process Timeline

April- Operations and Advisory Committees develop annual funding priorities, criteria and allocation targets (maintenance vs. new projects)

May- Coordinating Council issues Request for Proposals (RFP)

June- Partners submit proposals

July- Operations and Advisory Committees review initial proposals, PIs are invited (not mandatory) to this meeting to answer questions and hear feedback; ACCSP staff provide initial review results to submitting Partner

August- Final proposals are submitted. Final proposals must be submitted electronically to the Deputy Director, and/or designee by close of business on the day of the specified deadline. Final proposals received after the RFP deadline will not be considered for funding.

September- Operations and Advisory Committees review and rank final proposals

October- Funding recommendations presented to Coordinating Council; Coordinating Council makes final funding decision

ACCSP Staff submits notification to submitting Partner of funded projects and notification of approved projects to appropriate grant funding agency (e.g. NOAA Fisheries Regional Grants Program Office, "NOAA Grants") by Partner

As Needed- Operation and/or Leadership Team and Coordinating Council review and make final decision with contingencies (e.g. scope of work, rescissions, no-cost extensions, returned unused funds, etc.)

Detailed Steps of Funding Decision Process

1. Develop Annual Funding Priorities, Criteria and Allocation Targets (maintenance vs. new projects).

Prior to issuing the Request for Proposals, the Coordinating Council will approve the annual funding criteria and allocation targets. These will be used to rank projects and allocate funding between maintenance and new projects respectively.

In FY16, a long-term funding strategy policy was instituted to limit the duration of maintenance projects. Maintenance projects are now subject to a funding reduction following their fourth year of maintenance funding.

- For maintenance projects entering year 5 of ACCSP funding in FY20, a 33 percent funding cut was applied to whichever sum was larger: the project's prior two-year-average base funding set in FY16, or the average annual sum received during the project's four years of full *maintenance* funding. In year 6, a further 33 percent cut will be applied and funding will cease in year 7. Please see Appendix A for a list of maintenance projects entering year 6 in FY20 and the maximum funds available for these projects.
- For more recent maintenance projects (i.e., those entering year 5 of maintenance funding after FY20), the base funding will be calculated as the average of funding received during the project's four years as a *maintenance* project. These projects will receive a 33 percent cut in year 5, a further 33 percent cut in year 6, and funding will cease in year 7. Please see Appendix A for a list of maintenance projects entering year 5 or 6 in FY25 and the maximum funds available for these projects.

2. Issue Request for Proposals

An RFP will be sent to all Program Partners and Committees no later than the week after the spring Coordinating Council meeting. The RFP will include the ranking criteria, allocation targets approved by the Coordinating Council, and general Program priorities taken from Goal 3 of the current ASMFC Five-Year Strategic Plan. The RFP and related documents will also be posted on the Program's website here.

All proposals MUST be submitted either by a Program Partner, jointly by several Program Partners, or through a Program Committee. The public has the ability to work with a Program Partner to develop and submit a proposal. Principle investigators are strongly encouraged to work with their Operations Committee member in the development of any proposal. All proposals must be submitted electronically to the Deputy Director, and/or designee, in the standard format.

3. Review initial proposals

Proposals will be reviewed by staff and the Operations and Advisory Committees. Committee members are encouraged to coordinate with their offices and/or constituents to provide input to the review process. Operations Committee members are also encouraged to work with staff in their offices who have submitted a proposal in order to represent the proposal during the review. Project PIs will be invited to attend the initial proposal review, held in July. The review and evaluation of all written proposals will take into consideration the ranking criteria, funding allocation targets and the overall Program Priorities as specified in the RFP. Proposals may be forwarded to relevant Program technical committees for further review of the technical feasibility and statistical validity. Proposals that fail to meet the ACCSP standards may be recommended for changes or rejected.

4. Provide initial review results to submitting Partner

Program staff will notify the submitting Partner of suggested changes, requested responses, or questions arising from the review. The submitting Partner will be given an opportunity to submit a final proposal incorporating suggested changes in the same format previously described in Step 2(b) by the final RFP deadline.

5. Review and rank final proposals

The review and ranking of all proposals will take into consideration the ranking criteria, funding allocation targets, and overall Program Priorities as specified in the RFP**.** The Deputy Director and the Advisory and Operations Committees will develop a list of prioritized recommended proposals and forward them for discussion, review, and approval by the Coordinating Council.

6. Proposal approval by the Coordinating Council

The Coordinating Council will review a summary of all submitted proposals and prioritized recommended proposals from the Operations and Advisory Committees. Each representative on the Coordinating Council will have one vote during final prioritization of project proposals. Projects to be funded by the Program will be approved by the Coordinating Council by the end of November each year. The Deputy Director will submit a pre-notification to the appropriate NOAA Grants office of the prioritized proposals to expedite processing when those offices receive Partner grant submissions.

7. Confirmation of final funding amounts

The Director and Deputy Director will be notified by NOAA Fisheries of any federal grant adjustments (e.g. additions or rescissions). Additional funds will generally go to the next available ranked project. Reductions may include, but are not limited to:

- Lower than anticipated amounts from any source of funding
- Rescission of funding after initial allocations have been made
- Partial or complete withdrawal of funds from any source

If these or other situations arise, the Operations Committee will notify Partners with approved proposals to reduce their requested budgets or to withdraw a proposal entirely. If this does not reduce the overall requested amount sufficiently, the Director, Deputy Director, the Operations Committee Chair and Vice-Chair, and the Advisory Committee Chair will develop a final recommendation and forward to the ACCSP Leadership Team of the Coordinating Council. These options to address funding contingencies may include:

- Eliminating the lowest-ranked proposal(s)
- A fixed percentage cut to all proposals' budgets
- A directed reduction in a specific proposal(s)

8. Notification to submitting Partner of funded projects and submittal of project documents to appropriate grants agency (e.g. NOAA Grants) by Partner.

Notification detailing the Coordinating Council's actions relevant to a Partner's proposal will be sent to each Partner by Program staff.

- Approved projects from Non-federal Partners must be submitted as full applications (federal forms, project and budget narratives, and other attachments) to NOAA Grants via www.grants.gov. These documents must reflect changes or conditions approved by the Coordinating Council.
- Non-federal Partners must provide the Deputy Director with an electronic copy of the narrative and either an electronic or hard copy of the budget of the grant application as submitted to the grants agency (e.g. NOAA Grants).
- Federal Partners do not submit applications to NOAA Grants.

9. Operation and/or Leadership Team and Coordinating Council review and final decision with contingencies or emergencies.

Committee(s) review and decide project changes (e.g. scope of work, rescissions, no-cost extensions, returned unused funds, etc.) during the award period.

Proposal Guidance

- General Proposal Guidelines
- Format
- Budget Template

General Proposal Guidelines

- The Program is predicated upon the most efficient use of available funds. Many jurisdictions have data collection and data management programs which are administered by other fishery management agencies. Detail coordination efforts your agency/Committee has undertaken to demonstrate cost-efficiency and non-duplication of effort.

- All Program Partners conducting projects for implementation of the program standards in their jurisdictions are required to submit data to the Program in prescribed standards, where the module is developed and formats are available. Detail coordination efforts with Program data management staff with projects of a research and/or pilot study nature to submit project information and data for distribution to all Program Partners and archives.

- If appropriate to your project, please detail your agency's data management capability. Include the level of staff support (if any) required to accomplish the proposed work. If contractor services are required, detail the level and costs.

- Before funding is considered beyond year one of a project, the Partner agency shall detail in writing how the Partner agency plans to assume partial or complete funding or, if not feasible, explain why.

- If appropriate to your project, detail any planned or ongoing outreach initiatives. Provide scope and level of outreach coordinated with either the Program Assistant and/or Deputy Director.

- Proposals that request funding to purchase 3rd party data or develop/purchase 3rd party software that is similar (i.e. performing existing functions) to software offered by ACCSP may not be recommended for funding.

- Proposal summaries should be specific on how the project will have an impact on stock assessments or be useful for management. For example, this was a research recommendation from X or this Council specifically requested this information. Proposers are encouraged to get letters of support from those that would be using the data.

- Proposals including a collection of aging or other biological samples must clarify Partner processing capabilities (i.e., how processed and by whom).

- Provide details on how the proposal will benefit the Program as a whole, outside of benefits

to the Partner or Committee.

- Proposals that request funds for law enforcement should confirm that all funds will be allocated towards reporting compliance.

- Proposals must detail any in-kind effort/resources, and if no in-kind resources are included, state why.
- Proposals must meet the same quality as would be appropriate for a grant proposal for ACFCMA or other federal grant.

- Assistance is available from Program staff, or an Operations Committee member for proposal preparation and to insure that Program standards are addressed in the body of a given proposal.

- Even though a large portion of available resources may be allocated to one or more jurisdictions, new systems (including prototypes) will be selected to serve all Partners' needs.

- Partners submitting pilot or other short-term programs are encouraged to lease large capital budget items (vehicles, etc.) and where possible, hire consultants or contractors rather than hire new permanent personnel.

- The Program will not fund proposals that do not meet Program standards. However, in the absence of approved standards, pilot studies may be funded.

- Proposals will be considered for modules that may be fully developed but have not been through the formal approval process. Pilot proposals will be considered in those cases.

- The Operations Committee may contact Partners concerning discrepancies or inconsistencies in any proposal and may recommend modifications to proposals subject to acceptance by the submitting Partner and approval by the Coordinating Council. The Operations Committee may recommend changes or conditions to proposals. The Coordinating Council may conditionally approve proposals. These contingencies will be documented and forwarded to the submitting Partner in writing by Program staff.

- Any proposal submitted after the initial RFP deadline will not be considered, in addition to any proposal submitted by a Partner which is not current with all reporting obligations.

Proposal Format

Applicant Name: Identify the name of the applicant organization(s).

Project Title: A brief statement to identify the project.

Project Type: Identify whether new or maintenance project.

> *New Project – Partner project never funded by the Program. New projects may not exceed a duration of one year.*
>
> *Maintenance Project – Project funded by the Program that conducts the same scope of work as a previously funded new or maintenance project. These proposals may not contain significant changes in scope (e.g., the addition of bycatch data collection to a catch/effort dealer reporting project). PIs must include in the cover letter whether there are any changes in the current proposal from prior years' and, if so, provide a brief summary of those changes. At year 5 of maintenance funding, a project's base funding will be calculated as the average of funding received during the project's four years as a* maintenance *project.*

Requested Award Amount: Provide the total requested amount of proposal. Do not include an estimate of the NOAA grant administration fee.

Requested Award Period: Provide the total time period of the proposed project. The award period typically will be limited to one-year projects.

Objective: Specify succinctly the "why", "what", and "when" of the project.

Need: Specify the need for the project and the association to the Program.

Results and Benefits: Identify and document the results or benefits to be expected from the proposed project. Clearly indicate how the proposed work meets various elements outlined in the ACCSP Proposal Ranking Criteria Document (Appendix B). Some potential benefits may include: fundamental in nature to all fisheries; region-wide in scope; answering or addressing region-wide questions or policy issues; required by MSFCMA, ACFCMA, MMPA, ESA, or other acts; transferability; and/or demonstrate a practical application to the Program.

Data Delivery Plan: Include coordinated method of the data delivery plan to the Program in addition to module data elements gathered. The data delivery plan should include the frequency of data delivery (i.e. monthly, semi-annual, annual) and any coordinate delivery to other relevant partners.

Approach: List all procedures necessary to attain each project objective. If a project includes work in more than one module, identify approximately what proportion of effort is comprised within each module (e.g., catch and effort 45%, biological 30% and bycatch 25%). Please note that only one primary module and one secondary module are considered for ranking.

Geographic Location: The location where the project will be administered and where the scope of the project will be conducted.

Milestone Schedule: An activity schedule in table format for the duration of the project, starting with Month 1 and ending with a three-month report writing period.

Project Accomplishments Measurement: A table showing the project goals and how progress towards those goals will be measured. In some situations the metrics will be numerical such as numbers of anglers contacted, fish measured, and/or otoliths collected, etc.; while in other cases the metrics will be binary such as software tested and software completed. Additional details such as intermediate metrics to achieve overall proposed goals should be included especially if the project seeks additional years of funding.

Cost Summary (Budget): Detail all costs to be incurred in this project in the format outlined in the budget guidance and template at the end of this document. A budget narrative should be included which explains and justifies the expenditures in each category. Provide cost projections for federal and total costs. Provide details on Partner/in-kind contribution (e.g., staff time, facilities, IT support, overhead, etc.). Details should be provided on start-up versus long-term operational costs.

> **In-kind** - [1]Defined as activities that could exist (or could happen) without the grant. [2]In-kind contributions are from the grantee organization. In-kind is typically in the form of the value of personnel, equipment and services, including direct and indirect costs.
>
> [1] The following are generally accepted as in-kind contributions:
>
> i. Personnel time given to the project including state and federal employees
>
> ii. Use of existing state and federal equipment (e.g. data collection and server platforms, Aging equipment, microscopes, boats, vehicles)

Overhead rates may not exceed 25% of total costs unless mandated by law or policy. Program Partners may not be able to control overhead/indirect amounts charged. However, where there is flexibility, the lowest amount of overhead should be charged. When this is accomplished indicate on the 'cost summary' sheet the difference between the overhead that could have been charged and the actual amount charged, if different. If overhead is charged to the Program, it cannot also be listed as in-kind.

Maintenance Projects: Maintenance proposals must provide project history table, description of completed data delivery to the ACCSP and other relevant partners, table of total project cost by year, a summary table of metrics and achieved goals, and the budget narrative from the most recent year's funded proposal.

Principal Investigator: List the principal investigator(s) and attach curriculum vitae (CV) for each. Limit each CV to two pages. Additional information may be requested.

Budget Guidelines & Template

All applications must have a detailed budget narrative explaining and justifying the expenditures by object class. Include in the discussion the requested dollar amounts and how they were derived. A spreadsheet or table detailing expenditures is useful to clarify the costs (see template below). The following are highlights from the NOAA Budget Guidelines document to help Partners formulate their budget narrative. The full Budget Guidelines document is available here.

Object Classes:

Personnel: include salary, wage, and hours committed to project for each person by job title. Identify each individual by name and position, if possible.

Fringe Benefits: should be identified for each individual. Describe in detail if the rate is greater than 35 % of the associated salary.

Travel: all travel costs must be listed here. Provide a detailed breakdown of travel costs for trips over $5,000 or 5 % of the award. Include destination, duration, type of transportation, estimated cost, number of travelers, lodging, mileage rate and estimated number of miles, and per diem.

Equipment: equipment is any single piece of non-expendable, tangible personal property that costs $5,000 or more per unit and has a useful life of more than one year. List each piece of equipment, the unit cost, number of units, and its purpose. Include a lease vs. purchase cost analysis. If there are no lease options available, then state that.

Supplies: purchases less than $5,000 per item are considered by the federal government as supplies. Include a detailed, itemized explanation for total supplies costs over $5,000 or 5% of the award.

Contractual: list each contract or subgrant as a separate item. Provide a detailed cost breakdown and describe products/services to be provided by the contractor. Include a sole source justification, if applicable.

Other: list items, cost, and justification for each expense.

Total direct charges

Indirect charges: If claiming indirect costs, please submit a copy of the current approved negotiated indirect cost agreement. If expired and/or under review, a copy of the transmittal letter that accompanied the indirect cost agreement application is requested.

Totals of direct and indirect charges

Example. Budget narrative should provide further detail on these costs.

Description	Calculation	Cost
Personnel (a)		
Supervisor	Ex: 500 hrs x $20/hr	$10,000
Biologist		
Technician		
Fringe (b)		
Supervisor	Ex: 15% of salary	$1500
Biologist		
Technician		
Travel (c)		
Mileage for sampling trips	Ex: Estimate 2000 miles x $0.33/mile	$660
Travel for meeting		
Equipment (d)		
Boat	Ex: $7000, based on current market research	$7000
Supplies (e)		
Safety supplies		$1200
Sampling supplies		$1000
Laptop computers	2 laptops @$1500 each	$3000
Software		$500
Contractual (f)		
Data Entry Contract	Ex: 1000 hrs x $20/hr	$20,000
Other (h)		
Printing and binding		
Postage		
Telecommunications charges		
Internet Access charges		
Totals		
Total Direct Charges (i)		
Indirect Charges (j)		
Total (sum of Direct and Indirect) (k)		

Post-award Responsibilities

Changing the Scope of Work

Partners shall submit requests for amendments to approved projects in writing to the Deputy Director. The Coordinating Council member for that Partner must sign the request.

When Partners request an amendment to an approved project, the Deputy Director will contact the Chair and Vice Chair of the Operations Committee. The Deputy Director and Operations Committee Chairs will determine if the requested change is minor or substantial. The Chairs and Deputy Director may approve minor changes.

For substantial proposed changes, a decision document including the opinions of the Chairs and the Deputy Director will be sent to the Operations Committee and the ACCSP Leadership Team of the Coordinating Council for review.

The ACCSP Leadership Team will decide to approve or reject the request for change and notify the Deputy Director, who will send a written notification to the Partner's principal investigator with a copy to the Operations Committee.

When a requested major amendment is submitted shortly before a Coordinating Council meeting, the approval of the amendment will be placed on the Council Agenda.

The Deputy Director will notify NOAA Grants of any change in scope of work for final approval for non-federal proposals, and the Partner will need to request a Change in Scope through Grants Online. Necessary communications will be maintained between the concerned Partner, the Program and NOAA Grants. Any changes must be approved through the normal NOAA Grants process.

Requesting a No-cost Extension

If additional time is needed to complete the project, Program Partners can request a no-cost extension to their award period. Partners should let the Program know of the need for additional time and then request the extension as an Award Action Request through NOAA Grants Online at least 30 days before the end date of the award.

Necessary communications will be maintained between the concerned Partner, the Program, and NOAA Grants office. Any changes must be approved through the normal NOAA Grants process.

Declaring Unused/Returned Funds

In an effort to limit the instances in which funds are not completely used during the award period, draw down reports from the NOAA Grants offices indicating remaining grant balances will be periodically reviewed during each fiscal year.

While effort should be made to complete the project as proposed, if Program Partners find that they will not be able to make use of their entire award, they should notify the Program and their NOAA Federal Program Officer as soon as possible. Depending on the timing of the action, the funds may be able to be reused within the Program, or they may have to be returned to the U.S. Treasury.

Program Partners must submit a written document to the Deputy Director outlining unused project funds potentially being returned. The Partner must also notify their Coordinating Council member (if applicable) for approval to return the unused funds. If the funding is available for re-use within the Program, the Director and Deputy Director will confer with the Operations Committee Chair and Vice-Chair and the Advisory Committee Chair, and then submit a written recommendation to the ACCSP Leadership Team of the Coordinating Council for final approval on the plan to distribute the returned money.

Necessary communications will be maintained between the concerned Partner, the Program, and NOAA Grants office. Any changes must be approved through the normal NOAA Grants process.

Reporting Requirements

Program staff will assess project performance.

The Partner project recipients must abide by the NOAA Regional Grant Programs reporting requirements and as listed below. All semi-annual and final reports are to include a table showing progress toward each of the progress goals as defined in Step 2b and additional metrics as appropriate. Also, all Partner project recipients will submit the following reports based on the project start date to the Deputy Director:

- Semi-annual reports (due 30 days after the semi-annual period) throughout the project period including time periods during no-cost extensions,
- One final report (due 90 days after project completion).
- Federal Partners must submit reports to the Deputy Director, and State Partners must submit reports to both the Deputy Director and the appropriate NOAA Grants office.

Program staff will conduct an initial assessment of the final report to ensure the report is complete in terms of reporting requirements. Program staff will serve as technical monitors to review submitted reports. NOAA staff also reviews the reports submitted via Grants Online.

A project approved on behalf of a Program Committee will be required to follow the reporting requirements specified above. The principle investigator (if not the Chair of the Committee) will submit the report(s) to the Chair and Vice Chair of the Committee for review and approval. The Committee Chair is responsible for submitting the required report(s) to the Program.

Joint projects will assign one principle investigator responsible for submitting the required reports. The principle investigator will be identified within the project proposal. The submitted reports should be a collaborative effort between all Partners involved in the joint project.

Project recipients will provide all reports to the Program in electronic format.

Partners who receive no-cost extensions must notify the Deputy Director within 30 days of receiving approval of the extension. Semi-annual and final reports will continue to be required through the extended grant period as previously stated.

Partners that have not met reporting requirements for past/current projects may not submit a new proposal.

A verbal presentation of project results may be requested. Partners will be required to submit copies of project specifications and procedures, software development, etc. to assist other Program Partners with the implementation of similar programs.

Report Format

Semi-Annual(s) – Progress Reports: (3-4 pages)

- Title page - Project name, project dates (semi-annual period covered and complete project period), submitting Partner, and date.
- Objective
- Activities Completed – bulleted list by objective.
- Progress or lack of progress of incomplete activities during the period of semi-annual progress – bulleted list by objective.
- Activities planned during the next reporting period.
- Metrics table
- Milestone Chart – original and revised if changes occurred during the project period.

Final Report:

- Title page – Project name, project dates, submitting Partner, and date.
- Abstract/Executive Summary (including key results)
- Introduction
- Procedures

- Results:
    - Description of data collected.
    - The quality of the data pertaining to the objective of the project (e.g. representative to the scope of the project, quantity collected, etc.).
    - Compiled data results.
    - Summary of statistics.
- Discussion:
    - Discuss the interpretation of results of the project by addressing questions such as, but not limited to:
    - What occurred?
    - What did not occur that was expected to occur?
    - Why did expected results not occur?
    - Applicability of study results to Program goals.
    - Recommendations/Summary/Metrics
- Summarized budget expenditures and deviations (if any).

Programmatic review

Project reports will inform Partners of project outcomes. This will allow the Program as a whole to take advantage of lessons learned and difficulties encountered. Staff will provide final reports to the appropriate Committee(s). The Committees then can discuss the report(s) and make recommendations to modify the Data Collection Standards as appropriate. The recommendations will be submitted through the Program committee(s) review process.

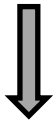
Appendix A: Maximum Funding for Maintenance Projects Entering Year 5 or 6 of Funding in FY25

Projects in Year 5 or 6 of Maintenance Funding	**Calculated Base** (4-year avg)	**Maximum Funding Year 5**	Maximum Funding Year 6 (Final Year)
Electronic Trip-Level Reporting for the Potomac River Fisheries Commission Commercial Fisheries Sector	**$213,516**	**$142,344**	$71,172

Appendix B: Ranking Criteria Spreadsheet for Maintenance and New Projects

Ranking Guide - Maintenance Projects:

Primary Program Priority	**Point Range**	**Description of Ranking Consideration**
Biological Sampling Catch and Effort Bycatch/Species Interactions Social and Economic	0 – 10 0 – 8 0 – 6 0 - 6	Rank based on range within module and level of sampling defined under Program design. When considering biological, bycatch or recreational funding, rank according to priority matrices.
Data Delivery Plan	+ 2	Additional points if a data delivery plan to the Program is supplied and defined within the proposal.

Project Quality Factors	**Point Range**	**Description of Ranking Consideration**
Multi-Partner/Regional impact including broad applications	0 – 5	Rank based on the number of Partners involved in project OR regional scope of proposal (e.g. geographic range of the stock).
> yr 1 contains funding transition plan and/or justification for continuance	0 - 4	Rank based on defined funding transition plan away from Program funding or viable justification for continued Program funding.
In-kind contribution	0 – 4	1 = 1% - 25% 2 = 26% - 50% 3 = 51% - 75% 4 = 76% - 99%
Improvement in data quality/quantity/timeliness	0 - 4	1 = Maintain minimum level of needed data collections  4 = Improvements in data collection reflect 100% of related module as defined within the Program design. Metadata is provided and defined within proposal if applicable.
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Impact on management	0 - 3	Rank based on the level of data collection that leads to new or greatly improved management as specified in the proposal.

Other Factors	Point Range	Description of Ranking Consideration
Properly Prepared	-1 – 1	Meets requirements as specified in funding decision document Step 2b and Guidelines
Merit	0 - 3	Ranked based on subjective worthiness

Ranking Guide – Maintenance Projects: (to be used only if funding available exceeds total Maintenance funding request)

Other Factors	Point Range	Description of Ranking Consideration
Achieved Goals	0 – 3	Proposal indicates project has consistently met previous set goals. Current proposal provides project goals and if applicable, intermediate metrics to achieve overall achieved goals.
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Ranking Guide – New Projects:

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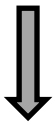
Improvement in data quality/quantity/timeliness	0 - 4	1 = Maintain minimum level of needed data collections  4 = Improvements in data collection reflect 100% of related module as defined within the Program design. Metadata is provided and defined within proposal if applicable.
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Biological Sampling Priority Matrix

Created March 2025

For FY2026

Our vision is to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

The Biological Review Panel Recommends:

- Species in the upper 25% of the priority matrix should be considered for funding

- Sampling projects that cover multiple species within the upper 25% are highly recommended.

Biological Review Panel recommendations based on matrix*:

* UPPER 25% OF MATRIX

	Fishery Status	Most Recent Stock Assessment (year)	Current/Next Stock Assessment (year)	Council Priority	ASMFC Priority	State Priority	NMFS Priority	Fishery Managed	Sig. change in Landings w/in 24 Months	Sig. change in mgmt w/in 24 Months	Adequacy Level of Sampling	Stock Resilience	Seasonality of Fishery	TOTAL
Species														
Black Sea Bass Centropristis striata	K	MA: 2024 SA: 2023	MA: 2025 SA: 2027	5.0	5.0	3.6	5.0	5	1	4	4	3	1	36.64
Gag Grouper Mycteroperca microlepis	K	2021	2025	5.0	0.0	0.9	5.0	3	3	5	4	4	3	32.93
Snowy Grouper Epinephelus niveatus	K	2021	2027	5.0	0.0	1.1	5.0	3	3	4	3	5	3	32.07
American Shad Alosa sapidissima/mediocris	K/U	2020	2030	0.0	3.0	3.8	0.0	5	5	1	4	5	3	29.79
Red Grouper Epinephelus morio	K	2017	2027	5.0	0.0	1.1	5.0	3	1	4	3	4	3	29.07
River Herring Alosa	K/U	2023		0.0	4.0	3.1	0.0	5	5	1	4	4	3	29.07
Tilefish Lopholatilus chamaeleonticeps	K	SA: 2024; MA: 2024	MA: 2027	5.0	0.0	1.8	4.0	5	1	2	3	4	3	28.79
Spanish Mackerel Scomberomorus maculatus	K	2022	2028	5.0	2.0	1.4	4.0	3	3	2	3	2	3	28.36
Red Snapper Lutjanus campechanus	K	2021	2025	5.0		1.1	5.0	3	1	1	4	5	3	28.07
Scamp Mycteroperca phenax	K	2022		5.0	0.0	1.0	4.0	3	1	4	3	4	3	28.00
Red Porgy Pagrus pagrus	K	2020	2028	5.0	0.0	0.7	4.0	3	3	5	3	3	1	27.71
American Lobster Homarus americanus	K	2020	2025	0	5.0	2.6	3.0	3	1	5	3	4	1	27.64
Ocean Pout Macrozoarces americanus	K	2022	2025	0	0.0	0.2	1.0	3	5	5	5	5	3	27.21
Cobia Rachycentron canadum	K	2020	2025	1	5.0	1.6	4.0	3	1	1	4	3	3	26.64
American Eel Anguilla rostrata	K/U	2023	2027	0	3.0	3.5	0.0	5	3	2	4	5	1	26.50
Winter Flounder Pleuronectes americanus	K/U	GB: 2022; GOM & SNE/MA: 2022	2025	0	2.0	2.5	5.0	3	1	3	4	5	1	26.50
Blueline Tilefish Caulolatilus microps	U	2017	2024	3	0.0	1.4	5.0	3	1	4	3	3	3	26.36
Horseshoe Crab Limulus polyphemus	K/U	2024	2029	0	5.0	3.3	0.0	5	1	3	2	4	3	26.29
Atlantic halibut Hippoglossus hippoglossus	K	2024	2026	4	0.0	1.1	4.0	3	1	1	4	5	3	26.14
Atlantic Menhaden Brevoortia tyrannus	K	2022	2025	0	5.0	3.1	3.0	5	1	3	2	3	1	26.14
Shortfin Mako Shark Isurus oxyrhinchus	K	2019	2025	0	1.0	1.1	3.0	5	5	5	2	3	1	26.07
N. Short-fin Squid Illex illecebrosus	K/U	2022	2025	0	0.0	1.2	3.0	3	5	3	4	3	3	25.21
Gray Triggerfish Balistes capriscus	U	2023	2024	5	0.0	1.1	4.0	3	1	3	3	2	3	25.14
Scup Stenotomus chrysops	K/U	2023	2025	1	4.0	2.1	4.0	5	1	3	3	1	1	25.14
Bluefish Pomatomus saltatrix	K	2023	2025	0	4.0	2.9	3.0	5	3	1	3	2	1	24.93

Bio-sampling Priority Matrix

		Biological Sampling Adequacy	
		Adequate (0 - 2)	Inadequate (3 - 5)
Averaged Priority Columns	High (≥ 3.0)		Black Sea Bass - Spanish Mackerel - Red Snapper
	Low (< 3.0)	Horseshoe Crab - Atlantic Menhaden - Shortfin Mako Shark	Gag Grouper - Snowy Grouper - American Shad - Red Grouper - River Herring - Tilefish - Scamp - Red Porgy - American Lobster - Ocean Pount - Cobia - American Eel - Winter Flounder - Blueline Tilefish - Atlantic Halibut - N. Short-fin Squid - Gray Triggerfish - Scup - Bluefish

Grouping of species in upper 25% of total matrix score, based on sampling adequacy and average priority (average of ASMFC, Council, NMFS, and State priorities)

- Horseshoe crab, Atlantic menhaden, and shortfin mako shark are being sampled adequately and have a low priority, so additional sampling is not needed
- Projects that target multiple upper quartile species should be given a higher priority
- Ocean Pout has low average priority, high significant changes in management and landings, and a high resilience score

Bycatch Sampling Priority Matrix

Created in February 2025

For FY 2026

Our vision is to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

Top Quartile of Bycatch Matrix Suggestions

Combined Fleets	Sig. Change in mgmt w/in past 36 mo	Amt of reg discards	Amt of non reg discards	Prot Spp Interactions	Score
Mid-Atlantic Gillnet	3	4	2	5	14
Snapper Grouper H&L Fleet	5	4	1	3	13
South Atlantic Shrimp Trawl	1	4	2	5	12
New England Otter Trawl	3	4	2	3	12
Mid-Atlantic Pound Net	1	4	2	5	12
American Lobster Pots	1	4	1	5	11
Pelagic H&L Fleet (North)	3	4	1	3	11
New England Gillnet	3	2	1	5	11
New England Extra-Large-Mesh Gillnet	0	4	2	5	11
Mid-Atlantic Small-Mesh Otter Trawl, Bottom	1	4	1	5	11
Mid-Atlantic Large-Mesh Otter Trawl, Bottom	3	2	1	5	11
Mid-Atlantic Fish Pots and Traps	3	4	1	3	11
South Atlantic Large Mesh Gillnet	0	4	2	5	11
Southeastern, Atlantic and Gulf of Mexico HMS Pelagic Longline	1	4	1	5	11
Mid-Atlantic Dredge, Other	1	4	1	5	11
New England Crab Pots	3	2	1	5	11
South Atlantic Blue Crab	5	2	1	3	11

Atlantic Coastal Cooperative Statistics Program
1050 N. Highland Street, Suite 200A-N | Arlington, VA 22201
703.842.0780 | 703.842.0779 (fax) | www.accsp.org

ACCSP Funding Prioritization of the Recreational Technical Committee
April 2023

The Recreational Technical Committee determines that recreational data collection priorities for inclusion in ACCSP's annual request for proposals (RFP) and also guides the allocation of resources for NOAA Fisheries' NOAA Fisheries' Marine Recreational Information Program (MRIP). The prioritized list of data needs, which were reviewed and approved by the ACCSP Coordinating Council and approved by MRIP, is provided below:

1. **Improved precision (PSE) and presentation of MRIP estimates**
2. **Comprehensive for-hire data collection and monitoring**
3. **Improved recreational fishery discard and release data**
4. **Improved timeliness of MRIP recreational catch and harvest estimates**
5. **Biological sampling for recreational fisheries separate from MRIP**
6. **Improved in-season monitoring**

SOCIOLOGICAL AND ECONOMIC DATA

The Committee on Economics and Social Sciences (CESS) developed a list of priority socioeconomic data elements for coastwide collection. The list is not exhaustive; it represents key elements that can serve as a baseline of fundamental socioeconomic information to support management decisions. The list of priority data elements includes:

1. Trip-level information (to be collected through voluntary or mandatory reporting, for all or a subset of participants)
2. Data elements for an owner/operator survey (to be collected through an annual or semiannual survey)*

The CESS identified these priority data elements with the understanding that data would be collected in the aforementioned methods and would be linked to other ACCSP data through identifiers. Alternative collection methods or the inability to link data with identifiers may require changes to the priority data elements list in order to ensure the utility of the data.

Note: Priorities for standalone surveys will differ from the priorities identified below due to their distinct methodologies and inability to leverage other ACCSP data. The CESS should be consulted when identifying data elements for standalone socioeconomic surveys to ensure their utility and, where practical, consistency across studies.

*The ACCSP recognizes the analytic value of collecting the data elements below. We recommend that partners be aware of and take into account the reporting burden to industry, the sensitivity and at times confidentiality of socioeconomic information, and other relevant perspectives when determining which data elements to collect and set as optional or mandatory.

A. COMMERCIAL FISHERIES

Table 1:
TRIP LEVEL INFORMATION

DATA ELEMENT	DESCRIPTION / CRITERIA
Trip Information	
Vessel Identifier	-Unique vessel identifier (e.g., US Coast Guard, state registration number, etc.) -These identifiers must be trackable through time and space.
Trip Identifier	- Unique identifier assigned to the trip
Labor Cost Information	
Total Crew Cost	- Total monetary amount that was given to the crew for this trip

Total Captain Cost (If other than owner)	- Total monetary amount that was given to the captain for this trip
Owner Share	- Total monetary amount the vessel (or permit) owner received for this trip
Other Trip Cost Information	
Fuel & Oil Costs	- Cost for all fuel and oil used on this trip
Bait Costs	- Cost for all bait used on this trip
Ice Costs	- Cost for all ice used on this trip
Grocery Costs	- Cost for all groceries used on this trip
Miscellaneous Costs	- Cost of any other expenses specific to this trip (not including wages, overhead, or fixed costs) E.g., offloading/non-crew labor costs, packaging costs, etc.

Table 2:
DATA ELEMENTS FOR OWNER/OPERATOR SURVEY

DATA ELEMENT	DESCRIPTION / CRITERIA
Vessel Identification*	-Unique vessel identifier (e.g., US Coast Guard, state registration number, etc.) -These identifiers must be trackable through time and space.
Fishermen Identification	-Unique ACCSP Identifier for fishermen
Labor Cost Information	
Crew Payment System	- Code to identify crew & captain payment system (e.g. share system, per day, per trip)
Percentage Share Crew	- Percentage share to crew (if applicable)
Percentage Share Captain	- Percentage share to captain (if applicable)
Percentage Share Boat/Owner	- Percentage share to boat/owner (if applicable)
Crew Wages	- Average crew wages for the year (crew payment system indicates whether by hour, trip, day, etc.) (if applicable)
Captain Wages	- Average captain wages for the year (crew payment system indicates whether by hour, trip, day, etc.) (if applicable)
Annual Costs (Most Recent Year)	
Labor costs (captain and crew not in household)	- Total costs of labor for captain and crew outside the owner/operator's household
Labor costs (to people within owner/operator household)	- Total costs of labor for captain and crew within the owner/operator's household
Annual Insurance Costs	- Hull, health, protection and indemnity, mortgage, etc.
Dockage	- Total cost for vessel dockage, home port and transient dockage
Loan Payments	- Principal and interest
New Gear/ Equipment	- Total cost of new gear or equipment acquired
Repairs & Maintenance	- Total cost of repairs & maintenance of vessel and gear that were conducted in the previous year
Permits & Licenses	- Total cost of fishing permits / licenses for the previous year

Leased Quota Cost	- Total cost of leased quota for the previous year
Other Professional Expenses	- Professional expenses not otherwise itemized
Demographic Information	
Household Size	- # of individuals in the household (including respondent)
Employment Status	- Current employment status (e.g., employed fulltime, part-time, unemployed, retired, etc.)
Education	- Highest level of education completed
Marital/Cohabitational Status	- Current marital or cohabitational status of respondent
Age	- Age of the respondent
Gender	- Gender of the respondent
Ethnicity	- Ethnic background
Total Annual Household Income	- Total annual household income
Number of Household Individuals Involved in Commercial Fishing	-Total number of household individuals involved in commercial fishing (including respondent)
Percent of Annual Household Income from Commercial Fishing	- Percent of household income that is generated through commercial fishing or support activities
County of Residence	-County of residence
Years in Community	- Years in county of residence
Fishing Activity Information	
Fishermen status	-Fishermen status (e.g. full time, part time, not actively fishing)
Years in Commercial Fishing	- Number of years participating in commercial fishery
Permits held	- fishing permits held (by permit type)
Permit use	- Were all permits used within the last year
Reason for Latency	-Reason for not using permit within the last year
Primary Species Landed by Month	- Primary species landed by month
Primary Gears Used by Month	- Primary gears used by month

*Vessel Identifier is needed to link trip-level data to survey results

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This list includes dates for fiscal year 2025, including ACCSP committee meetings, relevant dates of the funding cycle, as well as meetings or conferences ACCSP typically attends or which may be of interest to our partners. If you have any questions or comments on this calendar, please do not hesitate to contact the ACCSP staff at info@accsp.org.

Jan 28-30:	NEFMC Meeting – Portsmouth, NH
Jan 29:	2025 FHTS Training - Webinar
Feb 4-5:	ASMFC Meeting – Arlington, VA
Feb 11:	Bycatch Prioritization Committee Meeting – Charleston, SC
Feb 11-12:	Biological Prioritization Committee Meeting – Charleston, SC
Feb 11-12:	APAIS North Atlantic Training- New Bedford, MA
Feb 11-12:	MAFMC Council Meeting- Webinar
Feb 18-19:	APAIS South Atlantic Training- Wilmington, NC
Mar 1:	Start of ACCSP FY25
Mar 11:	Commercial Technical Committee Meeting – Philadelphia, PA
Mar 12:	Information Systems Committee Meeting – Philadelphia, PA
Mar 31:	Recreational Technical Committee Meeting - Webinar
Mar 3-7:	SAFMC Meeting – Jekyll Island, GA
Apr 8-10:	MAFMC Meeting – Galloway, NJ
Apr 7:	Operations and Advisory Committees Spring Meeting – Webinar
Apr 14-17:	NEFMC Meeting – Mystic, CT
May 5-8:	ASMFC/Coordinating Council Meeting – Arlington, VA
May 12:	ACCSP issues request for proposals
May 31:	Recreational Technical Committee – Webinar
Jun 3-5:	MAFMC Meeting – Virginia Beach, VA
Jun 9-13:	SAFMC Meeting – Cape Canaveral, FL
Jun 13:	Initial proposals are due
Jun 20:	Initial proposals are distributed to Operations and Advisory Committees
Jun 24-26:	NEFMC Meeting – Freeport, ME
July 7:	Any initial written comments on proposals due
Week of Jul 14:	Review of initial proposals by Operations and Advisory Committees – Webinar
July 18:	If applicable, any revised written comments due
Week of Jul 21:	Feedback submitted to principal investigators
Aug 5-7:	ASMFC Meeting – Arlington, VA

Aug 11-14:	MAFMC Meeting – Annapolis, MD
Aug 15:	Revised proposals due
Aug 22:	Revised proposals distributed to Operations and Advisory Committees
Week of Sep 8:	Ranking exercise for Advisors and Operations Members – Webinar
Sep 15-19:	SAFMC Meeting – Charleston, SC
Sep 23-24:	Advisors/Operations Committee Joint Meeting (in-person; location TBD)
Sep 23-25:	NEFMC Meeting – Gloucester, MA
Oct 7-9:	MAFMC Meeting – Philadelphia, PA
Oct 27-30:	ASMFC Annual Meeting/Coordinating Council – Dewey Beach, DE
Dec 2-4:	NEFMC Meeting – Newport, RI
Dec 8-12:	SAFMC Meeting – Kitty Hawk, NC
Dec 15-18:	MAFMC Meeting – Washington, DC

Ranking Criteria for Maintenance and New Projects

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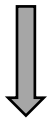
Improvement in data quality/quantity/timeliness	0 - 4	1 = Maintain minimum level of needed data collections  4 = Improvements in data collection reflect 100% of related module as defined within the Program design. Metadata is provided and defined within proposal if applicable.
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March 2025 Committee Newsletter

This monthly newsletter is intended to keep all committee members informed of the activities and accomplishments of ACCSP committees and staff. ACCSP staff welcomes feedback on all content.

- **March 31: Recreational Technical Committee Meeting**
- **April 7: Operations Committee and Advisory Panel Committee Meeting**
- **May 7: Coordinating Council Meeting**
- **See** ACCSP Calendar Link **for more information**

Program Updates

- The ACCSP Spring Data load is currently in progress. Thanks to all partner staff that worked together to submit participants and data.

Commercial Technical Committee

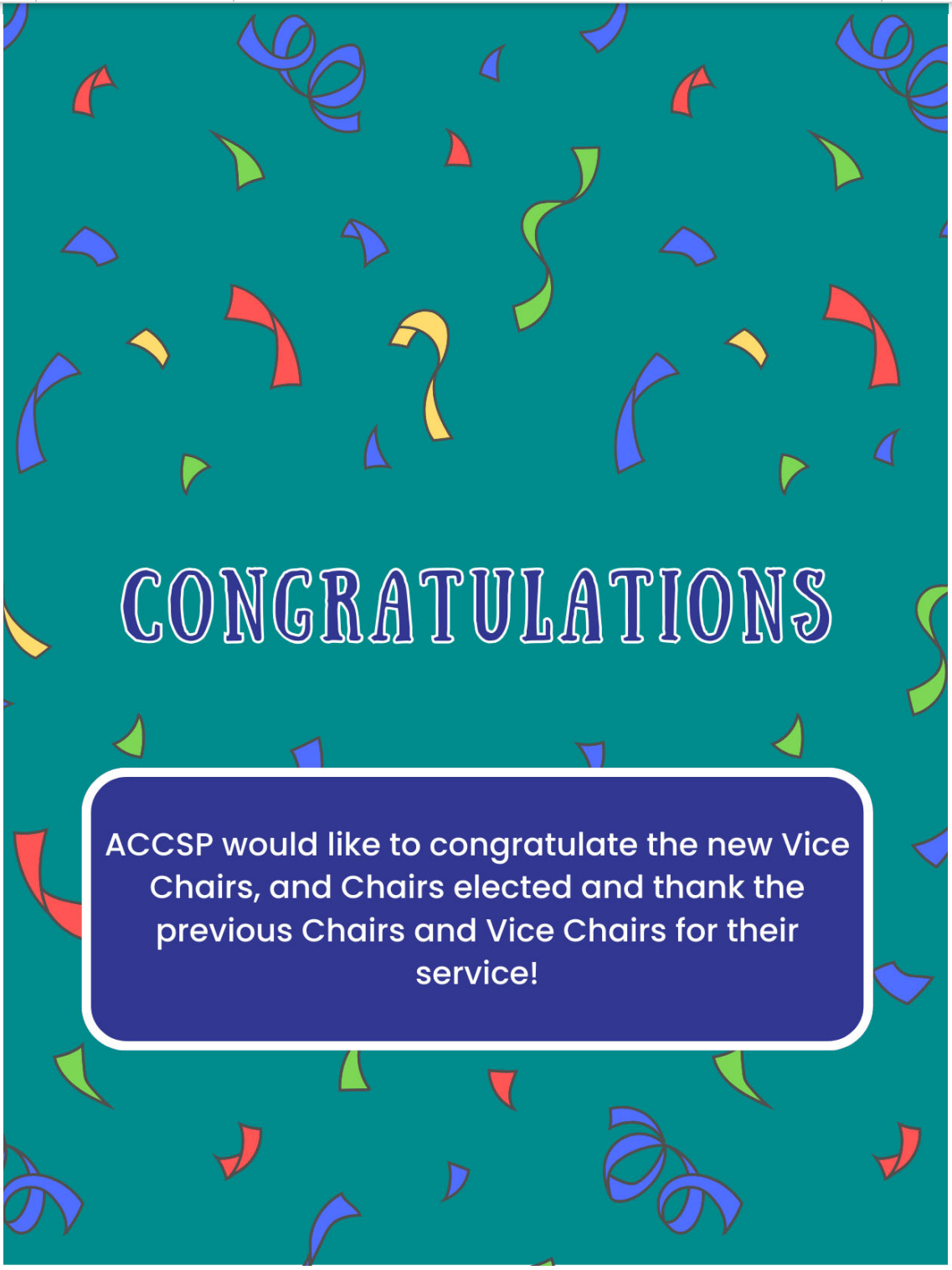
- The ACCSP Commercial Technical Committee met on March 11 for their annual meeting.
- C. Bradshaw presented updated conversion factors for American Eel, Atlantic Menhaden, Atlantic Sharpnose Shark, Blue Crab, and Snowy Grouper to be considered by partners for unified coast-wide or state-specific conversion factors. Acceptance of proposed conversion factors, and the year to begin usage, will be applied to data based on feedback from each partner, returned to ACCSP by Tuesday March 25th, 2025.
- A. Christmas-Svajdlenka presented a new limited confidential access level which grants users the ability to request and receive or view confidential data, but not to query confidential data in the Data Warehouse. The update to the confidential access process will be presented at the upcoming Operations and Advisors Committee meeting in April and be implemented upon approval, in the coming months.
- A. Webb, J. Dingle and E. Hiltz presented requests for better alignment of state and federal QC matching. J. Myers will provide each state with a comparison of their state data to federal QC matching, and facilitate coordination between state partners and federal agencies to improve information displayed to partners.
- A. Christmas-Svajdlenka presented an update to the stock assessment process. Both her and J. Ni will work with partners, following a stock assessment, to update any data in the Data Warehouse that were not validated, aligning partner data with data stored in the Data Warehouse.
- Elections were held for the new Vice Chair position, which was filled by David Player. The Chair position was filled by current Vice Chair Lauren Staples.

Software Update

ACCSP presented a project update on the eDR ReDesign.

- The update included discussions between ACCSP and partners on eDR requirements including proposed changes to the user-interface design and other technical details.
- A demonstration of the new SMS Registration Tracking modules was presented to partners. During the demonstration, partners asked questions about bulk permit-role updates and cross-agency permit role setup and coordination.
- ACCSP staff presented a project update on the Attribute Validation Project. Partners are ready to start using the new warning-type validations and ACCSP will let members know when the new validations will be available.
- ACCSP solicited partner input on Software Development priorities, via several interactive exercises (e.g. Miro) to facilitate discussion.
- Elections were held for the new Vice Chair position, which was filled by Chris Bradshaw. The Chair position was filled by current Vice Chair Rob Watts.

Highlight



Editor: Marisa Powell
Please contact us if you have any questions or feedback at info@accsp.org

ACCSP

Good Data, Good Decisions

February 2025 Committee Newsletter

This monthly newsletter is intended to keep all committee members informed of the activities and accomplishments of ACCSP committees and staff. ACCSP staff welcomes feedback on all content.

Upcoming Events

- **March 11: Commercial Technical Committee Meeting**
- **March 12: Information Systems Committee Meeting**
- **March 31: Recreational Technical Committee Meeting**
- **See** ACCSP Calendar Link **for more information**

Bycatch Prioritization Committee

- The ACCSP Bycatch Prioritization Committee met on February 11 to review Bycatch Prioritization matrix change requests developed to support the 2025 RFP.
- The change requests were approved by Committee consent including updates to species indices and relevant fleet explanations.
- Marisa Powell provided the Committee with an explanation of roles and responsibilities of Bycatch Prioritization Committee membership for new members and refreshed awareness for existing members.
- The Bycatch Prioritization Committee had a Hot Topic discussion led by Nicole Lengyel Costa overviewing the Rhode Island state waters gillnet observer program.
- Elections were held for the new Vice Chair position, which was filled by David Player. The Chair position was filled by current Vice Chair Lauren Staples.

Biological Review Panel Committee

- The ACCSP Biological Review Panel met on February 11 and 12 to consider the FY2026 Biological Review Matrix developed to support the 2025 RFP.
- The Biological Review panel updated and approved the Biological Review Matrix FY26, adding a significant number of species to the matrix as discussed at the previous Matrix Review meeting.
- Resilience scores were discussed and will be updated at the next annual meeting in 2026.
- Elections were held, with Angel Willey replacing Larry Beerkircher as Chair and Lucas Pensinger coming in as Vice Chair.

- The Standard Codes committee approved the addition of a new market code for “TITAN” crab claw sizes, requested by GA DNR.

Software Update

- The latest eTRIPS Online and Mobile applications were released on February 20. New features included a partner-managed dealer "weigh out" upload supporting pdf or image (jpg) files. Other changes included new SE gear attributes including j-hook, circle-hook, and HMS bait.
- The SAFIS SMS Registration Tracking prototype will be available for partner testing after the upcoming Information Systems Committee meeting in March. This new tool allows partners to create and manage participant Relationships and permit/vessel permit Reporting roles.
- The Information Systems Committee meeting has been scheduled as an in-person meeting in Philadelphia on **March 12**.

Highlight

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ACCSP

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January 2025 Committee Newsletter

This monthly newsletter is intended to keep all committee members informed of the activities and accomplishments of ACCSP committees and staff. ACCSP staff welcomes feedback on all content.

- February 11: Biological Review Panel Meeting
- February 11-12: Bycatch Prioritization Committee Meeting
- February 11- 12: Northern APAIS Training
- February 18- 19: Southern APAIS Training
- March 11: Commercial Technical Committee Meeting
- March 12: Information Systems Committee Meeting
- See ACCSP Calendar Link for more information

Commercial Technical Committee

This year's annual Commercial Technical Committee (ComTech) meeting will feature a Lean Coffee session focused on *Topics in Your "Marina."* This session is an open forum that offers attendees the opportunity to suggest potential topics they would like to see ACCSP/ComTech discuss.

If you have ideas or issues you'd like the committee to explore, we encourage you to submit them in advance to Anna-Mai.Christmas-Svajdlenka@accsp.org. Your input will help shape the discussions and ensure that the meeting is as relevant and impactful as possible.

We look forward to your participation!

Software Update

- As of **February 1, 2025**, the ACCSP eTRIPS/mobile app will not accept submissions of trip reports unless you are using the most current or one most recent release of the eTRIPS/mobile app. It has been planned for some time to reject trips submitted using older versions of the application. Please note that ACCSP staff will be issuing an email to SAFIS Administrators and a message of the day today so that users are also aware.
- The latest eTRIPS (online and mobile) release is in the final QA phase. The current release date is **February 6,** and all applications will be available for partner testing by February 4. New features include:
  - partner-managed dealer "weigh out" upload supporting pdf or image (jpg) files and
  - new multi-response SE gear attributes for j-hook, circle-hook, and HMS bait.
- The SAFIS SMS Registration Tracking prototype will be available for partner testing by mid-February and will be discussed at the upcoming Information Systems Committee meeting in March. This new tool allows partners to create and manage participant Relationships and permit/vessel permit Reporting roles.
- The Information Systems Committee meeting has been scheduled as an in-person meeting in Philadelphia on **March 12**. Additional meeting details will be sent to the

Highlight

Editor: Marisa Powell
Please contact us if you have any questions or feedback at info@accsp.org

November / December 2024 Committee Newsletter

This monthly newsletter is intended to keep all committee members informed of the activities and accomplishments of ACCSP committees and staff. ACCSP staff welcomes feedback on all content.

Upcoming Events

- **February 11- 12: Biological Review Panel and Bycatch Prioritization Committee Meeting**
- **February 11- 12: Northern APAIS Training**
- **February 18- 19: Southern APAIS Training**
- **See** ACCSP Calendar Link **for more information**

Recreational Technical Committee

The Recreational Technical Committee (RTC) held virtual meetings on October 30 and December 5, 2024:

1. ACCSP staff covered the intention for adding Modern Fishing Act (MFA) assignments to the base level of APAIS assignments, NOAA Fisheries staff summarized an analysis which can be used to identify where Access Point Angler Intercept Survey (APAIS) allocation can be shifted, and RTC members performed an exercise to illustrate how other states could identify areas of improvements. Potential shifts to MFA allocation target the first priority of the current Atlantic Recreational Implementation Plan, to improve precision (PSE) and presentation of MRIP estimates.
2. RTC members summarized recent progress of the project proposal to collect recreational discards via pre-trip catch card, using MRIP APAIS design for assignment distribution. The RTC submitted the initial proposal to the ACCSP Request for Proposal (RFP) on June 17, submitted revisions based on feedback from ACCSP Operations and Advisors on August 19, had the proposal ranked during the September 24-25 joint ACCSP Operations and Advisors meeting, and finally had the proposal approved for funding by the ACCSP Coordinating Council on October 21. Next steps are for the eight participating RTC states (MA, RI, CT, NY, MD, NC, SC, and GA) to finalize the catch card, procedures, outreach materials, and to coordinate with NOAA Fisheries on a draw for catch card assignments in 2025. The successful funding of this discard pilot project addresses the third priority of the current Atlantic Recreational Implementation Plan, to improve recreational fishery discard and release data. The pilot not only helps provide additional recreational discard lengths outside of the headboat fishing mode for potential use in stock assessments, it also can be used to confirm responses for unavailable/discarded catch of

hire effort via the For-hire Survey (FHS) during waves which are not typically covered during a year, by state. For now, this additional survey effort is being limited in MD, VA, NC, SC, and GA for wave 1 (January and February) only; however, all states from Maine through Georgia have been asked to confirm and adjust their vessel frame (i.e., eligible, active vessels) within the NOAA Fisheries' Vessel Directory for all unsampled waves/months to potentially expand this exercise in future years. The goal of this effort is to provide insight into whether or not there are changes to fisheries and fishing industries but also to see if the full MRIP conduct, including the Fishing Effort Survey (FES) and APAIS, would be warranted in future year. This could be especially relevant considering the ongoing RTC effort to have a for-hire methodology of logbook effort and catch estimation for MRIP certification which posits having a dockside (e.g., APAIS) component. Therefore, this item can affect the second priority of the current Atlantic Recreational Implementation Plan, comprehensive for-hire data collection and monitoring.

4. ACCSP staff discussed the intended process of partner agencies, specifically on the Atlantic Coast, for submitting requests to amend MRIP processes – this was aligned with the recent addition of the NOAA Fisheries' website. State staff and RTC members then proposed two alterations to the APAIS to include more granular data for area fished and to better account for depredation. Beyond the specific requests, which both aim to expand data collection for better management of species groups along the Atlantic Coast, this exercise is helpful for assuring that partner requests are heard and discussed through the proper channels and to make adjustments, where and when possible.

5. ACCSP staff briefly updated with progress to the proposed methodology for the creation of for-hire logbook estimates of both catch and effort, for eventual MRIP certification. Since having had MRIP consultant reviews and follow-up in late 2023 and early 2024, ACCSP have begun working with an additional MRIP consultant to begin the process of creating tangible estimators, match metrics, simulations, and sensitivity analyses in 2025. This effort addresses the second priority of the current Atlantic Recreational Implementation Plan, comprehensive for-hire data collection and monitoring.

6. Dawn Franco (GA DNR) moved to RTC chair, replacing outgoing chair Angela Giuliano (MD DNR) and Rachel Sysak (NY DEC) was elected as the incoming vice-chair of the RTC. Congratulations to Dawn and Rachel and a well-deserved thank you to Angela for four years of much progress as vice-chair and chair with the RTC!

The full RTC will meet again sometime in 2025 to further discuss next steps on requests from partner agencies for potential implementation, update on the discards pilot project milestones, and to track MRIP contractor progress on the proposed for-hire methodology.

Software Update

- The last major eTRIPS update was released on November 7. Major changes in this release include improvements to the Partner Footer, removal of several auto-filled

- ACCSP has received considerable feedback from end users on the changes in autofill and will be reaching out to partners to schedule a meeting for discussion early in the new year.
- The next major update is scheduled for mid January. Major changes in the upcoming release include new SE Federal gear questions for circle- and j- hook sizes and HMS bait. This version of eTRIPS will also allow users to upload photo (jpeg, png) or pdf dealer "weigh out" slips as part of trip reports.
- The Information Systems Committee meeting will be held in-person in March. ACCSP is discussing the location and dates with the chair and co-chair. More details will be sent out to members next week.

Highlight

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ACCSP

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October 2024 Committee Newsletter

This monthly newsletter is intended to keep all committee members informed of the activities and accomplishments of ACCSP committees and staff. ACCSP staff welcomes feedback on all content.

- **December 5: Recreational Technical Committee Meeting**
- **See** ACCSP Calendar Link **for more information**

Coordinating Council

- The ACCSP Coordinating Council met on October 21 to consider the FY2025 Partner and Administrative proposals and receive program updates.
- The Council approved the ACCSP Administrative grant and all three (3) maintenance proposals for FY2025 ranked and recommended by the Advisory and Operations Committees. The Council also voted to fully support the top four ranked new proposals, with the additional support for the Maine halibut sampling if funding allows. The Council noted appreciation to the Operations and Advisors on the work done to rank proposals and provide thoughtful recommendations to utilize available funding.
- The Council was presented an update of ACCSP program activities, including software development timelines, status of 2024 action plan items, planning for 2025 ASMFC Action Plan, and the need for more Advisors to be appointed by Council members.

Software Update

- The latest eTRIPS Online and Mobile release is in the final QA phase and all major issues identified by ACCSP and partner testing have been resolved. The current release date is November 7. Major changes in this release include improvements to the Partner Footer, removal of several auto-filled values to improve data quality, and a backend mobile conversion from Xamarin to .NET MAUI.

Standard Codes

- The Standard Codes committee approved the addition of 9 new Area-Fished codes. The request was made by the SEFSC commercial logbook team in order to support HMS fishing that occurs outside of the existing standard FIN areas. Prior to being presented to the Standard Codes committee, the request was reviewed and approved by SEFSC analysts, HMS, GARFO, SERO, FWC, and GulfFIN. The new areas are designed to emulate the domestic HMS areas used for management and will not overlap with the boundaries of any existing ACCSP area codes.

901	CARIBBEAN SEA
902	STRAITS OF FLORIDA/BAHAMA RIDGE
903	BLAKE RIDGE/BLAKE CANYON
904	BERMUDAS/HATTERAS PLAIN
905	MIDATLANTIC RIDGE (NORTH OF 35LAT)
906	SARGASSO SEA/CANARY AND CAPE VERDE BASINS
907	GUIANA BASIN/SIERRA LEONE BASIN
908	GUINEA BASIN (EAST OF -50LONG)

Biological Review Panel and Bycatch Prioritization Committee

- The Biological Review Panel and Bycatch Prioritization Committees have began meeting planning for the 2025 annual meetings. Please note this year we will review the priority matrices.
- The deadline for partners to submit their matrices suggestions is November 21st.

Highlight

Editor: Marisa Powell
Please contact us if you have any questions or feedback at info@accsp.org

Atlantic States Marine Fisheries Commission

Atlantic Menhaden Management Board

May 7, 2025
1:15 – 3:15 p.m.

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. Clark*)	1:15 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from October 2024	1:15 p.m.
3.	Public Comment	1:20 p.m.
4.	Consider Final Report from Work Group on Precautionary Management in Chesapeake Bay *(M. Gary)* **Possible Action**	1:30 p.m.
5.	Progress Update on 2025 Ecological Reference Point Benchmark Stock Assessment *(K. Drew)*	2:50 p.m.
6.	Provide Direction to Technical Committee on 2026-2028 Stock Projections (*K. Drew*)	3:00 p.m.
7.	Other Business/Adjourn	3:15 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

Atlantic States Marine Fisheries Commission

MEETING OVERVIEW

Atlantic Menhaden Management Board
May 7, 2025
1:15 – 3:15 p.m.

Chair: John Clark (DE) Assumed Chairmanship: 5/24	Technical Committee Chair: Caitlin Craig (NY)	Law Enforcement Committee Representative: David Bailey (MD)
Vice Chair: Vacant	Advisory Panel Chair: Meghan Lapp (RI)	Previous Board Meeting: October 22, 2024
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 October 2024

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 Final Report from Work Group on Precautionary Management in Chesapeake Bay (1:30 –2:50 p.m.) Possible Action

Background

- In August 2024, in response to concerns about the Chesapeake Bay ecosystem, the Board established a Work Group to evaluate potential actions for additional precautionary management in Chesapeake Bay.
- The Work Group met nine times from September 2024 to April 2025 to consider potential management options, including time/area closures, and develop a report based on Chesapeake Bay predator and fishery data **(Briefing Materials)**.

Presentations

- Review of Work Group Report by M. Gary

5. Progress Update on 2025 Ecological Reference Point (ERP) Benchmark Stock Assessment (2:50 –3:00 p.m.)

Background

- The ERP benchmark assessment will be peer-reviewed by a panel of independent experts at SEDAR 69 the week of August 11th, 2025.

- The ERP Benchmark Assessment and the Atlantic Menhaden Single-Species Assessment Update are both scheduled to be completed for the 2025 Annual Meeting.

Presentations

- Update on the ERP Stock Assessment by K. Drew

6. Provide Direction to Technical Committee on 2026-2028 Stock Projections (3:00–3:15 p.m.)

Background

- The Board sets an annual or multi-year TAC using the best available science, and the current TAC is set through 2025.
- The TC completes projection runs based on recommendations from the Board.

Presentations

- Request for direction for stock projections by K. Drew

7. 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

- 2025 Single-species and Ecological Reference Point Stock Assessments
- Annual compliance reports due August 1st

TC Members: Caitlin Craig (NY, Chair), Mike Mangold (USFWS), Robert Corbett (NC), Keilin Gamboa-Salazar (SC), Jason McNamee (RI), Eddie Leonard (GA), Jeff Brust (NJ), Matt Cieri (ME), Ingrid Braun-Ricks (PRFC), Micah Dean (MA), Kelli Mosca (CT), Shanna Madsen (VMRC), Chris Swanson (FL), Sydney Alhale (NMFS), Amy Schueller (NMFS), Alexei Sharov (MD), Garry Glanden (DE), Heather Walsh (USGS), Katie Drew (ASMFC), James Boyle (ASMFC)

SAS Members: Amy Schueller (NMFS, SAS Chair), Caitlin Craig (NY, TC Chair), Brooke Lowman (VA), Matt Cieri (ME), Chris Swanson (FL), Sydney Alhale (NMFS), Jason McNamee (RI), Alexei Sharov (MD), Jeff Brust (NJ), Keilin Gamboa-Salazar (SC), Katie Drew (ASMFC), James Boyle (ASMFC)

ERP WG Members: Matt Cieri (ME, ERP Chair), Andre Buchheister (HSU), Jason Boucher (NOAA), Michael Celestino (NJ), David Chagaris (FL), Micah Dean (MA), Jason McNamee (RI), Amy Schueller (NFMS), Alexei Sharov (MD), Genny Nesslage (UMD), Howard Townsend (NFMS), Shanna Madsen (VMRC), Jainita Patel (ASMFC), Katie Drew (ASMFC), James Boyle (ASMFC)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ATLANTIC MENHADEN MANAGEMENT BOARD

The Westin
Annapolis, Maryland
Hybrid Meeting

October 22, 2024

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INDEX OF MOTIONS

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

2. **Approval of Proceedings of August 2024** by consent (Page 1).

3. **Motion to approve the Fishery Management Plan Review, state compliance reports, and *de minimis* requests for PA, SC, GA and FL for Atlantic Menhaden for the 2023 fishing year** (Page 17). Motion made by Doug Grout; second by Jim Gilmore. Motion approved by consent (Page 17).

4. **Motion to elect Joe Cimino as Vice-Chair of the Atlantic Menhaden Management Board** (Page 21). Motion approved by consent (Page 21).

5. **Move to adjourn** by consent (Page 21).

ATTENDANCE

Board Members

Megan Ware, ME, proxy for Pat Keliher (AA)
Rep. Allison Hepler, ME (LA)
Steve Train, ME (GA)
Cheri Patterson, NH (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Doug Grout, NH (GA)
Nichola Meserve, MA, proxy for D. McKiernan (AA)
Rep. Jennifer Armini, MA (LA)
Ray Kane, MA (GA)
Nicole Costa, RI, proxy for J. McNamee (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
David Borden, RI (GA)
Matthew Gates, CT, proxy for J. Davis, CT (AA)
Rep. Joseph Gresko (CT) (LA)
Rob LaFrance, CT, proxy for Bill Hyatt (GA)
Marty Gary, NY (AA)
Jim Gilmore, NY, proxy for Assy. Thiele (LA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Jeff Kaelin, NJ (GA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Lynn Fegley, MD (AA)
Dr. Allison Colden, MD, proxy for Del. Stein (LA)
Russell Dize, MD (GA)
Pat Geer, VA, proxy for Jamie Green (AA)
James Minor, VA (GA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Chad Thomas, NC, proxy for Rep. Wray (LA)
Jerry Mannen, NC (GA)
Ben Dyar, SC, proxy for Blaik Keppler (AA)
Mel Bell, SC, proxy for Sen. Cromer (LA)
Dr. Malcolm Rhodes, SC (GA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Ron Owens, PRFC
Max Appelman (NMFS)
Rick Jacobson (USFWS)

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

Ex-Officio Members

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
Caitlin Starks
Jeff Kipp
Tracy Bauer
James Boyle
Katie Drew
Jainita Patel
Chelsea Tuohy
Emilie Franke

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Capitol Ballroom via hybrid meeting, in-person and webinar; Tuesday, October 22, 2024, and was called to order at 2:30 p.m. by Chair John Clark.

CALL TO ORDER

CHAIR JOHN CLARK: It's 2:30, this meeting of the Atlantic Menhaden Management Board is now called to order. I am John Clark; I am chairing this Board today and I am the Administrative Commissioner for the state of Delaware.

APPROVAL OF AGENDA

CHAIR CLARK: Let's move right on to the consent items. Does anybody have any objections or additions to the agenda? Seeing none; the agenda is approved by consent.

APPROVAL OF PROCEEDINGS

CHAIR CLARK: Any revisions to the proceedings from August, 2024? Seeing none; those are approved by consent.

PUBLIC COMMENT

CHAIR CLARK: We're going to move on to Item 3, Public Comment for items that are not on the agenda. We're asking those to raise their hands, and I see Mr. Zalesak and Mr. Lilly, and once again these are items not on the agenda.

We know there is an item on the agenda that people are very interested in, and if we have time during that we may take some additional comment. Is there anybody else who had their hands up? I think it was just, is somebody else in the back there? Okay. Holy Chamoli, okay, we've got a bunch. Two minutes a piece, and are we ready? All right, go right ahead, Mr. Zalesak.

MR. PHIL ZALESAK: Because I would like to save my three minutes to the end after Mr. Martin Gary has spoken. I would like my three minutes; I just drove two and a half hours to speak here for two minutes.

CHAIR CLARK: Okay, so I'm not understanding you. You are saying you want to wait to make your comments until one of the other?

MR. ZALESAK: Well, let's just do this. Why don't you start the clock and you can stop me anytime you want. The difference, I want saved for the end of this meeting, because I don't want to drive two and a half hours for nothing. Is that fair?

CHAIR CLARK: In other words, when we get to the other items you may want to make a different comment, is that your point?

MR. ZALESAK: I would like to make three minutes of comments at the beginning, the middle and the end.

CHAIR CLARK: Well, in any event, let's take what we have in front of us right now, Sir. Go right ahead and make your comment to the items that are not on the agenda.

MR. ZALESAK: My name is Phil Zalesak; I am a member of the Save Our Menhaden Coalition. First, I would like to thank the Board for establishing a Menhaden Work Group to address the problem of localized depletion in the Atlantic menhaden in the Chesapeake Bay. Second, the Board is in desperate need of your leadership, Mr. Chairman. Why? Consider the Commission's history and policy. Localized depletion of Atlantic menhaden in the Chesapeake Bay was identified in 2004 as part of Special Report '83, 20 years ago.

CHAIR CLARK: Phil.

MR. ZALESAK: Let me finish, this is history.

CHAIR CLARK: Like I just said, Phil, this is for items not on the agenda. We are going to be talking about the situation in the Chesapeake.

MR. ZALESAK: I'm talking about history.

CHAIR CLARK: Okay, well let's just keep it to history then, fine.

MR. ZALESAK: We talk about 20 years ago this Board already identified a problem. All right and now we're saying localized depletion, it was explicitly defined in 2009, five years later 16 years ago. Now here is another thing that I would like you to bring up at the Policy Board meeting, Mr. Chairman. Further the Board and the Commission process for accommodating public comment is ridiculous.

A member of the public could spend a weekend preparing comments pertinent to the meeting at hand, but is unable to make comments, due to Commission policy. I want you to bring it up at the policy meeting. This is truly stupid and an insult to the citizens of this country. Finally, I respectfully request you do the following. Direct the Workgroup to use 2009 definition of localized depletion of Atlantic menhaden in the Chesapeake Bay.

MR. CLARK: Okay, I'm going to stop you there, Phil. You're talking about something that is on the agenda, okay.

MR. ZALESAK: Then I would want the balance of my time, a minute and a half, whatever it is for the end. Thank you.

MR. CLARK: Once again, about the comments for Atlantic States. There is a very lengthy public comment period for written comments, and the comments at the meeting obviously are restricted, because of the agendas we have. In any event, we'll move on to our next commenter, which is Mr. Tom Lilly, correct?

MR. TOM LILLY: Yes, Sir. I'm Tom Lilly, as you all know, I'm from White Haven, Maryland, down on the eastern shore, about 100 miles south of here. The first thing I would like to say is on behalf of 9 million Marylanders, and probably a million children that love and treasure Chesapeake Bay, 25 to 50 organizations, probably a half million recreational watermen. I want to thank all of you delegates from the states that are here this morning, and in the past have supported Maryland, because Maryland is trying to restrain the factory fishing, as you know.

I want to thank everyone of you. I wish I could meet you personally, and thank everyone of you for helping Chesapeake Bay in this time of need. What I wanted to say here this morning is that unless you take decisive action here, there will be thousands of Chesapeake Bay osprey babies dying on the nest this spring.

This is the avian species, as you know, that you chose as your ERP indicator of whether or not menhaden harvest was excessive. That indicator is failing, as is your other indicator the striped bass, which is as you know the flagship species of the Commission. Now, we know what is going to happen this year unless something is going to be done.

History is going to repeat itself, and there are going to be thousands of these babies, maybe tens of thousands dying in the nest. But this spring is going to be different. I'll tell you why. The people that care about the Bay are alerted to what is going to be happening. I think many of them will not stand by and just watch once these babies starve. I think they are going to begin to feed them. Osprey nests and babies can be viewed with inexpensive cameras on extension poles. Feeding menhaden saves babies and the parents from the anguish of selecting.

MR. CLARK: Tom, your time is up, and as we discussed earlier, if you want to just wrap it up. I know you had some thankyous; you wanted to make. If you can take it to that.

MR. LILLY: Okay, thank you, John. My concern here is that unless you act people will have to feed these babies in the nearby nests themselves. If they don't, ospreys are going to begin to die out in their areas. Whenever we intervene in nature, especially with feeding babies, there are risks and unknown consequences.

There can be mistakes, even when we try our best. I guess what I'm asking you, John, I'll say I'll wrap this up is that don't put the burden of feeding these baby ospreys on the public. They will do it if they have to. It will take a lot of organization, education and dedication, but they can do it.

I've done it myself on the Wicomico River, and it's an incredible feeling when you see young ospreys on the verge of death coming back and a month later fledging and flying away. Folks, let's use preventative management here. That is what we need to help us help the Bay.

CHAIR. CLARK: Okay, Tom, thanks, you are talking about the ospreys. Now you're starting to talk about management again. Do you want to just point up your thankyous, because we have other people who would like to speak.

MR. LILLY: Okay, thank you, Mr. Chairman, thank you everybody, appreciate it.

CHAIR CLARK: Thank you, Mr. Lilly, and next up I saw we had some other hands over here. Will you please approach the public microphone. Please, introduce yourself, and then just go right ahead into your comment, thank you.

MR. BEN LANDRY: Good afternoon, Mr. Chairman, members of the Board. My name is Ben Landry, I am with Ocean Fleet Services, representing the Menhaden Reduction Fishery. As most of you probably know, I have addressed this Commission a number of times, although it has been more rare of late to come to the open microphone portion of the meetings, typically. I guess that time is filled up by people telling you how poorly a job you're doing.

But I felt that this issue is too critical of an issue to not bring up to you guys. I wrote one out to you guys for the second year in a row. The Department of Maryland Menhaden Young of Year Survey has identified that the stock has reached levels not seen in the past 35 years. In fact, their exact phrasing is that menhaden abundance was nearly equal to last year, which was the highest measured year since 1990.

This is a message that I am not sure you are hearing, as you sit on this Board. There are many menhaden that are serving as forage to predators in the Bay and outside of the Bay. I would commend you guys for your ERP work from 2020. Secondly, it is an unusual situation, where our comments to the Chesapeake Bay Working Group, which I understand is a topic for later, not going to address it.

But we did receive a written critique from a rather high-profile individual on the issue in the supplementary material. There is not enough time in here to respond to every criticism leveled in the letter, but a formal response will be provided to each of you. But a few points are worth mentioning. The critic, an academic researcher, questioned the information.

CHAIR CLARK: Please, just wrap it up, please, Mr. Landry.

MR. LANDRY: Basically, questioned the information that USGS science has provided you in August. The utility of the information produced by the colleagues of the Cornell Lab of Ornithology. All existing bird research needs to be considered by this Commission in its decision making, and not rely on the views of one researcher. Science should rule the day at this Commission, not politics. I respectfully ask you to carefully review and consider the merits of our response to these comments. Thank you.

CHAIR CLARK: Thank you, Mr. Landry. Do we have any other commenters? Right there, walk up to the microphone, please, introduce yourself, and then you can go right into your comments.

MR. BRIAN COLLINS: Thank you for the opportunity to comment. My name is Brian Collins, I'm a concerned citizen from Virginia. Related to what we just heard, that is the typical type of discussion that confuses the matter, because when we say

there is a lot of menhaden, it's only based on the ocean surveys. But I understand, and you all can clarify later if you want, there is no survey of menhaden in the Chesapeake Bay, the quota is based on historical catch. To transfer the ocean quota measurements to the Chesapeake Bay is a leap of faith. Chesapeake Bay is a separate ecosystem, and we know that osprey nests are failing. We know the striped bass are collapsing, and we also know that ASMFC is having trouble addressing the challenges. The challenge for fixing striped bass issues ignores industrial fishing of menhaden in the Chesapeake Bay, the nursery for the majority, large majority of east coast striped bass.

It's amazing how that is omitted. I would like to know, what is the quota for the predators in the Chesapeake Bay, osprey, striped bass and the other ones, and sportfishing. There is a 112-million-pound quota for industrial fishing in the Bay, 51,000 metric tons. There is nothing set aside, there is nothing that we know that shows that there is any menhaden left after industrial fishing takes their quota.

There is no proof, there is no data, there is no research. I don't see how this Commission can endorse that without taking some type of proactive action related to it, not to mention the fact that 112,000 metric tons, 230-million pounds can be caught right at the mouth of the Chesapeake Bay, which is actually just outside the Chesapeake Bay Bridge Tunnel, which is technically in the Bay. Nothing is stopping industrial fishing from fishing them out. Thank you very much for my opportunity to comment.

CHAIR CLARK: Thank you, Mr. Collins. Do we have any other public commenters? Yes, Ma'am, walk right up to the microphone, introduce yourself, and then go right into your comment.

MS. TOMOKO HAMADA: Thank you, Chairman, and everybody. My name is Tomoko Hamada, I am a professor America of the College of William and Mary, an organizer of Osprey Watch Alliance. We observe ethnographically every nest in our area. I am a Virginia resident, and we started warning signal in Mobjack Bay.

This year, we observed 1500 osprey nests, and among 152 pairs that successfully brooded within the mainstem area of Chesapeake Bay, more than half had only one chick, the rest of the chicks died, leaving main stem pairs of 1.1 young. This is real today. Many pairs did not lay clutches. This is the first time the first time we observed birds arrived on time, usually mid-February through early March, and they defended their nests. But they never laid eggs.

This is the first time this behavior was observed. Likely explanation is females were not able to reach the adequate preserver for body conditions required to lay eggs. As you know, males feed females the fish, and Virginia is the only east coast state that still allows menhaden reduction fishing in state waters. Menhaden are traditionally osprey's food.

In this year we know that osprey crisis extends not only Mobjack Bay, but whole middle range of Chesapeake Bay. We know that because we observed, we record and we do the data. This menhaden controversy which goes back to a long, long time, but as far as osprey watchers are concerned, it is the menhaden industrial reduction fishing versus osprey.
Atlantic States Marine Fisheries Commission has established this Working Group and we need to really pay attention to the crisis of osprey. You heard this many, many times. I recommend at least seasonal closing so that baby chicks have food to grow and leave. It's usually late February to early summer. Thank you very much.

CHAIR CLARK: Thank you, Ms. Hamada, thank you for your comment. I believe we have one more commenter online, Jim Fletcher. Please introduce yourself, and then go right into your comment, Mr. Fletcher.

MR. JAMES FLETCHER: James Fletcher; United National Fishermen's Association. I've listened carefully, but you are not addressing the case of nano plastics, microplastics and plastics blocking the gills of the larval fish and other fish. If the people that are concerned about the osprey would look, they will find out that those animals are dying from microplastic, nano plastics and plastics.

If you look at the hard crabs, the striped bass, the speckled trout. All of them are being affected by microplastics and nano plastics in the larval stages. ASMFC needs to devote a study to microplastics and nano plastics, and the eggs of the fish. It is imperative, and the simplest way to do it, and I know ASMFC does not have the authority, but is to ask each and every state to begin a project of ground applicating all waste water.

Ground application or some other way that the waste water does not come into the Bay. But I'll ask you again as my time runs out, devote a group to look at the effects of nano plastics and microplastics on all of the fish, because what you don't see is when that larval fish hatches at the surface, wherever it is, the first thing he has to feed on is the plankton. But the second thing that there is nano plastics and microplastics. Thank you for your time, on behalf of the United National Fishermen's Association.

CHAIR CLARK: Thank you, Mr. Fletcher. That concludes our public comment for items that are not on the agenda.

REVIEW UPDATE FROM WORK GROUP ON PRECAUTIONARY MANAGEMENT IN CHESAPEAKE BAY

CHAIR CLARK: We will now move into our next item, which is to Review the Update from the Work Group on Precautionary Management in Chesapeake Bay. Before I turn it over to the Chairman, I would just like to say I had the opportunity to listen to the two.

I believe they were both three-hour sessions that the Workgroup put in, and then the Work Group put in a bunch of time after that. I just want to commend them for very good discussions and lots of great thoughts about a very complicated issue, and an issue that has great public concern, of course, so let me turn it over to the Chairman of that Group. The Work Group is ably chaired by Marty Gary of New York, so fill us in, Marty.

MR. MARTIN GARY: I appreciate the kind words. Just to bring everybody up to the same page, get everybody on the same page. At the August Board meeting a motion was made and approved to form this Work Group to address precautionary measures, the issue of precautionary management measures in Chesapeake Bay.

The Work Group was formed, and I was nominated as Chair, and I am honored to have that privilege. The Work Group met twice on September 13 and on October the 2nd. There were also two sub work groups that were formed, and they both met, a bird work group to address piscivorous birds, focusing on osprey, but also including other species such as brown pelicans and bald eagles. The second work group that worked with piscivorous fish species with the focus on striped bass, bluefish, weakfish, but also included species that have been present in the Chesapeake Bay readily in recent years, including red drum, spotted sea trout and cobia. Ideally, this Work Group would have finished its work and provided a full report, with recommendations to the Board at this meeting.

That did not happen. Not only did we not get to a final report, we did not achieve a progress report. This was partly attributable to the short amount of time we had to work with, and the complexity of the topic and the scope of that topic. As with any group there is always a chemistry component you have to resolve to get good discussions for complex issues underway.

I felt like we got there as we entered the second meeting, so I just want everybody to understand this Work Group, as you characterized, John. You sat in on those meetings. It's a complicated issue,

but the Work Group members are exemplary. We have the right members, I think, to work through these discussions.

The Work Group didn't get to specific management recommendations to bring to the Board at this time, but they did develop a problem statement. That problem statement was sent to the Board as part of your supplemental materials, and added context to the memo that accompanied it. I think staff had some slides. I would like to transition to those now if I could.

We start off with, well we'll start off with the Board task. To consider and evaluate options for further precautionary management of Chesapeake Bay menhaden fisheries, including time and area closures to be protective of piscivorous birds and fish during critical points of their life cycle. That is just to remind everybody what the Board task to this Work Group was.

Based on this task the Work Group developed a draft problem statement, and this is a more distilled version of the one that is in your memo, but essentially it boils down to, there is inadequate availability of menhaden to support overall predatory demand in the Bay. Then just as a Work Group update.

This is an interpretation of the Work Group from the task the Board gave us to develop potential management strategies to address the hypothetical problem statement, but that is the responsibility, from the view of the Work Group it is the responsibility of the Board to evaluate the validity of that statement, and determine if and when it is necessary to implement management measures.

We're viewing this as a hypothetical, and the Work Group would appreciate additional guidance from the Board, if in fact that is their intent. One other item I want to mention, because of the complexity we encountered in these discussions, and given the holidays are coming upon us. We felt like developing a final product for the Board for the winter meeting was also going to be a challenge.

We agreed that it would be desirable if we could commit, with the intent to bring that final report back to the Board at the spring meeting. At that point I will go ahead and take questions, and I'll do my best to answer those, but certainly would lean upon my fellow members of our Work Group. I also, before we jump into that Mr. Chair. I just want to thank James for all of his hard work, he put in a lot of time working with a lot of different folks and a lot of folks from the public who are engaged and very interested in this work and these discussions. I certainly appreciate all of James hard work, so back to you Mr. Chair to open up for questions.

CHAIR CLARK: Thank you, Marty for the summary and for all the work the Work Group has put in. As you said, now we're at a point where we need more Board guidance on this, so can I see some hands who would like to start with either questions or discussion items? Allison.

DR. ALLISON COLDEN: Thank you, Marty for so eloquently presenting our work. I just wanted to reiterate, with respect to the problem statement. Myself and Spud Woodward, we had the unenviable task of being the authors, the drafters for that problem statement, after much consideration and debate by ourselves and our fellow Work Group members. I just want to state on the record that it reflects kind of a very broad interpretation, several different types of interpretations of the Board charge.

Wrapping our heads around that and drafting around that was slightly challenging, so I just wanted to provide a little bit of that context on where the problem statement landed, and hope for some great discussion and feedback from the Board through the day to help guide development of our next round of discussion. Thank you.

CHAIR CLARK: Thanks, Allison, and Spud, would you like to add anything to that?

MR. SPUD WOODWARD: Sure. One of the things we struggled with was we were asked to identify a mechanism to effect precautionary management. We felt very strongly that the more we could explicitly state the conditions that created this theorized problem, the better we could link the solutions back to a problem.

That was sort of our mindset when we were developing this, is that it was some point, and we were specifically asked about time and area closures, but that is just one of many possibilities that might be used to address this theorized inadequate supply. But I want to emphasize that, because that is really important.

It was not our charge to determine the validity or lack thereof, of whether there is an inadequate supply, it is to identify the things that could be used as a solution to an inadequate supply, and some of those are anthropogenic, some of them are not. We're dealing with a complicated situation in a changing environment, and so I hope that our problem statement accurately captures that, and that it will be the catalyst for us to move to the next step in this process.

CHAIR CLARK: Our first comment is from Dennis Abbott.

MR. DENNIS ABBOTT: A simple question to Marty. Could you refresh me as to who was on the Committee, I don't know that, and I do appreciate the work that you're doing, and I know the public is very interested. I mean it's like preaching to the choir, getting a good final result and careful result of your efforts in the future.

MR. GARY: Thank you, Dennis, I don't have a list in front of me, but I think I can reconstitute it. Going north to south, Ray Kane from Massachusetts, Rob Lafrance from Connecticut next to me, I represented New York. Joe Cimino from New Jersey, Mike Luisi, I'm sorry, take it back, Allison Colden from Maryland. I'm so used to saying Mike or Lynn, one or the other, but it was Allison. Pat Geer from Virginia, did I miss somebody, I probably did. (Loren) I'm going to have to make that up to you, Loren, you know I will, and Loren Lustig, so thank you, Loren. Did I get Pat from Virginia, right? Pat Geer. Okay, that is why we're a big team, and Spud Woodward from Georgia. I think I got it with a little help from my friends, Dennis. Thanks.

CHAIR CLARK: Further questions, discussion. Looking around. Hold on, Mr. Zalesak, let me just wait on the Board. Did somebody have their hand raised, ah, Mr. Cimino.

MR. JOE CIMINO: Can we get the task up again, if we could? I apologize, Mr. Chair, because this is going to be a very sweeping comment. You know one of the things that Phil and others have kept pointing out is a definition of localized depletion that was presented to the peer review group that was looking at this in 2009.

One of the peer review reports from a Mr. McGuire, suggested that he certainly did not have a comfort level with that definition, that it was somewhat subjective. He says that with the same information it wouldn't consistently lead to the same conclusions. That definition doesn't just include basic ecological needs, it includes economic and social and cultural functions, which I think are obviously somewhat subjective and a challenge.

I take this task to suggest that we need to at least explore simply the ecological need. Obviously, as a Board we have a broader mandate, we have to consider the economic and social impacts. But going back to what Spud said, you know I think that this Working Group's exploration is to provide tools to this Board, you know to decide whether or not, if there is an ecological need, if there is something that can be done in preventing additional removals to something like time and area closures.

I think without question that would be a tough decision. It would be all gear types. But some of the concerns of the public, take for example the very real concern of what is happening with osprey,

is happening elsewhere. In our state of New Jersey in 2022 and 2023, nest production was not great, it was some of the lowest years ever.

We don't have a report for 2024 yet, but within Vonnegut Bay it was something like 60 percent nest failure, and they are simply not even laying eggs, with higher abundance and availability of menhaden. You know the idea that the striped bass juvenile recruitment issues are tied to this, and yet we're seeing that in every river system that we have.

I've heard weakfish mentioned, weakfish have collapsed from Massachusetts to Florida. You know I think these are much broader issues. I'm not saying that means we walk away from menhaden management and the concerns that we have in the Chesapeake Bay, but I don't think it's a simple fix.

CHAIR CLARK: Thank you, Joe, anybody else from the Board here? Lynn Fegley.

MS. LYNN FEGLEY: I really just want to thank Marty and the Work Group for taking this on, because it was not an easy charge, it is not an easy problem. I think at the end of the day, this is an exercise in examining precautionary management, and that is a difficult and divisive issue, it always is. I'll admit that when I first saw the memo, I was a bit disappointed with the problem statement, as it was written.

But I think hearing Spud's explanation made me feel better about it, and I would like to make sure that the Work Group leaves here feeling like it got the guidance it needs. In my mind this is really a scenario building exercise. We know that there is no linear one-to-one relationship here. We are asking a precautionary question.

But it does seem that what if, if the idea is to maximizes the opportunity for animals such as piscivorous birds, predatory fish. If the idea is to maximizes their odds, to maximize their asset to the forage they rely on, in this case menhaden, what are some scenarios that would accomplish that? That is really as simple, and nothing is simple, but that is how it shows up in my mind. I fully understand the complications here, and I very much thank everyone, the Work Group for taking this on, and would welcome more discussion if we need to further refine the task at hand.

CHAIR CLARK: Next up we have Rob LaFrance.

MR. ROBERT LaFRANCE: Lynn, I'm really curious to hear what you feel some of the short fallings of our statement are. I think that is exactly what we're trying to do at this point in time, is we put together a problem statement and we're back here with the Board to see if we're on the right direction. It's a complicated issue. I think the fact that we broke it into two specific working groups, one on birds, one on fish was really helpful.

But when you start to dig into those things, you really find there is an abundance of information, there is abundance of data. It's a big area with a lot, we were there last night, it's an amazing place. I think what I'm hopeful today what we get from this Board meeting is some direction, some additional direction. Some of the things that you feel might be shortcomings of the report. I'll just leave it at that for this time.

CHAIR CLARK: I've got Russel and then Jeff Kaelin. Go ahead, Mr. Dize.

MR. H. RUSSEL DIZE: I feel much better about this since Marty said who was on the Committee. I have faith in all the Board members that he named, and I'm sure they will come up with a solution. The problem in Maryland this year was we had 0 menhaden. We didn't have enough menhaden for our crab potters to get crab bait.

Crab bait that they had to buy came out of Maine. That is a problem. I'm sure you will work to find out why. We don't know why. Spud said, it could be environmental, you know, I don't know. The point is, we had no menhaden in Maryland. I think Virginia had menhaden; I think the first boat did all

right in Virginia. We had none. But we have fixed-gear net in Maryland, we have pound nets. They don't move. If they don't come to it, you don't catch it. Like I said, I've got faith in Marty, I've got faith in this group, and I'm sure they will come up with some ideas. Along the way, think about small closure, like don't open the season and purse net until the end of June, allow some of them to come up the Bay. I'm probably sounding like I'm covetous of the menhaden for Maryland, and I am. I represent fishermen, I am a fisherman.

We need menhaden. We had an abundance of dolphin in our area this year, because we've got billions of little spot, maybe four inches long, three inches long. We think that is what they were feeding on, but we had all the way to the head of Miles River, and some of these small rivers, we had dolphin. They didn't have the menhaden to chase, so they were chasing other fish. Anyway, I feel good about this Committee. Thank you very much.

CHAIR CLARK: Next up we have Jeff Kaelin.

MR. JEFF KAELIN: You know I've been around the menhaden fishery for a long time, I've been going to menhaden meetings for probably 30 years with most of you around the table as an advisor. A couple of things I just wanted to point out. If you look on our website for menhaden, you'll see that the result of our assessment, which was probably one of the most data rich assessments on the east coast, maybe even the United States.

It projects that there is over 4 million metric tons of Atlantic menhaden in the ecosystem, beyond and after the quotas are provided through the fisheries, which are a fraction of what they've been historically. It's a coastwide managed fishery, as we all know. As far as localized depletion goes, as Joe points out, 2009 or whenever this was discussed with the peer review, we were all there, many of us were there.

Localized depletion was just determined to be something that is too subjective to be a real scientific fact. In fact, we took that same argument to the federal courts after the New England Fishery Management Council and National Marine Fisheries service created time and area closures for the midwater trawlers, only the midwater trawlers, in that fishery.

The federal judge determined that the localized depletion arguments that were being made to support those closures had no relationship to the science whatsoever, it was not justified in any way, shape or form. This was an amendment that took three or four years to establish. There are a couple of ways to look at these issues.

I live in Cape May, and I live on the canal there. We have the eagles there; we have ospreys there. The ospreys that I have there didn't hatch, they didn't fledge this year. We had a problem with the menhaden fishery the last two years there, because there has been a big wedge of cold water from the Labrador current that has been down on the shelf over the last couple years.

We never started taking menhaden a year ago until August, because the water was so cold. You know there is a lot of reasons here why things aren't perfect in every single square mile of the coast. But the evidence that we have, the science that we have in front of us is, you know that these animals should be able to survive, and if they don't, there could be a lot of competition. Again, I don't remember seeing brown pelicans in Cape May before the last couple of years, so lots of things are changing. It's easy to blame a particular group of fishermen who are working under a quota that has been established under, again one of the most conservative and a data rich assessment on the east coast. I think we've got to look a little further than that, and I'm glad that we're going to examine some ecological issues with the Work Group over time. I think that is extremely important, and I commend their work as well.

CHAIR CLARK: Next up we have Allison Colden.

DR. COLDEN: I think the Board discussion thus far has been very reflective of some of the conversations that we had in the Work Group, which is not surprising. But also, you all can see how, given so many unknowns both with menhaden populations as they exist in the Chesapeake Bay, as well as environmental conditions.

On top of environmental conditions continuing to change, we get into a situation where there is so many unknowns that it is hard to pin down or move in a direction of coming up with some of these options. My thought, and the way that I've been approaching this, and have discussed with the Work Group is, all of these changes are not necessarily things that we can quantify.

But they are the context in which this Board has to make decisions about the menhaden fisheries, about the future of ecosystem management for menhaden. I believe if it is taken in that regard as context by which we need to guide our policy and decision making, because at this point it is policy, more so than having specific silver bullets to nail down mechanisms, causes, interrelationships.

If we are to take this as context for management or policy moving forward, I think that that significantly simplifies and clarifies some of the tasks that the Work Group has been putting forward. I just wanted to put that out there as my interpretation, to see if that resonates with folks, because I think that that makes the path forward a lot easier, but I think you all can see now some of the arguments and some of the issues and unknowns that make this a complicated conversation.

CHAIR CLARK: Thank you, Allison, it certainly is a complicated issue. That is your suggestion for the Work Group's path forward. Are there further comments from the Board here? Joe Cimino.

MR. CIMINO: There is one other thing that I was thinking of that in particular I mentioned that I took this very much as a biological ecological issue. Again, going back to the three peer reviewers from 2009 looking at this issue. Dr. Malcolm Hadden said that food limitation of predators may occur in the future in the Chesapeake Bay, there is very weak evidence at the present.

There was one peer reviewer that looking at the data presented to them didn't think it was happening. He referred to it as the primary issue is more one of allocation rather than localized depletion, and allocation issues can not be solved scientifically. I think if this Board does want to consider not just all removals, but only removals from one specific gear type, then that is an allocation issue. I don't think that is the charge of this Work Group, at least not in my mind, and certainly not the motion that I voted for. If that is going to be a future consideration, I think that needs to be a whole new Board discussion.

CHAIR CLARK: As everything that we've heard so far points out, this is a very complicated issue and there are lots of policy complications also. Further comments or guidance from the Board for the Work Group? David Borden.

MR. DAVID V. BORDEN: Quick question. Will we get a briefing at the next meeting on status report on this? I know there is a formal report that is going to be due in the spring, but will we get a briefing on it?

CHAIR CLARK: Do you want to answer that, James? Looks like Toni wants to answer it.

MS. TONI KERNS: I guess I don't anticipate we'll need a Menhaden Board meeting in the winter if this is the only thing that we would be doing, and this Work Group has sort of suggested that they don't want to provide an interim report, because they won't have as much done yet. We could give an update during Policy Board, but I don't think we would do it during Menhaden Board, because I don't think we'll need one.

CHAIR CLARK: Okay, are there further comments from the Board? For the Work Group, have you

gotten much guidance? I know that it seems about as clear as mud still. I'll be glad to just be listening and not being part of it. Marty, do you have anything specific that you would like to get further?

MR. GARY: I know that we have our Work Group members here and we've all discussed offline and at this meeting here in Annapolis. I just look to them. I know we've already taken upon ourselves to try to seek out data from like for instance ChesMMAP to solve some of the fish predation issues, and we're still working through a lot of the bird data.

We have plenty of work we can create on our own, but I would say maybe I'll turn it back to my fellow Work Group members for one last call if things aren't specific enough. I know Allison and Spud have spoken up. But it looks like Pat will weigh in.

CHAIR CLARK: Go right ahead, Pat.

MR. PAT GEER: I guess this goes out to my fellow Work Group members, but I'm wondering if there would be a benefit of having somebody who is on the ERP sit on this Work Group, so that we're not going down a path that they've already gone down or have already considered.

CHAIR CLARK: I guess we could find that out. Can I turn that over to you, Katie?

DR. KATIE DREW: I mean, obviously the ERP group is working on the stock assessment right now, so any time that takes them on this Work Group is less time that they can spend on ERP assessment. But I think we could potentially look into at least people joining the call to provide some context or help answer questions about what you guys have done or need to do that we're doing to avoid some overlap in that issue. I don't want to commit anyone specific or to a full participation as a Work Group member, but I think we could arrange some consultation for sure.

MR. GEER: Yes, mainly we're just, no, we've already done that. Then point us in the right direction to get that information. That's all.

CHAIR CLARK: Thanks, Pat, thanks, Katie, anybody else from the Work Group? There is Marty.

MR. GARY: There is one other item I omitted, I think, in my notes. We had a discussion about the potential to possibly need to reach out to the TC for some items, but also understanding that if I have my facts correct that the ERP and single-species assessment is due next year, that that could potentially impact the delivery of that. I'm not 100 percent sure I had that right, Katie, but I just wanted the Board to be aware, if we do need to answer some of these questions and engage with the TC, there may be some complications.

CHAIR CLARK: Thanks, Marty, well this really is a dilly of a pickle. Okay, go right ahead, Rob.

MR. LaFRANCE: I just wanted to sort of follow behind what Pat said. I think getting the data, knowing the data that we're looking at and putting it in a format that is going to be helpful to the modelers and statisticians to better understand it is really helpful. I think the other thing we're looking at is, what is the information that we're able to get that can help us make recommendations.

But that same information could be beneficial to whatever stock assessment models that we're looking at. I think that from an efficiency perspective, something we want to do. I also think that the data themselves are complicated, and so having availability to other scientists within our states who are knowledgeable about fishery issues would be really helpful, particularly as we look at bird/fish interactions.

CHAIR CLARK: Anybody else on the Board here? I see you both in the audience there, and just want to make sure we've exhausted our discussion here at Board. Anybody online? Okay, no Board members are online. Last call for the Board, and then we do have time for a couple of public comments.

But hold on a second, Mr. Lilly, I just want a once, twice, going three times. We're going to take some public comment now on this specific issue that I know you and Mr. Zalesak would very much like to speak on. Once again, even though you've been here before, state your name again before you start speaking, Mr. Lilly.

MR. LILLY: To the point, I understand kicking the can down the road, but why do you have to kick it all the way down to the spring meeting? If something happens at the spring meeting you have to watch an addendum, it's much too late for this year and you all know it. You have a winter meeting coming up in January, I guess what is it, three complete full months to do their job. All the statistics are well known. The only chance Chesapeake Bay has is for these options to come in front of this Board at the winter meeting, not the spring meeting. I beseech you, don't kick this down the road another year. The Chesapeake Bay can't take it. The people of the Bay can't, the watermen, the ospreys. Everything that lives in the Chesapeake Bay depends on your decision today. Don't kick down the can to the next meeting. The winter meeting, not the spring meeting. Thank you.

CHAIR CLARK: Thank you, Mr. Lilly, and just to reiterate. As a Board we need the science to work on, we can't just act by our desire.

MR. LILLY: You have the science the ERP science too. The two indicated species are in dire trouble, and that is your science. Respectfully, Chairman Clark, you have all the science you need.

CHAIR CLARK: Well, it's putting everything together and turning it into policy. Thank you, Mr. Lilly and next up we have Mr. Zalesak.

MR. ZALESAK: I believe he brought up science, because let's clear something up. This was sent to me by one of the Save Our Menhaden Coalition members. It says, Dr. Jerry Ault, the internationally renowned forage fish expert and ecosystem modeler has found fundamental flaws in the basis of the menhaden stock assessment.

The Liljestrand Team is issuing a correlation on this modeling error, which is the basis for the current total allowable catch, and he's stating that the mortality rate is off by 2.5, which means the Atlantic menhaden are dying two and a half times more than people think, so that is to clear up one thing. That's one point I would like to make.

Now, you don't have to make this complicated. You could make this simple and actually report out this in the winter, or worse case this spring, and I'll tell you why. Limit the scope of the fishery investigation to striped bass, bluefish and weakfish in accordance with the ERP. Throwing all these other fisheries into it is just muddying up the water.

Limit the scope of bird study to osprey, which nests in the main stem of the Chesapeake Bay, not all osprey, not all birds, it doesn't make any sense. Limit it, and request the final report by the spring of 2025 at the Atlantic States Marine Fisheries Commission meeting. Here is the other thing. The e-mail that I sent you, Mr. Chairman, last Friday, has a format of how you should present your data.

I was a flight test engineer in the past, I used to do tests and evaluation and modifications to aircraft. I've given you a format which you could use, and it would address each one of the questions which you gentlemen had here. The science is wrong that you're using. You don't need to look at the canals on Mars, you need to look at what is pertinent to the problem at hand, and I thank you for your time.

CHAIR CLARK: Thank you, Mr. Zalesak, and Sir, just come up to the microphone, introduce yourself, and then state your comment.

MR. COLLINS: Thank you, my name is Brian Collins from Virginia. I think it is important for ASMFC to make it clear to the public, who is very distraught by the osprey failures that there won't be any change next year, it will be the same catch that, if I understand it right, in the spring you all will have a problem post here.

The other thing that is very worrisome and it's contributing to the probably impossibility of coming up with an answer is, you don't have any data on how many menhaden are left in the Bay after industrial fishing takes their share. If you talk to fishermen they'll tell you, they don't see any. The osprey and striped bass are failing.

It seems like what is needed is instead of just using historical catch, this reference to ocean stock is, pardon the reference, it's a red herring. It's like it's a distraction. The ocean is a separate ecosystem from the Chesapeake Bay, and it appears that the Board members on ASMFC don't get it.

I think the public does, and they feel like something is terribly wrong. I hope that we can get on track and find a way to monitor the stock of menhaden that are in the Chesapeake Bay, so that we can assure that there is availability for striped bass, osprey, sport fishermen and the rest of the predators. Thank you for the opportunity to comment.

CHAIR CLARK: Thank you, Mr. Collins, is there anybody else in the room that wanted to make a comment? Not seeing one, oh we have somebody online, James? Okay, we have Pete Aarrestad that would like to make comment. Go right ahead, Mr. Aarrestad. All right, very good. Any last comments on this issue from the Board? Excuse me, I didn't see you, Sir. Okay, would you come up to the public microphone, state your name and then go ahead and make your comment.

MR. RICK HERNDON: My name is Rick Herndon; I live in southern Maryland. I live closes to a highway that serves a lot of Chesapeake Bay and Potomac River. I've listened to people talk about this, and I really don't get it. There is only one reason the menhaden are disappearing from the Chesapeake Bay, and that is the reduction fishery.

It's not complicated, the menhaden are a food for the many fish and birds. It's not complicated. There is plenty of menhaden in the ocean, and what we would ask is that you would ask the reduction fishery to fish in the ocean and not in the Bay. Currently, they fish in the Bay until they cannot catch anymore menhaden, and you can follow this by the reported catching's that are online where they catch the fish.

When the season opens, they catch the fish in the Bay, when they can't catch anymore, they move into the ocean. If you want to make this difficult, I mean you can't, it's not difficult. There is only one reason the menhaden are not coming into the Bay, and that is because they are being caught right at the mouth and just inside the mouth of the Bay. I thank you very much.

CHAIR CLARK: Thank you, Mr. Herndon. Do we have anybody else from the public that would like to make comment? I do not see one. I think I speak for the Board when I can say to those of you that have commented from the public that we greatly appreciate your concerns, and we are, as I think you've heard here, we are trying to address these concerns, and I realize we are not moving as fast as you would like, but we are moving, and we have heard you and once again, I know this is a sacrifice you make to come here to make these comments, and it is greatly appreciated. Thank you.

With that we will move on to our next agenda item, which is Progress Update on the 2025 Ecological Reference Points Benchmark Stock Assessment, and that will be from Katie Drew. What happened? Oh, son of a diddly. Okay, I missed that.

CONSIDER APPROVAL OF FMP REVIEW AND STATE COMPLIANCE FOR THE 2023 FISHING YEAR

CHAIR CLARK: Okay, the next item is Consider Approval of Fishery Management Plan Review and State Compliance for the 2023 Fishing Year. I should wear glasses, I think.

MR. JAMES BOYLE IV: I'll jump right in. Here is a quick overview of the presentation. I'll just start with a reminder of the status of the stock in the FMP, before providing the 2023 landings and monitoring information. In 2023 the fishery

operated under Amendment 3, it was also the first year that Addendum I to Amendment 3 was implemented, after being approved at the end of 2022, which made changes to the coastwide allocations and the incidental catch and small-scale fishery provisions.

Also new this year, the total allowable catch or TAC for the 2023 to 2025 fishing seasons were set at 233,550 metric tons, based on the Board approved ERPs. Based on the 2022 single species stock assessment update, fishing mortality is below both the ERP target and threshold and fecundity is above both the ERP targets and threshold.

Therefore, the stock is not overfished and overfishing is not occurring. A new single-species assessment update and benchmark ERP assessment are scheduled to be presented to the Board in the fall of 2025. Moving on to 2023 landings, the total commercial Atlantic menhaden landings in 2023, including directed and episodic event set aside landings are estimated at 166,844 metric tons, or about 367.8 million pounds, which is approximately a 15 percent decrease relative to 2022, and is about 71 percent of the TAC.

There were no reported landings out of the incidental catch and small-scale fisheries provision. There was an overage in Maine incurred of about 807,416 pounds, which was deducted from their 2024 quota. The 2023 harvest for the reduction fishery is estimated at 117,019 metric tons, or about 258 million pounds, which is a 13 percent decrease in 2022 and 15 percent below the previous five-year average, which is about 303 million pounds.

As far as the Chesapeake Bay reduction fishery cap, the reported reduction landings in the Bay were less than 40,000 metric tons, which is under the cap of 51,000 metric tons. This figure shows landings from the reduction and Bay sectors through time, with 2023 added. The reduction landings correspond to the left-hand access and bait landings to the right. Please note the different scales. The reduction landings are an order of magnitude larger than the bait landings. Despite the decline last year, generally the trend continues to show a decline in reduction landings overall and an increase in the variable bait landings. As previously mentioned, there were no incidental catch/small-scale fishery landings in 2023. The PRT made a particular note of this significant decrease, given that one of the purposes of the commercial allocation changes in Addendum I was to reduce the landings under this provision. Maine was the only participating state in the episodic event set aside program and landed 1,274 metric tons, or about 2.8 million pounds, which is a 36 percent decrease from 2022, and 55 percent of the set aside.

However, 185,538 pounds of that total were reported after the remaining set aside was redistributed to the states, which created an overage. Quota transfers in 2023 and 2024 covered that overage, therefore there was no deduction from the 2024 set aside. There were five state to state quota transfers in 2023, a decrease from ’24 and 2022. Similar to the incidental catch landings the PRT made to do a note of the significant decrease, given that another goal of the commercial allocation changes in Addendum I was to reduce the need for quota transfers.

For biological monitoring, non de minimis states are required to conduct biological sampling based on their bait landings, as well as their geographic region. From Maine to Delaware, they are required to take one 10 fish sample per 300 metric tons of bait landing. From Maryland to North Carolina, it is one 10 fish sample per 200 metric tons.
In 2023 Connecticut was not able to collect their required samples, but did note the fishery independent samples from the Long Island Sound Trawl Survey collected 108 and 525 length samples over 158 tows. In previous years the PRT has had discussions about the sampling requirement, and particularly substituting fishery independent samples, but makes no further recommendations at the Stock Assessment Subcommittee is already reviewing this requirement as part of the single-species stock assessment.

Pennsylvania, South Carolina, Georgia and Florida continue to request *de minimis* status and all qualify based on their commercial landings, same as last year. With that the action for the Board to consider today are to approve the 2023 FMP Review, state compliance reports, and de minimis requests. With that I am happy to take any questions.

CHAIR CLARK: Any questions for James? Not seeing any. There is a question online? Okay, no questions online either. All right then, I believe we probably have a motion ready for this, because this is an action item, and in that case, we will need somebody to make the motion. We have Doug Grout.

MR. DOUGLAS E. GROUT: **I move to approve the Fisheries Management Plan Review, state compliance reports, and *de minimis* requests for Pennsylvania, South Carolina, Georgia and Florida for Atlantic Menhaden for the 2023 fishing year.**

CHAIR CLARK: Thank you, Doug, and second, we have Jim Gilmore. I'm guessing we don't need any discussion of this item. Are there any objections to approval of this motion? Not seeing any, **the motion is approved by consent**. Okay, thank you. That concludes Item Number 4.

PROGRESS UPDATE ON 2025 ECOLOGICAL REFERENCE POINT BENCHMARK STOCK ASSESSMENT

CHAIR CLARK: Now we move on to the Progress Update on 2025 Ecological Reference Point Benchmark Stock Assessment, and go right ahead, Katie. Thank you.

DR. DREW: This will be fairly brief, but I just wanted to remind the Board about our assessment timeline, since that did come up. We have progressed through this timeline, and our current next milestone is the Methods Workshop 2, which will be held in person the week of November 4th in Arlington, Virginia, and that will cover several items, which I'm going to talk about in more detail. But that will be held in person the week after next, and we are then scheduled to have an Assessment Work Shop in February to March.

We haven't set the exact date, but we'll decide on that once we see the progress we make at this modeling work shop, the Methods Workshop, with the goal of having this be peer reviewed in August 2025 through the SEDAR process, so that it can be presented to the Board at our annual meeting in October of next year.

At the Methods Workshop 2 we'll be reviewing the results of the single species assessment update, and reviewing progress on ecosystem model development, as well as discussing model comparison criteria and some of the ERP scenarios that we would like to incorporate as we continue the model development.

The other major item which may be of interest to the Board and/or the public is developing a plan to address this M question. As has been brought up before, Dr. Ault and his colleagues reanalyzed the historical menhaden tagging data and estimated an M that was lower than we use for the single species assessment.

However, the SAS is not really going to be able to resolve the discrepancies between the estimate that Ault et al are getting and the estimate that Liljestrand et al got. They have not been able to make a recommendation on what the preferred M is. They are noting that there are differences in number one, the effort time series that is used in this model.

The fishing effort helps estimate some of the migration weights as well as basically helping to separate out how much of the fish disappearing is natural mortality and how much of it is fishing mortality? Liljestrand et al were able to have access to a confidential dataset of effort that was more spatially explicit.

Ault et al was not able to get that confidential data, and so reconstructed an effort time series from data that were available. But obviously there are discrepancies there. In addition, the two datasets that are used are slightly different, so they are both based on that historical tagging dataset that was reported in Coston, where those results of the tags and the recaptures were summarized for a monthly level, which Liljestrand et al used.

A secondary dataset was developed from the original paper historical records that were re-digitized several year ago. However, Liljestrand et al found that when they examined that dataset, although it was more fine scale, in terms of the available data of tags and recaptures that were recorded, it was missing a number of batches of tags that were reported in the Coston dataset, so it appears that the paper records that were digitized through this process were not the complete Coston dataset.

As a result, Liljestrand et al used the Coston dataset, which they felt was more complete, but was summarized to a more generalized level. Ault et al used the finer scaled data, which appeared to be missing some of the batches of tags that were released. Both of these things may be contributing to the different estimates of natural mortality that we are getting out, and the Technical Committee and the SAS would like to dig more into this issue overall, and come up with a firm recommendation on which M to use, or what the best estimate of M used in this assessment is.

As a note, changing the estimate of M is part of ASMFCs per those guidelines for a benchmark assessment, that is changing the estimate of M requires a benchmark assessment. At this point, we're going to have the final decision on M peer reviewed through the ERP benchmark. The ERP benchmark does include a TOR.

TOR Number 1 is to review and evaluate the fisheries dependent and fishery independent data use in the Atlantic Menhaden Single Species Assessment and the other ERP species assessment, and then justify the inclusion, elimination or modification of these datasets. The change in natural mortality would be the only change that we would be making to the single species assessment.

We feel that we could be peer reviewed through the ERP benchmark process, so that we can have this specific issue resolved and then peer reviewed, and ready to go as part of the management advice that we provide in October. That is all that I have on what is coming up, and I am happy to take any questions.

CHAIR CLARK: Thanks, Katie. Before we take questions, would you just quickly explain the implications of the changing M, just so it is on the record so people know.

DR. DREW: With these models, using a higher M will result in a higher estimate of biomass or abundance of menhaden in the single species assessment model. If the M that we are using is too high, then we will be overestimating the population size of menhaden. The overall trends will be the same. In general, the M is really just a scaler.

I think when we've looked at this in the past with the single-specie assessment, it did not change stock status relative to the single species reference points. However, this assessment does feed into that ERP reference point assessment, and I don't think we have a good grasp on what the implications will be for the ERP reference points themselves. While definitely the scale of the population will change, I don't think it's clear to us how that will affect our perception of the stock status from an ecological perspective.

CHAIR CLARK: Thanks, Katie, and with that we'll move right to questions. I think I saw Allison. Go right ahead.

DR. COLDEN: Thank you for the update, Katie. Just two clarifying questions related to the natural mortality issue. Could you remind us about the timing of the ERP benchmark.

DR. DREW: Yes, that was the original table that we just presented is going to be peer reviewed in August, and then the results will be presented to the Board at the October meeting. The assessment, the single species will come along with that the whole way.

DR. COLDEN: Okay, thank you. Then when we, I think the last time we discussed this as a Board, there was the thought that the group would be just doing some sensitivity runs with respect to natural mortality. Should we expect, based on this conversation and the additional Methods Workshop, that you all will be exploring things beyond just sensitivity runs, with respect to the natural mortality rates?

DR. DREW: Yes, I think we, well there is the potential that after reviewing the available datasets and various studies, if the SAS recommends changing the natural mortality rates, then we would provide a fully new model as the base model. There would be still sensitivity runs to explain the effects of this change.

If after reviewing it the SAS feels that the Liljestrand method or estimate is the best available science, then we would go forward with that, but we would include those additional runs with the lower estimate of M, and have all of that signed off on by the peer review panel.

CHAIR CLARK: We have a question from Emerson. Go right ahead.

MR. EMERSON C. HASBROUCK: Thank you, Katie. I understand you have to fill a value ending with a discrepancy in M, but if M actually or might be lower, wouldn't there be a retrospective in the prior benchmark, or maybe the single species or the ecological reference points you don't want a retrospective?

DR. DREW: We do for the single species assessment, and there is a retrospective pattern, but I would say it's not as bad as some we've seen in other species. I don't think the pattern that we see is enough to have flagged that as a potential concern. I think we would say that is maybe not a diagnostic one way or the other necessarily, as to which is superior.

Certainly, we would be looking at the retrospective pattern as a potential diagnostic, as we compare the runs with these different estimates of natural mortality. But if not, the pattern that we see is not significant enough to have caused that level of concern.

CHAIR CLARK: Any further questions? Yes, Rob LaFrance.

MR. LaFRANCE: Not a question but a comment. I want to thank you, Katie, for being able to get this done in a timeframe before a complicated work. The fact that we're going to get something back peer reviewed hopefully by November 2025. I think that is outstanding, and I just want to thank you.

CHAIR CLARK: That is certainly the case. Nothing simple about menhaden and greatly appreciate all the work that goes into that. Any further questions or comments? Okay, seeing none, that concludes that item. Then we're moving on to Item Number 7, which is Elect a Vice-Chair. Let me recognize Mr. Mel Bell of South Carolina for this.

MR. MEL BELL: I would **move to elect Joe Cimino as Vice-Chair of the Atlantic Menhaden Management Board.**

CHAIR CLARK: Do we have a second? Yes, we do. Ray Kane. **Any discussion on this motion? Seeing none**; like you don't have enough to do, Joe. We are glad to have you on as the Vice Chair of this Board. Okay that concludes Item Number 7.

OTHER BUSINESS/ADJOURNMENT

Is there any other business to come before the Board?

Not seeing any; just before we finish up, just once again I wanted to thank James and the Work Group

for all their work on this, it's a very difficult problem and once again thanks to Katie and the Stock Assessment Committee the ERP Committee. This is a heck of a lot of work that has gone into this, and great job. Okay, do we have any objection to adjourning? Seeing none then we are adjourned.

(Whereupon the meeting adjourned at 3:45 p.m. on October 22, 2024)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: Atlantic Menhaden Management Board

FROM: Atlantic Menhaden Work Group

DATE: April 23, 2025

SUBJECT: Precautionary Management of Chesapeake Bay

Executive Summary

At its August 2024 meeting, the Atlantic Menhaden Management Board (Board) agreed to form a Work Group of Board members to "consider and evaluate options for further precautionary management of Chesapeake Bay menhaden fisheries, including time and area closures to be protective of piscivorous birds and fish during critical points of their life cycle." This charge asserts there is an inadequate supply of menhaden to support overall predatory demand in the Bay. However, the Work Group addressed this charge without determining if there is or is not an adequate supply of menhaden to support predatory demand in the Bay. Instead, it has developed feasible management approaches, and it is the responsibility of the Board to determine if or when it is necessary to implement them. The Work Group represented a balance of different backgrounds, regions, and perspectives; the members were:

Martin Gary (NY, Chair), Ray Kane (MA), Rob LaFrance (CT), Loren Lustig (PA), Joe Cimino (NJ), Allison Colden (MD), Pat Geer (VA), Spud Woodward (GA).

The Work Group met nine times between September 2024 and April 2025 via webinar and in-person to discuss alternatives for precautionary management in Chesapeake Bay that could be considered if the Board chooses to initiate a management document. Additionally, the Work Group created two subgroups, which each met once in September 2024, to begin evaluating data sources for piscivorous bird and fish species, respectively. In addressing the Board task, the Work Group developed the following questions to guide their consideration of potential management approaches:

1. What is the problem any management action would address?
2. What are the priority species to consider, and what are the critical points of their life cycle?
3. What data can be used to support this discussion?
4. For each management strategy discussed, what are the benefits and implications?
5. How would the performance of potential measures be evaluated?

The availability of menhaden may be affected by changes in total abundance, size distribution of the population, and timing of presence and spatial distribution in the Bay, which can be caused by fishing pressure, environmental conditions, habitat suitability, and/or changing predation pressures on a limited spatial and temporal scale. Such changes in menhaden availability may affect the species' ability to fulfill its ecological and/or economic functions. Recent observations of below average commercial fisheries landings and declining population reproductive rates of ospreys within the mainstem Chesapeake Bay suggest that availability of menhaden in Chesapeake Bay is likely changing due to one or more of the above drivers.

Potential Management Approaches

Based on the life history of the predators examined, the nature of Chesapeake Bay menhaden fisheries, and recent changes in menhaden availability, the Work Group discussed a number of precautionary management options that the Board could consider for further action. The approaches listed below could be implemented individually or in combination, depending on the Board's risk tolerance and management goals. A full description of the background information considered and the potential management options under each approach can be found in the Work Group report.

A. Seasonal Closures

Many of the species examined are seasonal inhabitants of Chesapeake Bay, utilizing the area as spawning and nursery grounds. Some species, like striped bass, have population contingents that are full-time residents in the Bay while other individuals leave the Bay to join the coastal migratory stock. Bird predators, particularly osprey, show high consistency in their arrival and departure times in the Chesapeake Bay, with only slight variations from year to year due to weather patterns.

Due to the seasonality of predator demand in the Bay, seasonal closures may be a management option that could reduce menhaden harvest during certain times of the year that are critical to predators' life cycles. This option presumes that decreasing menhaden harvest during these times of year will allow more menhaden to be available as forage for predators. Although, the Work Group noted concerns that implementing seasonal closures may lead to a concentration of harvest effort during other times of the year with unknown or unintended consequences. The Work Group discussed a suite of possible seasonal closure options, which focus primarily on the needs of the osprey population as a proxy for other predators as they exhibit relatively predictable seasonal habits and are showing signs of food stress. Ospreys have the highest and most critical bioenergetic requirements between May 1st and August 15th, and the range of options discussed includes subsets of this timeframe with considerations for the impacts to ospreys and menhaden fisheries.

B. Area Closures

A September 13, 2024, press release by Dr. Bryan Watts of the College of William and Mary's Center for Conservation Biology, compiled the 2024 osprey breeding performance in Chesapeake Bay. The study found all nesting pairs in waters with salinity greater than 10 ppt had some level of deficiency while the upriver sites were considered reference sites having a surplus at 1.36 young per nesting pair. Six of the Bay sites had what was defined as "major deficit" with < 0.6 young/pair.

Based on the results of this study and the Board task, the Work Group discussed a range of spatial closures that may increase the availability of menhaden for ospreys throughout the Bay, particularly in areas that exhibited the highest reproductive deficit. The Work Group considered mapping fishing effort over the 12 study areas to better inform potential targeted closures, but there was not a consensus within the group on the use of this method.

Additional closure options discussed by the Work Group include closure of all Chesapeake Bay (including or excluding existing MOU areas), closures based on fishing effort, or closures based on areas with the most scientific information on osprey reproduction and survival.

C. Effort Controls

The implementation of quota periods or days out provisions could be used to distribute fishing effort more evenly throughout the season. These provisions are similar to management of the Atlantic herring fishery in which quota periods are used to manage catch toward bimonthly, trimester, or seasonal quotas to effectively manage catch to meet the needs of the fishery and bait market demand.

D. Gears Included in Potential Management Actions

The Work Group discussed the possibility of restricting potential seasonal and/or spatial closures to certain gear types or sectors based on landings or potential impacts to other fisheries but did not reach a consensus on the use of this approach. The Board will need to closely consider the applicability of management options across gears and sectors if further action is taken.

E. Decreasing Chesapeake Bay Reduction Fishery Cap

The Board could further reduce the Chesapeake Bay reduction fishery cap, which is currently based on historical landings, to reduce the impacts of reduction fishing in Virginia waters of the Chesapeake Bay. This would presumably leave additional menhaden as forage in Bay waters for all predators. This option could be combined with quota periods or other effort controls to help

distribute effort more evenly throughout the fishing season. In the past, reductions in the Bay cap have reflected recent Bay landings, usually from the previous five years. While more than 5 years have elapsed since the last update of the Bay cap, average landings have been at or near the 51,000 metric ton cap, indicating a reduction based on landings is likely to be small, if there is a reduction at all. Therefore, the Board may need to consider a novel approach to setting the Bay cap based on information provided by the Work Group or from other sources.
Reduction of the Bay cap is a conservative option considering it only impacts the reduction fishery within Chesapeake Bay. Reducing the Bay cap does not impact the quota allocation of the reduction fleet, only the amount of the allocation that may be caught within Chesapeake Bay waters. This option also precludes any negative impacts to bait fisheries which serve crab and lobster fisheries along the coast as it only applies to the reduction fishery. The Work Group also noted that the Bay cap is a precautionary measure and further research is needed to develop a biologically-based cap.

F. Research Recommendations

In reviewing the information to meet its charge, the Work Group identified several areas in need of additional research and data to address questions beneficial to ecological management of menhaden fisheries in Chesapeake Bay and beyond. The resulting research recommendations can be found in the Work Group report.

Work Group Report

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Background

In August 2024, USGS staff presented to the Board a summary of the latest information regarding osprey abundance, spatial and temporal distribution, dietary demands, and timing of fledge in the Chesapeake Bay region, as well as ongoing research and information gaps. Osprey data comes from two primary sources: the North American Breeding Bird Survey and the eBird database. Long term trends show significant population growth from both a continental and regional perspective. Since 1966, osprey abundance has shown a 299% increase in North America, a 587% increase on the Atlantic coast, and a 1,801% increase in Chesapeake Bay. However, since 2012, eBird data estimates show declines in some areas around Chesapeake Bay, particularly in the lower Bay where local reproductive rates have declined sharply since 1975 to below the population maintenance level. There are numerous pressures that may affect osprey reproduction, including food availability, habitat loss leading to greater levels of inter- and intraspecific competition, disease, algal blooms, inexperienced breeders, environmental contaminants, and water depth and clarity. Additionally, abundance indices in other Atlantic and Pacific coast states show similar plateauing and short-term declines since 2012. Osprey diet composition varies by salinity in different regions of the Bay with menhaden being the second-most consumed species in the higher salinity areas, including the lower Bay. Ongoing research in Chesapeake Bay seeks to compare the availability of osprey prey, including menhaden and other fish species, between current and historical populations.

Osprey Residence and Prey Needs in Chesapeake Bay

Ospreys begin to arrive in lower Chesapeake Bay in late February and arrival peaks by mid-March, and slightly later in the more northerly portions of the Bay (Bent 1937; Reese 1991; Watts and Paxton 2007). Most breeders are here by late March. A cutoff for arrival of breeders is typically taken to be 15 April.

Departure schedules for breeding adults and hatch-year birds differ by as much as a month with adults initiating migration in late August through mid-September and hatch-year birds leaving later (Poole 1989; Watts and Paxton 2007). It should be noted that during the early fall there is a mix of resident birds and migrants (from northern breeding populations beyond the Bay).

The most bioenergetically demanding period during the annual cycle is when osprey pairs are raising broods. Historically, this period has been from mid-May through mid-July (B.D. Watts, The Center for Conservation Biology, William and Mary, written communication, December 4, 2024). Figure 1 indicates that the period of highest energy demand at the population level is

from mid-May through mid-August. It is important to note that the period of peak demand is not necessarily the period of critical demand. Most broods are lost within the first 2 weeks of development. Their demand is relatively low at that age, but the adults must meet that demand, or they will die. Older chicks have more energetic reserves and can overcome short periods of food deficit; young chicks cannot. It is critical that enough fish be available that can be captured by adults and delivered to the nest during the May period so that broods can make it through this bottleneck.

Ospreys prefer to nest over water when appropriate substrates are available, presumably related to the "escape from ground predator" benefits (Poole 1989). Prior to the 1960s, the majority of nests were on snags and live trees. Since the 1960s, the majority of nests have shifted to human-made structures (Watts et al. 2004; Watts and Paxton 2007). There have been a couple of waves of the appearance of human-made structures including the rapid expansion of aids to navigation during the 1970s, and then later the rapid expansion of private osprey platforms since the 1990s. Thus, there have been shifts in substrate use over time, but the general requirements remain unchanged. Ospreys prefer stable structures that offer protection from predators and are near adequate sources of fish (Poole 1989; Watts and Paxton 2007).

Ospreys exhibit high nest site fidelity. Generally, once a nest site has been established, the pair will use it for many years or until there has been a change to the structure (Poole 1989). If the nest is lost to weather or to human removal, the pair will rebuild the nest. However, if the structure itself is lost or altered in some functional way, the pair is forced to select another structure typically within a short distance of the original nest. If no appropriate structure is available after its loss, the pair will move and find a new place. Nest substrate can certainly be limiting in various parts of the Bay, but more so historically than now due to the proliferation of nestable human-made structures.

In some populations most of the foraging is within site of the nest (< 2 km), but in others it can range much further (15-20 km). Some individuals have preferred hunting areas and spend quite a bit of their time in those areas, while others are much more variable in where they forage. Across pairs, a high proportion of prey come from within 10 km of the nest site (Poole 1989).

Osprey have evolved a behavioral mechanism to match the brood demand to the available food. Many pairs in Chesapeake Bay hatch three chicks. If there is enough food to provision all of the chicks, then all will develop and grow synchronously and survive. If there is not enough food to sufficiently provision the three chicks, then a dominance hierarchy will form, and subordinate chicks will be fed last and may die. This process is referred to as brood reduction – reducing the brood and associated metabolic demand to match food availability. If the dominant chick does

not get enough food, the nest will fail. Brood reduction on a large scale is an indicator of food stress (Poole 1982; Hagan 1986; Eriksson 1986; Bowman et al. 1989; Steidl and Griffin 1991; Machmer and Ydenberg 1998).

For Mobjack Bay, substantial declines in reproductive rates, overall provisioning rates, provisioning rates with menhaden, proportion of the diet comprised of menhaden and diet quality have been documented. An increase in male foraging time and brood reduction has also been observed. Importantly, reproductive rates have transitioned from surplus to deficit (Academia and Watts 2023; Watts et al. 2024) and brood size has declined significantly (Watts et al. 2024; Table 1).

In 2024, 12 study areas were monitored in Chesapeake Bay including 10 within the main stem of the Bay (salinity >10 ppt) and 2 in the lower salinity reaches (<1 ppt). All main stem sites were in reproductive deficit, while the 2 lower salinity reference sites were in reproductive surplus. During the nesting period, osprey are dependent on one to two species for prey. In Mobjack Bay, menhaden comprised nearly 75% of fish provided to broods in the late 1980s (Watts et al. 2024). Currently, it is believed that ospreys nesting in much of the main stem of the Bay are menhaden dependent with menhaden comprising 44% of the osprey diet at Poplar Island and 24% in the lower Bay near the Eastern Shore of Virginia. Osprey in low salinity areas do not depend on menhaden as prey (Glass and Watts 2009; Lazarus et al. 2016), instead relying on fish abundant in these regions, including catfish, gizzard shad, and Atlantic croaker.

Menhaden Fisheries in Chesapeake Bay

The Atlantic menhaden commercial fishery in Chesapeake Bay consists of a reduction fishery and a bait fishery. The Virginia reduction fishery has been in operation for 147 years in Reedville, Virginia, and provides fish meal, fish oil, and fish soluble products. The bait fishery is the primary source for the blue crab pot fisheries and chum bait from Delaware to Florida, as well as a provider to the New England lobster fishery.

Virginia's menhaden quota for 2023 was 388,140,547 pounds (75.21% of coastwide quota); Maryland's quota was 5,965,566 pounds (1.17% of coastwide quota). Virginia further allocates its in-state quota between sectors with the reduction fleet receiving 90.04%, the purse bait sector receiving 8.38% and the non-purse seine bait fisheries receiving 1.58%. Purse seine gears including bait purse seiners comprise the overwhelming percent of Virginia's menhaden harvest over the past five years (2000 – 2024) at 98.4% (88.7% reduction and 9.7% bait). Gill net and pound net harvest for bait are 0.80% and 0.77% respectively. Maryland's commercial fishery is

exclusively a bait fishery and is primarily harvested by pound nets. Between 2019-2023, Maryland has landed an average of 35.9% of its total quota, approximately 2.8 million pounds.

Virginia Purse Seine Fisheries

The Virginia purse seine fisheries (both reduction and bait) use spotter aircraft to locate schools of menhaden and direct vessels to the fish. When a school is located, two purse boats, with a net stretched between them, are deployed. The purse boats encircle a portion of the school and close the net to form a purse, or bag. The net is then retrieved to concentrate the catch, and the mother ship comes along the side and pumps the catch into refrigerated holds. Individual sets can vary from 10 mt to more than 100 mt, and large vessels can carry 400-600 mt of refrigerated fish.

Purse Seine Reduction Fishery

The menhaden reduction fishery is seasonal as the presence of menhaden schools is dependent on the temperature of coastal waters. Two fairly distinct fishing seasons occur: the "summer fishery" and the "fall fishery". The summer fishery begins in April with the appearance of schools of menhaden off the North Carolina coast. The fish migrate northward, appearing off southern New England by May-June. The fall fishery begins when migratory fish appear off Virginia and North Carolina. In early fall, this southward migration is initiated by cooling ocean temperatures. By late November-early December, most of the fish are found between Cape Hatteras and Cape Fear, North Carolina.

The Virginia Chesapeake Bay menhaden purse seine season starts the first Monday in May and ends the third Friday in November, while the ocean season (east of the Chesapeake Bay Bridge Tunnel) ends the Thursday before Christmas (Code of Virginia, § 28.2-410). In 2024, the Bay season was May 3 through November 15, or 197 days, and the ocean season through December 19 (231 days). The presence of menhaden schools is dependent on water temperature, as such, catch and effort varies across the season. The industry logs daily activity on the Captain's Daily Fishing Reports (CDFRs), which include information on vessel, date, time, location, estimated catch, reporting area and weather conditions for each set.

In general, there has been a decline in the overall effort in the reduction sector since the early 2000's with effort in the Bay accounting for just under half the total effort (49.29%) over the past five years (Figure 2), though effort in the Bay is capped at 51,000 metric tons based on the current Chesapeake Bay reduction fishing cap established in Amendment 3 to the Atlantic menhaden FMP. Over the past ten years (2015-2024), 49.50% of the reduction Bay effort and

46.09% of the Bay harvest occurred prior to July 15 (Figure 3, Tables 2 and 3). However, this is highly variable with the past two years' catch and effort significantly below average until the end of June (Table 3), after June both years were near or above the 5-year and 25-year averages (Figures 4 and 5, Table 3).

Spatially, each net set is reported to one of 7 areas in the Bay and 2 areas in Virginia's coastal waters (Figure 6). Catch and effort are greatest in the northwest area of Smith Point, with 33.20% of effort and 27.96% of harvest over the five most recent years (2020-2024) (Figure 7). Through July the Smith Point area has the highest activity, after which activity is highest in areas of the lower Bay near the mouth and along the Eastern Shore (Oceanview, Cape Charles, and York River) August 1 through September 15 (Figure 7). Activity in the Bay wanes beginning in October with less than 4% of the total bay effort occurring the remainder of the season.

Purse Seine Bait Fishery

The purse seine bait fishery catch and effort shows similar trends, with 2023 weekly harvest reports well below average through the week ending July 21, while 2024 reports were similarly below average nearly the entire season (through the week of November 8) (Figure 8). Purse seine catches are typically low the first two weeks in May but pick up substantially through the end of the month and into July. This increasing harvest trend was not observed in 2023 until late June (Figure 8). These below average and significantly below average purse seine harvest reports early in the 2023 and 2024 seasons warrant further examination given the latter part of the season was at or above normal.

Activity of the purse seine bait fishery is distributed differently than the reduction sector with effort rising steadily in late May and remaining consistent through July, following by a steady decline through October (Figure 7). The Smith Point reporting area again dominates catch (34.25%) and effort (37.87%), followed by Cape Charles (C=23.24%, E=16.68%), Silver Beach (C=15.47%, E=12.62%), and the northeasterly area, Pocomoke Sounds with 11.71% of the catch and 14.72% of the effort over the most recent 5-year time period (Figure 7).

Overlap with Osprey Study Areas[1]

Of the 6,257 menhaden Bay purse seine net sets reported on the CDFR's between 2020 and 2024, only 113 net sets (1.81%) occurred in just four of the Watts et al. 2024 osprey study areas (Fleeton Bay, Mobjack Bay, Eastern Shore, and Piankatank River) (Figure 9 and Table 5). The osprey workgroup indicates that May and June are the most sensitive times for osprey (USGS,

[1] Members of the external Osprey Work Group cautioned the Board Work Group against using the Watts et al. 2024 study areas in this manner as they assume menhaden biomass is static and that the effects of menhaden harvest are restricted to the local area of harvest

personal communication, ASMFC Menhaden Board Meeting, August 2024). The CDFRs indicate that 8.41% of the May effort occurred in one three study areas: Fleeton Bay – 59 sets or 7.88%; Eastern Shore – 3 net sets or 0.40%; and Piankatank River – 1 net set (0.13%) (Figure 7 and Table 5). June had 1.15% of the purse seine net sets in proximity to the Fleeton Bay (N=7, 0.54%) and Eastern Shore osprey study areas (N=7, 0.62%) (Table 5). Mobjack Bay has been the center of attention regarding recent osprey nesting studies, however only 22 menhaden purse seine net sets occurred in the osprey study areas over the past five years, and none during the critical May to June window for osprey (Table 5). Most of that Mobjack Bay purse seine effort occurred in August of 2021 (N=14) and 2022 (N=7).

Non-Purse Seine Bait Fisheries

Menhaden from bait fisheries is primarily harvested by pound nets, gill nets, and haul seines. Virginia's non-purse bait harvest is dominated by gill nets (50.84%) and pound nets (48.95%) with haul seines at 0.15% over the past five years. The pound net fishery in the Chesapeake Bay region is carried out by numerous small, non-refrigerated vessels. Maximum hold capacity of these pound net vessels is 9 mt or less, but daily catches are usually well below vessel capacity and are limited by the number of fish encountered in the fixed gear. The majority of these fish supply the local blue crab fishery.

Pound Net Fisheries

Pound nets comprise 0.16% of the overall menhaden harvest annually in Virginia (average= 2.10 million lbs) and 97.23% in Maryland (average=2.24 million lbs) over the past five years. Annual catch-per-unit effort (CPUE) measured as lbs per net-day has been relatively stable on the Potomac River (2,434 lbs per net day) with the exception of 2023 and 2024 when CPUE declined sharply. Similar estimates in Virginia and Maryland have been significantly below the 10-year average (MD = 2,242 lbs per net-day, VA=2,053 lbs per net day) for both 2023 and 2024 (Figure 10). On a monthly basis, menhaden first appear in pound net catches in March, peak during the summer months, with a steady decline in harvest into the fall (Figure 11). Harvest for the last two years (2023 and 2024) was generally at or below both the 5 and 10-year averages in Maryland, while Virginia's monthly harvest was significantly below average April through October, 2024 (Figure 11).

As shown in Figure 12, pound net distribution in the Chesapeake Bay is primarily located on the lower Eastern Shore and Northern Neck on the western side of the Bay with a small number of pounds in Virginia Beach, northern Eastern Shore, and the tributaries. VMRC harvest reporting areas were used to represent spatial coverage by month (Figure 13). Pound net harvest tracks

the location of pound nets well, with 83.62% of all harvest (2020-2024) occurring in the Chesapeake Bay Upper West Area (CBUW) with the Rappahannock River at 10.42% (Figure 13).

Overlap with Osprey Study Areas

Of the 136 Virginia licensed pound nets in 2024, 10 occurred within the Fleeton Bay osprey study area with another 22 just to the north (Figures 12 and 13). Eight pound nets were located in the Eastern Shore osprey study area and 6 in proximity to the Lynnhaven study area. The MRC reporting area CBUW (Chesapeake Bay Upper West) (Figure 13) is where the bulk of the pound net harvest originates (83.62%) – Fleeton Bay occurs in that reporting area. Over the past 5 years (2020-2024), 37.54% of all pound net harvest was reported from this area during March to June (Figure 13).

Gill Net Fisheries

Gill nets comprise 0.15% of the overall menhaden harvest annually in Virginia (average= 2.06 million lbs) and 2.73% in Maryland (average=62,988 lbs) over the past five years (Figure 14). Maryland harvest has averaged 206,508 lbs annually over the past ten years but has observed significantly lower harvest since 2021. Virginia has averaged 2,132,885 lbs the past ten years but significantly below that value in 2023 and 2024 (Figure 14). Gill net harvest of menhaden is primarily February to April in Virginia waters and March to April in Maryland (Figure 15). Catches appear to be delayed somewhat in Maryland with the peak month of harvest in April. The 2024 harvest for nearly every month was significantly below the 5 and 10-year averages in Virginia waters.

Spatial distribution of gill net activities is more dispersed than pound nets. In Virginia, Western Upper Bay (CBUW) dominates harvest during the peak months of March and April and comprises 32.92% of the total gill net harvest. The Eastern Upper Bay (CBUE) represented 20.30% of the 5-year total but harvest was down in that area in 2024 compared to previous years.

Overlap with Osprey Study Areas

Menhaden harvest from gill nets is more complicated than that from pound nets. In Virginia, various types of gill nets are utilized (anchored, staked, drift, etc), targeting a number of species (bluefish, blue catfish, croaker, black and red drum, striped bass, Spanish mackerel, speckled trout, gizzard shad, and menhaden) throughout the year. Maryland banned the use of anchored and staked gill nets in 1992. Drift gill nets are permitted but must be attended at all times.

Menhaden are mostly caught with anchored gill nets in the spring months (March to May) in Virginia's western Bay (CBLW and CBUW - (Figure 16) with 68.71% of the 5-year harvest occurring during that three-month period (Figure 16). The Eastern Shore osprey study area is included in the CBUE reporting area with 9.48% of the overall harvest, with the lower Chesapeake Bay reporting area at 3.15% (Figure 16). The York River reports 15.05% of the overall menhaden harvest with gill nets, James River has less than 0.7%, the Poquoson River at 0.53%, Piankatank River at < 0.5%, and Rappahannock River at 6.41%. Overall, the Mobjack Bay gill net harvested was 7.52% over the past five-years, with 6.07% of that harvest in March and April. The single highest month of harvest in Mobjack Bay occurred in March 2021 (Figure 17).

Background on Additional Piscivorous Bird and Fish Predators

Cormorants and Pelicans

Double-crested cormorants and brown pelicans are two additional predators of menhaden whose numbers are increasing in Chesapeake Bay. Atlantic menhaden make up 50-55% of the diet of cormorants and 74% of the diet of brown pelicans by weight. Other important fish for cormorants were spot (8-27% of diet) and Atlantic croaker (13-16% of diet). For brown pelicans, bay anchovies were also important (14% of their diet)(Watts and Duerr 2009). Breeding of the Double-crested Cormorant in Virginia was first confirmed in 1978 on a small, vegetated island in the James River near Hopewell. Colonization of Virginia represents an expansion beyond the historic range following a low during the DDT era (1940s-1972). After 1984, the Virginia population expanded rapidly to 5 colonies by 1995 containing more than 400 pairs. The seaside of the Delmarva was not colonized until 1995. Between 1993 and 2018 the population has increased by 1416% from 354 to 5,012 pairs. Most of this increase is accounted for by the rapid expansion of the Shanks Island colony. The colony has expanded from 6 pairs in 1993 to 907 pairs in 2003 to 1, 636 in 2008 to 2,369 in 2013 to 5,012 in 2018. This trend continued until 2023, when erosion significantly deteriorated Shanks Island, leading to a significant drop in cormorants located within Virginia to just over 3000 breeding pairs (Watts et al. 2019).

Double-crested cormorants live in the Chesapeake Bay area year-round, but winter is an especially important time, as they overwinter around the bay and along the south Atlantic. There are two migration dates; initial arrival in the spring, with the earliest departure for spring migration around March 26th, and the latest around May 12th and departure for the winter, where some populations migrate south to wintering grounds in the fall, with the average departure date for fall migration around October 1st (Watts et al. 2019).

The Brown Pelican was first found breeding in Virginia on Fisherman Island in 1987. During this same year, birds were also found nesting on Metomkin Island. Colonization of Virginia represents a northward range expansion from North Carolina that extends beyond the historic range and follows recovery of southeastern populations from contaminants. Since its discovery, the Shanks Island colony has grown exponentially apparently fueled by continued immigration. In 1993, there were only 53 pairs documented in this colony. By 1999, the colony supported 913 breeding pairs. The colony reached a peak in 2013 with 1,857 pairs and has now declined to 1,753 pairs. The Wreck Island colony has shifted south on the island over the past couple of years, expanding dramatically and now including 1,493 pairs (Watts et al. 2019).

Virginia is the northernmost state that supports a year-round brown pelican population, especially further south in the state near Virginia Beach and at the mouth of the Chesapeake Bay. Nesting and egg laying occurs between March and May, with females laying 2 to 3 eggs per clutch. Eggs then take about 30 days to hatch, and first flight takes around 75 days (Watts et al. 2019).

Striped Bass, Cobia, Red Drum, Spanish Mackerel, Spotted Seatrout, Weakfish and Blue Catfish

The present Ecological Reference Point (ERP) assessment models developed for Atlantic menhaden consider only four predatory fish species (striped bass, bluefish, weakfish, and spiny dogfish), with striped bass fitting the models best. These species have historical significance in the Chesapeake Bay and have been well studied. The latest coastwide assessments indicate striped bass is overfished, bluefish are presently rebuilding, weakfish are depleted due to high levels of natural mortality, and spiny dogfish reproductive output is declining but stabilizing (ASMFC, 2024).

Commercial and recreational harvest for all these species (with the exception of spiny dogfish) have shown a negative trend for the last ten to twenty years in the Chesapeake Bay (Figures 1 and 2). To the contrary, other migratory species, such as cobia, red drum, spotted seatrout and Spanish mackerel have increased in abundance and length of residency in the bay due to warming water temperatures (Figures 18 and 19). In addition to these estuarine species, the introduced blue catfish population is expanding (Figure 20), causing concerns for the Bay states due to its diet of important species such as blue crabs, alosines, and menhaden. As the Bay's population of these traditional species declines, so does their ecological demand for forage species such as menhaden. As other species abundance increases, their forage demands will increase but the overall effect of this species shift on predatory demand of piscivorous fishes on menhaden is unknown.

Abundance of Key Bay Predators

Commercial and recreational harvest data can be used to reflect the abundance of a species within the Chesapeake Bay in recent years. Blue catfish numbers are up as much as 287% (MD) and 72% (VA) compared to the 20-year average (Figure 20 and Table 4). Both states have seen a doubling of recreational cobia catch compared to the 20-year average with Virginia seeing a 76% increase in commercial harvest. Red drum commercial harvest is strictly controlled by the Red Drum Fishery Management Plan (ASMFC, 2022) with recreational catch trending upwards - especially in Virginia. Spanish mackerel and spotted seatrout have seen some of the largest increases in catch in recent years with mackerel increasing 129% commercially in VA and recreational catch up 157% (VA) and 192% (MD). Seatrout has observed a 70% increase commercially (VA) and with recreational catch up 46% (MD) and 57% (VA) over the past 20 years (Table 4, Figures 18-20).

Commercial harvest data from ACCSP and recreational total catch information (A+B1+B2) from MRIP were explored back to 1990. Three of the four species used to model the Menhaden ERP assessment have shown declines in both commercial harvest and recreational catch during the past 5-years compared to the 10-year and 20-year averages (Table 4, Figures 18 and 19). Commercial striped bass harvest has declined 28% in VA and 19% in MD, with declines of 58% and 27% respectively in the recreational catch. Bluefish recreational catch has declined 65% (MD) and 25% (VA) compared to the 20-year average, while commercial harvest has declined 77% (MD) and 50% (VA) (Table 4). Weakfish have observed the largest decline with recent years 88% (MD) and 66% (VA) below the 20-year commercial average and 84% (MD) and 29% (VA) below the 20-year recreational catch. Spiny dogfish has a mixed signal with recreational catch increasing in Maryland (24%) as is commercial harvest in Virginia (77%) (Table 4). However, only 2.39% of the Virginia dogfish harvest has occurred in the Bay over the past five years (2000 – 2024), with the bulk coming from coastal waters (95.88%) and seaside tributaries and lagoons (1.73%).

The predators included in the ERP assessment model were chosen because of their dependence on menhaden as forage, though the relative dependence on menhaden varies by species with striped bass having the largest relative dependence (15.9% by weight; 11.7% by number) and weakfish having the smallest relative dependence (<1%) (Bonzek et al. 2022).
Other species with increasing abundance in Chesapeake Bay that may be influencing forage species demand have few to no Chesapeake Bay diet studies and no fishery independent surveys designed to monitor their abundance. However, diet studies from southern states (North Carolina to Georgia) with a longer history of surveys and diet studies may clarify the

forage demand of these species. All of the species increasing in abundance in Chesapeake Bay are known to prey on menhaden, with the relative importance varying by season or ontogeny. Large spotted seatrout and Spanish mackerel had the highest diet composition of menhaden (31.5% and 40%, respectively) followed by small red drum (27.4%), and cobia (1.53%). A study of the upper portions of Virginia major tributaries (James, York and Rappahannock Rivers) found menhaden comprised 0.425 to 5.00% of blue catfish diet by weight (Schmitt, et al. 2018).

Diet Studies in Chesapeake Bay

The VIMS Chesapeake Bay Multispecies Monitoring and Assessment Program (ChesMMAP) and Northeast Area Monitoring and Assessment Program (NEAMAP) are the most comprehensive diet studies of ecologically, commercially, and recreationally important fishes in the Chesapeake Bay and adjacent coastal waters. The ChesMMAP began in 2002 and samples four times a year (March, June, September, and November) in the mainstem bay from the head of the Bay at Poole's Island, MD to the mouth of the Bay just outside the Chesapeake Bay Bridge Tunnel. (ChesMMAP 2024). NEAMAP began conducting both a spring and fall survey in 2008, sampling from Cape Cod, MA south to Cape Hatteras, NC, targeting both juvenile and adult fishes (NEAMAP 2024). Both surveys develop age specific abundance estimates of various species for stock assessments, as well as complete annual representative ageing and gut contents on a suite of species. The diet data were instrumental in developing the ERP predator prey models for menhaden. Included below are a diet summary of those ERP predators. A summary of the menhaden percent of diet for each of the species below along with location and time of the study and reference appear in Table 6.

Striped Bass diet in the Bay is known to consist of numerous species from mollusks, annelids (worms), Arthropods (shrimp, crabs, mysids, etc.) and a number of finfishes (CHESMMAP, 2024). From the stomach contents collected from 2002 to 2020 cruises, diet composition of striped bass consists of 63.2% fish by weight (%W), 17.0%W and 26.1% by number (%N) for crustaceans, 11.7%W and 9.9%N for worms, 6.2%W miscellaneous items, and 1.9%W mollusks (Bonzek et al. 2022). Bay Anchovy comprises the largest portion of the diet with 33.0% by weight(%W) and 33.8% by numbers (%N). Mysids are second with 7.3% by weight and 12.2% by number. Menhaden comprise 15.9% of Striped Bass diet by weight and 11.7% by number during this 19- year period. (Bonzek et al. 2022).

Bluefish are highly piscivorous with CHESMMAP data from 2000-2021 indicating bay anchovy constitutes 53.4% of the diet by weight (%W) and 52.0% by number (%N). Spot constitute 9.3%W and 5.8%W, with all fish species representing 88.9%W and 83.0%Wr (Bonzek et al. 2022). Menhaden comprise 5.0%W and 4.7%N (Bonzek et al. 2022).

Weakfish diet data from CHESMMAP (2000-2021) suggest the diet is primarily fishes (68.3%) and crustaceans (25.6%) by volume. By numbers, fishes comprise 53.3% and crustaceans 39.9% (primarily mysids at 21.8%). Bay Anchovy are 31.3% of the diet by number and 40.5% by volume. Menhaden make up only a small portion of the weakfish diet < 1% (possibly due to truncation of the weakfish size range associated with high natural mortality of Age 1+ fishes) (Bonzek et al. 2022).

Spiny Dogfish do not typically venture far into the bay (< 2.5% of harvest) and are generally observed in coastal waters by NEAMAP. Diet information collected from spiny dogfish indicates roughly half of their diet by both weight (%W) and numbers (%N) were fishes. Menhaden (7.8%W, 5.1%N), striped bass (2.3%W), butterfish (2.1%W, 2.1%N) and scup (2.2%W, 2.0%N) are the most prevalent identified fishes, with longfin squid (9.7%W, 7.1%N) and bloodworm species (10.1%W, 10.6%N) the most prevalent invertebrates over a 10-year period (2007 – 2016) (Bonzek et al. 2017).

Other species with increasing abundance that may be influencing forage species demand have little to no Chesapeake Bay diet studies. None of these species have effective fishery independent surveys in the Bay to monitor abundance or diet composition. States to the south (GA to NC) have numerous studies in the literature that may clarify the forage demand of these species.

Cobia: Commercial and recreational cobia harvest has increased substantial over the past 10 years (Figures 18 and 19). The species feeds mostly on crabs (blue crab and lady crabs) with the relative importance of those species (index of relative importance) 2-3 orders of magnitude higher than any other species (Arendt et al. 2001). This study found these two species comprising 76.82% of the diet by numbers and 78.62% by volume. Menhaden were found to be 0.14% of the diet by numbers and 1.53% by volume (Arendt et al. 2001).

Red Drum are opportunistic feeders, and diet can shift with changes in age, habitat, season variability, and fluctuations in prey availability. In North Carolina red drum diet composition is comprised primarily of decapod crustacea (shrimp and crabs) and finfishes. Age 0-1 fish (100-400mm) eat primarily penaeid shrimp 30.7%W, menhaden 27.4%W and blue crabs at 9.6%W, with all decapod crustacea at 42.6%W and finfishes at 55.8%W (Facendola and Scharf, 2012). Diets in Age1-2 fish (400-700 mm) is shifted primarily to blue crabs (35%W), menhaden (15.4%W), Pinfish (10.1%W), and only 1.1%W of penaeid shrimp, with the percent of finfishes increasing to 61.1%W (Facendola and Scharf, 2012). In a study of larger fish (> 750 mm) diets consisted mainly of blue crabs (50.7%W), menhaden (11.9%W), and shrimp (3.0%W), with all

finfish totaling 38.8%W and all decapod crustacean at 56.7%W (Peacock, 2014). These and other studies had similar species composition in the diet for fishes typically found in the Bay, including spot, croaker, mullet, tonguefish and mullet.

Spotted Seatrout: As juvenile spotted seatrout grow (greater than 30 mm in length), the dominant prey shifts to penaeid and palaemonid shrimps, which remain important in the diet of adults (McMichael and Peters 1989). As adult spotted seatrout increase in size, pelagic fishes and penaeid shrimps become increasingly important in their diet (Mercer 1984). Diet analysis of spotted seatrout in the lower Cape Fear River, North Carolina, revealed that Atlantic menhaden and brown shrimp are the dominant prey items of spotted seatrout during the summer and fall, and other important prey species included pinfish, spot, and striped mullet, indicating that spotted seatrout are mainly piscivorous after reaching age 1 (Tayloe and Scharf 2006). By size in coastal Georgia, small spotted seatrout < 300 mm consume primarily grass shrimp (13.2%N) and menhaden (9.4%N). Medium fish (301-500 mm) primary food items were fish (56.8%N), specifically menhaden (15.6%N,) with penaeid shrimp (12.1%N) the most prevalent invertebrate. Large specimens (> 500 mm) were exclusively piscivorous with menhaden at 31.5%N (Music and Pafford, 1984). For all size classes combined fishes comprises 41.8%N of diet (menhaden 20.1%N), with crustacean at 9.2%N (penaeid shrimp at 13.1%N and grass shrimp at 7.6%N) (Music and Pafford, 1984).

Spanish Mackerel: Nearly exclusively piscivorous, particularly at large size classes. A study off the Georgia coast found the fish portion of the diet of juveniles (9-42cm) to be 97.9% by weight (%W) and 89.6% by number (%N), with anchovy species comprising the bulk (64.9%W and 39.5%N, with an occurrence rate, of 44.5%) (Finucane et al. 1990). A study from North and South Carolina samples found fishes to be a similar portion of the diet (97.7%W) with anchovy species consisting of 29.7%W, nematodes 1.5%W, squid species 0.4%W, and digested fish material at 58.7%W (Saloman and Naughton, 1983). A study off Cape Canaveral, FL found fishes to comprise 93.5% of diet by weight (%W) and 86.7% by number (%N), with key species being anchovies (21.3%N, 22.6%W) clupeids – including menhaden (5.3%N, 22.6%W) and squid species (13.3%N, 6.5%W) (Naughton and Saloman, 1981). A recent NOAA study in the Gulf of Mexico indicated that age 0-1 Spanish mackerel diet can consist of up to 40%W Gulf menhaden (over 5-year classes) while Age 1+ mackerel diet is around 20%W menhaden (Berenshtein et al. 2021).

Often menhaden are not easily identified in gut contents and may be labeled as “clupeids” or “unidentified fish”. A study in the Northern Gulf of Mexico/America to quantify the importance of Gulf menhaden as a prey item found the estimated contribution of identifiable menhaden to the diets of all predators generally ranged between 2% and 3% (Sagarese et al. 2016). Diet

compositions were then adjusted for unidentified prey using the proportion of fish species biomass in the ecosystem, indicating five predator groups with a relatively large dependence on Gulf menhaden prey were juvenile King Mackerel, juvenile and adult Spanish Mackerel, Red Drum, and Blacktip Sharks (Sagarese et al. 2016).

Blue Catfish were introduced to the Chesapeake Bay upper tributaries in Virginia beginning in 1973 to 1985 to enhance trophy fishing opportunities for freshwater anglers. The species has a much higher salinity tolerance (typically found at 17 ppt) then native catfish species and become piscivorous at a smaller size and age. They have been very prolific (Figure 20) spreading to nearly all tributaries of both the western and eastern side of the bay. They are an omnivorous, or trophic generalist species of fish. Because of this, their diet varies by waterbody, salinity and the availability of prey items, but studies indicate that their diet most often consists of small fish, crayfish, mollusks, and plant matter. At larger sizes, Blue Catfish become increasingly piscivorous, and transition to primarily consuming other fish. A study of the upper portions of Virginia major tributaries (James, York and Rappahannock Rivers) found menhaden comprised 0.425 to 5.00% of blue catfish diet by weight (Schmitt, et al. 2018).

Species Health

A standardized health condition index could be used to examine if striped bass and other piscivores are stressed in the Bay. One of the simplest methods is the Fulton's Condition Factor (k_c) which has been used for over 100 years. (Fulton, 1911; Stevenson and Woods, 2006). While this analysis can track the relative condition of fish over the season and interannually, the opportunistic foraging habits of many of the species described above precludes the direct relation of health indices to fluctuations in menhaden biomass or availability.

Condition factors may vary seasonally during spawning and when stressed by environmental conditions such as water temperature or low dissolved oxygen, as well as species specific physiological and morphological differences. For this exercise, an annual factor is produced from a number of datasets from the Maryland Department of Natural Resources, Potomac River Fisheries Commission, and Virginia Marine Resources Commission for striped bass and other known predators of menhaden in the Bay.

Fulton's Condition Factor

The Factor is simple to compute and only requires length (in cm) and weight (in grams). A factor of 1.0 is considered normal for most finfishes with 1.2 very healthy, and below 0.8 under stress. The formula is:

$k_c = (\text{Weight} / \text{Length}^3) * 100,$ Weight in grams, Length in cm

Eight data sources were used to develop annual condition factors for striped bass. A total of 298,232 individual striped bass were evaluated with the average annual number of samples from the projects ranging from 243 to 3473. A cursory review of the samples was conducted with outliers from the linear length vs weight curve removed from the analysis .

Striped Bass Health: The use of Fulton's Condition Factor as a measure of the Bay's Striped Bass population health would indicate the fish are not starving and would be considered healthy (Figure 21). These datasets represent the entire Chesapeake Bay, numerous gear types, across all months in any given year. The time series was examined back to 1990 when Striped Bass were still under a moratorium. In general, these data suggest the Bay's striped bass are healthy, with k_c's above the 0.8 threshold on an annual basis (Figure 21). Conditions appear to be trending upward and often exceeding the very healthy 1.2 threshold for data collected primarily during cool water months (October – March) (Figures 21 and 22). These data all show similar trends and appear to capture expected declines in k_c during warm weather months (when fish are most stressed) suggesting this reflects expected seasonal dynamics in foraging behavior and physiological stress (Figure 22).

Health of other Bay Predators: Similar methods were applied to other Bay predatory species to develop Fulton's Condition Factor for each. Only information from VMRC projects was used for this exercise. Long-term blue catfish and spiny dogfish length/weight data was not available at this time. Red drum, spotted seatrout, and weakfish all had k_c values fluctuating around the normal threshold of 1.0 or above (Figure 23). Interestingly, the pelagic species (bluefish, cobia and Spanish Mackerel) all have k_c values typically well below the 1.0 normal threshold, with the median for bluefish at 0.93 (range from 0.83 to 122). Cobia ranged from 0.80 and 1.37 (median=0.90). Spanish mackerel was much lower with k_c values ranging from 0.49 to 0.89, median = 0.54 (Figure 23). Given the k_c values were generally stable for each of these species over the time series, there may be morphological differences with pelagic species compared to sciaenids that requiring scaling the condition threshold for specific species.

In general, the health index measured by Fulton's Condition Factor, seems to be slightly increasing or stable for all species, suggesting the health of these species over time has not changed substantially.

Potential Management Approaches

Based on the life history of predators examined, the nature of Chesapeake Bay menhaden fisheries, and recent changes in menhaden availability, the Work Group discussed a number of precautionary management options the Board could consider for further action. The options listed below could be implemented individually or in combination, depending on the Board's risk tolerance and management goals.

Seasonal Closures

Benefits and challenges of potential strategies discussed are summarized below for several potential scenarios:

1. May 15 – August 15: This period covers the period of highest energy demand for the osprey population in Chesapeake Bay. Cormorants, striped bass, and red drum are also present in Chesapeake Bay during this time. Between 2020-2024, 60.72% (Table 3) of the cumulative reduction harvest of menhaden in Chesapeake Bay occurred during this time. Purse seines harvesting bait had a cumulative harvest for that same time period of 47.51%.. Virginia's gill net and pound net fisheries harvest 43.42% and 49.28% of the annual harvest during this time period.

2. May 1 – June 30: This period covers the period of critical demand for early chick survival for osprey in Chesapeake Bay. Cormorants, striped bass, red drum, and cobia are also present in Chesapeake Bay during this time. Between 2020-2024, 29.36% of the cumulative reduction harvest of menhaden in Chesapeake Bay occurred during this time. Bait purse seines harvested 22.08% of its annual average during these two months, with gill nets at 60.14% and pound nets at 21.41%.

3. May 1 – May 31: This period is a smaller subset of the options listed above to cover the first two weeks of the typical hatching season. This period would impact 10.69% of the purse seine reduction sector's annual Bay harvest (2020-2024) and 3.74% of the purse seine bait harvest based on the past 5 years. Gill nets are typically catching menhaden in the early spring with a May closure impacting 9.26% of the average annual harvest. The pound net harvest for the month of May in Virginia is 13.55% of the annual harvest. The pound net harvest for the month of May in Maryland is 5.76%.

Area Closures

Spatial Analysis of Fishing Activity

To explore if menhaden may play a role in the deficiencies outlined in Watts (2024), Captain Daily Fishing Reports (CDFRs) from menhaden purse seine activities were mapped against these 12 areas (Figure 9). Male osprey are known to travel up to 10 km from their nest while hunting for food (Pool, 1989). If the precise location of these 571 nests was available, a 10km buffer could be placed around each nest to determine the timing and level of fishing activity occurring in these 12 study areas. Unfortunately, the location of the sprey nests is not available at this time so similar polygons representing the 12 areas were created (as they appear in Dr. Watt's September 13th press release) (Figure 9).

It should be noted that members of the external osprey Work Group, which included representatives from USGS, USFWS, Maryland National Capital Park & Planning Commission and Dr. Watts from the College of William and Mary cautioned the Work Group against using the Watts et al. 2024 study areas in this manner as they assume menhaden biomass is static and that the effects of menhaden harvest are restricted to the local area of harvest. Instead, they suggest that the high concentration of reduction fishery net sets at the mouth of Chesapeake Bay could act as an 'intercept' fishery, preventing the ingress of large numbers of fish into Chesapeake Bay during key points of the season. Fishery-dependent data from daily CDFR's suggests that reduction fishing effort near the mouth of the Bay is concentrated during August and September compared to the upper Bay in May and June. Fishery-dependent data from daily CDFR's suggests that reduction fishing effort near the mouth of the Bay is concentrated during August and September compared to the upper Bay in May and June (Figures 6 and 7). This could suggest that reduction harvest is not limiting menhaden ingress, but surveys of menhaden migration and biomass in the Bay would be required to determine whether these trends are driven by menhaden availability or fishing operations.

Management Area Restrictions

Chapter 4 of Title 28.2 of the Code of Virginia addresses the taking of menhaden with purse seines. Closed areas are defined in § 28.2-409 and excludes most tributaries, bays and creeks off the mainstem Bay. The Bay season is defined as the first Monday in May until the third Friday in November (§ 28.2-410). In April 2023 a memorandum of understanding was signed between industry and VMRC to agree not to deploy or set a net around particularly sensitive areas. A one-half nautical mile buffer was created on either side of the Chesapeake Bay Bridge Tunnel (CBBT) to reduce user conflicts with recreational anglers. Two one-nautical mile buffers were

established from the shoreline: 1) along the Eastern Shore of the Chesapeake Bay from the Occohannock Creek south to the CBBT; and 2) From the James T. Wilson Fishing Pier (Buckroe Beach) south along the Hampton Roads Bridge Tunnel to Sandbridge Fishing Pier in Virginia Beach. Since being established, the purse fisheries have a 98.85% compliance rate in 2023 and a 99.47% in 2024 based on the location coordinates reported on the CDFRs.

Based on the areas of operation of menhaden fisheries, the Work Group discussed the following spatial closure options. These spatial closures can be considered on their own or in combination with seasonal closures and/or effort controls.

1. All Chesapeake Bay
    a. Virginia waters of Chesapeake Bay as defined by § 28.2-409 of the Code of Virginia and excluding areas covered by MOU
2. CDFR areas at the mouth of the Bay (Ocean View and Cape Charles)
3. By landings in CDFR reporting areas
4. Watts (2024) study locations
5. Mobjack Bay – Mobjack Bay is the most well-studied area for osprey in the lower Chesapeake Bay with considerable historical and recent data. Declining osprey reproductive rates, provisioning rates, provisioning of menhaden, diet quality, brood reduction, and an increase in male osprey foraging time have all been observed in Mobjack Bay.
6. Fleeton Bay – most likely to be impacted by all menhaden fisheries; purse seine, gillnet, and pound net fishing effort

Effort Controls

The implementation of quota periods or days out provisions could be used to distribute fishing effort more evenly throughout the season. These provisions are similar to management of the Atlantic herring fishery in which quota periods are used to manage catch toward bimonthly, trimester, or seasonal quotas to effectively manage catch to meet the needs of the fishery and bait market demand.

Gears Included in Seasonal and/or Area Closures

The application of seasonal or spatial closures to Chesapeake Bay menhaden bait fisheries, particularly pound nets and gill nets, would likely have significant economic and follow-on fishery impacts. Bait harvested in Chesapeake Bay typically supports in-state blue crab fisheries as well as crab and lobster fisheries along the Atlantic coast. It is unknown whether other states

or sources of bait would be available to backfill the landings that would not occur under closures of bait fisheries in the Bay, depending on the magnitude of the closures. These fisheries are also promulgated by small-scale and/or stationary gears with limited capacity (due to regulation or safety concerns) to move fishing efforts offshore. These actions could also impact the ability of watermen to land other species from non-directed gears, resulting in unintended economic impacts to other fisheries. The Board must weigh what would likely be an economic hardship for menhaden bait harvesters and those dependent on that bait for other fisheries with the potential for biological implications for their predators. A time or area closure could mean the reduction fleet has farther to travel to harvest fish at added expense. Further the purse seine skiffs that set the purse seine nets are only 40 ft in length and are subject to the same safety concerns as other bait harvesters when seas exceed 3 ft. The work group is unable at this time to provide a full analysis of the impacts these closures could have on the reduction fishery.

Decreasing Chesapeake Bay Reduction Fishery Cap

Recognition of the potential impacts of reduction fishing in Chesapeake Bay have been reflected in ASMFC's management of the menhaden fishery for at least two decades. In 2005, Addendum II to Amendment 1 instituted a harvest cap on the reduction fishery in the Chesapeake Bay. This cap was based on average landings from 2000-2004 and was set for the 2006-2010 fishing seasons. Addendum III (2006) to Amendment 1 revised the cap to 109,020 mt, based on average landings from 2001-2005, for the 2006-2010 fishing seasons. Addendum IV (2009) extended the cap through 2011-2013 at the same levels as established in Addendum III. Amendment 2 (2012) reduced the Chesapeake Bay cap by 20% to 87,216 mt. Amendment 3 (2017) reduced the Chesapeake Bay cap to 51,000 mt, based on average landings from 2012-2016. In 2019, the Commonwealth of Virginia was found out of compliance by ASMFC for failing to update the Bay cap to the new level of 51,000 metric tons. The decision was appealed to the Department of Commerce where the Secretary upheld the ASMFC action. Virginia updated their regulations and came into compliance prior to the start of the fishing season. The development of the Bay cap, the Board's continued action to update the cap, and the actions of the Department of Commerce reinforce that managing reduction harvest within the Chesapeake Bay is appropriate and necessary.

The Board could further reduce the Chesapeake Bay reduction fishery cap, which is currently based on historical landings from the 5 years prior to enactment. This would presumably leave additional menhaden as forage in Bay waters for all predators. Landings in recent years have been at or near the full Bay cap; therefore, the Board would need to consider a novel approach to setting the Bay cap based on information provided by the Work Group or from other sources if this option is implemented.

Research Recommendations

In reviewing data and information to meet its charge, the Work Group identified several areas in need of additional research and data to address questions beneficial to ecological management of menhaden fisheries in Chesapeake Bay and beyond. Those research recommendations are as follows:

1. Investigate menhaden environmental condition preferences to analyze potential shift in seasonal availability
2. Diet studies on other key predators in Chesapeake Bay (fish, birds, mammals, etc.)
3. Survey of menhaden abundance and biomass in Chesapeake Bay
4. Investigate osprey in other estuaries to determine if there are similar issues
5. ERP Work Group continue to explore inclusion of other predator species in future assessments
6. Study specific osprey areas with major deficiencies in reproductive output relative to menhaden fisheries (e.g. Mobjack and Fleeton Bays)

Additionally, the external osprey Work Group provided research recommendations to the Board Work Group which are as follows:

1. Execute a menhaden biomass survey in the Chesapeake Bay
2. Evaluate long-term datasets for osprey breeding performance
3. Relate historical data with menhaden abundance estimates
4. Create an economical metric of food stress to measure at scale
5. Develop an osprey-menhaden CPUE model

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Tables

Table 1. Estimates of osprey population reproductive rates and brood size 1970's to 2021. Source: Watts et al., 2024

Parameter	1974-75	1985	2006-07	2021	F-statistic	p-value
Nests (N)	75	68	132	68		
Clutch Size	2.7 ± 0.08	3.0 ± 0.09	3.0 ± 0.27	2.7 ± 0.09	2.2	0.084
Reproductive Rate	1.7 ± 0.10	1.4 ± 0.11	0.8 ± 0.08	0.3 ± 0.11	34.9	<0.001
Brood Size	2.0 ± 0.10	1.8 ± 0.10	1.5 ± 0.09	1.2 ± 0.17	10	<0.001
Estimated reproductive rate required for a stable population within the Chesapeake Bay is 1.15						

Table 2. Semi-monthly purse seine reduction Bay effort by year (2015-2024) compared to the ten-year average. Shaded cells indicate a how a specific period and year compared to the ten-year average. Source: NOAA CDFRs.

Temporal Distribution of Reduction Purse Seine Effort 2015-2024

	Year										2015-2024 Net Sets		
Period	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	N	$Avg_{2015-24}$	Pct
15-May	208	4	0	48	206	128	117	39	0	4	754	75.4	6.23%
31-May	288	428	29	217	412	108	229	100	2	22	1,835	183.5	15.17%
15-Jun	207	275	221	199	77	121	85	346	92	106	1,729	172.9	14.30%
30-Jun	101	130	82	138	60	60	113	96	175	92	1,047	104.7	8.66%
15-Jul	87	13	77	108	6	20	23	104	64	125	627	62.7	5.18%
31-Jul	36	7	74	9	0	72	236	132	311	268	1,145	114.5	9.47%
15-Aug	75	59	43	58	146	108	231	235	95	232	1,282	128.2	10.60%
31-Aug	72	80	73	70	225	122	166	260	210	185	1,463	146.3	12.10%
15-Sep	75	154	27	58	197	66	112	119	103	59	970	97.0	8.02%
30-Sep	77	25	0	26	200	5	92	37	97	128	687	68.7	5.68%
15-Oct	36	20	13	30	47	28	5	0	6	5	190	19.0	1.57%
31-Oct	9	56	19	5	3	43	0	0	1	3	139	13.9	1.15%
15-Nov	1	93	10	0	0	82	9	0	21	0	216	21.6	1.79%
30-Nov	0	2	0	1	0	2	0	0	0	0	5	0.5	0.04%
15-Dec	0	0	0	2	0	4	0	0	0	0	6	0.6	0.05%
Total	1,272	1,346	668	969	1,579	969	1,418	1,468	1,177	1,229	12,095	1209.5	
	Below Avg (2015-2024)												
	Significantly Below Avg												
	Significantly Above Avg												

Table 3. Purse seine reduction Bay harvest shown as cumulative percent across the season for the past five years (2020-2024). Source: NOAA CDFRs.

Purse Harvest by Date Relative to the Annual Harvest (as CumPct)								
		Year				Overall Average		
Date	2020	2021	2022	2023	2024	2020-24	2015-24	2000-24
15-May	12.34%	4.24%	2.08%	0.00%	0.02%	2.45%	4.27%	2.45%
31-May	20.32%	13.62%	5.02%	0.01%	0.38%	10.69%	18.08%	11.49%
15-Jun	28.92%	16.91%	21.77%	3.39%	5.30%	19.79%	28.09%	19.79%
30-Jun	33.15%	27.76%	30.96%	12.69%	13.40%	29.36%	40.19%	30.01%
15-Jul	35.33%	29.48%	46.23%	20.95%	22.62%	36.13%	46.09%	36.13%
31-Jul	44.73%	49.68%	55.46%	49.87%	46.25%	48.02%	56.91%	48.63%
15-Aug	55.52%	70.63%	67.08%	58.85%	65.03%	60.72%	68.08%	60.72%
31-Aug	73.02%	83.05%	84.91%	76.31%	84.82%	74.91%	81.21%	75.38%
15-Sep	80.56%	93.33%	97.00%	88.22%	92.22%	84.55%	90.54%	84.55%
30-Sep	81.02%	99.15%	100.00%	97.53%	99.69%	90.69%	95.88%	91.11%
15-Oct	83.47%	99.63%		97.69%	99.98%	94.66%	97.51%	94.66%
31-Oct	90.25%	99.69%		97.72%	100.00%	97.54%	98.88%	97.95%
15-Nov	99.33%	100.00%		100.00%		99.74%	99.91%	99.74%
30-Nov	100.00%					100.00%	100.00%	100.00%
Red Cells are at least 15% below the 5-year average								

Table 4. Menhaden purse seine fishing effort (number of net sets) in proximity to the 12 osprey nesting locations (N=571 nests) in 2024. Sources: Osprey Nesting Efficiency: Watts, 2024. Menhaden Fishing Effort: NOAA CDFRs.

				Purse Seine Sets in Proximity to Osprey Study Areas															
	Osprey Nesting Deficiency			May		Jun		Jul		Aug		Sep		Oct		Nov		Total	
Location	Color	Status	Rate	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Fleeton Bay		Major	< 0.6	59	7.88%	7	0.54%	9	0.66%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	75	1.20%
Mobjack Bay		Major	< 0.6	0	0.00%	0	0.00%	0	0.00%	21	1.14%	1	0.12%	0	0.00%	0	0.00%	22	0.35%
Eastern Shore		Moderate	0.6 - 0.8	3	0.40%	8	0.62%	3	0.22%	1	0.05%	0	0.00%	0	0.00%	0	0.00%	15	0.24%
Piankatank R		Minor	0.8 - 0.9	1	0.13%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.02%
Poquoson R		Major	< 0.6	0	0.00%		0.00%		0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
York R		Major	< 0.6	0	0.00%		0.00%		0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Subtotal by Area and % of Total Effort				63	8.41%	15	1.17%	12	0.89%	22	1.19%	1	0.12%	0	0.00%	0	0.00%	113	1.81%
Total Purse Seine Sets 2020-2024				749		1,286		1,355		1,844		818		91		114		6257	
Choptank R (MD)		Major	< 0.6	Purse Seines Prohibited															
Patuxent R (MD)		Major	< 0.6																
Upper Rappahannock R		Surplus	> 1.1																
Upper James R		Surplus	> 1.1																
Elizabeth R		Moderate	0.6 - 0.8																
Lynhaven R		Minor	0.8 - 0.9																

Table 5. Commercial harvest in pounds and recreational catch (A+B1+B2) in number of fish by year, species, and Bay state. Sources: ACCSP and MRP.

Commercial Harvest in Pounds by Species and State								
	BLUEFISH*		SPINY DOGFISH*		STRIPED BASS*		WEAKFISH*	
YEAR	MD	VA	MD	VA	MD	VA	MD	VA
2019	22,990	192,431	678,625	6,113,834	1,747,499	1,389,039	912	39,724
2020	21,011	164,151	396,076	6,010,225	1,589,350	924,116	1,622	41,527
2021	11,063	123,721	442,508	3,597,475	1,610,800	1,123,353	897	28,952
2022	10,285	182,901	0	4,568,864	1,601,070	1,102,622	1,048	29,521
2023	16,422	142,025	850,527	6,018,055	1,705,809	1,179,060	1,498	33,356
Avg(90-23)	102,026	451,956	1,342,668	2,294,812	1,854,123	1,218,711	93,460	573,591
Avg(04-23)	72,291	323,993	640,888	2,975,707	2,033,468	1,579,655	9,797	102,308
Avg(14-23)	37,464	170,892	876,021	4,322,315	1,768,500	1,264,451	1,189	29,659
Avg(19-23)	16,354	161,046	473,547	5,261,691	1,650,906	1,143,638	1,195	34,616
5yr vs 20yr	-77.38%	-50.29%	-26.11%	76.82%	-18.81%	-27.60%	-87.80%	-66.16%
5yr vs 10yr	-56.35%	-5.76%	-45.94%	21.73%	-6.65%	-9.55%	0.53%	16.71%

Recreational Catch (A+B1+B2) in Numbers of Fish by Species and State								
	BLUEFISH*		SPINY DOGFISH*		STRIPED BASS*		WEAKFISH*	
	MD	VA	MD	VA	MD	VA	MD	VA
2019	311,736	723,012	24,015	13,113	7,745,291	699,617	17,929	840,088
2020	445,093	434,589	59,813	27,631	7,772,516	973,698	730	303,924
2021	242,964	448,744	13,692	4,179	4,479,971	600,768	9,756	279,865
2022	453,830	1,360,375	17,128	3,175	3,931,722	377,008	9,486	334,404
2023	615,459	430,776	59,591	137,804	3,635,178	629,242	52,803	230,594
Avg(90-23)	1,209,118	875,212	29,679	39,751	6,602,198	1,760,484	456,290	946,230
Avg(04-23)	1,198,840	903,227	28,154	42,398	7,582,510	1,567,275	113,529	561,252
Avg(14-23)	518,240	687,756	25,157	22,043	7,972,787	1,037,445	67,332	476,353
Avg(19-23)	413,816	679,499	34,848	37,180	5,512,936	656,067	18,141	397,775
5yr vs 20yr	-65.48%	-24.77%	23.78%	-12.31%	-27.29%	-58.14%	-84.02%	-29.13%
5yr vs 10yr	-20.15%	-1.20%	38.52%	68.67%	-30.85%	-36.76%	-73.06%	-16.50%

Table 5. (Continued) Commercial harvest in pounds and recreational catch (A+B1+B2) in number of fish by year, species, and Bay state. Sources: ACCSP and MRP.

Commercial Harvest in Pounds by Species and State

	BLUE CATFISH		COBIA		RED DRUM		SPANISH MACKEREL		SPOTTED SEATROUT	
YEAR	MD	VA	MD	VA	MD	VA	MD	VA	MD	VA
2019	2,093,539	3,020,489	0	38,711	0	2,616	0	213,290	0	135,729
2020	1,805,310	2,475,379	0	30,728	0	8,257	7,111	81,662	0	67,794
2021	2,209,281	3,110,369	0	30,798	0	18,671	6,006	173,514	0	52,692
2022	2,637,344	3,579,156	313	38,601	0	18,056	6,658	240,453	0	75,516
2023		3,987,460	0	31,277	0	16,885	0	199,843	0	75,868
Avg(90-23)	504,448	1,104,963	186	15,134	659	7,144	7,932	140,522	2,821	35,807
Avg(04-23)	876,108	1,877,376	56	19,353	565	7,824	4,191	79,214	182	47,963
Avg(14-23)	1,722,301	2,978,777	31	31,530	130	8,991	4,379	101,439	0	60,165
Avg(19-23)	2,186,369	3,234,571	63	34,023	0	12,897	3,955	181,752	0	81,520
5yr vs 20yr	149.55%	72.29%	11.99%	75.81%	-100.00%	64.83%	-5.62%	129.44%	-100.00%	69.96%
5yr vs 10yr	26.94%	8.59%	100.00%	7.91%	-100.00%	43.44%	-9.67%	79.17%		35.49%

Recreational Catch (A+B1+B2) in Numbers of Fish by Species and State

	BLUE CATFISH		COBIA		RED DRUM		SPANISH MACKEREL		SPOTTED SEATROUT	
YEAR	MD	VA	MD	VA	MD	VA	MD	VA	MD	VA
2019	743,596	2,339,025	251	226,324	6,998	606,226	168,596	414,441	371,100	3,114,208
2020	866,136	3,957,508	8,962	184,039	259,318	765,369	212,144	210,155	246,192	3,301,962
2021	632,878	1,113,286	16,775	235,244	20,005	1,505,470	237,737	452,598	101,964	3,399,938
2022	697,576	946,615	0	115,074	15,382	930,447	72,140	240,866	105,980	2,538,250
2023	1,292,298	1,725,268	0	214,053	102,338	1,268,608	74,183	565,362	68,570	3,960,041
Avg(90-23)	190,086	723,473	1,213	64,271	59,213	532,454	35,287	125,479	99,016	1,375,702
Avg(04-23)	306,803	1,123,705	1,951	95,689	94,200	713,407	52,360	146,656	123,013	2,079,124
Avg(14-23)	591,053	1,755,239	3,903	158,367	47,728	823,441	86,575	229,508	157,311	2,894,368
Avg(19-23)	846,497	2,016,340	5,198	194,947	80,808	1,015,224	152,960	376,684	178,761	3,262,880
5yr vs 20yr	175.91%	79.44%	166.35%	103.73%	-14.22%	42.31%	192.13%	156.85%	45.32%	56.94%
5yr vs 10yr	43.22%	14.88%	33.18%	23.10%	69.31%	23.29%	76.68%	64.13%	13.64%	12.73%

Table 6. Diet studies of Chesapeake Bay piscivorous fishes with reference to the relevance of menhaden to the diet.

Species	Menhaden ERP	Age or Size	Menhaden % of Diet		Years	Source/Location	Reference
			Weight	Number			
Striped Bass	Yes		15.9%	11.7%	2002-2020	ChesMMAP / Bay	Bonzek et al. 2021
Bluefish	Yes		5.1%	4.7%	2002-2020	ChesMMAP / Bay	Bonzek et al. 2021
Weakfish	Yes		< 1.0%	< 1.0%	2002-2022	ChesMMAP / Bay	Bonzek et al. 2021
Spiny Dogfish	Yes		7.8%	5.1%	2002-2022	NEAMAP / Ocean	Bonzek et al. 2007
Cobia	No		1.5%	0.1%	Jun-Jul 1997	Chesapeake Bay	Arendt et al. 2001
Blue Catfish	No		5.2%		2013-2016	James R.	Hilling et al. 2023
	No		0.4%		2013-2016	James R.	Schmidt et al. 2019
	No		3.5%			Pamunkey R	Schmidt et al. 2019
	No		5.0%			Mattaponi R	Schmidt et al. 2019
	No		1.1%			Rappahannock R	Schmidt et al. 2019
Red Drum	No	100-400mm	27.4%		2007-2009	New River, NC	Facendola and Scharf, 2012
		400-700mm	15.4%				
		> 750mm	11.9%		2007-2010, 2011-2012	NC DMF Longline Survey	Peacock, 2014
Spotted Seatrout	No	< 300mm		9.4%	1978-1983	Coastal Georgia	Music and Pafford, 1984
		301-500mm		15.6%			
		> 500mm		31.5%			
		Combined		20.1%			
Spanish mackerel	No	All Clupeids	22.6%*	5.3%	1978-1979	Cape Canaveral, FL	Naughton and Saloman, 1981
		Age0-1	40.0%		1980-2016	Gulf of Mexico	Berenshtein et al. 2021
		Age1+	20.0%				
*: Includes all Clupeids							

Figures

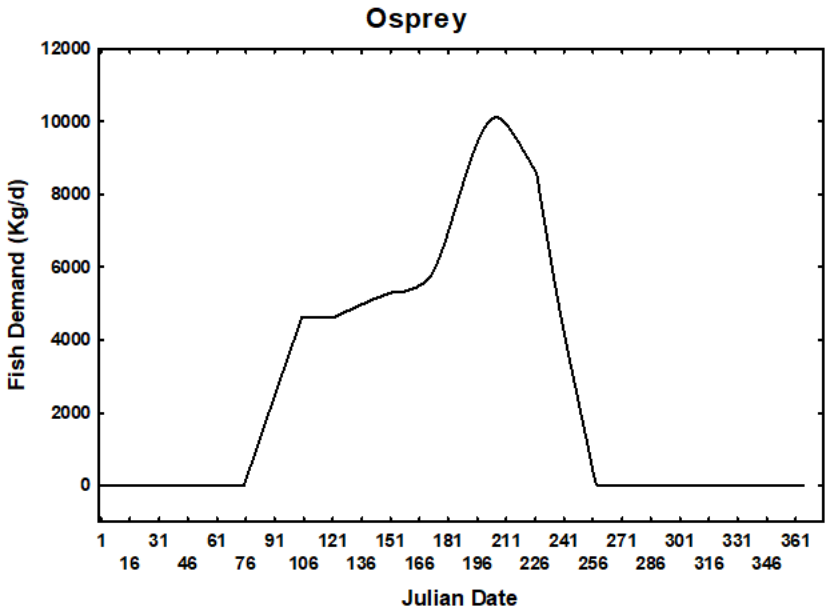


Figure 1. Seasonality of population-level metabolic demand for osprey in Chesapeake Bay. The period of highest energy demand is mid-May through mid-August. (B. Watts, unpublished data).

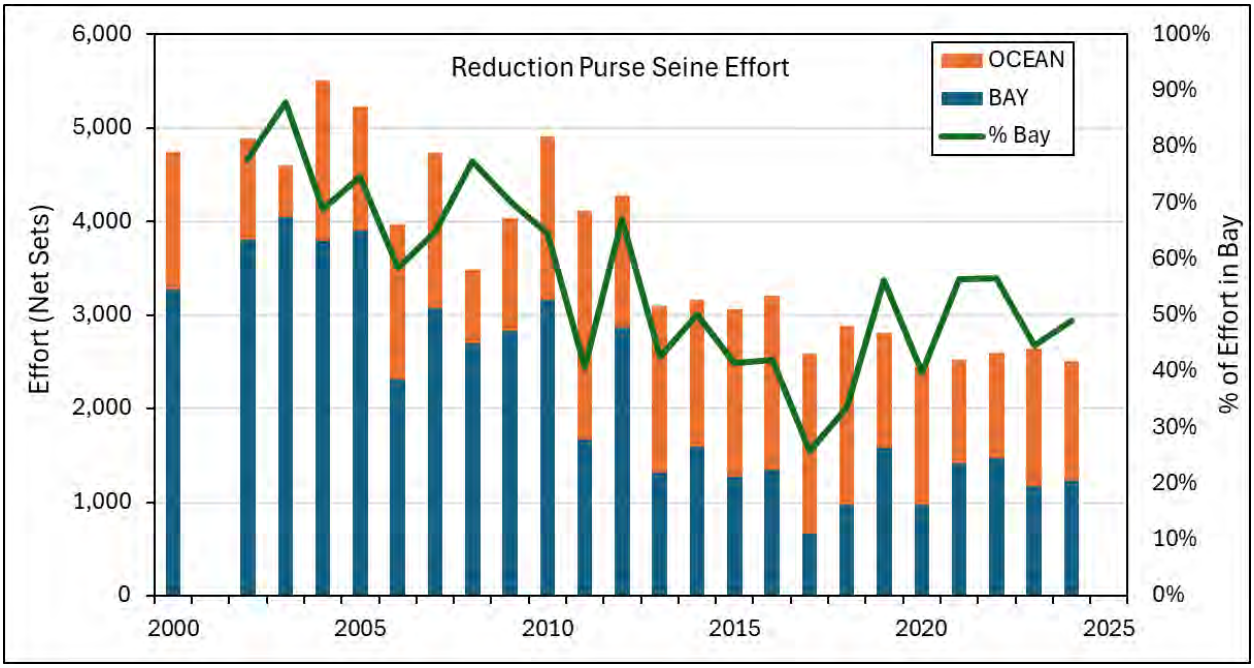


Figure 2. Virginia purse seine reduction effort separated into Bay and Ocean net sets.

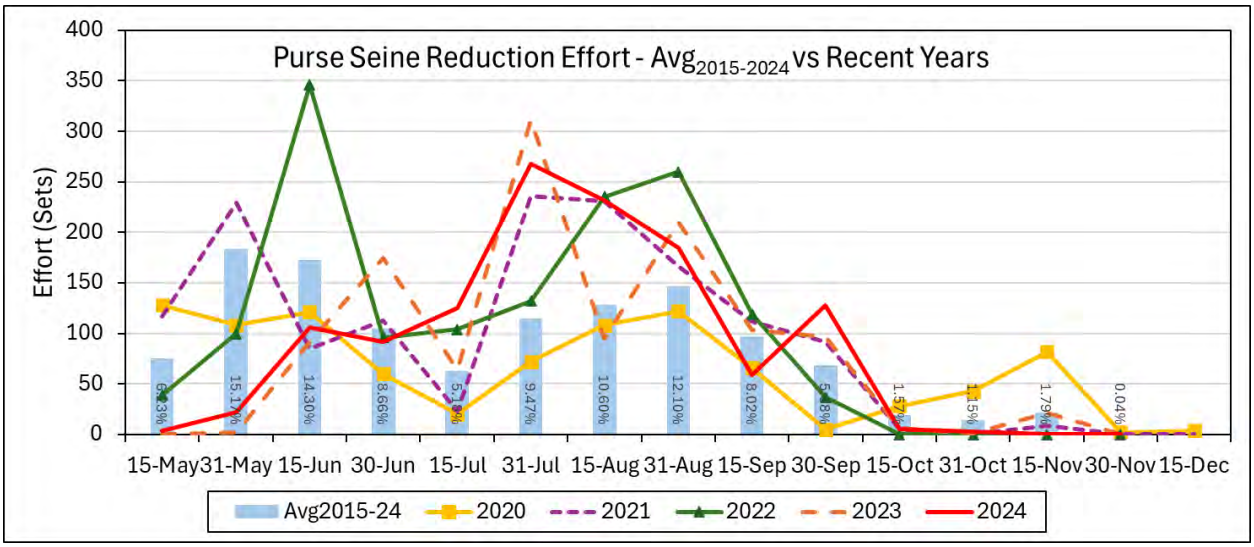


Figure 3. Semi-monthly purse seine reduction ten-year average(2015-2024) compared to the last 5 years (2020-2024). Percentages on the bar the percent of effort for that semi-monthly time period compared to the entire season.

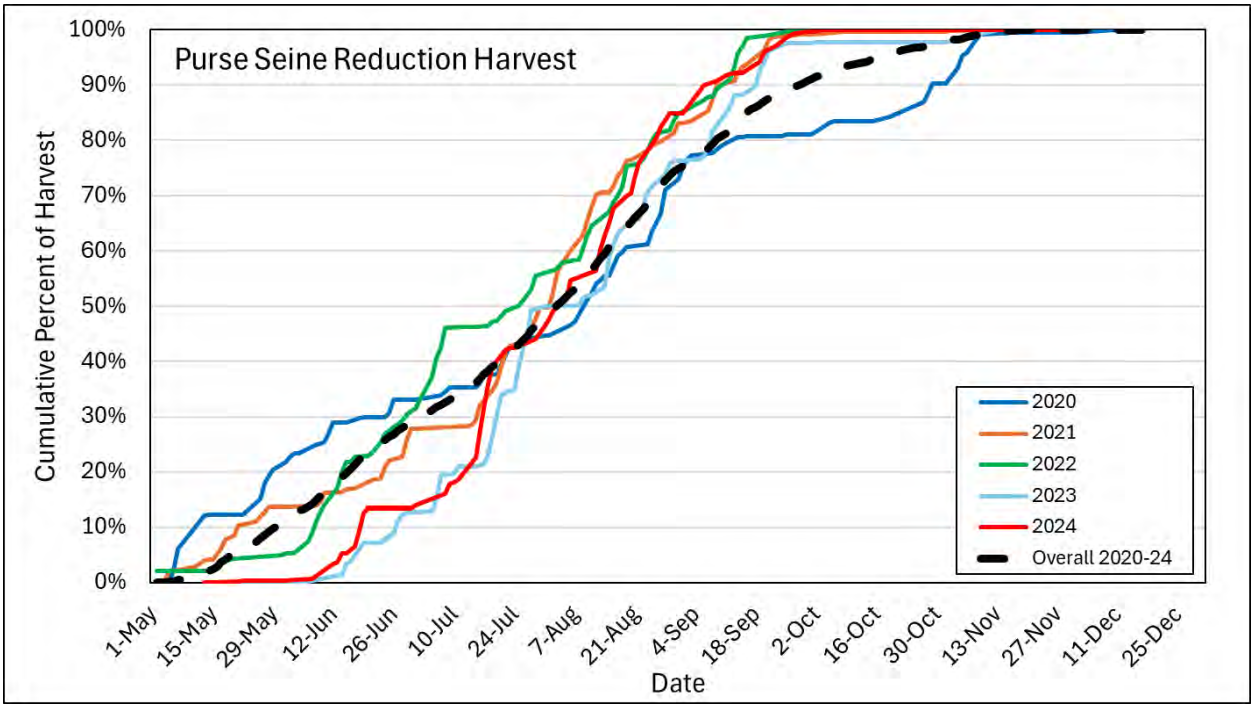


Figure 4. Cumulative percent of purse seine reduction harvest over the season for the most recent 5 years compared to the 5-year average.

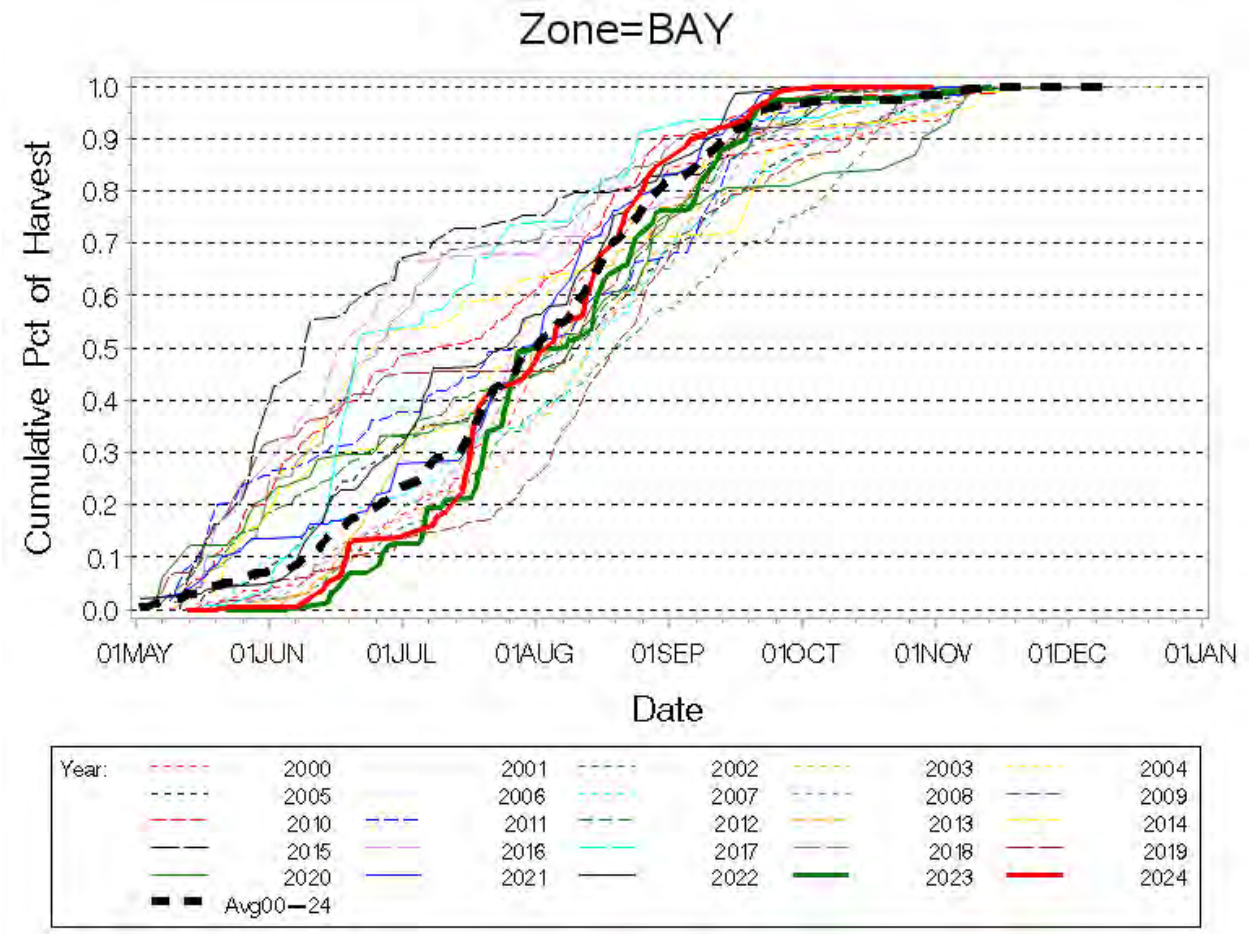
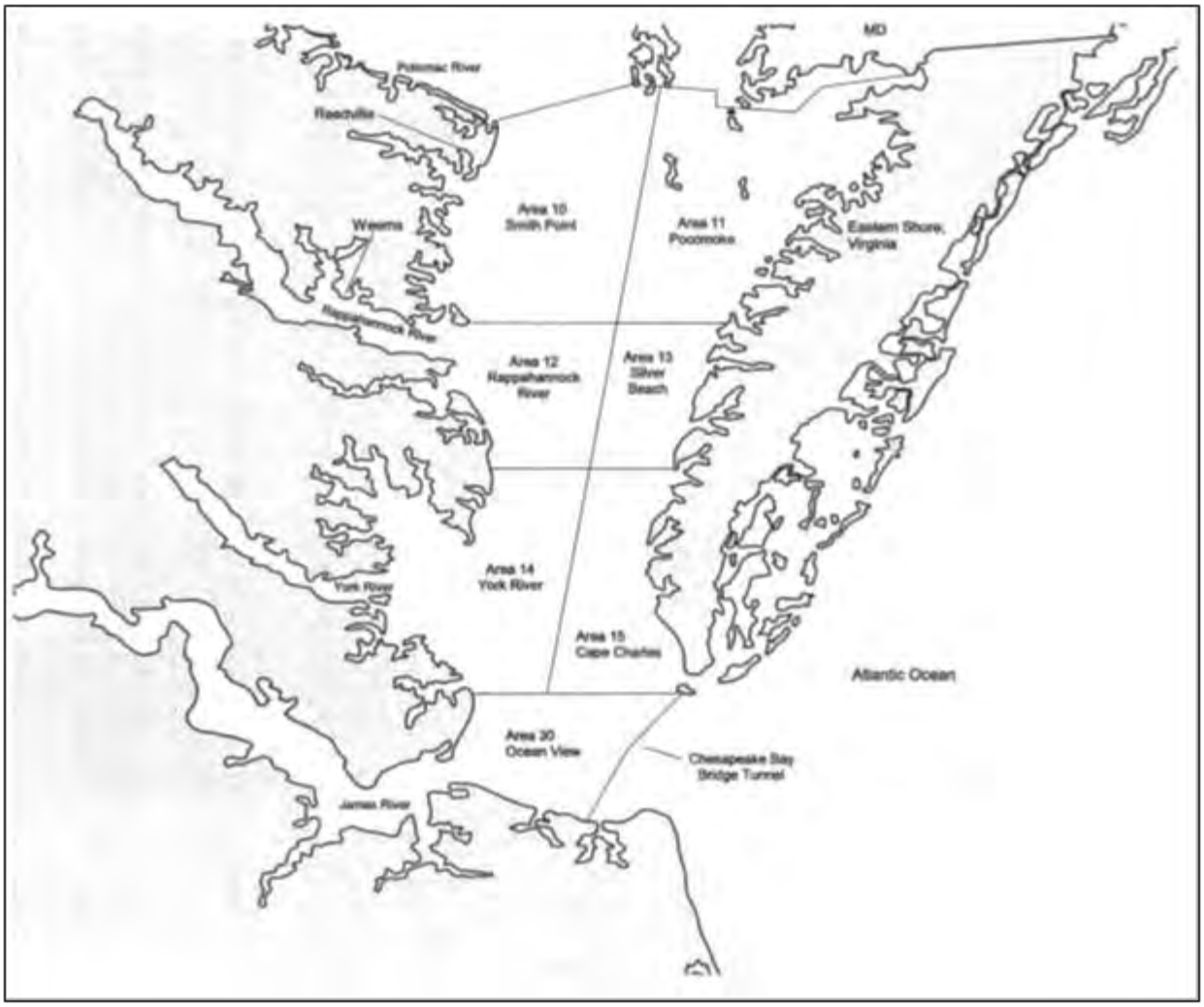


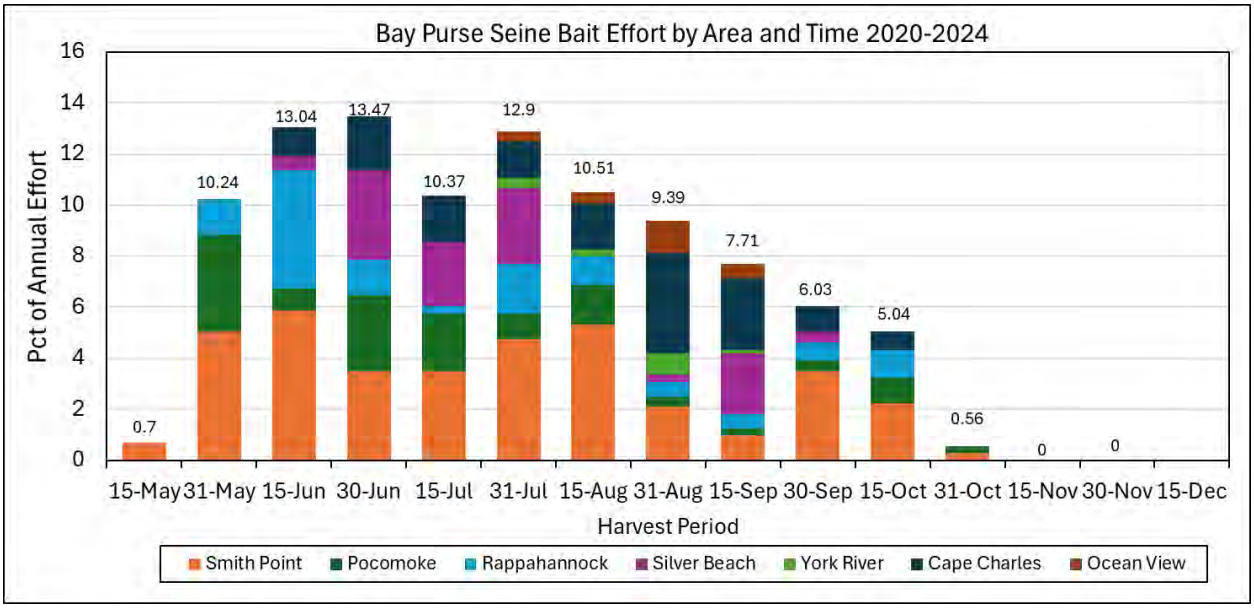
Figure 5. Cumulative percent of purse seine reduction harvest over the season for the most the past 25 years (2000 – 2024). Black dashed line is the 25-year average.



CDFR Program Virginia Reporting Areas

Chesapeake Bay					
	West		→	East	
North	Area	Name		Area	Name
↓	10	Smith Point		11	Pocomoke
	12	Rappahannock River		13	Silver Beach
	14	York River		15	Cape Charles
South	30			Ocean View	
Ocean					
↓	16			NMFS Water Code 625	
	17			NMFS Water Code 631	

Figure 6. NMFS menhaden reporting areas for the Bay and coastal water of Virginia. From: Smith, J.W. and W.B. O'Bier. 2010.



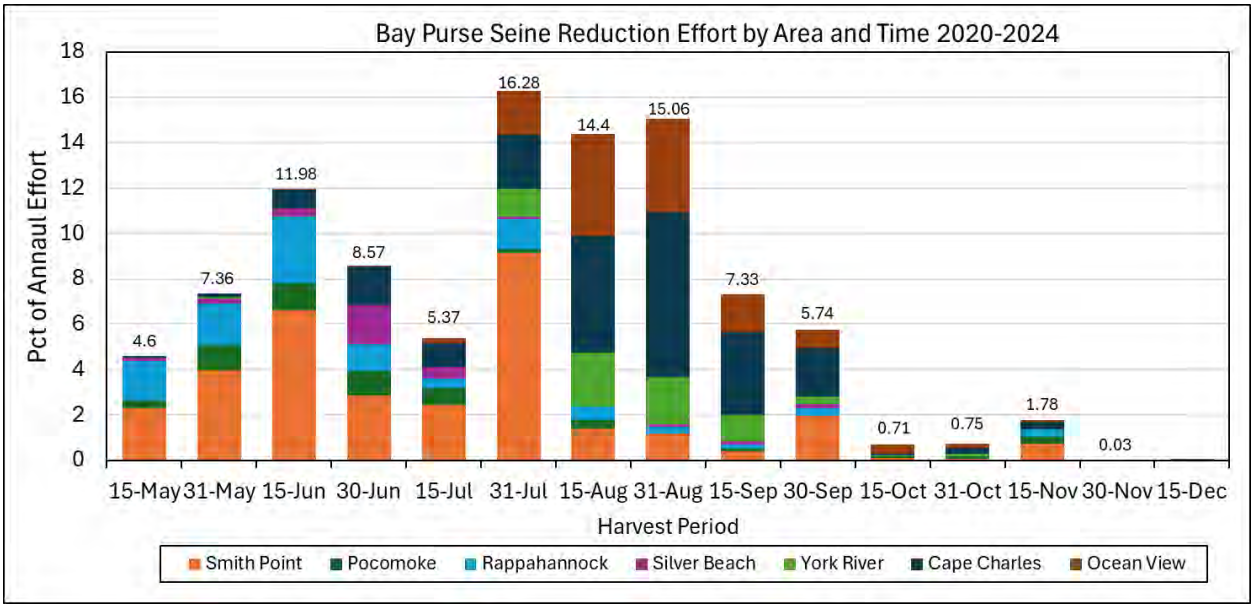


Figure 7. Menhaden purse seine reduction (top) and bait (bottom) effort by NMFS Chesapeake Bay reporting area and semi-monthly periods 2020 – 2024. Numbers above each bar present the percent of effort for that time period relative to the total effort.

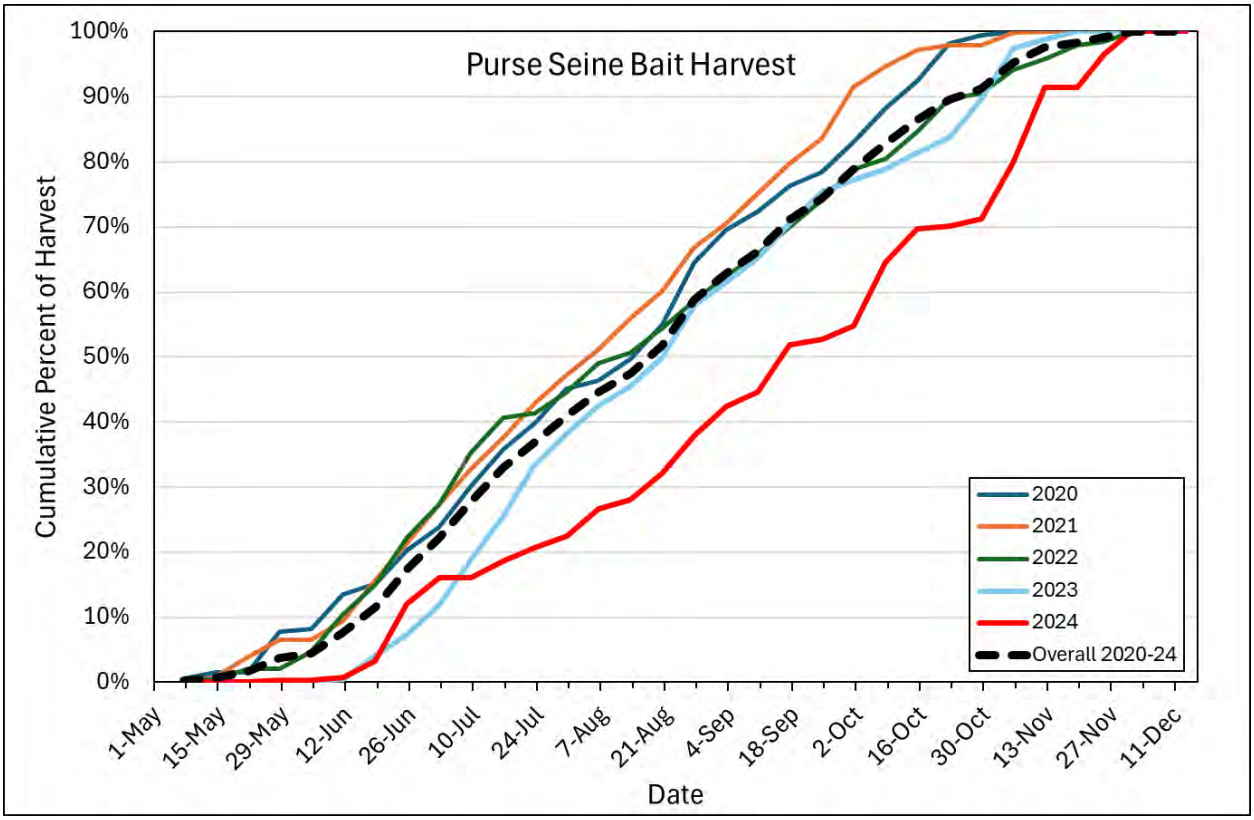


Figure 8. Cumulative purse seine bait weekly harvest reports compared to the 5-year average (2020-2024).

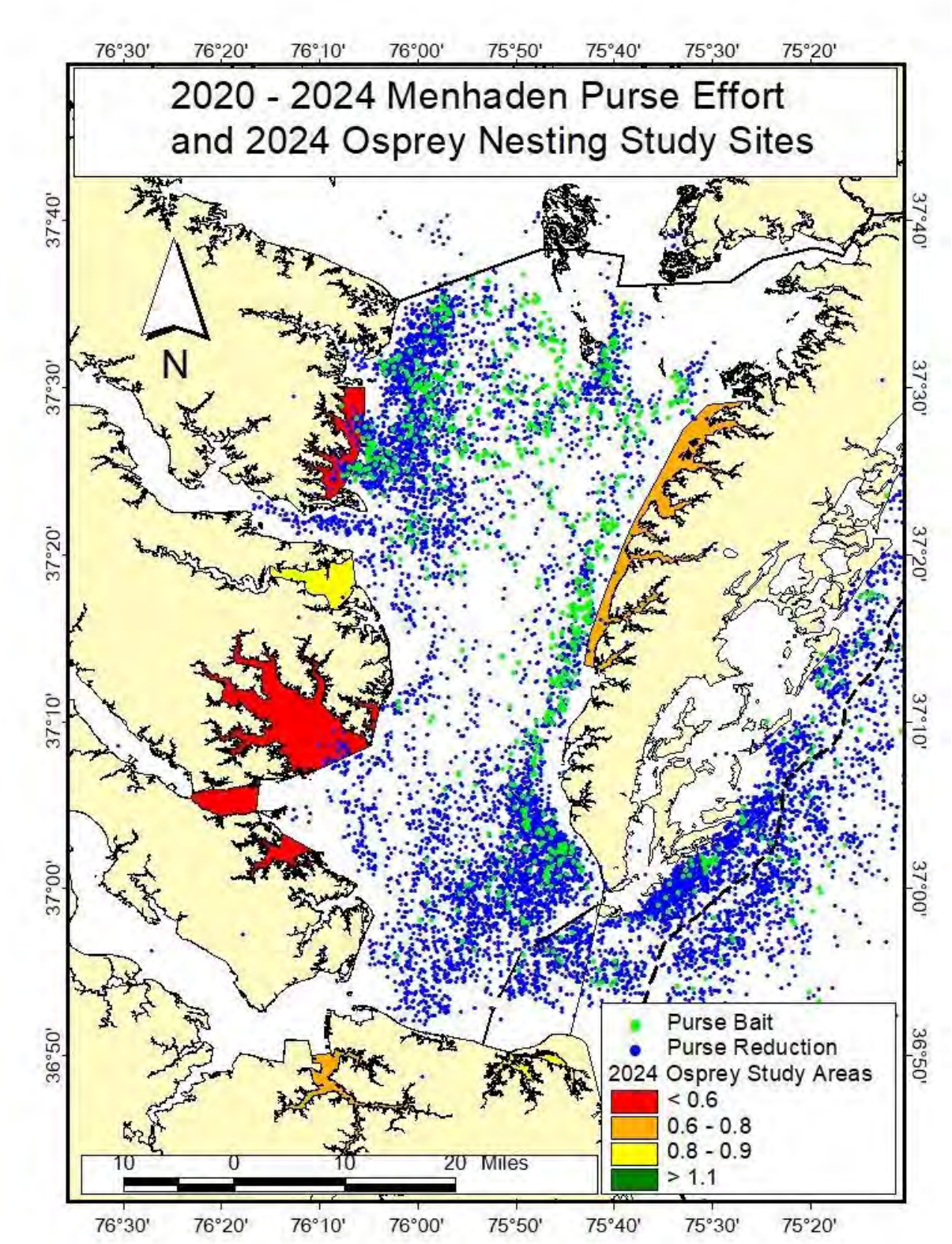
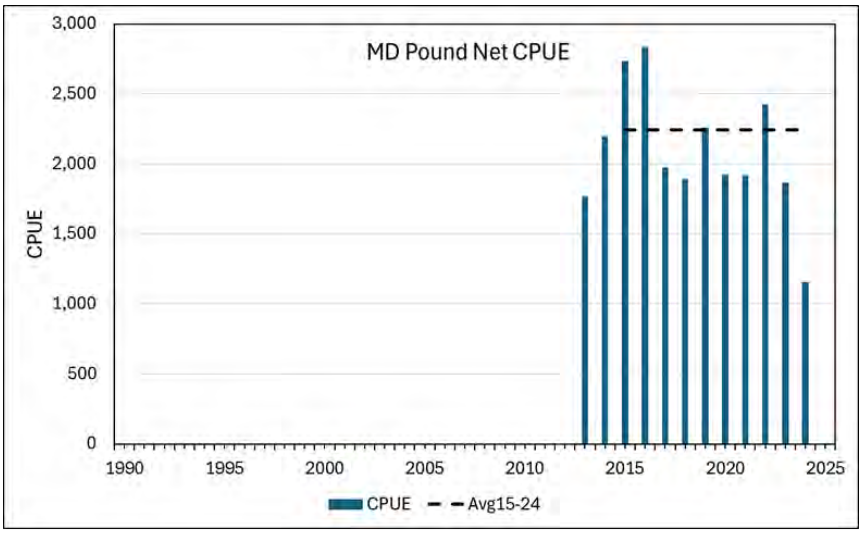
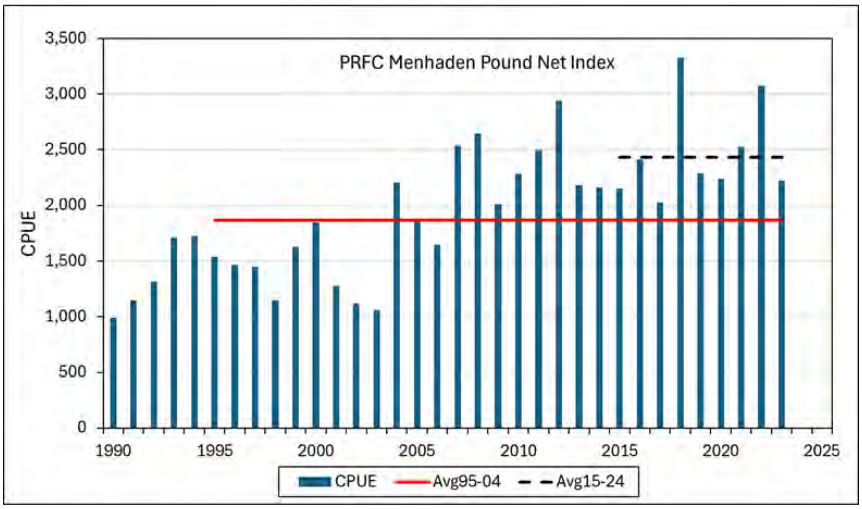


Figure 9. Menhaden purse seine fishing effort (2020-2024) relative to the Watts 2024 osprey reproductive success and nesting study areas.





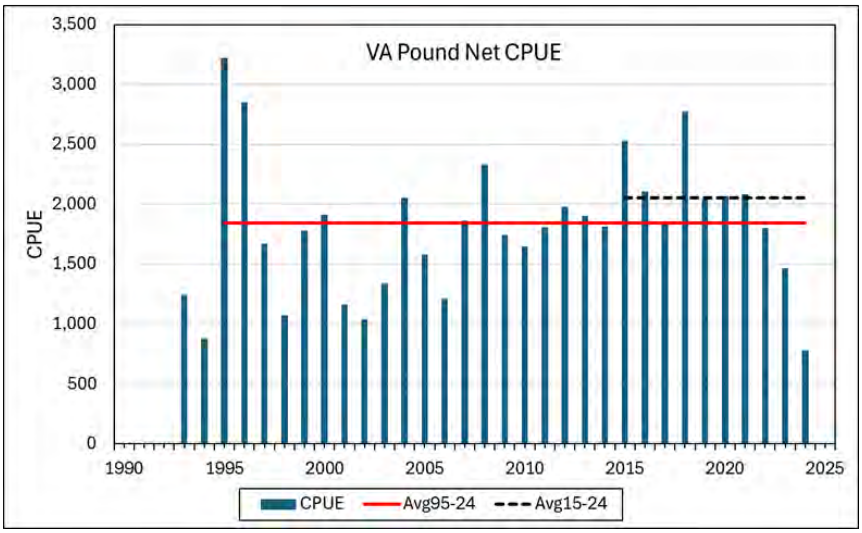


Figure 10. Annual menhaden Pound Net CPUE from Maryland, Potomac River, and Virginia. CPUE is in lbs per net day. Sources: MD DNR, PRFC, and VMRC.

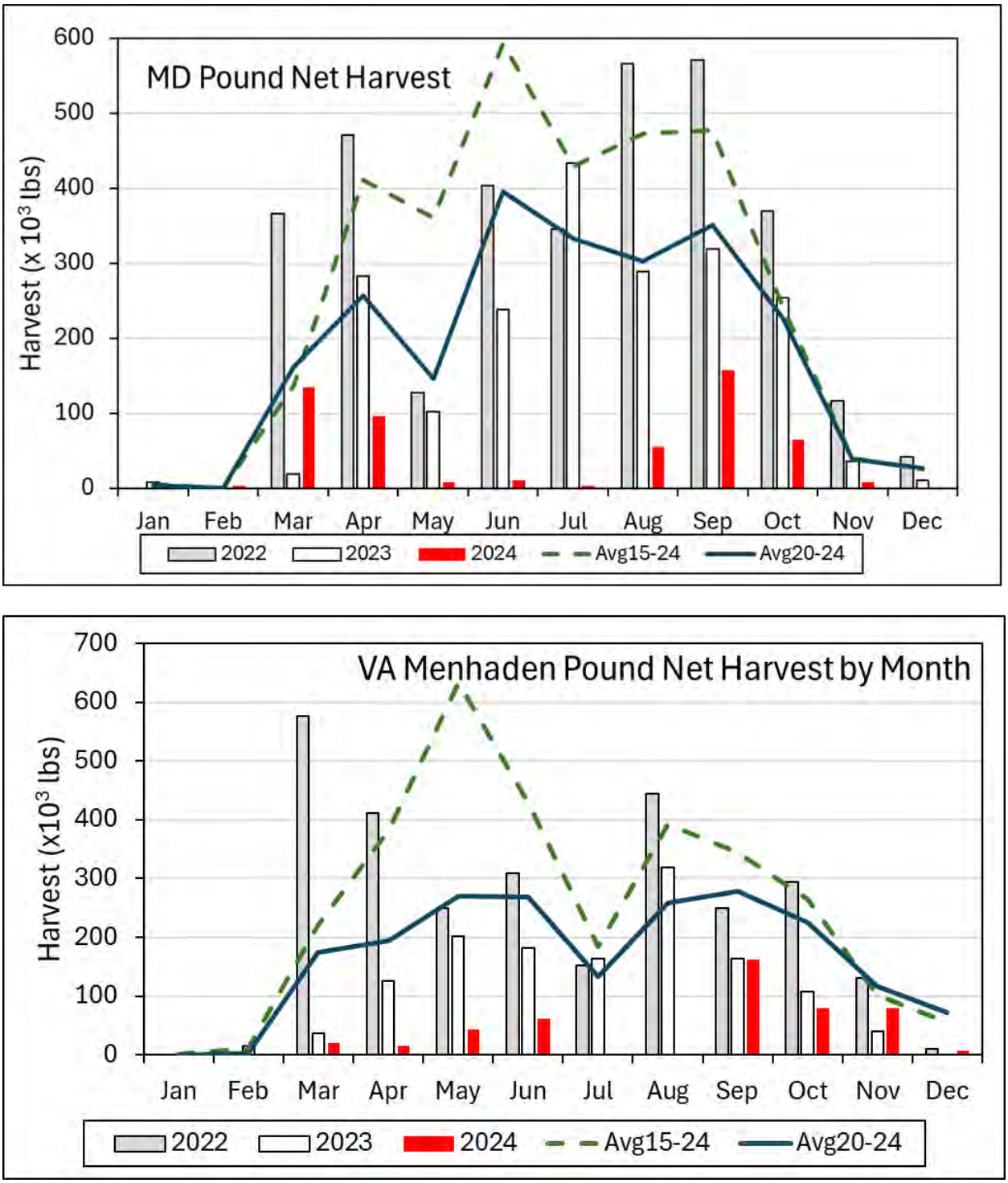


Figure 11. Menhaden monthly pound net harvest for Maryland (top) and Virginia (bottom) for the last three years relative the 10 and 5-year averages.

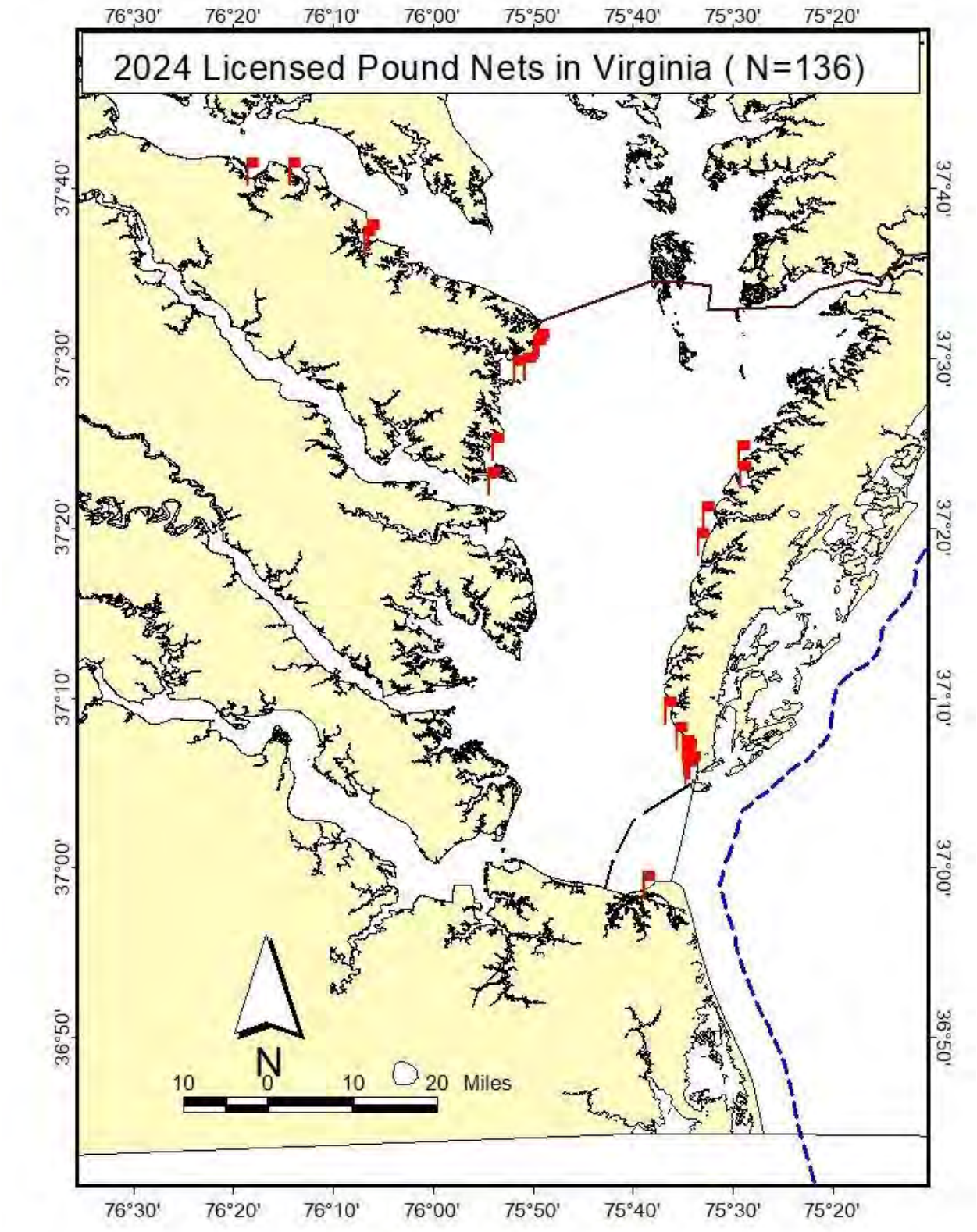
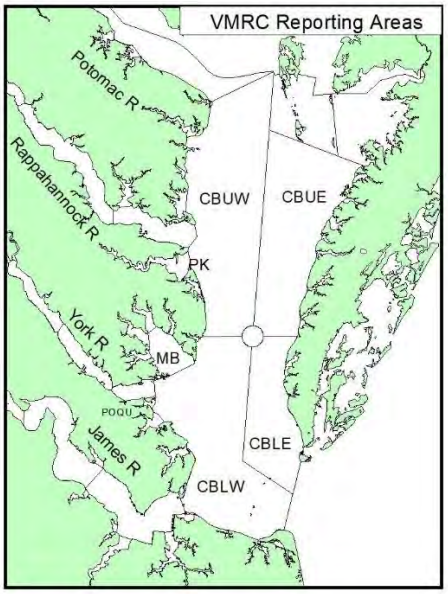


Figure 12. Location of 2024 licensed pound nets in Virginia.



VMRC Harvest Areas

Area	Description
CBLE	Ches Bay Lower East
CBLW	Ches Bay Lower West
CBUE	Ches Bay Upper East
CBUW	Ches Bay Upper West
JA	James River
POQR	Poquoson River
YK	York River
MB	Mobjack Bay
PK	Piankatank River
RA	Rappahannock River
PO	Potomac River

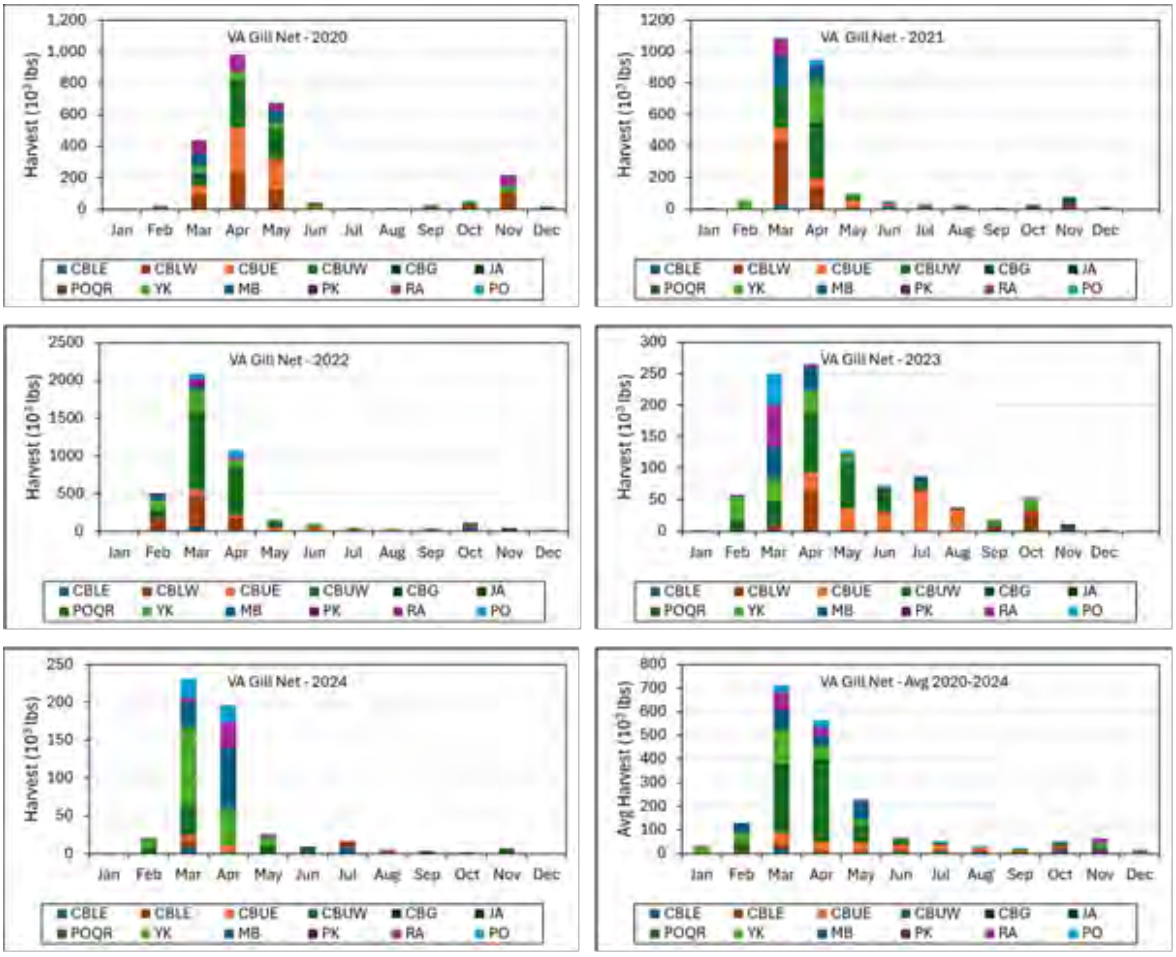
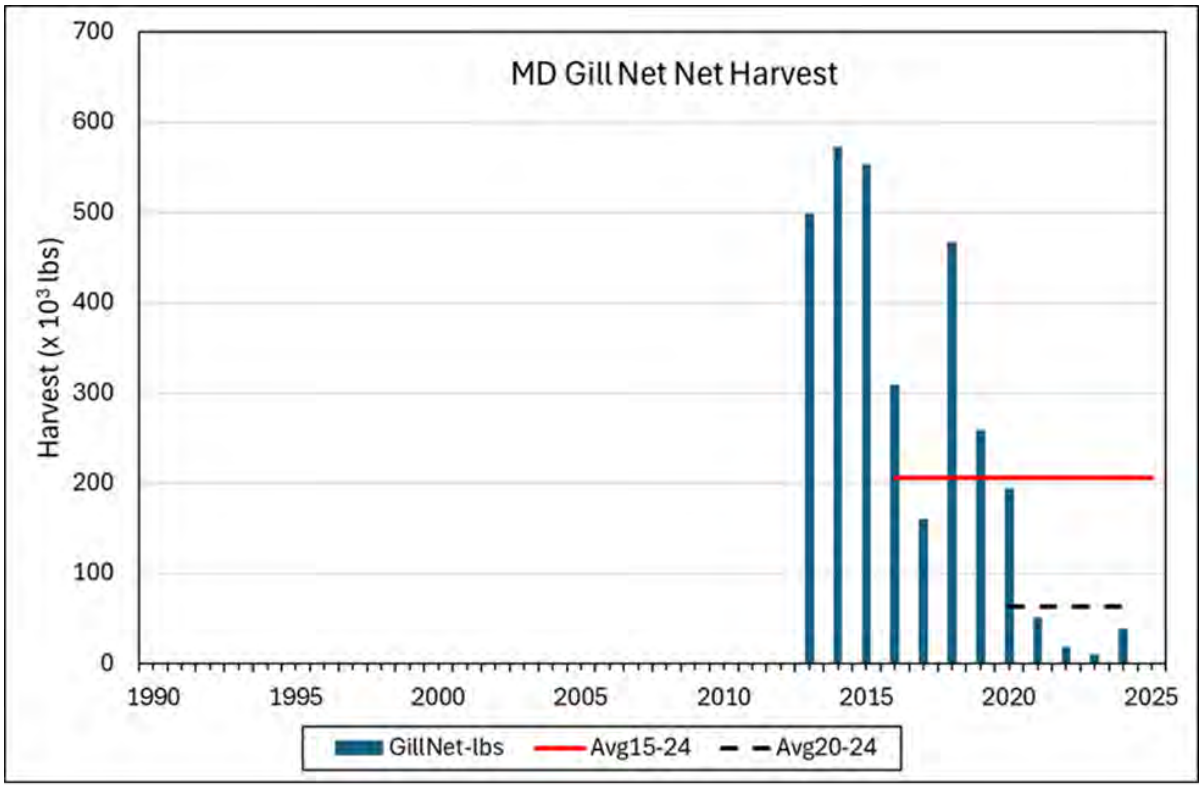


Figure 13. Virginia monthly pound net harvest by VMRC reporting area 2020-2024 Smaller water bodies were collapsed to reduce the number of reporting areas (see map).



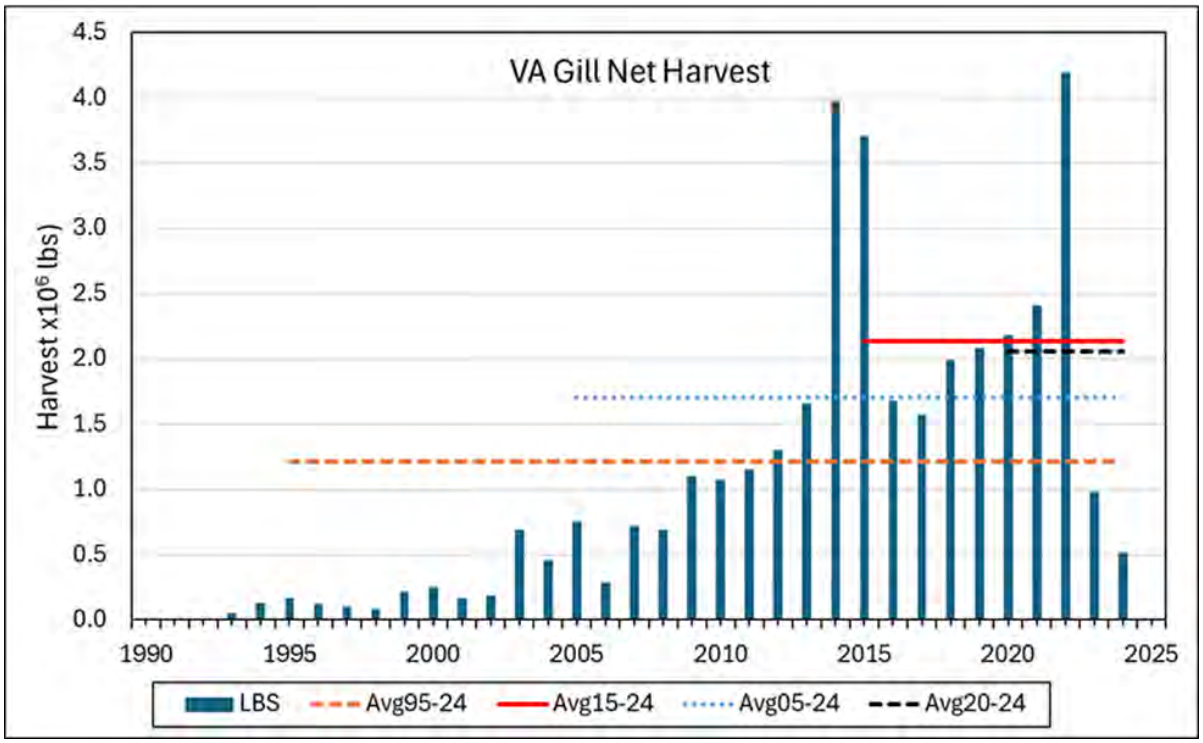


Figure 14. Menhaden gill net harvest for Maryland (top) and Virginia (bottom). Note that the scales on the y-axis are different: MD in thousands and VA in millions. Potomac River gill net data is not yet available. Sources: MD DNR and VMRC

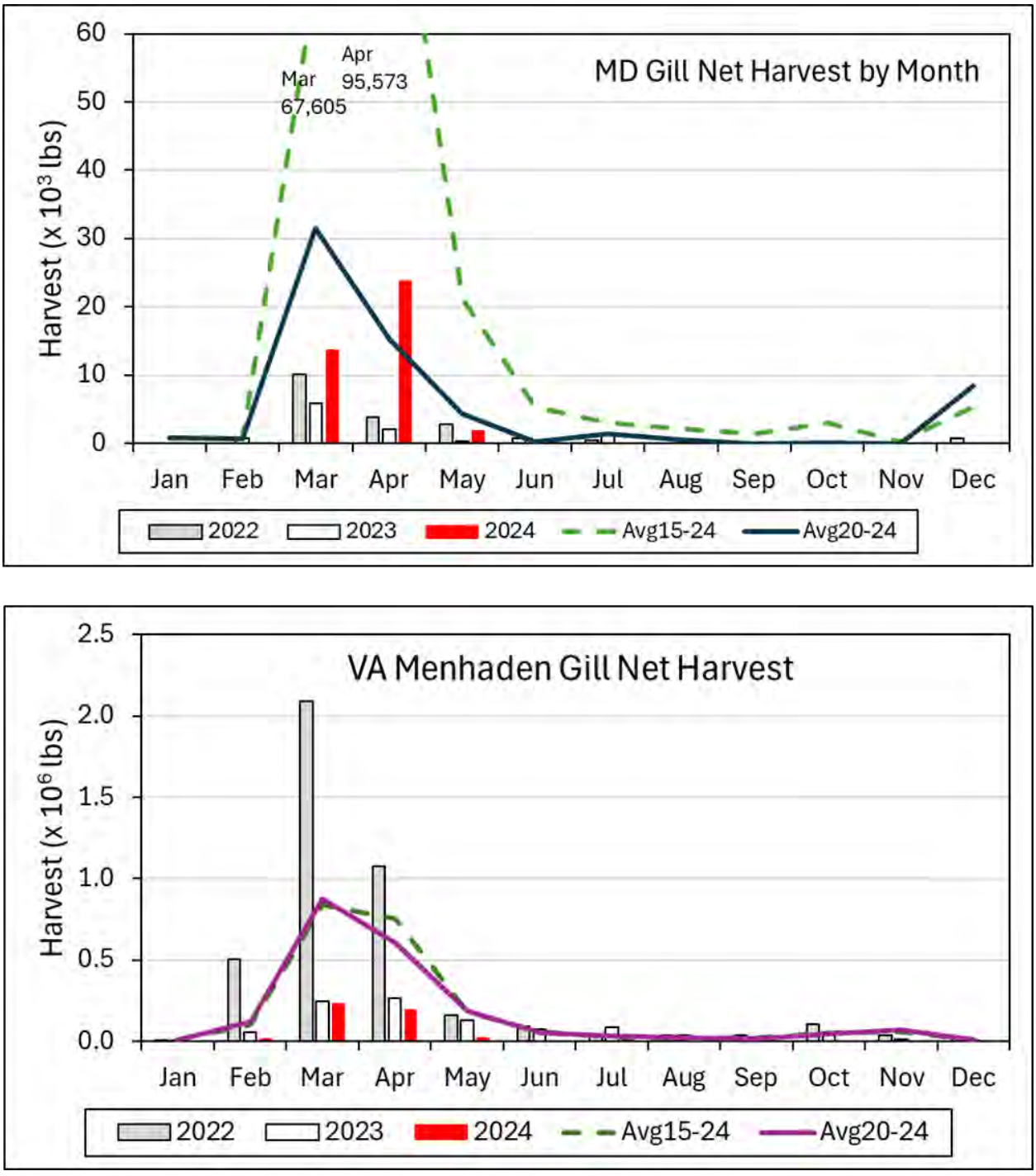
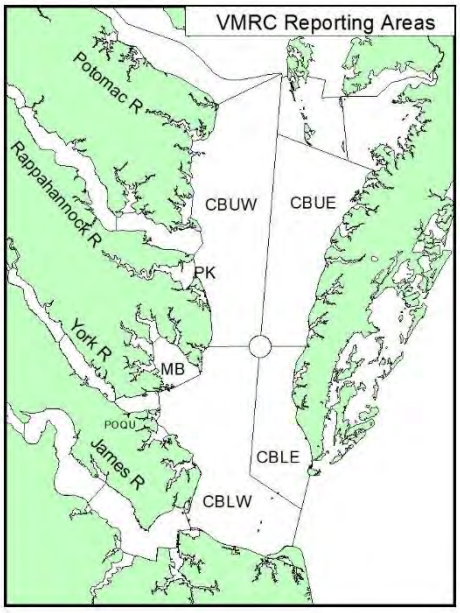


Figure 15. Menhaden monthly gill net harvest for Maryland (top) and Virginia (bottom) for the last three years relative the 10 and 5-year averages.



VMRC Harvest Areas

Area	Description
CBLE	Ches Bay Lower East
CBLW	Ches Bay Lower West
CBUE	Ches Bay Upper East
CBUW	Ches Bay Upper West
JA	James River
POQR	Poquoson River
YK	York River
MB	Mobjack Bay
PK	Piankatank River
RA	Rappahannock River
PO	Potomac River

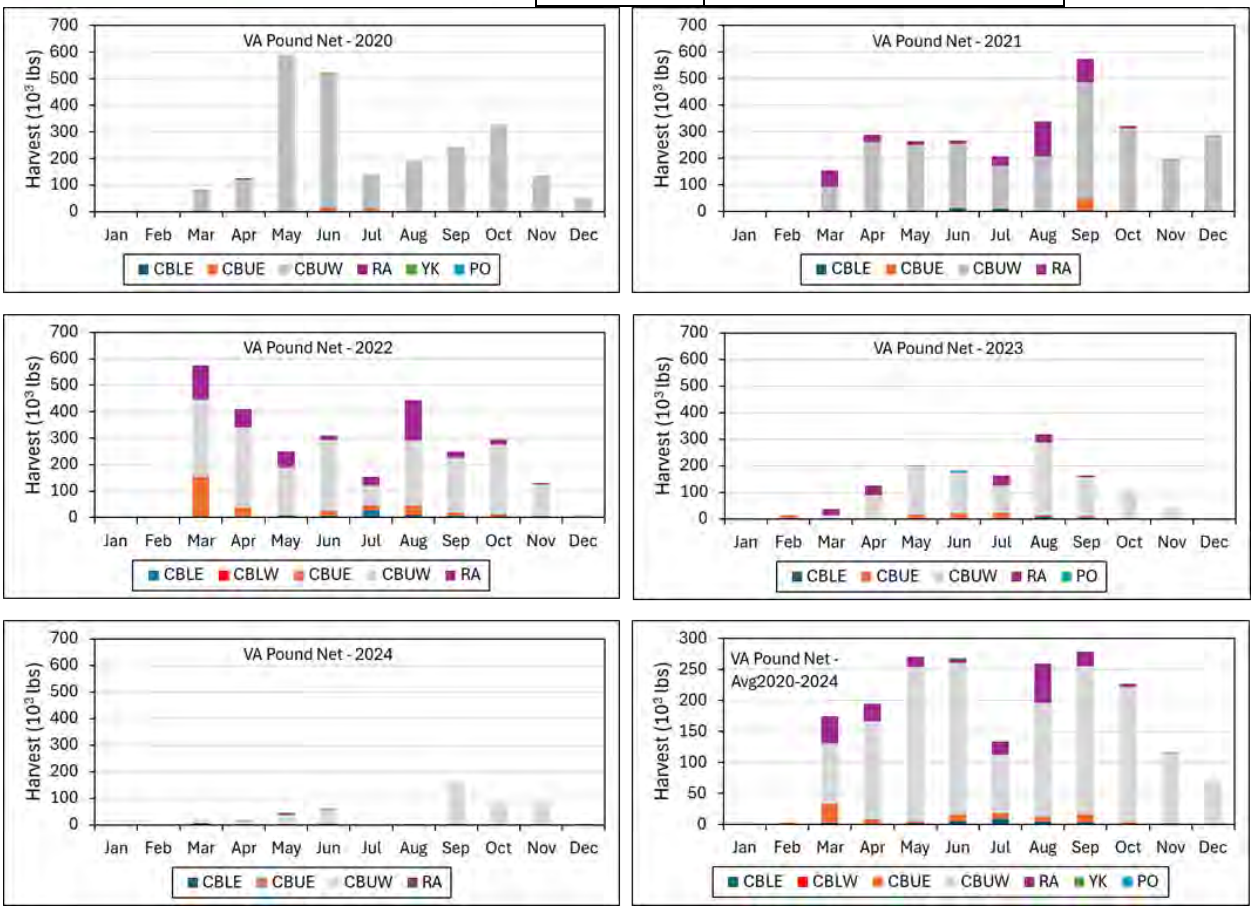


Figure 16. Virginia monthly pound net harvest by VMRC reporting area 2020-2024 Smaller water bodies were collapsed to reduce the number of reporting areas (see map).

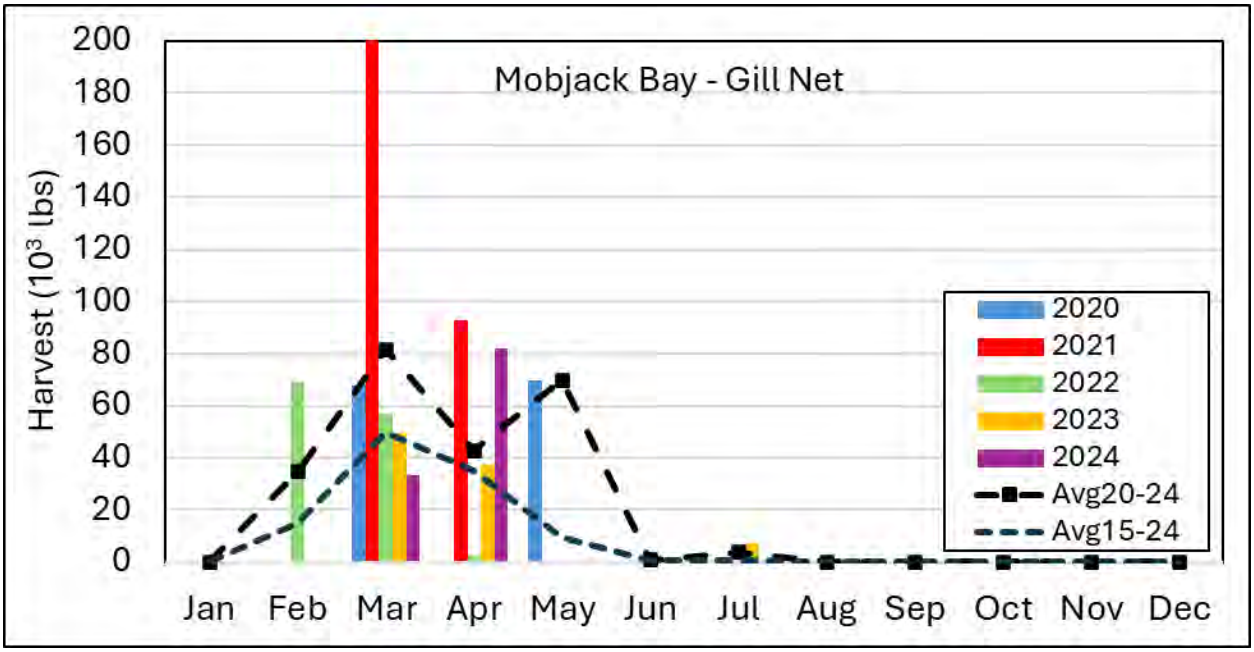


Figure 17. Mobjack Bay gill net menhaden harvest by year and month relative to the 5-year average (2020-2024) and ten-year average (2015-2024).

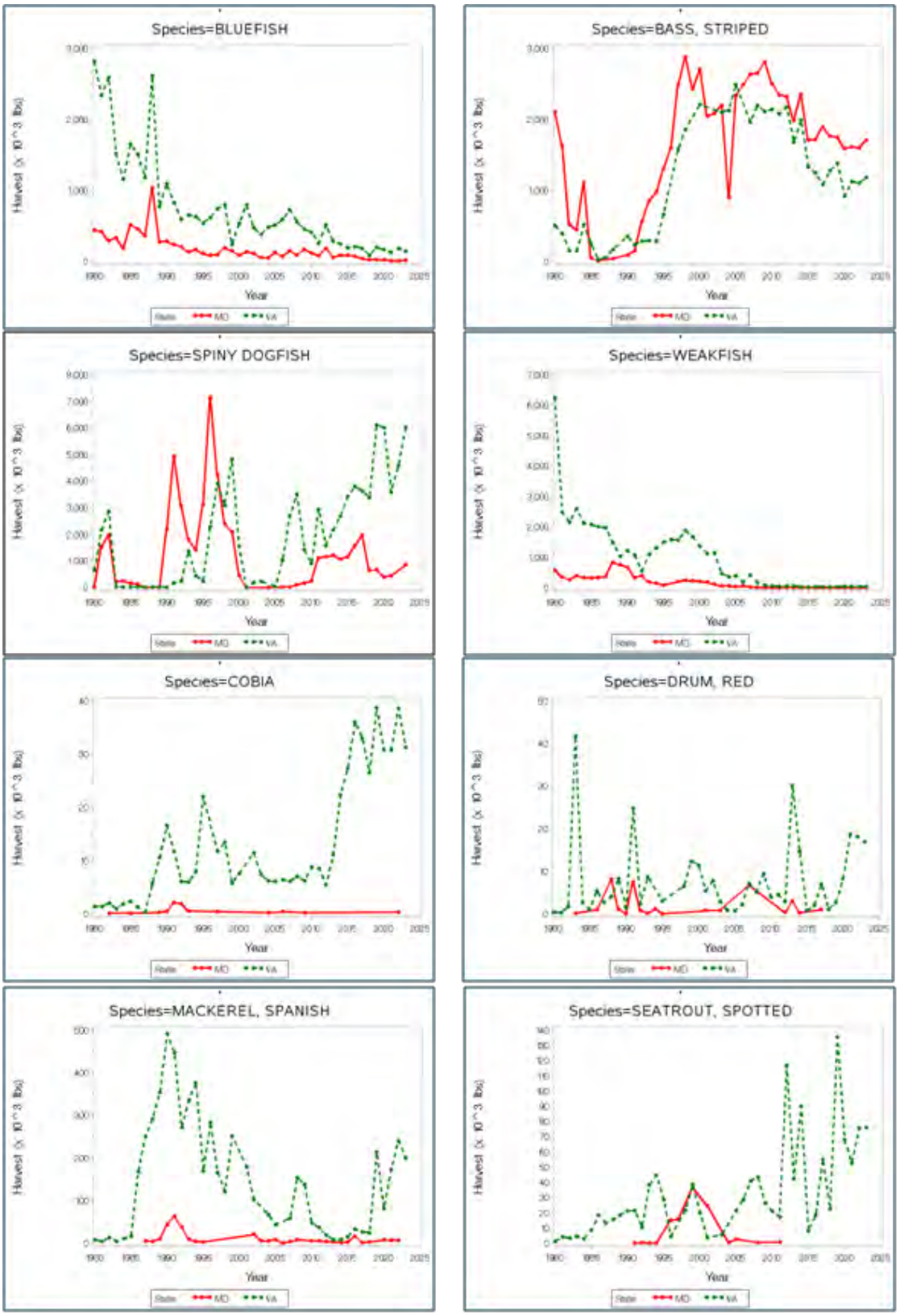


Figure 18. Commercial Harvest for Key Bay Predators. Source: ACCSP

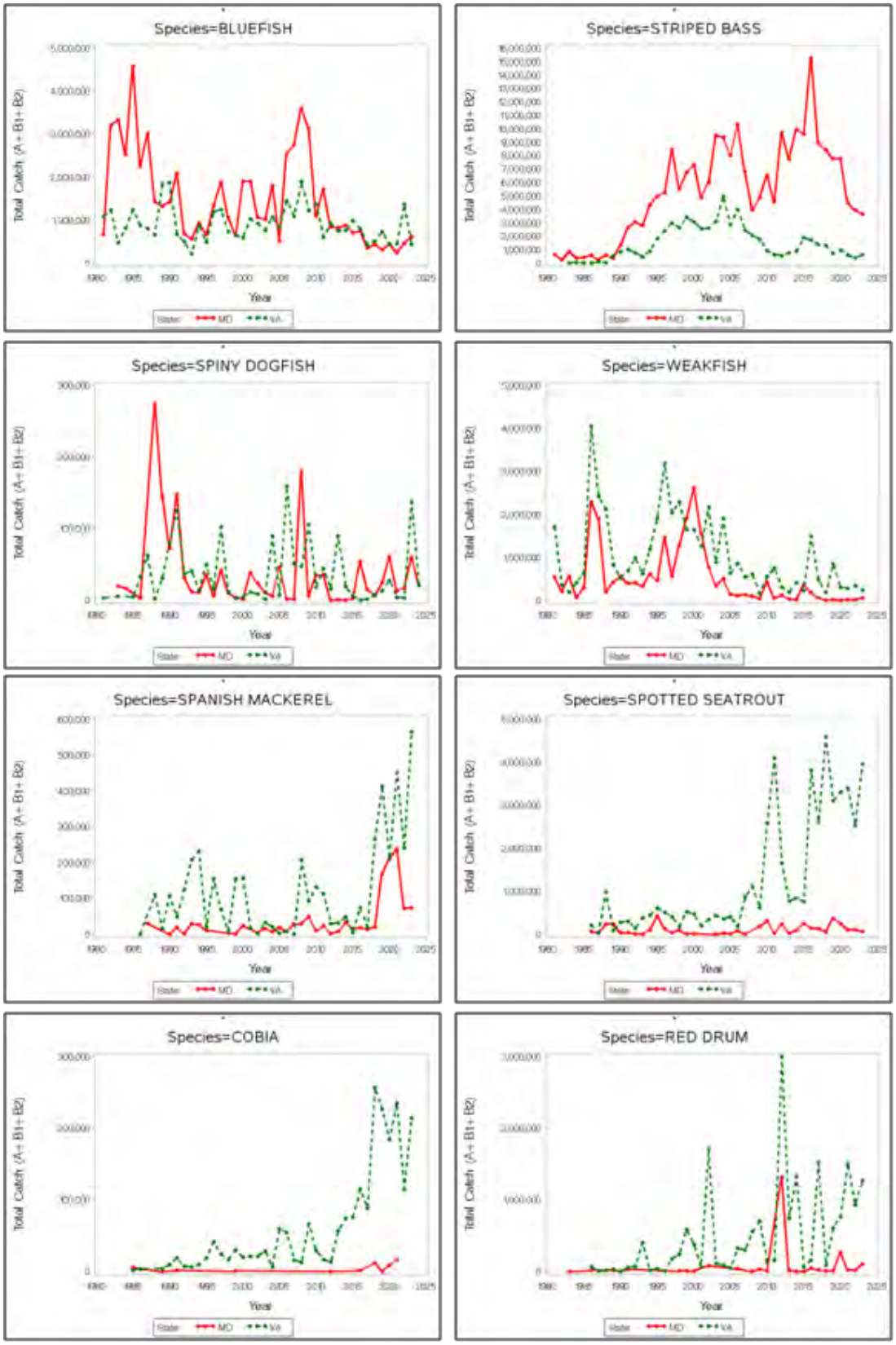


Figure 19. Recreational Catch of Key Bay Predators. Source: MRIP

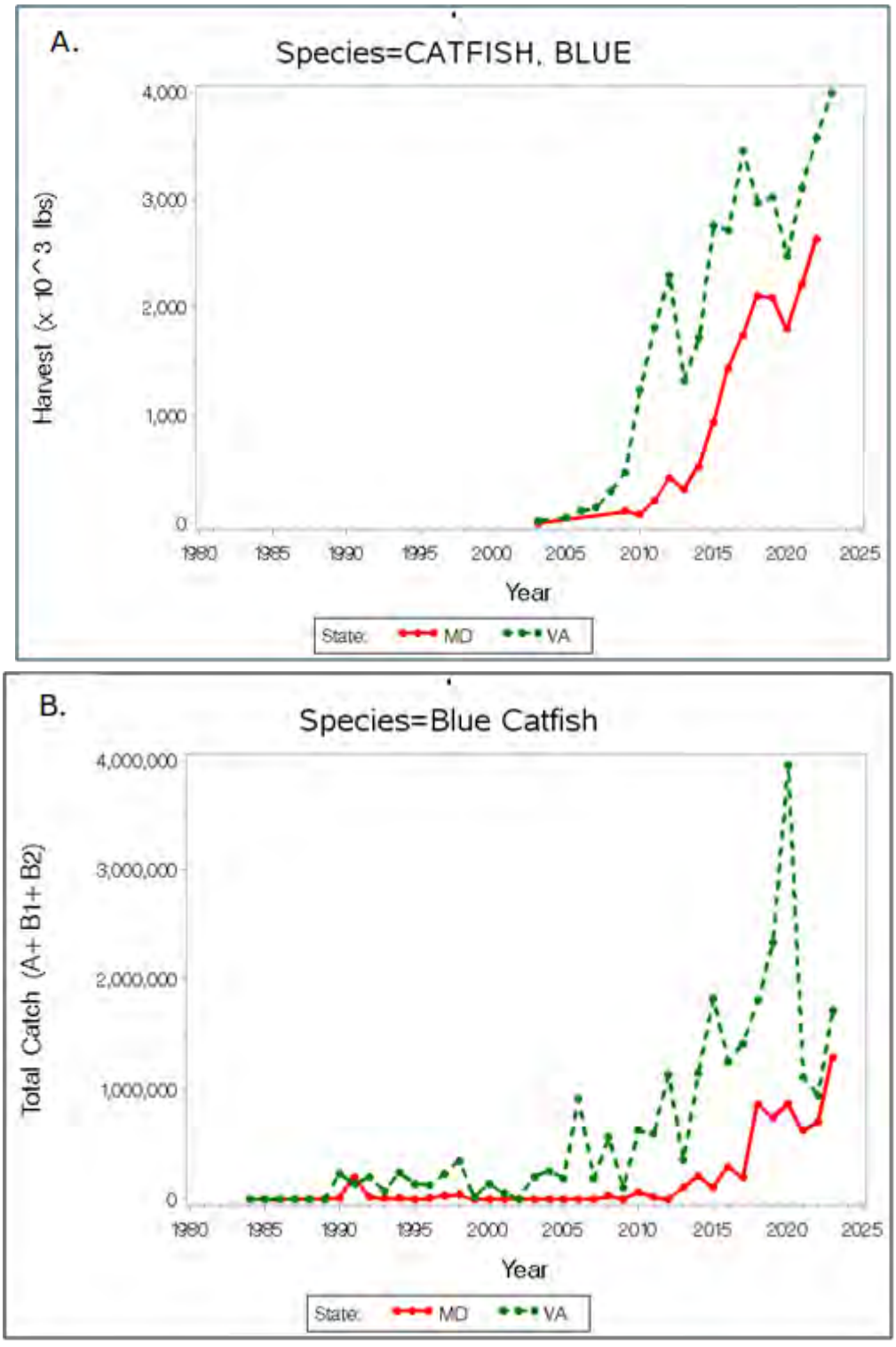


Figure 20. Blue Catfish Commercial (A) harvest and recreational catch (B) for Maryland and Virginia. Sources: ACCSP and MRIP

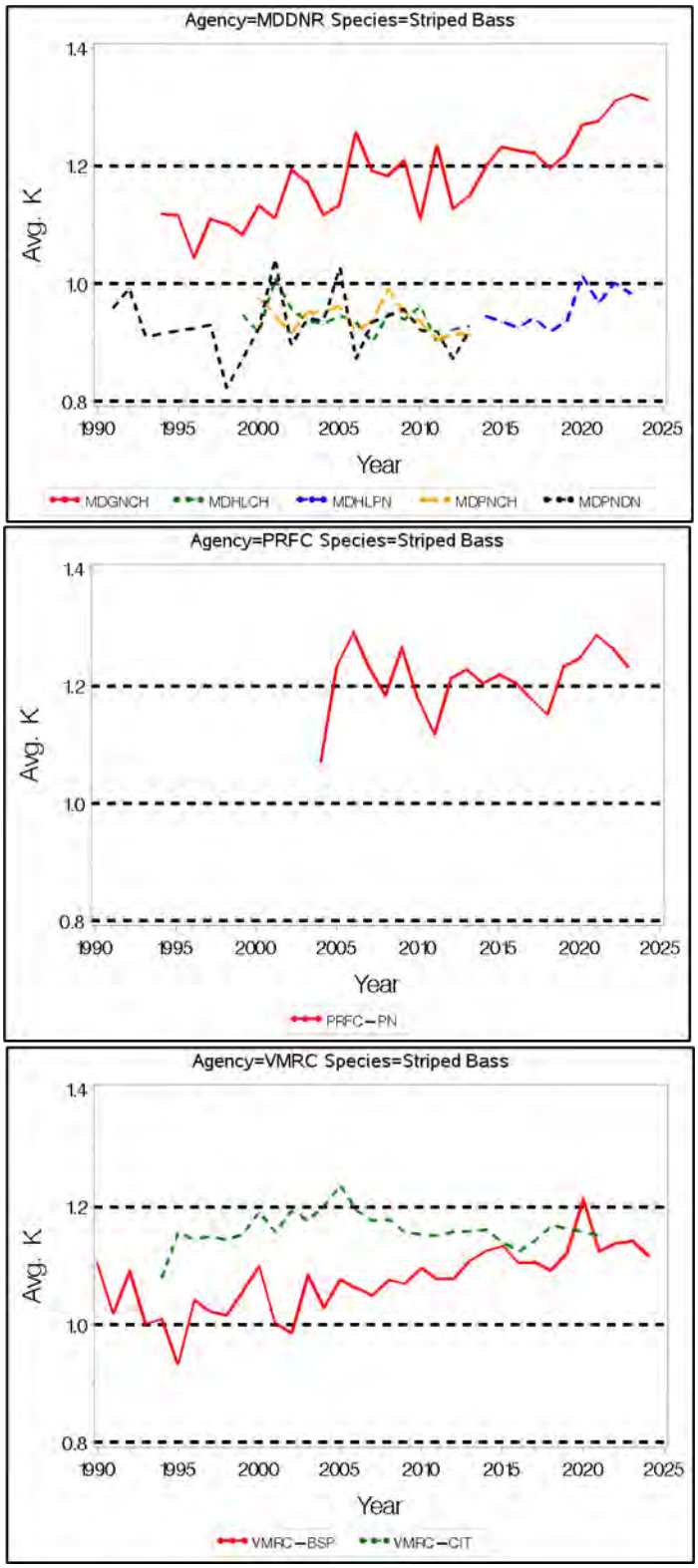


Figure 21. Striped Bass annual Fulton's Condition Factor by agency and project: 1 = normal, > 1.2 = very healthy, < 0.8 = stressed.

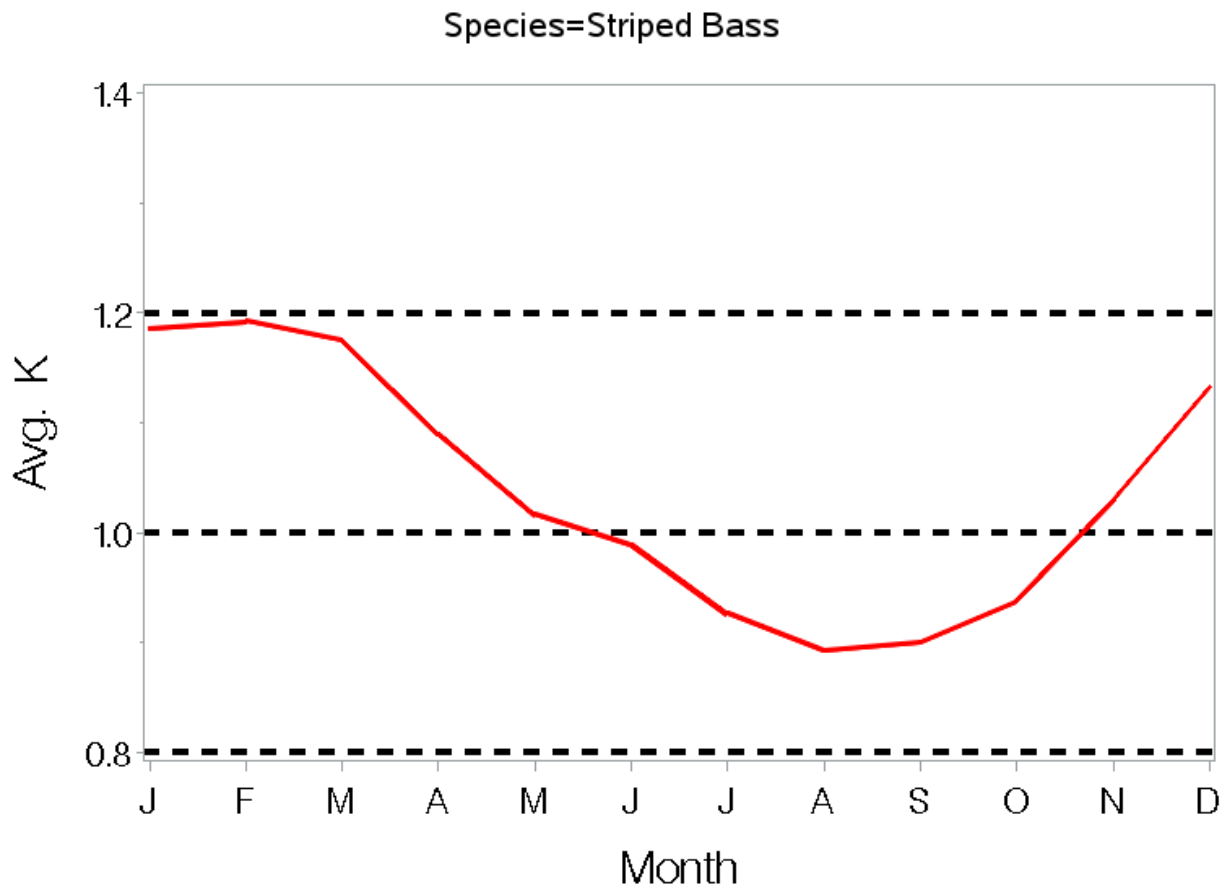


Figure 22. Striped Bass Fulton's Condition Factor by month for all agencies and projects combined.

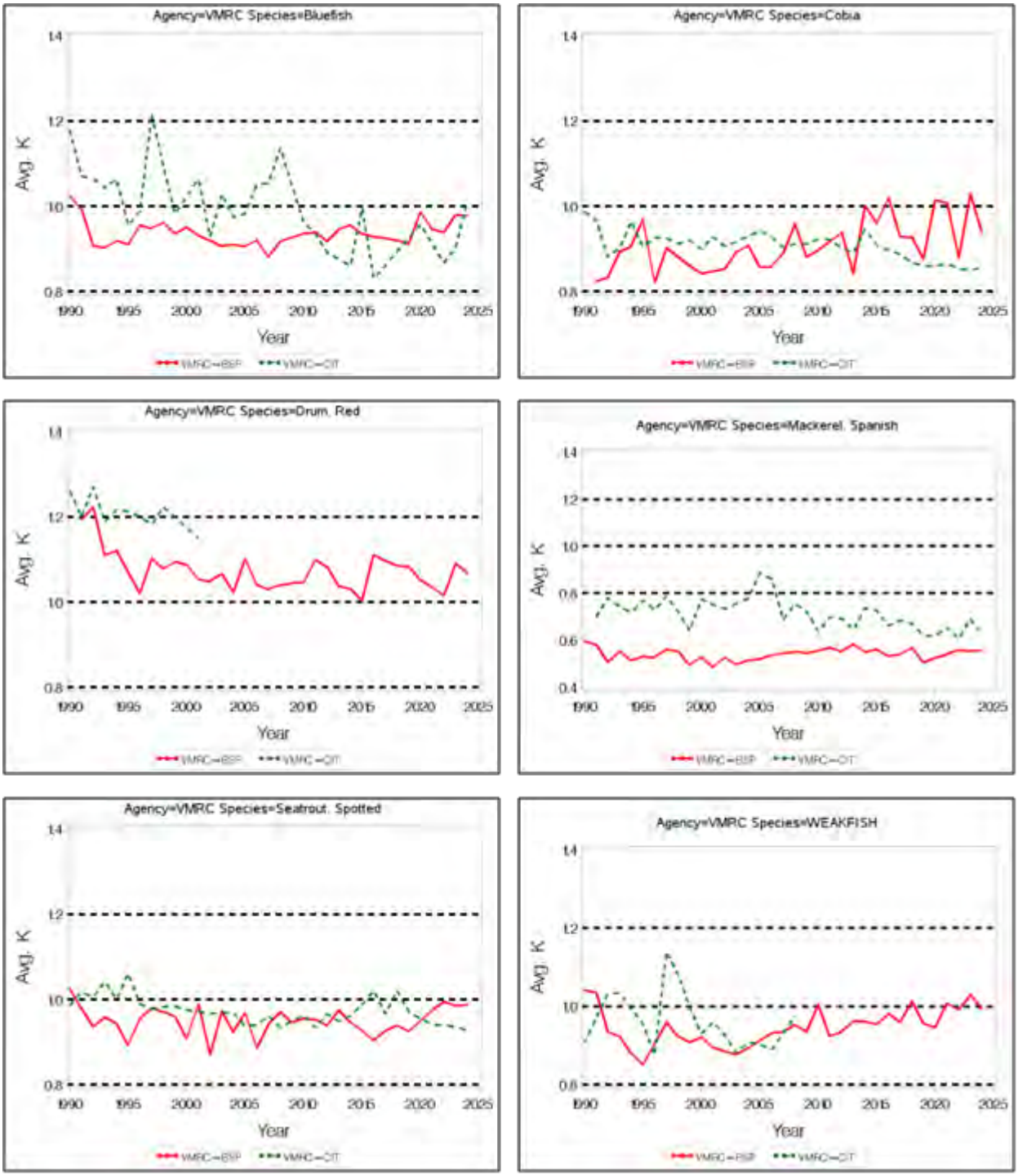


Figure 23. Fulton's Condition Factor for other bay predators for Virginia based projects only. Information for blue catfish and spiny dogfish is not available currently.

March 20, 2025

Response to Questions on Chesapeake Bay Osprey (*Pandion haliaetus*) Foraging Needs

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What is the general timeframe of residence of ospreys in Chesapeake Bay?

Residency is generally 1 March through 15 September.

When do they typically arrive and when do they typically leave? How variable are those timelines?

Ospreys begin to arrive in the lower Bay in late February and arrival peaks by mid-March, and slightly later in the more northerly portions of the Bay (Bent 1937; Reese 1991; Watts and Paxton 2007). Most breeders are here by late March. A cutoff for arrival of breeders is typically taken to be 15 April. A second wave of birds arrives in the Bay in late May. These are subadults that are prospecting for territories that will be used the following year. These birds pair up and will often build a partial nest but do not lay eggs (referred to as house sitters; Poole 1989). Since these house sitters have not recruited into the breeding population, these pairs are not considered in estimates of population size or in calculating demographic rates.

Departure schedules for breeding adults and hatch-year birds differ by as much as a month with adults initiating migration in late August through mid-September and hatch-year birds leaving later (Poole 1989; Watts and Paxton 2007). It should be noted that during the early fall there is a mix of resident birds and migrants (from northern breeding populations beyond the Bay).

Arrival and departure are consistent year to year with some adjustments for weather, and the schedule could shift with climate change over time. It is likely that arrival time in the Bay advances with age of bird up to some stable point. Many resident birdwatchers who observe pair arrival report that birds have arrived at "their" nest often on the same date for years.

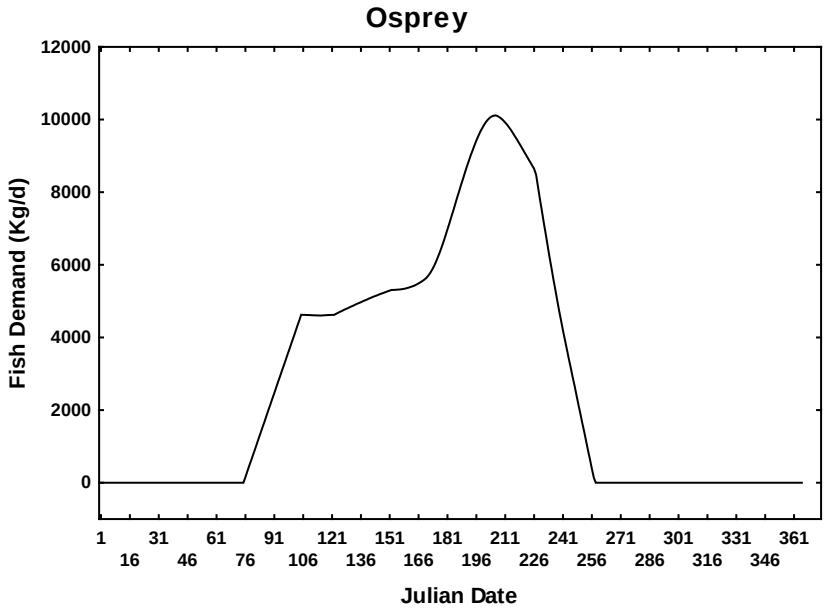
What is the general sequence of events during residency and when do they typically occur?

Adult Arrival – Late February through mid-April.
Nest Building – Peak 15 March – 15 April, but nest work can occur anytime.
Female Preparation for Laying – 1 to 31 March – effort includes female provisioning by male.

Laying – Early April through early May – Late layers are less successful; 2024 had both a high percentage of non-nesting adults and late clutches, observations that have not been previously documented.
Incubation – 39-day incubation period, both adults share duties, but female does more.
Hatching – Peaks during the second half of May.
Brood Rearing – First 3 weeks is the most critical period, male does most of the hunting, female does most of the brooding and care of young (referred to as nestlings or chicks), with the brooding period lasting 7-8 weeks.
Fledging – Most young (around 55-60 days old) in the Bay fledge in July (fledglings are young that are learning to hunt), and in 2024 some broods fledged later.
Post-fledging Period – Period between fledging and migration is a very vulnerable time for offspring. During the early part of the period, young are dependent on adults for food but less so over time as they learn to forage on their own.

Are there certain aspects of osprey life history during their residency in Chesapeake Bay that are more bioenergetically demanding than others? When do those activities occur? Are there estimates of consumption rates/needs?

The most bioenergetically demanding period during the annual cycle is when osprey pairs are raising broods. Historically, this period has been from mid-May through mid-July. In terms of population-level metabolic demand, estimates of the seasonality from years ago appear in the graph below (B.D. Watts, The Center for Conservation Biology, William and Mary, written communication, December 4, 2024). This graph was for a population size that is basically equivalent to that in the main stem of the Bay - the menhaden (*Brevoortia tyrannus*)-dependent area. Overall demand was estimated to be only about 1.2 million kg/year (seasonal peak is only around 10,000 kg/d). This indicates that the period of highest energy demand at the population level is from mid-May through mid-August. It is important to note that the period of peak demand is not necessarily the period of critical demand. Most broods are lost within the first 2 weeks of development. Their demand is relatively low at that age, but the adults must meet that demand, or they will die. Older chicks have more energetic reserves and can overcome short periods of food deficit. Young chicks cannot. It is critical that enough fish be available that can be captured by adults and delivered to the nest during the May period so that broods can make it through this bottleneck.



How does forage availability relate to consumption rate (how much biomass is needed relative to consumption to account for encounter rate, handling time, etc.?)

This is really the central question that remains to be resolved to understand the relationship between the stability of the osprey/consumer population and management of the fish stock. We know from various piscivorous bird studies around the world that reductions in fish stock can lead to reductions in avian provisioning rates that result in brood reduction and low reproductive rates (e.g., osprey: Poole 1982; Hagan 1986; Eriksson 1986; Bowman et al. 1989; Steidl and Griffin 1991; Machmer and Ydenberg 1998). Observations of declines in provisioning rates in parts of the Bay have resulted in reproductive rates below maintenance. Osprey very likely have a Type II functional response curve (i.e., consumption rate rises with prey density, but gradually decelerates until a plateau is reached at which consumption rate remains constant irrespective of prey density), such that a rapid increase in foraging rate with increasing prey density leads-to a population asymptote (B.D. Watts, The Center for Conservation Biology, William and Mary, written communication, December 4, 2024). If we could understand where along that curve osprey need to be to break even demographically, we could then solve for what density of fish they require. An independent assessment of fish abundance for a few osprey pairs (n = 15-20) could enhance our understanding of this relationship. Currently, such fish abundance data are not available to describe this relationship. One approach may be to develop a catch-per-unit effort foraging model and solve for relative fish abundance. This approach could support a better understanding of spatial and temporal variation in menhaden availability and its relationship to reproductive rates.

How do osprey typically identify and select nest sites?

Little is known about the nest selection process itself, but quite a bit is known about patterns of substrate use. Ospreys prefer to nest over water when appropriate substrates are available,

presumably related to the "escape from ground predator" benefits (Poole 1989). Use of duck blinds has been studied throughout the Bay and the probability of occupancy increases dramatically around >25-m offshore Watts and Paxton 2007). Prior to the 1960s, the majority of nests were on snags and live trees. Since the 1960s, the majority of nests have shifted to human-made structures (Watts et al. 2004; Watts and Paxton 2007). There have been a couple of waves of the appearance of human-made structures including the rapid expansion of aids to navigation during the 1970s, and then later the rapid expansion of private osprey platforms since the 1990s. Thus, there have been shifts in substrate use over time, but the general requirements remain unchanged. Ospreys prefer stable structures that offer protection from predators and are near adequate sources of fish (Poole 1989; Watts and Paxton 2007).

Are they well-established over time or do they move annually?

Ospreys exhibit high nest site fidelity. Generally, once a nest site has been established, the pair will use it for many years or until there has been a change to the structure (Poole 1989). If the nest is lost to weather or to human removal, the pair will rebuild the nest. However, if the structure itself is lost or altered in some functional way, the pair is forced to select another structure typically within a short distance of the original nest. Loss of nest substrate happens regularly due to various forces, such as ice flows eliminating duck blinds in particular years or more systematically as in the recent removal of many aids to navigation throughout the Bay by the U.S. Coast Guard (Watts and Paxton 2007). If no appropriate structure is available after its loss, the pair will move and find a new place. Nest substrate can certainly be limiting in various parts of the Bay, but more so historically than now due to the proliferation of nestable human-made structures.

What is the typical foraging range for osprey?

The distance that adult osprey forage from the nest varies from site to site. In some populations most of the foraging is within site of the nest (< 2 km), but in others it can range much further (15-20 km). Some individuals have preferred hunting areas and spend quite a bit of their time in those areas, while others are much more variable in where they forage. Across pairs, a high proportion of prey come from within 10 km of the nest site (Poole 1989).

What is the behavioral response if sufficient forage is not found within the typical range – looking farther afield, prey switching, something else?

Ospreys are adaptable foragers and certainly will adjust their hunting strategy as conditions change. This includes switching to less preferred prey, spending more time foraging, foraging farther away from nests, changing hunting tactics, etc. However, like all predators, ospreys have to maintain a positive energy balance. If they must travel too far or spend too much time to obtain the forage they need, then costs may exceed returns and their location is not viable. The limit to viability during the brood rearing period requires that adults meet the energetic demands of the brood. If they cannot, then the nest will fail. Recent diet simulation research suggests about 60% of the diet must be in the high-lipid category (including menhaden, eel, mackerel, etc.) to break even (B.D. Watts, The Center for Conservation Biology, William and Mary, written communication, December 4, 2024). This is not the case in some parts of the Bay. Prey

switching is not a panacea. Diet quality in terms of energy density has declined by 50% since the 1980s due to increased use of low-lipid prey (e.g., striped bass, white perch) by osprey (McLean and Byrd 1991, Glass and Watts 2009, Academia 2022).

What are the individual and population level impacts of insufficient forage for ospreys?

If an individual is not able to obtain enough fish to meet its basal metabolic demands, it will either emigrate or die. This presumably is what drove the evolution of their migration and also why they live in proximity to bodies of water. In terms of reproductive rate and broods, osprey have like many birds evolved a behavioral mechanism to match the brood demand to the available food. Many pairs in the Bay hatch three chicks. If there is enough food to provision all of the chicks, then all will develop and grow synchronously and survive. If there is not enough food to sufficiently provision the three chicks, then a dominance hierarchy will form, and the most subordinate young will be fed last. If this chick does not get enough food, it will die. If the second chick does not get enough food, it will also succumb to starvation. This process is referred to as brood reduction – reducing the brood and associated metabolic demand to match food availability. If the dominant chick does not get enough food, the nest will fail. Brood reduction on a large scale is an indicator of food stress (Poole 1982; Hagan 1986; Eriksson 1986; Bowman et al. 1989; Steidl and Griffin 1991; Machmer and Ydenberg 1998).

At the population level, the principal driver is whether or not adult pairs are producing enough young to offset average adult mortality. If they are producing just enough on average, then the population is expected to be stable. If they are producing a surplus, then the population is either stable or increasing depending on the circumstance. If the population is in deficit, then it would be expected to decline unless it is receiving immigration from another population. Net dispersal is why population size alone does not always follow local reproductive success.

How are those impacts typically measured?

There are a number of metrics that have been quantified that may be related to food stress. Some of these are generic (e.g., reproductive rate, brood reduction) and do not isolate food stress from other causes and other metrics are too costly to implement at scale (e.g., provisioning rate, nestling growth rate).

Notably, osprey nests have been monitored throughout fairly large portions of the Bay since the 1960s (Reese 1968; Reese 1969; Reese 1970; Henny 1974; Reese, 1975; Reese 1977; Rattner et al. 2004; Watts et al. 2004; Lazurus 2015; and Lazarus 2016). Coverage has been less consistent since the 1990s, but over the past couple of years there has been greater effort to increase geographic coverage of osprey reproduction in the Bay. This information is used to generate a number of metrics that are used to gauge impacts, including nesting success rate, reproductive rate, chick loss rate (brood reduction), percent one-chick broods, etc. Efforts are planned to develop some metrics that are practical, can be implemented at scale and reflect food deficit stress.

How have those indicators changed in Chesapeake Bay over the past 10-20 years?

For at least Mobjack Bay, substantial declines in reproductive rates, overall provisioning rates, provisioning rates with menhaden, proportion of the diet comprised by menhaden and diet quality have been documented. An increase in male foraging time and brood reduction has also been observed. Importantly, reproductive rates have transitioned from surplus to deficit (Academia and Watts 2023; Watts et al. 2024).

In 2024, 12 study areas were monitored in the Bay including 10 within the main stem of the Bay (salinity >10 ppt) and 2 in the lower salinity reaches (<1 ppt). All of the 10 sites were in reproductive deficit, while the 2 lower salinity reference sites were in reproductive surplus. It is believed that ospreys nesting in much of the main stem of the Bay are menhaden dependent. Osprey in the low salinity sites do not depend on menhaden as prey (Glass and Watts 2009; Lazarus et al. 2016).

In 2025, we plan to work across four salinity zones to examine reproductive rates to see if the Bay-wide population is at risk due to the low reproductive rates in the main stem of the Chesapeake. The four salinity zones would include low salinity (0 to <5 ppt), low mesohaline (5 to <12 ppt), high mesohaline (12 to <18 ppt), and polyhaline (18 to 30 ppt).

Is there a comprehensive list of osprey nest sites in the Chesapeake (which are natural and which are artificial)?

The last systematic survey of the Chesapeake Bay osprey population was completed in 1996 (Watts et al. 2004). This survey has been converted to a digital coverage with all nests mapped and all substrate types indicated. We do not have an updated coverage for the entire Bay. We have nest locations and substrate types for select study areas throughout the Bay totaling approximately 1,000 nests. As described previously, ospreys reproducing in the Chesapeake Bay nest primarily on human-made structures. As of the 1990s, greater than 90 percent of Chesapeake Bay osprey nests were located on human-made structures (Watts et al. 2007). Osprey pairs are distributed throughout the entire tidal portion of the Bay and beyond, wherever appropriate conditions are available.

RESEARCH DIRECTIONS TO MORE FULLY CHARACTERIZE THE RELATION OF MENHADEN TO THE SUSTAINABILITY OF OSPREYS IN THE CHESAPEAKE

Establishing a menhaden monitoring program for the Chesapeake Bay

Currently, there is no effective and biologically robust monitoring scheme of menhaden within the Chesapeake Bay ecosystem. This lack of a fisheries-independent assessment prevents evaluation of the potential impact of harvest on menhaden, which is required to set appropriate harvest regulations with respect to the needs of osprey. The lack of monitoring data on the scale of natural consumer populations also prevents directly linking changes in consumer populations to menhaden stock. Designing a menhaden monitoring program could support detection of spatial variation in menhaden abundance and identification of trends over time.

Summarizing and evaluating long-term historic data for the osprey in the Chesapeake Bay

Osprey breeding performance has been monitored throughout a large portion of the Chesapeake Bay for more than 50 years, including tens of thousands of nests and reproductive observations. A few papers have been published that address a specific list of questions. Gathering and compiling the existing raw monitoring data will create a . dataset that could allow for the evaluation of spatial and temporal patterns in breeding performance over a long time period.

Examining the historic relationship between osprey demographics and menhaden stock along the Atlantic Coast

Dozens of osprey monitoring programs exist along the Atlantic coast. Many of these programs were initiated during the DDT era and have continued for decades. Other monitoring efforts have been initiated in recent years or decades. An ongoing project by the Center for Conservation Biology (B.D. Watts, William and Mary, written communication, August 20, 2023) is to merge range-wide osprey monitoring efforts into a single dataset that may be used to evaluate the demographic response of breeding osprey to menhaden fluctuations. We plan to 1) develop an overview of existing monitoring data using a metadata template, 2) invite researchers with datasets to join a coalition and submit nest by nest data in a standardized format, 3) archive datasets in a common repository, 4) merge all data into a single centralized dataset and 5) evaluate the response of osprey demographics to menhaden and other explanatory variables within the appropriate spatial scale.

Investigating the role of climate in menhaden abundance in the Chesapeake Bay and related consumer populations

There is mounting evidence that natural events such as the Atlantic Multi-decadal Oscillation (AMO) may be shifting the center of biomass of menhaden to the north and may also be changing the phenology of entry into the Chesapeake Bay (Ney et al. 2014; Midway et al. 2020). Changes in abundance and phenology of menhaden related to climate change effects may be directly linked to recent shifts in consumer populations like osprey. Understanding these changes is critical to understanding options for mitigation.

Developing a metric of food stress in osprey that may be used as a monitoring tool for ecosystem conditions

Compile both recent and historic monitoring data to screen a number of candidates for development of a metric that may be measured economically and at scale for use as an effective indicator of food stress in osprey.

Developing an osprey catch-per-unit-effort (CPUE) model for menhaden

One of the challenges in understanding the relationship between osprey brood provisioning, demography and menhaden stock is that we have no estimates of menhaden availability on the local scale. One potential work around for this void is to develop a CPUE model (prey capture/time spent hunting) for males provisioning broods. Development of a CPUE model for menhaden (and other fish species) would allow us to better define the state space where osprey may meet demographic requirements within the time available for hunting. A CPUE-

demographic framework could lead to a simple monitoring program based on male hunting that would inform whether or not stock levels are adequate to sustain a viable osprey population. The intent in building the CPUE model would be to develop a metric that would be practical to apply on a broad scale to indicate when/where menhaden abundance is adequate to sustain the osprey population.

During the 2023 breeding season, we completed a proof-of-concept for pairing high output, three-dimensional tracking of males with nest cameras (B.D. Watts, The Center for Conservation Biology, William and Mary, written communication, August 20, 2023). This pairing can allow for quantifying male time budgets, determining the time allocated to hunting, estimating the duration of hunting forays (both length and time), identification of hunting areas, determining captures/attempts ratios and the identification of fish captured. These metrics could allow for the assessment of species-specific provisioning rates and the development of species-specific CPUE models.

OTHER ISSUES OF CONCERN

Overlap between menhaden harvest sites and osprey breeding

One approach to evaluate the relationship between commercial harvest of menhaden and impacts to osprey reproduction could be to quantify overlap between menhaden net sets and osprey study areas (i.e., locations where we have recently quantified reproductive rates). This approach assumes that menhaden are spatially static such that the impact of harvest is restricted to the locality of capture. Most of the net sets are concentrated around the lower eastern shore where menhaden enter the Bay. In effect, menhaden are being intercepted as they migrate into the Bay. This activity impacts downstream consumers just as dams restrict the migration of fish up into tributaries and impact consumers above the dam. A more realistic assumption could be that there is high connectivity between localities throughout the Bay, such that actions in one place are likely to impact availability of menhaden to consumers elsewhere. If there is high connectivity throughout the Bay, then we would expect low correspondence between where fish are taken and impacts to other specific locations.

Density-dependence in osprey reproductive rates

The decline in osprey reproductive rate may be driven by the increase in osprey numbers such that the increased numbers are cropping down the menhaden stock - a density-dependent process that is likely playing out. As has been indicated elsewhere, osprey do not have the capacity to crop down menhaden. McLean and Byrd (1991) point out that osprey consumption represents a fraction of one percent of the commercial harvest. Even if we consider all of the bird consumers during the breeding season, the consumption is less than five percent of commercial harvest (B.D. Watts, The Center for Conservation Biology, William and Mary, written communication, January 28, 2025). This is consistent with an “upper-limit” estimate of double-crested cormorant consumption of menhaden along the coast of North Carolina (Watts et al. 2023). Osprey simply do not have the metabolic capacity to exert control of menhaden stock.

Although it is possible that behavioral interactions among nearby pairs of nesting ospreys could reduce time spent foraging and impair productivity, this has not been apparent in the

Chesapeake Bay in the past. In fact, ospreys are considered to be colonial or semi-colonial breeders when prey are readily available, with nesting pairs situated on nearly every aid to navigation moving up a tributary or on electrical transmission power poles in proximity to a water body (Poole 1989).

Other stressors that could affect osprey reproduction and the population in the Chesapeake Bay

Other processes and stressors (e.g., habitat loss, interspecific competition, disease, predation, toxicants, invasive species) can cause declines in avian populations, and in some instances Chesapeake Bay ospreys have been or may be vulnerable to these stressors. Environmental contaminants (e.g., DDT and metabolites, PCBs), that were at one time suppressing reproductive rates of ospreys in the Chesapeake Bay, no longer seem to be evoking such effects (Watts and Paxton 2007; Lazarus et al. 2015, 2016). Disease events (e.g., avian botulism, highly pathogenic avian influenza, West Nile virus), and harmful algal blooms -have occasionally affected large numbers of waterbirds in the Bay, but have not been found to evoke significant mortality events in ospreys (e.g., Watts and Paxton 2007; Lankton et al. 2022; Rattner et al. 2022; Southeastern Wildlife Cooperative Disease Study 2024). Other anthropogenic hazards and activities (e.g., electrocution, collisions with building and vehicles, shooting, discarded fishing tackle) have affected individual ospreys but without major consequences to their population.

There are many natural structures, duck blinds and human-made platforms for nesting ospreys in the Chesapeake Bay. Nesting structures for ospreys are at a surplus. Notably, in some areas of the Bay a fraction (~10%) of the human-made osprey nest platforms (e.g., Choptank River in 2024) are being used by Canada geese (*Branta canadensis*) making them unavailable for nesting ospreys (Rattner and Day 2024).

Interspecific competition between bald eagles (*Haliaeetus leucocephalus*) and ospreys, including kleptoparasitism (stealing food) and other antagonistic behaviors, is well documented (e.g., MacDonald 1994). One detailed study in Florida indicated that bald eagles did not exclude nesting ospreys, but did possibly contribute to lower nesting success (e.g., Ogden 1975).

However, over the past 50 years, bald eagle, osprey and heron populations have seemingly jointly recovered in the Chesapeake Bay (reviewed in Cruz et al. 2019). From the 1970s to 2020, the bald eagle population increased from 60 to about 3,000 breeding pairs, whereas the osprey population increased from 1,450 breeding pairs in 1973 to about 10,000 breeding pairs (Watts et al. 2007; Watts and Paxton 2007; US EPA Chesapeake Bay Program 2025). Bald eagle density is about an order of magnitude greater in tidal freshwater regions of the Bay where osprey reproductive success is high compared to lower eagle density in the main stem of the Bay where osprey reproduction is marginal or poor (Watts et al. 2007). However, the number and productivity of nesting bald eagles and of ospreys in various segments of the Bay have yet to be rigorously compared. Such a comparison could be undertaken to elucidate the possibility of interspecific competition affecting osprey productivity.

It is certainly possible that reduced prey availability, exposure to environmental contaminants, disease and interspecific competition could all be contributing to impaired osprey reproduction and productivity in parts of the Bay. Based on existing information, limited prey availability is seemingly the principal driver of poor reproductive success in the 2024 study areas.

COMMENTS ON MANAGEMENT OPTIONS

Seasonal Closures

Osprey and other bird species that depend on menhaden within the Chesapeake Bay are most sensitive to food shortages in the May and June time period. Mitigation measures designed to protect osprey or other bird species could attempt to insure high menhaden availability during this seasonal window.

Spatial Restrictions in Harvest

The current distribution of harvest appears like an intercept fishery, where fish are being harvested just before or as they enter the Bay. This effectively places the entire Bay in a compromised downstream position. If spatial restrictions are imposed, they could be around the mouth of the Bay where menhaden gain entry.

Use Osprey as Formal Ecological Reference Point

Osprey are a sensitive indicator of menhaden abundance within the main stem of the Bay. They could be formally listed as an ecological reference point and included within ecosystem management strategies. Specific reference conditions could be formally developed for osprey.

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Edwin Hustead
739 South Union Street
Alexandria, VA 22314 USA
Hustead@me.com

To: Atlantic States Fisheries Commission

I am very concerned about the serious depletion of Ospreys in the Chesapeake Bay. This depletion is close to that caused by the use of DDT and other chemicals before Rachel Carson's book Silent Stream.

Bryan Watts, Director of the Center for Conservation Biology at William and Mary has studied the reasons for the reduction in viable nests. His paper, Failing Nests for Chesapeake Ospreys, found that "Osprey reproduction rates had sunk even lower than before the DDT ban in the 1970s, with only 17 of 167 nests containing live chicks in one survey" .

Menhaden are the primary food for Ospreys in the Chesapeake Bay . Other nearby nesting areas, such as the Potomac and James rivers have not shown this shocking loss. Watts has found that Ospreys in those rivers have a more varied fish diet and rely much less on Menhaden.

I am aware of the study by Robert Latour that questions the methods and results used by Watts. But a 10% viability rate is so low that it is difficult for me to believe that there is any other major reason for the decline. My view is that the decline in the viabiality of Osprey must be largely a result of the reduction of Menhaden.

I ask the Atlantic States Marine Fisheries Commission to consider reducing the quota on taking Menhaden from the current limit of 112,000,000 pounds a year to a limit that will restore the health of Ospreys in the Chesapeake Bay.

Thank you

Edwin C. Hustead

husteade@me.com
(703) 836-6156

James Boyle

From: Info (ASMFC)
Sent: Monday, April 7, 2025 10:23 AM
To: James Boyle
Cc: Toni Kerns
Subject: FW: [External] New website contact submission from Contact Us

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From: info@asmfc.org <info@asmfc.org>
Sent: Sunday, April 6, 2025 3:20 PM
To: Info (ASMFC) <info@ASMFC.ORG>
Subject: [External] New website contact submission from Contact Us

Name
Theresa Lown
Email
sashalown@comcast.net
Comments
The Spring 2925 issue of "Living Bird" highlights the precipitous drop in healthy osprey in Chesapeake Bay is alarming and infuriating. The menhaden are being overfished by Omega Protein, who predictably denies it, citing you people sanctioning it all. The fish belong to the birds, its their only real food source. Re-evaluate your science please. Consider the effects of climate change on the fish. Maybe your "quotas" are out of date. Birds and fisf first please. Corporations need to stop with the greed, its unsustainable. Lobster trap lines are torturing all the sea life, do you care?

James Boyle

Subject: RE: [External] decline of natural habitation in the Bay

From: John Majane <jamajane@verizon.net>
Sent: Tuesday, December 17, 2024 3:16 PM
To: Emilie Franke <EFranke@ASMFC.org>
Subject: [External] decline of natural habitation in the Bay

Madame

Years ago (60s 70's) we would go out on the Bay and bring in croakers, blues and occasionally a rock.

We all know now that only the pros can get a fish!

The feed stock is depleted and no amount of fishing restrictions will bring back the catch!

Yet overfishing for menhaden continues helping Canadian farmers.In fact as a result of a relatively recent incursions by a water skier with the net closing activity of the Canadian contractor resulted in an immediate reaction from our MD legislature. Fines and legal action.

Many years ago when fish were plentiful Kent Is. suffered dead menhaden smell. No more.

Real estate interests influencing Bay feed stock? And the catch volume?

I guess we all know whom runs things in MD.

John Majane
7812 Carteret Road
Bethesda MD 20817-1916
301-469-0462

James Boyle

From: G2W2
Sent: Friday, November 15, 2024 9:45 AM
To: James Boyle
Cc: Katie Drew; Toni Kerns
Subject: FW: Comments

From: Pierrepont, Stuyve <Stuyve.Pierrepont@marsh.com>
Sent: Friday, November 8, 2024 10:59 AM
To: G2W2 <G2W2@asmfc.org>
Subject: [External] Comments

I am not a scientist but I have been listening in on some of these meetings so that I can learn how this process works. I'm really trying to understand why we have gotten into such a horrible state with our forage fish on the east coast. How is it that Atlantic herring, mackerel, shad, river herring, eel, and many predator species are overfished and declining. Is it faulty science, is it regulatory capture, is it institutional groupthink, is it industry influence in management and nmfs, is it the fact that the department of commerce was set up to support commercial fishing?

After listening to some of this meeting. It is clear that you are all very smart people with good intentions. However, clearly you do not make sound precautionary decisions sometimes, and the consequences are stark.

For example, I know that some of you were involved in the Atlantic herring assessment that recommended catch levels that allowed the stock to be overfished. Three bad years of recruitment in a row and the fishing industry destroyed the spawning stock. Now there have been 6 bad years of recruitment and the stock won't rebuild until at least 2031, if ever. Of course this hurts the ecosystem and the predators who rely on them, but it also hurts the fishing economy.

I will wrap up by saying that as you move forward with this menhaden ecosystem assessment, I urge you to take a precautionary approach at every turn. The natural mortality parameter is precisely the kind of thing that this committee should be VERY concerned about. In the end you should pick a conservative M, not a radical outlier. Otherwise, you risk putting the stock of the most important fish in the sea into the tank, and destroying the forage base for striped bass and dozens of other species. It is on your shoulders to solve this forage fish crisis.

Respectfully, Stuyve

R. Stuyvesant Pierrepont III
917 282 5110 (c)
Stuyve.pierrepont@marsh.com

James Boyle

From: Patricia VonOhlen <wvonohlen@gmail.com>
Sent: Wednesday, November 27, 2024 5:03 PM
To: Comments
Subject: [External] Please limit Menhaden catch

Follow Up Flag: Follow up
Flag Status: Flagged

Hello,
I'm just a lowly citizen but I'm concerned about the health of the Chesapeake Bay and specifically the wildlife that depends on the bay waters. I've personally noticed a decline in osprey. Also, my husband has been a striped bass recreational fisherman for years and unfortunately he has not been able to catch any for the last couple of years. It seems they are no longer in our waters. I've read that the commercial over harvesting of menhaden is a likely cause of both of these important species having declining numbers.

I'm hoping that your group will take measures to protect the menhaden by limiting the allowable catch. It seems the health of the Chesapeake Bay depends on these important fish.
Thank you for caring about the Earth and working to protect it.

Patricia VonOhlen
9801 River Rd
Newport News, VA 23601
wvonohlen@gmail.com
757-218-3178

James Boyle

From: Comments
Sent: Wednesday, November 27, 2024 3:17 PM
To: James Boyle
Subject: FW: [External] Limit the Menhaden Catch to Save the Osprey

-----Original Message-----
From: Gwyn Williams <geebee219@gmail.com>
Sent: Wednesday, November 27, 2024 12:43 PM
To: Comments <comments@asmfc.org>
Subject: [External] Limit the Menhaden Catch to Save the Osprey

I own waterfront property, and we used to have osprey breeding, but for the last several years, it's all over for them, and I heard it's because of over-fishing of menhaden.

I am a nature lover and ask you to please support additional controls over the menhaden harvest.

The situation is quite shocking to waterfront homeowners.

Thanks for reading,
Gwyn Williams
Yorktown, VA

Atlantic States Marine Fisheries Commission

Tautog Management Board

May 7, 2025
4:00 – 4:45 p.m.

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 (*R. Beal*)	4:00 p.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from October 2023	4:00 p.m.
3.	Public Comment	4:05 p.m.
4.	Review Technical Committee Report on New York Study of Alternative Commercial Tags *(C. Weedon)*	4:15 p.m.
5.	Progress Update on the 2025 Tautog Stock Assessment Update *(K. Drew)*	4:30 p.m.
6.	Elect Chair **Action**	4:40 p.m.
7.	Other Business/Adjourn	4:45 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

Tautog Management Board
May 7, 2025
4:00 - 4:45 p.m.

Chair: Vacant	Technical Committee Chair: Craig Weedon (MD)	Law Enforcement Committee Representative: Brian Scott (NJ)
Vice-Chair: Vacant	Advisory Panel Chair: Vacant	Previous Board Meeting: October 16, 2023
Voting Members: MA, RI, CT, NY, NJ, DE, MD, VA, NMFS (9 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from October 2023

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 Technical Committee Report on New York Study of Alternative Commercial Tags (4:15-4:30 p.m.)

Background

- The commercial harvest tagging program was fully implemented by all states in 2021.
- In response to a task from the Board in August 2023, the Technical Committee (TC) identified potential alternative commercial tag types, and New York State initiated a study to evaluate the feasibility of the selected tags **(Briefing Materials)**.
- The TC reviewed the results of the study, which did not result in any viable alternative tags **(Briefing Materials)**.

Presentations

- Technical Committee Report by C. Weedon

5. Progress Update on the 2025 Tautog Stock Assessment Update (4:30-4:40 p.m.)

Background

- The assessment update is scheduled to be completed for the 2025 Annual Meeting.

Presentations

- Progress Update on Tautog Stock Assessment Update by K. Drew

6. Elect Chair

7. Other Business/Adjourn

Tautog

Activity level: Low

Committee Overlap Score: High (Menhaden, BERP, Summer Flounder, Scup, and Black Sea Bass)

Committee Task List

- TC – May 1, 2025: Compliance reports due

TC Members: Craig Weedon (Chair, MD), Shakira Goffe (VA), Coly Ares (RI), Conor Davis (NJ), Sandra Dumais (NY), Colton Williamson (DE), David Ellis (CT), Elise Koob (MA), Alexei Sharov (MD), Samara Nehemiah (ASMFC Staff), Katie Drew (ASMFC Staff), James Boyle (ASMFC Staff)

SAS Members: Coly Ares (RI), Jessica Gorzo (NJ), Alexei Sharov (MD), Elise Koob (MA), Kelli Mosca (CT), Ben Wasserman (DE), Samara Nehemiah (ASMFC Staff), Katie Drew (ASMFC Staff), James Boyle (ASMFC Staff)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

TAUTOG MANAGEMENT BOARD

Beaufort Hotel
Beaufort, North Carlina
Hybrid Meeting

October 16, 2023

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ATTENDANCE

Board Members

Dan McKiernan, MA (AA)
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake, MA (LA)
Jason McNamee, RI (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
John Maniscalco, NY, proxy for M. Gary (AA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Jeff Kaelin, NJ (GA)
Adam Nowalsky, NJ proxy for Sen. Gopal (LA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Michael Luisi, MD, proxy for L. Fegley (AA)
Russell Dize, MD (GA)
Shanna Madsen, VA, proxy for J. Green (AA)
Chris Wright, NOAA

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

Ex-Officio Members

Craig Weedon, Technical Committee Chair
Jason Snellbaker, Law Enforcement Representative

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
Tracy Bauer
Chelsea Tuohy
James Boyle
Caitlin Stark
Katie Drew
Emilie Franke
Kristen Anstead
Jeff Kipp

Guests

Max Appleman, NOAA
Pat Augustine
Jason Avila
Richard Balouskus, RE DEM
Linda Barry, NJ DEP
Alan Bianchi, NC DMF
Jason Boucher, NOAA
Colleen Bouffard, CT DEEP
Michael Brown, ME DMR
Jeffrey Brust, NJ DEP
Margaret Conroy, DE DNREC
Daniel Costa, RI DEM
Caitlin Craig, NYSDEC
Scott Curatolo-Wagemann, Cornell Cooperative Extension of Suffolk County
Bill DeSteph, Senate of VA
Wes Eakin, NYS DEC
Julie Evans, Evans Communications
Paula Farnell, NC DMF
F Joel Fodrie, Institute of Marine Sciences (UNC-CH)
Christine Ford, NOAA
Marty Gary, NY (AA)
Joseph Grist, VMRC
Allie Hayser, GA Bight Shorebird Conservation Initiative & Manomet
Karen Hedstrom
Jon Hurdle, NJ Spotlight
Denise Kaminski, NYS DEC
Blaik Keppler, SC DNR
Joseph Knauer
Jennifer Lander, NYS DEC
Alyssa Lefebvre, NYS DEC
Nicole Lengyel Costa, RI DEM
Chip Lynch, NOAA
Nicholas Marchetti
Tobias Mattes, Associates of Cape Cod
Joshua McGilly, VMRC
Nichola Meserve, MA DMF
Steve Meyers
Patrick Moran, MA Environmental Police
Brandon Muffley, MAFMC
Allison Murphy, NOAA
Jean Nelson
Thomas Newman
Jenna O'del, DI DEM
Conor O'Donnell, NH FGD
Marina Owens, FL FWC
Derek Perry, MA DMF

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

Guests (continued)

Michael Pierdinock
Will Poston
Tracy Pugh, MA DMF
Paul Rago
Paul Risi
Christopher Scott, NYS DEC
Alexei Sharov, MD DNR
Jared Silva, MA DMF
Ethan Simpson VMRC
Renee St. Amand, CT DEEP
Abby Sterling, Manomet
Rachel Sysak, NYS DEC
Laura Tomlinson, MA DMF
Sam Truesdell, MA DMF
Troy Tuckey, VIMS
Andrew Valmassoi, NC DMF
Beth Versak, MD DNR
Mike Waine, American Sportfishing Assn.
Craig Weedon, MD DNR
Jordan Zimmerman, DE DFW
Erik Zlokovitz, MD DNR

The Tautog Management Board of the Atlantic States Marine Fisheries Commission convened in the Rachel Carson Ballroom via hybrid meeting, in-person and webinar; Monday, October 16, 2023, and was called to order at 1:25 p.m. by Chair Michael Luisi.

CALL TO ORDER

CHAIR MICHAEL LUISI: Welcome back from lunch, everyone. If everyone can please have their seats, we're going to go ahead. I would like to, as Chair, kick off and call to order the meeting of the Tautog Management Board. My name is Mike Luisi, I am the Administrative Proxy with the state of Maryland, and will be chairing this meeting today.

Up here at the table with me I have James Boyle, our FMP Coordinator, Jason Snellbaker, representing the Law Enforcement Committee, and Dr. Katie Drew, with ASMFC's Science Group, I guess you can call it, in case there are questions related to that. Jumping right in to the first item on today's agenda.

APPROVAL OF AGENDA

CHAIR LUISI: The first item is to approve the agenda. Are there any modifications for the agenda as it stands? Seeing none; I'll assume that is a consent to approve the agenda, so consider the agenda approved.

APPROVAL OF PROCEEDINGS

CHAIR LUISI: The next item on the agenda is approval of the proceedings from the August 2, 2023 meeting. Are there any modifications to the proceedings to suggest? Seeing none; consider the proceedings approved by consent.

PUBLIC COMMENT

CHAIR LUISI: That gets us to Public Comment. Is there anyone from the public that would like to provide public comment on something that is not on the agenda? If it's related to agenda items, there will be an opportunity to provide your comment during that time, if the Board is considering taking action.

Seeing none; I can't see online. Is there anyone online? Okay, so seeing no hands from the public on items that are not on the agenda, let's go ahead and move into Item 4 on the agenda. There was a hand, I'm being told, Nicholas Marchetti. Did you want to make public comment on something that is not on the agenda today?

MR. NICHOLAS MARCHETTI: I didn't see what was on the agenda to begin with.

CHAIR LUISI: Okay, well the agenda is posted online. The main item on today's agenda, which you can find if you go to the Atlantic States Marine Fisheries Commission's website at ASMFC.org, and go to the Annual Meeting. There is a posted version of the agenda with all of the necessary information for you to follow along. The main item for consideration, we're going to receive a Technical Committee report on the tagging program, and so there is likely going to be discussion around that program. If you have any comments that aren't related to the commercial tagging program, now is the time. But if not, if you want to hold your comment to the tagging program, I can call on you then. It's up to you.

MR. MARCHETTI: I do have comment on the tagging program, so would you like me to wait?

CHAIR LUISI: Okay, so I'll put you down. I'll make note here and give you an opportunity, Nicholas, when we have that discussion about the tagging program.

CONSIDER TECHNICAL COMMITTEE REPORT ON COMMERCIAL TAGGING PROGRAM

CHAIR LUISI: Moving on to our really only action item here today, or possible action is just that. It's Consider the Technical Committee Report on the Commercial Tagging Program. We're going to get a presentation from James, and so James, whenever you're ready we can go ahead and kick that off.

MR. JAMES BOYLE IV: We can just jump right into it. I'm going to be presenting a pretty quick update on the progress the TC has made since the last meeting in August. The TC met shortly after the August Board meeting to respond to the Board motion taken in that meeting, which tasked them with evaluating the smaller version of the current tag or NBT tag, as I'll refer to it later, and determine any other tags that may be feasible for the commercial tagging program.

At the meeting the TC identified the T-bar and Petersen disc tags as potential alternatives to be tested, and the dark tag was added later from discussions after the meeting. New York is planning to conduct the study by issuing 50 tags each to a number of dealers and harvesters that have volunteered to do live market testing, therefore, the fish will be held in actual market conditions. The participants will have a daily survey and send photos twice per week to monitor the health of the fish over time.

However, in the discussion it was noted that given the short turnaround to the annual meeting from the August meeting, the only feasible study could only include the smaller NBT tag and be conducted over just two weeks. In order to make the study more robust, it was decided to expand it to 30 days to evaluate all potential tag types. But consequently, there are no results available as of yet. Now with that, I'm happy to take any questions.

CHAIR LUISI: That is how quick reports can be when it wasn't actually carried out the way that it was expected to. Any questions for James on the tagging report? John Clark.

MR. JOHN CLARK: My memory was refreshed that the reason why T-bar tags weren't considered initially, was because it was thought they could be reusable. Is the Committee thinking of any ways that if a tag like that, that probably is superior, in terms of not damaging the fish is chosen, that they could be accounted for, so that the tags couldn't be reused, or just looking right now at tag retention, and whether it damages the fish?

CHAIR LUISI: James.

MR. BOYLE: Yes, so the Committee right now is just looking at whether the tag is feasible to work, in terms of the health of the fish. But the plan is to have law enforcement involvement during that study, especially in New York, to evaluate the feasibility of the tag from that other perspective as well.

CHAIR LUISI: Yes, John, there have been issues that have been raised over the past few years regarding the tags, where the tag is placed on the fish, and some of the consequences, I guess, to the fish that are ultimately going to be part of the commercial sale. We're not protecting them, but I guess the consequences would be to the health of the fish, as it's held with a tag prior to sale. John.

MR. CLARK: If I could just follow it up, Mike. Exactly, I mean I know that was the concern, and that's why we went with that tag that really could not be reused, but obviously it's causing damage to the fish. I'm just thinking, if we were to use something like a T-bar tag, it would seem like we would need a way to account for the tags at both ends, both with the fishermen and at the dealer end, to make sure they are not reused.

CHAIR LUISI: Others may have a different opinion on this, but I know that the tag we currently use is designed not to be reused. But in discussions I've had with my staff, and I've seen some examples of those tags being able to bend a number of times prior to having them snap or break. Maybe that's something down the road that we could also work on as well. Are there any other questions for James? Yes, Roy Miller.

MR. ROY W. WILLER: Wouldn't the T-bar tag be subject to the fish, other fish in the tank removing them, considering tautog is harassed in their feeding strategy, wouldn't they be inclined to pluck off a T-bar tag?

CHAIR LUISI: My aquarium at home doesn't have a tagged tautog in it, so Roy, I don't know what to tell you on that one. Yes, others may have an observation, I don't know. It could be, and I also am not aware of the containers for which these fish are being kept either, whether it's all one species or a number of different species, or how they would interact.

It's beyond my knowledge of the issue, sorry. James, did you have anything? Are there any other questions? John, I'll come to you in just a second, I'm going to go to Dan McKiernan and then John Maniscalco, I'll come back to you. Go ahead, Dan.

MR. DANIEL McKIERNAN: Was the TC going to endeavor to shed light on like holding conditions, like density of the fish and length of fish, and trying to understand the real need for this. I do recall that when the first tag was tested, even though it was smaller, same design and principal, it probably wasn't held for very long or in high density, and maybe degraded water quality, and so everything looked fine. I'm wondering, if as part of this investigation, the TC could look into the actual holding conditions that the dealers are subjecting the fish to.

CHAIR LUISI: James.

MR. BOYLE: The point of having the study design the way it is through New York is because as I said it will be in actual market conditions, is definitely something we can make note of in this survey, to have a note of what each individual dealer officer is doing and that might shed some light on that.

MR. McKIERNAN: I would request it not just be a written survey, but maybe folks go into those facilities and take a first-hand look at it. I think that would be really valuable.

CHAIR LUISI: I'm going to go online, I have John Maniscalco. John.

MR. JOHN MANISCALCO: I was just going to touch on a couple of points. The tamper ability of that current tag that we are using was demonstrated to me they can be repeatedly use, and I understand there is a small market in those tags alone. It is not a perfect solution, and then just regarding, you know holding conditions.

Fishermen and dealers have held tautog for many years prior to the tagging program, and it didn't result in the infection and the mortality that we're seeing. I think it's more upon the program has to adapt to their practices, not their practices have to completely change in order to accommodate our tag.

CHAIR LUISI: Are there any other questions? Seeing none; anything else online? Yes, Nicholas, I'll come back to you. I have you marked down as a note to provide public comment. There is nothing to discuss at this point. If there are no questions, I'll turn to the Board, seeing that there are no questions.

I'll ask if anyone has any possible action or potential action they would like to take, in the case of the tagging report and the questions and answers that were given. What are the next steps, where do we go from here? Okay, we're anxiously waiting for a hand to raise. John Maniscalco.

MR. MANISCALCO: I have a short presentation prepared, if you'll give me a few minutes of the Board's time.

CHAIR LUISI: Yes, we can do that. We're going to get it teed up for you, hold on one second. Okay, it's all you.

MR. MANISCALCO: Thank you all today for allotting me some time to discuss the tagging program issues and since time is short, I'm just going to get right to it. The commercial tautog tagging program was established by Amendment 1 back in 2017, to address poor coastwide stock status and the black market for live fish.

After delays the program was implemented by many states in 2020, although some, New York included, implemented in 2021 due to COVID. Section 4.4.1 of Amendment 1 includes four tagging program objectives, that included as an aid to enforcement through easy identification of a legal fish in market, that tags must be consistent across states.

That tags should be single use, difficult to fake and fully accounted for at seasons end, and finally that tags must be compatible with a live market (more on that later). A quick review of the 2022 commercial fishery and tag use. There are just over 1,000 participants coastwide, most of which are in the northern part of the fishery, and almost half of which operate in New York state. Over 250,000 tags were issued in 2022, and 160,000 were reported used over three-quarters of them by New York state fishermen. So, 2023 marks the third and fourth year of programs implementation by participating states. The Law Enforcement Committee feels that the tagging program has successfully reduced illegal harvest and sales, pushing it further underground. This change cannot be quantified, as most states lack this path due to track citations and violations issued by species over time.

Regardless, tagged fish are easy to see any can be traced to the original harvester in some cases. There is also support for the program, if not the current tags, by participating fishermen if the tagged fish inhibits markets from being flooded by illegal fish maintaining demand and price. While many states that share complaints about the tagging program upon implementation, New York heard many regarding mortality, damage and infections at the sight of tagging, and impacts the fish value.

New York initiated a survey of its industry in 2022, which confirmed that these issues were widespread throughout New York. ASMFC followed suit, and the Technical Committee developed and distributed the survey early in the spring of 2023. The survey was summarized in a TC memo late May, and provided to the Board during the summer meeting.

In brief, live market participants from Massachusetts, Rhode Island, Connecticut, New York, New Jersey and Virginia, all reported excessive mortality, damage and lesions. Ten to 25 percent of their product was the most common saved portion of their harvest affected, but some responses went as high as 75 to 100 percent.

Since the live market wants pristine fish, these fish fetch a much-reduced price or are rejected outright. In summary, there is support for tagging by both law enforcement and some fishermen. However, the current tag results in additional mortality and damage to live-market fish. This represents a serious negative economic impact to participating fishermen, many of which are from New York state.

Tagging impacts are contrary to Objective 4, which specifically states that the program must have minimal to no impact on the appearance or condition of live fish to the amount of time that live, tagged fish are maintained until consumption. I'll remind the Board again that this market and the practice of holding fish existed prior to the tagging program.

We are beyond growing pains that the program has been implemented for three to four years now in participating jurisdictions. Regional stocks have improved since Amendment 1 was passed. As of the last assessment, overfishing was not occurring, and the New York-New Jersey Bight regional spawning stock biomass was just under the threshold. What is currently being done? New York has been cooperating with the Technical Committee and ASMFC leadership to continue to test alternative tags and tagging locations.

Last test run late spring, early summer, did not have positive results. Tags among fin rays did not last and fell out, tags in the caudal peduncle caused moderate damage, even after a short holding time, and the cinch or zip type style tag resulted in significant abrasion after a short holding period. After Technical Committee feedback in mid-August,

New York state hopes to continue with looking at the Floy T-bar style tags and the original small strap tag New York initially tested din 2016. An alpha numeric solution has been found for the numbering issues that originally caused ASMFC to switch to the current larger untested tag. No tagging alternatives will be ready to implement for the 2024 fishing year. New York feels that the impact to live-market participants are not acceptable, and contrary to the tagging program objective stated in Amendment 1.

Due to the lack of an acceptable alternative, New York proposes that the tagging program be suspended for 2024, while viable tag alternatives are identified and tested, with industry cooperators. The ASMFC would have to revisit the tagging program and the suspension, once an alternative has been chosen, or if no tag proves suitable.

There is no question that this will be disruptive. New York state administered over 180,000 tags to over 450 fishermen in 2022 and this effort dwarfs the rest of the coast. My hat is off to all the staff here that made this program happen in New York and elsewhere. Resuming the program will be a bumpy process, but it is New York states intention to find an alternative and to resume the tagging program.

The current tag and its impact on the live-market fishery is not acceptable. It is contrary to the program objective, and has economic consequences for fish, in an effort to stay in the live market. That includes fishermen, as shown by a 2023 TC survey from nearly every state in the fishery. Massachusetts, Rhode Island, Connecticut, New York, New Jersey and Virginia. Thank you for the time today. I expect there will be some discussion, but I am prepared to make a motion whenever it pleases the Board.

CHAIR LUISI: Okay, thanks, John. I think in order to keep things on track, and there will be an opportunity for discussion and perhaps questions regarding what you're proposing, and any other parts of the presentation that you gave. Let's go ahead and see if we can get your motion up on the board, and I'll look to have you read that into the record, and I'll look for a second.

MR. MANISCALCO: I **move that the Tautog Management Board, by emergency action, as defined in the ISFMP Charter, suspend the Coastwide Commercial Tautog Tagging Program for 180 days to prevent additional negative impacts to the live market fishery and initiate an Addendum that will implement the suspension for the remainder of the 2024 fishing year and consider a longer term suspension if a suitable tag, satisfying Objective 4 in Section 4.4.1 of Amendment 1 cannot be identified in time for implementation for 2025.** If I have a second, I can speak to the motion.

CHAIR LUISI: Yes, I'll come back to you, John, hang tight for a second. We have a motion made by John Maniscalco. I'll look to the Board to see if there is anyone that will second that motion. Justin Davis is seconding the motion. John, do you want to speak to your motion?

MR. MANISCALCO: Sure, thank you. I hope that my presentation provided the Board with the information they need to see a tagging program suspension for 2024 is necessary. Wide spread issues with tags damaging live-market fishery wherever it occurred, not just in New York, which is contrary to the program objective stated in Amendment 1, and meet with stock hurting law abiding fishermen while a suitable alternative is found. I know that use of another emergency action is not popular at the moment. The definition of emergency shall apply, and I'm going to paraphrase, when the attainment of fishery management objectives has been placed substantially at risk by unanticipated changes in the fishery. Now New York raised the issue of industry difficulties with the current tag a number of times in the state wide implementation in 2021.

I have heard a number of times that we aren't seeing this in my state, that this is growing pains, or

that it's a New York problem. The 2023 survey summary from the TC, shared with the Board during the summer meeting, shows that the live-market fishery participants in almost every state in the fishery are seeing difficulties with this tag.

It damages their product, and as you can read in supplementary materials, or hear from public participants today, hurts their market. That revelation of coastwide live-market impacts was quickly followed by a mid-August Technical Committee memo that notes that no tagging trial of sufficient duration can be conducted in time for the annual meeting.

This is the first time that the Board can react to the news that the tag is the problem, counter to program objectives, and that no solution is available. Our choice is to subject fishermen to a tagging known out not suitable, or suspend the program today, while we continue to identify something better. Alternative processes like a fast-track addendum will not provide fishermen or states the certainty they need to have for 2024, as no decision will be made until much later in the year, if not January.

CHAIR LUISI: I'll next go to our seconder. Dr. Davis, do you have anything you want to add?

DR. JUSTIN DAVIS: I think John did a great job of laying out the rationale for this motion, so I won't belabor it. From my standpoint, I think this is a reasonable ask. It's a valuable program. It's clear that it is having an impact on illegal live trade. I think it's also clear that it's having a negative economic impact on fishermen who are participating in the fishery. I sort of feel like the long-term success of this program is going to be most assured, if we're doing it in a collaborative, cooperative manner with the commercial fishermen.

I think this is just a reasonable step back to say we know that these tags are having a negative economic impact. We're going to go back and reassess how to avoid that in collaboration with the commercial industry. You know, could this lead to an uptick in illegal live trade during the year that the program is suspended? It could. I think ultimately that's a worthwhile tradeoff, if this ensures the long-term success of the program, and they can operate in a way and not have a negative impact on the fishery.

I think this is a reasonable ask. I will admit, I have some qualms about using emergency action to implement this. I'm not going to at this time sort of contemplate an amendment or a change to this motion, to do it a different way. I'm interested to hear the conversation around the table, and whether there is support. But I will note for the record that I'm not sure this is appropriate for emergency action.

CHAIR LUISI: I think before we take the vote, I want to make sure that all the Board members are clear as to process, because the 180 days that is part of the emergency process, doesn't get us through the entire year, which means another document, an amendment to the document or an addendum. I guess an addendum wouldn't need to be started. I think we can have that discussion if there is any disconnect between this motion and kind of what the foreseeable future looks like, as far as Board actions. Shanna, I'm going to come back to you. I had Bill Hyatt, and then I thought I saw another hand, Jason and then Shanna. Then we'll just bounce back and forth. Go ahead, Bill.

MR. WILLIAM HYATT: I support continuing to look at alternatives within the tagging program, but I'm against taking a pause in the program. Outline a little bit my thoughts. The 2021 stock assessment update showed improvement across all regions regarding tautog, but the success wasn't universal.

I think as you saw from John's presentation that the population in the New York Bight was still remaining to be overfished. Plus, the recovery in the two northern regions, Long Island Sound and Mass and Rhode Island was not something I would say is a dramatic recovery. The biomass levels that resulted were nowhere near historic levels for tog.

In fact, I would say that the recovery in those regions, both Long Island Sound and Mass/Rhode Island was wafer thin. I wish that at some point if somebody was able to pull up some of those graphs on the biomass from the 2021 stock assessment update, I think it would be useful for folks to look at.

The tagging program was implemented to address a well-documented problem of illegal harvest, and our best information is that it has been successful at addressing that problem. I think that was reflected, not only in the presentation we just saw, but also very clearly in Kurt Blanchard's comments in the proceedings from our last meeting.

Lastly, I'll point out, that this fishery is worthwhile to protect the interest of the commercial fishery, but this fishery is over 90 percent recreational, and that is where the vast, vast majority of the benefit lies. That benefit depends upon having robust and recovered tautog stocks. This is a long-lived species, a species that I think it is very reasonable to say is vulnerable to local overexploitation problems.

For all those reasons, the fact that there has been a wafer-thin recovery in this stock as reflected in the 2021 update. The fact that the tagging program has been successful, and the very high value of this fishery to the recreational sector. I would argue that while it absolutely makes sense to continue looking at alternatives, it absolutely doesn't make sense to pause the program.

CHAIR LUISI: Jason, I'm going to go to you and then Shanna, you will be next. Go ahead, Jason.

DR. JASON McNAMEE: I'll just note before, when you were talking about the emergency rule, I saw Bob Beal raise his hand. I don't know if you want to go to him and come back to me. Sticking with me. Okay. I'm not going to restate everything that Bill Hyatt just said. I agree with everything he said. Just like Bill said, fine with new alternatives being tested, but I think pausing the program for any amount of time is extremely problematic for the states that have successfully implemented the program. To stop it and restart it again is not something I think would work really well in Rhode Island. Just another couple of notes to show that I think the program is working well. I mean we've seen landings increase, I think across the board, which means people are doing a better job reporting their catch. In the data in Rhode Island, I kind of wondered about, the comments about the economic impact.

We took a look at the average price per pound in Rhode Island, and it's gone up during the time period. We're not seeing the economic issue, at least it's not making it into the data. I can think of a couple of ways that might be occurring. But looking at the numbers, the price per pound in a couple of different versions has gone up in Rhode Island.

Again, I'm opposed to pausing the program, totally fine with even, I don't dispute any of those, pictures were ghastly, and I'm glad I ate lunch before I saw them. You know I don't want to see something like that happen to any fish, in particular Tautog. I would even be fine with allowing New York to kind of test some other tag, if they found something that they think is going to be successful.

But that's the other problem here is there is no alternative. You know I think John was very clear in his presentation, the way that I interpreted his presentation is, we're not sure if we're going to be able to find a tag that can sort of meet all of those parameters. Again, opposed to the pause, not opposed to looking for a better. There has got to be a solution out there, so I'm fine to continue to pursue that.

CHAIR LUISI: Shanna Madsen.

MS. SHANNA MADSEN: I actually have two questions before I get to my comment. It was in regards to, first question is in regards to your discussion of the emergency action being 180 days, and then after that point we would have to implement an addendum. Does the Board not have

discretion to extend the emergency action like we did for striped bass?

CHAIR LUISI: The Board can extend the emergency action only if an addendum has been initiated and there is work being done on an addendum, is my understanding. You can't go another year from the 180 days, without having started something new. That is essentially going to take the place of the emergency, or in some way either let the emergency expire, or have an addendum in place to set the direction for management moving forward. Hope that's clear.

MS. MADSEN: Yes, that actually helped a lot, Mike, I appreciate that, because that kind of gives me a lot of pause then to also have to think about bringing in an addendum to the table. My other question is actually for the Law Enforcement Committee. Has the Committee, I know the Committee meets, I think tomorrow. Has the Committee been given a chance to discuss the implications of pausing a program and then having to bring it back and reimplement it coastwide?

CHAIR LUISI: Okay, I don't know the answer to that one, so I'm going to turn to Jason.

MR. JASON SNELLBAKER: We have not had the opportunity to discuss that.

MS. MADSEN: Okay, so I guess that kind of leads into my comment. I won't repeat what Bill Hyatt and Jason McNamee said. I am in complete agreement with what those two gentlemen brought up. I also agree with the end of Justin's statement, and the sentiment that I don't feel comfortable moving this forward as an emergency action.

I also don't feel comfortable with pausing this program, in order to well, essentially go in and put an addendum in place. It looks like we would have to pause the program for 180 days, start working on an addendum, and then potentially continue with the emergency action through 2024. I think that is a lot of lift for staff. I think it would be incredibly problematic for the whole coast to have to pull that section out of regulation, put it back in, and then try to make sure that that is reimplemented.

I don't think that that is really appropriate or helpful to our Law Enforcement, and frankly again, I agree with Jason and Bill. I can't see putting this pause in at this time. But I am in full support again of trying to determine another way forward. There has got to be something else out there that is going to work for this live market.

CHAIR LUISI: I have a couple more hands. What I've heard so far is that the Board members who have spoken, other than the maker and the seconder of the motion, have been supportive of the concept of finding a replacement tag, but no so much in favor of either the emergency style for which this action would need to happen, or suspending the tagging program with a follow up addendum that would have to be initiated sometime between now and next summer. That is kind of the summary of what I've heard. Is there any other new information? I'm going to stay here just for a second, John, and then I'll come back to you. Okay, Emerson Hasbrouck.

MR. EMERSON HASBROUCK: I fully support this motion. We know the tags are having a negative impact on the fish and on the fishing industry. We're not meeting the objectives of the tagging program. You know, as John mentioned, one of the objectives was to implement a tagging program to accommodate the commercial fishing industry.

We're not accommodating them. We're having a negative impact on the industry. Another objective was to have minimal to no impact on the appearance or condition of live fish. But we're certainly having a significant impact on the appearance and condition of live fish. We're violating both of those objectives. This is not just a New York problem.

As John outlined, the survey respondents from all states report serious problems with fish condition

from these tags, and also, I've heard around the table here this afternoon, that this tagging program has been successful for enforcement. I'm wondering how that is defined. You know, what are the parameters here that are defining success for enforcement?

CHAIR LUISI: I don't know, I don't want to put you on the spot, Jason, but I might, regarding what are the parameters for success in the enforcement of the tagging program?

MR. SNELLBAKER: That is one of the things that we've discussed at the Law Enforcement Committee in great length. You know we're seeing success in the program; you know based on the lack of enforcement issues that have occurred. But at the same time, it's kind of hard to qualify, because did the illegal sale and take of these fish, is it more underground? Did we push it underground or is the tag having a direct impact? It's hard to quantify that. We've had those discussions, but we feel that the program is effective, it is working. But again, is it working because, is it going underground and we're not seeing it, or is it legitimately 100 percent keeping black market fish from getting into the market and being sold?

We've also had instances where, like I'll speak on New Jersey, since that is where I'm from. You know we've increased the penalty to $100.00 a fish versus $30.00 a fish, and that could be an indirect result as well. That could kind of convolute what we're actually seeing and why we're seeing it. Is it the penalty or is it the tagging program?

You know the Law Enforcement Committee is where some ongoing coaching issues that the tagging program will be assisting us in prosecution down the road. It is not available for discussion at this time, but there is a few pending cases that are out there that the tagging program is going to help us with prosecution matters. That's all I have at this time.

CHAIR LUISI: Was there anyone else that wanted to speak? I saw Dan's hand. Let's do this. I'm going to go to Dan, then we're going to take some public comment on the motion, and then we'll take a break for a quick caucus, and we'll call the question and see where we end up. Go ahead, Dan.

MR. DANIEL McKIERNAN: Yes, I have three points to make. First, over the lifetime of the program in Massachusetts, the ex-vessel price of tautog, prices paid to fishermen by dealers has gone up 11 percent, so we don't see the negative trends in the value of the fish. I'm not minimizing that some dealers might be caught holding fish they can't sell, but to my earlier point, I think that it would be really useful to get a more complete description of the holding conditions, and what the expectations of dealers are.

That's the first thing I want to say. The question about, how can you measure the effectiveness of the enforcement. There was an individual in Massachusetts who was not only a fisherman, but he was a dealer himself. He had a fish returned to him, because the New York environmental police went into the market, saw the fish, pointed it out to the New York dealer, and the New York dealer shipped it back to him. This fish was caught by that dealer, because he also had a rod and reel permit, so he was out of his mind.

But sure enough, it was a 15-inch fish, it was an inch too short. That's the kind of enforcement accountability that we've got with this tagging program. Then the last thing I'll say is, while it's not measurable, I did speak to a prominent New York dealer a year after Massachusetts enacted the tagging program, who said that when Massachusetts enacted the program, his fish were worth more, because the illegal fish from New Bedford were no longer on the New York market.

That is a real win for us, because as Bill Hyatt said, it's predominantly a recreational fishery, and to us the poaching that was occurring was not only rampant, but spectacular. I mean we had busts of like thousands of pounds of fish, completely off of the reporting system in the past. I am opposed to

the motion, but I am in favor of maybe a white paper of some kind that better describes the challenges that the dealers have, and also looking at the overall economic considerations, because we don't see the negative economic consequences in Massachusetts.

CHAIR LUISI: John, staff told me your hand was up, I'll give you the last word, and then I'm going to go to the public. Go ahead.

MS. KERNS: Mike, I just want to let you know, Chris Wright has had his hand up, he is your NOAA Rep, for a little bit online, just as a heads up.

CHAIR LUISI: Okay, thank you. Chris, why don't we go to you, since you've had your hand up for a while. John, hold off for a second then we'll come back, and you can have the last word before we go to the public. Chris.

MR. CHRIS WRIGHT: Yes, sorry I'm not there in person and I got stuck online. But I'm a little bit leery about suspending the program. My original question was, I believe for Dan, in regards to the study. Are they going to have a control where they're going to have untagged fish in this study, you know in the same tank, so that you can get a comparison?

Just a follow up to that is that, before we have the tagging program, did we have condition issues with those live-fish market type fish of sores and stuff, just from folks' memory, because I wasn't on the Board for tautog before that, and I'm just trying to get a gauge of what the past conditions were.

CHAIR LUISI: I'm sorry, Chris, I was talking in a sidebar. Was there a question that needed an answer? I'm sorry, I missed the last about 30 seconds of what you said.

MR. WRIGHT: Yes, I wanted to see if there was a control with the study that Dan was proposing, and then a follow up question, in regards to the condition of the fish prior to the tagging program, if folks have a recollection with their, I guess fish-type issues, in regards to their condition, you know being held in those live tanks. I'm not sure if you heard my original thing. I thought I was getting through, I'm not sure. Can you hear me still?

CHAIR LUISI: Yes, we can hear you. We heard everything you said, I just leaned over to talk to James quickly, and then you stopped talking and I didn't know how you ended your statement. Let's go to James and see if he has any thoughts on the study design, and then we can take your follow up from that.

MR. BOYLE: I'll defer to New York if there is a correction here, but to my knowledge there was not a discussion of having an untagged control group. But it is something that can be considered. There was some discussion about whether the fish can be purchased, to better control the length of time that each individual fish remains in the tank. If that were the case, then it can be something that can be considered, but it has not been implemented in the study as of yet.

MR. WRIGHT: I would think that that control would bolster the results, in regards to if there is a holding tank and it is putrid. I've done fish work and tagged fish and did controls. I did these kinds of studies before in my past, and we always had a control. I would suggest that we would do a control for this too, it wouldn't be that hard to do it, especially if it's a small amount of fish. Then my one more question prior to that was that prior to this tagging program did we have fish condition issues?

CHAIR LUISI: Can you say that again? You cut off there for just a second.

MR. WRIGHT: I said prior to the tagging program, did we have fish condition issues in the live market? Did that come through?

CHAIR LUISI: Yes, thanks, we were just trying to figure out who the best person to answer that. James and I, neither of us have experience or have

seen any of the fish part of the tagging program, but Jason Snellbaker has something he wants to offer.

MR. SNELLBAKER: It's been my experience it runs the gamut. You have some dealers that keep their tanks really clean, and you have some dealers that there are green algae growing in the tanks, and who knows what else. I'm not an expert, but personally I have been in some of these markets, and I would not want to consume some of those fish. Other markets are definitely taking more time and keep their tanks cleaner and par for human consumption.

CHAIR LUISI: John, did you want to take a moment for last words, and then I'm going to go to the public.

MR. MANISCALCO: I definitely encourage you and everyone who is listening to what members of the public have to say about this. But I did want to cover a couple of issues. I mean anytime you're holding fish, some proportions of those fish do die. But live market and fish holding has been happening for a long time prior to the tag, and we never had reports about these large, unsightly lesions.

Certainly, my e-mail box was never filled with pictures with ghastly lesions on their cheeks, but it is now. In terms of impact of this program on stock conditions. I just want to remind everyone, it was already covered, but if 80 to 90 percent of the fishery is recreational, you can't expect that tagging program alone is going to be responsible for any kind of downturn or upturn in the population. I'll just go back to the fact that the New York-New Jersey Bight stock status is an improvement.

It has been steadily recovering from being overfished, and like I said, it's just below the threshold now. I find it interesting that people claim this program is successful. It's successful in meeting some of the objectives, and many of those have been covered well by others. It's not successful in meeting Objectives 3 and 4. It is a tamperable tag. It can be and is being reviewed, and this tag is certainly not suitable for live-market fish. We're seeing lesions, we're seeing damage.

We're seeing mortality that is all contrary to Objective Number 4 of the tagging program. To leave it in place, when we know it's not doing what it was intended to do, is wrong. I am completely behind the program resuming, once we have a tag that doesn't result in this kind of impact to the live-market fish, and the fishermen who take them.

CHAIR LUISI: Okay, next I'm going to go to the public. I apologize. I could only see kind of silhouettes, because of the sun behind you. Can I just see a show of hands? Mr. Vincent, I see you. Does anyone else from the public that is here want to provide comment? We just have the one here, and then I assume Nicholas will want to. If anyone online can also raise their hand if they want to provide comment?

I just want to get a sense as to how many people we're talking about. It looks like we just have the two public comments, so we're going to go ahead and give you guys three minutes to provide that comment, if you can get the stopwatch out. Mr. Vincent, if you could take a seat, there is a public microphone. If you would also, please, just recognize yourself, maybe if you're speaking for a group, and if you could direct your comments to me that would be fantastic.

MR. TOR VINCENT: Tor Vincent, New York commercial fisherman. I would like to address the price up first. Rhode Island and Massachusetts implemented their tags during the COVID restaurant collapse. The market was collapsed, we couldn't sell our fish. The price was depressed completely, and that was an extended duration until those restaurants got up to selling the product again like they used to.

The market rebound of price they are describing was from a collapse during COVID normalized. We still have a price below what we should have had, even considering in place and everything, we should

be way higher, because of the damage to the fish. I used to be as much as 5 percent of the New York harvest in some of the old records.

I sell all my fish myself into the city market. I have extensive knowledge of this, I've been around holding systems for 40 years. I understand what happened. When you guys talk about control, flip the fish over to the side that doesn't have the tag. The fish is perfect. Okay, when I deliver any fish that has a scar on it, it is handed back to me, it is worthless, the same as a dead fish.

When I deliver, I am also given pictures of the fish they had to remove from the tank because they were scarred and unsaleable, and I have to foot credit for those. I have to give them replacement fish. That all is adding up, and anything I store in my tank to lose track of and come back to, has a massive scar, and I can't sell it.

When you did your tank testing, you ignored the known science of closed system facility. The flora of the fish that are in there give off all sorts of bacteria, among them the gram negative spackles of Aeromonas bacteria, which are known to cause infection. We learned all this through the lobster tags, through the lobster shell disease problems. This is all known science. That was ignored in your testing. That is your responsibility to have used the known science in the testing, and you ignored it.

We are here, because no proper testing was done. This would have been avoided had a proper test done. Now you are playing this game where we made a mess. We're going to try to push it down the road. You never tested properly, if you had you never would have approved those tags, period, no way. The damage is extensive all the time, and you can see it happening. We've shown you pictures. In your records I showed you a picture, one side infected and the other side perfect. You have that in your own document. We can see that any time. What happened here is a complete collapse of the decency of you to do proper science.

You failed at that, and now you're trying to cover this up with all these sidebars. Do the proper science. Accept the fact that you did extensive harm, and find a way to begin apologizing, and find a way to figure out what you are going to do about that. We have all sorts of market analysis from the lobster shell disease value difference.

These are not marketable, these had to be discarded, these had to be sold dead, and it is an exclusive perfect fish market without a doubt. What you've done is extreme damage. I would like to see you in your tank testing, test the damage from the original tag, so you can qualify the harm that's been done, and do it in a closed system facility. Do pathogen testing. Do all of that in the systems you're working on. That is all a hundred-dollar test, easy to do. That gives you a comparison to a normal fish tank. All that is available. I'll leave it at that, thank you.

CHAIR LUISI: Yes, thank you very much for not only being here, but providing your thoughts and for that testimony. We have one last person who would like to speak that is online. Nicholas Marchetti.

MR. MARCHETTI: How are you doing? My name is Nick Marchetti. I'm a commercial fisherman in New York. I've been fishing this fishery since 2010, from when it opened to when it closes, trap and rod and reel. These tags in the last two years have killed so many of my fish, because we have to handle these fish in hundred-degree weather days.

It takes time to put this tag in, and as soon as the fish jump, it hits the gills and the fish die by the time you get back to the dock. It's not working at all. Not only does New York have to pay, we have to pay out of our pocket for the tags, now we're losing fish on top of that. Now, we're double dipping into our pockets.

I said this a long time ago at this meeting. If you do not hold a commercial fishing license for blackfish, you should not be in possession of live fish. There is no reason why states can't implement this. You

implemented a circle hook for striped bass fishing. There is no reason why we can't implement this.

This would drop this off and make the fine so steep that people are not going to want to keep them alive. There is no reason for a recreational fisherman to hold a live fish back at the dock. There is absolutely no reason. This would stop the black market; it would fix the fishermen that are doing this for a living. It would help them.

We would stop buying the tag and killing our fish. These are not lesions, these are not sores on the fish. This is a disease, a flesh-eating disease. The fish's face is melting off of it. Then feeding this to humans, eventually somebody is going to get sick and possibly die from this, because this is a disease inside the fish. The guys that are buying the fish from us don't want to lose money, and they are selling the fish. Now the restaurant is taking the fish. They do not want to lose money; they are going to sell this fish to a paying customer, and they are going to eat it, and the person is going to get sick. This tag is not working, it hasn't worked from the beginning. Yes, it's helping stop the black market, but it's coming out of our pockets in the end. We're losing a lot of money here. We're not saving anything. You guys are going off our trip reports saying oh, these guys are catching a lot more fish, the stock is up.

It's not, because you want to know why? Because now you have people that just hold a food fish license, and they're scared that they are not going to get tags so now they are filling out trip reports. They're not even fishing, they are filling out trip reports and just putting this in so they get their tags. They are scared that is going to turn into the bath tag situation, where the last person standing with all the tags wins.

That is the problem. That is all I have to say. But I've been doing this for a very long time. I've never seen so much death in the last two years of this tagging program. I've never had a problem selling live fish. I've never had a problem keeping live fish. There is not enough science here, it should be taken away, until we can figure out a better solution for this. That's all I have to say, thank you.

CHAIR LUISI: Thank you very much for your public comment. I assume there is going to be a need for a caucus. Before we take a caucus, Emerson, do you have something new to provide to the discussion? Go ahead.

MR. HASBROUCK: Yes, I have something new. I would like to offer a motion to amend, and I'm going to do this kind of the fly here. If we could on the existing motion eliminate, starting with by emergency action, eliminate by emergency action as defined in the ISFMP Charter, suspend the coastwide commercial tautog tagging program for 180 days, strike that, and then continue.

To prevent additional negative impacts on the live-market fishery, delete and. Live market fishery, initiate, I'm going to say, a fast-track addendum. I'm not even sure what that means, I guess as fast as we can make it happen. Fast track addendum that will implement the suspension for the remaining of the 2024 fishing year. The addendum will satisfy Objective 4 and Section 4.4.1, and you can take out, cannot be identified in time for implementation for 2025. I hope that makes sense. I hope staff was following that.

MR. LUISI: We were trying. Bob.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Yes, they're wordsmithing us a little bit, but I really think it's a motion to substitute. I think what you're substituting is fast track addendum for emergency action, is that generally what you're trying to do? That fast-track addendum will address the negative impact to the live market of the current tagging program. Is that where you're trying to go? I'm just trying to keep it simple.

MR. HASBROUCK: Yes, in fact I was debating whether or not I should offer a motion to substitute or a motion to amend. I just decided to amend.

EXECUTIVE DIRECTOR BEAL: Fair enough, I think substitute might be cleaner though. But it gets you to the same point.

MS. HASBROUCK: Motion or substitute?

CHAIR LUISI: Yes, I would agree. I was going to recommend the same thing. I think there is enough of a difference here that a new motion with the exclusion of the emergency action. Let's wait until everybody gets it all right up on the screen. We'll take our time; we'll make sure it's understood before I call for a second. How does that read for you, Emerson?

MR. HASBROUCK: Yes, I think that is fine, thank you.

CHAIR LUISI: Under this, I want to make sure it's clear and understandable how we would carry out the remainder of this year into 2024. A fast-track addendum, if it were initiated, would be final action in January, possibly? Bob or James.

EXECUTIVE DIRECTOR BEAL: Well, I think the idea would be, what alternatives do you want to include in this fast-track document? Those aren't really spelled out here. Suspension of the tagging program is one of them, I suppose, but are there other things to include? I'm not sure about that. While I'm talking.

You know, if this does get a second, emergency actions take two-thirds vote. But if this motion gets a second, so the motion to substitute will only take a simple majority to become the main, motion. Then, if it becomes a main motion, then it only takes a simple majority as well, because it is no longer considering an emergency. I hope that is helpful. Back to your timing question.

I think it's going to be pretty hard to draft document, and then have the Board approve that document, have a public comment period with the holidays and everything else that happens between now and the January meeting, and have final decision in January. I think it's probably, the fastest probably is draft a document between now and January.

Then have a quick public comment period for 30 days after the January meeting, and then have a special meeting of the Tautog Board prior to the spring meeting in May. Just a standalone virtual meeting of the Tog Board sometime, probably in March, to consider final approval of the document.

CHAIR LUISI: Okay, and that would all hinge on information generated by whatever experiment or tag type analysis is being considered by the Technical Committee?

EXECUTIVE DIRECTOR BEAL: That would be the best-case scenario, yes. The study is conducted between now and the January meeting, as well as drafting the document between now and the January meeting, so with an informed document on alternatives and different strategies for tagging these live fish.

CHAIR LUISI: If this motion were to pass, we would be moving in the process as Bob just mentioned, with the understanding that beginning on January 1, 2024, the tagging program will still be affective and in place. Tags will need to be ordered, and distributed to fishermen throughout the coast, and the idea would be that that would be a continuation of the program for the remainder of 2024. However, depending on the development of the addendum, it could be adjusted at final action of the addendum, which is likely some time in the spring, let's just call it that. I have clarity on process. Emerson, can I ask that you read that motion into the record, since we moved it around a bunch? Then I'm going to call for a second.

MR. HASBROUCK: **Move to substitute to initiate a fast-track addendum that will address negative impacts to the live market fishery, satisfying Objective 4 in Section 4.4.1 of Amendment 1.**

CHAIR LUISI: Okay, we have a motion made by Emerson Hasbrouck. I would look around the table for anyone that would like to second that motion.

Justin Davis is going to second the motion. We've heard some rationale, Emerson, regarding this. Did you want to add anything to your rationale behind the motion?

MR. HASBROUCK: I think we've outlined pretty well the issues around the tags, and the tags are having a negative impact on the fish and the fishing industry. Discussed how the tagging program doesn't meet its objectives, and I think some of the angst around the room might have been an emergency action to suspend the tagging program.

But I also heard that we need to continue to investigate alternative tags. We also need to provide the promise of some relief to the fishing industry, as we move this forward. I hope this helps to satisfy some of the concerns that were voiced around the original motion.

CHAIR LUISI: Is there anyone else around the Board? Any thoughts on this one? John Clark and then John Maniscalco, I'll come back to you. Go ahead, John.

MR. CLARK: Just curious about the process. If New York buys the tags that are causing all the problems right now to be in compliance for 2024, then once this is passed, they can switch to a different tag for the remainder of 2024. Am I understanding correctly there?

CHAIR LUISI: Well, if a different tag is identified in the study that would, let's say, be more successful in its use. The Board would decide on an implementation date for that tag, and when that tag would need to start to be used. However, the way I see it, and as somebody who oversees this work in our state, not that we have a lot of tags that we distribute.

But I think if the tags were to change in mid-season, you would have to order a whole new set of tags with the dates that would correspond with this year, with 2024. You would have two sets of tags out there. This is going to be Justin Davis will be the one answering these decisions down the road. But I think 2024, the way I envision it, whatever is decided here at the addendum process, the implementation would likely be that 2025 season.

MR. CLARK: Right, so this doesn't get to New York's immediate problem, it wouldn't be until 2025 really, if they get the relief that they are seeking now. Just want to be clear on that.

CHAIR LUISI: Yes, this does not suspend anything. It could potentially suspend the whole program, but it wouldn't be until later this year. We would be working under the assumption that we would be operating as standard with our tagging programs. I'm going to go to John, clear the deck online, and then we're going to come back.

I want to be mindful of time. We are a bit over our time period allotted. I'm going to go to a couple more comments, we'll caucus, and then we're going to vote these motions up or down. John Maniscalco, you're next, and then Shanna and then I had somebody. We'll go to Shanna and then I'll take one more. Go ahead, John.

MR. MANISCALCO: I appreciate that the emergency action wasn't preferred. But this certainly calls into question the whole timing of everything. I just want to make it very clear that as much as we would like, New York state does not have the capacity to catch these tags and provide ASMFC with any kind of certain viable alternative by the January meeting. I mean, if we did have that then maybe my initial motion would have read quite differently.

But a suspension of the tagging program is really the only way that we're not going to force our fishermen to destroy some of their live product in 2024. I'm not sure how, as much as I would like to be able to support the substitute, how that is going to accomplish that, given the timing that Bob Beal laid out. That we wouldn't even be at the decision-making point until May. I was under the assumption that at the very least, a fast-track addendum could move more quickly than that.

CHAIR LUISI: Shanna Madsen.

MS. MADSEN: I think this is a question for James. If we switch tag types, does that require an addendum?

CHAIR LUISI: James.

MR. BOYLE: No, I believe the FMP only requires that every state use the same tag, but does not specify the type of tag. That would not require an addendum.

MS. KERNS: Mike, if I can interject. The tag type was a part of the implementation plan. That is where we would do that, and the Board can approve implementation plans through Board action. But everybody has to have the same tag as identified in the FMP.

CHAIR LUISI: All right, thanks, Toni, you're like my kids. They ask a question then they do it anyway, before I give them the thumbs up on it, but it's all good. Sorry you couldn't be here with us today. Is there anyone else around the table that would like to provide any comment? We are going to take a quick break to caucus. Go ahead, David, really quick.

MR. DAVID V. BORDEN: It's good for people to ponder during a break. Could we eliminate the need for an addendum if the states that are eager to get on with looking into this, develop an alternative tag and then bring results back to us, because the Board approved that alternative. We would just say that that is another way we would certify that as an acceptable way of tagging the animal, and eliminate the need to do an addendum at all. Would that accomplish the same thing without all the work?

MR. LUISI: Yes, I mean that is a reasonable expectation, David. I think had the work been done to provide us that information today, we would be on a totally different footing, as to what the next steps are. We don't meet again until next year. The study has yet to be finalized, as to when and how, and we had some ideas today about other additional elements for the study design.

That is not tightened up enough for me to guarantee in any way that there be information to support a decision that would change the tag type prior to early December, I'm sure, when states need to start their ordering process, and figuring out what it is they have to purchase for 2024, starting, you know the first of the year. It's a timing issue more than anything right now.

I'm envisioning that we, depending on what path is here, we would get to our January meeting with more information about what the next steps might be on a tagging program. If we want to continue it, maybe we would make a change to the tag type, and then based on the study, we need something to inform us, is the way I see it. We don't have that yet.

That's just my personal understanding of the situation, and it's tough to make that call when you don't have the information to make that decision. I think we would wait on all that information, make a decision, and then move forward, 2024, it just gets mixed up in the crosshairs. John, James told me you had your hand up. Go ahead, John.

MR. MANISCALCO: I was muted and talking to myself. I was hoping that I could ask Bob one more time to go over the fastest possible timeline for implementation for a fast-track addendum. I was under the opinion; my understanding was that it could happen much quicker than May. It doesn't matter what trials we have a chance to run, it doesn't matter whether we do this by changing the implementation plan.

If we are still in a place where we are forcing a tag upon fishermen in 2024, then we are continuing to impose this economic impact on fishermen, forcing them to use a tag that we know destroys their live product, that is contrary to the objectives in the amendment. I need to change that, so whatever we do here today, we should be taking steps towards providing them relief. That takes off some of this

pressure to somehow have a solution that hasn't presented itself yet.

CHAIR LUISI: Let's go ahead and take a three-minute caucus, give everybody a chance to discuss. Please discuss both options, depending on which one either fails or is supported, and we'll go for it. We're not going to take another caucus after this, so come back in three minutes. Okay, if you can all take your seats. I haven't had enough sweet tea to say, y'all sit down please. John, while people are taking their seats, James told me your hand is still up. Do you have something you wanted us to follow up with before we call the question?

MR. MANISCALCO: Yes, Mr. Chair, thank you. I was just still looking for a little bit clarification on that fast-track addendum timeline from Bob Beal, please, thank you.

CHAIR LUISI: Fast track, Bob, what does it mean?

EXECUTIVE DIRECTOR BEAL: A little bit tricky, because there is some conversation around the table that just want to implement a suspension through a fast-track addendum, and then there are others that want to have this fast-track addendum a bit more informed by the study that is going to be conducted on alternate tag types.

There are kind of two different answers. If all you want to do is bring forward a document that contemplates a suspension of the tagging program in 2024, we can do that really quickly, it's a very simple document, status quo or a suspension with probably some time certain. We could probably do that with Board meetings outside of our regular Board meetings. We need a 30-day public comment period in there somewhere.

We could get that done, probably even within this calendar year. If it's really just that one simple issue, you know status quo or suspension of tagging. If that is all the addendum is, the Board could do that very quickly, and have a 30-day public comment period. But if the Board wants to see more information about the tagging study, and have that presented to them.

Obviously if the tagging study is going to retain animals for 30 days, and see the impacts of tags. You know I think if it's that more informed or more expensive fast-track addendum, that likely can't be, the study can't be done, the document drafted before our January meeting. If we do that longer fast-track addendum for the January meeting, public comment after that, and then we could probably get the Board back together in March to make a decision.

CHAIR LUISI: Okay, does that help, John?

MR. MANISCALCO: It helps very much, I'm just wondering if the maker of the motion, if that was his intention or if he meant the more involved addendum.

CHAIR LUISI: Yes, I was just going to ask him. I wanted to make sure you were clear first. Emerson and Justin, I guess I'll go to Emerson first. Was your intent to create a fast-track addendum that only considers a suspension, with no consideration for the use of any other additional tag. Is it just a suspension of the program.

Bob stated that an addendum to suspend the program could happen, potentially within the time period. It would be really tight, I think still, for states that have to order and plan for 2024, but it is possible that it could happen before 2024, or did your intent, Emerson, was it more long term in thought.

That the Board would be informed by the tag study, and there would be an option in the addendum, not only to suspend the tagging program, but there would be other alternatives that would be for implementation of other types of tags or just looking for your intent. We'll make sure it's clear before we call the question.

MR. HASBROUCK: Well, I would like to see the consideration, or the amendment consider suspending the program. But I think we also need to investigate alternative tags. In terms of timing and in terms of what the Board is going to want to do, I don't have a crystal ball on that in terms of where this Board is going to want to go. I don't know if the Board is going to be more favorable to suspending the program if we go to a quick addendum process, or if we just do it by emergency action today. I don't know that. I think we need to provide relief to the fishing industry, and take a look at alternative tags. Maybe the addendum, and I'll look to staff to help answer this.

The addendum, I guess, could initially consider a suspension of the program while we're developing alternative tags. That is possibly the way to go, because I don't know that we're going to have an answer for alternative tags, between now and a year from now. Who is going to be doing all these studies?

I mean, New York is going to be doing some, but for a variety of different tags. Okay, excuse me, I'm on a sidebar here. That is going to occur in the first half of 2024. We're not going to have any kind of tagging results in a fast manner, but I wanted to start moving that along, and I think we need to consider some relief to the fishing industry.

CHAIR LUISI: All right, so the only way to know what the Board's intent is, is to vote. We have, my screen went blank. I'll read the motion over my shoulder, sorry to turn my back to you guys. We're going to go ahead and move forward with calling the question on the vote. I want to remind the Board that the motion, the substitute motion, is a majority rules motion.

It does not require two-thirds, so we'll see what the Board wants to do with that. There is a lot of chat, is everyone okay with taking a vote here? We've had plenty of time to caucus and discuss. The motion is, move to substitute to initiate a fast-track addendum that will address negative impacts to the live market fishery, satisfying Objective 4 in Section 4.4.1 of Amendment 1. Motion by Mr. Hasbrouck, seconded by Mr. Davis. **All those members of the Board in favor of the motion, please raise your hand.**

MR. BOYLE: New York.

CHAIR LUISI: Okay, I see one, is there anyone online that raised their hand? All those opposed, same sign.

MR. BOYLE: Rhode Island, Massachusetts, Connecticut, New Jersey, Virginia, Maryland, and Delaware.

MS. KERNS: NOAA Fisheries, while I don't see Chris's hand up, he did send a comment in saying they were saying no to the amendment. There, Chris has his hand up now.

MR. BOYLE: And NOAA Fisheries, thank you.

CHAIR LUISI: Any abstentions, any nulls? Seeing none; the motion fails for lack of a majority, which leads us to now the main motion. I will remind the Board that this motion will require a two-thirds vote in support in order to pass.

CHAIR LUISI: I'm going to go ahead and read the motion into the record and then call the question. **Move that the Tautog Management Board, by emergency action, as defined in the ISFMP Charter, suspend the Coastwide Commercial Tautog Tagging Program for 180 days to prevent additional negative impacts to the live market fishery and initiate an Addendum that will implement the suspension for the remainder of the 2024 fishing year and consider a longer term suspension if a suitable tag, satisfying Objective 4 in Section 4.4.1 of Amendment 1 cannot be identified in time for implementation for 2025.** That motion is property of the Board at this time, and I'll ask for **all those members of the Board in favor of the motion, please raise your hand.**

MR. BOYLE: New York.

CHAIR LUISI: Anyone online? I think we have everyone here except for Chris. All those opposed, same sign.

MR. BOYLE: Rhode Island, Massachusetts, Connecticut, New Jersey, Virginia, Maryland, Delaware, and NOAA Fisheries.

CHAIR LUISI: Okay, any abstentions? Any null votes? Okay, seeing none, the motion fails for lack of a two-thirds majority. Do you want me to call the numbers out? Okay, the motion was 1 in favor, 7 in opposition, 0 abstentions and 0 nulls. There was 8 against, we're making that correction for the record. Motion fails for lack of a two-thirds majority. Is there anything else to come before this Board at this time? John.

MR. MANISCALCO: Is this issue still open? I would like to make a motion to initiate a fast-track addendum to suspend the commercial tautog tagging program for the 2024 fishing season, simple. But I'm not sure what the process would be at this point.

MR. LUISI: Okay, so that is different from the intent that Emerson Hasbrouck had, so this would be a simple motion to initiate a fast-track addendum to suspend, and there would be no other details within that motion, or in that addendum. Bob, you spoke to this already, but while we get it on the board, just remind us kind of what the timing would look like and when we could possibly take final action on that addendum.

EXECUTIVE DIRECTOR BEAL: Yes, if it is, as John is requesting, a very simple document or status quo, and there is suspension, and those are the options. We can draft that in a matter of, probably by the end of the week or next week or middle of next week, and get the Board together pretty quickly.

I think the hardest part of this, will be scheduling Board meetings when the states are available to get together and talk about it. But we can do that probably in the next two weeks or so, I guess, if folks are available. Then we need a 30-day public comment period, and then we can get the Board back together after that 30-day public comment period to make a decision about this document.

You know one of the things that is out there is when do the states need their tags? I think the orders actually have to happen really soon, regardless of what happens with this document. Some states may have to order tags, maybe even all states have to order tags, before they know the resolution of what is going to happen with this addendum. I think those orders need to continue, just in case the tagging program is not suspended.

CHAIR LUISI: The tagging program would only be suspended if the final result of the addendum would be a vote in favor of suspending. That would eliminate the program altogether for whatever time period that was in the addendum, possibly a year or two or indefinitely, until something else were to follow.

EXECUTIVE DIRECTOR BEAL: Yes, that's correct.

CHAIR LUISI: John, I'll go ahead and read it for you. I don't know if you can see the screen. There is a motion, move to initiate a fast-track addendum to suspend the tautog tagging program for the 2024 fishing season, as a motion by Mr. Maniscalco. Let me look around the table. Is there any second to the motion?

Would anyone like to second the motion? Seeing no second; that motion fails for the lack of a second. Is there anything else to come before the Board at this time? Seeing none; the Tautog Management Board is now adjourned. I'll be turning the reins of Chair over to Justin Davis, after today's meeting, so Justin, good luck.

I think Toni has got me keyed up for another Board chair somewhere along the way this week, but thanks for your time today, sorry we went a little bit overtime, but I thought it was an important discussion to have. It does not mean the actions

today, just for the members of the public who are watching, or listening or here.

The actions today do not prevent the Board from continued efforts to try to better the tagging program that we currently have. They do not stop the program from being suspended indefinitely at some point. I think the gist that I got around the table was that some additional information about tags, and other alternate tags was an important element in moving forward.

ADJOURNMENT

CHAIR LUISI: Thank you again, this meeting is adjourned, and I'll turn to Bob to see when we start the next Board meeting.

(Whereupon the meeting adjourned at 2:55 p.m. on October 16, 2023)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

March 18, 2025

Tautog Technical Committee and Stock Assessment Subcommittee Meeting Summary

Attendees: Craig Weedon (MD, Chair), Coly Ares (RI), Sandra Dumais (NY), Dave Ellis (CT), Shakira Goffe (VA), Elise Koob (MA), Colt Williamson (DE), Conor Davis (NJ), Margaret Conroy (DE), Ben Wasserman (DE), Jess Gorzo (NJ), Kelli Mosca (CT), and Alexei Sharov (MD)

Staff: James Boyle, Katie Drew, and Samara Nehemiah

The Commission's Tautog Technical Committee (TC) and Stock Assessment Subcommittee (SAS) met via conference call on Wednesday, March 18th to discuss changes or issues with 2021-2023 assessment data, review the state-by-state ageing structures and updates since the last assessment, and review the results from the NY study on potential alternative commercial tags.

2021-2023 Data Overview

The TC discussed the recommendations from the 2023 ASMFC Quality Assurance/Quality Control Fish Ageing Workshop, which discouraged using opercula and encouraged the use of otoliths and spines for determining ages of tautog. Older paired samples (age 11+) should be added to the collection in the future if available.

DelMarVa Region

- VA:
  - No changes that the TC member was aware of to the ageing protocols or structures (VA has historically used opercula to age tautog but use information from paired otoliths to assign the final age); will follow up with ageing lab to confirm
  - No new FI surveys for tautog
- MD:
  - All ages provided for the assessment are from opercula
  - Interested in exploring non-lethal ageing techniques, but concerned about the amount of funding and training it would require to transition over to spines.
  - SAV Habitat Survey (2015-present) has been estimating juvenile tautog relative abundance in the coastal bays and should be considered as a recruitment index in the next benchmark stock assessment
  - MD had concerns about the 2021 MRIP shore harvest estimate and will investigate the intercept data to explore that issue further

- DE
    - All ages provided for the assessment are opercula, but DE has started collecting paired samples of opercula, otoliths, and fin spines
    - The pot survey initiated in 2018 has been seeing good numbers of tautog and will be eligible to be considered for inclusion in the next benchmark assessment
    - DE also had concerns about some of the MRIP numbers, particularly the variability in catch estimates from year to year (e.g., high 2023 catches followed by a drop in 2024); there have been no regulatory changes since 2018, so that is likely not driving those changes
    - Spot-Lock has become more widely used in the region, which may be causing an increase in effective effort, but there is not a good way to incorporate that into the assessment framework right now
    - DE noted an increase in effort generally during and after the pandemic, although the large bluefin tuna run last year may have displaced some tautog effort

NJ-NY Bight/Long Island Sound Region

- NJ
    - All ages through 2022 used opercula, but in 2023, NJ switched to otoliths to age tautog, with some paired samples
    - This was due to the Ageing Workshop results and the fact that NJ sees more agreement with otoliths than with opercula; NJ does not collect commercial samples currently, so there is no concern with damaging the fish to collect hard parts
    - NJ samples are primarily from racks provided by party/charter boats, with some samples from the reef fish survey; this year there has been some difficulty in contacting a captain that has been helpful in providing racks in the past, so sample size may be lower, but that does not impact the assessment time series
    - NJ noted that the reef fish survey is successful at catching small fish and so may be a useful source of lengths to fill out the ALK; the SAS will provide some length cut-offs for NJ to target to fill gaps
    - The reef fish survey has had consistent catches of tautog and should be explored as an index for the next benchmark assessment
- NY
    - All of NY's ages are from opercula, but NY has been collected paired spines and otoliths as well based on the results of the ageing workshop and the fact that newer ageing staff do not like working with opercula; NY anticipates transitioning to otoliths fully in the future
    - For 2023, the ages were all assigned with opercula, but paired otolith samples were used to inform some ages for opercula, which were hard to read or had disagreements
    - NY noted, as MD had, that the location of the cut for fin spines could affect the ability to age the spine and lead to disagreements or uncertainty about the first annulus
    - Since 2021, NY has had a dedicated biosampler on staff to increase consistency and volume of biosamples for all species, including tautog; currently visit 3 markets every week and 1 market every other week

    - There has been less cooperation with the head boats to obtain racks, however
    - Most of the samples come from the LIS region, less from the NJ-NYB region, which has always been the case
    - Now calculating area-swept for beach seine surveys with GPS to get YOY per m^2
- CT
    - No survey issues reported; Long Island Sound Trawl Survey (LISTS) was able to operate as usual
    - All age data from LISTS, which sees a good range of older ages but few YOY/age-1s
    - Age data from opercula only for the whole time-series
    - Paired samples have been collected, and CT is considering moving to spines, but their agers are very comfortable with opercula
    - A new nearshore survey involving non-trawl gears including pots, seines, and light-traps has been initiated this year, which may be able to capture YOY tautog

MA-RI Region

- RI
    - In 2022, RI collected paired fin spines and opercula and used spines to assign ages
    - In 2023, RI switched to fin spines only for collection and ageing
    - Also have plans to collect stomach content data and maturity from existing survey programs
    - A pot survey was initiated in 2021 that has some potential for the benchmark
    - A TC member asked about the changes in MA-RI regulations restricting harvest to only one trophy size fish exceeding 21-inches. RI reported that was historically less than 1% of total harvest, so unlikely to see an impact from that
- MA
    - From 2017, ages provided from fin spines and otoliths (paired samples)
    - In 2023, MA switched to fin spines only
    - Trawl survey recently stopped collecting maturity data onboard, allowing for increased samples of hard parts for ageing
    - Trawl survey saw reduced crew sizes for 2021 due to COVID, which may impact sample collection/processing for that year; in 2024, the start of the fall survey was delayed but the southern leg was completed in the traditional time-frame and should not have a big impact on the index for that year
    - In 2021, the ventless trap survey dropped the upper third of sites in Buzzards Bay; seeing less tautog in the survey but hard to tell if that's due to distribution changes, survey changes, or decline in abundance

<u>Assessment Update Timeline and Tasks</u>

K. Drew reviewed the assessment timeline (Table 1) and the current SAS membership (Table 2). The first task for the SAS will be to evaluate the age data by region to compare the precision and agreement of different structures collected by each state and to compare the length-at-age estimated from different structures and states within the same region. In regions where ages are taken from multiple different structures, the SAS will need to decide which ages to use for age-length keys. As part of the assessment process, the TC/SAS can discuss the recommendations from the 2023 QA/QC workshop about tautog ageing structures and provide their own recommendations.

K. Drew will make the state biosample data available for the SAS on the ShareFile site and will ask the SAS representatives for each region to volunteer to collate their region's data and begin the age comparisons. A call will be scheduled for late April or early May, and before the 2024 data deadline, to review the results and make a recommendation for the age-length keys.

	Milestone	Date
✓	TC planning call	January 8, 2025
✓	2021-2023 Data Submitted	March 1, 2025
✓	TC/SAS call to review data submission, assign tasks	March 18, 2025
	SAS call to review age decisions	Late April/early May
	2024 data submitted	May 12, 2025
	ASAP runs with final data completed	July 14, 2025
	Rough draft of assessment report to SAS	August 4, 2025
	SAS call to review/approve draft assessment report	Week of August 18, 2025
	Draft assessment report distributed to TC	September 1, 2025
	TC call to review/approve draft assessment report	Week of September 15, 2025
	Final assessment report to Board materials	October 13, 2025
	Assessment update presented to Board	Week of October 27, 2025

Table 1.
Additional calls will be scheduled between milestones as needed.

Table 2: Tautog SAS member assignments by region.

Region	SAS Members
MA-RI	Elise Koob (MA), Coly Ares (RI)
LIS	Kelli Mosca (CT), Samara Nehemiah (ASMFC)
NJ-NYB	Jess Gorzo (NJ), Katie Drew (ASMFC)
DMV	Alexei Sharov (MD), Ben Wasserman (DE)

NY DEC Commercial Tag Feasibility Study Results

S. Dumais presented the findings of NY's study of potential alternative commercial tags following the Board's request. The initial tags considered were T-Bar, strap, and Petersen disc tags. The strap tag is a smaller version of the current commercial tag that was previously studied in 2016 prior to the implementation of the tagging program. After initial consideration, the Petersen disc was eliminated from contention due to the difficulty of application.

NY tagged 20 fish in total, ten with the T-Bar tag and ten with the strap tag, and the fish were held for 30 days. Afterwards, they were examined for damage and for signs of an infection around the tag. There was no conclusive evidence of any infections forming for either tag type, although some fish showed redness around the insertion point for both types. Challenges with the T-Bar tag were the inability to determine if the tag was inserted properly and a lower tag retention rate, as well as a significantly higher cost for both the tags and applicator when compared to the current tag. The strap tag created similar, albeit smaller,

wounds to the current tag, but it is unclear that it would prevent the reported issues. Although, the smaller strap tag and its applicator are considerably cheaper than the current versions. **Given the results and the costs, NY did not recommend any of the tags as a viable alternative to the current tag.** The TC discussed the possibility of further testing but did not provide any new tag types to evaluate, and NY noted the funding and staffing challenges to continue to pursue additional studies.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Marine Resources
123 Kings Park Blvd. (Nissequogue River State Park), Kings Park, NY 11754
P: (631) 444-0430 | F: (631) 444-0434 | FW.Marine@dec.ny.gov
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2024 Commercial Tautog Tag Feasibility Study

In response to reported issues with the commercial tautog tagging program, the New York State Department of Environmental Conservation (NYDEC) conducted feedback surveys after the 2021 and 2022 seasons. The surveys revealed that problems such as tags falling out, fish damage, and necrotic lesions were negatively affecting the commercial tautog industry. To address these concerns, a feasibility study was conducted to explore alternative tag types and tagging locations in preparation for a potential full study during the fall of 2023. The tag types and locations in this study were approved for exploration by Atlantic States Marine Fisheries Commission via conference call on 4/12/2023. The results of the 2023 testing failed to find an alternative tag that would solve the issue of lesions. The August 2, 2023 Tautog management board tasked the technical committee with re-examining the smaller cattle ear tag that had been previously tested under tank conditions. In addition, the TC should examine any other potential tags that could meet the goals of the commercial tagging program.

Methods

The 2024 feasibility study focused on two tags, the first was a strap tag, model number 1005-4 manufactured by National Band Company in Newport, KY. The strap tag uses an applicator (model # 1005s4) that resembles a modified hole punch to hold the tag for application. The second tag tested was a Floy T-Bar anchor tag model number FD-94 manufactured by Floy Tag and Manufacturing, Inc. in Seattle, WA. The t-bar tag has a few options for applicators. For the purposes of the feasibility study, we used Floy applicator Mark III regular pistol grip to apply the t-bar tags. A third tag was considered, a Petersen disc tag. This tag consists of a disk on a pin inserted through a hole in the center of the disc. The pin is pushed through the bone structure on the fish and then bent to prevent the tag from falling out. Upon initial testing of the application of the tag on a fish carcass, it was determined that this tag would be difficult to apply to fish without additional tools such as pilers to bend the pin. It would also be difficult for a fisherman to hold the fish and apply the tag without assistance. For these reasons, the Petersen tag was removed from consideration.

Twenty tautog were purchased from a NY commercial fisherman ranging from 383 mm to 555 mm. A waiver was issued by NYSDEC law enforcement to allow the fisherman to land the fish without commercial tags and so that we could test the potential tags in absence of the current tag. The fish were picked up in Kings Park, NY on 6/25/2024 and transported in two approximately 40 gallon coolers to Mattituck Creek, NY. Upon arrival, the water temperature in the coolers (15 °C) and in Mattituck Creek (21.5°C) were recorded. The water in the coolers was slowly exchanged with 5 gallon buckets of water from Mattituck Creek over a 20 minute period to acclimate the fish to the ambient water conditions.

The fish were tagged and placed in a cage attached to the dock in Mattituck Creek. The cage was approximately 8 feet long, 4 feet wide and 2 feet tall and made with a 1.5 inch PVC frame covered in 1 x 1` inch 16 gauge coated wire mesh (figure 1). The fish were held until 7/25/2024, a total of 30 days.

Figure 1. Cage used to hold tautog

The water temperature was recorded three additional times throughout the study (Table 1).

Figure 1. Temperatures in Mattituck Creek During the Study.

Date	Temperature – Celcius
6/27/2024	21.5
7/8/2024	22.8
7/15/2024	25.6

Ten fish were tagged with the Floy T-Bar tag just below the posterior portion of the dorsal fin and 10 fish were tagged with the strap tag in their gill plates as indicated in Figure 2.

Figure 2. Tag placements

Table 2. Fish Sizes and Tag treatments

Fish	Fish TL (mm)	Tag Type	Tag Number	Comment at Tagging
1	476	Floy T- Bar	26	None
2	425	Floy T- Bar	27	None
3	449	Floy T- Bar	28	None
4	430	Floy T- Bar	29	None
5	409	Floy T- Bar	30	None
6	408	Floy T- Bar	31	None
7	411	Floy T- Bar	32	None
8	460	Floy T- Bar	33	None
9	424	Floy T- Bar	34	None
10	446	Floy T- Bar	35	None
11	405	Strap Tag	Y201	Tag Missfire
12	456	Strap Tag	Y202	None
13	424	Strap Tag	Y203	None
14	491	Strap Tag	Y204	Tag Missfire
15	555	Strap Tag	Y205	Tag Missfire
16	506	Strap Tag	Y206	None
17	402	Strap Tag	Y207	None
18	383	Strap Tag	Y208	None
19	473	Strap Tag	Y209	None
20	434	Strap Tag	Y210	None

Results

Each of the T-bar tags was given a “tug test” after application to make sure they were properly inserted into the fish. The tags were grasped with and given a gentle tug and if the tag did not pull out, it was considered good. None of the tags failed the initial tug test, however 4 of these tags were lost from the fish during the holding time. The cattle tags were applied to the fish in their gill plates just like the current commercial tags. Of the 10 applied, 3 misfired and didn’t properly close. Two of those misfired tags subsequently fell off the fish.

Within two days of being placed in the cage, two of the fish died and another fish died 12 to 13 days into the study. These deaths are believed to be due to transport and acclimation stress, not due to the tags themselves. All three of the fish that died were tagged with the Floy T-Bar tag. All of these fish were later necropsied to determine if the tags had been inserted into the interstitial rays. One did correctly get placed in the interstitial rays, while the other two did not.

At the end of the 30 days, all of the 17 remaining fish were examined for damage and presence of infection starting. The findings at the end of the study are in Table 3.

Table 3. Fish and Tag Status at the End of the Feasibility Study

Fish	Fish TL (mm)	Tag Type	Tag Number	Comment at end of study
1	476	Floy T- Bar	26	Some red around where tag inserted
2	425	Floy T- Bar	27	Lost Tag
3	449	Floy T- Bar	28	Died July 7-8 - Tag missed but retained until death
4	430	Floy T- Bar	29	Died June 26-27 - Tag missed but retained until death
5	409	Floy T- Bar	30	Died June 26-27- Tag placed correctly
6	408	Floy T- Bar	31	Lost Tag
7	411	Floy T- Bar	32	Minor hole from tag
8	460	Floy T- Bar	33	Lost Tag
9	424	Floy T- Bar	34	Very minor hole from T-Bar
10	446	Floy T- Bar	35	Lost Tag
11	405	Strap Tag	Y201	Minor gill damage. Hole from tag
12	456	Strap Tag	Y202	Minor gill damage. Hole from tag
13	424	Strap Tag	Y203	Some gill damage. Hole from tag
14	491	Strap Tag	Y204	Lost Tag
15	555	Strap Tag	Y205	Lost Tag
16	506	Strap Tag	Y206	Hole from tag only
17	402	Strap Tag	Y207	Typical Gill damage, hole from tag
18	383	Strap Tag	Y208	Hole from tag and wound from hole
19	473	Strap Tag	Y209	Minor gill damage. Hole from tag
20	434	Strap Tag	Y210	Some red from tag, gill damage, hole from tag

Description of the damage to the fish from the tags

We did not see any signs of infection starting at the time that the study was ended with either the T-Bar Tags or the strap tags. There was one fish tagged with a T-Bar tag that had some red around where the tag was inserted which may indicate an infection starting at that location. The other fish tagged with the T-Bar tags that retained their tags showed a minor hole where the tags were inserted. All of the strap tags showed the typical damage from the application of the tag into the gill plate and most also showed some minor wear on the gill filaments where the tag rubbed the gills.

Pros and Cons of the T-Bar Tag

Despite all of the fish passing the “tug test” when the tags were applied some of the tags clearly were not correctly inserted between the interstitial rays. There is no way to tell for certain that the tags are in fact inserted into the interstitial rays without cutting into the fish. The percentage of T-bar tags retained and the inability to see with certainty that the tags are applied correctly is a problem for the feasibility of this tag. The technician that applied the T-Bar tags had previous experience using them on smaller fish. The differences between those fish and tautog could have contributed to the high percentage of tag loss. In addition, the angle at which the tags were applied could also have contributed. These issues indicate that there may be a learning curve to applying the T-Bar tags that is equal or greater than the current commercial tags.

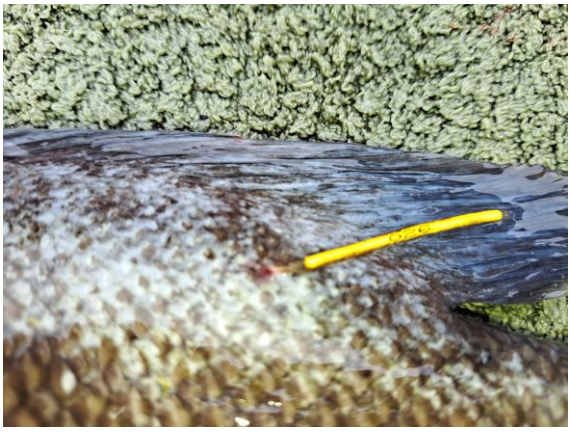
One advantage of the T-Bar tag is that the applicator holds 25 tags at a time and they do not fall out of the applicator if it is put down. The tags can be applied with one hand holding the fish and the other holding the applicator which would be easier for fishermen working solo.

The T-Bar tags cost 4 times as much as the current commercial tags and the applicators are double the price of the current applicator.

Pros and Cons of the 1005-4 Strap Tags

The applicator for the strap tags is a different and smaller applicator than the current tag. There is no locking mechanism to lock the tag into the applicator so once placed in the applicator, it can not be put down or the tag will fall out of it. Also, since the tag does not lock in place in the applicator, it has a tendency to move around which could make it difficult to handle the fish and properly apply the tags. One advantage it is easy to tell if the tag misfired or didn’t lock when applied. The tags make a similar albeit slightly smaller hole in the gill plate but there is still damage occurring. In holding facilities that are experiencing infections with the current tag, we can not be sure that the smaller tags won’t cause the same problem. The 1005-4 tags are slightly less than half the price of the current tags and the applicator is about 40% less expensive.

Below are pictures demonstrating a sample of the results:



Conclusion

Given the problems encountered with both the smaller strap tag and the T-Bar tag, this test did not find a viable alternative to the current tag.

In consultation with our industry members, many stated that the cost of the T-Bar tags at four times the cost of the current tag was not feasible, and they were not willing to absorb the greater expense of those tags and applicator.

At this time, we don't have any additional options to test. We our pausing our efforts to find an alternative until such time that new technology or viable suggestions arise.

Atlantic States Marine Fisheries Commission

Horseshoe Crab Management Board

May 8, 2025
8:30 - 10:15 a.m.

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 *(E. Reid)*	8:30 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from February 2025	8:30 a.m.
3.	Public Comment	8:35 a.m.
4.	Consider Addendum IX on Multi-year Specifications for Male-Only Harvest of Delaware Bay-origin Horseshoe Crabs for Final Approval **Final Action** • Review Options and Public Comment Summary *(C. Starks)* • Advisory Panel Report *(B. Hoffmeister)* • Consider Addendum IX for Final Approval	8:45 a.m.
5.	Adaptive Resource Management Subcommittee Report *(J. Sweka)* • Recommendations Regarding Possible Changes to Reward/Utility Functions	9:30 a.m.
6.	Review and Populate Advisory Panel Membership *(T. Berger)* **Action**	9:55 a.m.
7.	Other Business/Adjourn	10:15 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.

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEETING OVERVIEW

Horseshoe Crab Management Board
May 8, 2025
8:30 - 10:15 a.m.

Chair: Eric Reid (RI) Assumed Chairmanship: 2/25	Technical Committee Chair: Ethan Simpson (VA)	Law Enforcement Committee Rep: Nick Couch (DE)
Vice Chair: Carrie Kennedy (MD)	Advisory Panel Chair: Brett Hoffmeister (MA)	Previous Board Meeting: February 4, 2025
Voting Members: MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (16 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from February 2025

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 Addendum IX on Multi-year Specifications for Male Only Harvest of Delaware Bay-origin Horseshoe Crabs for Final Approval (8:45-9:30 a.m.) Final Action

Background

- The Board initiated Draft Addendum IX in November 2025, which considers adding an additional specifications tool that would allow for male-only harvest for multiple years. The draft addendum includes proposed options that address multi-year male-only harvest specifications for the Delaware Bay region and reestablishing seasonal harvest restrictions for the Delaware Bay region bait fishery. **(Briefing Materials)**.
- Draft Addendum IX responds to a recommendation from the stakeholder workshop on horseshoe crab management in the Delaware Bay region held in July 2024. The workshop convened a group of stakeholders representing environmental NGO, fishing, biomedical, bird and horseshoe crab scientists, and management perspectives to discuss the Adaptive Resource Management (ARM) Framework and management objectives for the Delaware Bay region bait fishery. The workshop participants recommended the Board establish an interim solution to maintain male-only harvest while changes to the ARM Framework are explored to better align the model with stakeholder values.
- Public hearings were held in March and written public comments were compiled **(Briefing Materials).**

- The Advisory Panel met on April 10, 2025, to review Draft Addendum IX and public comments submitted and provide input to inform the Management Board's decisions on the management action **(Briefing Materials)**.

Presentations

- Overview of Draft Addendum IX and Public Comment Summary by C. Starks
- Advisory Panel Report by B. Hoffmeister

Board actions for consideration at this meeting

- Final approval of Addendum IX

5. Adaptive Resource Management Subcommittee Report (9:30-9:55 a.m.)

Background

- In July 2024, the Commission held a stakeholder workshop on horseshoe crab management in the Delaware Bay region. One of the key recommendations produced was, "using current ASMFC processes, refine the ARM reward and utility functions with stakeholder input."
- The Board tasked the ARM Subcommittee (Subcommittee) with reviewing the reward and utility functions of the ARM Framework and discussing what input from stakeholder groups would be needed to provide direction on changes.
- The ARM The ARM Subcommittee met three times in early 2025 to address this task and develop recommendations for next steps to address the workshop recommendation **(Briefing Materials).**

Presentations

- Horseshoe Crab and Red Knot Abundance Estimates and 2024 ARM Model Results by J. Sweka

Board actions for consideration at this meeting

- ARM Subcommittee Report by J. Sweka

6. Review and Populate Advisory Panel Membership (9:55-10:15 a.m.)

Background

- One of the consensus recommendations from July 2024 stakeholder workshop was to evaluate the Horseshoe Crab Advisory Panel (AP) to determine if it has adequate representation across stakeholder groups. The current composition of the AP includes state-specific seats and two seats for non-traditional stakeholders**.**
- Staff requested the states review their AP membership and provide additional nominations as needed **(Briefing Materials).**

Presentations

- AP Nominations by T. Berger

Board actions for consideration at this meeting

- Consider AP nominations and potential changes to AP composition

8. Other Business/Adjourn (10:15 a.m.)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

HORSESHOE CRAB MANAGEMENT BOARD

The Westin Crystal City
Arlington, Virgina
Hybrid Meeting

February 4, 2025

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

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INDEX OF MOTIONS

1. **Move to approve Agenda** by consent (Page 1).

2. **Move to approve Proceedings of October 21, 2024** by consent (Page 1).

3. **Motion to add a new issue to Draft Addendum IX regarding the harvest caps for Maryland and Virginia established by Addendum VIII. The issue would include the following set of proposed options: Option A: Status quo. There would be no change to the current harvest caps for Maryland and Virginia. Option B: The harvest caps for Maryland and Virginia would not apply whenever male-only harvest specifications are implemented. The caps would only apply when harvest specifications include female harvest** (Page 6). Motion by Carrie Kennedy; second by Pat Geer. Motion passes by unanimous consent (Page 7).

4. **Move to approve Draft Addendum IX for public comment, as modified today** (Page 7). Motion by John Clark; second by Malcolm Rhodes. Motion passes by unanimous consent (Page 7).

5. **Move to elect Carrie Kennedy as Vice-Chair** (Page 8). Motion by Pat Geer; second by John Clark. Motion passes (Page 9).

6. **Motion to adjourn** by consent (Page 9).

ATTENDANCE

Board Members

Dan McKiernan, MA (AA)
Raymond Kane, MA (GA)
Rep. Jennifer Armini, MA (LA)
Nicole Lengyel Costa, RI, proxy for J. McNamee (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
David Borden, RI (GA)
Matthew Gates, CT, proxy for J. Davis (AA)
Bill Hyatt, CT (GA)
Craig Miner, CT, proxy for Rep. Gresko (LA)
Jesse Hornstein, NY, proxy for M. Gary (AA)
Joe Cimino, NJ (AA)
Jeff Kaelin, NJ (GA)
Adam Nowalsky, NY, proxy for Sen. Gopal (LA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Carrie Kennedy, MD, proxy for L. Fegley (AA)
Pat Geer, VA, proxy for J. Green (AA)
James Minor, VA (GA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Ben Dyar, SC, proxy for B. Keppler (AA)
Malcolm Rhodes, SC (GA)
Mel Bell, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Marina Owens FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Ron Owens, PRFC
Chris Wright, NMFS

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

Ex-Officio Members

Staff

Bob Beal
Toni Kerns
Tina Berger
Caitlin Stark
Madeline Musante
Katie Drew
Jeff Kipp

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

The Horseshoe Crab Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, via hybrid meeting, in-person and webinar; Tuesday, February 4, 2025, and was called to order at 12:30 p.m. by Chair Eric Reid.

CALL TO ORDER

CHAIR ERIC REID: Good afternoon, everyone. I would like to call the meeting of the Horseshoe Crab Management Board to order. My name is Eric Reid; I am from Rhode Island, and this is my first opportunity to chair anything in this new body. I apologize in advance of Robert's Rules of Order turned to Reid's Rules of Order, sorry about that.

APPROVAL OF AGENDA

CHAIR REID: With that, first approval of the agenda. Any opposition to approving the agenda?

APPROVAL OF PROCEEDINGS

CHAIR REID: Seeing none; the proceedings from October '24, any modifications to those proceedings? Seeing none; those are approved as well.

PUBLIC COMMENT

CHAIR REID: Okay, we're going to move on to Public Comment for items that are not on this agenda. We had no correspondence prior to this meeting, so I will turn to the audience. Is there any public comment? Yes, Ma'am. Items that are not on the agenda, please. I'm more than happy for you to make those comments later on, but not now. When we start the discussion about the draft for public comment, I will give the public an opportunity to speak, but not now.

It will be during the discussion. Okay, thank you. I'll be sure to call on you, but not now. Anyone else? Okay, seeing none; let's get to our first piece of business today, which is Consideration of Approval of Draft Addendum IX, and I will turn it over to Ms. Starks for the presentation.

CONSIDER APPROVAL OF DRAFT ADDENDUM IX ON MULTI-YEAR SPECIFICATIONS FOR MALE ONLY HARVEST OF DELAWARE BAY-ORIGIN HORSESHOE CRABS FOR PUBLIC COMMENT

MS. CAITLIN STARKS: I will be giving an overview of Draft Addendum IX, which is again focusing on multiyear specifications for male-only harvest in the Delaware Bay Region. In my presentation I'll give an overview of the Draft Addendum document, including the background on this Addendum, the statement of the problem, a proposed timeline, and the draft management options and then the next steps in Board action for consideration today.

There have been a few major things leading up to this Addendum. First, the ARM Framework Revision was adopted in 2022 through Addendum VIII, and that implemented changes to the ARM that were made through the 2021 revision. That was also the first year that the ARM Framework recommended a limited amount of female horseshoe crab harvest. While the Board was considering Addendum VIII, it did receive a lot of public comments expressing concern over that possibility of female harvest. That led the Commission to then hold a workshop in July of last year, with the goal of bringing together the different stakeholder groups in the Delaware Bay Region that have an interest in horseshoe crab, and generate recommendations about the management objectives for the region in the horseshoe crab bait fishery.

At that workshop, one of the key consensus recommendations was that the Board should pause female harvest while additional management changes regarding our framework could be considered. Draft Addendum IX responds to the workshop recommendations by offering an interim solution that would allow the Board to set multiyear specifications for male-only harvest.

This is in line with another recommendation from the workshop, which was that we should still use the ARM, but it removed the burden of making an annual management decision about whether or not to allow female harvest. It also reduces the workload of the ARM Subcommittee, and it opens

up more time for them to consider those other changes to the management framework to better align with stakeholder values.

This is our current timeline for Draft Addendum IX. The Board initiated this Addendum in October, and since then the PDT has met a number of times and developed the Draft Addendum document, and today the Board will consider approving that Draft Addendum document for public comment. If it is approved today, the public comment and public hearings could occur in February and/or March, and the Board can meet again in May to consider final approval of the Addendum.

Getting into the meat of the Draft Addendum, there are two issues that are addressed. The first is the issue of multiyear specifications for male-only harvest, and the second issue is really just a seasonal harvest restriction for the Delaware Bay Region. Under Issue 1, we have two main options. Option A is our status quo option, and Option B is to allow multiyear specifications for male-only harvest for up to three years at a time.

With Option B there would also be two sub-options related to the use of the annual spawning sex ratios to manage male-only harvest. The first of those sub-options would not incorporate the use of that spawning sex ratio, and the second would incorporate it as a factor in determining the no-harvest limits.

Our status quo option, Option A, would mean no change to the process that we currently use to set specifications for the Delaware Bay Region states, and Addendum VIII establishes the process, which is that the ARM Framework annually provides a harvest recommendation to the Board in the Fall, and the Board considers that in setting harvest limits for the following fishing year.

Then under Option B, this would add a new specifications tool to the toolbox that would allow the Board to set multiple years of specifications for male only harvest for the Delaware Bay Region. The Board would be able to set specifications for up to three years at a time, based on an ARM Framework recommendation for the initial year. Then in the interim years the Board would not have to use the ARM and no action would have to be taken to keep the same specifications in place for the next year. As this option is written, the provision would sunset after 2031, meaning that unless the Board initiates a new Addendum to allow it, multiyear specifications would no longer be allowed after 2031. This flowchart is to help illustrate the process that we would be using under the proposed Option B. The first three boxes here reflect our typical annual process under Addendum VIII.

We start with the ARM Subcommittee compiling all of the necessary data for the Horseshoe Crab and Red Knot Abundance Estimates, and then running the ARM Framework for a harvest recommendation, which then gets reviewed by the Delaware Bay Ecosystem TC, and recommendation is provided to the Board for harvest specifications at the annual meeting.

Then at that point the Board considers that ARM output, and decides what harvest limits will be for the following year. They have the option to go with the ARM output, which would likely include a limited amount of female harvest, or to set male-only specification. If the Board chooses to implement no female harvest, then the Board can choose if it wants to set specifications for one year only or for the next two years or three years.

For this example, let's just say the Board chooses to set multiyear specs for three years at 500,00 males. What that would mean is that in the interim years the Board would not need to take action to establish specifications again until Year 3 of that specification. In those interim years the ARM Committee would not run the ARM to provide a harvest recommendation to the Board, and instead the Delaware Bay Ecosystem TC and the Board would only review the annual survey data for horseshoe crab and red knot.

I just want to note that in an interim year, when the ARM is not run, the TC could always recommend change to the specifications, if they felt it was warranted based on the survey data. But there is

no need to change. If there is no need to change the specifications then no action is required for that year, and the same male-only specs would stay in place.

Then once the last year of those specifications is reached, the ARM would need to provide a new harvest recommendation for subsequent fishing years. As I mentioned with Option B we have two sub-options, and Option B1 is no additional changes to the process I just described, and then Option B2 would establish a management rule for male-only harvest to be reduced if the spawning sex ratio falls below three males to one female.

The sex ratio that would be used is the observed ratio during the annual spawning beach surveys int eh Delaware Bay Region, and these surveys are already an annual requirement, and the data are reviewed by the Delaware Bay Ecosystem TC every year, so no additional work would be needed to acquire that data.

The table on the right here is showing the proposed maximum allowable harvest for males under different ratios. You can see that if the ratio is greater than or equal to three-to-one, then the maximum male harvest would remain at 500,000 males and then as the ratio decreases down to two-to-one, there is a proportional decrease to the maximum allowable male harvest, and below to a two-to-one ratio the male harvest maximum is zero, so male harvest would be allowed.

The goal of this option is to have some protection in place, even under a male only harvest scenario, and in years when the ARM is not being run. The rationale behind the three-to-one ratio threshold is that male horseshoe crab is not a limiting factor to horseshoe crab reproduction in the population, unless there are fewer than two males per female.

The three-to-one ratio is actually more conservative than that, but the spawning sex ratio has never dropped below three-to-one for as long as we've been recording it. In the past five years or so it's been around five-to-one. The PDT felt that three-to-one would be an appropriate level at which to begin reducing male harvest if the spawning sex ratio was showing signs of decline.

The second issue in the Addendum pertains to the seasonal harvest closure in the Delaware Bay Region. The first option under this issue would maintain our current closure, which is what was in Addendum III. The second option would reestablish the harvest closure, which is what was in place under Addenda IV and V.

I think it's easiest to understand these two options by explaining the context, so this is our background on the situation, and our current situation. Addendum III was approved in 2004, and it created a peak spawning season closure for New Jersey, Delaware and Maryland from May 1st through June 7th.

Then in 2006, Addendum IV changed that closure so that it would apply to directed harvest, and it would extend from January 1st through June 7th for New Jersey, Delaware and Maryland, and it also prohibited landings of horseshoe crab from federal waters in Virginia during that period. Addendum V and VI maintains these seasonal closure provisions until the sunset date that was in that Addendum VI of April 30, 2013.

Then Addendum VII was adopted in 2012, but the season closure provisions weren't included in Addendum VII, and consequentially they were not included in Addendum VIII. Because Addendum V I expired, the FMP requirement reverted to the Addendum III closure period. That is all harvest and landings prohibited from May 1st through June 7, inclusive, and that is where we are now.

Because staff believe that the intention was for the January through June closure to remain in place for the Delaware Bay, based on looking back at old Board minutes, these options included in the Draft Addendum are attempting to address it. Option A again, would maintain the current closure, which is from Addendum III, and that is that New Jersey, Delaware, and Maryland shall prohibit the harvest and landing of horseshoe crabs for bait from May 1 through June 7, inclusive.

Option B would reestablish the closure in Addenda IV through VI, and that would prohibit the directed harvest and landing of all horseshoe crabs in New Jersey, Delaware, and Maryland from January 1 through June 7, and would also prohibit the landing of horseshoe crabs in Virginia from Federal Waters from January 1 through June 7.

This is what staff believes is in line with the Board's intent at the time Addendum VII was approved. That is all of the options in the Draft Addendum, and our next step today would be for the Board to consider adopting Addendum IX for public comment, and if it is approved today then we could hold public hearings again late February, early March, and the Board could consider final approval of the Addendum in May. With that, these are the two things the Board could consider today, and that is to specify any changes to the document before releasing it for comment, and then consider approval of the Addendum for public comment. I can take any questions.

CHAIR REID: Okay, before we get into comments and talking about the Addendum, let's see if there are any questions at this point. Any questions? Yes, Ma'am, Ms. Lengyel.

MS. NICOLE LENGYEL COSTA: Thank you, Caitlin, for that presentation. My question is on Section 3.2, Issue 2, the seasonal harvest restrictions, and the consistency of language used. Right now, in describing the current seasonal harvest restriction, it is specific to bait, and under Option A it is also specific to bait. But Option C it's all directed harvest of all horseshoe crabs. Should that also be specific to bait?

MS. STARKS: I believe that it is the intention that it was focused on bait harvest, given that biomedical, for example, is not considered harvest. In this case, I think we would just be looking at harvest or bait, directed harvest or bait.

CHAIR REID: All set? Anybody else with a question? Okay, very good. Let's move on to see if we have any modifications to Draft Addendum IX for public comment. Mr. Clark.

MR. JOHN CLARK: Thank you for the presentation, Caitlin. As you know, I had a couple of minor changes I would like to request be done to the document. The first one is in Paragraph 3 of Option B. It's the last sentence in that paragraph. Okay, it's the one that says, if there were concern that the established specifications would be likely to negatively affect the population of horseshoe crabs and/or red knots, then the Board could take voluntary action to change the harvest limits for the following year.

I would just like to strike that sentence. I mean it does reflect reality, but the way it is worded is so vague and open-ended. I'm just afraid that it would be something that could cause there to be concern raised all the time by certain groups that raise concern all the time anyhow. But make them feel that this is the type of wording in the document itself that would give that more weight than it would have otherwise. That was my reason for wanting that removed from the document.

CHAIR REID: Does anybody have any feelings about Mr. Clark's desire? Seeing none; can we make that happen without, yes, there is no objections at the point so consider it done, Mr. Clark.

MR. CLARK: Then I would just ask, actually this is the text that Caitlin, you wrote this up, which I would like to see added to the end of the option, because just to clarify that the document allows for the three-year specifications. After the first three years the ARM will be run, and at that time, even though it is clear to many people on the Board just so everybody is clear on the fact that after the ARM is run, let's say we do set specs for three years. At the end of the three years in the ARM indicates that female harvest could be allowed, the Board could consider female harvest at that time. Like I said, it will consider whether to allow female harvest or not before setting the specifications for another three years, because the way it's written now, I just didn't want it to look like we would go a full six years without revisiting the option of harvesting females. Caitlin had written up text, I'll just read it so it's on the record.

Following a multiyear specification period, the ARM Framework would be used to provide a new harvest recommendation, and the Board would need to establish new harvest specifications for the following year or years. This would include the option to implement female harvest or male-only harvest.

CHAIR REID: Any opposition to Mr. Clark's request? Seeing none; very good, John. I'm going to go to the public. Ms. Swan, if you want to give us two minutes of your time that would be great, and then we'll come back to the Board. Two minutes, please.

MS. BENJIE L. SWAN: Actually, Mr. Clark made my comments less. I was concerned about the one sentence that said, if there was a concern that the Board could take voluntary action. That was taken out, so that was one of my comments. The other was, if this male-only specification could go on for six years, and he covered that as well.

My other comments have to do with the paragraph on Page 5, and you can follow along if you like, but I just want to confirm that if the multiyear specification package is adopted, that the current surveys and studies will be conducted yearly, and they also will have a review process as well. I wanted to make sure that that would happen.

CHAIR REID: That will happen.

MS. SWAN: Yes, so all the studies will continue, that would be the Virginia Tech, the New Jersey and Delaware Surveys, the Red Knot Mark and Recapture, the Aerial Count. It would be all the surveys that are current. Okay, that is helpful. The other concern I had was that the sentence below.

On Page 5 it talks about there will be no more population estimates. That was never discussed when we talked about this male-only harvest specification. I have a real problem with that, and I think male estimates are so essential, so that I would like something done with that.

CHAIR REID: Ms. Starks.

MS. STARKS: Just to respond to that last part. The development of the population estimate for horseshoe crab involves the use of the Catch Multiple Survey Analysis Model, and that is a big lift for our staff, and so that was one of the pieces where we were hoping to reduce the workload of the ARM Subcommittee, so they can focus on these other tasks at hand.

Like I think, hopefully I'm clear in the document. The surveys that go into that Catch Multiple Survey Analysis Model to come up with an estimate of the population. Those are still going to be completed. We are going to be seeing the trends in the Virginia Tech Trawl Survey, for example, which will give us an indication of trends in abundance. That is one of the main sources of data that go into that population estimate.

MS. SWAN: Will you be taking out that population estimate out of the wording of the sentence then? It's on Page 5, it's the second sentence, meaning the Board would not review a new horseshoe crab population estimate nor an ARM Framework recommendation.

MS. STARKS: That still is correct, because the population estimate is from the CMSA Model, and that is not going to be run on an annual basis.

MS. SWAN: There is going to be no population estimate?

MS. STARKS: Just to clarify, and maybe we chat about these offline afterwards. But the Virginia Tech Trawl Survey produces a swept area abundance estimate, that is an index of abundance not necessarily our population estimate for horseshoe crabs.

MS. SWAN: That is a little bothersome to me, so maybe you can discuss that among yourselves, because even if the Virginia Tech, if it's a catch swept, then it could still be turned into somewhat of a population estimate. I think that that is an important number that we need every year. I think without it that the management of the horseshoe crab suffers.

MR. REID: Ms. Swan, thank you very much for your comments, and we look forward to your comments on the public hearing document.

MS. SWAN: I just have two more quick ones. Under the option of the status quo, I would like you to put that the Board can still opt to choose a more conservative level, that they don't have to go strictly by the harvest recommendations. Then just a second one, that even if we did run the ARM every year that we would still be working on making changes to that ARM Model. Thank you.

MR. REID: Thank you, Ms. Swan, certainly the Board can ask for those changes if they so desire. Anybody else in the public? Anybody online? Seeing none; back to the Board. Any additional modifications? Ms. Kennedy.

MS. CARRIE KENNEDY: Yes, I would like to add a new issue to the Addendum. It is specifically regarding the harvest caps for Maryland and Virginia that were established in Addendum VIII. I can read it into the record, and then give you the justification for it. **I would like to move to add a new issue to Draft Addendum IX regarding the harvest caps for Maryland and Virginia established by Addendum VIII. The issue would include the following set of proposed options: Option A would be Status Quo. There would be no change to the current harvest caps for Maryland and Virginia. Option B would allow the harvest caps for Maryland and Virginia to not apply whenever male-only harvest specifications are implemented. The caps would only apply when harvest specifications include female harvest.**

CHAIR REID: Is there a second to this motion? Mr. Geer, are you seconding the motion? Okay, rationale, Ms. Kennedy.

MS. KENNEDY: Yes. Currently the cap, we have it, it's in Addendum VIII. It is removed by the Board during specification setting when the ARM allows for female harvest, but the Board approves male-only harvest. We believe that this would provide consistency and stability for our fisheries, and we would like to ensure that there are formal guidelines for the adaptive practice.

CHIAR REID: Thank you very much, Mr. Geer, anything additional?

MR. PATRICK GEER: Just that I think it just gives better clarity as well.

CHAIR REID: I just want to address the workload question; in case we have a workload question. Ms. Starks, could you address the workload on this?

MS. STARKS: Yes, Mr. Chair. I don't believe that this would add a significant workload. I think I can add this language almost exactly to the document with those two options, and as long as it is clear to everyone on the Board and the Board supports that, I can easily do that.

CHAIR REID: Okay, thank you, discussion on the motion. Mr. Nowalsky.

MR. ADAM NOWALSKY: While I appreciate the very detailed outlining of the options themselves, the spelling out in paragraph form of the framing of the issue, we would just have to take that today on assumption that that is going to be done to our satisfaction, by staff I would assume.

CHAIR REID: Are you questioning the staff's reliability, Mr. Nowalsky?

MR. NOWALSKY: No more than I would question the ability of the Chair.

CHAIR REID: I would question that for sure.

MR. NOWALSKY: Both cases would be absolutely zero. I'm just trying to lay out that what we're seeing on the screen is not the entirety of what would be in the document itself. In approving a document today, we would be taking a leap of faith, one that is most likely completely comfortable, just with the understanding that there is information that is going to be in the document that we're not physically seeing today.

CHAIR REID: Well, apparently the Chair can review it, which I wasn't expecting that in the job description, Adam, to be honest with you, but I think you'll probably be fine. That would be my opinion. If anybody has something different, feel free to add it now. Seeing none; are you good, Adam? Okay, thank you. Any other discussion on the motion on the board? Seeing none**; is there any opposition? Any abstentions, any null votes? Motion passes by unanimous consent.** Any other modifications to this document at this point, from the Board? Ms. Costa, sorry.

MS. COSTA: Given Caitlin's earlier response to my question, I would just propose that the word bait be added under 3.2, Issue 2, Seasonal Harvest Restrictions Option B, so it is specific to the directed harvest and landing of all bait horseshoe crabs.

CHAIR REID: Any objection? Seeing none; done. Any other modifications? Anybody online? Seeing none; I would be looking for a motion to approve. Mr. Clark.

MR. CLARK: There it is. **Move to approve Draft Addendum IX for public comment, as modified today.**

CHAIR REID: Mr. Rhodes, are you seconding that motion? Seconded by Malcolm Rhodes. Any discussion? **Any opposition? Any abstentions? Any null votes? Seeing none; the motion passes by unanimous consent**. Next item on the agenda, okay why don't we go to you for full process, how about that, that is a good idea.

MS. STARKS: Thank you, Mr. Chair, I just want to clarify on the record that my intention is to modify the document as requested today, and then I will be reaching out to all of the states to schedule public hearings, so please look out for that.

CHAIR REID: Okay, thank you, so next on the agenda, Item 5 is to Discuss the AP Composition. That is not a unique challenge to this particular Board, it is a challenge we all face, the Councils and the Commission. But I am going to turn it over to Ms. Starks to lay out a possible way forward for the Board.

DISCUSS ADVISORY PANEL COMPOSITION

MS. STARKS: I just have a few slides with some context and additional background to start off the discussion. At our July 2024 Stakeholder Workshop, one of the other recommendations of the group was to evaluate the Horseshoe Crab Advisory Panel to determine if there is adequate representation across stakeholder groups, with the understanding that we may need to add seats or change the composition for nontraditional stakeholders, which for horseshoe crab have typically been conservation interests.

Before this meeting I did send out the AP membership list to the Board, but to summarize, the current composition of the AP, the state appointed advisors include five commercial harvesters, five biomedical industry reps, one processor/dealer, and two conservation interests. Then in addition there are two nontraditional seats, and those don't represent a particular state.

But those two individuals are coming from a habitat and conservation perspective. There are four vacancies in the state appointed seats, and they are all seats that were formally commercial harvesters that have since left the AP. Just to show this another way, here are all of the current appointments by state and stakeholder group.

The bolded names are Advisors that have attended at least 50 percent of the meetings in the past few years, so we're considering them active. You can see there is a significant portion of the AP that have not been active in recent years. We think it would be good to reach out to all of these advisors directly, and find out if they are still interested in serving on the Panel.

In addition, considering the overall makeup of the AP, staff recommends aiming for an even distribution of stakeholder groups, with five advisors each for representing the commercial industry, biomedical and conservation, and with

those five conservation seats, staff thinks it would be good to have two of them representing the Delaware Bay. We think one of the issues for attendance of the full AP could be that recent meetings have been more focused on the Delaware Bay region, so moving forward we may want to target a specific subgroup at the Advisory to meet for things regarding Delaware Bay specifically. The next step we recommend is that each state reach out to your current AP appointments to determine if they would still like to be on the AP, and then provide staff with any new nominations to fill seats as needed.

Once we get those nominations from the states, the Board can approve those at the following next meeting in May, and we can go from there to see if we need to fill any back. At that point we could consider an open solicitation process if we need to. But to make this timeline work, I think it would be helpful to get these nominations from the state by the end of March. I'm just looking for the Board to provide some input on this proposed process today.

CHAIR REID: Ms. Berger, would you like to add anything? Very good, okay input from the Board. Mr. Clark and then Mr. Cimino.

MR. CLARK: Just a question right here. Is there any difference between nontraditional and conservation? If not, wouldn't that weight the Board more toward, well I guess there is what, commercial, biomed and then conservation and nontraditional are considered two different groups here, but are they one and the same?

CHAIR REID: Ms. Berger.

MS. TINA L. BERGER: When we first went about developing or establishing the AP, some states felt the need to, instead of appointing a commercial person, appoint someone who represented conservation, and so that is how they did it. When we sent out the solicitation for the nontraditional, the primary conservation group we were targeting were shore bird interest, so that those interests could be represented on the AP. The state appointed were larger conservation for horseshoe crab and shore bird, and the nontraditional were more shore bird targeted.

CHAIR REID: All set, John? Mr. Cimino.

MR. JOE CIMINO: Yes, since this is a recommendation, I support where this is going. I did have one question. Looking at New Jersey's AP members, one is a commercial representative that I thought was actually brought forward by Maryland as a Maryland rep, and that would be Sam Martin.

MS. BERGER: Without drawing down into the nomination, I can look at that and get back to you.

CHAIR REID: Ms. Kennedy.

MS. KENNEDY: Sam is initially from Maryland, but I believe his facility and where he does most of his horseshoe crab work, both for bait and biomedical, I believe is in New Jersey currently.

CHAIR REID: All set, Joe? Any other discussion. Ms. Costa.

MS. COSTA: Yes, just a clarifying question. In addition to the states reaching out to current members, would that also include states soliciting new members to fill vacancies?

MS. STARKS: Yes, if a state has a vacancy currently that you want to go ahead and fill, you will want to just provide that nomination to the Board for consideration at the next meeting.

CHAIR REID: Okay, any more discussion on the recommendations? Are we good with the path forward? Any problem? Any opposition to the recommendations Ms. Starks put forward? Seeing none; Caitlin, you're good to go. That brings us to our last agenda item, which is to elect a Vice-Chair. Mr. Geer.

ELECT VICE-CHAIR

MR. GEER: **I move to elect Carrie Kennedy as Vice-Chair.**

CHAIR REID: Do we have a second for that motion? Mr. Clark, are you seconding that motion? Discussion on the motion. Seeing none; **any opposition, null or abstentions? Seeing none; congratulations and condolences,** Ms. Kennedy, we'll see you next time.

MS. KENNEDY: Thank you.

ADJOURNMENT

CHAIR REID: Is there any other business to come before this Board today? Well, thank you very much, appreciate your efficiency. I would like to thank Ms. Starks and the rest of the staff for getting this document ready to go out to the public, and we'll look forward to seeing you next time. The meeting is adjourned.

(Whereupon the meeting adjourned at 1:07 p.m. on Tuesday, February 4, 2025)

Outlook

FW: Discrimination

From Info (ASMFC) <info@ASMFC.ORG>
Date Mon 3/31/2025 9:17 AM
To Caitlin Starks <CStarks@ASMFC.org>; Toni Kerns <TKerns@ASMFC.org>

From: Stuart Potter <stupotter444@outlook.com>
Sent: Monday, March 31, 2025 3:09 AM
To: Info (ASMFC) <info@ASMFC.ORG>
Subject: [External] Discrimination

To whom it may concern:
The Atlantic States Marine Fisheries Commission
has clearly discriminated for years against Horseshoe crab bait fisherman directly causing immense financial losses. The ASMFC has chosen to redefine the word Harvest in order to give an inequitable, biased advantage to fisherman in the biomedical fishery for horseshoe crabs. By not considering fishing for horseshoe crabs for biomedical purposes to be called a harvest they have allowed the biomedical fisherman to not follow any of the harvest restrictions bait fisherman must follow. If any fisherman were to catch live HSC's remove any portion of the crab or percentage of the blood from the crab to be used for bait then return the crabs to the water it would be a harvest. Fishing for any species removing a portion of that species, returning it to the water in a diminished state for a profit and causing mortality is without a doubt a harvest. The ASMFC has intentionally created an unfair advantage for one industry over another competing for the same species. This issue needs to be resolved immediately.
Stuart Potter

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM IX TO THE HORSESHOE CRAB FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT

Multi-Year Specifications for Male-only Harvest in the Delaware Bay Region

February 2025

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Horseshoe Crab Draft Addendum IX for Public Comment

Public Comment Process and Proposed Timeline

In October 2024, the Atlantic States Marine Fisheries Commission's Horseshoe Crab Management Board initiated Draft Addendum IX to the Interstate Fishery Management Plan for Horseshoe Crabs to consider allowing for multi-year specifications for male-only harvest in the Delaware Bay region states of New Jersey, Delaware, Maryland, and Virginia. Additionally, Draft Addendum IX addresses seasonal harvest restrictions and harvest caps for Maryland and Virginia. This document presents background on the Commission's management of horseshoe crab in the Delaware Bay region, 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 **March 31 at 11:59 p.m**. **EDT.** Comments may be submitted by mail or email. 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: Horseshoe Crab Draft Addendum IX)

October 2024	Board Initiated Draft Addendum IX
February 2025	Board Approved Draft Addendum IX for public comment.
March 2025	Public Comment Period Including Public Hearings
May 2025	Board Reviews Public Comment, Selects Management Measures, Final Approval of Addendum IX
TBD	Implementation of Addendum IX Provisions

Horseshoe Crab Draft Addendum IX for Public Comment

1.0 Introduction

The Atlantic States Marine Fisheries Commission's (ASMFC) Horseshoe Crab Management Board (Board) approved the Interstate Fishery Management Plan for Horseshoe Crabs (FMP) in October 1998. The goal of the FMP includes management of horseshoe crab populations for continued use by current and future generations of the fishing and non-fishing public, including the biomedical industry, scientific and educational researchers, migratory shorebirds, and other dependent fish and wildlife, including federally listed sea turtles. ASMFC maintains primary management authority for horseshoe crabs in state and federal waters. The management unit for horseshoe crabs extends from Maine through the east coast of Florida. Horseshoe crab are currently managed under the FMP and its eight addenda. The Delaware Bay region is the primary focus of this Draft Addendum. Bait harvest in the Delaware Bay region is managed using the Adaptive Resource Management (ARM) Framework. The ARM framework incorporates population models of horseshoe crabs and red knots and aims to balance harvest with maintaining the ecosystem and supporting shorebird migration.

In October 2024, the Board initiated Draft Addendum IX to consider adding an additional specifications tool for the Delaware Bay region that would allow the Board to set specifications for male-only harvest for multiple years. It also considers reestablishing seasonal harvest restrictions for the Delaware Bay region bait fishery. The Board initiated the draft via the following motion:

> *Move to initiate an addendum to consider the ability to set multi-year specifications for male-only horseshoe crab harvest of Delaware Bay-origin Horseshoe Crab based on the ARM Framework or an alternative male-only harvest specification setting method.*

2.0 Overview

2.1 Statement of the Problem

The Board initiated Draft Addendum IX in October 2024 to consider allowing for multi-year specifications for male-only harvest in the Delaware Bay region states of New Jersey, Delaware, Maryland, and Virginia. Since 2013, the first year the Adaptive Resource Management (ARM) Framework was used to set specifications for harvest of Delaware Bay-origin horseshoe crabs, the Board has maintained zero female harvest. When the 2021 ARM Framework Revision was adopted for management use in 2022 through Addendum VIII (ASMFC 2024), the possibility of female harvest elicited widespread public concern. Acknowledging these concerns, the Board has continued to establish zero female harvest annually despite the ARM Framework output including a limited amount of female harvest since 2022.

In July 2024, the Commission held a stakeholder workshop including representatives from environmental non-governmental organizations (NGOs), fishing industry, biomedical industry, bird and horseshoe crab scientists, and resource managers to generate recommendations for Board consideration regarding horseshoe crab management in the Delaware Bay region. A key

consensus recommendation developed at the workshop was to continue running the ARM Framework but prohibit female horseshoe crab harvest while several additional recommendations are considered and implemented. Multi-year specifications for male-only harvest in the Delaware Bay region states would alleviate concerns about female harvest while the Board considers possible changes to the Delaware Bay management program.

Additionally, it was recently identified that seasonal harvest restrictions established for the Delaware Bay states under Addenda IV-VI were not included in Addendum VII. Based on review of Board discussions during the development of Addendum VII, it appears the omission of the seasonal provisions, which prohibited the directed harvest of horseshoe crabs of Delaware Bay-origin from January 1 through June 7, was an oversight. Therefore, this Draft Addendum also considers whether to reestablish the provisions of Addendum IV-VI that would restrict directed harvest during the beginning of the year and the spawning season.

Addenda VII and VIII also include provisions that place a maximum limit on the total level of allowed harvest by Maryland and Virginia. The caps for each state were based on Addendum VI quota levels for Maryland and Virginia and are intended to provide protection to non-Delaware Bay-origin crabs when female harvest is allowed. The provision states that the harvest caps shall apply to these two states "except when the ARM Framework outputs an optimized harvest that prohibits harvest of female horseshoe crabs." If the ARM Framework output prohibits female horseshoe crab harvest, then Maryland and Virginia are allocated additional male harvest. This Draft Addendum proposes options to clarify the language in Addendum VIII regarding the harvest caps and whether they would apply if the Board voluntarily implements zero female harvest of Delaware-origin horseshoe crabs.

2.2 Background

In response to public concern regarding the horseshoe crab population and its ecological role in Delaware Bay, the Board adopted a multi-species approach to managing the commercial horseshoe crab bait fishery in the region. Addendum VII was approved in February 2012, implementing the Adaptive Resource Management (ARM) Framework for use during the 2013 fishing season and beyond. The Framework considers the abundance levels of horseshoe crabs and shorebirds (specifically, the rufa red knot) in determining the appropriate harvest level for the Delaware Bay states of New Jersey, Delaware, Maryland, and Virginia (east of the COLREGS). Since 2013, the Board has annually reviewed the maximum bait harvest levels output by the ARM model to specify harvest levels for the following year in New Jersey, Delaware, Maryland, and Virginia.

In 2021, a revision to the ARM Framework was completed and peer-reviewed. The revision updated and improved the ARM model with an additional decade of data on shorebirds and horseshoe crabs in the Delaware Bay region, and advancements in modeling software and techniques, including recommendations from the original peer review. Addendum VIII was approved in 2022 to allow the use of the 2021 Revision of the ARM Framework in setting annual bait harvest specifications for horseshoe crabs of Delaware Bay-origin.

During the public comment period on Addendum VIII, over 30,000 comments were submitted opposing the adoption of the ARM Revision in large part because the results of the revised model run for the 2023 fishing year allowed for a limited amount of female horseshoe crab by the bait fishery for the first time since ARM implementation. In response to the widespread concern, the Board chose to implement zero female horseshoe crab harvest for the 2023 season, despite the ARM model output including limited female harvest. Given the apparent differences in stakeholder opinions on female harvest, in 2023, the Board conducted a survey of stakeholders including bait harvesters and dealers, biomedical fishery and industry participants, and environmental groups to better understand their diverse perspectives and values, and whether changes to horseshoe crab management for the Delaware Bay region should be considered.

The results of the survey confirmed that the various stakeholder groups hold divergent values and perspectives related to horseshoe crab management. Commercial industry participants indicated they still value the harvest of female horseshoe crabs, though it has not been permitted in the Delaware Bay region since 2012. Environmental researchers and advocates tended to value the protection of female horseshoe crabs and the ecological role of horseshoe crabs as a food source for shorebirds over the fishery. Considering these conflicting values, ASMFC held a stakeholder workshop in July 2024 with participants from all stakeholder groups to discuss management objectives for the Delaware Bay region horseshoe crab fishery[1].

The main purpose of the workshop was to increase understanding of various stakeholder perspectives and identify essential concerns and areas of common ground for horseshoe crab management. An important finding from the workshop was that participants from all stakeholder groups affirmed a preference for adaptive management over other approaches. However, it is clear there is a need to engage stakeholders in a process to evaluate and reconsider aspects of the ARM Framework to better address stakeholder concerns and values. Following the workshop recommendations, the Board agreed to move forward with considering potential changes to the ARM Framework with stakeholder input.

The workshop discussions also emphasized the need for an interim management approach while the Board gathers information from stakeholders and considers modifying the ARM Framework. Although the workshop participants agreed the ARM should continue to be used while additional recommendations are addressed, they expressed a desire for more certainty around future harvest levels. Specifically, the participants agreed it would be preferable to set the female harvest quota to zero for the time needed to address other recommendations. The management program does not currently allow for horseshoe crab bait harvest specifications to be set for multiple years. Draft Addendum IX aims to address the workshop recommendations

[1] The final report on the July 2024 Horseshoe Crab Management Objectives Workshop can be found here: https://asmfc.org/wp-content/uploads/2024/10/HSCMgmtObjectivesWorkshopReport_Oct2024.pdf

by allowing for male-only harvest of Delaware Bay-origin horseshoe crabs to be established for multiple years based on the ARM Framework.

3.0 Management Options

Draft Addendum IX considers three management issues:

1. Multi-year harvest specifications for male-only bait harvest
2. Seasonal harvest restrictions
3. Harvest caps for Maryland and Virginia

When the Board takes final action on the Addendum, there is the opportunity to select any measure within the range of options that went out for public comment, including combining options across issues.

3.1 Issue 1: Multi-year Specifications

The Board is seeking public input on whether to allow multi-year specification setting for male-only harvest of Delaware Bay-origin horseshoe crabs for bait. Status quo would not allow multi-year specification setting, while Option B does.

If Option B is selected, the Board would also have to select either sub option 1B-1 or 1B-2 to establish whether the maximum allowable male-only harvest would be managed based on the male:female sex ratio of horseshoe crabs on spawning beaches. This method would allow the Board to control male-only harvest based on annual fishery-independent surveys, without requiring the ARM Framework to be used.

Option 1A: Status Quo

This option would maintain the current management program for setting harvest specifications established under Addendum VIII. The Board would continue to annually consider the output of the ARM Framework and set bait harvest specifications for the next year, as detailed in Section 3.0 of Addendum VIII.

Option 1B: Allow multi-year specifications for male-only bait harvest for horseshoe crabs of Delaware Bay-origin for a maximum of three years at a time.

This option would allow the Board to set harvest specifications based on the ARM Framework for male-only bait harvest of horseshoe crabs for the Delaware Bay states (New Jersey, Delaware, Maryland and Virginia) for multiple years at a time. Under this option, the Board could choose to set specifications for up to three years. Multi-year specifications would only be allowed for male-only harvest; if any female harvest were included, then specifications could only be established for a single year.

The process for setting specifications would remain similar to the current process established under Addendum VIII. Specifically, the Board would review the output of the ARM Framework in the fall of a given year and set harvest limits for the following year, or years. For example, in fall 2025, the Board would review the ARM Framework output for 2026 harvest. The Board

would then consider whether to adopt the ARM Framework output for males and females for the following fishing year or set different harvest limits, such as adopting zero female harvest instead of the ARM-recommended female harvest limit. If the Board does not choose to allow any female harvest, then it could opt to set specifications for male-only harvest for either the 2026 fishing year only, the 2026 and 2027 fishing years, or the 2026-2028 fishing years based on the ARM Framework output.

If multi-year specifications are adopted, the process would differ in interim years. For example, if the Board sets specifications for three years, then in years one and two (i.e., interim years) no Board action would be required. However, during the interim years, the Board would review updated data from the Delaware Bay horseshoe crab and shorebird surveys (i.e., the Virginia Tech Trawl Survey, horseshoe crab spawning surveys, red knot aerial and ground surveys). The full ARM process would not occur, meaning the Board would not review a new horseshoe crab population estimate nor an ARM Framework output in interim years. Following a multi-year specifications period, the ARM Framework would be used to provide a new maximum harvest output, and the Board would need to establish new harvest specifications for the following year or years; this would include the option to implement female and male harvest or male-only harvest.

If selected, the provisions of this option would be in place through 2031, and a new addendum would be required to set multi-year specifications after 2031. However, the Board may choose to replace Addendum IX with another addendum or amendment to the FMP prior to 2031. If Addendum IX expires and the Board does not take management action to follow Addendum IX, then harvest specifications setting would revert to the process established in Addendum VIII and specifications would be set annually based on the ARM Framework.

The flowchart in Figure 1 outlines the process for setting harvest specifications if this option is adopted.

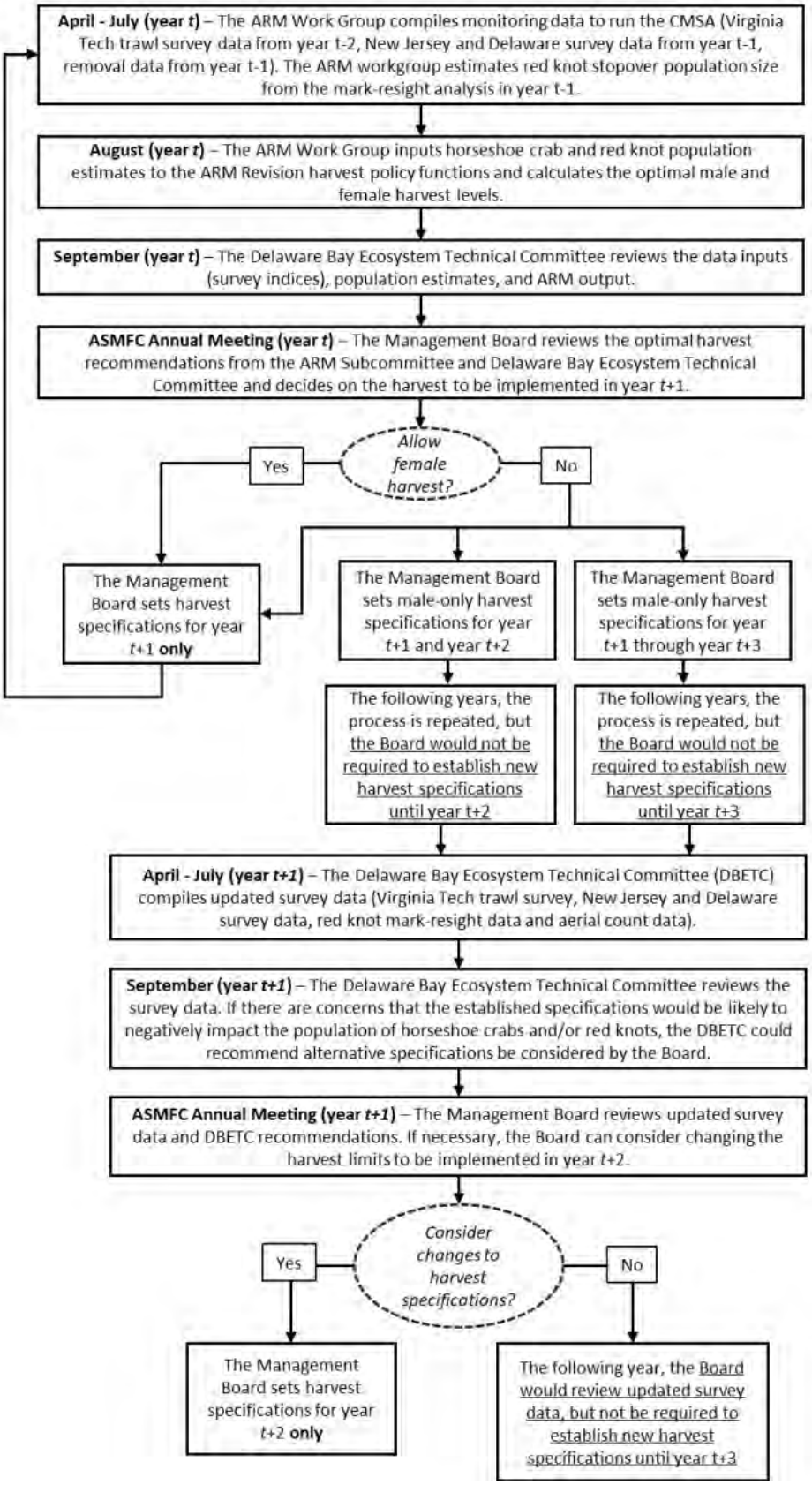

Figure 1. Proposed multi-year specifications setting process under Option B.

Sub-option 1B-1: No requirement to reduce male harvest limit based on spawning sex ratio. Under Sub-option B1, the Board would not be required to reduce male harvest in interim years of multi-year specifications based on the sex ratio of horseshoe crabs on the spawning beaches observed in the annual Delaware Bay spawning survey.

Sub-option 1B-2: In interim years, male horseshoe crab harvest must be reduced if spawning beach survey results indicate a male:female sex ratio below 3:1.
If this option is selected, in interim years of multi-year specifications (i.e., years when a new output is not provided by the ARM Framework), the Board would adjust male-only harvest specifications based on the male:female sex ratio of spawning horseshoe crabs on beaches observed in the bay-wide spawning survey. A target sex ratio would be set at 3 males to 1 female and a threshold sex ratio set at 2 males to 1 female. If the sex ratio is above 3:1, the maximum harvest of 500,000 Delaware Bay origin males would be permitted. If the sex ratio is between the target and threshold, the maximum allowable male harvest would be reduced as the ratio decreases and would be zero if the sex ratio were to decrease to 2:1 or less (Figure 2). Maximum male harvest levels based on the spawner sex ratio are defined in Table 1.

There is no direct link between male horseshoe crab abundance and red knot population dynamics. The only way male abundance could limit red knot population growth would be if the operational male:female sex ratio on the spawning beaches dropped to a point at which not all eggs were fertilized. Although satellite males (those that do not attach to a female) can fertilize as many eggs as attached males (Brockman et al. 2000), 96 – 100% of eggs are fertilized whether or not satellite males are present (Brockman 1990). Some males are not capable of amplexus (the mating position in which the male clasps the shell of the female) because of their condition (Brockman and Smith 2009) and females will tend not to nest unless they are in amplexus with a male. Therefore, an operational sex ratio skewed toward males is needed to ensure fertilization of eggs. If the spawning sex ratio should drop below 2:1, there is a chance of incomplete fertilization of the eggs deposited by females and future recruitment of horseshoe crabs could decline. As long as the sex ratio on the spawning beaches remains greater than 2:1, there is no biological mechanism for male abundance to limit red knot population growth. Given this effect of male crabs on the population dynamics of both species, a simple harvest control rule could be used to manage male-only harvest as a function of the spawning beach sex ratio.

Sex ratio data is collected and reported annually through the bay-wide horseshoe crab spawning survey. The average sex ratio on the spawning beaches was 4.2:1 from 1999 – 2019 (Figure 3). The lowest sex ratio over that period was 3.1 males to 1 female, and it has generally showed an increasing trend through time despite male-only harvest since 2013.

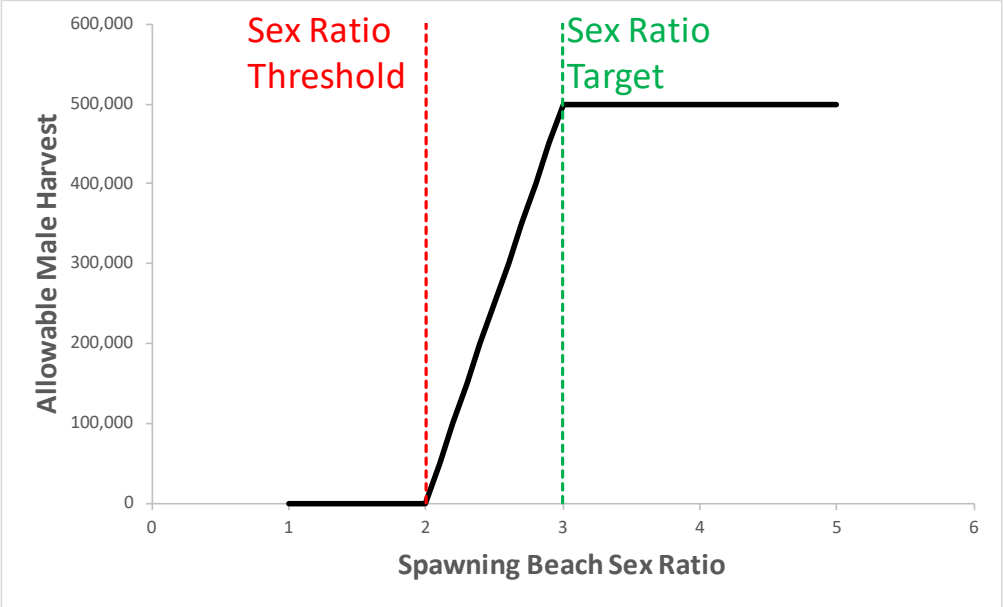

Figure 2. Harvest level of male horseshoe crabs as a function of the sex ratio (M:F) on the spawning beaches, as proposed under sub-option 1B-2. When the sex ratio is >3:1, the maximum allowable harvest of males is 500,000 Delaware Bay-origin crabs. As the sex ratio decreases below 3:1, the maximum allowable male harvest would decrease. If the sex ratio declines to 2:1 or less, no male harvest would be permitted.

Table 1. Maximum harvest level of male horseshoe crabs based on the sex ratio (M:F) on the Delaware Bay spawning beaches, as proposed under Sub-option 1B-2.

Observed Male:Female Sex Ratio	Maximum Allowable Male Harvest
≤2.0:1	0
2.1:1	50,000
2.2:1	100,000
2.3:1	150,000
2.4:1	200,000
2.5:1	250,000
2.6:1	300,000
2.7:1	350,000
2.8:1	400,000
2.9:1	450,000
≥3.0:1	500,000

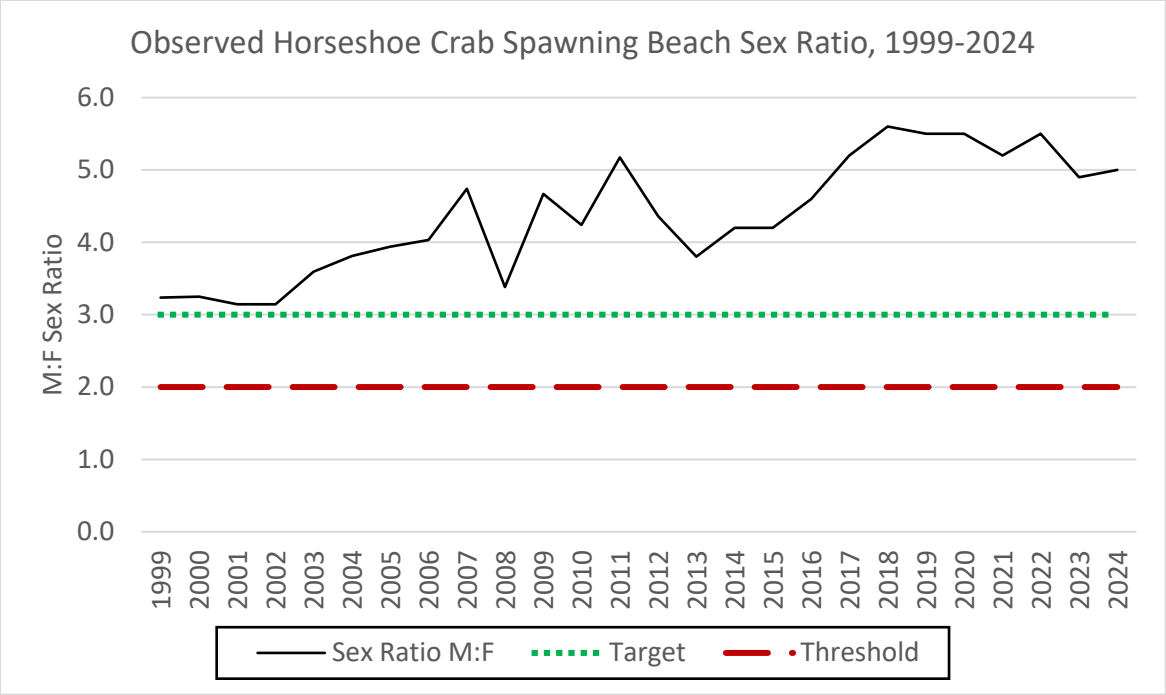

Figure 3. Average annual spawning sex ratio observed during Delaware Bay horseshoe crab spawning beach survey from 1999-2024.

3.2 Issue 2: Seasonal Harvest Restrictions

The Board is seeking public input on whether to reestablish seasonal harvest restrictions for directed harvest of Delaware Bay-origin horseshoe crabs. Addenda IV-VI included provisions to restrict horseshoe crab harvest in the Delaware Bay states during the beginning of the year and the spawning season. Specifically, the provision prohibited directed harvest from January 1 through June 7, inclusive, for New Jersey, Delaware, and Maryland, and prohibited the landing of horseshoe crabs in Virginia from federal waters from January 1 through June 7. These seasonal provisions expired after April 30, 2013, and were not included in Addendum VII. However, based on Board discussions during the development of Addendum VII, it appears there was intent to include the same seasonal harvest provisions in Addendum VII, but they were inadvertently omitted. Currently, the harvest season for the directed bait fishery in the Delaware Bay region is as established in Addendum III, which states, "New Jersey, Delaware and Maryland shall prohibit the harvest and landing of horseshoe crabs for bait from May 1 through June 7, inclusive" (ASMFC 2004).

Status quo would not change the current requirements, while Option B would prohibit directed harvest in of Delaware Bay-origin horseshoe crabs from January 1 through June 7, as was specified in Addenda IV-VI.

Option 2A: Status Quo

Under this option, there would be no change to the current regulations regarding seasonal restrictions. Therefore, if adopted, this option would maintain a closed season for bait harvest

of horseshoe crabs in and around Delaware Bay during peak horseshoe crab spawning. New Jersey, Delaware, and Maryland would be required to prohibit the harvest and landing of horseshoe crabs for bait from May 1 through June 7, inclusive. This includes all landings for bait, whether directed or as bycatch.

Option 2B: Reestablish seasonal harvest restrictions of Addendum IV-VI.
If adopted, this option would prohibit directed harvest and landing of all horseshoe crabs for bait in New Jersey, Delaware, and Maryland from January 1 through June 7. It would also prohibit the landing of horseshoe crabs in Virginia from federal waters from January 1 through June 7.

3.3 Issue 3: Application of Harvest Caps for Maryland and Virginia

The Board is seeking public input on whether to modify the policy established in Addendum VIII to provide additional clarity on when the harvest caps for Maryland and Virginia would be applied. Status quo would not change the current requirements, while Option B would clarify that the harvest caps would not apply whenever harvest is limited to males only.

Option 3A: Status Quo
Under this option, there would be no change to the language in Addendum VIII. Addendum VIII states that the harvest caps for Maryland and Virginia (170,653 and 60,998 crabs, respectively) "apply except when the ARM Framework outputs an optimized harvest that prohibits harvest of female horseshoe crabs. In this situation, female horseshoe crab harvest in Maryland and Virginia are prohibited but a 2:1 offset of males:females applies and allows the total male harvest of Maryland and Virginia to rise above the cap level."

This language could be interpreted such that if the ARM Framework output included any female harvest, these harvest caps would apply. This means in a situation where the ARM Framework output allows for any female harvest, total harvest for Maryland and Virginia could be restricted to the harvest caps, even if the Board chooses to set female harvest at zero voluntarily.

Option 3B: Modify language for the application of harvest caps.
If adopted, this option would change the language establishing the policy for when the Maryland and Virginia harvest caps would apply. Instead of stating the "caps apply except when the ARM Framework outputs an optimized harvest that prohibits harvest of female horseshoe crabs," this proposed option would change the language to "these caps apply only when female harvest is implemented. The harvest caps for Maryland and Virginia would not apply whenever male-only harvest is implemented."

This change clarifies that the harvest caps would not apply in a situation in which the ARM Framework output includes female harvest, but the Board chooses to implement male-only harvest voluntarily.

4.0 Compliance

TBD

5.0 Literature Cited

ASMFC. 2004. Addendum III to the Fishery Management Plan for Horseshoe Crab. Fishery Management Report of the Atlantic States Marine Fisheries Commission. Arlington, VA. 14 pp.

ASMFC. 2019. 2019 Horseshoe Crab Benchmark Stock Assessment. Arlington, VA. 271 pp.

ASMFC. 2021. Revision to the Framework for Adaptive Management of Horseshoe Crab Harvest in the Delaware Bay Inclusive of Red Knot Conservation and Peer Review Report. Arlington, VA. 302 pp.

ASMFC. 2022. Addendum VIII to the Fishery Management Plan for Horseshoe Crab. Fishery Management Report of the Atlantic States Marine Fisheries Commission. Arlington, VA. 12 pp.

Brockmann HJ (1990) Mating behavior of horseshoe crabs, Limulus polyphemus. Behaviour 114:206–220.

Brockman, H.J., C. Nguyen, and W. Potts. 2000. Paternity in horseshoe crabs when spawning in multiple male groups. Animal Behavior 60:837-849.

Brockman, H.J. and M.D. Smith. 2009. Reproductive competition and sexual selection. In: Tanacredi, J.T, M.D. Smith (eds.) Biology and Conservation of Horseshoe Crabs. Springer, New York, pp. 199- 221.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Horseshoe Crab Management Board**

FROM: **Caitlin Starks, Senior FMP Coordinator**

DATE: **April 23, 2025**

SUBJECT: **Public Comment on Draft Addendum IX to the Horseshoe Crab Fishery Management Plan**

The following pages represent a draft summary of all public comments received by ASMFC on Horseshoe Crab Draft Addendum IX as of 11:59 PM (EST) on March 31, 2025 (closing deadline). Comment totals for the Draft Addendum are provided in the tables below, followed by summaries of the state public hearings, and written comments sent by organizations and individuals. A total of 17 written comments were received. These included six letters from organizations, and eleven comments from individual industry stakeholders and concerned citizens. Four public hearings were held (one in-person hearing in Maryland, one hybrid hearing in Delaware, and two virtual hearings). The total public attendance across the four hearings was 37, though some individuals attended multiple public hearings. Four individuals provided comment at public hearings.

The following tables are provided to give the Board an overview of the support for each of the management options contained in Draft Addendum IX. Comment totals by state for comments provided during public hearings were tallied based on the hearing attended. It should also be noted that some individuals provided comments at a public hearing and also submitted written comments, and these are counted separately in the tables below. Additional comments that did not indicate support for a particular option are included in the breakdown of total comments received. Prevailing themes from the public comments on Draft Addendum IX, including rationales for support or opposition and general considerations, are summarized below the tables.

Table 1. Breakdown of Total Comments Received by Category

Comments Received by Category	
Organization Letters	6
Individual Comments	11
Total Written Comments	**17**
Comments Provided at Public Hearings	
New Jersey	0
Delaware	4
Maryland	1
Virginia	0
Total Comments Received	**22**

Table 2. Support for Draft Addendum IX Options indicated in written comments submitted to ASMFC and provided at public hearings

	Proposed Management Options							
Issue	**1. Multi-year specifications**				**2. Season**		**3. Harvest Caps**	
Option	**1A**	**1B**	**1B-1**	**1B-2**	**2A**	**2B**	**3A**	**3B**
Organization Letters	1	5	0	5	0	6	2	1
Written Comments	3	4	1	3	2	4	3	3
Public Hearings	2							
Total	**6**	**9**	**1**	**8**	**2**	**10**	**5**	**4**

Support for Option 1A. Status Quo (annual specifications).

- Consistent annual review of the Adaptive Resource Management (ARM) Framework is important for oversight.
- Harvest specifications should be set based on the best available science.
- The Board should use the recommended harvest levels from the ARM. The recommendation for the Board to consider option 1B came from the stakeholder workshop, but the workshop did not include any bait hand-harvesters. Another workshop is needed that includes hand-harvesters.
- Female hand harvest should be allowed with the current process.

Support for Option 1B. Allow multi-year specifications for male-only bait harvest for horseshoe crabs of Delaware Bay-origin for a maximum of three years at a time.

- Opposed to harvest of female horseshoe crabs (this allows for more years of no female harvest).
- There are still concerns that the ARM model used to set the quotas is flawed.
- Female horseshoe crabs are critical to the Delaware Bay ecosystem and need protection.
- Multi-year specifications would reduce uncertainty for stakeholders.
- There should be no sunset date for using multi-year specifications.
- All aspects of the ARM Framework should be reviewed, not just the reward and utility functions.
- Even if multi-year specifications are used it would be best to look at the ARM every year.
- There should be no female harvest until red knots and horseshoe crab eggs are increasing.

Support for Sub-option 1B-2. In interim years, male horseshoe crab harvest must be reduced if spawning beach survey results indicate a male:female sex ratio below 3:1.

- This option is preferred over 1B-1, but it is suggested that instead, harvest reductions should be initiated starting when the operational sex ratio drops below 4:1, with a reduction to zero harvest at 3:1 to ensure that the sex ratio remains at or above the observed minimum for the period of record.
- For the purpose of determining the sex ratio under this sub-option, the Board should use the Virginia Tech trawl survey rather than the bay-wide spawning survey

Support for Option 2B. Reestablish seasonal harvest restrictions of Addendum IV-VI (January 1 through June 7).

- The longer season closure should be reestablished as intended.
- Option 2B would make all Delawar Bay states' seasons consistent.
- Still advocating for total HSC harvest moratorium.

Support for Option 3B. Modify language for the application of harvest caps.

- The amended language agrees with the intent of the original language.

Other Comments

- ASMFC should require biomedical harvest to come from hand harvest only, and only males. The mortality of horseshoe crabs from trawling is very high.
- There should only be male horseshoe crab harvest.
- Ideally there should be no horseshoe crab harvest.
- No horseshoe crab harvest should be allowed because it is not economically worth it and alternatives for biomedical and bait can be used.
- Horseshoe crab harvest should be land-based only. Dredging for horseshoe crab should be banned due to ecosystem damage, high dead discards, and no sex selectivity.
- It is unfair that bait harvesters cannot take a small number of female horseshoe crabs when the biomedical take of females is much larger than what bait harvesters would take.
- There should be more focus on the biomedical take and mortality, which is greater than the Delaware Bay bait harvest. The biomedical catch has steadily increased. Many of the biomedical horseshoe crabs are taken by trawls; they should use hand-harvesting instead because it is a zero-bycatch fishery, and they save females when they are out harvesting.
- The bait harvest fishery has a smaller impact than the biomedical industry, and the bait fishery is much cleaner.
- The ARM Framework should still have an objective of the horseshoe crab population reaching a specific level of carrying capacity (e.g., 80% in the original framework).
- Other migratory shorebirds besides red knots also rely heavily on horseshoe crab eggs and egg density counts remain low.
- Additional data like egg density data would strengthen the ARM Framework.

Horseshoe Crab Draft Addendum IX Public Hearings

New Jersey Webinar Hearing

March 18, 2025

4 Public Participants

Commissioners: Joe Cimino (NJ), Adam Nowalsky (NJ), Jeff Kaelin (NJ)

ASMFC & State Staff: Caitlin Starks (ASMFC), Jeff Brust (NJ), Heather Corbett (NJ), Danielle Dyson (NJ)

Public Comment Summary

No public comments were provided.

New Jersey Public Hearing Online Attendance		
First Name	**Last Name**	**Email Address**
Jeffrey	Brust	jeffrey.brust@dep.nj.gov
Joseph	Cimino	joseph.cimino@dep.nj.gov
Heather	Corbett	heather.corbett@dep.nj.gov
Jeff	Kaelin	jkaelin@lundsfish.com
Susan	Linder	susanlinder1@aol.com
Adam	Nowalsky	captadamnj@gmail.com
Benjie	Swan	swan24@verizon.net
Peter	Belasco	read.belasco@gmail.com
Nora	Blair	nora.blair@crl.com
Danielle	Dyson	danielle.dyson@dep.nj.gov

Horseshoe Crab Draft Addendum IX Public Hearings

Delaware Public Hearing
March 27, 2025
Dover, Delaware
29 Public Participants

Commissioners: John Clark (DE), Roy Miller (DE), Eric Reid (RI)

ASMFC & State Staff: Caitlin Starks (ASMFC), Richard Wong (DE), Jordan Zimmerman (DE)

Public Hearing Overview

- 16 members of the public attended the in-person hearing, and 13 were in attendance via webinar.
- Two comments supported Option 1A while two others did not specify a preferred option.
- Attendees asked questions related to the horseshoe crab population and spawning sex ratio data and were informed about the surveys that provide these data.
- An attendee asked about the reason for the harvest season closure ending on June 7 because the horseshoe crabs are still spawning throughout June. It was clarified that the end date was related to the timing of when shorebirds leave the Delaware Bay region.
- Fishermen asked why they are not able to harvest small numbers of females, when the biomedical industry's estimated mortality is much higher. They explained that females are more valuable as bait and because they cannot harvest females in the Delaware Bay region, they are more expensive to buy from other states.
- Several attendees asked about the mortality rates from biomedical use and natural mortality and noted that the estimated mortality from bait harvest is much lower than either the estimated biomedical mortality (coastwide) and the natural mortality of horseshoe crabs. They also noted concerns that the biomedical take is not restricted to a quota.

Public Comment Summary

Mike Stansky, bait hand-harvester

- Feels it is unfair that harvesters cannot take a small number of female horseshoe crabs when the biomedical take is much larger than what bait harvesters would take.

Stuart Potter, bait hand-harvester

- Supports Option 1A.
- Draft Addendum IX came out of the stakeholder workshop in July 2024, which was supposed to include all of the stakeholders of the Delaware Bay fishery, but there were no bait harvesters at that workshop. There should be a future workshop that allows all stakeholder groups a seat at the table.
- The ASMFC is obligated to promote and better utilize fisheries based on science, not the opinions of stakeholder groups.

- There should be more focus on the biomedical take and mortality, which is greater than the Delaware Bay bait harvest. Their catch has steadily increased. Many of the biomedical horseshoe crabs are taken by trawls; they should use hand-harvesting instead because it is a zero-bycatch fishery, and they save females when they are out harvesting.

Jordan Giuttari, bait harvester and buyer

- Supports Option 1A.
- The bait harvest fishery has a smaller impact than the biomedical industry, and the bait fishery is a lot cleaner.

Matthew Sarver, Ecological Society of America

- Will submit written comments on behalf of Ecological Society of America.
- Would like there to be citations of the science behind the use of the sex-ratio targets and thresholds because it would me more helpful to understand the reasoning behind the decisions.

Delaware Public Hearing Online Attendance		
First Name	**Last Name**	**Email Address**
John	Clark	john.clark@delaware.gov
Joe	Francis	jfrancismd@verizon.net
Robin	Glazer	robin.glazer@delnature.org
Kayla	Gonzon	kmgonzon7@gmail.com
Diane	Hindman	dianehndmn@aol.com
Jon	Hurdle	jonhurdle@gmail.com
Susan	Linder	susanlinder1@aol.com
Casey	Marker	casey.marker@maryland.gov
Mark	Martell	majorcasualty@gmail.com
Nivette	Perez-Perez	nperezperez@inlandbays.org
Eric	Reid	Ericreidri@gmail.com
Pat	Ruhl	patrick.ruhl@delaware.gov
Matthew	Sarver	mjsarver@gmail.com
Carol	Stephens	csbpa@hotmail.com
Regan	Todd	regantodd36@gmail.com
Melina	Vella	melina.vella@delaware.gov
Harvey	Yenkinson	vetcraft@aol.com

ATLANTIC STATES MARINE FISHERIES COMMISSION

DE Public Hearing: Draft Addendum IX

PUBLIC ATTENDEE SIGN IN

DATE: March 27, 2025

LOCATION: Dover, Delaware

NAME	ORGANIZATION	CITY, STATE
Stuart Potter	Fisherman	Milford, DE
Purnell Potter	Fisherman	Milton, DE
Ariane dlueller	ERDG	Dover, DE
GLENN GAUVRY	ERDG	DOVER, DE
Joseph Smith	Commercial Fisherman	Townsend, DE
Jordan Zimmerman	DDFW	Dover, DE
Mike Finney	Daily State News	Dover, DE
Vernon Gifftari	Fisherman	Rowe. ?
Jordan Gifftari	Fisherman / Buyer.	
TREVOR METZ	N/A	Milford, DE
Mike Starkey	E-160	Townsend - DE
George Gehring	—	Kitts Hummock - DE
Ruby Lauter	-	Kitts Hummock - DE

NAME	ORGANIZATION	CITY, STATE
PAULINE Dermer Cannan		Kitts Hummock, Dover, DE
Roy MILLER	ASMFC	LEWES
STEVE COTTRELL	DELAWARE AUDUBON	NEWARK
LEONARD VOSS	WATERMAN	SMYRNA
Robert Piasecki	waterman	Dover

Horseshoe Crab Draft Addendum IX Public Hearings

Maryland Public Hearing
March 26, 2025
Berlin, Maryland
1 Public Participant

ASMFC & State Staff: Caitlin Starks (ASMFC), Steve Doctor (MD)

Public Comment Summary

Stuart Potter, DE Bait Harvester

- Supports 1A, status quo
- Bait harvesters were not included in the July 2024 stakeholder workshop
- Would like to see a small female harvest in Delaware given the population has rebounded
- NGOs should look into biomedical impacts. Is not sure a 15% mortality rate is the true number.

ATLANTIC STATES MARINE FISHERIES COMMISSION

MD HSC Public Hearing

PUBLIC ATTENDEE SIGN IN

DATE: 3/26/2025

LOCATION: ~~Arlington, Virgini~~a
Berlin, MD

NAME Stuart Potter	**ORGANIZATION** MKBENT	**CITY, STATE** Milford, DE

Horseshoe Crab Draft Addendum IX Public Hearings

Virginia Webinar Hearing

March 20, 2025

3 Public Participants

Commissioners: Pat Geer (VA), Eric Reid (RI)

ASMFC & State Staff: Caitlin Starks (ASMFC), Ethan Simpson (VMRC)

Public Comment Summary

No public comments were provided.

Virginia Public Hearing Online Attendance		
First Name	**Last Name**	**Email Address**
Arthur	Bender	harbor.rat@hotmail.com
Chantal	Garrison	cgarr211@gmail.com
Pat	Geer	pat.geer@mrc.virginia.gov
Susan	Linder	susanlinder1@aol.com
Eric	Reid	Ericreidri@gmail.com
Ethan	Simpson	ethan.simpson@mrc.virginia.gov

HORSESHOE CRAB RECOVERY COALITION

Comment on Horseshoe Crab Draft Addendum IX
March 28, 2025

Dear Commissioners:

As members of the Horseshoe Crab Recovery Coalition, a diverse group of more than 50 conservation and healthcare organizations dedicated to ensuring the future of the American horseshoe crab, we are writing to strongly encourage the adoption of the following options in Draft Amendment IX:

- **Option 1B:** Allow multi-year specifications for male-only bait harvest for horseshoe crabs of Delaware Bay-origin.
  - **Sub-option 1B-2:** In interim years, male horseshoe crab harvest must be reduced if spawning beach survey results indicate a male to female sex ratio below 3:1.
- **Option 2B:** Reestablish seasonal harvest restrictions of Addendum IV-VI.

While we appreciate the effort involved in proposing Draft Addendum IX, the Coalition remains concerned that the Adaptive Resource Management model used to set quotas is flawed. Any resumption of the female harvest should depend on documented evidence that horseshoe crab numbers are increasing, and that egg density data – the truest measure of the health of the species – shows signs of durable long-term recovery. The coalition's ongoing concerns with the ARM framework have been documented in detail and echo those made by Earthjustice on behalf of New Jersey Audubon and Defenders of Wildlife, two influential coalition partners, in a September 25, 2023, letter to the Horseshoe Crab Management Board.

Current indicators monitored by the coalition continue to show that that both horseshoe crab populations and the population of red knots, a shorebird that depends on horseshoe crab eggs as a source of food, are well below recovery thresholds.

The ongoing use of horseshoe crabs for bait and increased use for biomedical purposes jeopardize their recovery to historic population levels. Rufa red knot populations also remain near all-time lows from both a changing climate and the increasing scarcity of the food needed to fuel their 9,000-mile migration. The 2025 State of the Birds Report lists the red knot as an

“orange alert” tipping point species due to ongoing population loss with recent accelerated declines.

As we have long maintained, the relationship between horseshoe crab egg availability, red knot feeding behavior, mass gain and overall fitness is clear. During the Delaware Bay stopover period, red knots track horseshoe crab egg availability on sandy beaches bay-wide and little in the way of alternative food resources are available (Botton et al. 1994, Karpanty et al. 2006). Importantly, alternative food resources available during the Delaware Bay stopover (e.g., blue mussels, coquina clams) do not provide the necessary nutritional substrates that support rapid and significant mass gain (Haramis et al. 2007). Importantly, red knots departing from Delaware Bay in higher relative body condition migrated south up to a month later than individuals in lower condition, suggesting that the former were more likely to have bred successfully (Duijns et al. 2017). Moreover, individuals leaving Delaware Bay with a lower relative body condition had a lower probability of being detected in autumn, suggesting greater mortality compared to individuals with higher relative body condition (Duijns et al. 2017).

Many of our conservation organizations have sounded the alarm about the global biodiversity crisis and the specific threats facing shorebird populations, which have plummeted more than 70 percent over the past 50 years. Allowing the killing of female horseshoe crabs at this critical moment further imperils recovery of shorebirds like the red knot.

The joint collapse of red knots and horseshoe crabs is not inevitable. The Coalition welcomes a multi-year ban on the taking of female horseshoe crabs as a necessary step in the right direction. We support this action while continuing to advocate for a total moratorium on horseshoe crab harvest.

Respectfully signed by members of the Horseshoe Crab Recovery Coalition,

- American Bird Conservancy
- Birds Georgia
- Capt. Paul Eidman, Owner/Operator, Reel Therapy Fishing Charters (NJ)
- Center for Biological Diversity
- Coastal Expeditions Foundation (South Carolina)
- Delaware Audubon
- Delaware Nature Society
- Humane World for Animals
- League of Women Voters of NJ
- Maya K. van Rossum, the Delaware Riverkeeper, Delaware Riverkeeper Network
- National Wildlife Federation
- New Jersey Audubon
- New York State Ornithological Association
- Maryland Ornithological Society

- Mass Audubon
- North Carolina Wildlife Federation
- Dr. Carl Safina and the Safina Center
- reTURN the Favor
- Save Coastal Wildlife
- Saw Mill River Audubon
- Upstream Alliance (Maryland)
- The Wetlands Institute
- Wildlife Restoration Partnerships

References:

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Outlook

[External] Horseshoe Crab Draft Addendum IX

From Steve Cottrell <stevecottrell5@gmail.com>
Date Fri 3/28/2025 8:16 AM
To Comments <comments@asmfc.org>

Greetings,

On behalf of Delaware Audubon, I wish to comment on Draft Addendum IX for horseshoe crabs.

Of the different options, Delaware Audubon supports the following:

Option 1B
Sub-option 1B-2
Option 2B
Option 3A

Thank you.

Steve Cottrell

Delaware
Ornithological
Society

PO Box 4247
Wilmington, DE 19807

March 31, 2025

Caitlin Starks, Senior FMP Coordinator
1050 N. Highland Street
Suite 200A-N
Arlington, VA 22201
Email: Comments@asmfc.org

RE: Comment on Horseshoe Crab Draft Addendum IX

Dear Ms. Starks:

The Delaware Ornithological Society (DOS) is an all-volunteer, 501(c)3 nonprofit representing hundreds of members in Delaware and adjacent states. Our mission is the promotion of the study of birds, the advancement and diffusion of ornithological knowledge, and the conservation of birds and their environment. Our small grassroots organization has helped lead collaborative conservation efforts for Delaware's coastal bird habitat since 2007, raising over $750,000 in private matching funds for habitat acquisition through our annual Delaware Bird-a-Thon fundraiser. We work with our State and NGO partners to leverage these funds to help purchase habitat along the Delaware Bayshore.

As expressed in previous letters, DOS opposes harvest of female horseshoe crabs (HSC) due to stagnant population recovery in recent years and the fact that the HSC population remains far below historic levels that supported abundant migrating shorebirds at their critical Delaware Bay stopover habitats.

We appreciate the Horseshoe Crab Management Board's decision to pause consideration of female harvest while additional stakeholder engagement is conducted including evaluating the ARM framework's reward and utility functions. Our organization looks forward to participating in those discussions.

Issue 1. Multi-Year Specifications

DOS finds Option 1B, Suboption 1B-2 to be the least problematic of the options presented in the Draft Addendum, however we submit the following concerns.

As the Draft Addendum indicates, the lowest operational sex ratio of males to females observed during the period of record from 1999-2024 in the Delaware Bay population was 3.1:1. The Draft Addendum sets the lowest allowable operational sex ratio (OSR) at 2:1, with incremental harvest reductions beginning at 3:1. This is concerning because the lag time associated with incremental harvest reductions in response to a declining sex ratio may allow the OSR to drop considerably lower than the long-term observed minimum of 3.1:1 as a result of the long maturation period of the species. We suggest instead initiating harvest reductions starting when the OSR drops below 4:1, with a reduction to zero harvest at 3:1. This would ensure that the OSR remains at or above

the observed minimum for the period of record. We feel that allowing the ratio to drop below the range of variation observed over the past 25 years before significant corrective action is taken is imprudent.

In addition to simply attempting to retain the OSR within the observed range of variation as a matter of prudent management, there are compelling biological reasons that the decline below a 3:1 OSR could impact HSC population recovery. Chief among these is the maintenance of sufficient levels of heterozygosity and genetic diversity within the population. Secondly, there is evidence for female choice in the species and both male quality and male-female compatibility affected egg development, with considerably more of the eggs of polyandrous females developing successfully when fertilized by satellite males (Brockmann et al. 2015). Thus, at low OSR many females may experience lower reproductive success due to lack of sufficient high quality or compatible males.

As Brockmann et al. state, "some females may attract satellite males when the male to which they are paired is of low quality or incompatible. This behavior means that unattached males are not 'excess males' but an important part of the mating system of this species." Considering the complexity of the HSC mating system, we urge the Board to adopt a higher threshold for reduction in male harvest in order to maintain the OSR at or above 3:1 at all times.

Issue 2. Seasonal Harvest Restrictions

DOS supports Option 2B, Reestablish seasonal harvest restrictions of Addendum IV-VI. We encourage the Board to re-adopt the longer harvest closure that was inadvertently left out of Addenda VII and VIII.

Issue 3. Application of Harvest Caps for Maryland and Virginia

DOS has no position on Issue 3 at this time, as it is a matter of administrative clarification rather than policy.

General Comments

We reiterate comments made in our letter regarding the previous Draft Addendum, and hope that the reevaluation of stakeholder values currently being considered will include the following concerns:

1. The current management approach is not based upon a management objective to grow the Delaware Bay HSC population toward any metric related to an estimate of ecological carrying capacity, as the original ARM had done. While we appreciate that the prior carrying capacity estimate from the original ARM was based on limited data, we find it extremely concerning that the objective of meeting 80% of an estimated carrying capacity for DE bay area HSCs has been abandoned.

2. Other migratory shorebirds of conservation concern heavily utilize HSC eggs on migration stopover, including Semipalmated Sandpiper, Sanderling, and Ruddy Turnstone (Tsipoura and Burger 1999). Since the threatened *rufa* Red Knot is just one of many severely declining shorebird species that rely on Delaware Bay HSC eggs, and egg density counts remain much lower than historic levels, a conservative approach to HSC population management is warranted, especially given recent apparent stagnation of HSC population recovery.

Sincerely,

Matthew Sarver, DOS Conservation Chair

Literature Cited

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Outlook

[External] New public comment for Horseshoe Crab Draft Addendum IX

From ASMFC <info@asmfc.org>
Date Fri 3/28/2025 1:17 PM
To Comments <comments@asmfc.org>

Horseshoe Crab Draft Addendum IX

Action Title

Horseshoe Crab Draft Addendum IX

Action URL

https://asmfc.org/actions/horseshoe-crab-draft-addendum-ix/

Name

Glenn Gauvry

Email

erdg@horseshoecrab.org

State

Delaware

Comment

Although we appreciate the intent behind Option 1B to reduce unnecessary oversight—specifically, that “the full ARM process would not occur, meaning the Board would not review a new horseshoe crab population estimate nor an ARM Framework output in interim years”—we believe that the consistent review process serves an important purpose. It signals to all user groups that active oversight is ongoing, discouraging any inclination to exploit perceived inattention or complacency.

Draft Addendum IX considers three management issues:
1. Multi-year harvest specifications for male-only bait harvest - Option 1A: Status Quo
2. Seasonal harvest restrictions - Option 2B: Reestablish seasonal harvest restrictions of Addendum IV-VI.
3. Harvest caps for Maryland and Virginia - Option 3B: Modify language for the application of harvest caps.

ERDG
Ecological Research & Development Group Inc.
www.horseshoecrab.org

190 Main Street, Little Creek
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Phone: 302 236-5383
Glenn Gauvry, Founder / President of ERDG
Trade, Industry, Use, Working Group Chair, IUCN Horseshoe Crab Specialist Group

EARTHJUSTICE

March 28, 2025

Horseshoe Crab Management Board
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200 A-N
Arlington, VA 22201
comments@asmfc.org

VIA ELECTRONIC MAIL

Re: Support for Multi-Year Specifications for Male-Only Harvest in the Delaware Bay Region

Dear Members of the Horseshoe Crab Management Board:

New Jersey Audubon and Defenders of Wildlife strongly support allowing the Horseshoe Crab Management Board to set multi-year specifications for a male-only bait harvest, as proposed in Draft Addendum IX to the Horseshoe Crab Fishery Management Plan.[1] Multi-year specifications would extend critical protections for horseshoe crabs, the federally threatened red knot shorebird, and many other species that inhabit Delaware Bay. They would also provide reassurance and certainty for public stakeholders, including the more than 34,000 people who submitted comments to the Atlantic States Marine Fisheries Commission ("ASMFC" or the "Commission") opposing the resumption of a female horseshoe crab harvest.[2] To help establish a solid foundation for ecosystem recovery, New Jersey Audubon and Defenders of Wildlife also support the options to require a reduction in the male bait harvest if the male:female sex ratio falls below 3:1 and to reestablish the seasonal harvest restrictions of Addendum IV-VI.

In previous comments, New Jersey Audubon and Defenders of Wildlife detailed the extraordinary connection between horseshoe crabs and red knots.[3] Each year, red knots make an epic, continent-spanning migration that for many individuals extends 17,000 miles from the southern tip of South America to their breeding grounds in the Arctic and back again. Historically, vast numbers of red knots have stopped at Delaware Bay on their journey north,

[1] ASMFC, Draft Addendum IX to the Horseshoe Crab Fishery Management Plan for Public Comment 4-6 (Feb. 2025) ("Draft Addendum IX").
[2] Memorandum from Caitlin Starks on Public Comment on Draft Addendum VIII to the Horseshoe Crab Fishery Management Plan 1 (Oct. 20, 2022), *in* ASMFC, Materials for the 2022 Annual Meeting of the Horseshoe Crab Management Board.
[3] New Jersey Audubon and Defenders of Wildlife submitted comments and independent expert analysis in 2022 and 2023 opposing the adoption and utilization of the revised Adaptive Resource Management model and urging the continued prohibition on the female horseshoe crab bait harvest. These materials are available in a combined file at https://earthjustice.org/wp-content/uploads/2023/09/nj-audubon-defenders-of-wildlife-2023-comments-to-hsc-board.pdf. In 2024, New Jersey Audubon and Defenders of Wildlife submitted additional comments and independent expert analysis addressing ASMFC's response to the earlier submissions. The 2024 materials are available at https://earthjustice.org/wp-content/uploads/2025/03/nj-audubon-defenders-of-wildlife-comments-to-hsc-mgmt-bd-2024.pdf.

arriving in the spring just as millions of horseshoe crabs emerge from the ocean to spawn on the beach. Under the right conditions, horseshoe crabs lay a superabundance of eggs sufficient to sustain their population while also serving as an energy-rich buffet for hungry red knots and many other species.[4] In less than two weeks at Delaware Bay, red knots can nearly double their body weight and depart with sufficient energy reserves to improve their odds of reaching the Arctic and breeding successfully.[5]

In the late twentieth century, horseshoe crabs at Delaware Bay were significantly overharvested for use as bait in other fisheries. As their numbers plummeted, so too did the number of red knots stopping at Delaware Bay. From 1981 to 2002, the peak red knot count in Delaware Bay usually exceeded 40,000 and twice surpassed 90,000.[6] Over the past five years, the peak count has fluctuated between 22,266 in 2023 and the all-time low of 6,880 in 2021.[7] In 2024, the peak red knot count was 14,225.[8] The federal government listed red knots as "threatened" under the Endangered Species Act in 2015, with "[r]educed food availability in Delaware Bay due to commercial harvest of the horseshoe crab . . . considered a primary causal factor in red knot population declines in the 2000s."[9]

Today the Delaware Bay ecosystem remains significantly depleted, with substantial clear evidence of ecological decline in key indicators and other troubling signs of broader problems. Red knot numbers are languishing well below their historical abundance, and the availability of horseshoe crab eggs on the beach remains an order of magnitude below prior levels.[10] Metrics for assessing the health of the horseshoe crab population further suggest adverse trends—e.g., survey data persistently demonstrate declines in the female:male sex ratio and female prosomal width. These circumstances justify a precautionary approach that affords a more sustained opportunity for ecosystem recovery.

I. The Board Should Allow Multi-Year Specification-Setting for Male-Only Harvest.

To contribute to restoring the Delaware Bay ecosystem, the Board should adopt Option 1B in Draft Addendum IX to allow multi-year male-only harvest specifications. Female horseshoe crabs play an irreplaceable role at Delaware Bay because they lay the eggs consumed by red

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[4] Lawrence Niles et al., *Effects of Horseshoe Crab Harvest in Delaware Bay on Red Knots: Are Harvest Restrictions Working?*, 59 BioScience 153, 155 (2009).
[5] *Id.* at 154; *see also* Allan J. Baker et al., *Rapid Population Decline in Red Knots: Fitness Consequences of Decreased Refuelling Rates and Late Arrival in Delaware Bay*, 271 Proceedings of the Royal Society of London B 875, 876 (2004).
[6] U.S. Fish & Wildlife Service ("FWS"), *Rufa Red Knot Background Information and Threats Assessment* 100 tbl. 12 (2014).
[7] J. E. Lyons, *Red Knot Stopover Population Size and Migration Ecology at Delaware Bay, USA, 2024* 10 (Draft), *in* ASMFC, Materials for the 2024 Annual Meeting of the Horseshoe Crab Management Board.
[8] *Id.*
[9] FWS, "Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Rufa Red Knot," 79 Fed. Reg. 73706, 73707 (Dec. 11, 2014).
[10] Joseph A. M. Smith, *Horseshoe Crab Egg Availability for Shorebirds in Delaware Bay: Dramatic Reduction After Unregulated Horseshoe Crab Harvest and Limited Recovery After 20 Years of Management*, 32 Aquatic Conservation: Marine and Freshwater Ecosystems 1913, 1920 (2022).

knots, as well as many other species of shorebird, finfish, and sea turtles. Their eggs are a major reason that horseshoe crabs are a keystone species, and the abundance of females must be sufficient to sustain the horseshoe crab population and to fulfill the species' larger ecological role.

A. Female Horseshoe Crabs Are Critical to the Delaware Bay Ecosystem and Need Protection.

The ecological health of Delaware Bay hinges significantly on a thriving population of female horseshoe crabs. Since 2013, ASMFC has prohibited the bait harvest of female Delaware Bay-origin horseshoe crabs—the most important step it has taken to stabilize conditions for horseshoe crabs and red knots. For fishing years 2013 through 2022, the Commission utilized a version of the Adaptive Resource Management ("ARM") model that never recommended a female bait harvest due to the low abundance estimates of horseshoe crabs and red knots. Beginning with fishing year 2023, ASMFC utilized a revised version of the ARM model that is virtually certain to recommend a substantial female harvest. New Jersey Audubon and Defenders of Wildlife were among the tens of thousands of commenters who opposed ASMFC's adoption of the revised ARM model and opposed the model's recommendation for a female harvest, and they maintain that the model contains fatal defects making it an inappropriate tool for managing the ecosystem. While they continue to oppose ASMFC's approval of the model for management use, they appreciate that ASMFC listened to public concern and has continued to prohibit the bait harvest of female Delaware Bay-origin horseshoe crabs rather than implement the model's recommendations.

In prior comments to ASMFC, New Jersey Audubon and Defenders of Wildlife presented independent analysis demonstrating that red knots are highly dependent on female horseshoe crabs in ways that the revised ARM model disregards. Contrary to extensive research and the premise of the ARM Framework's objective statement,[11] the ARM model assumes that there is scarcely any correlation between female horseshoe crab abundance and red knot survival.[12] But independent analysis found that red knot survival is tightly correlated with the availability of horseshoe crab eggs on the beach—a metric that the ARM model entirely omits.[13] The ARM model also vastly overestimates red knot survival rates and thus fails to recognize the species' vulnerability to periods of low egg availability.[14] ASMFC's defense of these high survival rates depends on likely misreads of red knot tagging data and serious misinterpretations of relevant scientific literature.[15] And in recent years, ASMFC has struggled to cope with what appears to be pervasive misclassification of female horseshoe crab ages in survey data.[16] The Commission has attempted to backfill missing empirical data with mathematical estimates, but with key data

[11] ASMFC, *Revision to the Framework for Adaptive Management of Horseshoe Crab Harvest in the Delaware Bay Inclusive of Red Knot Conservation* (Draft for Board Review) 25 (2022).
[12] New Jersey Audubon and Defenders of Wildlife's 2022 Comments 3-4, 2022 analysis by Dr. Kevin Shoemaker 6-12; 2024 Comments 2-3, 2024 Shoemaker analysis 5-8.
[13] New Jersey Audubon and Defenders of Wildlife's 2023 Comments 8-10, 2023 Shoemaker analysis 19-27.
[14] New Jersey Audubon and Defenders of Wildlife's 2023 Comments 8-11, 2023 Shoemaker analysis 8-14.
[15] New Jersey Audubon and Defenders of Wildlife's 2024 Comments 3-6, 2024 Shoemaker analysis 11-15.
[16] Memorandum from Delaware Bay Ecosystem Technical Committee and Adaptive Resource Management Subcommittee re: Delaware Bay Horseshoe Crab Harvest Recommendation for 2025, at 2 (Sept. 23, 2024), *in* ASMFC, Materials for the 2024 Annual Meeting of the Horseshoe Crab Management Board.

missing, the ARM model cannot be run in the manner that its creators intended and the Board approved.

Moreover, while trawl surveys have appeared to indicate increasing female horseshoe crab abundance in recent years, these data mask underlying concerning trends in the population. The surveys also reveal that the sex ratio of females to males is declining, and that female body size is decreasing.[17] These trends would not be expected in a recovering population and suggest that important aspects of horseshoe crab physiology and population dynamics have been overlooked or poorly understood. The persistently low availability of horseshoe crab eggs, noted above, raises additional concerns about the status of horseshoe crabs.

Female horseshoe crabs are also threatened by the rapidly accelerating biomedical harvest along the Atlantic Coast, which increased from fewer than 700,000 horseshoe crabs in 2020 to more than 1.1 million in 2023.[18] Many stakeholders believe that ASMFC underestimates the deleterious impacts (both lethal and sublethal) of the biomedical harvest, but even by the Commission's estimate, coastwide biomedical mortality exceeded 178,000 in 2023.[19] The Horseshoe Crab Fishery Management Plan directs ASMFC to consider restrictions on the biomedical harvest if mortality exceeds 57,500[20]—a figure that was exceeded more than three times over in 2023—but the Commission has yet to act. Females are especially valuable to the biomedical industry because their larger body size means more blood can be drained from them. The increasing biomedical pressure is all the more reason not to roll back protections from the bait harvest.

The current state of the ecosystem demonstrates that prohibiting the female bait harvest is necessary and will remain so for the next several years. In particular, considering red knots' listing under the Endangered Species Act and their continued low abundance at Delaware Bay, it is critical not to dismantle their fragile path to potential recovery. ASMFC should approve Option 1B to enable multi-year male-only harvest specifications.

B. Multi-Year Harvest Specifications Would Reduce Uncertainty for Stakeholders.

Establishing a multi-year male-only bait harvest would provide the important additional benefit of alleviating stakeholders' uncertainty and confusion about the Board's management intentions. As noted above, the current version of the ARM model is overwhelmingly opposed by the public

[17] Yan Jiao et al., *Results of the 2023 Horseshoe Crab Trawl Survey: Report to the Atlantic States Marine Fisheries Commission Horseshoe Crab and Delaware Bay Ecology Technical Committees* 4 (Aug. 2024), *in* ASMFC, Materials for the 2024 Annual Meeting of the Horseshoe Crab Management Board; New Jersey Audubon and Defenders of Wildlife's 2022 Comments, 2022 analysis by Dr. Romuald Lipcius 6-8, 10-11.
[18] ASMFC, Review of the Interstate Fishery Management Plan: Horseshoe Crab (*Limulus polyphemus*): 2020 Fishing Year 6 (Oct. 2021), *in* ASMFC, Materials for the 2021 Annual Meeting of the Horseshoe Crab Management Board; ASMFC, Review of the Interstate Fishery Management Plan: Horseshoe Crab (*Limulus polyphemus*): 2023 Fishing Year 7 (Oct. 2024), *in* ASMFC, Materials for the 2024 Annual Meeting of the Horseshoe Crab Management Board. Due to limitations in the data reported by ASMFC, biomedical data cannot be broken down by sex or geography.
[19] ASMFC, Review of the Interstate Fishery Management Plan: Horseshoe Crab (*Limulus polyphemus*): 2023 Fishing Year 7, *in* ASMFC, Materials for the 2024 Annual Meeting of the Horseshoe Crab Management Board.
[20] ASMFC, Interstate Fishery Management Plan for Horseshoe Crab 27 (Dec. 1998).

because it is virtually certain to recommend a substantial female bait harvest. While the Board has not implemented that recommendation to date, the public is in the difficult position of having to guess whether resuming the female harvest is under serious consideration in any given year. The public has no indication of whether a resumption of female harvest is a serious threat such that it is necessary to advocate for maintaining existing protections.

Resuming the female bait harvest would be the most consequential reversal of horseshoe crab protections in the twenty-seven years since ASMFC issued the horseshoe crab Fishery Management Plan. Such a step should not be considered without full public notice and transparency. At the same time, if the Board is not considering reversing the prohibition on female bait harvest, advocacy to maintain that prohibition is a resource-intensive distraction for both the public and the Commission. Multi-year male-only harvest specifications would facilitate public engagement that is responsive to the options that are actually under consideration by the Board.

C. Suggestions for Improving Option 1B

Of the options presented in Draft Addendum IX, New Jersey Audubon and Defenders of Wildlife strongly urge the Board to approve Option 1B over maintaining the status quo. They also offer two suggestions regarding the language and implementation of Option 1B.

First, ASMFC should remove limitations on the duration of multi-year specifications. The precarious condition of the Delaware Bay ecosystem, together with unresolved defects in the ARM model, demonstrate that circumstances would need to improve significantly before any resumption of the female bait harvest should be seriously considered. As currently drafted, Option 1B limits multi-year male-only harvest specifications to three years, and the ability to set multi-year specifications would expire after six years (barring a new addendum). These temporal limitations are unnecessary, and they are arbitrarily untethered to whatever the ecological conditions may be at the time of expiration. Instead, ASMFC should allow for multi-year specifications that remain effective until the Board affirmatively—and with adequate public notice—changes them.

Second, while multi-year specifications are in effect, the Board should consider improvements to all aspects of the ARM model. Draft Addendum IX appropriately indicates that the Board will consider changes to the ARM model while multi-year male-only harvest quotas are in effect, based on stakeholders' recommendation at the July 2024 Horseshoe Crab Management Objectives Workshop.[21] However, the recommendation in the Workshop Report is confined to considering changes to the ARM model's reward and utility functions.[22] While such changes may be appropriate, the defects identified in previous comments from New Jersey Audubon and Defenders of Wildlife pertain to other aspects of the model. It is critical for the Board to comprehensively evaluate the ARM model and make all necessary improvements while the ARM model is undergoing review.

[21] Draft Addendum IX 3-4.

[22] ASMFC Staff & Weaver Strategies LLC, *Report on the July 2024 Horseshoe Crab Management Objectives Workshop* 12 (Oct. 7, 2024), *in* ASMFC, Materials for the 2024 Annual Meeting of the Horseshoe Crab Management Board.

II. The Board Should Require Harvest Reductions if the Male:Female Sex Ratio of Horseshoe Crabs Falls.

The Board should adopt Sub-option 1B-2 requiring a reduced male horseshoe crab bait harvest for years when the ARM model is not run if the male:female sex ratio falls below 3:1. For the reasons described in Draft Addendum IX, this is a commonsense precaution that will help ensure an abundance of males sufficient to fertilize the eggs laid by females. It is a straightforward and efficient way for ASMFC to respond to unpredicted volatility in male abundance.

Along with their support for Sub-option 1B-2, New Jersey Audubon and Defenders of Wildlife offer the following suggestion and observation.

For the purpose of determining the sex ratio under this sub-option, the Board should use the Virginia Tech trawl survey rather than the bay-wide spawning survey. The spawning survey has long been plagued by concerns about accuracy and reliability. While the notion of counting males on the beach to determine whether there is an adequate number to fertilize the eggs may hold intuitive appeal, a spawning survey is particularly inappropriate for determining sex ratio. Results can be skewed by females buried under spawning males and out of sight of the surveyor. Moreover, males are known to spawn with every tide, whereas females spawn only once or twice, further skewing male numbers upwards. The Virginia Tech trawl survey provides a ratio unbiased by these challenges.

In addition, while a significant decline in sex ratio would be an important reason to reduce the male-only harvest specification, the same holds true for a significant decline in *any* aspect of the horseshoe crab population. For example, it would also be necessary to reduce harvest levels if the total abundance of horseshoe crabs declined, regardless of the sex ratio. Even a decline in female abundance may counsel in favor of reducing the male harvest due to unanticipated or unintended effects of the male harvest such as female bycatch. The Board should be prepared to reduce harvest levels if conditions warrant, regardless of whether the precise scenario was contemplated in Addendum IX.

III. The Board Should Readopt the Seasonal Harvest Restrictions of Addenda IV-VI.

The Board should adopt Option 2B, reaffirming its intent to prohibit, from January 1 through June 7: (a) directed harvest and landing of all horseshoe crabs for bait in New Jersey, Delaware, and Maryland, and (b) the landing of horseshoe crabs in Virgina from federal waters.

As Draft Addendum IX explains, these restrictions were in place under Addenda IV-VI and later dropped, apparently inadvertently, beginning with Addendum VII. New Jersey Audubon and Defenders of Wildlife commend the Board for identifying this oversight and strongly support reestablishing seasonal harvest restrictions as described in Option 2B.

IV. Conclusion

Multi-year male-only harvest specifications offer an opportunity to maintain a stable horseshoe crab management regime and address shortcomings in the current version of the ARM model. Ecological conditions at Delaware Bay reinforce the need to maintain the prohibition on the female bait harvest for at least the next several years. The Board should adopt Option 1B, along with Sub-option 1B-2 and Option 2B.

Respectfully submitted,

Benjamin Levitan
Senior Attorney
Earthjustice Biodiversity Defense Program
(202) 797-4317
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Outlook

[External] New public comment for Horseshoe Crab Draft Addendum IX

From ASMFC <info@asmfc.org>
Date Mon 3/31/2025 9:42 AM
To Comments <comments@asmfc.org>

Horseshoe Crab Draft Addendum IX

Action Title

Horseshoe Crab Draft Addendum IX

Action URL

https://asmfc.org/actions/horseshoe-crab-draft-addendum-ix/

Name

Lisa Ferguson

Email

lferguson@wetlandsinstitute.org

State

New Jersey

Comment

The Wetlands Institute has a long history stewarding the Delaware Bay population of horseshoe crabs (Limulus polyphemus) through programs in research, conservation, and education. Since 1991, our staff and volunteers have contributed annually to the Delaware Bay spawning surveys and, since 2013, we have organized hundreds of volunteers to rescue over one million stranded horseshoe crabs on Delaware Bay beaches in New Jersey through the reTURN the Favor program. Through our investment in this work, we are helping to recover the Delaware Bay population of horseshoe crabs and the species that rely on them.
As stakeholder participants in the ASMFC Horseshoe Crab Management Objectives Workshop in 2024, we recommended the maintenance of a zero-female harvest for the Delaware Bay population while revisions to the Adaptive Resource Management (ARM) model are determined.
We write with appreciation for the chance to weigh in on Draft Addendum IX, in support of:
Option 1B2: Allow for multiyear specifications for male-only bait harvest, with reduced harvest limits if the sex ratio from spawning surveys falls below 3:1.
Option 2B: Reestablish seasonal harvest restrictions.
Option 3A: Maintain the harvest caps for Maryland and Virginia.
The horseshoe crab population plays a critical role in the resiliency of the Delaware Bay ecosystem. Threatened and at-risk species from near and far rely on the eggs deposited by spawning horseshoe crabs amassed on Delaware Bay beaches during critical life history stages. Famously, red knots (Calidris canutus rufa) make a hemispheric journey to

nesting grounds in the Arctic aided by a stopover on the Delaware Bay to gorge on abundant and accessible crab eggs. Local breeding fish, crabs, birds, and reptiles consume these eggs, creating ecological linkages of impact that extend far beyond the Delaware Bay. Though the connection and value of horseshoe crabs to a multitude of species is clear, the extent and repercussions from a reduced population of horseshoe crabs are not fully understood. Incorporating additional data, particularly annual measures of horseshoe crab egg densities, would strengthen the models for multiple species.

Lisa Ferguson, PhD
Director of Research and Conservation
The Wetlands Institute

Outlook

[External] New public comment for Horseshoe Crab Draft Addendum IX

From ASMFC <info@asmfc.org>
Date Fri 3/21/2025 9:38 AM
To Comments <comments@asmfc.org>

Horseshoe Crab Draft Addendum IX

Action Title

Horseshoe Crab Draft Addendum IX

Action URL

https://asmfc.org/actions/horseshoe-crab-draft-addendum-ix/

Name

Chris Crolley

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capt.cmc@gmail.com

State

South Carolina

Comment

Dear Commissioners:
As members of the Horseshoe Crab Recovery Coalition, a diverse group of more than 50 conservation and healthcare organizations dedicated to ensuring the future of the American horseshoe crab, we are writing to strongly encourage the adoption of the following options in Draft Amendment IX:
• Option 1B: Allow multi-year specifications for male-only bait harvest for horseshoe crabs of Delaware Bay-origin.
o Sub-option 1B-2: In interim years, male horseshoe crab harvest must be reduced if spawning beach survey results indicate a male to female sex ratio below 3:1.
• Option 2B: Reestablish seasonal harvest restrictions of Addendum IV-VI.
• Status Quo
While we appreciate the effort involved in proposing Draft Addendum IX, the Coalition remains concerned that the Adaptive Resource Management model used to set quotas is flawed. Any resumption of the female harvest should depend on documented evidence that horseshoe crab numbers are increasing, and that egg density data – the truest measure of the health of the species – shows signs of durable long-term recovery. The coalition's ongoing concerns with the ARM framework have been documented in detail and echo those made by Earthjustice on

behalf of New Jersey Audubon and Defenders of Wildlife, two influential coalition partners, in a September 25, 2023, letter to the Horseshoe Crab Management Board.

Current indicators monitored by the coalition continue to show that that both horseshoe crab populations and the population of red knots, that depend on their eggs as a source of food, are well below recovery thresholds.

The ongoing use of horseshoe crabs for bait and increased use for biomedical purposes jeopardize their recovery to historic population levels. Rufa red knot populations also remain near all-time lows from both a changing climate and the increasing scarcity of the food needed to fuel their 9,000-mile migration. The 2025 State of the Birds Report lists the red knot as a tipping point species due to ongoing population loss with recent accelerated declines.

Many of our conservation organizations have sounded the alarm about the global biodiversity crisis and the specific threats facing shorebird populations, which have plummeted more than 70 percent over the past 50 years. Allowing the killing of female horseshoe crabs at this critical moment further imperils recovery of shorebirds like the red knot.

The joint collapse of red knots and horseshoe crabs is not inevitable. The Coalition welcomes a multi-year ban on the taking of female horseshoe crabs as a necessary step in the right direction. We support this action while continuing to advocate for a total moratorium on horseshoe crab harvest.

Respectfully signed by,
Chris Crolley
Member of the Horseshoe Crab Recovery Coalition

References:

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Harramis, G.M., W.A. Link, P.C. Osenton, D.B. Carter, R.G. Weber, N.A. Clark, M.A. Teece and D. S. Mizrahi. 2007. Stable isotope and pen feeding trial studies confirm the value of horseshoe crab Limulus polyphemus eggs to spring migrant shorebirds in Delaware Bay. Journal of Avian Biology. 38: 367376. doi: 10.1111/j.2007.0908-8857.03898.x.

Karpanty, S.M., J.D. Fraser, J. Berkson, L.J. Niles, A. Dey and E.P. Smith. 2006. Horseshoe crab eggs determine Red Knot distribution in Delaware Bay. Journal of Wildlife Management 70:1704-1710.

Bo\on, M.L., R.E. Loveland and T.R. Jacobsen. 1994. Site selection by migratory shorebirds in Delaware Bay and its relationship to beach characteristics and abundance of horseshoe crab (Limulus polyphemus) eggs.

Outlook

[External] New public comment for Horseshoe Crab Draft Addendum IX

From ASMFC <info@asmfc.org>
Date Mon 3/31/2025 7:56 PM
To Comments <comments@asmfc.org>

Horseshoe Crab Draft Addendum IX

Action Title

Horseshoe Crab Draft Addendum IX

Action URL

https://asmfc.org/actions/horseshoe-crab-draft-addendum-ix/

Name

George Gehring

Email

gehr1234@yahoo.com

State

Delaware

Comment

I attended the recent meeting at the Little Creek Wildlife office and would like to make my preferences known for the Addendum IX management plan.

I support 3.1, 1-B sub-option 1B-2

I support 3.2, 2B

I support 3.3, option 3B

Thank you for your presentation.

Outlook

[External] New public comment for DE Horseshoe Crab Draft Addendum IX Hearing

From ASMFC <info@asmfc.org>
Date Thu 3/27/2025 3:16 PM
To Comments <comments@asmfc.org>

DE Horseshoe Crab Draft Addendum IX Hearing

Action Title

DE Horseshoe Crab Draft Addendum IX Hearing

Action URL

https://asmfc.org/events/de-horseshoe-crab-draft-addendum-ix-hearing/

Name

Lani Hummel

Email

lanihummel@aol.com

State

Maryland

Comment

There should be male-only horseshoe crab harvests for the foreseeable future. The red knot population has not rebounded to the point where female horseshoe crabs should be included in the harvests. That said, my hope is that sooner rather than later, there will be a ban on harvests of all horseshoe crabs, male and female. There is a viable substitute for horseshoe crab blood used for medical purposes and there are other, less vulnerable animals that can be used for bait in the whelk and eel fisheries.

Outlook

[External] Horseshoe Crab Draft Addendum IX

From RUBY LAUFER <rubyl@comcast.net>
Date Fri 3/28/2025 10:02 AM
To Comments <comments@asmfc.org>

Hi Caitlin,

I am a resident of the NJ shore and also have a home at Kitts Hummock beach in Dover, Delaware. I am writing to comment on the Horseshoe Crab Addendum 3.0 for the Management Options for horseshoe crabs.

For Issue 3.1, Multi Year Specifications, I support Option 1B and sub option 1B-2. I feel it is crucial to protect our female horseshoe crabs as well as the male/female ratio.

For Issue 3.2 Seasonal Harvest Restrictions I support option 2B.

For Issue 3.3 Application of Harvest Caps for Maryland and Virginia, I support 3B.

Thank you so much for the work that you all do in protecting our horseshoe crabs!

Ruby Laufer

Outlook

[External] 'Horseshoe Crab Draft Addendum IX'

From Gmail <majorcasualty@gmail.com>
Date Mon 3/31/2025 9:17 PM
To Comments <comments@asmfc.org>

My name is Mark Martell and I served as President of the Delaware Audubon Society for many years and have been involved in the horseshoe crab and migratory shorebird conservation fight since the 1980's.

I understand that my comments are only supposed to deal with the management options being offered. I find none of the management options palatable. Even a male only harvest option for the Delaware side of the Bay makes no sense.

We are better than this.

We have the science to recognize that we no longer need the horseshoe crab blood to test products for human product testing. We've developed an alternative and should migrate to it.

In terms of using the crab as bait for whelk and eel? We don't need it. Male or female. On the Delaware side of the Bay our agencies inform us that there is minimum economic value for the male crab. Depending on who you talk to, the bait is worth 15-25 cents per crab. For a ballpark of 150,000 male crabs harvested, less than $100,000 a year worth of value is derived. The professional fishermen themselves complain about the minimum value a male only limited harvest provides.

Anyone who has taken the time to witness the migratory shorebird relationship over decades knows full well that the extreme over harvesting of crabs going back to the 1980's is principally responsible for the decline of our plover, red knot and sanderling species. While limiting these harvests over the last decade or three have been helpful, the threatened species numbers have merely flatlined and not fully recovered.

The Delaware taxpayer will not be impacted at all over the cessation of harvesting horseshoe crabs. So the question begs - what's the value proposition for any harvest whatsoever? Shut it down. There is far more economic value to the ecotourism associated with Delaware's unique role on the Great Atlantic Flyway than there is in the appeasement of a handful of permitted fishermen using a seasonal only bait to catch conch and eel.

We are better than this. Aren't we?

Sincerely,

Mark B Martell
Bear, DE
302-229-7352

Outlook

[External] New public comment for DE Horseshoe Crab Draft Addendum IX Hearing

From ASMFC <info@asmfc.org>
Date Sat 3/29/2025 8:50 AM
To Comments <comments@asmfc.org>

DE Horseshoe Crab Draft Addendum IX Hearing

Action Title

DE Horseshoe Crab Draft Addendum IX Hearing

Action URL

https://asmfc.org/events/de-horseshoe-crab-draft-addendum-ix-hearing/

Name

Stuart Potter

Email

stupotter444@outlook.com

State

Delaware

Comment

The Atlantic States Marine Fisheries Commision has an obligation to promote the better utilization of fisheries along the Atlantic coast through facts and studies based in science and not be influenced by any outside stakeholder groups however invested in this issue. If ASMFC Horseshoe Crab Board can't follow the Commission's recommendations based on all the very expensive studies and calculations done by the technical committee than maybe some changes need to be made to the HSC board itself. Delaware losing the harvest of female HSC's for 2023, 2024 and now 2025 from the board going against the Commission's recommendations has caused the fisherman involved in Delawares bait harvest to suffer huge financial loses. The workshop in Lewes Delaware did not have one person from Delaware's bait harvest fishery and two of the members supposed to be representing the fishing community from the DE bay region are heavily involved in the biomedical industry giving the biomedical industry four representatives. The other supposed to be representing the fishing community is on the ASMFC horseshoe crab board as a proxy. There was no true representation of bait fishermen and it appears to be intentional. On issue #1 I support option 1A: status quo. On issue #2 I support option 2A status quo. On issue #3 I support option 3A status quo and insist that another workshop be held this summer were all stakeholder groups have a seat at the table before the HSC board meets in the fall of 2025. Please allow the technical committee's recommendation for the small harvest of female HSC's in Delaware.

Outlook

[External] New public comment for MD Horseshoe Crab Draft Addendum IX In-Person Hearing

From ASMFC <info@asmfc.org>
Date Sat 3/29/2025 7:07 AM
To Comments <comments@asmfc.org>

MD Horseshoe Crab Draft Addendum IX In-Person Hearing

Action Title

MD Horseshoe Crab Draft Addendum IX In-Person Hearing

Action URL

https://asmfc.org/events/md-horseshoe-crab-draft-addendum-ix-in-person-hearing/

Name

Stuart Potter

Email

stupotter444@outlook.com

State

Delaware

Comment

The definition of harvesting when it refers to animals:
1. a quantity of animals caught or killed for human use
2. to catch or kill (animals) for human use or consumption
The Atlantic States Marine Fisheries Commision has allowed the Biomedical industry to change the wording of the English language when talking about fishing for horseshoe crabs using Bottom Trawling methods. Any method of fishing for horseshoe crabs is a harvest biomedical or not. Bottom trawling for any live species whether it is for consumption, bait or biomedical research is fishing and is a harvest. It doesn't matter what percentage survives the process and it is the literal definition of fishing and harvesting. During this fishing practice the Atlantic States Marine Fisheries Commision doesn't even add in the estimated amount of Horsehoe Crabs that are crushed, mangled and killed on the bottom of the ocean floor that do not come up in the trawlers nets. This alone proves that the estimated mortality is not accurate. If they were not fishing/harvesting these crabs from bottom trawling or dredging this added underestimated mortality would not be happening. The Atlantic States Marine Fisheries Commision should require that the majority of Horseshoe Crabs harvested for biomedical purpose be taken from the zero bi catch fishery of hand harvesting (male only). This method is not only zero bi catch but much less stressful on the crabs because of the gentle manner at which they can be handled. No female crabs should be harvested for biomedical purpose just because it's more cost effective.

Outlook

[External] New public comment for Horseshoe Crab Draft Addendum IX

From ASMFC <info@asmfc.org>
Date Mon 3/31/2025 11:55 PM
To Comments <comments@asmfc.org>

Horseshoe Crab Draft Addendum IX

Action Title

Horseshoe Crab Draft Addendum IX

Action URL

https://asmfc.org/actions/horseshoe-crab-draft-addendum-ix/

Name

Purnell Potter

Email

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State

Delaware

Comment

I support option A status quo on issues 1,2,& 3. The potential harvesting of female horseshoe crabs through hand collecting in Delaware needs more attention. The science clearly shows there's no reason it shouldn't be considered. There have been zero females harvested for well over a decade in Delaware. It's time to take a more reasonable approach. I'm pushing for the board to take a closer look into Delaware's clear disadvantage. Females are collected in Delawares surrounding states for biomedical purposes. Hand harvesting is the cleanest and least invasive way to harvest horseshoe crabs. Once again I support option A status quo on issues 1,2,& 3.

Thanks
Purnell Potter IV

Outlook

[External] New public comment for Horseshoe Crab Draft Addendum IX

From ASMFC <info@asmfc.org>
Date Fri 3/21/2025 12:32 PM
To Comments <comments@asmfc.org>

Horseshoe Crab Draft Addendum IX

Action Title

Horseshoe Crab Draft Addendum IX

Action URL

https://asmfc.org/actions/horseshoe-crab-draft-addendum-ix/

Name

Kurt Schwarz

Email

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State

Maryland

Comment

I support the proposal to limit all harvest to males only. Ideally, all harvest should be ceased until both horseshoe crabs and Red Knots and other shorebirds species recover. But one step at a time. Since females only produce eggs, which feed the shorebirds, it makes sense to end the harvest of females. I lead annual trips to Delaware Bay to see Red Knots and other shorebirds. They have become decidedly scarce in late May, nor have we seen many horseshoe crabs.

It should be noted that Maryland has the highest quota for the Mid-Atlantic states. I have been advocating to curtail, indeed, eliminate the Maryland harvest for the last decade and half. At least some of the horseshoe crabs harvested in Maryland originate in Delaware Bay.

The end of female harvest makes sense to me. But we should go further, and end all bait harvest, while encouraging the switch to the alternative for horseshoe crab blood in the medical field.

Atlantic States Marine Fisheries Commission (ASMFC)

Horseshoe Crab Management Board

Date: March 31, 2025

Addendum IX "Multi-Year Specifications for the Male-only Harvest in the Delaware Bay Region"

I am in support of Option 1A. to continue to run the ARM Model every year and have the results presented to the ASMFC Horseshoe Crab Management Board for their consideration and review. The Board's decision would be based on "the best available science" and would be transparent. Putting the ARM Model on a shelf and providing no population estimates for three years does not benefit the horseshoe crab nor the Red Knot. It halts our knowledge of the two species and prevents us from improving and moving forward with our data collection and analysis.

The ARM plan along with the population estimates are the most important gauges for managing the horseshoe population. The ARM incorporates all the horseshoe crab data from the Delaware Bay States and determines the appropriate level of harvest based on the data. The population estimates add relevance to the numbers. The ARM results coupled with the population estimates guide the decisions of fishery managers.

At a time when the public is becoming more aware of the importance of horseshoe crabs, and influencing management decisions, these numbers are more important than ever. Fishery managers and the public should be provided the "best available science" in a way that is easily presentable and understandable.

Addendum IX puts the "the best available science" on a shelf. The facts will be obscured within State Reports and Independent Surveys, less straightforward, less subject to scrutiny, and less accessible than the ARM results and population estimates. After years of intense criticism, the modeling and the population analysis could not be more transparent.

Addendum IX is not a management tool. It deters us from focusing on the horseshoe crab, and steers us away from understanding the Red Knot population.

Sincerely,

Benjie Swan

Limuli Laboratories

Leonard Voss, Jr.
2854 Big Oak Rd
Smyrna, DE 19977
Phone: 302-423-6564

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

Subject: Horseshoe Crab Draft Addendum IX

Dear Ms. Starks:

Thank you for the opportunity to comment on Draft Addendum IX of the Horseshoe Crab Fishery Management Plan.

I am commercial fisherman from Delaware. I prefer sub-option 1B-1 (no requirement to reduce male harvest limit based on spawning sex ratio) as it allows for a multi-year approach. I feel that nothing would be gained by the HSC Management Board ignoring the science every year, specifically the results of the Adaptive Resource Management Model. I feel the best way to stay on top of horseshoe crab management is to have the results of the ARM calculated and disseminated annually.

Regarding Issue 2, I support option 2B as I feel this would bring all Delaware Bay states under the same seasonal harvest restrictions.

Regarding Issue 3, I favor option 3B as I feel the amended language is in agreement with the intent of the original language.

Respectfully,

Leonard H Voss Jr

Leonard Voss Jr.

Outlook

[External] New public comment for DE Horseshoe Crab Draft Addendum IX Hearing

From ASMFC <info@asmfc.org>
Date Fri 3/21/2025 11:03 AM
To Comments <comments@asmfc.org>

DE Horseshoe Crab Draft Addendum IX Hearing

Action Title

DE Horseshoe Crab Draft Addendum IX Hearing

Action URL

https://asmfc.org/events/de-horseshoe-crab-draft-addendum-ix-hearing/

Name

Dr Harvey Yenkinson

Email

vetcraft@aol.com

State

New Jersey

Comment

I am hopeful the commission will consider a land based harvest only and disallow dredging for horseshoe crabs. Land based harvest is 100% selective for harvesting females only. It is also environmentally friendly and creates no harm to the environment.

In contrast, the heavy dredges used are extremely damaging to the bottom ecosystem. Also dredging introduces dead discards into the equation, and is not selective for sex harvest.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Horseshoe Crab Management Board**

FROM: **Horseshoe Crab Advisory Panel**

DATE: **April 21, 2025**

SUBJECT: **Advisory Panel Report**

A Horseshoe Crab Advisory Panel (AP) meeting was held on Thursday, April 10 from 3:00 - 4:30 p.m. The purpose of the meeting is to review Draft Addendum IX to the Horseshoe Crab FMP as well as public comments submitted and provide input to inform the Management Board's decisions on the management action.

AP Attendance

Brett Hoffmeister, Chair (MA)
Nora Blair (SC)
Allen Burgenson (MD)
Christina Lecker (VA)
David Meservey (MA)
Matthew Sarver (DE)
Benjie Swan (NJ)
George Topping (MD)

Draft Addendum IX is specific to the Delaware Bay region horseshoe crab bait fishery. It considers allowing the Board to set specifications for male-only harvest for multiple years. It also considers options for managing male-only harvest limits, seasonal harvest restrictions, and when to apply harvest caps for Maryland and Virginia. The AP's discussion is summarized below and is separated by issue in the Draft Addendum.

Section 3.1: Multi-year specifications

Consensus on a preferred option was not met; the majority of advisors supported Option 1A, which would continue to require specifications to be set annually using the Adaptive Resource Management (ARM) Framework. Rationales for supporting this option were provided, including a desire for a transparent process every year where data are reviewed, and a harvest limit is set based on the most up to date outputs of the ARM. They also commented that the ARM Framework as implemented has been working based on the significant increases to the population of horseshoe crabs in the Delaware Bay region since 2013, and therefore they do not see a change to the process as necessary. One advisor was concerned that if multi-year specifications were allowed, it would become the new norm and the data and surveys for the ARM could be perceived as less important and possibly terminated. It was also noted that the Board can still opt to implement male-only harvest under status quo.

One advisor supported Option 1B, citing the need to give the ARM Subcommittee time to focus on improvements to the ARM, which would likely take years to accomplish. They also noted that the reward and utility functions of the ARM are not completely objective and exploring modifications to these functions is important for stakeholder buy-in to the ARM Framework. This advisor also supported sub-option 1B-2 but stated that a 4:1 male to female ratio would be a more appropriate point below which to start reducing the male harvest limit due to the long

generation time for horseshoe crabs. Some members supporting Option 1A also stated they could live with Option B, and would prefer Sub-option 1B-1.

Section 3.2: Seasonal Restrictions

Consensus on a preferred option for the season closure was not met; however, the advisors did not express strong support or opposition for either option. Several did not have a preference. Several advisors supported Option 2A because it would provide more of an opportunity for harvesters. George Topping stated this is a non-issue. The current regulations in Maryland only allow for 25 horseshoe crabs to be harvested as bycatch per day, or 150 crabs per day for permit holders, before May 1.

One advisor supported Option 2B because that reflects the intention of the Board at the time of Addendum VII's development. They also stated that depending on the significance of the harvest between May 1 and June 8, they could be willing to reconsider support for Option 2A.

Section 3.3: Harvest Cap Policy for MD and VA

The AP discussed this section of the draft addendum briefly and a few advisors supported Option 3B as a way to clarify the current policy. One advisor said status quo is working fine. Others abstained from providing input on this topic.

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Horseshoe Crab Management Board**

FROM: **Adaptive Resource Management Subcommittee**

DATE: **April 18, 2025**

RE: **Recommendations for Reviewing Reward, Utility, and Harvest Policy Functions of the ARM Framework**

Background

In October 2024, the Horseshoe Crab Management Board (Board) reviewed the final report from the July 2024 Stakeholder Workshop on Delaware Bay Management Objectives. The workshop convened a group of stakeholders representing environmental NGO, fishing, biomedical, bird and horseshoe crab scientists, and management perspectives to discuss the Adaptive Resource Management (ARM) Framework and management objectives for the Delaware Bay region bait fishery. Through a consensus-building process designed to surface core issues and concerns, gauge existing areas of common ground, and identify new areas of agreement, the workshop aimed to generate recommendations for Board consideration regarding horseshoe crab management in the Delaware Bay region.

One of the key recommendations produced was, "using current ASMFC processes, refine the ARM reward and utility functions with stakeholder input." The Board supported this recommendation and tasked the ARM Subcommittee (Subcommittee) with reviewing the reward and utility functions of the ARM Framework and discussing what input from stakeholder groups would be needed to provide direction on changes. The ARM Subcommittee met three times in early 2025 to address this task and develop recommendations for next steps to address the workshop recommendation.

Recommendations on Possible Changes to the Reward, Utility, and Harvest Policy Functions

The Utility, Reward, and Harvest Policy (U/R/H) Functions of the ARM Framework are the three functions within the ARM Framework that reflect values placed on horseshoe crabs (HSC) and red knots, and associate harvest levels with population abundance levels of both species. The utility functions for red knots and HSC were developed in 2021 by the Modeling Subcommittee based on their interpretation of earlier stakeholder input provided during development of the 2009 ARM Framework. These functions consider goals for each species that management is aiming to achieve. In the case of horseshoe crab harvest, maximum utility is achieved when the economic value of recommended harvest equals the economic value of the maximum allowable harvest of both sexes. For red knots, maximum utility is achieved when the population exceeds 81,900. The reward function reflects the combination of both horseshoe crab harvest and red knot abundance utilities and the objective is to maximize the total reward with the ideal

scenario for stakeholders being a red knot population above 81,900, and maximum HSC harvest allowed. The harvest policy functions establish how much HSC harvest would be allowed under different population abundance levels of red knots and horseshoe crabs.

The Subcommittee identified several aspects of these functions that could be modified to better reflect stakeholder values. These are summarized below.

1. ***Male and female relative harvest values in the horseshoe crab utility function***
   The current HSC utility function assumes one female harvested is worth twice as much as one male harvested. These values could be changed if current values are different.
2. ***Maximum harvest levels (500,000 males, 210,000 females)***
   The maximum possible harvest levels for males and females from the ARM Framework were negotiated and determined as acceptable to the industry during the original ARM Framework development process. It has been over ten years since these values were established and different maximum harvest limits may be more appropriate given current conditions.
3. ***The target and threshold abundance in the red knot utility function***
   The target population of 81,900 red knots was based on estimates of historic red knot abundances observed in Delaware Bay. A new target could be developed based on a historical reference period and more available survey data. A proposal was submitted by the US Fish and Wildlife Service (USFWS) New Jersey Field Office for consideration by the ARM SC, which links red knot utility both to a more explicit historic reference value and to the 2023 USFWS red knot recovery plan.
4. ***Including population growth rate as a factor in the red knot utility function***
   This would mean the reward value of red knots would depend on both population abundance and population growth rate. Growth rate could be derived from the red knot population model projections or the observed temporal change in annual mark-resight population estimates.
5. ***The slope and shape of the red knot utility function***
   The Subcommittee noted that a more gradual increase could be explored, and that the shape of the curve could be altered to create a more sigmoid-shaped curve. The current curve results in an abrupt increase in utility after the threshold abundance with a straight slope up to the maximum utility level. A sigmoidal curve would allow changes in utility to occur more gradually when red knot the abundance is near the threshold or target. There was also discussion about conditioning red knot utility on the population size of red knots relative to the population size of horseshoe crabs to ensure that a growing population of red knots would continue to have adequate food supply.
6. ***Weights assigned to red knots and horseshoe crabs in the reward function***
   The current function assigns equal reward value to red knots and HSC harvest. If it would better fit current stakeholder values, red knots and HSC could be assigned different reward value weights. Methods to determine appropriate weights of each term based on stakeholder values could be explored with experts in this type of exercise.

7. ***Harvest policy functions that intersect with zero***
   This would result in the possibility of a zero-harvest output for either sex. The current harvest policy functions do not intersect with zero based on the adaptive management optimization process because population simulations never resulted in a situation where horseshoe crab abundance decreased to a level that would significantly impact red knot survival.

Recommended Process for Stakeholder Engagement

The ARM Subcommittee discussed what type of process would be required to engage stakeholders in identifying and developing possible changes to the U/R/H functions. The group agreed that a series of meetings would be needed, including educational sessions, stakeholder meetings to elicit technical information to inform the U/R/H functions, and Subcommittee meetings to develop alternative U/R/H functions. The group emphasized the value of third-party facilitation to improve stakeholder buy-in and reduce the potential for bias. The Subcommittee recommends the Commission contract with a structured decision-making (SDM) expert to guide the development and execution of this process.

The Subcommittee proposes the following general process for conducting the review and revision of the U/R/H functions of the ARM Framework but notes that if an external SDM facilitator is contracted, they should be given the opportunity to design and structure the meetings as needed to achieve the goals of revising the U/R/H functions.

- ***Step 1: Educational Meetings***
  A series of educational sessions would be needed to increase the collective understanding of the U/R/H functions of the ARM Framework. These meetings could be conducted virtually, but they should allow for a dialogue between the technical experts on the Subcommittee and the stakeholders with an interest in providing input on the ARM Framework functions. Specifically, there should be dedicated question and answer sessions during these meetings to ensure stakeholders can gain the background knowledge needed to provide effective input. These meetings should focus on the technical functions of the ARM Framework and explain the differences between the 2009 and 2021 Frameworks. The ultimate purpose of these sessions (revising the ARM Framework U/R/H functions to better align with stakeholder values) and next steps in the process should be explained to attendees.
- ***Step 2: Stakeholder Meetings***
  A meeting or series of meetings should be convened with stakeholders representing different interest groups with the goal of eliciting information on values to inform revisions of the U/R/H functions. Stakeholders involved in these meetings should be provided with specific questions to elicit the necessary information. Particularly, the meetings should provide information on what conditions must be met for stakeholders to accept female horseshoe crab harvest, and how to phase it in. These meetings will require an SDM expert for designing and implementing a formal elicitation process.

- ***Step 3: ARM SC and TC Meetings***
  Once stakeholder input on the U/R/H functions is gathered, the Subcommittee will need a series of meetings to review the information provided by stakeholders and perform the technical work to develop alternative U/R/H functions that address their values. The Delaware Bay Ecosystem Technical Committee would also need to meet to review and approve any changes proposed by the ARM SC. These meetings could be conducted virtually.
- ***Step 4: Board Meeting to Consider Proposed Changes to the U/R/H functions***
  After alternative U/R/H functions are developed the Subcommittee would re-run the ARM model optimization and present proposed changes to the Board. If the Board wishes to pursue the recommendations at that time, it would need to initiate an Addendum to consider adopting any changes to the U/R/H functions.

Additional Considerations

The Subcommittee noted a number of issues that should be carefully considered in the development of this process. The first is the level of engagement with a contracted SDM expert. The Subcommittee believes it would be most valuable for the consultant to be involved throughout the entire process, including the early educational sessions. This would allow them to gain a foundational understanding of the biology of the species, the ARM Framework, U/R/H functions, and stakeholders. However, it is absolutely critical for an SDM expert to guide the second step of stakeholder meetings.

Second, the Subcommittee noted that during the public comment period on Addendum VIII to adopt the 2021 ARM Revision, public opposition to the revised ARM Framework went beyond just the U/R/H functions. While the Subcommittee believes reviewing the U/R/H functions could help bring management more in line with stakeholder values, it warns there may still be objections to the outcome and underlying population dynamics models for each species.

Third, the Subcommittee emphasized the importance of thoughtful design regarding stakeholder participation. With a variety of stakeholder groups, it will be important to ensure different perspectives are heard and valued throughout this process. Some stakeholder groups are much larger than others, so it will be important to dedicate time to each group. At the same time, concerns have been expressed about limiting participation to too small a small number, so it will be necessary to find the appropriate balance.

One member also raised concern about the differences in meeting accessibility for various stakeholders. Some stakeholders are more likely to be able to participate than others; for example, for some, workshop or meeting attendance is considered part of their job, but for others, attending a workshop precludes work. This concern could be partially addressed by offering stipends for meeting attendance. It would also be important to consider timing and geographic location of meetings. It can be especially difficult for those who work in the fishing industry to attend meetings during peak fishing seasons.

Atlantic States Marine Fisheries Commission

Horseshoe Crab Adaptive Resource Management Subcommittee & Delaware Bay Ecosystem Technical Committee Conference Call

Call Summary

Tuesday, January 7, 2025
2:00 – 4:00 PM

Attendance:
Horseshoe Crab Adaptive Resource Management Subcommittee: John Sweka (Chair), Jim Lyons (Vice Chair), Jason Boucher, Kat Christie, Steve Doctor, Bryan Knuse, Conor McGowan, Wendy Walsh
Delaware Bay Ecosystem Technical Committee: Wendy Walsh (Chair), Francesco Ferretti, Yan Jiao, Jordan Zimmerman, Steve Doctor, Kat Christie, Sarah Karpanty
ASMFC Staff: Caitlin Starks
Additional Attendees: Eric Reid, Will Harlan, Ben Levitan, Susan Linder

The Adaptive Resource Management (ARM) Subcommittee (SC) met via webinar to address a Board task from its October 2024 meeting. The Board tasked the ARM SC to review the ARM Framework reward and utility functions and discuss what input from stakeholder groups would be needed to provide direction on changes.

John Sweka presented a refresher on the three functions within the ARM Framework that reflect values placed on horseshoe crabs (HSC) and red knots, and associate harvest levels with population abundance levels of both species: the utility, reward, and harvest policy functions. The utility functions for red knots and HSC were developed based on stakeholder input and consider goals for each species that management is aiming to achieve. For red knots, utility is maximized when the Delaware Bay stopover population of red knots is greater than 81,900 birds. The HSC utility function reflects the economic value of HSC harvest, and it is maximized when the maximum number of male and female crabs (500,000 and 210,000) is harvested. It also assumes the value of female harvest is twice that of males. The reward function reflects the ideal scenario for stakeholders with the maximum reward occurring when the red knot population is above 81,900, and the maximum HSC harvest is allowed. The harvest policy functions establish how much HSC harvest would be allowed under different population abundance levels of red knots and horseshoe crabs and were derived through an optimization routine aiming to maximize the average total reward over 10,000 simulations. The female harvest policy function factors in female HSC abundance and red knot abundance; the male harvest policy function factors in only male HSC abundance.

The ARM SC discussed potential modifications that could be made to these functions to better reflect stakeholder values. The group noted that “knife edge” functions essentially equate to

harvest control rules, are not adaptive management, and should be avoided. Regarding the reward function, it was noted that the current function gives equal reward value to red knots and HSC harvest. It would be possible to assign different weights to red knots and HSC; there are methods to determine appropriate weights of each term based on stakeholder values that could be explored, and some of the ARM SC members have experience in this type of exercise.

Regarding the horseshoe crab utility function, the ARM SC noted that the assumption of female value being twice that of males could be reconsidered. Additionally, the maximum harvest levels (210,000 females and 500,000 males) could be reconsidered. The maximum harvest levels were negotiated and determined as acceptable to the industry during the original ARM Framework development process. At that time, the populations of male and female HSC were smaller than they are now, and the value of bait may have changed since then. It was noted that the maximum allowed harvest values established in the ARM Framework have a significant impact on the optimization results based on sensitivity runs using different maximum harvests. One person suggested that perhaps female harvest could not be allowed until after a certain red knot population is reached. It was also suggested that there could be a threshold horseshoe crab population level below which no HSC harvest would be allowed; this could also be considered as a separate management tool outside the ARM Framework as a backstop if the HSC population were to drop to very low levels.

Regarding the red knot utility function, the ARM SC discussed the target red knot population of 81,900 birds (where maximum red knot utility is reached) and whether that number should be reconsidered. Wendy Walsh suggested that value could be modified because it does not reflect current biological information, and that the function could use the red knot recovery plan and updated historical population estimates to derive lower and upper bounds for the utility range. It was also noted that the current red knot utility function does not consider that as the red knot population increases, more horseshoe crab eggs are needed to sustain the population. Another idea was to consider other metrics for determining red knot utility, such as the population growth rate in addition to abundance alone.

On the topic of the harvest policy function, one issue the group noted was that the current optimized functions do not have a zero intercept, meaning zero horseshoe crab harvest (male or female) would never be recommended. This is because extremely low levels of horseshoe crab abundance were outside the bounds of simulated HSC abundances in the optimization of the harvest policy functions (i.e., simulated HSC abundance never approached zero crabs under the maximum allowable harvest). The ARM SC modelers could explore methods to force the harvest policy functions to have a zero intercept.

The ARM SC agreed that one or more additional meetings would be needed before it would be beneficial to seek stakeholder input. The ARM SC members will meet again to continue discussing the ideas raised, what potential modifications are feasible, and recommend a process for involving stakeholders to provide input on potential changes.

Atlantic States Marine Fisheries Commission

Horseshoe Crab Adaptive Resource Management Subcommittee

Call Summary

Tuesday, January 21, 2025
9:00 – 11:00 AM

Attendance:
Horseshoe Crab Adaptive Resource Management Subcommittee: John Sweka (Chair), Jim Lyons (Vice Chair), Jason Boucher, Kat Christie, Margaret Conroy, Steve Doctor, Bryan Nuse, Conor McGowan, Wendy Walsh
Additional Attendees: Jordan Zimmerman, Francesco Ferretti, Sarah Karpanty, Andre Lai

The Adaptive Resource Management (ARM) Subcommittee (SC) met via webinar to address a Board task from its October 2024 meeting. The Board tasked the ARM SC to review the ARM Framework reward and utility functions and discuss what input from stakeholder groups would be needed to provide direction on changes. The ARM SC focused on the utility, reward, and harvest policy functions, which are the three functions within the ARM Framework that reflect values placed on horseshoe crabs (HSC) and red knots, and associate harvest levels with population abundance levels. The ARM SC identified specific components of these functions for which changes should be explored to reflect stakeholder values.

Red Knot Utility Function

The ARM SC discussed several aspects of the red knot utility function that could be explored. The first idea is to consider including growth rate as part of the function, thereby making the value of red knots dependent on both population abundance and growth rate. Growth rate could be derived from the red knot population model (IPM) projections. The growth rate varies from year to year, in part because each year some portion of the red knot population bypasses the Delaware Bay stopover area. Therefore, the group agreed using an average growth rate over several years would be preferable to the annual point value to smooth out normal variance in the data.

Another area that could be changed is the slope of the utility function; a more gradual increase should be explored as opposed to the current slope, which is relatively steep. The ARM SC could explore changing the population values in the utility function associated with zero utility (around 75,000 red knots) and maximum utility (81,900 red knots). The abundance associated maximum utility could be updated based on more current historical population estimates. Wendy Walsh suggested the threshold abundance for zero utility should be based on the red knot recovery plan and the minimum population that needs to be reached for delisting the species. She will provide the ARM SC with a written draft process for establishing new abundance reference points for minimum and maximum utility.

Lastly the ARM SC noted that the shape of the curve could be altered to create a more sigmoid-shaped curve. The current curve results in an abrupt increase in utility after the threshold abundance with a straight slope up to the maximum utility level. A sigmoidal curve would allow changes in utility to occur more gradually when the abundance of red knots is near the threshold or target.

Horseshoe Crab Utility Function

The ARM SC agreed that the main component of the HSC utility function that could be reevaluated is the value of males versus females. The current function assumes females have twice as much value as males. Given changes in the fishery since the original implementation of the ARM Framework, this assumption may no longer be accurate. Stakeholder input could inform potential changes to this component.

Another component of the HSC utility function is the maximum possible harvest for males and females (500,000 and 210,000 crabs, respectively). These values were negotiated as part of the development of the original ARM Framework. While it would be possible to change these maximums based on stakeholder input, the ARM SC noted it may be difficult to reach a new consensus among stakeholder groups. The stakeholder survey completed in 2022 indicated there is a desire to have some level of female harvest, but not necessarily to increase the maximum. The ARM SC also discussed the idea of changing the maximum harvest to equal a certain percentage of the Delaware Bay horseshoe crab population, instead of a static number of males and females.

Reward Function

One idea discussed was to change the reward function so that reward could only be earned if both red knot and HSC had utility greater than zero. However, the group did not agree that this should be explored, as it would create the possibility of no HSC harvest (even male-only) if the red knot population fell below the minimum utility level, even if the horseshoe crab population was booming and clearly not limiting red knots; red knots could decline for reasons other than HSC harvest. It was also noted that this could have a negative impact on the optimization routine in the model.

The ARM SC agreed that adding weights to the terms in the reward function could be explored. This would allow red knots and horseshoe crabs to have different levels of influence on the reward, and consequently the harvest outcome. Weighting the terms would be a values-based decision and would require stakeholder input.

Harvest Policy Function

The ARM SC discussed the possibility of changing the harvest policy functions (HPCs) so that the curves intersect with zero. Currently the male and female HCPs do not intersect with zero, meaning there is no set of abundance conditions for red knots and horseshoe crabs that would result in a zero harvest output for either sex. The reason for this is that the harvest curves were

optimized based on the data available, and under the range of conditions in the data set the ARM Framework never concludes that zero harvest would be the optimal outcome. This occurs because the simulations of the population dynamics of each species over which the harvest policy functions are optimized never resulted in a female horseshoe crab population decreasing to such a degree whereby red knot survival was extremely compromised. The harvest policy functions are optimized over the expected range of abundances of both species. The group agreed the idea of forcing the harvest policy functions to intersect zero should be explored but noted a number of concerns with this path. First, hardwiring a moratorium (zero harvest) option into the HPCs could create problems for the optimization routine by constraining the function. Second, some members were worried that it would essentially create a harvest control rule, which was not a preferred path forward based on the July 2024 stakeholder workshop. The ARM SC noted that making such changes might also require a new peer review because of how it could impact the optimization procedure.

Another idea that could be explored would be to create a management structure external to the ARM Framework that would control when the ARM Framework could be used to set harvest limits. For example, if the HSC population were to fall below an established threshold, then the Board would implement a moratorium, rather than basing the harvest limit on the ARM Framework recommendation.

The ARM SC agreed that it might make the most sense to explore changes to the utility functions before considering changes to the HCPs because forcing the HCPs to adopt a preconceived shape somewhat defeats the purpose of solving for an optimal harvest strategy give the data and current understanding of how the system functions.

Next Steps

The ARM SC will meet again to discuss processes for engaging stakeholders to provide input on possible changes to these functions. It was noted that it would be good to consider the value of third-party facilitation. The group is concerned that stakeholders could perceive the process as biased if the ARM SC leads discussions about changing the functions.

Atlantic States Marine Fisheries Commission

Commission Business Session

May 8, 2025
11:45 a.m. – Noon

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. Cimino)*

2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2024

3. Public Comment

4. Consider Amendment 4 to the Interstate Fishery Management Plan for Northern Shrimp for Final Approval **Final Action** (*D. Grout*)

5. Consider Noncompliance Recommendations, if necessary

6. Other Business/Adjourn

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.

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

BUSINESS SESSION

The Westin
Annapolis, Maryland
Hybrid Meeting

October 23, 2024

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ATTENDANCE

Board Members

Pat Keliher (AA)
Rep. Allison Hepler, ME (LA)
Steve Train, ME (GA)
Cheri Patterson, NH (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Doug Grout, NH (GA)
Dan McKiernan (AA)
Ray Kane, MA (GA)
Jason McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis (AA)
Bill Hyatt (GA)
Marty Gary (AA)
Emerson Hasbrouck, NY (GA)
Jim Gilmore, NY, proxy for Assy. Thiele (LA)
Joe Cimino, NJ (AA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Jeff Kaelin, NJ (GA)
Kris Kuhn, PA, proxy for Timothy Schaeffer (AA)
Loren Lustig, PA (GA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Lynn Fegley, MD (AA)
David Sikorski, M, proxy for Del. Stein (LA)
Jamie Green, VA (AA)
Sen. Danny Diggs, VA (LA)
James Minor, VA (GA)
Chris Batsavage, NC, proxy for Kathy Rawls (AA)
Chad Thomas, NC, proxy for Rep. Wray (LA)
Ben Dyar, SC, proxy for Blaik Keppler (AA)
Mel Bell, SC, proxy for Sen. Cromer (LA)
Malcolm Rhodes, SC (GA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess, FL, proxy for Jessica McCawley (AA)
Gary Jennings, FL (GA)

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

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
Lisa Carty
Alexnader Law
Michael Opiekun
Caitlin Starks
Jeff Kipp
Tracy Bauer
James Boyle
Katie Drew
Jainita Patel
Chelsea Tuohy
Emilie Franke

The Business Session of the Atlantic States Marine Fisheries Commission convened in the Capitol Ballroom via hybrid meeting, in-person, and webinar; Wednesday, October 23, 2024, and Thursday, October 24, 2024, and was called to order at 10:25 a.m. by Chair Joe Cimino.

CALL TO ORDER

CHAIR JOE CIMINO: All right, good morning, everyone, I think we're good on sound checks, so I would like to call to order the Business Session. My name is Joe Cimino, I am the Administrative Commissioner for the state of New Jersey, and current Chair of the Commission.

APPROVAL OF AGENDA

CHAIR CIMINO: I'll go through Approval of the Agenda. Does anyone have any additions or any added items that they would like to add to our agenda? That's always a good thing. Not seeing any hands.

APPROVAL OF PROCEEDINGS

CHAIR CIMINO: Approval of the Proceedings from our January, 2024 meeting. Any issues there? Not seeing any hands, I'll consider both of those approved by consent.

CONSIDER APPROVAL OF 2025 ACTION PLAN

CHAIR CIMINO: And we will get into the approval for our 2025 Action Plan. Those of you that joined us for our annual dinner last night already know that I'm geeking out and waiting for staff to go through all that we're going to do today, sorry, for the rest of 2025. Bob, who am I starting with here? Okay, I'm going to start with Toni Kerns.

GOAL 1 – PRIORITY SPECIES FOR 2025

MS. TONI KERNS: I was going to try to get it up on the screen, but we don't have time for that. Okay, I am going to go through Goal 1, which is our priority species for 2025. I'll first go through the high priority species and then the medium-low priority species. It's not that we think lesser of the medium lows, it's just a question of workload, not about how important the species is. First, we'll go through American lobsters.

I'm only going to go through the new activities. We'll be collaborating with both the New England and Mid-Atlantic Council regarding on demand track gear configurations, and the other issues related to this. We will also work with Canada DFO on potential changes in minimum size in the maritime regions, which could result in trade impacts, as well as work with Canada DFO and our science committees on lobster science.

Moving on for Atlantic menhaden, we'll consider any of the work groups input on precautionary management for Chesapeake Bay, and respond as necessary to any management actions that are needed. For striped bass we'll develop any management actions, if needed, to meet the rebuilding deadline of 2029, and we'll also address any recommendations from the Recreational Release Mortality Workgroup.

For summer flounder, scup, black sea bass and bluefish, we will present management track stock assessments and respond if necessary, and we'll do that in conjunction with the Mid-Atlantic Council. For horseshoe crab, we'll consider recommendations from the Delaware Bay Management Objectives Workshop, and we will also monitor the Endangered Species Act 90 day finding and respond as necessary. For red drum we'll work in response to the 2024 benchmark stock assessment, which was presented this week, and conduct any projections and technical work as requested by the management board, including the Risk and Uncertainty Tool, and we'll also conduct and present Traffic Light Analysis and respond as necessary.

Then for scup, the only thing that we'll do in addition to the assessment is to monitor the activities of the Mid-Atlantic Council on scup discards and gear restricted areas. For tautaug, we'll conduct and present the stock assessment update and respond as necessary, and we'll do the

same thing for weakfish. Joe, do you want me to pause and see if I have questions on these high priorities?

CHAIR CIMINO: Yes, please, Toni. Any questions on what Toni has gone through so far?

MS. KERNS: Moving into the medium-low priorities, and again, I'm just going over new actions. For Atlantic sturgeon we'll monitor the state and federal responses to the 2025 Biological Opinion, and respond as necessary. For coastal sharks, HMS will be coming out with Draft Amendment 16, which is the commercial and recreational direct fishery management issues, and proposed rule for electronic reporting and respond if necessary.

For Atlantic cobia, we'll implement the new recreational measures, designed to achieve the regional harvest allocations based on Addendum II for the recreational fishery. For spiny dogfish we'll finalize and implement Addendum VII, which is reducing Atlantic Sturgeon bycatch, and maintaining consistency with federal management for the bycatch reductions. That's all.

CHAIR CIMINO: Any questions or comments on those other species? Not seeing any hands.

MS. KERNS: We'll move into the crosscutting issues, and these are the crosscutting issues across the Commission. One of the things that we're proposing is to strike the continue to explore allocation strategies for the Commission's quota managed species to reflect current fishery conditions.

This Workgroup has, the issue has been on the docket, but has been looked at more on a species specific, you know being addressed in each of the FMPs, so we're considering taking this out instead of addressing it across the board. Then we're also adding to explore the development or guidance of a policy level document on allocation and use of the recreational mode splits and rec sector separation. This is an issue that is being addressed right now in the summer flounder, scup, and black sea bass FMP, but it may be something that we want to do across the board.

We're also participating in the Climate Ecosystem Fisheries Initiative, which is abbreviated as CEFI, and the Decision Support Teams and relevant council Inflation Reduction Act, to support the development and advancement of climate ready fisheries. We're also monitoring the activities of 304F for the regional councils, and we would respond if necessary if there is anything that the Commission would need to do. Any questions?

CHAIR CIMINO: Yes, looks like we have one, John.

MR. JOHN CLARK: Toni, could you just briefly cover what the 304F activities are?

MS. KERNS: I don't know exactly what the activities that the Councils will be doing in response to 304F. I think that there is some discussion that is still occurring within the Councils of how they plan to or may respond to 304F. We would just monitor what is going on, and then if there is something that comes up that the Commission could help with or needs to do on our end, that we would talk about it and consider those actions, but mostly it's a monitor, wait and see type of issue, unless anybody has any additions.

CHAIR CIMINO: No, but considering just the fact that there is great number of species, I don't think there is any way that the Commission doesn't get involved in that. But even a more overarching issue, you know this could visit a general overall policy for how we handle stuff, you know to some extent that was part of discussions in our Ex Com too. John, follow up?

MR. CLARK: Yes, I just was actually asking more, what exactly is 304F?

MS. KERNS: Sorry, John, and I realized that after I stopped talking, 304F is a Policy Directive from NOAA Fisheries that touches on how Councils are addressing the movement of species across the

management bodies, and when Councils start to take action for species expansion or shifting of range.

CHAIR CIMINO: Jim.

MR. JAMES GILMORE: Toni, this is just to verify what you just said, because when I read this the crossing out the allocation part of it, you know gave me a heart attack. Essentially what we're doing is now we're broadening that to more species than we've looked at in the past, and we're doing that mode split, so we're not abandoning looking at allocations over time, we're just broadening it, that's all I want to verify, thanks.

CHAIR CIMINO: Yes.

MS. KERNS: Yes.

CHAIR CIMINO: Any other questions or comments on Goal 1. Toni, was that it for Goal 1? Yes, okay, not seeing any other hands, we'll get into Goal 2, Pat.

GOAL 2 – FISHERY SCIENCE PROGRAM, STOCK ASSESSMENTS AND FISHERIES RESEARCH

MR. PATRICK A. CAMPFIELD: Goal 2 covers the Commission's Fishery Science Program, Stock Assessments, Fisheries Research, and other inputs into the stock assessment. New activities under the scientific committees include working with USGS to continue to foster our partnership for science support from the geological survey.

Notably this year we will seek additional analytical support to the stock assessment committees from the Cooperative Research Units within the USGS in several states. Moving down to the Fisheries Socioeconomics Committee, they would like to develop a Recreational Demand Model for striped bass, to evaluate fishery trends. As was discussed earlier this week, use the Risk and Uncertainty Tool to inform management of red drum, as well as try to finalize the Commission's Risk and Uncertainty Policy for all species. Under data collection and the regional survey programs, starting with SEAMAP in the Southeast.

There has been some work to complete survey designs for a regional fishery independent survey targeting coastal pelagic species, notably Atlantic cobia, which does not have an independent survey. Also, take another look at the effectiveness of the state longline surveys for their use as stock assessment abundance indices.

Again, that was discussed during the red drum assessment presentation. Under NEAMAP, we're going to work on some outreach activities, notably the development of a new NEAMAP website to enhance our outreach, and also work with the Northeast Trawl Advisory Panel to develop plans for wind energy area survey mitigation.

There is a new initiative among the Chesapeake Bay states and the NOAA Chesapeake Bay Office to review striped bass recruitment patterns and associated surveys. For the horseshoe crab trawl survey, we're going to look into possibly conducting demo trips to take various stakeholders out on the trawl survey to see the operations and the numbers of crab that are being caught.

We've had this highlighted item in the last year or two about exploring the use of industry-based surveys, to supplement current fishery independent data collection, so we will continue that work with NMFS and industry partners. Then under the Fisheries Research category again, additional collaboration with USGS, specifically a project to generate new population models for invasive catfish in the Chesapeake estuaries as significant predators on species that we manage.

Also, to provide support to a new national partnership among the Interstate Fisheries Commissions and the USGS Science Centers, building on a symposium at the recent American Fisheries Society Meeting that we held together. Under Ecosystem Based Management and Changing Ocean Conditions, Toni mentioned the Climate Ecosystem and Fisheries Initiative within NOAA.

We have requested and will continue to seek support from CEFI modelers and analysts to better incorporate environmental information into our stock assessments. For the diadromous species work more closely with USGS is climate adaptation science centers, characterize changes in those populations. I think Mr. Chairman, that wraps up the new items under science.

CHAIR CIMINO: See, cool stuff. It's exciting. Questions for Pat on Goal 2, or comment. John.

MR. CLARK: Yes, very cool stuff. Pat, just a question about the Recreational Demand Model for striped bass. If I recall, there are two different models out there right now that we were looking at for, what is it, black sea bass or summer flounder. Is it going to be the same models, or is this something different?

MR. CAMPFIELD: Yes, I don't have a lot of specifics for you, John, again this is an idea from a couple of CESS members who have run these models before, including for striped bass they may update that model, but it looks like Toni may have some more incite.

MS. KERNS: John, it's our hope that we use the RDM that incorporates some of the social and economic information. The second model is the one that Jay came up for scup, and I think that utilizes less social and economic information than the other one, so that is our hope. But we'll see what happens.

DR. KATIE DREW: Toni pretty much covered it, but basically, I think we're going to be looking at both of those and see if there is anything we can do to develop or enhance those models going forward, based on the available data.

CHAIR CIMINO: Any other questions or comments on Goal 2? Oh, Eric.

MR. ERIC REID: Thank you for the presentation. Just a quick question on the section about NEAMAP, yes, that yellow highlighted thing. I didn't see anywhere in there where we're going to continue to support the development of an industry-based pilot survey to complement the Bigelow. Is that included by three or four of the bullet points without being specifically named?

MR. CAMPFIELD: Yes, I think we received a presentation on that in the last year or so, perhaps at the Policy Board. But my understanding is that work will continue, you know including from NMFS. But we're looking at it at the NEAMAP table as well, because many of those surveys are run on industry vessels, and that bullet also pertains to shrimp fishery in the Gulf of Maine and working with industry boats there to continue data collection.

CHAIR CIMINO: Any other questions? Seeing none; thanks, Pat. Goal 3 we go to Geoff.

GOAL 3 – FISHERIES DEPENDENT DATA COLLECTION

MR. GEOFF WHITE: Goal 3 is fisheries dependent data, primarily focused through the ACCSP Program, of course under partnerships none of this would work without the partnerships; with the states, the fellow Commissions, Councils and NOAA. Under fisheries dependent data collection, the new items are really to complete the development and implementation of modernized dealer electronic reporting applications and data processing for implementation by January, 2026.

This is an extension of work that was planned to be done earlier, but we made some significant progress for this already right now, but there could be a delay in that implementation until 2026. The goal here is to finish the programming in the middle of 2025, and allow time for outreach in practice to actually put it out to the dealers in January, 2026.

The One Stop Reporting Initiative, we want to convene a workshop on state data needs to make that electronic trip reporting more compatible across things. Under recreational surveys, continue to develop and seek MRIP certification of the for-hire methodology for logbook estimates of catch and effort with dockside validation. This is a major

item for kind of across partnerships, as there are components of that that bridge the data collection that occurs at GARFO and Southeast Fisheries Science Center, SERO and the Councils as well, so rather excited about that one moving forward. We want to support recreational data collection pilot projects. There is one that was just approved, the discard catch-cards through the ACCSP Coordinating Council, as well as some large pelagic pilot surveys that are occurring in Maine. Under data standards, distribution, and use, we really worked to define the data consolidation standards and presentation, really focused on the presentation needs for the release catch discards and at-sea observer data.

Because right now it's coming in from dealer data, trip data and citizen science records, so really figuring out the best way to present that and be most useful about discard information for the assessment process. Under Data Distribution and Use, we provide validated commercial landings data for Commission stock assessments.

There are several listed there, as well as the SEDAR process. Since 2007, ACCSP has done the consolidated landings data load process and with the improvements and consolidating biological data we really want to work on that structure and regular process for the biological datasets to be sent to the ACCSP Data Warehouse.

Include by adding partner data feeds and creating data warehouse queries. We do want to continue to expand the data warehouse content, specifically reworking recreational directed trips, queries and catch frequency queries, to provide those benefits back out to our partners and public. Under outreach and infrastructure, we do want to extend the improvement of our IT hosting scalability to address increased data demands.

Part of that is increases in electronic reporting, part of that is the vessel location information, and making sure that our systems have enough bandwidth and capability to handle high peak workloads, as more systems are using the tracker information. We're going to promote and support communication of ACCSP activities by committee members, within their agencies, and to also extend the content and create a rich and more engaging ACCSP website.

CHAIR CIMINO: Thank you, Geoff, that's cool stuff too. I just set myself up for something here now. I didn't complement Toni, now I feel terrible. Questions or comments for Geoff. Actually, I do, Geoff. I don't think I talked about this or know if we have a plan. But for some of the exploratory rec data collection stuff, do we have a plan on how that gets reported out and back to us? Like, how do we hear about those projects?

MR. WHITE: At the moment the pilot projects that are planned for 2025. Sorry, no, there is not a clear plan of how to report that back to the Commission, but we can certainly provide updates anytime you want.

CHAIR CIMINO: Any other questions or comments on this goal? Oh, we go back to Toni. Get ready, Toni, I'm going to have a great compliment.

GOAL 4 – LAW ENFORCEMENT COMMITTEE

MS. KERNS: I'm really going to blow your mind with this one. Under Goal 4 it is the Compliance for our Action Plan dealing with our Law Enforcement Committee, in addition to the normal activities of the Committee to respond to different FMPs questions on compliance and enforcement. The Committee will work with the New England Fishery Management Council's enforcement committee on reviewing regulations related to on-demand trap gear.

CHAIR CIMINO: Questions or comments on the Goal 4. Not seeing any, I think we go back to Pat.

GOAL 5 – HABITAT PROGRAM

MR. CAMPFIELD: The next goal pertains to the Commission's Habitat Program. A few items to

highlight for next year. The Habitat Committee will work on publishing the Habitat Management Series document describing shell recycling programs up and down the coast, and the benefits to fish habitat, as well as identify their next focal topic for the Habitat Management Series.

Every couple of years they do a state-by-state update on climate change initiatives, and so they will update that report in 2025. Then finally, focus on some seagrass work, so work with partners to develop standardized seagrass assessment restoration and monitoring along the Atlantic coast, and we had a very productive discussion during the Habitat meetings earlier this week. Those are the few new items under Goal 5.

CHAIR CIMINO: Thank you, questions, or comments on Goal 5. Not seeing any, good. Tina.

GOAL 6 – OUTREACH AND COMMUNICATIONS

MS. TINA L. BERGER: Goal 6 is about outreach and communication and strengthening stakeholder support. Under the first increase public understanding and support of ASMFC, I am going to explore some changes in format to our two primary newsletters, Habitat Hotline Atlantic and Fisheries Focus. We are extending our focused outreach in 2025 to include striped bass and red drum, as well as develop stock assessment overviews for lobster, croaker, menhaden, and ERPs.

A lot of the things under the new and current technologies will focus on our new website, which I hope you all had a chance to look at. I will send you all a link and a password, so you can explore it over the next couple of weeks and get us your feedback. We're hoping for a launch in December, or late December early January. I know it's going to be kind of an adjustment period for everyone, because everyone is used to the old website, but we will make sure that we include tutorials and training for everyone, to get everybody up to speed.

Part of that will be launching our redesign website, with offsite hosting. Madeline and I are getting some training in WordPress back-office and developing with SOPPs to maintain the website. We're going to continue to enhance understanding of stock assessment science to increase postings of our stock assessment presentations. We are going to use the new website to highlight engaging content, eye catching images, make it more accessible to a broader public and as Pat mentioned.

I will assist the Fisheries Science Coordinator in redesigning and migrating the NEAMAP website as needed. We're also going to track analytics to assess this assess of the new website, and our expanding efforts in social media. Under stakeholder participation, part of that worksite is development of an action tracker, which sort of allows members to track the development of a management plan and addenda through the whole process, sort of give you a history and see archive for important documents. We're attempting to sort of streamline how we get public comment through new website forms for both quarterly meetings and public comment documents. Also, we have created a new contact us page that allows folks to really tailor the kind of messaging and information they want to receive from us.

Under media relations and networking, a big issue that has come up before the various boards and this board as well, this session, is the development of FAQs for highly high-profile species like horseshoe crab and Atlantic menhaden. We also have developed what we call fact checker page that allows us to respond directly to inaccuracies and misinformation regarding printed media or digital media. I think that will help move us along in increasing understanding of our programs and the issues that we're dealing with, and that is it for us.

CHAIR CIMINO: Thanks, Tina, obviously near and dear to my heart that last idea about fact checker. Any of the recent Horseshoe Crab Board Chairs

know that we spend an inordinate amount of time responding to inaccuracies in articles, and sometimes they are just completely ignored. It is very frustrating. Tina does so much work on it, I appreciate all that she does. Any questions or comments on this goal? John.

MR. CLARK: Yes, I couldn't agree more about the fact checkers. As soon as you have that done on horseshoe crabs, Tina, I want to send it to all our legislators in Delaware. So far, I just think the new website really looks great, much cleaner and I think it's going to be easier to find. I mean I love the current website, there is so much there, but it is kind of busy.

CHAIR CIMINO: Any other questions or comments? Not seeing any, we're good, we'll go on to Goal 7. Bob.

GOAL 7 – CONGRESSIONAL OUTREACH AND LOBBYING EFFORTS

EXECUTIVE DIRECTOR ROBERT E. BEAL: Yes, Goal 7 is a small or relatively short but really important goal, it's our Congressional Outreach and Lobbying efforts. A lot of this is going to focus on obviously getting to know a new Congress and new administration next year, and continuing to convey legislative and budget priorities.

There is a long list of acts that may be considered. It's hard to know what's going to be introduced in the new calendar, so we will react to that accordingly. There is one new bullet that is highlighted, which is develop a process to comment on pending legislation if the consensus position cannot be reached. Right now if there is not a consensus we generally don't comment. Each state can comment on their own if they choose to.

Some folks have said Well, if there is a majority or pieces of it that we all agree to, maybe we should comment on those pieces and not the whole thing. Maybe some more thought needs to be put into how we comment on pending legislation if there is not a full agreement around the table. I think that is the highlights, a lot of it is the same thing we've always been doing.

But just to reiterate what we always say, if anyone around the table wants to go to Capitol Hill or wants to have us help you set up meetings in your local districts, we are always happy to do that, happy to attend any of those meetings when you're in town, Arlington meetings anyway, you know the Metro, we're only half a dozen Metro stops away from Capitol Hill, and it's easy to get over there and have some meetings. If we can help with that, we will do that.

CHAIR CIMINO: Questions or comments on Goal 7. Not seeing any, Laura.

GOAL 8 – FISCAL STABILITY AND ADMINISTRATION

MS. LAURA C. LEACH: Goal 8 is of course, ensure the fiscal stability and efficient administration of the Commission. Most all of our tasks are ongoing. I will only point out a couple, probably not all of the highlighted ones, but we're going to engage a consultant to update our indirect cost agreement, because that has been a challenge.

I think many of you know we charge little to no overhead on so many things, especially the Disaster Relief, and it doesn't make sense any longer, so we're going to figure that one out. The bigger one also is responding to audit requirements as necessary, regarding CARES and Consolidated Appropriation Act funds.

Next is current information, we're going to migrate our accounting software to a cloud-based platform, which probably doesn't seem that interesting, except for that because of the breach, we know we need to be in the cloud now. Then I'll take the last one, conduct an all-staff team building retreat, because we haven't done that as much since COVID, so we're going to try to do that again.

CHAIR CIMINO: Questions or comments on Goal 8? Okay, not seeing any. The Plan is first run by the AOC, which Dan Chairs, so I'll look to Dan for a

motion. There were some edits there, but I think, Dan, since this is the draft that was presented to the group, we don't have to do an amended by for just as draft.

MR. DANIEL McKIERNAN: I'll make a **motion on behalf of the Administrative Oversight Committee to accept the Strategic Plan as presented today.**

CHAIR CIMINO: Do I have a second? Lynn, okay. Discussion on this? Not seeing any. Any objections to this one? Thanks a lot, great. We'll consider that **approved by consent**.

ELECT COMMISSION CHAIR AND VICE CHAIR

CHAIR CIMINO: Next agenda item, huh? What's that one, anything interesting? No, okay. We're actually going to pick Chair and Vice-Chair. Yes, please.

EXECUTIVE DIRECTOR BEAL: As is the practice at the Commission, the Executive Director administers the election for the Chair and Vice-Chair. Just as another reminder, you know this is our first year under the leadership of Joe and Dan, so we appreciate the hard work they've put in this year. With that comment I will call on the Chair of the Nominations Committee, Pat Keliher, for a nomination for Chair of the Commission.

MR. PATRICK C. KELIHER: First, I would like to thank the members of the Nomination Committee, Erika Burgess and John Clark as I am sure they will attest, it was exhausting. We had hours of conversations, okay in all reality I said Hey, we're all set. **We are very pleased to renominate Joe Cimino as Chair.**

EXECUTIVE DIRECTOR BEAL: Any other nominations from the floor? Not seeing any. Is there any objection to the reelection of Joe Cimino as the Chair of the Atlantic States Marine Fisheries Commission? Seeing none; Joe, congratulations, you are **elected by unanimous consent**. Mr. Keliher, do you have a nomination for Vice-Chair?

MR. KELIHER: I do, thank you very much. **The Nomination's Committee unanimously would recommend and renominate Dan McKiernan as Vice-Chair.**

EXECUTIVE DIRECTOR BEAL: Great, thank you. Any other nominations from the floor. Not seeing any; any objections to reelecting Dan as the Vice-Chair for the Atlantic States Marine Fisheries Commission for one more year. Not seeing any; **congratulations, Dan, you are the Vice-Chair for another year**.

CHAIR CIMINO: Well, thank you all, and I'm sure I speak on behalf of Dan that it's truly an honor to be able to do this, it's a highlight of my career and I hope you all know how much this means to me. We'll move on to Other Business. No, I don't either. We'll have an announcement on the picture, and then before we do an adjournment.

EXECUTIVE DIRECTOR BEAL: We're going to try to do the Commissioner picture right now, since we're done a little bit early, we might as well use that time wisely. It's going to be, go up the main revolving door, is that right?

MS. LEACH: I think we go out the doors, and Tina can help me with this if I need it. But the doors, go out these doors over here, turn left. Go down the stairs, you are going to go across the loading dock. There is a stage over there against the painted wall. If you all gather there, and Tina and Lisa will be there to arrange you, and I will be up and we're going to try and shoot down like we did last year in Beaufort. That should be in the cemetery.

ADJOURNMENT

CHAIR CIMINO: Maybe we should just hold hands on the way out so no one gets lost. With that, unless there are any objection, we'll adjourn here. Great, so that is the end of Business Session, thank you, everyone, much appreciated.

(Whereupon the meeting adjourned at 11:00 a.m. on October 24, 2024)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Commission Business Session**

FROM: **Chelsea Tuohy, Fishery Management Plan Coordinator**

DATE: **April 18, 2025**

SUBJECT: **Overview of Draft Amendment 4 to the Interstate Fishery Management Plan for Northern Shrimp**

In December 2023, the Northern Shrimp Section (Section) initiated Amendment 4 to the Interstate Fishery Management Plan (FMP) for Northern Shrimp. The Section will consider final approval of Amendment 4 at their May 1, 2025, meeting. Following the Section meeting, the Interstate Fisheries Management Program Policy Board (Policy Board) will consider final approval of Amendment 4 during the Business Session of the Atlantic States Marine Fisheries Commission's (Commission's) Spring Meeting on May 8, 2025. This memorandum is intended to serve as an overview of Amendment 4 and the proposed changes to the Northern Shrimp FMP. Amendment 4 will completely replace Amendment 3 to the Northern Shrimp FMP and Addendum I to Amendment 3, if approved for management.

Background

Following the northern shrimp stock collapse in 2013, the Section established a commercial fishing moratorium starting with the 2014 fishing season. Results of each subsequent stock status report since 2013 have indicated continued poor trends in biomass, recruitment, and environmental indices which have prompted the Section to extend the moratorium each year through 2024.

The current management program for northern shrimp requires the Section to annually set fishery specifications and does not allow for a moratorium to exceed 366 days. Given the continued poor condition of the stock, the Section initiated Amendment 4 to consider options for setting multi-year moratoria and implementing management triggers. Management trigger options include biological and environmental triggers that would signal improvement in stock conditions and the potential to re-open the fishery.

Management Options Overview

Section 2.3 - Objectives

The ongoing poor status of the northern shrimp stock and continued unfavorable environmental conditions in the Gulf of Maine prompted the Section to propose changing the first objective of the Northern Shrimp FMP to better reflect current conditions and management needs. The proposed option would change the first objective from "Protect and

maintain the northern shrimp stock at sustainable levels that will support a viable fishery" to "Manage the northern shrimp stock to allow for rebuilding, minimize fishery related impacts, and maintain harvest opportunity, recognizing the influence of environmental conditions on stock productivity".

Section 4.1.1 and 4.1.3 - Fishery Specifications and Fishing Season

Section 4.1.1 (Fishery Specifications and Total Allowable Catch) includes two options. Option A is the status quo option where the Section must meet annually to set specifications including the fishing season or lack thereof. Option B (Extended Specifications Setting Timelines for Moratorium Years) offers three sub-options and would allow the Section to set multi-year moratoria. The sub-options under Option B present options for 2-, 3-, or 5-year moratoria. During moratorium years, the Section would only be required to meet once throughout the specified moratorium. While the Section would only be required to meet once during moratorium years, a member of the Section would be able to call a Section meeting at any time, if desired. In years where the fishery is open, the Section would continue to be required to meet annually to set the fishing season and other management measures.

Section 4.1.3 (Fishing Season) also includes two options. Option A represents the status quo process where "the Section has the ability to set a closed season annually (i.e., implement a moratorium) of up to 366 days". Like Section 4.1.1, Option B presents three sub-options where the Section would have the ability to set a closed season for up to 2, 3, or 5 consecutive years at a time. None of the sub-options under Option B allow for the setting of extended open seasons.

Section 4.1.13 - Management Triggers

Section 4.1.13 (Management Triggers) would be a new addition to the Northern Shrimp FMP. Currently, the Northern Shrimp Technical Committee (TC) conducts an annual data update to incorporate the most recent fishery independent surveys and environmental indices into the longstanding time series, to inform managers and stakeholders of current stock trends. A management trigger would add a management response tied to definable metrics in the annual data updates that indicate changes in northern shrimp biological and/or environmental conditions. Section 4.1.13 proposes two management triggers, a recruitment trigger and a temperature trigger. The Section will have the ability to select one or both triggers for implementation what taking final action on Amendment 4.

If the trigger(s), composed of sets of biological and/or environmental indicators, suggest an improvement in the perception of northern shrimp stock status, the Section would consider running a full stock assessment update with projections or running the winter sampling program without the use of the size sorting grates to sample for recruitment, depending on the trigger. Responses to the recruitment and temperature triggers being reached would allow the Section to collect more information which would better inform potential specifications setting in future years if there is the opportunity for a sustainable fishery.

Section 4.5.2.2 - Measures Subject to Change Through Adaptive Management

Section 4.5.2.2 (Measures Subject to Change Through Adaptive Management) would increase the list of management changes with the ability to be accomplished through an addendum rather than an amendment to the Northern Shrimp FMP. These additions would allow for enhanced response time and increased management flexibility for the Section. Amendment 4 considers adding (1) Specifications setting timeline; (2) Fishing season; (3) Management trigger modifications (if management triggers are selected for implementation); and (4) Any other management measures included in Amendment 4 to measures subject to change under adaptive management.

Draft Document for Public Comment

Atlantic States Marine Fisheries Commission

Draft Amendment 4 to the Interstate Fishery Management Plan for Northern Shrimp

January 2025

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Draft Document for Public Comment

Draft Amendment 4 to the Interstate Fishery Management Plan for Northern Shrimp

Prepared by

Atlantic States Marine Fisheries Commission
Northern Shrimp Plan Development Team

Plan Development Team Members:
Lulu Bates, Maine Department of Marine Resources
Robert Atwood, New Hampshire Fish and Game Department
Kelly Whitmore, Massachusetts Division of Marine Fisheries
Katie Drew, Atlantic States Marine Fisheries Commission
Chelsea Tuohy (Chair), Atlantic States Marine Fisheries Commission

Draft Document for Public Comment

Public Comment Process and Proposed Timeline

The Atlantic States Marine Fisheries Commission seeks your input on Draft Amendment 4 to the Northern Shrimp Fishery Management Plan.

The public is encouraged to submit comments regarding this document during the public comment period. Comments must be received by **11:59 (EST) on Tuesday March 11, 2025.** Regardless of when they were sent, comments received after that time will not be included in the official record. The Northern Shrimp Section (Section) will consider public comment on this document before finalizing Amendment 4. While the Section welcomes comment on all parts of the document, public consideration and comment is specifically sought on the proposed alternative management options included in ***Sections 2.3, 4.1.1, 4.1.3, 4.1.13, and 4.5.2.2***.

You may submit public comment by attending a public hearing held in your state or jurisdiction or mailing, faxing, or emailing written comments to the address below. Comments can also be referred to your state's members on the Northern Shrimp Section or Northern Shrimp Advisory Panel; however, only comments received at a public hearing or written comments submitted to the Commission will become part of the public comment record.

Mail: Chelsea Tuohy
FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200 A-N
Arlington, VA 22201

Email: comments@asmfc.org
Subject line: Northern Shrimp Draft Amendment 4
Phone: (703) 842-0740

Commission's Process and Timeline

Fall 2024	Draft Amendment for Public Comment Developed
December 2024	Section Reviews Draft Amendment and Considers its Approval for Public Comment
Winter 2025 - Spring 2025	**Section Solicits Public Comment and States Conduct Public Hearings**
Spring 2025	Section Reviews Public Comment, Selects Management Options, and Considers Final Approval of Amendment 4
Spring 2025	Commission Considers Final Approval of Amendment 4
TBD	Provisions of Amendment 4 are Implemented

Executive Summary

[*To be completed following final approval*]

Table of Contents

1.0 INTRODUCTION

The Atlantic States Marine Fisheries Commission (Commission) is developing an amendment to its Interstate Fishery Management Plan (FMP) for Northern Shrimp under the authority of the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA). The Commission, through the coastal states of Maine, New Hampshire, and Massachusetts is responsible for managing northern shrimp in the Gulf of Maine in state waters (0-3 miles from shore). Management authority in the exclusive economic zone (EEZ, 3-200 miles from shore) lies with the Secretary of Commerce through ACFCMA in the absence of a federal fishery management plan. This amendment will completely replace Amendment 3 to the Northern Shrimp FMP and Addendum I to Amendment 3, if approved for management.

1.1 BACKGROUND INFORMATION

1.1.1 Statement of the Problem

Beginning with the 2014 season, the Northern Shrimp Section (Section) imposed a moratorium on the northern shrimp fishery. The Section considered several factors prior to closing the fishery. Results of the 2013 stock status report indicated the abundance and recruitment indices in the western Gulf of Maine had declined steadily since 2006, and 2012 and 2013 were the lowest on record. Furthermore, long term trends in environmental conditions have not been favorable for northern shrimp survival in the Gulf of Maine amplifying the need to conserve spawning stock biomass. Results of each subsequent stock status report since 2013 have indicated continued poor trends in biomass, recruitment, and environmental indices which prompted the Section to extend the moratorium each year through 2024.

The Gulf of Maine northern shrimp fishery is currently managed under Amendment 3 (2017) and Addendum I to Amendment 3 (2018). The original Fishery Management Plan (FMP) for Northern Shrimp (1986) established the requirement for northern shrimp fishing seasons to be set annually by the Section after considering recommendations from the Northern Shrimp Technical Committee (NSTC) and Northern Shrimp Advisory Panel (AP). Amendment 1 (2004) and subsequent amendments to the FMP made no changes to the annual specifications requirement, with Amendment 3 stating, “The Section has the ability to set a closed season annually up to 366 days (i.e., impose a moratorium)”. Based on the current requirements of the FMP, measures subject to annual specification may only be modified through an amendment to the FMP.

Each year, the NSTC conducts a data update to incorporate the most recent fishery independent surveys and environmental indices into the longstanding timeseries, to apprise managers and stakeholders of current stock trends. While this data update provides information on the condition of the stock and Gulf of Maine environment, it does not specify management response to changing conditions. Additionally, the ability to incorporate new data streams such as industry-based research into the northern shrimp data updates is limited.

The continued poor condition of the northern shrimp stock including failed recruitment, the lowest abundance indices on record, and unfavorable environmental conditions have resulted

in uncertainties in the future status of the northern shrimp resource. To address these uncertainties, an amendment to the FMP was initiated to consider implementation of lengthened specifications setting timelines for closed seasons, management triggers, and the addition of the specifications setting timeline to measures subject to change under adaptive management.

1.1.2 Benefits of Implementation

Draft Amendment 4 is designed to maintain an efficient management structure that is flexible and encourages public involvement in the management process. It provides mechanisms to improve the Section's ability to effectively respond to the status of the resource. Draft Amendment 4 includes options for increased specifications setting timelines for closed seasons, the addition of management triggers for response to stock monitoring, and the addition of the specifications setting timeline to measures subject to change under adaptive management. Specific benefits of these measures include greater flexibility for the Section given the persistent poor stock conditions, management response tied to definable biological and environmental metrics through the use of management triggers, and the ability to incorporate new data streams into the specifications process through a management trigger.

Sustaining the potential for a viable shrimp fishery benefits the region by helping maintain diversity in fishing opportunities and providing opportunities to harvest, process, and further support fishing communities throughout the Gulf of Maine. Ultimately, specific benefits associated with the amendment will vary depending upon the final measures selected by the Section.

1.1.3 Ecological Benefits

Northern shrimp is an important link in marine food chains, preying on both planktonic and benthic invertebrates, and are in turn consumed by many commercially important fish species, such as cod, redfish, silver and white hake, and longfin squid. Therefore, maintaining a healthy northern shrimp population will contribute to the Gulf of Maine ecosystem. Shrimp will continue to play a role in controlling the populations of its prey, while simultaneously providing fodder for carnivorous vertebrates throughout the Gulf. *Pandalus borealis* diet was well documented by Weinberg (1981). Many species prey on *P. borealis* as a component of their diet (Shumway et al. 1985; Worm and Myers 2003; Savenkoff et al. 2006). Over many years, Wigley, Langton and Bowman from NOAA Fisheries have conducted many predator-prey studies showing the importance of *P. borealis* in the food web of the Gulf of Maine. The consideration of additional regulatory measures, such as multi-year specifications for closed seasons and management triggers with biological and/or environmental indicators, may improve the monitoring of the population of northern shrimp and response to changing conditions.

1.2 DESCRIPTION OF THE RESOURCE

1.2.1 Northern Shrimp Life History

The biology of the genetic distinct northern shrimp population (Jorde et al. 2014) in the Gulf of Maine has been studied extensively (Apollonio and Dunton 1969; Apollonio et al. 1986; Haynes and Wigley 1969), and reviewed by Shumway et al. (1985) and Bergström (2000). The species are protandrous hermaphrodites, maturing first as male and then transitioning to female. Ocean temperature has an important influence on northern shrimp in the Gulf of Maine (Apollonio et al. 1986; Richards et al. 1996; Richards et al. 2012).

1.2.1.1 Age and Growth

There is considerable information on growth of the Gulf of Maine northern shrimp stocks (Haynes and Wigley 1969; Apollonio et al. 1986; Terceiro and Idoine 1990; and Fournier at al. 1991). Differences in size at age by area and season can be ascribed to temperature effects, with more rapid growth rates at higher temperatures (Apollonio et al. 1986). Differences in size at age from year to year, and in size at sex transition, have been attributed to both environmental and stock density effects (Koeller et al. 2000, Koeller et al. 2007).

1.2.1.2 Stock Structure, Spawning and Reproduction

The species develop first as males at roughly 2½ years of age and then pass through a series of transitional stages to mature into females at roughly 3½ years of age (Figure). Northern shrimp spawn in offshore waters beginning in late July. By early fall, most adult females extrude their eggs onto the abdomen. Egg bearing females move inshore in late autumn and winter, where the eggs hatch (Figure 2). Juveniles remain in coastal waters for a year or more before migrating to deeper offshore waters, where they mature as males. Some females may survive to repeat the spawning process in succeeding years, and may live to be five or perhaps six years old.

Recruitment of northern shrimp is related to both spawning biomass and ocean temperatures, with higher spawning biomass and colder temperatures producing stronger recruitment. Experiments have shown that increased water temperatures, such as the Gulf of Maine is experiencing (Figure 4), can negatively affect the incubation of eggs in ovigerous females resulting in poor egg survival, embryonic development and larval hatching (Brillon et al. 2005).

1.2.1.3 Mortality

The natural mortality rate (M) used in previous assessments for US Gulf of Maine northern shrimp assessments (M=0.25; NEFSC 2007) was one of the lowest approximations for northern shrimp in the North Atlantic. The 2018 benchmark assessment for northern shrimp explored both constant and time- and size varying M. The final model used time and length-varying M based on predation pressure indices (PPI) and baseline M=0.5, and included the NEFSC autumn surveys but did not include the ME-NH spring inshore survey. Using a length-varying M based on the weight of each length class allows for the accounting of smaller sizes of shrimp having a larger M than larger sizes.

Time-varying (annual) M was related to inter-annual variation in predation pressure on shrimp. A weighted index of predator biomass was developed from Northeast Fisheries Science Center (NEFSC) survey data, where the weights were the long-term average percent frequency of shrimp in each predator's diet estimated from food habits sampling (NEFSC 2014; Richards and Jacobson 2016). The time series of PPI were used to adjust an assumed baseline (average) M. The adjustment to M was proportional to the long-term average of the PPI, so that M was scaled up in years with above average PPI and down in years with below average PPI. NEFSC fall surveys were used to estimate predator biomass for all species except spiny dogfish, which is more reliably estimated from spring survey data.

1.2.1.4 Stock Assessment Summary

The first analytical assessment was completed in 1997 and peer-reviewed at the 25th Northeast Regional Stock Assessment Workshop (NEFSC 1997). In addition to previously used traditional methods of assessing the stock (i.e., landings data, commercial effort and CPUE estimates, indices of abundance, etc.) quantitative tools like the Collie-Sissenwine, or Catch-Survey Analysis (CSA), the ASPIC surplus production, and yield per recruit and eggs per recruit models were introduced and continued to be used to provide guidance for management of the stock.

Between the implementation of Amendment 1 in 2004 and Amendment 3 in 2017, stock status for northern shrimp in the Gulf of Maine had been determined via comparison of terminal year estimates of fishing mortality (F) and biomass (B) to F and B-based reference points (i.e., biological reference points, or BRPs). The BRPs defined in Amendment 2 (2011) were developed via the CSA assessment model (Cadrin et al 1999), which was peer-reviewed and accepted for management use in 2007, but was not approved for management use following the 2014 benchmark assessment. Amendment 2 continued to define the BRPs (and values) used to determine stock status for northern shrimp in the Gulf of Maine. Amendment 3 (2017) broadened the criteria for stock status determination using the best available science and provides a flexible TAC recommendation process for specifications.

The 2018 benchmark assessment investigated three models, with the preferred model being a statistical catch-at-length model (UME) developed by the University of Maine. This model divides the northern shrimp stock into size groups and tracks changes in the proportion of shrimp in each size group across seasons and years to estimate fishing mortality and population size. However, the northern shrimp stock assessment undergoes a formal scientific peer-review process (i.e., a benchmark) about every five years which may result in revised or different stock status determination criteria.

1.2.1.5 Fishery-Independent Data

Trends in abundance and recruitment, among other stock assessment variables (e.g., early life stage survival) have been monitored using various fishery independent surveys conducted in the Gulf of Maine including the Northeast Fisheries Science Center (NEFSC) autumn bottom trawl survey (since the late 1960's); the Maine-New Hampshire annual spring inshore trawl survey which has been collecting data in depths greater than 55 fathoms (100 m) since 2003 and have been used in shrimp assessment since 2008; the summer shrimp surveys conducted

by the State of Maine (discontinued in 1983), and the ASMFC shrimp survey initiated by the NSTC in 1984 (summer shrimp survey) to specifically assess the shrimp resource in the western Gulf of Maine. The summer shrimp survey was coordinated by the NEFSC and conducted each summer aboard the *R/V Gloria Michelle*. The survey employed a stratified random sampling design and uses gear specifically designed for Gulf of Maine conditions. This survey was considered to provide the most reliable information available on abundance, distribution, population age structure, and other biological parameters of the Gulf of Maine northern shrimp resource (Tables 4-5 and Figure 3). However, in 2023, the summer shrimp survey was indefinitely postponed marking 2023 as the last year of the survey.

1.2.3 Present Condition of the Stock

The NSTC currently utilizes the UME model, approved for management use through the 2018 benchmark assessment and an index-based Strict Traffic Light Approach (STLA), developed by Caddy (1999*a*, 1999*b*, 2004) and extended by McDonough and Rickabaugh (2014), to assess stock status of Gulf of Maine northern shrimp (ASMFC 2018b). Stock assessment updates using the UME model occur approximately every four to five years.

The STLA categorizes annual values of each index as one of three colors (red, yellow, or green) to illustrate the state of the population, environmental conditions, and fishery. The greater the proportion of green or red in each stacked bar, the further that year's index is in a favorable or unfavorable direction, respectively. The NSTC has used the STLA to characterize a suite of fishery independent indices including total abundance and biomass estimated from the summer shrimp survey (discontinued in 2023) and NEFSC fall surveys, and harvestable biomass, spawning stock biomass, recruitment, and early life survival estimated from the summer shrimp survey; fishery dependent indices include commercial catch per unit effort (CPUE), price per pound, and annual landings value. Environmental indices include predation pressure on Gulf of Maine northern shrimp that was developed for the 2014 benchmark assessment (NEFSC 2014; Richards and Jacobson 2016, ASMFC 2018b), and several sources of temperature data for the northern shrimp resource area. Trends have been characterized from 1984 to present (Tables 3-5 and Figure 4).

The most recent stock assessment information for the stock, the 2024 stock assessment update, presented new data collected since the last assessment update in 2021. The 2024 assessment update found stock status for northern shrimp continues to be poor, as illustrated by both the traffic light analyses and the catch-at-length model. The 2023 summer survey indices of abundance, biomass, and recruitment were at time-series lows, and spawning stock biomass was the lowest in the 1984-2023 time-series. Additionally, environmental conditions continue to be unfavorable for northern shrimp in the Gulf of Maine. The predation pressure index spiked in 2021 compared to 2017-2019, and declined to just above the 80th percentile of the reference time period in 2023. Spring bottom temperatures and winter sea surface temperatures declined somewhat in 2023, but were still above the 80th percentile threshold.

Spawning stock biomass in 2024 was estimated to be at 279 mt, the lowest in the time-series and well below the time-series median of 4,732 mt. Recruitment also remained low for 2022-

2023, a continuation of the series of below-average year classes for the last ten years. Model bias, illustrated by retrospective patterns, was small. After 2015, SSB was overestimated in some years and the exploitation rate was underestimated. Recruitment was consistently overestimated in the terminal year.

Long- and short-term stock projection results varied depending on assumptions about future natural mortality and recruitment levels, as well as fishing mortality. Under the recent unfavorable levels of natural mortality and recruitment, spawning stock biomass was projected to decline from 2023 levels and stabilize at an SSB level of 263 mt in the long-term. If both recruitment and natural mortality returned to their long-term values, the population would recover to 2,897 mt, still below the long-term median population size.

1.2.3.1 *Peer Review Panel Results from the 2018 Benchmark Assessment*

The 2018 benchmark assessment peer review occurred through an Atlantic States Marine Fisheries Commission (Commission) external peer review process. The Commission coordinated a Peer Review Workshop for the Northern Shrimp Assessment on August 14-16, 2018. Participants included members of the Northern Shrimp Stock Assessment Subcommittee and a Review Panel consisting of three reviewers appointed by the Commission. The Review Panel found the following research recommendations, provided by the TC, appropriate and effectively prioritized:

Fishery-Dependent Priorities

- Evaluate selectivity of shrimp by traps and trawls *(high priority, short term)*
- Continue sampling of the northern shrimp commercial fishery, including port, sea, and RSA sampling to confirm, and, if necessary, update the length-frequency of the species and identify any bycatch in the fishery *(high priority, long term)*
- Conduct a study comparing the effectiveness of the compound grate versus the double-Nordmore grate *(moderate priority, short term)*

Fishery-Independent Priorities

- Continuing sampling through summer shrimp survey despite the current low abundance of shrimp and the closure of the shrimp fishery in 2013 *(high priority, long term)*
- Explore ways to sample age 1 and younger shrimp *(moderate priority, short term)*

Modeling/Quantitative Priorities

- Continue research to refine annual estimates of consumption by predators, and include in models as appropriate *(high priority, short term)*
- Investigate growth parameters for the UME length-based model and the feasibility of adding a spatial-temporal structure to the model framework *(moderate priority, long term)*

Life History, Biological, and Habitat Priorities

- Investigate application of newly developed direct ageing methods to ground truth assumed ages based on size and stage compositions *(high priority, long term)*

- Evaluate larval and adult survival and growth, including frequency of molting and variation in growth rates, as a function of environmental factors and population density *(high priority, long term)*
- Study the effects of oceanographic and climatic variation (i.e., North Atlantic Oscillation) on the cold water refuges for shrimp in the Gulf of Maine *(high priority, long term)*
- Explore the mechanisms behind the stock-recruitment and temperature relationship for Gulf of Maine northern shrimp *(high priority, long term)*

Timing of Assessment Updates and Next Benchmark Assessment
The NSTC recommends that the assessment be updated annually to incorporate the most up-to-date data on abundance and recruitment into management recommendations. A benchmark assessment should be considered in five years if improvements in the length-based model or significant changes in the population warrant it.

1.3 DESCRIPTION OF THE FISHERY

1.3.1 Commercial Fishery

Northern shrimp occur in boreal and sub-arctic waters throughout the North Atlantic and North Pacific, where they support important commercial fisheries. In the western North Atlantic, commercial concentrations occur off Greenland, Labrador, and Newfoundland, in the Gulf of St. Lawrence, and on the Scotian Shelf. The Gulf of Maine marks the southernmost extent of its Atlantic range. Primary concentrations occur in the western Gulf where bottom temperatures are coldest. In summer, adults are most common at depths of 90-120 meters (Haynes and Wigley, 1969).

The fishery has been seasonal in nature, peaking in late winter when egg-bearing females move into inshore waters and terminating in spring under a regulatory closure. Table 1 identifies the season length and regulations for the northern shrimp fishery since 1973. Northern shrimp has been an accessible and important resource to fishermen working inshore areas in smaller vessels who otherwise have few options due to seasonal changes in availability of groundfish, lobsters and other species.

The fishery formally began in 1938, and during the 1940s and 1950s almost all of the landings were by Maine vessels from Portland and smaller Maine ports further east. This was an inshore winter fishery, directed towards egg-bearing females in inshore waters (Scattergood 1952). Landings reached a peak of 255 tons in 1945, but then declined into the 1950s and during 1954-1957 no commercial landings of shrimp were recorded (Apollonio et al. 1986).

In the late 1950s, the fishery began to recover due to the efforts of commercial interests in Portland, Maine, and presumably to improving resource conditions. Landings (Table 2) increased to a peak of 12,800 tons in 1969, of which 11,000 tons were taken by Maine vessels. New Hampshire vessels entered the fishery in 1966, but throughout the 1960s and 1970s New Hampshire landings were less than 100 mt. Landings by Massachusetts vessels were

insignificant until 1969, but in the early 1970s the fishery developed rapidly, with landings increasing from 14% of the total catch to about 40% in 1973-1975. In contrast to the historical wintertime Maine fishery, these vessels fished continually throughout the year and made significant catches during summer months. Total landings averaged 11,000 tons from 1970-1972 and then declined rapidly until 1977 when only 400 tons were landed. The fishery was closed from mid-May of 1977 to February 1979.

Between 1980 and 1998, landings and effort recovered, and then fluctuated considerably in response to recruitment from several strong year classes, varying from 2,100 tons in 1993 to 9,500 tons in 1996. In keeping with historic trends, the majority of the catch from 1985 through 1998 had been taken by Maine vessels (77%), with Massachusetts vessels accounting for most of the remainder (15%). Numbers of participating vessels fluctuated considerably, switching to shrimp trawling if the season's length, shrimp's price and accessibility warranted the effort. After 1998, landings declined, reaching a low of 450 tons in 2002, due to stock declines and management actions (shorter fishing seasons). Landings then increased steadily, peaking at 6,400 tons in 2011. Maine boats landed 87%, Massachusetts 3% and New Hampshire 10% of this total. After 2011, landings declined and the fishery was closed after the 2013 season and has not reopened, except for small research fisheries in 2014 through 2017.

Size composition collected from catches since the early 1980s indicate that trends in landings have been determined primarily by recruitment of strong year classes. According to the recruitment index from the summer shrimp survey, strong year classes include those assumed to have been hatched in 1987, 1992, 2001, 2004, and 2007-2009, which were above the 80th percentile of recruitment for the stable period (1984-2017). Conversely, the summer survey recruitment index was below the 20th percentile of the stable period for 9 of the last 11 years where data were available. The most recent three years of data (2021-2023) report time series lows for recruitment indices for the Gulf of Maine shrimp stock.

A wide variety of vessels have been used in the fishery (Bruce 1971; Wigley 1973). The predominant type during the 1960s and 1970s appears to have been side-rigged trawlers in the 14-23 m range. During the 1980s and 1990s, side trawlers either re-rigged to stern trawling, or retired from the fleet. Recently, the shrimp fleet was comprised of lobster vessels in the 9-14 m range that seasonally rig for shrimp fishing, small to mid-sized stern trawlers in the 12-17 m range, and larger trawlers primarily in the 17-24 m range. Otter trawl remains the primary gear employed and is typically chain or roller-rigged, depending on area and bottom fished. There has been a trend in recent years towards the use of heavier, larger roller and/or rockhopper gear. These innovations, in concert with substantial improvements in electronic equipment, have allowed for much more accurate positioning and towing in formerly unfishable grounds, thus greatly increasing the fishing power of the Gulf of Maine fleet.

A shrimp pot fishery has existed in mid-coastal Maine since the 1970s, where in many areas bottom topography provides favorable shrimp habitat that might be too rough or restricted for trawling. The trapped product is of good quality, as the traps target only female shrimp once they have migrated inshore. Maine trappers land fewer small shrimp, and generally are more

apt to catch females after egg hatch, than trawlers (ASMFC 2010). As the trap fishery is dependent on the availability of shrimp in a specific area, there is a shorter season for traps than for trawlers. The majority of the shrimp trappers also catch lobster, so shrimp is a supplemental portion of their annual production and income. Maine trapping operations accounted for 4% to 8% of the state's trips from 1987 to 1994 (ASMFC 2000). There is some indication that trap fishing for shrimp has grown in areas such as South Bristol and Boothbay Harbor (mid-coast Maine). According to federal and state of Maine Vessel Trip Reports (VTRs), trappers averaged 12% of Maine's landings during 2001 to 2007, 18% during 2008 to 2011, 9% in 2012, and 6% in 2013 before the fishery closed in 2014. Trapping effort had also been increasing around that time, accounting for 21% of Maine's landings in 2010, but may have been lower relative to trawling in 2011 (17%) and 2012 (9%) because of the early closure of the seasons (ASMFC 2013).

Currently, if the fishery is open, the Section implements a combination of effort controls including trip limits, trap limits, and days out of the fishery to manage the commercial fishery. The FMP also allows for a research set-aside program (RSA), mandatory reporting requirements integrated through the coastwide Atlantic Coastal Cooperative Statistics Program's (ACCSP) Standard Atlantic Fisheries Information System (SAFIS), and allocation of the total allowable catch (TAC) by gear type, if desired by the state. States may determine any gear-specific allocations between the trawl and trap fisheries. The state may also choose not to divide its quota between gear types. This determination by the state can occur after the annual TAC has been set.

1.3.2 Recreational Fishery

A very limited recreational fishery exists for northern shrimp. This fishery, using traps, has been for personal use and has not been licensed.

1.3.3 Subsistence Fishing

No significant subsistence fisheries for northern shrimp have been identified at this time; however, fishermen reportedly harvested 10 or 20 pounds of shrimp for personal consumption or non-sale distribution on a regular basis prior to the 2014 moratorium.

1.3.4 Non-Consumptive Factors

Some Gulf of Maine shrimp processors have composted shrimp waste for use as garden fertilizer prior to the 2014 moratorium. There has also been experimentation in Canada with extracting chitin from shrimp for medical purposes, and in Norway with extracting carotenoids for salmon feed (Spencer Fuller, personal communication).

1.3.5 Interactions with Other Fisheries, Species, or Users

1.3.5.1 Other Species

Northern shrimp is an important link in marine food chains, preying on both plankton and benthic invertebrates and, in turn, being consumed by many commercially important fish

species, such as cod, redfish, dogfish, silver and white hake, and longfin squid. *P. borealis* diet was well documented by Weinberg (1981). Species that include *P. borealis* in their diet are documented by many authors (Shumway et al. 1985; Worm and Myers 2003; Savenkoff et al. 2006; Link and Idoine 2009; Richards and Jacobson 2016; Richards and Hunter 2021). In 2021, Richards and Hunter documented time-series biomass highs for longfin squid and significant spatial overlap with northern shrimp. Evidence from this work suggests that that longfin squid predation on northern shrimp in 2012 likely significantly contributed to the northern shrimp population collapse in 2013.

1.3.5.2 Other Fisheries

In recent history, the northern shrimp fishery has been prosecuted in the winter months from December through May at a time when many other fishing activities in the Gulf of Maine are marginal or out of season.

Dunham and Mueller (1976) note that in response to shrimp harvest restrictions such as a closed season, most respondents indicated that they would fish for other species. Additionally, most would fish for species they typically target at other times of the year. This included lobster, scallop, or groundfish (mostly redfish, cod, and whiting). During the period this study took place, shrimp stock levels were extremely low, ultimately leading to the closure of the fishery in April 1977. Harvesters responded by spending more time prosecuting fisheries that they had historically participated in. This is indicated by notable increases in the landings for whiting and squid during the period.

Similarly, most shrimp harvesters today fish for other species during the year. However, the ability to switch between fisheries has decreased since the implementation of limited entry and effort restrictions in the northeast multispecies (groundfish) fishery, and Maine's lobster and scallop fisheries.

From a processor's standpoint, plants may switch between shrimp and lobster over the course of a year. However, the facilities and skills of the workers are specialized for the two species so switching can be expensive. Shrimp is highly perishable and proper handling is a requisite for a quality product.

The potential for interaction between mobile gear and fixed gear does exist. If the shrimp fishery begins in December or early January, coastal lobster harvesters have to remove their gear at the end of their season before the mobile gear vessels begin trawling for shrimp. In January through April, the fixed gear (traps) shrimp harvesters must be careful to avoid bottom where trawling gear is fished. Trap harvesters often set in and around hard bottom coves and holes where mobile gear can't reach. During the experimental shrimp fisheries in 2015 and 2016, participants reported an increase in the abundance of lobster gear in traditional shrimp trawl areas, as the lobster industry took advantage of the shrimp fishing moratorium to expand their winter range.

1.4 HABITAT CONSIDERATIONS

1.4.1 Habitat Important to the Stocks

1.4.1.1 *Description of the Habitat*

Northern shrimp has a discontinuous distribution throughout the North Atlantic, North Pacific, and Arctic Oceans. The Gulf of Maine marks the southern extent of this species' range. Water temperature, depth, and sediment type have all been cited as important factors governing shrimp distribution in the Gulf of Maine (Haynes and Wigley 1969; Apollonio et al. 1986; Clark et al. 1999).

1.4.1.1.1 Temperature

The most common temperature range for this species is 0-5˚C (Shumway et al. 1985), but adult northern shrimp have been reported to live in waters from 1.6˚C (Gorbunow 1934; Ingraham 1981) up to around 12˚C (Bjork 1913; Allen 1959), and larvae can tolerate temperatures up to at least 14˚C (Poulson 1946). During the spring, fall, and especially summer months, adult shrimp are most abundant in cold 4-6˚C waters found mainly in the deeper basins (90-180 m) in the southwestern Gulf of Maine (Haynes and Wigley 1969, Apollonio et al. 1986, Clark et al. 2000). Seasonal water temperatures in many areas of the Gulf of Maine regularly exceed the upper physiological limit for northern shrimp. In particular, available habitat is limited to the western region of the Gulf (west of 68˚W) where bottom topography and oceanographic conditions create submarine basins protected via thermal stratification from seasonal warming. In northeastern regions of the Gulf of Maine, bottom waters are not protected from seasonal warming due to continual mixing from intense tidal currents nearer the Bay of Fundy, and large shrimp populations do not persist.

Apollonio et al. (1986) suggest that the northern shrimp resource is expected to be unstable because it is at the southernmost extent of its Atlantic range and is susceptible to environmental influences. Dow (1977) found that abundance is higher with lower sea surface temperatures, and this relationship has since been corroborated by other authors, including Richards et al. (1996). While the manner by which temperature affects recruitment and abundance has not been precisely determined, record high sea surface temperatures during the early 1950s correlate with complete failure of the fishery from 1954-1957 (Clark et al. 2000). Conversely, the cold temperature years of the early to mid-1960s appear to have been very favorable for recruitment, with rapid increases in abundance and record landings from 1969-1972 (Clark et al. 2000). Determining the reason for collapse of the fishery during the 1970s is more problematic as it occurred during a period of warming temperatures combined with high and increasing levels of fishing mortality rate (Clark et al. 2000). In this case, overfishing has been strongly implicated for the collapse, but both factors were likely influential. During the next two decades, significant recruitment events have coincided with normal to below normal spring sea surface temperature anomalies. This stock appears to be one of the few for which previous relationships between environmental influences and abundance trends remained statistically significant when reexamined (Myers 1998). Richards et al. (2012) found an inverse

relationship between temperature and recruitment between 1968 and 2011. Recruitment variability increased after 1999, coincident with a shift to a warmer temperature regime. Reproductive output (i.e.,spawner biomass) and recruitment were positively correlated over the entire time series, but not related during the most recent and warmer period of 1999-2011. Richards and Hunter (2021) examined the collapse of the northern shrimp population in the Gulf of Maine, which experienced extreme high temperatures in 2012 and has been warmer on average since. They found that longfin squid (*Doryteuthis pealeii*), unlike other species in the Gulf of Maine, had a time-series biomass peak in 2012 and biomass has remained generally higher since. Longfin squid predation was likely a significant factor in the collapse of northern shrimp.

1.4.1.1.2 Salinity

Northern shrimp have a narrow salinity tolerance (stenohaline) and are restricted to water with moderately high salinities (Allen 1959). Their occurrence has been noted in waters with salinities ranging from a low of 23.4 up to 35.7 (Shumway et al. 1985). Given that average salinity values in the Gulf of Maine are within this range and well above the minimum (e.g., see 2001-2008 data in Deese-Riordan 2009), salinity is not likely to be a limiting factor in the distribution of the species.

1.4.1.1.3 Depth

Northern shrimp are found throughout the range of water depths occurring in the Gulf of Maine, from about 10 meters to over 300 meters (Haynes and Wigley 1969). For most of the year, juveniles and immature males occupy shallower, inshore waters and mature males and females occupy cooler, deeper offshore waters (Apollonio and Dunton 1969; Haynes and Wigley 1969, Apollonio et al. 1986). However, northern shrimp, particularly the females, undertake seasonal migrations related to temperature and their reproductive cycles.

In addition to age and seasonally correlated horizontal migrations, northern shrimp exhibit diel vertical migration in the water column. There is strong evidence that northern shrimp leave the bottom at night and distribute themselves throughout the water column, presumably to feed (Wollebaek 1903; Hjort and Ruud 1938; Barr 1970). Gut contents have been shown to include planktonic crustaceans (Horsted and Smidt 1956). In thermally stratified waters, northern shrimp will migrate up to, but not penetrate the thermocline (Apollonio and Dunton 1969). After spending the night dispersed in the water column, shrimp return to the bottom around dawn where they feed on a wide variety of soft bottom benthic invertebrates (Wienberg 1981).

1.4.1.1.4 Substrate

The winter fishery for northern shrimp extends as far south as the outer arm of Cape Cod and as far north as Jonesport, Maine (D. Schick, personal communication). Figure 5 shows the locations of these basins, mud vs. gravel and bedrock habitats, and average bottom temperatures.

Within its preferred temperature range, northern shrimp most commonly inhabit organic-rich, mud bottoms or near-bottom waters (Wollebaek 1908; Hjort and Rund 1938; Horsted and

Smidt 1956; Warren and Sheldon 1968, Haynes and Wigley 1969, Clark et al. 1999). Examples include Cashes Basin, Scantum Basin (D. Schick, personal communication), and the region southeast of Mount Desert Island, Maine (Haynes and Wigley 1969). Anecdotal evidence also suggests there is small populations in deep, cold water pockets in Penobscot Bay (D. Schick, personal communication) and in the Sheepscot River (L. Watling, personal communication). During the winter and spring, when nearshore and offshore surface waters have cooled to the temperature range of shrimp, the amount of habitat available to adult shrimp increases.

Bigelow and Schroeder (1939) and Wigley (1960) found a direct correlation between shrimp abundance and sediment organic matter content, while Apollonio et al. (1986) argue that temperature, not benthic habitat type, is the most important factor driving the distributional patterns of shrimp.

However, shrimp is not limited to fine sediment substrate and have been observed on rocky substrates (Berkeley 1930; Balsiger 1981). Shrimp are also often associated with biotic or abiotic structures such as cerianthid anemone tubes (Langton and Uzmann 1989) and occasional boulders (D. Schick, personal communication).

1.4.1.1.5 Spawning Habitat

Northern shrimp populations in the Gulf of Maine comprise a single stock (Clark and Anthony 1981) that spawns in offshore waters beginning in late summer (Haynes and Wigley 1969). The precise locations of spawning grounds are not well documented, but it is reasonable to conclude that spawning occurs in offshore summer population centers in deep mud basins in the southwestern Gulf of Maine (Haynes and Wigley 1969; Apollonio et al. 1986). Ovigerous females remain in cold, stratified, bottom waters through the fall until nearshore waters have cooled at which time they begin an inshore migration to release their eggs (Haynes and Wigley 1969; Apollonio et al. 1986, Clark et al. 1999). Female shrimp are thus found in abundance in nearshore waters only during the late winter and spring when coastal waters are coldest (Clark et al. 1999). Inshore migration routes followed by the northern shrimp are not well known, but due to their well-established preference for organic-rich mud bottoms, it has been suggested that female shrimp probably move inshore over muddy substrates and are eventually concentrated in, but not limited to, mud-bottom channels nearshore (D. Schick, personal communication).

After their arrival in nearshore waters, the female shrimp's mature eggs begin to hatch. Hatching occurs as early as February and lasts through April (Haynes and Wigley 1969; Stickney and Perkins 1979), after which time female shrimp return to offshore waters in the western Gulf of Maine. The pelagic larvae are planktotrophic, feeding primarily on diatoms and zooplankton (Stickney 1980). A survey of larval shrimp distribution conducted by Apollonio and Dunton (1969) showed that larvae were abundant almost exclusively within 10 miles of shore. Little is known about the vertical distribution of larval shrimp within the water column. While in the plankton, northern shrimp pass through six larval stages (Berkeley 1930; Stickney and Perkins 1979) before completing a final metamorphosis to a juvenile stage and settling to the bottom in nearshore waters after about 30 to 60 days (Rinaldo 1981). The timing of egg release

and larval development rate are temperature-related, with colder water temperatures resulting in slower development (Allen 1959). Thus, the timing of egg release and length of pelagic larval stages may vary from year to year as a result of temperature fluctuations (Koeller et al. 2009).

1.4.1.1.6 Eggs and Larval Habitat

Koeller et al. (2009) suggested that the winter inshore migration of egg-bearing females in the Gulf of Maine may be a behavioral adaptation to delay egg development and bring hatching time closer to the time of spring phytoplankton bloom. While studies of several shrimp populations support the association between spring bloom and shrimp hatching period, there is not a match in the Gulf of Maine stock. Richards et al. (2016) compared shrimp survey and environmental data to elucidate potential mechanisms behind the relationship between cooler temperatures and better northern shrimp recruitment. Rather than assuming time periods important to larval survival, they used a rolling window analysis to reveal environmental conditions (sea surface temperature and/or chlorophyll-a) associated with hatch timing. Chlorophyll-a was negatively correlated with survival during a period about 40 days before median hatch, and again around the time of juvenile settlement. It did not appear that phytoplankton biomass was a controlling factor on survival during the study time series. Hatch period preceded the spring bloom by about two months, aligning more closely (although correlations were not statistically significant) with the smaller winter phytoplankton bloom. Sea surface temperature was negatively correlated with survival during final embryo maturation/early larval stages, and approximately two months after juvenile settlement on the seabed, i.e., lower temperatures were related to higher survival. While the causal mechanism between lower temperature and higher survival remains unclear, knowing the sensitive period should aid further studies. The first sea surface temperature correlation occurs during the coldest time of year, and the authors speculate that northern shrimp metabolism may be optimized for these low temperatures. The other sea surface temperature correlation occurs when bottom temperatures are higher, and the difference between sea surface temperatures and bottom temperatures approaches the annual maxima. Thus, lower than typical temperatures during the late summer, when shrimp are metabolically stressed, may increase survival in those years.

1.4.1.1.7 Juvenile Habitat

Regardless of the mechanisms that influence hatch success, by late summer, nearly all newly metamorphosed juveniles have settled to the bottom in relatively shallow, near-shore areas usually within 10 miles of the coast (Apollonio and Dunton 1969). These immature shrimp remain inshore for up to 20 months as they grow and develop into mature males (Apollonio and Dunton 1969). Relatively little is known about the distribution and habitat requirements of this life history stage. After as little as a year, some juveniles begin to migrate offshore to deeper waters. Eventually, all juveniles will migrate offshore where they will complete their development into mature males around 29-30 months old (Apollonio and Dunton 1969; Haynes and Wigley 1969). Their migration routes and factors triggering migration to deep, offshore, muddy basins are not well known.

1.4.1.2 *Identification and Distribution of Habitat Areas of Particular Concern*

Nearshore waters (out to 10 miles)
Nearshore waters provide habitat for the larval and juvenile stages of northern shrimp. The survival of these early life-history stages is essential to the success of the species. Nearshore habitats are impacted by a myriad of anthropogenic activities including coastal development, pollutant run-off, harbor dredging, etc. The effects of these and other human activities on habitat quality for larval and juvenile northern shrimp are not known at this time.

Deep, muddy basins in the southern region of the Gulf of Maine
Deep, muddy basins in the southwestern Gulf of Maine act as cold water refuges for adult shrimp during periods when most water in the Gulf reaches temperatures that are lethal to this arctic/sub-arctic species. Fluctuations in the oceanographic conditions due to the North Atlantic Oscillation, climate change, or other natural factors may cause warm water to intrude into some of the deep basins in the southwestern Gulf rendering this habitat unsuitable for shrimp and possibly resulting extirpation of local populations.

In addition to naturally occurring environmental changes, bottom otter trawls used to harvest groundfish can impact deep, muddy bottom habitats. Relative to shrimp trawl gear, groundfish trawls are typically fished at higher speeds, have longer sweeps, and may use larger rollers or rockhoppers. The use of mobile fishing gear has been shown to reduce structural complexity of bottom habitats (Auster et al. 1996, NEFMC 2011, and studies referenced therein). Reducing habitat structural complexity could potentially reduce the survival of adult shrimp, which may use biotic and abiotic structures on mud bottoms to avoid predation. Simpson and Watling (2006) suggested that seasonal trawling with shrimp gear on mud bottoms at approximately 100 m depth produced at least short-term changes (<3 months) in macrofaunal community structure, but did not appear to result in long-term cumulative changes.

1.4.1.3 *Present Conditions of Habitats and Habitat Areas of Particular Concern*

Near-shore waters
Near-shore habitats are impacted by a myriad of anthropogenic activities including coastal development, pollutant run-off, harbor dredging, and others. Because detailed maps of inshore habitats occupied by larval and juvenile shrimp are not available, it is not possible to identify the condition of, or specific anthropogenic threats to, these habitats.

Deep, muddy basins
The effects of temperature on shrimp abundance have long been a subject of study, however, more information is required before it is possible to predict the effect of large-scale climatic events (e.g., the North Atlantic oscillation or climate change) on the amount of suitable habitat available to adult shrimp. While the effects of mobile fishing gear on bottom habitats have been a subject of study for over two decades; the long-term impacts of trawling on shrimp habitat in deep, muddy basins is not well understood.

1.4.1.4 *Ecosystem Considerations*

The Commission, NOAA Fisheries, and several Fishery Management Councils have been incorporating Ecosystem-Based Fisheries Management (EBFM) strategies into their fishery management programs. In general, EBFM strategies are adaptive management approaches that are specific to a geographic region, account for environmental influences and uncertainties, and strive to balance diverse ecological, social, and economic objectives.

By developing EBFM strategies, the Commission and its partner agencies are attempting to move beyond the traditional focus on single-species dynamics by considering environmental and human influences on fish populations and their sustainable harvest (e.g., multispecies interactions, climate change, and coastal development). EBFM strives to integrate ecological, social, and economic goals, and engage a diverse group of stakeholders to define problems and find solutions providing mutual benefit.

Although an EBFM strategy has not been developed for northern shrimp, its distribution throughout the Gulf of Maine and importance to the marine food web make it a good candidate for consideration (Link and Idoine 2009). Predator-prey interactions with several demersal finfish species (e.g., Atlantic cod, redfish) exist throughout the northern shrimp range (Worm and Myers 2003; Savenkoff et al. 2006). Given the data requirements necessary to incorporate multi-species interactions appropriately, it would be a challenge to use an EBFM strategy for northern shrimp. However, the Commission's Multispecies Technical Committee and Northern Shrimp Technical Committee continue to work on refining multi-species modeling approaches to be used in future assessments of managed species, including northern shrimp.

1.5 IMPACTS OF THE FISHERY MANAGEMENT PROGRAM

1.5.1 Biological and Environmental Impacts

Draft Amendment 4 provides an extensive list of management tools for managers to regulate the species in a biologically sustainable manner. Depending on the tool or combination of tools chosen, the action may have varying impacts on the Gulf of Maine northern shrimp stock.

Despite the number of tools available for management, the northern shrimp stock has remained in a moratorium each year since 2014 due to its depleted status. Additionally, the 2024 stock assessment update for the species indicated total abundance and spawning stock biomass for northern shrimp continued to decline in 2022-2023 and recruitment remained low from 2022-2023 (ASMFC 2024).

Given the continued poor condition of the stock and unfavorable environmental conditions for northern shrimp in the Gulf of Maine, Draft Amendment 4 provides options for a lengthened specifications setting timeline for closures, allowing managers to set closed seasons for more than one year at a time. In addition, Draft Amendment 4 provides options to change the specifications setting timeline in the future through an addendum to the Northern Shrimp FMP rather than an amendment. Through this action, managers will be able to more quickly respond to specifications setting needs in the future.

Draft Amendment 4 also considers options for the incorporation of management triggers that respond to observed changes in environmental and biological indicators. A management trigger outlines specific management responses tied to definable metrics that indicate changes in northern shrimp biological and/or environmental conditions. If a management trigger is implemented and the trigger remains un-tripped (no change in stock status and/or environmental conditions detected), a moratorium could be maintained. On the other hand, if the trigger is tripped, it could prompt steps to be taken such as a stock assessment update that could allow the Section to examine the potential for reopening the fishery.

1.5.2 Social Impacts

Trawls and traps are the two gears used to harvest northern shrimp. Slightly over half the boats in the Maine fishery in 2009 used traps, but trawlers landed a larger percentage of the catch (80% in 2009). The northern shrimp fishery is one of the last open access fisheries in the region and thus, as other fisheries are restricted, may be regarded as a fishery of last resort. Asked about limited entry in 2009, 62% of respondents who participate in the trap fishery opposed a controlled access management program, as did 43% of trawlers (Moffett & Wilson, 2010). A very small sample of harvesters queried in 2016 suggested that the numbers might be different if this study was conducted again, with individuals suggesting that limited entry is needed, some adding the caveat that the states should retain ownership of the permits, others suggesting that individual transferrable quotas might be preferable.

For a variety of reasons, cold-water shrimp has been primarily a secondary fishery for lobster and groundfish harvesters. It was regarded as an important winter fishery that allowed harvesters to supplement their income when lobstering was slow and/or weather and quota constraints limited groundfishing. It is not only revenue that is important, however, being able to stay active in a fishery is important to both harvesters and their vessels. Trapping had been steadily growing in Maine, from an average of about 31% of the Maine vessels and 13% of the Maine landings during 2001-2005, to 47% of vessels and 14% of landings in 2005-2009, to 48% of vessels and 23% of landings in 2010 (Maine only). Also in 2009, lobster harvesters in the region faced a serious drop in prices for their product compared to the prior three years, so it is a reasonable supposition that shrimp trapping was attempted to make up for the lost income. Even when the lobster prices and/or quantities increased, Northern shrimp was a popular fishery over the long winter.

Fluctuations in abundance, size, cost, and seasonal availability pose significant marketing challenges to the industry. In fact, in 2009, 83% of trap gear respondents and 97% of trawl gear respondents noted that their efforts in shrimp fishing were limited by the market (Moffett & Wilson 2010). This implies that should the market improve (higher prices and quantities sold), additional effort would move into the shrimp fishery. This effect was demonstrated in the 2010 and 2011 seasons when prices rose and participation and effort increased (ASMFC 2010, ASMFC 2011).

Those who formerly fished for shrimp and are still actively trawling for groundfish would most likely return to shrimp fishing if the season opened. However, there are far fewer trawlers than before due largely to the changes in groundfish regulations. Lobster harvesters might also trap shrimp. Though Rockport, Massachusetts was an active shrimp port in the past, the vessels there have removed their net reels and winches and generally use their boats for lobster fishing.

One major challenge in attempting to return to shrimp trawling is that lobster gear has moved into traditional shrimp trawling grounds. In the past, there were agreements among trawlers and lobster harvesters to keep these traditional grounds open for trawling, but there is less confidence now that those agreements could be honored.

Shrimp fishing, a winter fishery, is also problematic due to weather. New Hampshire harvesters are in the open ocean, so if the season is short, they may not have a suitable weather window to safely fish. Maine havesters have a little more flexibility since they can "hide behind on island," if the weather closes in. t might be reasonable to have a 14-day season, but allow the harvester to select their active shrimp days depending on weather.

Northern shrimp was often purchased initially by fishermen's coops, in both New Hampshire and Maine, then frequently sold to a major processor in Portland, ME. When shrimp fishing was consistent, there were also a few small-scale processors and a variety of roadside vendors, particularly in Maine. As the short-to-no seasons continued, both the small-scale processors and vendors sold out and/or went out of business. Some respondents in 2017 noted that roadside vendors also fell afoul of increased public health scrutiny and regulations that insisted on stainless steel sinks and bathrooms. However, some roadside vendors were seen in 2014-2017, likely selling shrimp landed as part of the RSA Program.

The fishermen's cooperatives lost markets for shrimp, rebuilt them when shrimp returned, only to lose them again when the shrimp season was shortened or closed. When there was an open shrimp season, Portland Fish Exchange held a special Northern shrimp auction. Even now, they provide a landing facility for the shrimp boats, advising them to land in the late afternoon, so the catch can be transported to the Fulton Market in New York by midnight and bought in the morning by those supplying the Asian restaurant markets.

In the past, reduced landings, whether due to regulations or biology, had a significant impact on processors who need a steady supply of product to maintain their work force and market share. Because both the equipment and labor (grading, peeling, cooking) is specialized, it is expensive for processors to switch to processing shrimp from processing other product such as lobster. Without a predictable shrimp season or product, processors might choose not to change their operation.

While shorter seasons, trip limits and days-out restrictions limit fishing opportunities and landings, the impact of such measures on harvesters depends on what alternatives exist. Such

alternatives are determined by the other permits held by the harvester but are also constrained by regulations, weather, and markets.

Since shrimp fishing was usually out of smaller ports in the region, regulations that limited access and effort had noticeable short-term negative impacts on the associated communities. Shore-side businesses such as providers of fuel and gear, in particular, were affected. However, if management is successful in ensuring a predictable and sustainable harvest, all sectors will have the opportunity to benefit over time.

The Northern shrimp fishery is not sufficiently homogeneous to accurately predict and describe the impacts of proposed regulations. What might be a minor inconvenience to one diversified multiple vessel owner could be a disaster to smaller single vessel owner. Nevertheless, a study conducted in 2009 found that on average, harvesters who responded depended on shrimp for 25% of their annual income. Furthermore, the actual impacts of regulations are not felt in isolation but are experienced in the larger context of the regulatory and economic environment of each operator and are cumulative over time. The lack of flexibility to change target species, as well as timing and geospatial decisions associated with fishing, is a negative impact commonly cited in social impact assessments of regulations that limit access. Nevertheless, if entry is not limited, it is more difficult for managers to assure that annual fishing caps are not exceeded, particularly if other fishing opportunities are limited.

As noted, the TAC was exceeded in 2010-2012 fishing years. However, recent innovations in cell phone technology, applications (apps), etc., may provide improved monitoring of catches and faster responses to avoid quota overages. Swipe cards in the American eel (elver) fishery in Maine have been very successful in monitoring the catch, as has a cell phone app in the fluke fishery in Massachusetts. Furthermore, far fewer trawlers are active due to changes in groundfish regulations, which could limit the numbers of vessels able to move into shrimp fishing.

1.5.3 Economic Impacts

The impact of management regulations will vary in relation to the dependence upon the fishery. A harvester with one vessel may be unable to cover the costs of operation in the face of a significant reduction in effort, while a more diversified harvester with multiple vessels may be able to compensate. On a larger scale, a reduction in effort is likely to have a negative short-term economic impact on a community where the fishing industry is a primary source of revenue. However, a recovery of the shrimp stock will result in the opportunity for all sectors (e.g., harvesters, processors, and dealers) to participate in the fishery for a longer term.

The small ports where shrimp constituted a significant proportion of landings consider fishing an important feature of their economy before the northern shrimp fishery was closed from 2014 to present. Fishing contributes to the overall productivity and total capital flow even if it is not the dominant industry in the community. It is often community members of the small ports who emphasize the importance of maximizing the numbers of jobs rather than maximizing

income for a few individuals when choices among regulations are being made. Each of these ports, though, also face gentrification and increased competition for waterfront use.

Harvesters commonly point out that fishing has always been cyclical. A typical annual fishing season for harvesters in the smaller ports is to participate in other Northeast fisheries (e.g., lobster and groundfish) in the spring, summer and fall and then turn to shrimp fishing in winter (December-May). It is this ability to freely move in and out of the shrimp fishery in response to the relative availability of shrimp, other commercial species, market demand, the weather, and other factors that makes the shrimp fishery more valuable than the raw landings and income data may suggest. For some harvesters, even a limited shrimp harvest is sufficient to make the difference between financial stability and failure.

Both Gloucester and Portland are urban areas that have retained strong support for their fishing industry including working waterfront zoning and fisheries administrators with recognized roles in city government. By a variety of indices, Portland is classified as a primary port and "essential provider." Gloucester ranks third (behind New Bedford and Portland) in fishing infrastructure differentiation, and low on the gentrification scale.

While the fishing industry in Portsmouth is dwarfed by the tourist industry, the city has retained a small, but complete infrastructure for the industry. When the season was open, shrimp was an essential component of the year's fishing returns for individual vessels from Rye, Hampton and Portsmouth and for New Hampshire's fishermen's cooperative. Furthermore, vessels from Newburyport (Massachusetts) and York (Maine) were shrimp-landing members of the Yankee Fisherman's Cooperatives, so the shrimp networks clearly extended beyond the borders of states and sub-regions in New England. In several of these small ports, the numbers of vessels capable of shrimp trawling, however, have been severely diminished by their inability to continue groundfish fishing. Where there were eight or nine vessels in the past, now one or two may remain active. With the increases in size and horsepower of lobster boats, there is potential untapped capacity.

Price depends on the size and quality of the shrimp. For example, the Japanese market pays a premium for larger, raw, frozen-at-sea product often available from Canada, but Japanese dealers will also purchase from the Portland auction when medium to large size, firm shrimp is available. The value of the shrimp landings in Maine in 1998-99 hovered at $1.50 per pound (Table 3), though in 1997 and 2000, the average price was estimated as $1.25 and $1.18 per pound, respectively. Average price per pound of shrimp for 2001 and 2002 was $1.24 and $1.54, respectively. Prices dropped precipitously in 2006, averaging $0.47/lb. In 2009, the season ended with $0.48/lb prices. However, prices began to recover in 2010 ($0.61/lb) and 2011 ($0.86). In 2012, in a shortened season, landings dropped down to 2185 metric tons and the price rose to $1.06/lb. In 2013, landings were only 255.51 metric tons and the price average for the year was $1.98. Without an open season, the vessel fishing under the RSA program bring in small quantities of shrimp, and the prices can be extraordinarily high for some sales, ranging from $4-$7/lb. The Asian restaurant market in New York City creates high demand.

Price is dependent on a suite of factors. The size and quality of the shrimp is important, but the quantity available also affects the market. For example, Canadian buyers need sufficient quantity to justify the expense of transporting the product. In 2000 harvesters received $.65/lb at the dock ($1.00 if they trucked it to the Portland auction) at the beginning of the season and $1/lb at the end of the season ($1.10-1.20 if trucked). Price is also affected by the size of the markets for northern shrimp.

Small-scale dealers play a significant role in the distribution of the shrimp catch. One informant estimated that a third of the product from Maine shrimp harvesters passed through the hands of small businesses. Some of these were small-processors who peeled and sold the raw product. Direct retail sale via roadside vending was common in Maine when the northern shrimp season was open. Community-supported fisheries in Maine and Massachusetts have also increased the market for northern shrimp. Tourism can affect the success of these small-scale operations and ultimately, the price, with fluctuating demand.

It is the processing sector that is apparently the most vulnerable to variability in supply and unpredictability, whether due to the diminishment of the stock size or as an artifact of regulations. The costs of preparing the facility, engaging labor, and identifying markets is significant, so this sector is less able to reconfigure in the short-term than is the harvesting sector.

Prior to the institution of the Food and Drug Administration's Hazard Analysis Critical Control Point (HACCP) regulations, when home processing was easier to pursue, the flexibility of the "cottage" industry could more easily accommodate flexibility in the harvesting sector.

1.5.4 Other Resource Management Efforts

1.5.4.1 Artificial Reef Development/Management

There are currently no artificial reefs in place in the Gulf of Maine used by the northern shrimp fishery.

1.5.4.2 Bycatch

The Northern Shrimp Section made the fishery a zero-bycatch fishery in 1993. The fishery remained a zero-bycatch fishery until 2001, when a limited amount of silver hake was allowed as bycatch. Federal multispecies regulations allow for the incidental catch of longhorn sculpin, and combined silver and offshore hake, up to an amount equal to the weight of shrimp possessed onboard or landed, but not in excess of 3,500 lbs (1,588 kg). Those vessels that also have a Federal lobster permit may keep lobster consistent with Federal lobster possession limits in 50 CFR 697.17.

Bycatch reduction improved radically with the advent of the Nordmore grate in the late 1980s. Developed in Nordmore County, Norway, this device is a grating of parallel bars mounted in the extension with an escape hole in the net in front of the grate. Testing of the Nordmore grate system by the NOAA Fisheries-Northeast Region's Fisheries Engineering Group during 1991 and

1992 proved the grate's effectiveness for the fish assemblage present in the Gulf of Maine. The results showed over 95% loss of finfish by weight and over 95% retention of shrimp (Kenney et al, 1992). The excellent escapement of finfish is seen across the length spectrum for flatfish, with a high percentage of even small flatfish escaping the net. The grate was implemented into the northern shrimp fishery for April and May 1992. Beginning in December 1992, the grate was required for the whole season.

As effective as the Nordmore grate is, an examination of male shrimp length frequency, around 15 to 20mm carapace length, reveals more shrimp of that size range retained by the cod ends behind the grates. The increased retention of these smaller shrimp is a concern because they are below the target size for shrimp of $\geq$22mm that the current minimum mesh size regulation controls. This indicates that the Nordmore grate may be affecting the mesh selection curve for shrimp in the cod end. Square mesh in the cod end may resolve shifts in selectivity produced by the Nordmore grate as many recent trials have indicated. Trials conducted in the Gulf of Maine by Maine Department of Marine Resources over several years have shown that square mesh of 1-5/8" produces a selectivity curve similar to 1-3/4" diamond mesh, but does release slightly more small shrimp.

A double Nordmore grate system was tested for reducing the amount of small shrimp caught with the single Nordmore grate. The second grate aids in releasing small shrimp and small fish that the cod end mesh size selection doesn't do very effectively. The Northern Shrimp Section approved the double Nordmore grate for use in the shrimp fishery in 1999. In 2007, He and Balzano (2007) tested a modification to the double grate system that used a size sorting grid and funnel system in front of the Nordmore grate to minimize the retention of small shrimp. The gear with the funnel increased mean size and reduced counts per pound in 13 of 14 paired 1-hr tows from mid-March and late June 2006. There have also been research trials with various combination grate systems that combine the functions of the two grates in the double grate system into one unit, a compound grate (Pinkham et al 2006). Amendment 3 to the Northern Shrimp FMP requires the use of either compound or double-Nordmore grates for vessels rigged for otter trawling for northern shrimp. The Section may modify this provision via Section action during specifications (ASMFC 2017).

Documentation of the bycatch/discard problem has occurred through a sea sampling program whereby samplers are placed aboard commercial vessels and all fish caught are recorded, whether they are landed or not. The percentage of bycatch in observed tows declined from almost 50% before the Nordmore grate was required, to about 15% afterward (Richards and Hendrickson, 2006). A more recent study by the Gulf of Maine Research Institute (GMRI) and NOAA at-sea observers documented bycatch in the northern shrimp fishery using a Nordmore grate. Eayrs et al. (2009) found only 2% of the total catch weight was bycatch of regulated species (n=243 hauls), and shrimp comprised greater than 92% of total catch by weight. This is a notable improvement considering that prior to the Nordmore grate bycatch comprised more than half of the total catch by weight (Howell and Langan 1992).

Information on the bycatch of protected species (e.g., marine mammals, sea turtles) can be found in *Section* 7.

1.5.4.3 Land/Seabed Use Permitting

There is no impact of land or seabed use permitting on the northern shrimp fishery.

1.6 LOCATION OF TECHNICAL DOCUMENTATION FOR FMP

1.6.1 Review of Resource Life History and Biological Relationships

Northern shrimp life history information was summarized by Apollonio and Dunton 1969, Haynes and Wigley 1969, Shumway et al. 1985, Apollonio *et al.* 1986, Clark et al. 2000, and Bergstrom 2000.

1.6.2 Stock Assessment Document

Detailed information pertaining to the northern shrimp stock assessment can be found in the 2018 Northern Shrimp Benchmark Stock Assessment and Peer Review Report (ASMFC 2018b). Annual data updates were prepared each year since 2018. The 2024 stock assessment update is the most recent report of the ASMFC Northern Shrimp Technical Committee and can be found on the ASMFC website.

1.6.3 Social Assessment Documents

The most recent survey of Gulf of Maine northern shrimp harvesters was conducted and published in 2010 by Moffett and Wilson.

1.6.4 Economic Assessment Document

Apart from the information in the Moffett and Wilson (2010) report, no recent studies have been conducted to assess the economic characteristics of the northern shrimp fishery. The most recent information is included in the 1986 FMP (ASMFC 1986).

1.6.5 Law Enforcement Assessment Document

The Commission's Law Enforcement Committee has prepared a document entitled "Guidelines for Resource Managers on the Enforceability of Fishery Management Measures, Sixth Edition" (2024) which can be used to evaluate the effectiveness of future measures.

1.6.6 Habitat Background Document

The background for habitat of northern shrimp is compiled in *Section 1.4* of this amendment. You can also refer to the 2018 Benchmark Stock Assessment Report for Gulf of Maine Northern Shrimp (ASMFC 2018b) for habitat and other environmental condition information.

2.0 GOALS AND OBJECTIVES

2.1 HISTORY AND PURPOSE OF THE PLAN

2.1.1 History of Prior Management Actions

The Northern Shrimp Section, consisting of representatives from Maine, New Hampshire and Massachusetts, is responsible for management based on input from the Northern Shrimp Technical Committee and industry Advisory Panel. This arrangement is one of the longest running instances of interstate cooperation in the history of fishery management in the United States.

In 1972, industry concerns over declining abundance and product quality led to exploration of options for cooperative management. Initial interest centered on curtailing harvest of small, non-marketable shrimp, which led to gear evaluation studies and implementation of a uniform stretched mesh size regulation of 44 mm (1.75 inches) in the body and cod end of the trawl. The Technical Committee also conducted a series of stock assessments beginning in 1974, which documented that the resource was overfished and that abundance was declining rapidly. As the stock deteriorated further, management became increasingly restrictive, finally culminating in closure of the fishery from May 1977 to February 1979.

In 1979, the Technical Committee prepared and submitted a draft management plan and environmental impact statement for the fishery, which recommended regulatory measures including mesh size limits, closed seasons, catch quotas and statistical reporting. Such regulations were to be implemented by the participating states through the Northern Shrimp Section, and ultimately by the Secretary of Commerce through the Fishery Conservation and Management Act of 1976 (NSSC 1979). A revised plan reflecting public comment was accepted at the November 1979 Section meeting.

In 1981, the State-Federal Fishery Management Program in the Northeast Region was restructured as the Interstate Fisheries Management Program (ISFMP) of the Commission. The Section adopted a “Statement of Policy” which (1) stated its position relative to environmental issues, i.e., that despite natural fluctuations in abundance, the northern shrimp fishery is manageable; and (2) affirmed that it would provide for a continuing management program based on Technical Committee recommendations to maintain and rebuild the stock so as to “assure a viable northern shrimp fishery over time.” The Section further stated its intent to allow a fishery through the mechanism of an annual open season, with the following regulatory measures endorsed as appropriate:

1. Gear limitations, conforming to the uniform mesh size regulation (44.5 mm, 1.75 inches stretched mesh in body and cod end);
2. Seasonal limitations, open season to be set within a 183-day window beginning not earlier than December 1 and ending not later than May 31 for any one year;
3. Possession limitations; and

4. Information collection provisions, i.e., determination of participants, dealer and processor reporting, and dockside and sea sampling.

The above measures, and biological and socioeconomic research requirements for management, are embodied in the *Interstate Fishery Management Plan for the Northern Shrimp* (Pandalus borealis *Kroyer*) *Fishery in the Western Gulf of Maine* rewritten from the 1979 version (McInnes 1986). Included is substantial background information on stock assessment and survey data collection methods (Clark and Anthony 1981; Cadrin *et al*. 1999; and others). The FMP remained in effect until the passage of Amendment 1 (2004).

In the mid-1980s, with a resurgence of the resource, the Section was able to implement a gradual extension of the open season for 1982-1985 culminating in the maximum duration allowable for the 1986 and 1987 seasons. With good recruitment and continued moderate levels of exploitation, the Section was able to manage the resource effectively through closed seasons, monitoring resource trends using annual index-based assessments.

In 1993, the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA) was enacted, which gave the ASMFC considerably more influence over management of coastal marine resources. ACFCMA obligated individual states to implement ASMFC-approved measures; and it authorized the Secretary of Commerce to declare a moratorium on a state's fishery for failure to comply with ASMFC plan provisions.

During the mid-1990s, effort increased rapidly, and landings reached 9,200 mt during the 1996 season – a level not seen since the early 1970s. The first analytical assessment, completed and peer-reviewed at the 25th Northeast Regional Stock Assessment Workshop (SAW) in July 1997 (NEFSC MS 1997) revealed sharp increases in fishing mortality rates and reductions in biomass in 1996 (Cadrin *et al*. 1999). Subsequent assessments indicated substantially higher levels of fishing mortality rates and sharp declines in stock biomass and recruiting year-class size.

The Section adopted Amendment 1 in 2004 to implement biological reference points to rebuild the resource. Provisions in Amendment 1 helped decrease fishing mortality rates and increase biomass through the use of a soft harvest target (i.e., total allowable catch, or TAC) and closed season. Under Amendment 1, biomass began to recover.

Despite the recovery of the stock, early season closures occurred in 2010 and 2011 because of increases in participation levels in response to good market price. Furthermore, monthly reporting led to short notice of the closures and an overharvest of the target by 28% in 2010 and 59% in 2011. In response to these issues, Amendment 2, which completely replaced Amendment 1, was approved in October 2011. In addition to establishing a more timely and comprehensive reporting system, Amendment 2 further expanded the tools available to manage northern shrimp, including options to slow catch rates throughout the season (i.e., trip limits, trap limits, and days out of the fishery). Also, Amendment 2 allowed for the initiation of a limited entry program to be pursued through the adaptive management addendum process. In November 2012, the Section approved Addendum I to Amendment 2 which refined the annual

specification process, and allocated 87% of the coastwide TAC to the trawl fishery and 13% to the trap fishery based on historical landings.

Following review of the 2013 stock status report, the Northern Shrimp Section imposed a moratorium on the fishery for the 2014 season. The Section considered several factors prior to closing the fishery in 2014. Northern shrimp abundance in the western Gulf of Maine had declined steadily since 2006 and the 2012 and 2013 survey biomass indices were the lowest on record. Additionally, the stock experienced an unprecedented three consecutive years of failed recruitment (2010–2012 year classes). Subsequent stock status reports (i.e., 2014, 2015 and 2016) indicated continued poor trends in biomass, recruitment, and environmental indices which prompted the Section to maintain the moratorium, each year, through 2024. Winter sampling via selected commercial shrimp vessels occurred in each year of the moratorium from 2014 through 2017 to continue the time series of biological samples collected from the fishery.

In 2017, the Section approved Amendment 3 which completely replaced Amendment 2. Amendment 3 was designed to improve management of the northern shrimp resource in the event the fishery reopened. Specifically, the Amendment refined the FMP objectives and provided the flexibility to use the best available information to define the status of the stock and set the total allowable catch (TAC). Furthermore, the Amendment implemented a state-specific allocation program to better manage effort in the fishery; 80% of the annual TAC allocated to Maine, 10% to New Hampshire, and 10% to Massachusetts. Additionally, the Amendment strengthened catch and landings reporting requirements to ensure all harvested shrimp are being reported, and required shrimp-directed trawl vessels to use either a double-Nordmore or compound grate system. Other changes include the implementation of accountability measures (i.e., penalties if states exceed their quota), specification of a maximum fishing season length, and formalizing fishery-dependent monitoring requirements. In 2018, the Section approved Addendum I to Amendment 3 which provides states the authority to allocate their state-specific quota between gear types.

2.1.2 Purpose and Need for Action

The last time a new plan amendment to the Northern Shrimp FMP was adopted was in 2017 (Amendment 3). Since then, the status of the northern shrimp (*Pandalus borealis*) stock has remained unchanged with a depleted stock status and continued fishing moratorium. Given the poor condition of the stock, the Section supported initiation of a new plan amendment to consider several changes to the FMP including to the current management program requirement of annual specifications and addition of management triggers for stock monitoring.

The Fishery Management Plan (FMP) for Northern Shrimp (1986) established the requirement for northern shrimp fishing seasons to be set annually by the Section after considering recommendations from the Northern Shrimp Technical Committee (NSTC). Amendment 1 (2004) and subsequent amendments to the FMP made no changes to the annual specifications requirement, with Amendment 3 (2017) stating, “The Section has the ability to set a closed season annually up to 366 days (i.e., impose a moratorium)”. Based on the current

requirements of the FMP, measures subject to annual specification may only be modified through an amendment to the FMP. Draft Amendment 4 considers adding the specifications setting timeline to measures subject to change through adaptive management therefore allowing the specifications setting timeline to be altered through the addendum process.

Each year, the Section meets in the late fall or early winter to discuss fishery specifications for the upcoming year. However, after the northern shrimp stock collapse in 2013, the Section has implemented a moratorium every year since 2014. Additionally, NSTC data updates indicate the northern shrimp stock continues to be depleted, with environmental conditions remaining unfavorable for northern shrimp in the Gulf of Maine. The 2023 data update for the species found no improvement in status, with indices of abundance, spawning stock biomass (SSB), and recruitment at new time-series lows (ASMFC, 2023). After receiving the results of the 2023 data update, the Section continued the fishing moratorium through the 2024 fishing year. The 2024 stock assessment for northern shrimp also found that stock status for northern shrimp continues to be poor, as illustrated by both the traffic light analyses and the catch-at-length model. Given the continued poor condition of the stock, the requirement of annual specifications in the Northern Shrimp FMP may no longer be appropriate. Draft Amendment 4 considers lengthening the specifications setting timeline for closed seasons to two or three years to allow for the setting of multi-year moratoriums if no improvement in stock condition is indicated.

Each year, the NSTC conducts a data update to incorporate the most recent fishery independent surveys and environmental indices into the longstanding timeseries, to apprise managers and stakeholders of current stock trends. A Strict Traffic Light Approach (TLA) is applied to a suite of survey and environmental indicators. Data updates provide information about the northern shrimp stock condition to the Section, but there is no pre-defined management response to data update results. Draft Amendment 4 considers the addition of management triggers to the FMP to identify specific management responses tied to definable metrics that indicate changes in northern shrimp biological and/or environmental conditions. If a management trigger were implemented, and the trigger remained un-tripped (no change in stock status), a moratorium would be maintained. On the other hand, if the trigger were to be tripped, it would prompt steps to be taken such as a stock assessment update that would allow the Section to examine the potential for reopening the fishery.

2.2 GOAL

Amendment 4 to the Interstate Fishery Management Plan for Northern Shrimp completely replaces Amendment 3 and Addendum I to Amendment 3.

The Northern Shrimp Section agrees, despite natural fluctuations in stock abundance, the northern shrimp fishery can be managed. In addition, the management program, which includes recommendations of the Technical Committee and the Advisory Panel, is designed to ensure a viable northern shrimp fishery in the Gulf of Maine over time.

The amendment's goal is to manage the northern shrimp fishery in a manner that is biologically, economically, and socially sound, while protecting the resource, its users, and opportunities for participation.

2.3 OBJECTIVES

Option A: Status Quo

The following objectives are selected to support the goal of this amendment:

- Protect and maintain the northern shrimp stock at sustainable levels that will support a viable fishery
- Optimize utilization of the resource within the constraints imposed by natural distribution of the resource, available fishing areas, changing environmental conditions, and harvesting, processing and marketing capacity
- Provide a mechanism for unique state level management of fishing effort
- Maintain the flexibility and timeliness of public involvement in the northern shrimp management program
- Maintain existing social and cultural features of the fishery to the extent possible
- Minimize the adverse impacts the shrimp fishery may have on other natural resources
- Minimize the adverse impacts of regulations, including increased cost to the shrimp industry and the associated coastal communities
- Promote research and improve the collection of information to better understand northern shrimp biology, ecology, population dynamics, and responses to changing environmental conditions
- Achieve compatible and equitable management measures through coordinated monitoring and law enforcement among jurisdictions throughout the fishery management unit

Option B: Modified First Objective

The goals and objectives for this option remain the same from Option A with the exception of the first bullet, which would be removed and replaced with the following objective:

- Manage the northern shrimp stock to allow for rebuilding, minimize fishery related impacts, and maintain harvest opportunity, recognizing the influence of environmental conditions on stock productivity

2.4 SPECIFICATION OF MANAGEMENT UNIT

The management unit is defined as the northern shrimp resource throughout the range of the species within U.S. waters of the northwest Atlantic Ocean from the shoreline to the seaward boundary of the Exclusive Economic Zone (EEZ). It is also recognized that the northern shrimp fishery, as defined here, is interstate and state-federal in nature, and that effective assessment and management can be enhanced through cooperative efforts with state and federal scientists and fishery managers.

2.5 DEFINITION OF OVERFISHING

Since the implementation of Amendment 1 in 2004 and prior to the 2018 benchmark stock assessment, stock status for northern shrimp in the Gulf of Maine had been determined via comparison of terminal year estimates of fishing mortality and biomass to fishing mortality- and biomass-based reference points (i.e., biological reference points, or BRPs). These management targets, thresholds, and limits were designed to provide managers with a guide to determine if changes in the regulations are necessary, given the current status of the stock, to sustain the resource over time. The BRPs defined in Amendment 2 were developed via the Collie-Sissenwine Analysis (CSA) assessment model (Cadrin et al. 1999), which was peer-reviewed and accepted for management use in 2007. However, the 2018 benchmark assessment for northern shrimp determined previous biological reference points that were based on estimates of F during a period in the fishery (1985-1994) when biomass and landings were considered stable and sustainable, may no longer be appropriate for the stock in the Gulf of Maine. Instead, the NSTC chose a projection-based approach to establishing reference points for the 2018 assessment. A length-based projection model in R was developed to project the population forward under various scenarios about recruitment, M, and F. The projection was repeated 1,000 times with stochastic draws of recruitment, initial abundance-at-size for non-recruits, and fishery selectivity parameters. This projection-based approach has been used in each stock assessment update since 2018.

Amendment 3 (2017) and Draft Amendment 4 allow for the incorporation of new, peer-reviewed stock status determination criteria (both the methods used to set reference points, and the reference point values), when available, through Section action. Specifically, these actions broaden the descriptions of stock status determination criteria contained within the Northern Shrimp FMP to allow for greater flexibility in incorporating changes to the definitions of the maximum fishing mortality threshold (target or limit) and/or minimum stock size threshold (target or limit) as the best scientific information becomes available, while maintaining objective and measurable status determination criteria for identifying when the stock is overfished. Similar actions have been taken with other Commission-managed species' FMPs (e.g., Addendum XIX to the FMP for Summer Flounder, Scup and Black Sea Bass, and Addendum XVI to the FMP for American Lobster).

New, peer-reviewed stock status determination criteria may be incorporated into management, as soon as it becomes available through the specifications process, thus significantly improving the timeliness of incorporating the best available scientific information in the management of northern shrimp. The following describes the potential sources of peer-reviewed scientific

advice on status determination criteria and the current process of how that scientific advice will move forward in the development of management advice through the Section's specification process.

Specific definitions or modifications to the status determinations criteria, and their associated values, would result from the most recent peer-reviewed stock assessments and their panelist recommendations. The primary peer-review processes for Gulf of Maine northern shrimp that may be used are:

- The Northeast Regional Stock Assessment Workshop/ Stock Assessment Review Committee (SAW/SARC) process which is the primary mechanism utilized in the Northeast Region at present to review scientific stock assessment advice, including status determination criteria, for ASMFC- and federally-managed species.
- ASMFC Externally Contracted Reviews with Independent Experts (e.g., Center for Independent Experts - CIE) which is also subject to rigorous peer-review and may result in scientific advice to modify or change the existing stock status determination criteria.

The above list of peer-review entities does not preclude groups from bringing independent stock assessments performed for the Gulf of Maine northern shrimp stock forward to the attention of the Commission. The Commission may recommend that non-Commission reviewed stock assessments pass through either of the peer-review processes above, to ensure that sufficient peer-review of the information occurs before the scientific advice can be utilized within the management process.

The scientific advice provided with respect to status determination criteria could follow three scenarios. First, it is possible that the panelists participating in the peer-review reach consensus with respect to maintaining the current definitions of status determination criteria for northern shrimp. There may be updates to the values associated with those same definitions based on the input of more recent (i.e., additional year's data) or updated information as well; however, the Section is not required to undertake any specific action when this occurs, as using the updated values is implied in this provision of the FMP. In this case the scientific advice can then move forward such that management advice can be developed. Under the second potential scenario for scientific advice, the peer-review recommends changes or different definitions of the status determination criteria, and the panelists reach consensus as to how these status determination criteria should be modified or changed. This scientific advice can move forward such that management advice can be developed. Under these first two potential scenarios, consensus has been reached and therefore the scientific advice moving forward to the Section's management advisory groups should be clear.

The third potential scenario is the peer review scientific advice with respect to the incorporation to status determination criteria are split (consensus is not reached) or uncertain recommendations are provided (weak consensus). The scientific advice provided by the reviewers may be particularly controversial. In addition, the scientific advice may not be specific enough to provide adequate guidance as to how the maximum fishing mortality threshold and/or minimum stock size threshold should be defined or what resulting management advice

should be developed from these changes. Under these circumstances, or at any time, the Section may engage their TC to review the information and recommendations provided by the peer-review group. Based on the terms of reference provided to the TC, which may include reevaluation of stock status determination criteria in light of changing environmental conditions, they may prepare a consensus report clarifying the scientific advice for the Section as to what the status determination criteria should be (e.g., modify, change, or maintain the same definitions). At that point the scientific advice on how the status determination criteria should be defined will be clear, and can move forward such that management advice can be developed.

2.6 STOCK REBUILDING PROGRAM

Based on the definition of overfished status as defined in *Section 2.5*, and should the stock biomass go below the threshold as determined by the stock assessment, the stock is defined as overfished and the Section is required to take action to recover the stock above the threshold. Based on the definition of overfishing status as defined in *Section 2.5*, and should fishing mortality go above the threshold as determined by the stock assessment, overfishing is then occurring and the Section is required to take action to reduce the fishing mortality to the target level. If fishing mortality exceeds the limit level and biomass is less than the threshold level, the Section must act immediately to reduce fishing mortality.

The Section chose not to set specific rebuilding timeframes. It maintains the flexibility to rebuild stocks within a reasonable amount of time. This flexibility is necessary for the Section to manage a species that is volatile and easily affected by change in environmental conditions.

2.7 RESOURCE COMMUNITY ASPECTS

See *Section 1.4.1* for the role northern shrimp play in ecosystem dynamics.

2.8 IMPLEMENTATION SCHEDULE

[*TBD if approved*]

3.0 MONITORING PROGRAM SPECIFICATIONS/ELEMENTS

3.1 SUMMARY OF MONITORING PROGRAMS

In order to achieve the goals and objectives of Amendment 4, the collection and maintenance of quality data continues to be necessary.

Commercial landings by state, month, and gear (trawl vs. trap) were compiled by NOAA Fisheries port agents from dealer reports until the mid-late 1990's, and are available electronically back to 1964. A dealer reporting system became mandatory in 1982 but was repealed in 1991, and NOAA Fisheries began collecting the data again. In 2004, shrimp reporting for federally permitted dealers buying from federally permitted harvesters became mandatory, but "state-only" dealers, mostly in Maine, continued to report voluntarily. Trip level reporting became mandatory for all licensed Maine shrimp dealers in 2008, although "peddlers" selling directly to the public only were not required to have a license, so catches sold

in the peddler market were mostly unreported on the dealer side. This was remedied in 2013, and during the next shrimp season, anyone buying shrimp for resale will need to be licensed in Maine and report landings.

In 1994, a Vessel Trip Report (VTR) system was implemented for many federally permitted harvesters and in 1999 (but not implemented until the 2000 season), reporting became mandatory for all shrimp harvesters landing in Maine.

3.1.1 Catch and Landings Information

The need for accurate and timely reporting of all catch and landings is imperative for successful monitoring of the fishery and the TAC, and is a prerequisite for effective implementation of trip limits and days out to slow catch rates.

All states are required to implement weekly reporting of all daily sales at first point of contact (i.e., dealers, including harvester direct sales to the consumer, i.e., "peddlers"). States must require the use of electronic reporting through the Standard Atlantic Fisheries Information System (SAFIS) maintained by the Atlantic Coastal Cooperative Statistics Program (ACCSP). Negative reports (no shrimp were purchased or received during a reporting week) are required. Landing and trip information should be collected consistent with the established ACCSP data elements.

3.1.2 Fishery-Dependent Monitoring

Approximately 2-5% of commercial shrimp landings from Maine, New Hampshire and Massachusetts, have been subsampled for size and sex-stage composition data since the early 1980s (SAW/SARC 58, 2014). These data are essential for the stock assessment, and subsequent management actions.

The states of Maine, New Hampshire, and Massachusetts are required to collect size and sex-stage composition data from subsamples with a target of at least 2% of commercial landings in that state to inform the stock assessment.

3.1.3 Biological Information

The ACCSP provides standardized data elements and reporting medium for collected biological data on commercial, for-hire, and recreational fisheries. Biological data for commercial fisheries can be collected through port sampling programs and at-sea observers Refer to the ACCSP Program Design document for details. Priorities and target sampling levels are determined by the ACCSP Biological Review Panel, in coordination with the Bycatch Prioritization Committee.

3.1.4 Social Information

In New England today, there is no consistent, long-term monitoring program focused either on the collection and analysis of social and economic data or on the social and economic impacts of regulatory change. However, there are several steps being taken that may eventually lead to such a program. Hall-Arber et al. (2001) collected a wealth of information to serve as a baseline

for such data collection in New England. A few towns in Maine have, or are in the process of developing, planning processes that include analyses of their fishing industry's current and anticipated needs. Conduct of needed research and analyses identified in this amendment would help place the necessary decision-making on a more objective foundation.

3.1.5 Economic Information

There is very little direct monitoring of economic conditions in the Gulf of Maine northern shrimp fishery for either harvesters or processors. Ex-vessel value of shrimp landings is collected for northern shrimp through mandatory electronic dealer reporting.

The 2011 through 2013 shrimp harvest seasons closed early due to landings in excess or reaching the coastwide TAC. In 2011, a total of 6,397 mt of shrimp were landed, exceeding the recommended TAC of 4,000 mt by approximately 2,400 mt (Table 2). The average price per pound was $0.86 and the estimated landed value of the catch was $12.1 million (Table 3). In 2012, the season was further restricted by having trawlers begin on January 2 with three landings days per week and trappers begin on February 1 with a 1,000-pound limit per vessel per day. The TAC was set at 2,000 mt (later increased to 2,211 mt on January 20th) and would close when the projected landings reached 95%. The season was closed on February 17; trawlers had a 21-day season and trappers had a 17-day season. Landings for 2012 were 2,485 mt and the average price per pound was $1.06 with an estimated landing value of $5.8 million. In 2013, the TAC was set at 625 mt (with 5.44 mt set aside for research tows) and would close when the projected landings reached 85% of the TAC in each fishery (trap and trawl). The trawl fishery was allocated a 539.02 mt TAC and the trap fishery was allocated an 80.54 mt TAC. Trawlers fished for 54 days and trappers fished 62 days culminating in 345.5 mt landed, which is 280 mt under the TAC. The average price per pound was $1.98 and is the highest observed since 1989 (inflation-adjusted values, Table 3) with an estimated value of $1.5 million.

With a moratorium on the northern shrimp fishery since 2014 the only landings that have been allowed have been through the research set aside (RSA) program allowing selected harvesters to conduct cooperative winter sampling of northern shrimp and provide biological samples to maintain the biological data time series (Table 2).

Vessels in the shrimp fleet complete the NOAA Fisheries Vessel Trip Reports for each trip providing fishing effort and crew size information. There is no direct source of cost data for this fleet except where a particular vessel has supplied these data to another NOAA Fisheries program such as the Capital Construction Fund or the MARFIN survey of groundfish trawlers.

Historically, there has been a modest level of at-sea sampling of the shrimp fleet by the NOAA Fisheries and state agencies. Up until about 1998, the NOAA Fisheries funded shrimp sampling trips through the observer program at the Manomet Center for Conservation Science. State agencies also conduct routine port sampling and sea sampling programs. While aboard, both state and Federal sea samplers follow the same sampling protocols that do include some economic data gathering. Observers note many physical characteristics of the vessel and the gear including gear quantity and size and the amount of electronics in the wheelhouse. If time

permits there are additional economic questions in the sea sampling forms although it is expected that very few of these interviews are conducted on day trips.

As noted above, dealers and processors provide the ex-vessel price paid to boats at the first point of sale. After this point there is very little economic monitoring of the processing sector. Much of the New England shrimp production is sold to Canada, Europe and Asia, hence U.S Customs documentation of shipments abroad is available including product form and declared value. Unfortunately, shrimp shipments leaving through a New England port of departure do not necessarily indicate that this domestic product was landed in the Gulf of Maine Pandalid fishery and further distinction of the product to the species level is not required on Customs paperwork.

Any socioeconomic data collection programs utilizing ACCP standards are quite capable of overcoming these gaps in data for this fishery. Industry acceptance of an expanded and more focused data collection program would be key to its success. Funding and the sheer scale of implementation for a northern shrimp socioeconomic study have slowed down the implementation of a socioeconomic data collection program for this fishery.

3.1.6 Observer Programs

As a condition of state and/or federal permitting, vessels should be required to carry at-sea observers when requested. The ACCSP has adopted the NOAA Fisheries National Observer Program as the standard for training and certifying at-sea observers. The ACCSP standards for commercial fisheries observer coverage is 5% of total trips for high priority fisheries, or achieving a 20-30% PSE, and 2% of total trips for all other fisheries. These target sampling-levels should be evaluated annually by fishery to determine where the variance stabilizes and to meet desired goals. A minimum set of standard data elements is defined through the ACCSP for biological or bycatch sampling data (refer to the ACCSP Program Design document for details). Specific fish species and fisheries are prioritized for sampling as well as sampling levels through the ACCSP Biological and the Discard Prioritization Committees. The ACCSP is developing a target tracking system to track the number of observed trips so that observer effort may be reallocated as targets are met. Partners should upload minimum data elements to the ACCSP tracking system before the tenth of the month following data collection. The submission timeline will allow two effort reallocations per calendar quarter. ACCSP Partners are encouraged to monitor the tracking system as required to complete targets.

3.2 STOCK ASSESSMENT

3.2.1 Assessment of Fishing Mortality Target and Measurement

Fishing mortality estimates for the Gulf of Maine northern shrimp fishery in the past have been generated by two separate models; the Collie-Sissenwine, or Catch-Survey Analysis (CSA), and a surplus production model (ASPIC). The CSA tracked the removals of shrimp using summer shrimp survey indices of recruits and fully recruited shrimp scaled to total catch in numbers. The surplus production analysis modeled the biomass dynamics of the stock with a longer time

series of total landings and several survey indices of stock biomass. The CSA estimates of fishing mortality were used as the primary point estimates for managing the fishery, while the surplus production estimates of fishing mortality were used to corroborate results from the CSA and provide historical perspective.

The 2018 benchmark assessment for northern shrimp developed and explored a statistical catch-at-length model (UME), an age-structured model (ASAP), and a Catch Survey Analysis (CSA). The University of Maine assessment model was rigorously tested and was ultimately recommended for use in providing fishery management advice. The UME model divides the northern shrimp stock into size groups and tracks changes in the proportion of shrimp in each size group across seasons and years to estimate fishing mortality (F) and population size.

Status of the stock will be reviewed annually through data updates (STLA), stock assessment updates, benchmark stock assessments, or any new methods of stock evaluation developed by the NSTC. These reports will include at least landings, effort, and survey indices of abundance, biomass, and recruitment, as well as any additional information the NSTC feels is relevant. Estimates of fishing mortality, yield-per-recruit and spawning potential will be provided when possible. If major changes are made to the stock assessment models used in the management process, or the Section requests a higher level of review, the Section may recommend to the ISFMP Policy Board that an external review of the stock assessment be conducted.

3.2.2 Assessment of Recruitment

The mean number per tow of 1.5 year old shrimp from the available surveys and sampling programs collecting information on shrimp is used as a proxy for a recruitment index. Although the shrimp are not fully recruited to the survey gear at this age, it appears that this index is a sufficient representative of year class strength from the previous year. Historically, the summer shrimp survey was used for the recruitment index, but the summer shrimp survey was postponed indefinitely after the 2023 survey year. Now, the NSTC uses recruitment information from the Maine-New Hampshire Inshore Trawl Survey and the NEFSC Fall Bottom Trawl Survey, but these data sources may change in the future with new information.

3.2.3 Assessment of Spawning Stock Biomass

The stratified mean weight (kg) per tow of northern shrimp >= 22-mm dorsal carapace length (CL) from the summer shrimp survey historically provided the index of spawning stock biomass (SSB). After the summer shrimp survey was indefinitely postponed in 2023, the NSTC now uses information from the Maine-New Hampshire Inshore Trawl Survey and the NEFSC Fall Bottom Trawl Survey to derive the index of SSB. However, these data sources may change in the future if new information becomes available. Northern shrimp are protandric hermaphrodites, which start changing from male to female around 2.5 years of age, or 18 to 19 mm CL. The 22 mm dorsal carapace length is used as a cutoff point because at this size most shrimp are sexually mature females.

3.3 BYCATCH MONITORING PROGRAM

The ACCSP will require a combination of quantitative and qualitative methods for monitoring

discard, release, and protected species interactions in the northern shrimp commercial fishery. Commercial fisheries will be monitored through an at-sea observer program (see *Section 3.1.6*) and several qualitative programs, including strandings, entanglements, trend analysis of vessel trip and dealer reported data, and port sampling.

3.4 HABITAT PROGRAM

No habitat program is currently defined for the Gulf of Maine's Northern shrimp. Given the high uncertainty in the future prospects for the northern shrimp fishery and the current moratoriums due to the stock collapse, the long-term impacts of the fishery on shrimp habitats are highly uncertain. Current low levels of effort in the fishery likely have neutral or slightly positive habitat effects.

The New England Fisheries Management Council's Omnibus Essential Fish Habitat Amendment 2 (2018) updated Essential Fish Habitat (EFH) designations, designated new Habitat Areas of Particular Concern (HAPC), and revised habitat and groundfish management areas. The Council's evaluation during the development of the amendment considered the habitat impacts of all type of fishing occurring in federal waters in the Council's area of jurisdiction, not just fishing activities directly managed by the Council. A major goal of the amendment is to avoid and minimize to the extent practicable the adverse effects of fishing on the seabed. The Council concluded that vulnerability to fishing impacts varies based on habitat characteristics and fishing intensity (NEFMC 2011). Many of the management measures in the Omnibus EFH amendment are based on identifying specific locations where seafloor habitats are more vulnerable and implementing restrictions in these areas on gear types that have the most severe impacts.

4.0 MANAGEMENT PROGRAM IMPLEMENTATION

4.1 COMMERCIAL FISHERIES MANAGEMENT MEASURES

4.1.1 Fishery Specifications and the Total Allowable Catch

Option A: Status Quo

To manage at the biological reference points in *Section 2.5,* the Northern Shrimp Section shall adjust commercial fishery management measures based on Northern Shrimp Technical Committee (NSTC), Advisory Panel, and public input. The NSTC will annually review the best available data which may include, but are not limited to, catch and landing statistics, current estimates of fishing mortality, stock status, shrimp survey indices, assessment modeling results, and target and threshold mortality levels; and recommend a hard TAC to maintain or reach healthy stock status relative to peer reviewed biological reference points, if available.

The Section will meet annually during a public meeting in the fall or early winter to review the Advisory Panel and NSTC recommendations, set a hard TAC that is associated with managing the northern shrimp fishery at the F_{target}, at the $F_{threshold}$, or between the F_{target} and $F_{threshold}$,

when possible, and specify any of the following management measures for the upcoming fishing season through a majority vote.
Annual Meeting Specification Options:

a) Quota reconciliation or rollover date (*Section 4.1.2)*
b) Fishing Season (*Section 4.1.3)*
    1. Establish measures for projected season closure (*Section 4.1.3.1*)
c) Trip Limits (*Section 4.1.4)*
d) Trap Limits (*Section 4.1.5*)
e) Days out of the Fishery (*Section 4.1.6*)
f) Research Set Aside (*Section 4.1.2.1*)

The Section may further specify options b-e above by gear type (e.g., trap and trawl) and may establish harvest triggers to automatically initiate or modify any option (except trap limits). Additionally, the Section may make adjustments to the fishing season, trip limits, and days out of the fishery at any time during the fishing season at an in-person meeting or conference call. Meetings are preferable to calls, and conference calls will only be used as needed, most likely for time sensitive specification adjustments

This amendment provides the Section with a suite of management measures that can be modified through adaptive management. *Section 4.6.2* contains a list of management measures that may be implemented anytime throughout the year by the Section. However, adjustment or establishment of any of the measures listed in *Section 4.6.2* must be implemented through the addendum process. See Section 4.6 for a description of how the Section is able to implement adaptive management through the addendum process.

Once the Section approves management measures for the northern shrimp fishery, it is the individual state's responsibility to implement consistent regulations through its state agency.

Option B: Extended Specifications Setting Timeline for Moratorium Years
To manage at the biological reference points in *Section 2.5,* the Northern Shrimp Section shall adjust commercial fishery management measures based on Northern Shrimp Technical Committee (NSTC), Advisory Panel, and public input. The NSTC would review the best available data which may include, but are not limited to, catch and landing statistics, current estimates of fishing mortality, stock status, shrimp survey indices, assessment modeling results, and target and threshold mortality levels; and recommend a hard TAC during specifications setting years to maintain or reach healthy stock status relative to peer reviewed biological reference points, if available.

4.1.1.1 Moratorium Specifications
While the northern shrimp fishery remains under a moratorium, the Section may set specifications, including a research set aside quota, for ***up to X years at a time***. The Section would meet at least once during the moratorium years in the fall or early winter. With a longer moratorium the Section could met more than once, if desired. During these meetings, the Section would meet to review the Advisory Panel and NSTC recommendations and specify any

of the following management measures for the upcoming fishing season (this can be done via Section action):

a) Fishing Season (for moratoriums only, *Section 4.1.3)*
b) Research Set Aside (*Section 4.1.2.1*)

Sub-Option B.1: Moratorium specifications for up to 2 years at a time
Sub-Option B.2: Moratorium specifications for up to 3 years at a time
Sub-Option B.3: Moratorium specifications for up to 5 years at a time

4.1.1.2 Open Season Specifications
In years where the fishery is open, the Section would meet ***annually*** in the fall or early winter to review the Advisory Panel and NSTC recommendations, set a hard TAC that is associated with managing the northern shrimp fishery at the F_{target}, at the $F_{threshold}$, or between the F_{target} and $F_{threshold}$, when possible, and specify any of the following management measures for the upcoming fishing season through a majority vote.

Specifications Options:
a) Quota reconciliation or rollover date (*Section 4.1.2)*
b) Fishing Season (*Section 4.1.3)*
    1. Establish measures for projected season closure (*Section 4.1.3.1*)
c) Trip Limits (*Section 4.1.4)*
d) Trap Limits (*Section 4.1.5*)
e) Days out of the Fishery (*Section 4.1.6*)
f) Research Set Aside (*Section 4.1.2.1*)

The Section may further specify options b-e above by gear type (e.g., trap and trawl) and may establish harvest triggers to automatically initiate or modify any option (except trap limits). Additionally, the Section may make adjustments to the fishing season, trip limits, and days out of the fishery at any time during the fishing season.

This amendment provides the Section with a suite of management measures that can be modified through adaptive management. *Section 4.6.2* contains a list of management measures that may be implemented anytime throughout the year by the Section. However, adjustment or establishment of any of the measures listed in *Section 4.6.2* must be implemented through the addendum process. See Section 4.6 for a description of how the Section is able to implement adaptive management through the addendum process.

Once the Section approves management measures for the northern shrimp fishery, it is the individual state's responsibility to implement consistent regulations through its state agency.

4.1.2 Total Allowable Catch (TAC) Allocation Program *(No changes proposed)*

The coastwide TAC as specified in *Section 4.1.1* will be allocated by state with 80% allocated to Maine, 10% allocated to New Hampshire and 10% allocated to Massachusetts. For jurisdictions with trawl and trap fisheries, the state may determine any gear-specific allocations between the trawl and trap fisheries. The state may also choose not to divide its quota between gear types. This determination by the state can occur after the annual TAC has been set.

It is the responsibility of the states to implement appropriate measures to prevent quota overages. All northern shrimp landed will be applied against the state's quota of the vessel's home port, regardless of where the northern shrimp was harvested or landed. Individuals or vessels with commercial permits cannot land northern shrimp in any state that was not allocated a commercial quota. State quota allocations may be revisited at any time through the adaptive management process (*Section 4.5*).

At the end of each fishing season, any quota underages by one or more states will be pooled and proportionately allocated using the state's quota allocation to help reconcile any quota overages. Alternatively, the Section may choose to roll over any unused quota from New Hampshire and Massachusetts to Maine's quota by a date determined during specifications.

4.1.2.1 Research Set Aside (RSA) Program *(No changes proposed)*

The Northern Shrimp Section may set aside a percentage of the coastwide TAC to help support research on the northern shrimp stock and fishery. The percentage of the TAC will be determined during the specifications meeting, and will be deducted from the coastwide TAC before the TAC is allocated according to *Section 4.1.2*. The Section may set a RSA quota when there is no TAC as agreed by the Section, i.e., during years of a moratorium. The research set aside program will be managed by the Northern Shrimp Section and ASMFC.

4.1.3 Fishing Season

Option A: Status Quo

At the annual specifications meeting, the Section may establish a fishing season to occur anytime between December 1 and May 31. This will be the maximum season length if a fishing season is approved, i.e., the Section may establish a fishing season shorter than, but not longer than that specified. The Section may set different seasons for the harvesting and processing sectors of the fishery to accommodate for the lag time of processing shrimp harvested late in the season. The Section may close the fishery at any time at a public meeting.

The Section has the ability to set a closed season annually (i.e., impose a moratorium) of up to 366 days.

Option B: Extended Moratoriums

When setting specifications, the Section may establish a fishing season to occur anytime between December 1 and May 31. This would be the maximum season length if a fishing

season is approved, i.e., the Section may establish a fishing season shorter than, but not longer than that specified. The Section may set different seasons for the harvesting and processing sectors of the fishery to accommodate for the lag time of processing shrimp harvested late in the season. The Section may close the fishery at any time via Section action.

The Section has the ability to impose a moratorium ***for up to X consecutive years (i.e., seasons) at a time.*** The maximum moratorium would begin on December 1 of Calendar Year 1 and remain in place through May 31 of last Calendar Year of the closure. Effectively, this option represents a moratorium on fishing of up to X years, or Y days. There is no provision for setting an extended open season.

Sub-Option B.1: Moratorium for up to 2 consecutive years or 731 days
Sub-Option B.2: Moratorium for up to 3 consecutive years or 1,096 days
Sub-Option B.3: Moratorium for up to 5 consecutive years or 1,826 days

4.1.3.1 Projected Season Closure *(No changes proposed)*

The northern shrimp fishery will close when a percentage of the coastwide TAC is projected to have been caught. The exact percent, ranging between 80-95%, and the closure notification period (2-7 days) will be established by the Section during the specifications meeting. ASMFC will notify states when the selected percentage of the TAC is projected to be reached, and states must then close their fisheries within the specified notification period.

In projecting the season closure, the NSTC will consider these sources of uncertainty:

1. Future catch rates, which depend on weather, stock availability, catchability, gear type, location, and fishery participation. Catch rates can be expected to be high in January and February and lower in other months, with exceptions.
2. Late reporting. During the 2012 season, reporting compliance improved as the season progressed.
3. Unreported catches due to non-compliance or catches kept for personal use.

4.1.4 Trip Limits *(No changes proposed)*

The Section will vote on the start date, duration, and end date of trip limits, with the ability to initiate or modify trip limits during the season. The Section may use harvest triggers to automatically initiate or modify trip limits during the season. The Section may implement trip limits by day, week, or other time-based landing limit to control the rate of landings. The Section may establish trip limits based on gear type, and an analysis of historical harvest data. Vessels are prohibited from landing more than the specified amount during a designated trip limit period. Refer to *Appendix 1* for the Amendment 3 PDT's trip limit analysis.

4.1.5 Trap Limits *(No changes proposed)*

The Section may set trap limits during specifications meetings through Section action. The Section may establish trap limits based on an analysis of historical harvest data. An individual

permit holder is prohibited from fishing a number of traps in excess of the trap limit designated by the Section for that fishing year.

All traps fished, or aboard a vessel, must be tagged. A permanent, non-transferable trap tag shall be attached to each trap. Each trap tag shall be color-coded coastwide by fishing year and include the following information: issuing authority, year(s) tag is valid, and permit number. Trap tags must be permanently attached to the trap frame, and clearly visible for inspection. In state waters, the state licensing agency shall be the issuing authority. Each state shall issue tags to its own residents. In cases where license holders do not hold a license in their resident state, the state in which they fish shall issue tags.

4.1.6 Days Out of the Fishery *(No changes proposed)*

Days out of the fishery may be implemented to slow catch rates in order to prolong the harvest of the hard TAC, or make shrimp available when demand is greatest. The Section will vote on the start date, number of days out, and days of the week for days out. The Section may initiate or change days out specifications by taking another vote anytime during the rest of the fishing season during a meeting or conference call. All states will take the same days out of the fishery.

Days out during the fishing season are considered closed days, and it is unlawful to land any shrimp from 0001 hours to 2400 hours; and it shall be presumed that any shrimp landed or possessed by harvesters during the closed period were taken during a closed day.

4.1.7 Minimum Mesh Size *(No changes proposed)*

It is unlawful to fish for, take, transport or have in possession any northern shrimp on board any boat rigged for otter trawling with any net with a mesh opening of less than 1-3/4 inches stretched mesh opening between knots, or to have on board any net, netting or portions thereof, except an accelerator funnel of the size specified in *Section 3(c),* with an opening less than 1-3/4 inches stretched mesh opening between knots and except that a deflector panel of 1 inch mesh may be used in the cod end behind the second grate in a double grate system. The maximum length of the bottom legs of the bridle of any shrimp trawl shall not exceed 15 fathoms of uncovered or bare wire.

Tolerance. Due to the differences by net manufacturer, mesh measurements and other inherent variables used for enforcement of this regulation, a tolerance of 1/8 inch shall be applied to the average mesh size in the body and wings. No tolerance shall be applied to the mesh size in the cod end.

4.1.8 Fishing Gear *(No changes proposed)*

All netting used to catch shrimp shall be of one layer only, with no liners of any kind attached, except that a cod end strengthener may be used as specified, and except that an accelerator funnel may be used and must have a mesh size of no less than 1-3/8 inch stretched mesh. It shall be lawful to attach chafing gear to the lower half of the circumference of the cod end unless a cod end strengthener is used. Cod end shall mean the terminal portion of an otter

trawl, pair trawl, beam trawl, Scottish seine or mid-water trawl in which the catch is normally retained.

4.1.9 Cod End Strengthener *(No changes proposed)*

An outer mesh may be used as a cod end strengthener while fishing for northern shrimp. The outer mesh must be a minimum of 6 inches and the outer mesh must be at least three times larger than the size of the inner mesh. The mesh may be single or double twine, and diamond or square in shape. The hanging ratio must be the same as the mesh size ratio. Hanging ratio shall mean the number of meshes in the circumference of the cod end to the number of meshes in the circumference of the strengthener. The mesh size ratio shall mean the number of inner meshes to the number of outer meshes. The outer mesh may only cover the cod end. No chafing gear may be used with a cod end strengthener.

Exception. Herring seines or purse seines may be transported from one location to another provided a permit is obtained from a fisheries enforcement officer or the state fishery agency.

Method of Measurements. Mesh sizes are measured by a flat wedge-shaped gauge having a taper of 4 cm in 20 cm and a thickness of 2.3 mm, inserted into the meshes under a pressure or pull of 1.90 kg. The mesh size of a net shall be taken to be the average of the measurements of a series of any 20 consecutive meshes, at least 10 meshes from the lacings, and when measured in the cod end of the net beginning at the after end and running parallel to the long axis.

4.1.10 Mechanical “Shaking” Devices *(No changes proposed)*

Mechanical “shakers” have been used to rid smaller shrimp from nets. It shall be unlawful to cull, grade, separate or shake shrimp, aboard any vessel, except by implements operated solely by hand. It is illegal to possess, aboard any vessel, any powered mechanical device used to cull, grade, separate or shake shrimp.

4.1.11 Finfish Excluder Devices *(No changes proposed)*

It shall be unlawful for any vessel rigged for otter trawling, to fish for, land or have in possession northern shrimp except by using trawls equipped with finfish excluder devices approved by the same agency that permits such vessels. Such finfish excluder devices (commonly referred to as the "Nordmore Grate System") shall consist of:

- A rigid or semi-rigid grate consisting of parallel bars attached to the frame with spaces between the bars not to exceed 1 inch in width;
- A fish outlet, or hole, in the extension of the trawl forward of the cod end and grate; and
- A webbing funnel installed in front of the grate designed to direct the catch toward the grate to maximize the retention of the shrimp may be used but may not have mesh less than 1-3/8 inch stretched mesh.
- Vessels fishing in the shrimp fishery may not possess regulated groundfish species.

4.1.12 Size Sorting Grate Systems *(No changes proposed)*

It shall be unlawful for any vessel rigged for otter trawling to fish for, land, or have in possession, northern shrimp except by using trawls equipped with either a compound grate or a double-Nordmore grate as described below. This provision may be modified via Section action during specifications, i.e., an addendum is not required.

The compound grate (Figure 6) is a rigid or semi-rigid planar device referred to as a "compound grate" because it has two different sections of parallel or non-parallel bars oriented vertically (up and down). The top section shall be configured as a finfish excluder device and shall consist of parallel bars attached to the frame with spaces between the bars not to exceed 1 inch in width. A fish outlet, or hole, in the extension of the trawl shall exist forward of the cod end and compound grate. The bottom section will allow the escape of small shrimp and will consist of parallel or non-parallel tapered bars oriented up and down with spacing between bars of $^{5}/_{16}$ inch to ½ inch. The lower edge of the cod end will be attached to the grate at the juncture between the top section and the bottom section, creating a shrimp outlet similar to the fish outlet described above, that will allow the escape of shrimp that pass through the bars of the bottom section of the grate. The compound grate also has the following optional provisions:

- This grate may be fished "upside down", that is, with the Finfish Excluder section and outlet on the bottom and the shrimp size separator section and outlet on the top.
- A webbing funnel may be installed in front of the grate designed to direct the catch toward the grate to maximize the retention of the shrimp may be used but may not have mesh less than 1-3/8 inch stretched mesh.

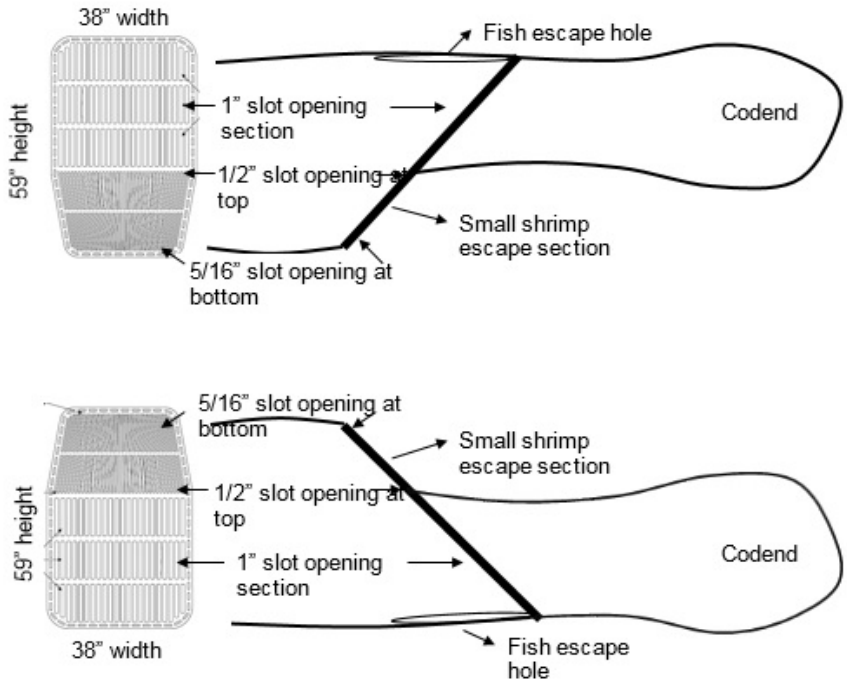

Figure 6. Schematic diagram of the compound size sorting grate to minimize the retention of small shrimp. The top panel diagrams the small shrimp size sorting section of the grate at the bottom (ventral) side of the net. The bottom panel diagrams the small shrimp size sorting section of the grate at the top (dorsal) side of the net.

The double-Nordmore setup (Figure 7) is comprised of two separate grates; one of the grates must be a finfish excluder device (commonly referred to as the "Nordmore Grate System") and shall consist of:

- A rigid or semi-rigid grate consisting of vertical parallel bars attached to the frame with spaces between the bars not to exceed 1 inch in width;
- A fish outlet, or hole, in the extension of the trawl forward of the cod end and grate; and
- A webbing funnel installed in front of the grate designed to direct the catch toward the grate to maximize the retention of the shrimp may be used but may not have mesh less than 1-3/8 inch stretched mesh.
- Vessels fishing in the shrimp fishery shall not be allowed to possess regulated groundfish species.

The second grate may be fished in front or behind the Nordmore grate. The second grate shall consist of:

- A rigid or semi-rigid planar device with vertical bar spacing of 7/16 of an inch (tolerance – must be greater than 5/16 inch but less than ½ inch).
- The exit holes to the cod end must be at the top and no more than 10% of the surface area.

- A funnel in front of the second grate designed to direct the catch toward the grate to maximize the escape of small shrimp may be used but may not have mesh less than 1-3/8 inch stretched mesh.

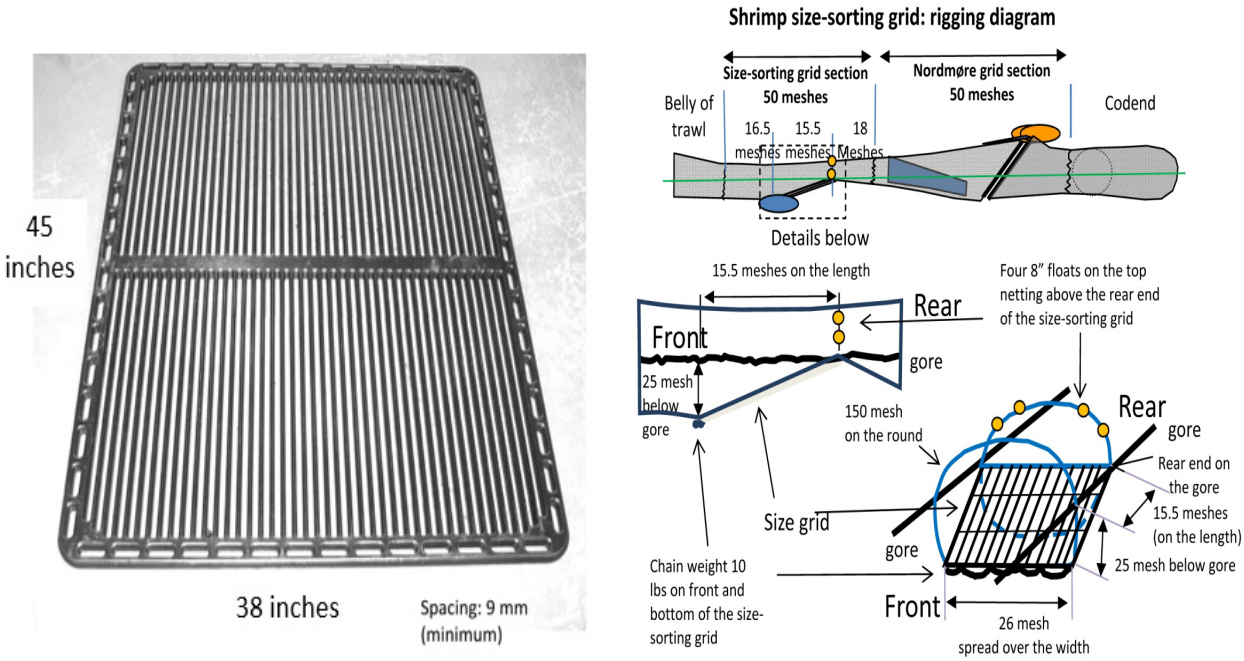

Figure 7. Schematic diagram of the double-Nordmore grate configuration (He and Balzano 2012).

4.1.13 Management Triggers

The following management trigger options have been developed to consider how to set management responses to observed changes in biological and/or environmental conditions in the northern shrimp stock. The management trigger options included in this document are intended to identify favorable trends in recruitment (i.e., year class strength and persistence through the time series) or temperature (i.e., cooler temperatures) that may indicate an increase in northern shrimp abundance. Under no option does a triggered response include the automatic opening of a northern shrimp fishing season.

Trigger options were developed to include a combination of recruitment and environmental indicators as directed by the Section. Favorable trends in recruitment include year-class strength and persistence for multiple years, as an indication of potential stock recovery. Recruitment has been identified as a preferred indicator due to higher northern shrimp landings observed in years following recruitment of dominant year classes that have survived to become spawning females. Favorable trends in environmental conditions for this stock include cooler winter surface temperature and cooler spring bottom temperature.

Given discontinuation of the summer shrimp survey, uncertainties surrounding the remaining spring and fall surveys, and the potential for industry-collected research in the future, a process

for the incorporation of new data is included in Option B below to allow for the NSTC to include new data sources into a management trigger and adjust trigger thresholds in the future.

Option A: Status Quo
This option represents the status quo option where management triggers would not be used to monitor and respond to changing conditions in the northern shrimp stock or Gulf of Maine environment. If this option is selected, this section would be removed from Amendment 4.

Option B: Management Trigger(s)
Under this option, a management trigger(s) would be added to annual stock monitoring conducted by the NSTC. If the trigger(s) is reached, each sub-option below defines a management response depending on the trigger. If a survey used in northern shrimp stock monitoring is offline for three or more consecutive years and/or the NSTC determines one or more surveys is not providing scientifically sound management advice, the Section may modify the definition of the selected trigger via Section action or through an addendum (see *Section 4.5.2.2)*.

New information on northern shrimp or environmental conditions important to the stock may be incorporated into the management trigger mechanism should those data become available in the future. An approved new data source may also apply to defining the trigger thresholds for the recruitment and temperature triggers below. If a new time series becomes available that would inform a management trigger or to inform management trigger thresholds, the Section may task the NSTC to conduct an evaluation of the new data and/or new information as appropriate to modify management trigger data sources and thresholds. Once the NSTC evaluation of new data is complete, the NSTC would report their recommendations to the Section for consideration via Section action (this can be done without an addendum/amendment).

When the Section takes final action on Amendment 4, there is an opportunity to select from the sub-options below (more than one option can be selected). Additionally, the Section may select a time-frame for both trigger options that "trips" the trigger of two out of three consecutive years or three consecutive years.

Sub-Option B.1: Recruitment Trigger
A recruitment trigger would be annually evaluated by the NSTC. The recruitment trigger under this sub-option is defined by three consecutive years of non-failed recruitment. Non-failed recruitment is a recruit index value above the 20th percentile of the reference period (1984-2017) where strength of that year class persists through to subsequent years, as observed through length frequency analysis. For this trigger to be reached, recruitment values from both the Maine-New Hampshire Inshore Spring Survey and the NEFSC Fall Bottom Trawl Survey must be above the 20th percentile of the reference period for three consecutive years.

In the event that either survey goes offline temporarily, the trigger could be tripped if recruitment values from one of the surveys was above the 20th percentile of the reference period for three consecutive years and the other survey was above the 20th percentile of the reference period for two consecutive years in a three-year evaluation period (five out of six recruitment values are above the 20th percentile). If the survey remains offline for more than one year, the trigger could be tripped if four out of six recruitment values from three consecutive years are above the 20th percentile. These scenarios are only applicable if a survey is suspended or temporarily offline.

If the recruitment trigger is reached, it would prompt the NSTC to conduct a full stock assessment update with projections as soon as possible. Preferably before the next meeting of the Section to inform the potential for the fishery to reopen in the following year. Table 6 and Figure 8 illustrate examples of recruitment trigger performance from 2016 through 2023 (Table 6) and 1984 through 2024 (Figure 8) if the recruitment trigger had been implemented in those years.

If the recruitment trigger is not reached and both surveys remain online, but the NSTC finds that recruitment has been above the 20th percentile of the reference period for two consecutive years, it would prompt the Section to consider reopening the winter sampling program. Conducting a winter sampling program without the use of size sorting grates may enable the NSTC to evaluate stage and length frequencies and year class persistence before commencing a full assessment update. If this scenario were to occur in a year in which the Section is not scheduled to meet to set specifications, it would prompt a meeting of the Section in that year. While this scenario triggers the Section to meet to consider opening the winter sampling program, the Section may open the sampling program at any time regardless of the tripping or presence of a management trigger.

If the recruitment trigger and the temperature trigger (below) are both selected for implementation, the following management responses would be used when each trigger is reached:

- If just the recruitment trigger is reached (*Sub-Option B.1*) – NSTC would conduct a full stock assessment update with projections.
- If just the temperature trigger is reached (*Sub-Option B.2*) – Section would consider running winter sampling program as soon as possible with size sorting grates removed to capture recruitment information.
- If recruitment and temperature triggers are not reached, but recruitment is above the 20th percentile of the reference period for two consecutive years and both surveys remain online (*Sub-Option B.1*) – Section would consider running winter sampling program as soon as possible with size sorting grates removed to capture recruitment information.
- If recruitment and temperature triggers are both reached (*Sub-Option B.1 and B.2*) - NSTC would conduct a full stock assessment update with projections. The Section

may choose to also run the winter sampling program with the size sorting grates removed, if desired.

Sub-Option B.2: Temperature Trigger

A temperature trigger would be annually evaluated by the NSTC. The temperature trigger under this sub-option is defined by two out of three consecutive years of winter surface temperature (Boothbay Harbor, Maine) and spring bottom temperature (NEFSC Spring Bottom Trawl Survey) below the 80th percentile of the reference period (1984-2017).

If the temperature trigger is reached, it would prompt the option to reopen the winter sampling program without the use of size sorting grates, if desired by the Section. By running the winter sampling program without the use of size sorting grates, the NSTC may evaluate industry-sampled recruitment. It should be noted that regardless of the presence or tripping of a temperature trigger, the Section may choose to set a research set-aside (RSA) quota and reopen the winter sampling program at any time as part of the specifications process. The temperature trigger is intended to signal that the winter sampling program would be beneficial in considering further steps to reopen the fishery such as a stock assessment update. However, temperature alone would not be sufficient indicator to run a full stock assessment update with projections unless more information is gathered about the condition of the stock.

If the recruitment trigger and the temperature trigger are both selected for implementation, the following management responses would be used when each trigger is reached:

- If just the recruitment trigger is reached (*Sub-Option B.1*) – NSTC would conduct a full stock assessment update with projections.
- If just the temperature trigger is reached (*Sub-Option B.2*) – Section would consider running winter sampling program as soon as possible with size sorting grates removed to capture recruitment information.
- If recruitment and temperature triggers are not reached, but recruitment is above the 20th percentile of the reference period for two consecutive years and both surveys remain online (*Sub-Option B.1*) – Section would consider running winter sampling program as soon as possible with size sorting grates removed to capture recruitment information.
- If recruitment and temperature triggers are both reached (*Sub-Option B.1 and B.2*) - NSTC would conduct a full stock assessment update with projections. The Section may choose to also run the winter sampling program with the size sorting grates removed, if desired.

4.2 RECREATIONAL FISHERIES MANAGEMENT MEASURES

No management measures are included for the recreational fisheries as this fishery is very limited, is usually carried out with the recreational lobster trap fishery, and is for personnel use.

4.3 HABITAT CONSERVATION AND RESTORATION

4.3.1 Preservation of Existing Habitat

The New England Fishery Management Council's Omnibus Habitat Amendment 2 was implemented in 2018.

In the Amendment, shrimp traps are not restricted as there appears to have a low impact on habitat. The shrimp fishery, if available in a given year, typically begins on or around December 1, when many shrimp have already hatched their eggs for the breeding season. Therefore, no particular biological impacts are expected if the management program leads to shifts in the distribution of shrimp trawling effort as the seasonality of the shrimp fishery already controls for impacts on shrimp spawning. While the fishery is open access in terms of participation, it is limited by a total allowable catch, which triggers closure of the fishery once harvested. There are also trip limits, trap limits, and days out which control the rate of harvest within the season. However, because shrimp undergo inshore/offshore migrations seasonally, the distribution of shrimp, and therefore shrimp fishing effort relative to habitat management areas, may vary from year to year.

Shrimp trawls are estimated to have an equivalent impact per unit area swept on vulnerable substrates to groundfish and other trawls. However, the fishery is conducted during a short winter season, often four to six weeks depending on how long it takes to catch the annual quota, and effort tends to occur on softer substrates given the distribution of northern shrimp. Although shrimp fishing may cause some damage to these soft sediment habitats, the short season allows for some recovery during the remainder of the year. Based on these considerations, the Council exempted shrimp trawl gear from bottom trawling restrictions in the northwestern corner of the Western Gulf of Maine Habitat Closure Area. The shrimp exemption area identified in the amendment lies west of Jeffreys Ledge in an area historically, although not recently, used by the shrimp fishery.

Additionally, spring and autumn distributions of northern shrimp appear to have a greater dependence on local temperature conditions as opposed to habitat bottom types. An inshore shift is evident in spring when temperatures are coldest; and data from the summer shrimp survey indicates a very strong preference for bottom temperatures between 4-6˚C, the coldest observed range in the survey region at this time of year (Clark *et al*., 1999). Within this range, the species was found to be most common on fine-grained sediments (Clark et al., 1999). Highest concentrations, however, were clearly defined by the 6˚C isotherm; and to the east of Cashes Ledge and Jeffreys Bank, where temperatures tended to exceed 6˚C, abundance was observed to decline sharply, even in areas where bottom conditions are favorable.

4.3.2 Habitat Restoration, Improvement, and Enhancement

As indicated previously, temperature appears to be one of the most critical habitat factors in all life stages of northern shrimp. Deep, muddy basins (generally 90-180 m, but found down to 300 m) in the southwestern region of the Gulf of Maine act as cold-water refuges (4-6°C) for adult

shrimp during periods when most water in the Gulf reaches sub-optimal temperatures. Sub-optimal temperatures are considered to be over 8°C, with temperatures over 12°C being highly stressful for northern shrimp and potentially causing mortality if exposed to these temperatures for longer periods (ASMFC 2017, Richards and Hunter 2021). Nearshore water provides habitat for the larval and juvenile stages of northern shrimp, but their specific habitat requirements and spatial distribution are not well known (ASMFC 2017; ASMFC 2024c).

Changing climate conditions are reshaping ecosystems in ways that affect resources and ecosystem services. With water temperatures in the Gulf of Maine rising at a higher rate (0.03°C per year) than the global mean rate (0.01°C per year) and a clear relationship between northern shrimp population and temperature, habitat restoration may be moot and protection of the remaining population by regulating the fishery may be the only manner to preserve the population with the current climate conditions

4.4 ALTERNATIVE STATE MANAGEMENT REGIMES

Once approved by the Northern Shrimp Section, states are required to submit a proposal to the Section Chair for Section review and approval of any changes to their management program for which an FMP requirement is in effect. A state can request permission to implement an alternative to any mandatory FMP measure (i.e., conservation equivalency) only if that state can show to the Section's satisfaction that its alternative proposal will have the same conservation value as the measure contained in this amendment or any addenda prepared under Adaptive Management (*Section 4.5*). Upon receiving a conservation equivalency proposal, the PRT will initiate a formal review process outlined in the Commission's Conservation Equivalency: Policy and Technical Guidance Document (ASMFC 2023).

The Section will consider if a change in the use of conservation equivalency is necessary after each stock assessment where, conservation equivalency is not permitted if the stock is overfished or depleted, unless allowed by a 2/3 majority vote of the Section. If the Section determines conservation equivalency is not permitted, it will apply to future actions of the Section.

4.4.1 General Procedures

A state may submit a proposal for a change to its regulatory program or any mandatory FMP measure under this amendment to the Section Chair, including a proposal for *de minimis* status.

The Plan Review Team is responsible for gathering the comments of the appropriate committee (e.g., the Technical Committee, Law Enforcement Committee, Committee on Economics and Social Sciences and the Advisory Panel), and presenting these comments as soon as possible to the Section for decision.

The Section will decide whether to approve the state proposal for an alternative management program if it determines that it is consistent with the applicable target fishing mortality rate, and the goals and objectives of this amendment.

4.4.2 Management Program Equivalency

The Northern Shrimp Plan Review Team will review any alternative state proposals under this section and provide its evaluation of the adequacy of such proposals to the Section.

4.5 ADAPTIVE MANAGEMENT

The Northern Shrimp Section may vary the requirements specified in this Amendment as a part of adaptive management in order to conserve the northern shrimp resource. The elements that can be modified by adaptive management are listed in *Section 4.5.2.2*. The process under which adaptive management can occur is provided below.

4.5.1 General Procedures (*No changes proposed)*

The Plan Review Team (PRT) will monitor the status of the fishery and the resource and report on that status to the Section annually when the fishery is open, or when directed to do so by the Section. The PRT will consult with the Technical Committee and the Advisory Panel in making such review and report. The report will contain recommendations concerning proposed adaptive management revisions to the management program if necessary.

The Section will review the report of the PRT, and may consult further with the Technical Committee or the Advisory Panel. The Section may direct the PRT to prepare the documentation necessary to make any changes to the management program.

Should the Section deem that an addendum to the fishery management plan is necessary, the Plan Development Team (PDT) will prepare a draft addendum and shall distribute it to all states for review and comment. A public hearing will be held in any state that requests one. The PRT will also request comment from federal agencies and the public at large. After a 30-day review period, the PDT will summarize the comments and prepare a final version of the addendum for the Section.

The Section shall review the final version of the addendum prepared by the PDT, and shall also consider the public comments received and the recommendations of the Technical Committee, the Stock Assessment Subcommittee and the Advisory Panel; and shall then decide whether to adopt or revise and adopt the addendum.

Upon adoption of an addendum implementing adaptive management by the Section, states shall prepare proposals in which their plans to carry out the addendum are outlined and submit them to the Section for approval, according to a schedule to be contained in the addendum.

4.5.2 Measures Subject to Change

4.5.2.1 Limited Entry – Control Date (*No changes proposed)*

Amendment 4 does not consider limited entry as means of controlling effort in the fishery. However, this amendment maintains the control date of June 7, 2011, established during the development of Amendment 2.

The Section established this control date for in the event that development of a limited entry program through the adaptive management process (refer *Section 4.5.1*) is warranted. The intention of the control date is to notify potential new entrants to the fishery that there is a strong possibility they will be treated differently from participants in the fishery prior to the control date. The Section may use historic landings and/or participation criteria for current and past participants as the limited entry system is established.

4.5.2.2 Measures Subject to Change through Adaptive Management

Option A: Status Quo

The following measures are subject to change under adaptive management upon approval by the Northern Shrimp Section:

(1) Biological Reference Points can be changed through Section action (no addendum necessary) per *Section 2.5* of this amendment
(2) Rebuilding target and schedule
(3) Gear requirements or prohibitions
(4) Management areas
(5) Harvest set-asides
(6) Limited/controlled entry (including, but not limited to, days-at-sea and ITQs/IFQs and catch shares)
(7) Catch controls (quotas)
(8) Vessel limits
(9) Recommendations to the Secretary of Commerce for complementary action
(10) Research or monitoring requirements
(11) Frequency of stock assessments
(12) Any other management measures included in Amendment 4 that are not subject to annual specification
(13) Vessel monitoring programs

Option B: Adding Specifications Setting Timeline and Management Triggers to Adaptive Management

This option keeps measures 1-11 and 13 the same as above (now numbered 1-12 in this option with number 13 now represented as 12) with the following additions:

(13) Specifications setting timeline
(14) Fishing season
(15) Any management trigger modification not subject to change via the new data provision or Section action
(16) Any other management measures included in Amendment 4

4.6 EMERGENCY PROCEDURES

Emergency procedures may be used by the Northern Shrimp Section to require any emergency action that is not covered by or is an exception or change to any provision in Amendment 4.

Procedures for implementation are addressed in the ASMFC ISFMP Charter, Section 6(c)(11) (ASMFC 2019).

4.7 MANAGEMENT INSTITUTIONS

4.7.1 Atlantic States Marine Fisheries Commission and ISFMP Policy Board

The Atlantic States Marine Fisheries Commission and the ISFMP Policy Board are generally responsible for the oversight and management of the Commissions fisheries management activities. The Commission must approve all fishery management plans and amendments thereto, including this Amendment; and make all final determinations concerning state compliance or noncompliance. The ISFMP Policy Board reviews recommendations of the various Management Boards and Sections and, if it concurs, forwards them on to the Commission for action.

4.7.2 Northern Shrimp Section

The Northern Shrimp Section was established by the Commission's ISFMP Policy Board and is generally responsible for carrying out all activities under this Amendment. The Section is represented by appointed members from Maine, New Hampshire, and Massachusetts. Each state's delegation consists of the three representatives (commissioners), including the director of the state's marine fisheries agency, a governor's appointee, and a legislative appointee.

The Section is responsible for the management of the northern shrimp fishery and resource through the development and implementation of the Interstate Fishery Management Plan for Northern Shrimp. This responsibility involves soliciting public participation during the development of plan amendments and addenda, as well as during the fishery specification process. The Section establishes and oversees the activities of the Plan Review Team and the Technical Committee and appoints relevant and qualified industry representatives to the Commission's Northern Shrimp Advisory Panel. In addition, the Section adjusts and revises the management program under adaptive management and approves state programs implementing the plan amendments and alternative state programs. The Section reviews the status of state compliance with the FMP at least annually when the fishery is open and, if it determines that a state is out of compliance, reports that determination to the ISFMP Policy Board under the terms of the ISFMP Charter.

4.7.3 Northern Shrimp Plan Development/Review Team

The Plan Development Team (PDT) and the Plan Review Team (PRT) are composed of a small group of scientists and managers whose responsibility is to provide all of the staff support necessary to carry out and document the decisions of the Section. The Commission's Northern Shrimp Fishery Management Plan Coordinator chairs both teams. The Northern Shrimp PRT is directly responsible to the Section for providing information and documentation concerning the implementation, review, monitoring and enforcement of the FMP. The Northern Shrimp PDT is comprised of personnel from state and federal agencies who have scientific and management ability, and knowledge of northern shrimp. The PDT prepared all documentation necessary for

the development of Amendment 4, using the best scientific information available and the most current stock assessment information.

4.7.4 Northern Shrimp Technical Committee

The Northern Shrimp Technical Committee consists of, at a minimum, one representative from each state agency with an interest in the Northern Shrimp fishery and one representative from the National Marine Fisheries Service, and two social scientists. Its role is to act as a liaison to the individual state agencies, providing information to the management process and review and recommendations concerning the management program. The Technical Committee reports to the Section. The Section may appoint additional members to the Technical Committee, as needed.

4.7.5 Northern Shrimp Advisory Panel

Consistent with the Commission's Advisory Committee Charter, the Section appoints industry representatives to serve on the Northern Shrimp Advisory Panel. Members of the Advisory Panel are citizens who represent a cross-section of commercial fishing interests and provide guidance directly to the Section concerning the Commission's northern shrimp management program.

4.8 RECOMMENDATIONS TO THE SECRETARY FOR COMPLEMENTARY ACTIONS IN FEDERAL JURISDICTIONS

The Section may make recommendations to the Secretary of Commerce for complementary action in federal waters through the addendum or amendment process. There is no Federal representation on the Section and the Commission and states manage the fishery through the work of the Section. However, much of the fishery occurs in Federal waters and is prosecuted by fishermen with Federal fishery permits. To address this issue, NOAA Fisheries implemented exemptions to the Federal Northeast Multispecies (groundfish) Fishery to allow Federal groundfish vessels to participate in the small-mesh northern shrimp fishery. Those exemptions, set forth in 50 CFR 648.80(a)(5), allow Federal groundfish vessels to fish with a smaller mesh size when targeting shrimp, than what is allowable for the Multispecies fishery. Participants in the exemption program must also use a Nordmore grate system. Additionally, the exemption sets restrictions on incidental catch of other species such as whiting, hake, and lobster, and restricts participants to shrimping within the seasonal constraints adopted by the Commission.

4.9 COOPERATION WITH OTHER MANAGEMENT INSTITUTIONS

The Section will cooperate, when necessary, with other management institutions during the implementation of this amendment, including the National Marine Fisheries Service and the New England Fishery Management Council. There is no Federal fishery management plan for northern shrimp. Federal regulations exempt Federal groundfish vessels from the groundfish mesh sizes when participating in the shrimp fishery. The exemptions set forth incidental catch restrictions and require the use of a Nordmore grate. See *Section 4.8* for additional information.

5.0 COMPLIANCE

Full implementation of the provisions of this amendment is necessary for the management program to be equitable, efficient, and effective. States are expected to implement these measures faithfully under state laws. ASMFC will continually monitor the effectiveness of state implementation and determine whether states are in compliance with the provisions of this fishery management plan. The Section sets forth specific elements states must implement in order to be in compliance with this fishery management plan and the procedures that will govern the evaluation of compliance. Additional details of the procedures are found in the ASMFC Interstate Fishery Management Program Charter (ASMFC 2019).

5.1 MANDATORY COMPLIANCE ELEMENTS FOR STATES

A state will be determined to be out of compliance with the provision of this fishery management plan according to the terms of Section Seven of the ISFMP Charter if:

- Its regulatory and management programs to implement *Section 4* have not been approved by the Northern Shrimp Section; or
- It fails to meet any schedule required by *Section 5.1.2*, or any addendum prepared under adaptive management (*Section 4.5*); or
- It has failed to implement a change to its program when determined necessary by the Northern Shrimp Section; or
- It makes a change to its regulations required under *Section 4*, or any addendum prepared under adaptive management (*Section 4.5*), without prior approval of the Northern Shrimp Section.

5.1.1 Mandatory Elements of State Programs

To be considered in compliance with this fishery management plan, all state programs must include harvest controls on shrimp fisheries consistent with the requirements listed throughout *Section 4.0*, except that a state may propose an alternative management program under *Section 4.5*, which, if approved by the Section, may be implemented as an alternative regulatory requirement for compliance.

5.1.1.1 Regulatory Requirements

States may begin to implement Amendment 4 after final approval by the Commission. States may not implement any regulatory changes concerning northern shrimp, nor any management program changes that affect their responsibilities under this amendment, without first having those changes approved by the Section.

[TBD: Regulatory requirements to be set should the draft amendment be approved for implementation.]

5.1.1.2 Monitoring Requirements

To be considered in compliance with this fishery management plan, all state programs must implement monitoring requirements consistent with *Section 3.1.1*.

5.1.1.3 Research Requirements

No mandatory research requirements have been identified at this time. However, elements of state plans may be added to address any needs identified through implementation of Amendment 4.

5.1.1.4 Law Enforcement Requirements

All state programs must include law enforcement capabilities adequate for successfully implementing the jurisdiction's northern shrimp regulations. The adequacy of a state's enforcement activity will be measured by annual report to the ASMFC Law Enforcement Committee and the PRT.

5.1.1.5 Habitat Requirements

No mandatory habitat requirements have been identified at this time. Habitat requirements could be added at any time through adaptive management (*Section 4.5*).

5.1.2 Compliance Schedule

States must implement the provisions of this amendment no later than **[MM DD, YYYY; TBD if approved].** States may begin implementation prior to this date when approved by the full Commission.

While not under a moratorium, each state must submit an annual report concerning its northern shrimp fisheries and management program for the previous calendar year. Reports on compliance must be submitted to the Commission by each state no later than September 30 each year. A standard compliance report format has been prepared and adopted by the ISFMP Policy Board. States should follow the format provided when completing the compliance report.

5.2 PROCEDURES FOR DETERMINING COMPLIANCE

Detailed procedures regarding compliance determinations are contained in the ISFMP Charter, Section Seven (ASMFC 2019). The following summary is not meant in any way to replace the language found in the ISFMP Charter.

In brief, all states are responsible for the full and effective implementation and enforcement of fishery management plans in areas subject to their jurisdiction. Written compliance reports as specified in the plan or amendment must be submitted annually by each state with a declared interest when the fishery is open. Compliance with Amendment 4 will be reviewed at least annually while the fishery is not under a moratorium. The Section, Policy Board or the Commission may request the PRT to conduct a review of plan implementation and compliance at any time.

The Northern Shrimp Section will review the written findings of the PRT within 60 days of receipt of a State's compliance report. Should the Section recommend to the Policy Board that a state be determined to be out of compliance, a rationale for the recommended noncompliance finding will be included addressing specifically the required measures of Amendment 4 that the state has not implemented or enforced, a statement of how failure to

implement or enforce the required measures jeopardizes northern shrimp conservation, and the actions a state must take in order to comply with Amendment 4 requirements.

The ISFMP Policy Board will review any recommendation of noncompliance from the Northern Shrimp Section within 30 days. If it concurs in the recommendation, it shall recommend at that time to the ASMFC that a state be found out of compliance.

The Commission shall consider any noncompliance recommendation from the ISFMP Policy Board within 30 days. Any state that is the subject of a recommendation for a noncompliance finding is given an opportunity to present written and/or oral testimony concerning whether it should be found out of compliance. If the Commission agrees with the recommendation of the ISFMP Policy Board, it may determine that a state is not in compliance with Amendment 4, and specify the actions the state must take to come into compliance.

Any state that has been determined to be out of compliance may request that the Commission rescind its noncompliance findings, provided the state has revised its northern shrimp conservation measures or shown to the ISFMP Policy Board and/or Commission's satisfaction that actions taken by the state provide for conservation equivalency.

5.3 ANALYSIS OF THE ENFORCEABILITY OF PROPOSED MEASURES

The ASMFC Law Enforcement Committee will, during the implementation of this amendment, analyze the enforceability of new conservation and management measures as they are proposed.

6.0 MANAGEMENT AND RESEARCH NEEDS

6.1 RESEARCH AND DATA NEEDS

Research recommendations from the 2018 benchmark assessment for northern shrimp are provided below (ASMFC 2018b).

Fishery-Dependent Priorities

- Evaluate selectivity of shrimp by traps and trawls *(high priority, short term)*
- Continue sampling of the northern shrimp commercial fishery, including port, sea, and RSA sampling to confirm, and if necessary update, the length-frequency of the species and identify any bycatch in the fishery *(high priority, long term)*
- Conduct a study comparing the effectiveness of the compound grate versus the double-Nordmore grate *(moderate priority, short term)*

Fishery-Independent Priorities

- Continuing sampling through summer shrimp survey despite the current low abundance of shrimp and the closure of the shrimp fishery in 2013 *(high priority, long term)*
- Explore ways to sample age 1 and younger shrimp *(moderate priority, short term)*

Modeling/Quantitative Priorities

- Continue research to refine annual estimates of consumption by predators, and include in models as appropriate *(high priority, short term)*
- Investigate growth parameters for the UME length-based model and the feasibility of adding a spatial-temporal structure to the model framework *(moderate priority, long term)*

Life History, Biological, and Habitat Priorities

- Investigate application of newly developed direct ageing methods to ground truth assumed ages based on size and stage compositions *(high priority, long term)*
- Evaluate larval and adult survival and growth, including frequency of molting and variation in growth rates, as a function of environmental factors and population density *(high priority, long term)*
- Study the effects of oceanographic and climatic variation (i.e., North Atlantic Oscillation) on the cold water refuges for shrimp in the Gulf of Maine *(high priority, long term)*
- Explore the mechanisms behind the stock-recruitment and temperature relationship for Gulf of Maine northern shrimp *(high priority, long term)*

Timing of Assessment Updates and Next Benchmark Assessment

The NSTC recommends that the assessment be updated annually to incorporate the most up-to-date data on abundance and recruitment into management recommendations. A benchmark assessment should be considered in five years if improvements in the length-based model or significant changes in the population warrant it.

7.0 PROTECTED SPECIES

7.1 SPECIES PRESENT IN THE AREA

Numerous protected species occur in the affected environment of the Northern Shrimp FMP (Table 7) and could be impacted by the proposed action (i.e., there have been observed/documented interactions in the fisheries or with gear types like those used in the fisheries. These species are under the National Marine Fisheries Service (NMFS) jurisdiction and are afforded protection under the Endangered Species Act (ESA) of 1973 and/or the Marine Mammal Protection Act (MMPA) of 1972.

7.2 SPECIES AND CRITICAL HABITAT NOT LIKELY AFFECTED BY THE PROPOSED ACTION

Based on available information, it has been determined that this action is unlikely to impact multiple ESA listed and/or MMPA protected species or any designated critical habitat (Table 7). This determination has been made because either the occurrence of the species is not known to overlap with the area primarily affected by the action and/or based on the most recent ten years of information on documented interactions between the species and the primary gear type used to prosecute the northern shrimp fishery (Greater Atlantic Region (GAR) Marine Animal Incident Database, unpublished data; NMFS Marine Mammal Stock Assessment Reports (SARs) for the Atlantic Region; NMFS NEFSC observer/sea sampling database, unpublished data; NMFS NEFSC marine mammal (small cetacean, pinniped, baleen whale) serious injury and

mortality Reference Documents, Publications, or Technical Memoranda; MMPA List of Fisheries (LOF); NMFS 2021a).[1] In the case of critical habitat, this determination has been made because the action will not affect the essential physical and biological features of critical habitat identified in Table 7 and therefore, will not result in the destruction or adverse modification of any species critical habitat (NMFS 2021b).

7.3 SPECIES POTENTIALLY AFFECTED BY THE PROPOSED ACTION

Table 7 lists protected species of sea turtle, marine mammal, and fish species present in the affected environment of the northern shrimp fishery, and that may also be impacted by the operation of this fishery; that is, could become entangled or bycaught in the fishing gear used to prosecute the fishery. To help identify MMPA protected species potentially impacted by the action, NMFS Marine Mammal SARs for the Atlantic Region, MMPA List of Fisheries (LOF), NMFS (2021b), NMFS NEFSC observer/sea sampling database (unpublished data), and NMFS NEFSC marine mammal (small cetacean, pinniped, baleen whale) serious injury and mortality Reference Documents, Publications, or Technical Memoranda were referenced.

To help identify ESA listed species potentially impacted by the action, the NMFS NEFSC observer/sea sampling, Sea Turtle Disentanglement Network (STDN), and the GAR Marine Animal Incident databases for interactions were queried and the May 27, 2021, Biological Opinion issued by NMFS was reviewed (NMFS 2021a).

As the primary concern for both MMPA protected and ESA listed species is the potential for the fishery to interact (e.g., bycatch, entanglement) with these species it is necessary to consider (1) species occurrence in the affected environment of the fishery and how the fishery will overlap in time and space with this occurrence; and (2) data and observed records of protected species interaction with particular fishing gear types, in order to understand the potential risk of an interaction. Information on species occurrence in the affected environment of the northern shrimp fishery and on protected species interactions with specific fishery gear is provided below.

7.3.1 Sea Turtles

Below is a summary of the status and trends, as well as the occurrence and distribution of sea turtles in the affected environment of the northern shrimp fishery. More information on the range-wide status of affected sea turtles species, as well as a description and life history of each of these species, is in several published documents, including NMFS (2021a); sea turtle status reviews and biological reports (Conant et al. 2009; Hirth 1997; NMFS & USFWS 1995; 2007a; b; 2013; TEWG 1998; 2000; 2007; 2009), and recovery plans for the loggerhead (Northwest Atlantic DPS) sea turtle (NMFS & USFWS 2008), leatherback sea turtle (NMFS & USFWS 1992;

[1] For MMPA protected species, the most recent 10 years of information on estimated bycatch of small cetacean and pinnipeds in commercial fisheries covers the timeframe between 2011-2020; for large baleen whales, confirmed human caused serious injury, mortality, and entanglement reports are from 2012-2021. For ESA listed species, information on observer or documented interactions with fishing gear is from 2012-2021; the exception is Sea Turtle Disentanglement Network data, which is available through 2022.

1998b; 2020), Kemp's ridley sea turtle (NMFS & USFWS 2011), and green sea turtle (NMFS & USFWS 1991; 1998a).

Status and Trends

Four sea turtle species could be impacted by the proposed action: Northwest Atlantic Ocean DPS of loggerhead, Kemp's ridley, North Atlantic DPS of green, and leatherback sea turtles (Table 7). Although stock assessments and similar reviews have been completed for sea turtles none have been able to develop a reliable estimate of absolute population size. As a result, nest counts are used to inform population trends for sea turtle species.

For the Northwest Atlantic Ocean DPS of loggerhead sea turtles, there are five unique recovery units that comprise the DPS. Nesting trends for each of these recovery units are variable; however, Florida index nesting beaches comprise most of the nesting in the DPS (https://myfwc.com/research/wildlife/sea- turtles/nesting/beach-survey-totals/). Overall, short-term trends for loggerhead sea turtles (Northwest Atlantic Ocean DPS) have shown increases; however, over the long-term the DPS is considered stable (NMFS 2021a).

For Kemp's ridley sea turtles, from 1980 through 2003, the number of nests at three primary nesting beaches (Rancho Nuevo, Tepehuajes, and Playa Dos) increased 15% annually (Heppell et al. 2005); however, due to recent declines in nest counts, decreased survival of immature and adult sea turtles, and updated population modeling, this rate is not expected to continue and therefore, the overall trend is unclear (NMFS and USFWS 2015; Caillouett et al. 2018). In 2019, there were 11,090 nests, a 37.61% decrease from 2018 and a 54.89% decrease from 2017, which had the highest number (24,587) of nests; the reason for this recent decline is uncertain (see NMFS 2021a). Given this and continued anthropogenic threats to the species, according to NMFS (2021a), the species resilience to future perturbation is low.

For Kemp's ridley sea turtles, from 1980-2003, the number of nests at three primary nesting beaches (Rancho Nuevo, Tepehuajes, and Playa Dos) increased 15% annually (Heppell et al. 2005); however, due to recent declines in nest counts, decreased survival of immature and adult sea turtles, and updated population modeling, this rate is not expected to continue and therefore, the overall trend is unclear (Caillouet et al. 2018; NMFS & USFWS 2015). In 2019, there were 11,090 nests, a 37.61% decrease from 2018 and a 54.89% decrease from 2017, which had the highest number (24,587) of nests; the reason for this recent decline is uncertain. Given this and continued anthropogenic threats to the species, the species resilience to future perturbation is low (NMFS 2021a).

The North Atlantic DPS of green sea turtle, overall, is showing a positive trend in nesting; however, increases in nester abundance for the North Atlantic DPS in recent years must be viewed cautiously as the datasets represent a fraction of a green sea turtle generation which is between 30 and 40 years (Seminoff et al. 2015). While anthropogenic threats to this species continue, taking into consideration the best available information on the species, NMFS (2021a), concluded that the North Atlantic DPS appears to be somewhat resilient to future perturbations.

Leatherback turtle nesting in the Northwest Atlantic is showing an overall negative trend, with the most notable decrease occurring during the most recent time frame of 2008 to 2017 (Northwest Atlantic Leatherback Working Group 2018). The leatherback status review in 2020 concluded that leatherbacks are exhibiting an overall decreasing trend in annual nesting activity (NMFS & USFWS 2020). Given continued anthropogenic threats to the species, according to NMFS , the species' resilience to additional perturbation both within the Northwest Atlantic and worldwide is low.

Occurrence and Distribution

Hard-shelled sea turtles

In U.S. Northwest Atlantic waters, hard-shelled turtles commonly occur throughout the continental shelf from Florida to Cape Cod, MA, although their presence varies with the seasons due to changes in water temperature (Blumenthal et al. 2006; Braun-McNeill & Epperly 2002; Braun-McNeill et al. 2008; Braun & Epperly 1996; Epperly, Braun & Chester 1995; Epperly, Braun, Chester, et al. 1995; Griffin et al. 2013; Hawkes et al. 2006; Hawkes et al. 2011; Mansfield et al. 2009; McClellan & Read 2007; Mitchell et al. 2003; Morreale & Standora 2005; Shoop & Kenney 1992; TEWG 2009). As coastal water temperatures warm in the spring, loggerheads begin to migrate to inshore waters of the southeast United States and also move up the Atlantic Coast (Braun-McNeill & Epperly 2002; Epperly, Braun & Chester 1995; Epperly, Braun, Chester, et al. 1995; Epperly, Braun & Veishlow 1995; Griffin et al. 2013; Morreale & Standora 2005), occurring in Virginia foraging areas as early as late April and on the most northern foraging grounds in the GOM in June (Shoop & Kenney 1992). The trend is reversed in the fall as water temperatures cool. The large majority leave the GOM by September, but some remain in Mid-Atlantic and Northeast areas until late fall (i.e., November). By December, sea turtles have migrated south to waters offshore of North Carolina, particularly south of Cape Hatteras, and further south, although it should be noted that hard-shelled sea turtles can occur year-round in waters off Cape Hatteras and south (Epperly, Braun & Chester 1995; Griffin et al. 2013; Hawkes et al. 2011; Shoop & Kenney 1992).

Leatherback sea turtles

Leatherbacks, a pelagic species, are known to use coastal waters of the U.S. continental shelf and to have a greater tolerance for colder water than hard-shelled sea turtles (Dodge et al. 2014; Eckert et al. 2006; James et al. 2005; Murphy et al. 2006; NMFS & USFWS 2013). Leatherback sea turtles engage in routine migrations between northern temperate and tropical waters (Dodge et al. 2014; James et al. 2005; James et al. 2006; NMFS & USFWS 1992). They are found in more northern waters (i.e., GOM) later in the year (i.e., similar time frame as hard-shelled sea turtles), with most leaving the Northwest Atlantic shelves by mid-November (Dodge et al. 2014; James et al. 2005; James et al. 2006).

7.3.2 Marine Mammals

7.3.2.1 Large Whales

Status and Trends
Six large whale species could be impacted by the proposed action: humpback, North Atlantic right, fin, sei, sperm, and minke whales (Table 8). Large whale stock assessment reports covering the period of 2011-2020, indicate a decreasing trend for the North Atlantic right whale population; however, for fin, humpback, minke, sperm, and sei whales, it is unknown what the population trajectory is as a trend analysis has not been conducted. The NMFS Marine Mammal SARs for the Atlantic Region has more information on the status of humpback, North Atlantic right, fin, sei, sperm, and minke whales.

Occurrence and Distribution.
North Atlantic right, humpback, fin, sei, sperm, and minke whales occur in the Northwest Atlantic Ocean. As large whales may be present in these waters throughout the year, the northern shrimp fishery and large whales are likely to co-occur in the affected area. To further assist in understanding how the northern shrimp fishery overlaps in time and space with the occurrence of large whales, Table 8 is an overview of species occurrence and distribution in the affected environment of the fishery. More information on North Atlantic right, humpback, fin, sei, sperm, and minke whales is in NMFS Marine Mammal SARs for the Atlantic Region.

7.3.2.2 Small Cetaceans

Status and Trends
Risso's, white-sided, short beaked common, and bottlenose dolphins (Western North Atlantic Offshore, Northern Migratory Coastal, and Southern Migratory Coastal stocks); long and short – finned pilot whales; and harbor porpoise could be impacted by the proposed action (Table 9). As a trend analysis has not been conducted for Risso's, white-sided, short-beaked common dolphins; long-finned pilot whales; or harbor porpoise, the population trajectory for these species is unknown (Hayes et al. 2021). For short-finned pilot whales a generalized linear model indicated no significant trend in the abundance estimates (Hayes et al. 2022). For the Western North Atlantic Offshore stock, review of the most recent information on the stock shows no statistically significant trend in population size for this species; however, the high level of uncertainty in the estimates limits the ability to detect a statistically significant trend. In regards to the Northern and Southern Migratory Coastal stocks (both considered a strategic stock under the MMPA), the most recent analysis of trends in abundance suggests a probable decline in stock size between 2010–2011 and 2016, concurrent with a large UME in the area; however, there is limited power to evaluate trends given uncertainty in stock distribution, lack of precision in abundance estimates, and a limited number of surveys (Hayes et al. 2021).

Occurrence and Distribution
Atlantic white sided dolphins, short and long finned pilot whales, Risso's dolphins, short beaked common dolphins, harbor porpoise, and several stocks of bottlenose dolphins are found

throughout the year in the Northwest Atlantic Ocean (see NMFS Marine Mammal SARs for the Atlantic Region). Within this range, however, there are seasonal shifts in species distribution and abundance. To further assist in understanding how the northern shrimp fishery overlaps in time and space with the occurrence of small cetaceans, Table 9 is an overview of species occurrence and distribution in the affected environment of the fishery. More information on small cetacean occurrence and distribution in the Northwest Atlantic is in the NMFS Marine Mammal SARs for the Atlantic Region.

7.3.2.3 Pinnipeds

Status and Trends
Harbor, gray, harp and hooded seals are identified as having the potential to be impacted by the proposed action (Table 10). Based on Hayes et al. (2019; 2022), the status of the:

- Western North Atlantic harbor seal and hooded seal, relative to Optimum Sustainable Population (OSP), in the U.S. Atlantic EEZ is unknown;
- gray seal population relative to OSP in U.S. Atlantic EEZ waters is unknown, but the stock's abundance appears to be increasing in Canadian and U.S. waters; and,
- harp seal stock, relative to OSP, in the U.S. Atlantic EEZ is unknown, but the stock's abundance appears to have stabilized.

Occurrence and Distribution
Harbor, gray, harp, and hooded seals are found in the nearshore, coastal waters of the Northwest Atlantic Ocean. Depending on species, they may be present year-round or seasonally in some portion of the affected environment of the northern shrimp fishery. To further assist in understanding how the northern shrimp fishery overlaps in time and space with the occurrence of pinnipeds, Table 10 is an overview of species occurrence and distribution in the affected environment of the fishery. More information on pinniped occurrence and distribution in the Northwest Atlantic, is in the NMFS Marine Mammal SARs for the Atlantic Region.

7.3.3 Atlantic Sturgeon

Status and Trends
Atlantic sturgeon (all five DPSs) could be impacted by the proposed action (Table 7). Population trends for Atlantic sturgeon are difficult to discern; however, the most recent stock assessment report concludes that Atlantic sturgeon, at both coastwide and DPS level, are depleted relative to historical levels (ASMFC 2017; ASSRT 2007; NMFS 2021a).

Occurrence and Distribution
The marine range of U.S. Atlantic sturgeon extends from Labrador, Canada, to Cape Canaveral, Florida. All five DPSs of Atlantic sturgeon could be located anywhere in this marine range (Altenritter et al. 2017; ASMFC 2017; ASSRT 2007; Breece et al. 2016; Breece, Fox, Haulsee, et al. 2018; Dadswell 2006; Dadswell et al. 1984; Dovel & Berggren 1983; Dunton et al. 2015; Dunton et al. 2010; Erickson et al. 2011; Hilton et al. 2016; Ingram et al. 2019; Kazyak et al. 2021; Kynard et al. 2000; Laney et al. 2007; Novak et al. 2017; O'Leary et al. 2014; Rothermel et

al. 2020; Stein et al. 2004a; Waldman et al. 2013; Wippelhauser et al. 2017; Wirgin, Breece, et al. 2015; Wirgin, Maceda, et al. 2015).

Based on fishery-independent and dependent surveys, and data collected from genetic, tracking, and/or tagging studies in the marine environment, Atlantic sturgeon appear to typically occur inshore of the 50 meter depth contour; however, Atlantic sturgeon are not restricted to these depths, as excursions into deeper continental shelf waters have been documented (Altenritter et al. 2017; Breece et al. 2016; Breece, Fox & Oliver 2018; Collins & Smith 1997; Dunton et al. 2010; Erickson et al. 2011; Ingram et al. 2019; Novak et al. 2017; Rothermel et al. 2020; Stein et al. 2004a; b; Wippelhauser et al. 2017). In addition to depth, numerous studies have demonstrated that temperature is a key variable in Atlantic sturgeon presence and distribution in the marine environment (Altenritter et al. 2017; Breece, Fox & Oliver 2018; Erickson et al. 2011; Ingram et al. 2019; Novak et al. 2017; Rothermel et al. 2020; Wippelhauser et al. 2017). Data from fishery-independent and dependent surveys, and data collected from genetic, tracking, and/or tagging studies also indicate that Atlantic sturgeon make seasonal coastal movements from marine waters to river estuaries in the spring and from river estuaries to marine waters in the fall; however, there is no evidence to date that all Atlantic sturgeon make these seasonal movements and therefore, may be present throughout the marine environment throughout the year (Altenritter et al. 2017; Breece, Fox & Oliver 2018; Dunton et al. 2010; Erickson et al. 2011; Ingram et al. 2019; Novak et al. 2017; Rothermel et al. 2020; Wippelhauser 2012; Wippelhauser et al. 2017). When in the marine environment, Atlantic sturgeon presence and distribution in nearshore or offshore environments also appears to be seasonally variable; with preference for shallow, coastal waters in the spring, more offshore waters in the late fall- winter, and mouths of estuaries in the summer. Residency times in these areas of the marine environment are variable, with suitable environmental conditions (e.g., depth and temperature) dictating residency in an area (Altenritter et al. 2017; Breece, Fox & Oliver 2018; Erickson et al. 2011; Ingram et al. 2019; Novak et al. 2017; Rothermel et al. 2020; Wippelhauser et al. 2017).

More information on the biology and range wide distribution of each DPS of Atlantic sturgeon is in 77 FR 5880 and 77 FR 5914, the Atlantic Sturgeon Status Review Team's (ASSRT) 2007 status review of Atlantic sturgeon (ASSRT 2007); the ASMFC 2017 Atlantic Sturgeon Benchmark Stock Assessment and Peer Review Report (ASMFC 2017), and NMFS (2021a).

7.3.4 Atlantic Salmon (Gulf of Maine DPS)

Status and Trends

Atlantic salmon (GOM DPS) could be impacted by the proposed action (Table 7). There is no population growth rate available for GOM DPS Atlantic salmon; however, the consensus is that the DPS exhibits a continuing declining trend (NMFS 2021a; NMFS & USFWS 2018; NOAA 2016).

Occurrence and Distribution

The wild populations of Atlantic salmon are listed as endangered under the ESA. Their freshwater range occurs in the watersheds from the Androscoggin River northward along the

Maine coast to the Dennys River, while the marine range of the GOM DPS extends from the GOM (primarily the northern portion) to the coast of Greenland (Fay et al. 2006; NMFS & USFWS 2005; 2016). In general, smolts, post-smolts, and adult Atlantic salmon may be present in the GOM and coastal waters of Maine in the spring (beginning in April), and adults may be present throughout the summer and fall months (Baum 1997; Fay et al. 2006; Hyvärinen et al. 2006; Lacroix & Knox 2005; Lacroix & McCurdy 1996; Lacroix et al. 2004; NMFS & USFWS 2005; 2016; Reddin 1985; Reddin & Friedland 1993; Reddin & Short 1991; Sheehan et al. 2012; USASAC 2013). More information on the on the biology and range wide distribution of the GOM DPS of Atlantic salmon is in NMFS and USFWS (2005; 2016); Fay et al. (2006); and NMFS (2021a).

7.4 INTERACTIONS BETWEEN GEAR AND PROTECTED RESOURCES

Protected species are at risk of interacting (e.g., bycaught or entangled) with various types of fishing gear, with interaction risks associated with gear type, quantity, soak or tow duration, and degree of overlap between gear and protected species. Information on observed or documented interactions between gear and protected species is available from as early as 1989 (NMFS Marine Mammal SARs for the Atlantic Region; NMFS NEFSC observer/sea sampling database, unpublished data). As the distribution and occurrence of protected species and the operation of fisheries (and, thus, risk to protected species) have changed over the last 30 years, we use the most recent 10 years of available information to best capture the current risk to protected species from fishing gear. For marine mammals protected under the MMPA, the most recent 10 years of information on estimated bycatch of small cetacean and pinnipeds in commercial fisheries covers the timeframe between 2011-2020; for large baleen whales, confirmed human caused serious injury, mortality, and entanglement reports are from 2012-2021 (GAR Marine Animal Incident Database, unpublished data; Cole et al. 2013; Cole & Henry 2013; Hayes et al. 2017; 2018; 2019; 2020; Hayes et al. 2021; Hayes et al. 2022; 2023; Henry et al. 2017; Henry et al. 2016; Henry et al. 2020; Henry et al. 2021; 2022; 2023; Henry et al. 2019; Waring et al. 2016). For ESA listed species, the most recent ten years of data on observed or documented interactions is available from 2012-2021; the exception is Sea Turtle Disentanglement Network data, which is available through 2022 (ASMFC 2017; Kocik et al. 2014; NMFS 2021a; unpublished data: GAR Marine Animal Incident Database, NMFS NEFSC observer/sea sampling database, GAR Sea Turtle and Disentanglement Network, NMFS Sea Turtle Stranding and Salvage Network) (NMFS Marine Mammal SARs for the Atlantic Region; NMFS NEFSC protected species serious injury and mortality Reference Documents, Publications, or Technical Memoranda). Available information on gear interactions with a given species (or species group) is in the sections below. This is not a comprehensive review of all fishing gear types known to interact with a given species; emphasis is only being placed on the primary gear types used to prosecute the northern shrimp fishery.

7.4.1 Sea Turtles

Bottom Trawl Gear

Bottom trawl gear poses an injury and mortality risk to sea turtles (Sasso & Epperly 2006; NMFS Observer Program, unpublished data). Since 1989, the date of our earliest observer records for

federally managed fisheries, sea turtle interactions with trawl gear have been observed in the GOM, Georges Bank, and/or the Mid-Atlantic; however, most of the observed interactions have been observed south of the GOM (Murray 2008; 2015; 2020; NMFS 2021a; Warden 2011a; b). As few sea turtle interactions have been observed in the GOM, there is insufficient data available to conduct a robust model-based analysis and bycatch estimate of sea turtle interactions with trawl gear in this region. As a result, the bycatch estimates and discussion below are for trawl gear in the Mid-Atlantic and Georges Bank.

Murray (2015) estimated that from 2009-2013, the total average annual loggerhead interactions in bottom trawl gear in the Mid-Atlantic was 231 (CV=0.13, 95% CI=182-298); this equates to approximately 33 adult equivalents. Most recently, Murray (2020) provided information on sea turtle interaction rates from 2014-2018 (the most recent five-year period that has been statistically analyzed for trawls). Interaction rates were stratified by region, latitude zone, season, and depth. The highest loggerhead interaction rate (0.43 turtles/day fished) was in waters south of 37º N during November to June in waters over 50 m deep. The most estimated interactions occurred in the Mid-Atlantic region north of 39º N, during July to October in waters under 50 m deep. In each stratum, interaction rates for non-loggerhead species were lower than rates for loggerheads (Murray 2020).

Based on Murray (2020)[2], from 2014-2018, 571 loggerhead (CV=0.29, 95% CI=318-997), 46 Kemp's ridley (CV=0.45, 95% CI=10-88), 20 leatherback (CV=0.72, 95% CI=0-50), and 16 green (CV=0.73, 95% CI=0-44) sea turtle interactions were estimated to have occurred in bottom trawl gear in the Mid- Atlantic region over the five-year period. On Georges Bank, 12 loggerheads (CV=0.70, 95% CI=0-31) and 6 leatherback (CV=1.0, 95% CI=0-20) interactions were estimated to have occurred from 2014-2018. An estimated 272 loggerhead, 23 Kemp's ridley, 13 leatherback, and 8 green sea turtle interactions resulted in mortality over this period (Murray 2020).

Pot/Trap Gear

Leatherback, loggerhead, green, and kemp's ridley sea turtles are at risk of interacting with trap/pot gear; however, review of data provided by the NEFSC Observer Program, VTR, and the NMFS Greater Atlantic Region (GAR) Sea Turtle Disentanglement Network (STDN), indicate that interactions between trap/pot gear and Kemp's ridley and green sea turtles are rare in the Greater Atlantic Region (NMFS 2021a). Sea turtle interactions with pot/trap gear are primarily associated with entanglement in vertical lines associated with this gear type; however, sea turtles can also become entangled in groundlines or surface system lines of pot/trap gear (Sea Turtle Disentanglement Network (STDN), unpublished data). Records of stranded or entangled sea turtles indicate that fishing gear can wrap around the neck, flipper, or body of the sea turtle

[2] Murray (2020) estimated interaction rates for each sea turtle species with stratified ratio estimators. This method differs from previous approaches (Murray 2008; 2015; Warden 2011a; b), where rates were estimated using generalized additive models (GAMs). Ratio estimator results may be like those using GAM or generalized linear models (GLM) if ratio estimators are stratified based on the same explanatory variables in a GAM or GLM model (Murray 2007; Murray & Orphanides 2013; Orphanides 2010).

and severely restrict swimming or feeding (Balazs 1985; STDN, unpublished data). As a result, sea turtles can incur serious injuries and, in some case, mortality immediately or at a later time.

Given few trap/pot trips have been observed by the NEFSC Observer Program over the last 10 years, and VTR reporting of incidences of interactions with sea turtles are limited, most reports of sea turtle entanglements in the vertical lines of trap/pot gear are documented by the NMFS Greater Atlantic Region (GAR; Maine through Virginia) Sea Turtle Disentanglement Network (STDN). Based on this, the STDN database, a component of the Sea Turtle Stranding and Salvage Network database, provides the most complete and best available dataset on sea turtle vertical line entanglements in the GAR. Confirmed and probable entanglement cases in the GAR STDN database from 2013-2022 were reviewed. Over this timeframe, 246 sea turtle entanglements in vertical line gear (known and unknown fishery) were documented. Of the 246 cases assessed, 233 involved leatherback sea turtles, 12 involved loggerhead sea turtles, and one involved a sea turtle of unknown species.

7.4.2 Marine Mammals

Depending on species, marine mammals have been observed seriously injured or killed in bottom trawl gear. Pursuant to the MMPA, NMFS publishes a List of Fisheries (LOF) annually, classifying U.S. commercial fisheries into one of three categories based on the relative frequency of incidental serious injuries and/or mortalities of marine mammals in each fishery (i.e., Category I=frequent; Category II=occasional; Category III=remote likelihood or no known interactions). In the Northwest Atlantic, the 2023 LOF (88 FR 16899; March 21, 2023) categorizes commercial sink gillnet fisheries (Northeast and Mid-Atlantic) as a Category I fishery; and bottom trawl fisheries (Northeast or Mid-Atlantic) as a Category II fishery.

7.4.2.1 Large Cetaceans

Bottom Trawl Gear

Documented interactions between large whales and bottom trawl gear are infrequent. Review of the most recent 10 years of information on large whale entanglement in fishing gear indicates that between 2012-2021, there has been one confirmed entanglement case between a humpback whale and a full trawl net.[3] In 2020, a live, humpback whale was anchored/entangled in fishing gear, later identified by NMFS as trawl net. The animal was disentangled by trained responders from the Atlantic Large Whale Disentanglement Network. Given the disentanglement efforts, gear was removed and recovered from the animal, resulting in the whale being released alive, with non-serious injuries. Additional information on this incident can be found in the 2020 Atlantic Large Whale Entanglement Report and Henry et al. 2023.

[3] GAR Marine Animal Incident Database (unpublished data); NMFS Marine Mammal Stock Assessment Reports for the Atlantic Region; NMFS Atlantic Large Whale Entanglement Reports; MMPA List of Fisheries (LOF)

Pot/trap Gear

Large whale interactions (entanglements) with fishing gear have been observed and documented in the waters of the Northwest Atlantic.[4] Information available on all interactions (e.g., entanglement, vessel strike, unknown cause) with large whales comes from reports documented in the GAR Marine Animal Incident Database (unpublished data). The level of information collected for each case varies, but may include details on the animal, gear, and any other information about the interaction (e.g., location, description, etc.). Each case is evaluated using defined criteria to assign the case to an injury/information category using all available information and scientific judgement. In this way, the injury severity and cause of injury/death for the event is evaluated, with serious injury and mortality determinations issued by the NEFSC.[5]

Based on the best available information, the greatest entanglement risk to large whales is posed by fixed gear used in trap/pot or sink gillnet fisheries (Angliss & DeMaster 1998; Hamilton et al. 2019; Hartley et al. 2003; Henry et al. 2017; Henry et al. 2014; 2015; 2016; Henry et al. 2020; Henry et al. 2021; 2022; Henry et al. 2019; Johnson et al. 2005; Knowlton et al. 2012; NMFS 2021a; b; Sharp et al. 2019; Whittingham, Garron, et al. 2005; Whittingham, Hartley, et al. 2005) (NMFS Marine Mammal SARs for the Atlantic Region). Specifically, while foraging or transiting, large whales are at risk of becoming entangled in vertical endlines, buoy lines, or groundlines of gillnet and pot/trap gear, as well as the net panels of gillnet gear that rise into the water column (Baumgartner et al. 2017; Cassoff et al. 2011; Cole & Henry 2013; Hamilton & Kraus 2019; Hartley et al. 2003; Henry et al. 2017; Henry et al. 2014; 2015; 2016; Henry et al. 2020; Henry et al. 2021; 2022; Henry et al. 2019; Johnson et al. 2005; Kenney & Hartley 2001; Knowlton et al. 2012; Knowlton & Kraus 2001; NMFS 2021a; b; Whittingham, Garron, et al. 2005; Whittingham, Hartley, et al. 2005) (NMFS Marine Mammal SARs for the Atlantic Region).[6] Large whale interactions (entanglements) with these features of trap/pot and/or sink gillnet gear often result in the serious injury or mortality to the whale (Angliss & DeMaster 1998; Cassoff et al. 2011; Cole & Henry 2013; Henry et al. 2017; Henry et al. 2014; 2015; 2016; Henry et al. 2020; Henry et al. 2021; 2022; Henry et al. 2019; Johnson et al. 2005; Knowlton et al. 2012; Knowlton & Kraus 2001; Moore & van der Hoop 2012; NMFS 2014; 2021a; b; Pettis et al. 2018; Sharp et al. 2019; van der Hoop et al. 2016; van der Hoop et al. 2017). In fact, review of Atlantic coast-wide causes of large whale human interaction incidents between 2010 and 2019 shows that entanglement is the highest cause of mortality and serious injury for North Atlantic right, humpback, fin, and minke whales in those instances when cause of death could be

[4] NMFS Atlantic Large Whale Entanglement Reports: For years prior to 2014, contact David Morin, Large Whale Disentanglement Coordinator, David.Morin@NOAA.gov; GAR Marine Animal Incident Database (unpublished data); NMFS Marine Mammal Stock Assessment Reports for the Atlantic Region; NMFS NEFSC Baleen Whale Serious Injury and Morality Determinations Reference Documents, Publications, or Technical Memoranda; MMPA List of Fisheries; NMFS 2021a,b.

[5] NMFS NEFSC Baleen Whale Serious Injury and Morality Determinations Reference Documents, Publications, or Technical Memoranda.

[6] Through the ALWTRP, regulations have been implemented to reduce the risk of entanglement in in vertical endlines, buoy lines, or groundlines of gillnet and pot/trap gear, as well as the net panels of gillnet gear. ALWTRP regulations currently in effect are summarized online.

determined (NMFS 2021b). As many entanglements, and therefore, serious injury or mortality events, go unobserved, and because the gear type, fishery, and/or country of origin for reported entanglement events are often not traceable, the rate of large whale entanglement, and thus, rate of serious injury and mortality due to entanglement, are likely underestimated (Hamilton et al. 2018; 2019; Knowlton et al. 2012; NMFS 2021a; b; Pace III et al. 2017; Robbins et al. 2009).

As noted above, pursuant to the MMPA, NMFS publishes a LOF annually, classifying U.S. commercial fisheries into one of three categories based on the relative frequency of incidental serious injurious and mortalities of marine mammals in each fishery. Large whales, in particular, humpback, fin, minke, and North Atlantic right whales, are known to interact with Category I and II fisheries in the Northwest Atlantic Ocean. As fin, and North Atlantic right whales are listed as endangered under the ESA, these species are considered strategic stocks under the MMPA. Section 118(f)(1) of the MMPA requires the preparation and implementation of a Take Reduction Plan for any strategic marine mammal stock that interacts with Category I or II fisheries. In response to its obligations under the MMPA, in 1996, NMFS established the Atlantic Large Whale Take Reduction Team (ALWTRT) to develop a plan (Atlantic Large Whale Take Reduction Plan (ALWTRP)) to reduce serious injury to, or mortality of large whales, specifically, humpback, fin, and North Atlantic right whales, due to incidental entanglement in U.S. commercial fishing gear.[7] In 1997, the ALWTRP was implemented; however, since 1997, it has been modified as NMFS and the ALWTRT learn more about why whales become entangled and how fishing practices might be modified to reduce the risk of entanglement. In 2021, adjustments to Plan were implemented. In 2022, NOAA fisheries issued a notice of its intent to begin a rulemaking process to amend the ALWTRP to further reduce the risk of mortalities and serious injuries of NARW and other large whales caused by incidental entanglement in commercial trap/pot and gillnet fisheries along the U.S. East Coast. These recent ALWTRP actions are summarized online.

The ALWTRP consists of regulatory (e.g., universal gear requirements, modifications, and requirements; area-and season- specific gear modification requirements and restrictions; time/area closures) and non- regulatory measures (e.g., gear research and development, disentanglement, education and outreach) that, in combination, seek to assist in the recovery of North Atlantic right, humpback, and fin whales by addressing and mitigating the risk of entanglement in gear employed by commercial fisheries, specifically trap/pot and gillnet fisheries. The ALWTRP recognizes trap/pot and gillnet Management Areas in Northeast, Mid-Atlantic, and Southeast regions of the U.S, and identifies gear modification requirements and restrictions for Category I and II gillnet and trap/pot fisheries in these regions; these Category I and II fisheries must comply with all regulations of the Plan.[8] For further details on the Plan, please refer to the ALWTRP.

[7] The measures identified in the ALWTRP are also beneficial to the survival of the minke whale, which are also known to be incidentally taken in commercial fishing gear.

[8] The fisheries currently regulated under the ALWTRP include: Northeast/Mid-Atlantic American lobster trap/pot; Atlantic blue crab trap/pot; Atlantic mixed species trap/pot; Northeast sink gillnet; Northeast anchored float gillnet;

7.4.2.2 Small Cetaceans and Pinnipeds

Bottom Trawl Gear

Small cetaceans and pinnipeds are vulnerable to interactions with bottom trawl gear.[9] Reviewing marine mammal stock assessment and serious injury reports that cover the most recent ten years of data (i.e., 2011-2020), as well as the MMPA LOF's, Table 11 has a list of species that have been observed (incidentally) seriously injured and/or killed by MMPA LOF Category II (occasional interactions) fisheries that operate in the affected environment of the Northern Shrimp FMP. Of the species in Table 11, short-beaked common dolphins, Risso's dolphins, Atlantic white-sided dolphins, and gray seals are the most frequently observed bycaught marine mammal species in bottom trawl gear in the GAR, followed by long-finned pilot whales, bottlenose dolphin (offshore stock), harbor porpoise, harbor seals, and harp seals (Chavez-Rosales *et al.* 2017; Lyssikatos 2015; Lyssikatos *et al.* 2020; 2021).

In 2006, the Atlantic Trawl Gear Take Reduction Team was convened to address the incidental mortality and serious injury of long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins incidental to bottom and mid-water trawl fisheries operating in both the Northeast and Mid-Atlantic regions. Because none of the marine mammal stocks of concern to the Team are classified as a "strategic stock," nor do they currently interact with a Category I fishery, a take reduction plan was not necessary.[10]

In lieu of a take reduction plan, the team agreed to develop an Atlantic Trawl Gear Take Reduction Strategy (the Strategy). The Strategy identifies informational and research tasks, as well as education and outreach needs the team believes are necessary, to decrease mortalities and serious injuries of marine mammals to insignificant levels approaching zero. The Strategy also identifies several voluntary measures that can be adopted by certain trawl fishing sectors to potentially reduce the incidental capture of marine mammals. For additional details on the Strategy, please visit: http://www.greateratlantic.fisheries.noaa.gov/Protected/mmp/atgtrp/.

Pot/Trap Gear

Observer coverage has been limited for fisheries prosecuted with trap/pot gear. In the absence of extensive observer data for these fisheries, stranding data provides the next best source of information on species interactions with trap pot gear. Based on stranding data provided in the NMFS Marine Mammal SARs for the Atlantic Region, a minimum known count of interactions

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Northeast drift gillnet; Mid-Atlantic gillnet; Southeastern U.S. Atlantic shark gillnet; and Southeast Atlantic gillnet.

[15] More information on small cetacean and pinniped interactions is in: NMFS NEFSC marine mammal serious injury and mortality Reference Documents, Publications, or Technical Memoranda; NMFS Marine Mammal SARs for the Atlantic Region; MMPA LOF.

[9] More information on small cetacean and pinniped interactions is in: NMFS NEFSC marine mammal serious injury and mortality Reference Documents, Publications, or Technical Memoranda; NMFS Marine Mammal SARs for the Atlantic Region; MMPA LOF.

[10] A strategic stock is defined under the MMPA as a marine mammal stock: for which the level of direct human-caused mortality exceeds the potential biological removal level; which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the ESA within the foreseeable future; or which is listed as a threatened or endangered species under the ESA, or is designated as depleted under the MMPA.

with pot/trap gear type is provided and summarized below. However, because not all human caused serious injuries or mortalities to marine mammals are discovered, reported, or show signs of entanglement, stranding data alone underestimates the extent of human-related mortality and serious injury. Additionally, if gear is present, it is often difficult to definitively attribute the animal's death or serious injury to the gear interaction, or to a specific fishery. As a result, the conclusions below should be taken with these considerations in mind, and with an understanding that interactions may occur more frequently than what we are able to detect at this time.

Table 10 provides the list of small cetacean and pinniped species that may occur in the Northern Shrimp FMP area. Reviewing the most recent 10 years of data provided in the NMFS Marine Mammal SARs for the Atlantic Region (i.e., 2011-2020), of the small cetacean and pinniped species identified in Table 10, the WNA Northern and Southern Migratory stocks of bottlenose dolphins are the only species in which entanglement in trap/pot gear has been documented. Between 2011-2020, stranding data documented a total of four cases of bottlenose dolphins entangled in trap/pot gear that could be ascribed to the WNA Northern Migratory Coastal stock; for the WNA Southern Migratory Coastal, there were a total of 13 cases. All cases over this timeframe resulted in the serious injury or mortality of the animal. Although the trap/pot gear involved in most of the cases were either unknown or identified to the Atlantic blue crab trap/pot fishery, given the general similarities in trap/pot gear composition (e.g., traps and vertical buoy lines); there is the potential for interactions to occur between bottlenose dolphins and pot/trap gear used in the fishery. However, given the best available information provided above, interactions with trap/pot gear, resulting in the serious injury or mortality to small cetaceans or pinnipeds are likely to be infrequent to unlikely.

7.4.3 Atlantic Sturgeon

Bottom Trawl
Interactions between Atlantic sturgeon and bottom trawl gear are likely (ASMFC 2017; Boucher & Curti 2023; Miller & Shepard 2011; NMFS 2021b; NMFS observer data). The NEFSC Observer Program has observed Atlantic sturgeon bycaught in Federal commercial bottom trawl fisheries since 1989, with recent bottom trawl bycatch estimates provided by Boucher and Curti (2023). Like gillnet gear, both environmental (e.g., depth, seasonal temperature) and operational fishing practices can affect the risk of Atlantic sturgeon being bycaught in bottom trawl gear (NMFS 2021a).

Pot/Trap Gear
To date, there have been no documented pot/trap interactions with Atlantic Sturgeon (NMFS NEFMC observer/sea sampling database, unpublished data; 2021a).

7.4.4 Atlantic Salmon

Bottom Trawl Gear
Atlantic salmon are at risk of interacting with bottom trawl (NEFSC observer/sea sampling database, unpublished data; Kocik *et al*. 2014; NMFS 2021a). Northeast Fisheries Observer

Program (NEFOP) data from 1989-2019 show records of incidental bycatch of Atlantic salmon in seven of the 31 years, with a total of 15 individuals caught, nearly half of which (seven) occurred in 1992 (NMFS NEFSC observer/sea sampling database, unpublished data). Of the observed incidentally caught Atlantic salmon, ten were listed as "discarded," which is assumed to be a live discard (Kocik, pers comm.; February 11, 2013). Out of the 15 salmon bycaught, four were observed in bottom trawl gear, with the remainder observed in gillnet gear. Given the very low number of observed Atlantic salmon interactions in bottom trawl gear, interactions with this gear type is believed to be rare in the GAR.

Pot/Trap Gear

To date, there have been no documented pot/trap interactions with Atlantic Sturgeon (NMFS NEFMC observer/sea sampling database, unpublished data; 2021a).

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9.0 TABLES AND FIGURES

TABLES

Table 1. Management of the Gulf of Maine Northern Shrimp Resource, 1973 – 2024.

NORTHERN SHRIMP SECTION	ACTION TAKEN
1973	Provisions for gear evaluation Establishment of studies
1974	Adoption of interim minimum mesh size regulation requiring use of trawls with stretched mesh sizes of not less than 38 mm (1.5 inches) in the body and 44.5 mm (1.75 in) in the cod end.
1975	Establishment of regulations requiring use of trawls with stretched mesh sizes of not less than 44.5 mm (1.75 inches) in the body and cod end (effective October, 1975) Closure of the fishery from July – September, 1975.
1976	Open season from January 1 – May 15, 1976, followed by indefinite closure. Continuation of mesh regulations.
1977	Open season from January 1 – May 15, 1977, followed by indefinite closure. Restrictions of 1977 harvest to 1,600 mt (3.5 million lbs) Continuation of mesh regulations.
1978	Continuation of closure through 1978.
1979	Open season from February 1 – March 31, 1979, followed by indefinite closure. Continuation of mesh regulations.
1980	Open season from February 15 – May 31, 1980, followed by indefinite closure. Continuation of mesh regulations.
1981	Open season from January 1 – May 15, 1981, followed by indefinite closure. Continuations of mesh regulations.
1982	Open season from January 1 – April 15, 1982. Continuations of mesh regulations.
1983	Open season December 15, 1982 – April 30, 1983 with possible 15 day extension with 70 count size limit. Continuation of mesh regulations.

NORTHERN SHRIMP SECTION	ACTION TAKEN
1984	Open season December 15, 1983 – April 30, 1984 with a possible extension of 15 days or until count exceeds 70/pound for any one trip. Continuation of mesh regulations.
1985	Open season December 1, 1984 – May 15, 1985. During May, landed count shall not exceed 70/pound or season closed immediately. Continuation of mesh regulations.
1986	Open season December 1, 1985 – May 31, 1986. Continuation of mesh regulations. Two week emergency opening June 8 – June 21 with 70 count maximum.
1987	Open season December 1, 1986 – May 31, 1987. Continuation of mesh regulations. Eliminate mesh size tolerance (1/4 Inch) in cod end by 1988 season.
1988	Full season. December 1, 1987 – May 31, 1988. 1-3/4 inch mesh required, 1/8 inch tolerance in body and wings, 2 inch mesh in cod end in April and May, 1988.
1989	Full season. December 1, 1988 – May 31, 1989. 1/8 inch tolerance in net, no tolerance in cod end. Approved separator trawl used in April and May, 1989.
1990	Full season. December 1, 1989 – May 31, 1990. 1-3/4 inch mesh net with no tolerance. Approved separator trawl must be used December, April and May.
1991	Full season. December 1, 1990 – May 31, 1991. 1-3/4 inch mesh net, separator panel must be 11 inch mesh, quarter to quarter.
1992	Season December 16, 1991 – May 15, 1992. 1-3/4 inch mesh net. No Sunday fishing. Separator trawl December 16, 1991 through March 31, 1992. Nordmore grate April 1, 1992 – May 15, 1992.
1993	Season December 14, 1992 – April 30, 1993. 1-3/4 inch mesh net. No Sunday fishing. Nordmore grate and 11 inch panel required. Exemption to Nordmore grate January – March if bycatch proven to be low.

NORTHERN SHRIMP SECTION	ACTION TAKEN
1994	Season December 1, 1993 – April 15, 1994. 1-3/4 inch mesh net. 15 fathom bare wire bottom legs. Nordmore grate all season, no exemptions. (122 days)
1995	Season December 1, 1994 – April 30, 1995. 1-3/4 inch mesh net. 15 Fathom bare wire bottom legs. Nordmore grate all season, no exemptions. No fishing on Sunday (or Friday as substitute). (128 days)
1996	Full season with one day/week off. Also, trappers to start January 1, 1996. (Review of effort at mid-season) (152 days)
1997	Season December 1, 1996 – May 27, 1997 with two 5-day and four 4-day blocks off. (156 days)
1998	Season December 8 – 24, 1997; January 1, 1998 – March 15, 1998; April 1, 1998 – May 22, 1998 with weekends off. (105 days)
1999	Season December 15 – 23, January 4 - 26, February 1 – 23, March 1 – 16, April 1 – 28, May 2 – 25 with weekends off. (90 days)
2000	Season January 17, 2000 – March 15, 2000. (59 days)
2001	Season January 9– March 17, 2001, April 16 – 30, 2001. (83 days)
2002	Season February 15 – March 11, 2002. (25 days)
2003	Season January 19 – March 12, 2003 with Saturdays and Sundays off. (38 days)
2004	Season January 19 – March 12, 2004 with Saturdays and Sundays off. (40 days)
2005	Season December 19 – 23, 2004; December 26 – 30, 2004 with Friday and Saturdays off; and January 3 – March 25, 2005, with Saturdays and Sundays off. (70 days)
2006	Season December 12, 2005– April 30, 2006. (140 days)

NORTHERN SHRIMP SECTION	ACTION TAKEN
2007	Season December 1, 2006– April 30, 2007. (151 days)
2008	Season December 1, 2007– April 30, 2008. (152 days)
2009	Season December 12, 2008– May 29, 2009. (180 days)
2010	Season December 1, 2009– May 5, 2010* (156 days) *Emergency action taken to close the fishery 24 days early
2011	Season December 1, 2010– February 28, 2011* (90 days) *Emergency action taken to close the fishery 46 days early. TAC set at 4,000 mt.
2012	Trawlers begin January 2 with three landings day per week and trappers begin on February 1 with a 1,000 pounds limit per vessel per day. TAC set at 2,211 mt. *Emergency action taken to close the fishery on February 17
2013	TAC set at 625 mt and allocated 87% to the trawl fishery and 13% to the trap fishery (with 5.44 mt set aside for RSA) and would close when 85% of the TAC in each fishery closed.
2014	Moratorium due to stock collapse; Maine DMR contracted one shrimp trawler to collect samples during the winter
2015	Moratorium; 25 mt RSA for cooperative winter sampling program Four trawlers with a 1,800 lbs/trip limit (sale of catch permitted); five trappers with 10 trap and 100 lbs/week limit (sale of catch not permitted)
2016	Moratorium; 22 mt RSA for cooperative winter sampling program Four trawlers with a 1,800 lbs/trip limit and two trappers with a 40 traps and 600 lbs/week limit. Sale of catch permitted for both trappers and trawlers.
2017	Moratorium; 53 mt RSA for winter sampling 10 trawlers fishing one trip/week for 8 consecutive weeks and a 1,200 lbs/trip limit; five trappers fishing for 8 consecutive weeks with a 500 lbs/week limit and 40 trap limit per vessel
2018	Moratorium
2019	Moratorium

2020	Moratorium
2021	Moratorium
2022	Moratorium
2023	Moratorium
2024	Moratorium

Table 2. Total removals in metric tons by season, state, and gear type. Seasons include the previous December. The Maine fishery was "Mixed" until Trawl and Trap landings could be distinguished beginning in 2000. Removals in 2014–2020 are from RSA and winter sampling programs, and include discards. 2009 data for Massachusetts and New Hampshire are combined here to preserve reporting confidentiality. Source: 2024 Northern Shrimp Stock Assessment Update.

Season	Maine			Massachusetts	New Hampshire	Total	Total	Total	Total
	Trawl	Mixed	Trap	Trawl	Trawl	Trawl	Mixed	Trap	
1985		2,946.4		968.8	216.7	1,185.5	2,946.4	0.0	**4,131.9**
1986		3,268.2		1,136.3	230.5	1,366.8	3,268.2	0.0	**4,635.0**
1987		3,680.2		1,427.9	157.9	1,585.8	3,680.2	0.0	**5,266.0**
1988		2,258.4		619.6	157.6	777.2	2,258.4	0.0	**3,035.6**
1989		2,384.0		699.9	231.5	931.4	2,384.0	0.0	**3,315.4**
1990		3,236.3		974.9	451.3	1,426.2	3,236.3	0.0	**4,662.5**
1991		2,488.6		814.6	282.1	1,096.7	2,488.6	0.0	**3,585.3**
1992		3,070.6		289.3	100.1	389.4	3,070.6	0.0	**3,460.0**
1993		1,492.5		292.8	357.6	650.4	1,492.5	0.0	**2,142.9**
1994		2,239.7		247.5	428.0	675.5	2,239.7	0.0	**2,915.2**
1995		5,013.7		670.1	772.8	1,442.9	5,013.7	0.0	**6,456.6**
1996		8,107.1		660.6	771.7	1,432.3	8,107.1	0.0	**9,539.4**
1997		6,086.9		366.4	666.2	1,032.6	6,086.9	0.0	**7,119.5**
1998		3,481.3		240.3	445.2	685.5	3,481.3	0.0	**4,166.8**
1999		1,573.2		75.7	217.0	292.7	1,573.2	0.0	**1,865.9**
2000	2,249.5		266.7	124.1	214.7	2,588.3	0.0	266.7	**2,855.0**
2001	954.0		121.2	49.4	206.4	1,209.8	0.0	121.2	**1,331.0**
2002	340.8		50.8	8.1	53.0	401.8	0.0	50.8	**452.7**
2003	987.0		216.7	27.7	113.0	1,127.7	0.0	216.7	**1,344.4**
2004	1,858.7		68.1	21.3	183.2	2,063.2	0.0	68.1	**2,131.4**
2005	1,887.1		383.1	49.6	290.3	2,227.1	0.0	383.1	**2,610.1**
2006	1,928.0		273.6	30.0	91.1	2,049.1	0.0	273.6	**2,322.7**
2007	3,986.9		482.4	27.5	382.9	4,397.3	0.0	482.4	**4,879.7**
2008	3,725.0		790.7	29.9	416.8	4,171.7	0.0	790.7	**4,962.4**
2009	1,936.3		379.4	MA & NH:	185.6	2,121.8	0.0	379.4	**2,501.2**
2010	4,517.9		1,203.5	35.1	506.8	5,059.9	0.0	1,203.5	**6,263.3**
2011	4,644.4		925.3	196.4	631.5	5,472.2	0.0	925.3	**6,397.5**
2012	2,026.8		193.1	77.8	187.8	2,292.4	0.0	193.1	**2,485.4**
2013	269.5		20.2	18.9	36.9	325.3	0.0	20.2	**345.5**
2014	0.3		0.0	0.0	0.0	0.3	0.0	0.0	**0.3**
2015	5.6		0.5	0.6	0.0	6.2	0.0	0.5	**6.7**
2016	7.4		4.1	0.0	1.8	9.2	0.0	4.1	**13.3**
2017	24.1		7.1	0.9	0.5	25.5	0.0	7.1	**32.6**
2018	0.1		0.0	1.9	1.1	3.1	0.0	0.0	**3.1**
2019	0.0		0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
2020	0.0		3.1	0.0	0.0	0.0	0.0	3.1	**3.1**
2021	0.0		0.0	0.0	0.0	0.0	0.0	0.0	**0.0**

Table 3. Fishery performance indicators for Gulf of Maine northern shrimp traffic light analysis. Colors indicate status relative to reference levels, where: RED = at or below the 20th percentile; YELLOW = between the 20th and the 80th percentiles; and GREEN = at or above the 80th percentile of the commercial fishery time series from 1984-2013. Values from 2014-2021 represent RSA/winter sampling. Dashes (-) indicate no data. Source: 2024 Northern Shrimp Stock Assessment Update (continued on next page).

Fishing Season	Number of trips	Commercial CPUE (mt/trip)	Price per lb landed (2018 dollars)	Total landings value (2018 dollars)
1984	6,912	0.43	-	-
1985	6,857	0.60	$1.05	$9,564,744
1986	7,902	0.59	$1.45	$14,816,717
1987	12,497	0.42	$2.50	$29,023,857
1988	9,240	0.33	$2.40	$16,061,646
1989	9,561	0.35	$2.04	$14,910,780
1990	9,758	0.48	$1.43	$14,699,046
1991	7,968	0.45	$1.71	$13,516,239
1992	7,798	0.44	$1.81	$13,806,670
1993	6,158	0.35	$1.89	$8,928,900
1994	5,990	0.49	$1.30	$8,354,991
1995	10,465	0.62	$1.51	$21,493,893
1996	11,791	0.81	$1.19	$25,026,625
1997	10,734	0.66	$1.25	$19,619,763
1998	6,606	0.63	$1.50	$13,779,332
1999	3,811	0.49	$1.40	$5,759,047
2000	4,554	0.63	$1.18	$7,427,163
2001	4,133	0.32	$1.24	$3,638,596
2002	1,304	0.35	$1.54	$1,536,852
2003	3,022	0.44	$1.21	$3,586,328
2004	2,681	0.79	$0.60	$2,819,337
2005	3,866	0.68	$0.75	$4,315,765
2006	2,478	0.94	$0.47	$2,406,687
2007	4,163	1.17	$0.47	$5,056,211
2008	5,587	0.89	$0.59	$6,454,695
2009	3,002	0.83	$0.48	$2,646,864
2010	5,979	1.03	$0.61	$8,423,072
2011	7,095	0.90	$0.86	$12,129,566
2012	3,648	0.68	$1.06	$5,808,201
2013	1,322	0.23	$1.98	$1,508,183
2014	5	-	No landings	No landings
2015	50	-	$3.77	$55,446

2016	68	-	$7.11	$208,767
2017	153	-	$6.55	$470,579
2018	18	-	Confidential	Confidential
2019	0	-	-	-
2020	160	-	No landings	No landings
2021	0	-	-	-
1984-2013 mean	**6,229**	**0.60**	**$1.29**	**$10,245,509**
2014-2021 mean	**76**	**NA**	**$5.81**	**$244,931**
80th percentile (1984-2013)	**9,304**	**0.81**	**$1.75**	**$14,854,342**
20th percentile (1984-2013)	**3,523**	**0.41**	**$0.69**	**$3,617,689**

Table 4. Fishery independent indicators (model-based survey indices) for GOM northern shrimp traffic light analysis. Colors indicate status relative to reference levels, where: RED = at or below the 20th percentile; YELLOW = between the 20th and 80th percentiles; and GREEN = at or above the 80th percentile of the time series from 1984-2017. Dashes (-) indicate no data. Source: 2024 Northern Shrimp Stock Assessment Update (continued on next page).

Survey	ASMFC Summer	NEFSC Fall Albatross	NEFSC Fall Bigelow	ME-NH Spring	ASMFC Summer			
Indicator	Total Abundance	Total Abundance	Total Abundance	Total Abundance	Total Biomass	Harvestable Biomass (>22 mm CL)	Spawner Biomass	Recruitment (age ~1.5)
1984	1.286	-	-	-	1.43	0.73	0.72	0.143
1985	1.398	-	-	-	1.63	1.40	0.71	0.240
1986	1.247	0.68	-	-	1.64	1.28	0.96	0.238
1987	0.882	0.40	-	-	1.09	0.87	0.58	0.199
1988	1.584	0.34	-	-	1.41	0.83	0.62	1.018
1989	1.423	0.78	-	-	1.61	0.93	0.73	0.270
1990	1.237	0.59	-	-	1.67	1.44	0.81	0.104
1991	0.826	0.32	-	-	0.98	0.80	0.68	0.338
1992	0.536	0.19	-	-	0.63	0.46	0.40	0.149
1993	1.267	1.04	-	-	0.92	0.50	0.39	0.827
1994	1.117	1.09	-	-	0.97	0.48	0.40	0.375
1995	1.141	0.59	-	-	1.19	0.83	0.77	0.254
1996	1.007	0.40	-	-	1.12	0.82	0.66	0.316
1997	1.075	0.53	-	-	0.97	0.63	0.55	0.544
1998	0.752	0.97	-	-	0.73	0.39	0.38	0.206
1999	0.671	1.21	-	-	0.73	0.51	0.43	0.197
2000	0.891	0.96	-	-	0.82	0.56	0.52	0.491
2001	0.309	0.50	-	-	0.35	0.19	0.21	0.037
2002	1.220	0.69	-	-	0.87	0.39	0.41	0.937
2003	0.861	0.40	-	0.55	0.91	0.47	0.54	0.130
2004	1.119	0.88	-	0.62	1.09	0.90	0.60	0.382
2005	2.702	2.85	-	1.88	2.10	1.11	1.02	1.315
2006	4.872	3.69	-	2.21	4.20	1.98	2.02	1.054
2007	1.867	2.41	-	1.93	1.91	1.25	1.09	0.235
2008	1.794	1.51	-	2.21	1.82	1.48	0.86	0.529
2009	1.907	-	4.62	2.40	2.01	1.47	1.16	0.699
2010	1.689	-	3.20	3.48	1.63	0.94	0.78	0.643
2011	1.010	-	2.45	3.30	1.08	0.64	0.65	0.281
2012	0.323	-	0.88	0.92	0.39	0.30	0.27	0.035
2013	0.089	-	0.25	0.14	0.14	0.13	0.11	0.005
2014	0.282	-	0.52	0.37	0.21	0.07	0.09	0.202
2015	0.080	-	0.21	0.15	0.11	0.09	0.09	0.005
2016	0.314	-	0.16	0.34	0.32	0.19	0.19	0.175
2017	0.054	-	0.17	0.18	0.07	0.05	0.05	0.001
2018	0.078	-	0.31	0.10	0.09	0.06	0.05	0.045

2019	0.054	-	0.19	0.08	0.08	0.06	0.06	0.002
2020	-	-	-	-	-	-	-	-
2021	0.034	-	0.03	0.124	0.053	0.045	0.045	0.00151
2022	0.005	-	0.01	0.019	0.008	0.008	0.007	0.00005
2023	0.001	-	-	0.007	0.002	0.002	0.002	0.00000
2024	-	-	-	0.001	-	-	-	-
1984-2013 mean	**1.27**	**1.00**	**2.28**	**1.78**	**1.27**	**0.82**	**0.67**	**0.41**
2014-2023 mean	**0.10**	**NA**	**0.20**	**0.15**	**0.10**	**0.06**	**0.06**	**0.05**
80th percentile	**1.49**	**1.16**	**2.75**	**2.25**	**1.64**	**1.16**	**0.79**	**0.58**
20th percentile	**0.45**	**0.40**	**0.20**	**0.31**	**0.54**	**0.35**	**0.34**	**0.14**

Table 5. Environmental condition indicators for GOM northern shrimp traffic light analysis. Colors indicate status relative to reference levels, where: RED = at or above the 80th percentile; YELLOW = between the 80th and 20th percentiles; and GREEN = at or below the 20th percentile of the time series from 1984-2017. Dashes (-) indicate no data. Source: 2024 Northern Shrimp Stock Assessment Update (continued on next page).

Survey	NEFSC	ASMFC	NEFSC	Boothbay Harbor, ME
Indicator	Predation Pressure Index	Summer Bottom Temperature	Spring Bottom Temperature	Feb-Mar Surface Temperature
1984	433.9	4.1	5.7	2.9
1985	597.5	4.0	5.2	2.8
1986	611.9	6.3	6.1	2.6
1987	390.5	6.0	5.1	1.8
1988	505.8	6.5	5.7	2.7
1989	521.1	5.6	4.9	1.9
1990	632.3	3.6	4.1	2.6
1991	509.2	6.1	5.6	3.4
1992	489.6	6.3	5.7	3.2
1993	473.9	5.8	4.4	1.2
1994	353.2	6.8	5.4	1.8
1995	637.7	6.6	5.9	3.3
1996	560.1	7.1	6.2	3.3
1997	382.0	6.8	6.1	3.7
1998	470.8	6.3	6.1	2.9
1999	745.9	6.1	5.7	2.9
2000	823.5	6.7	6.2	3.1
2001	730.5	6.5	5.8	2.9
2002	1,305.5	7.1	6.4	4.1
2003	1,054.5	5.6	4.9	2.4
2004	493.6	4.7	4.3	3.0
2005	472.4	4.9	5.1	3.0
2006	670.4	7.1	6.4	5.5
2007	712.7	5.9	5.4	2.0
2008	860.7	5.9	6.0	2.3
2009	737.7	6.0	5.5	2.6
2010	1,124.4	7.4	6.0	4.1
2011	1,117.6	7.7	7.4	2.9
2012	1,155.3	7.9	7.2	5.5
2013	742.6	7.1	6.4	3.9
2014	955.1	6.2	5.8	2.2
2015	829.4	5.8	5.2	1.4
2016	1,525.8	7.2	6.6	4.2

2017	951.7	6.9	6.1	3.8
2018	924.9	6.7	6.1	4.5
2019	674.2	7.1	6.6	3.5
2020	-	-	-	4.6
2021	1286.2	7.6	7.2	4.0
2022	1354.3	7.6	7.1	3.7
2023	956.1	7.6	-	4.6
2024	-	-	-	4.4
1984-2013 mean	**677.2**	**6.1**	**5.7**	**3.0**
2014-2023 mean	**1,062.7**	**6.9**	**6.3**	**3.6**
20th percentile (1984-2017)	**483.3**	**5.7**	**5.2**	**2.3**
80th percentile (1984-2017)	**953.0**	**7.1**	**6.2**	**3.8**

Table 6. Example recruitment trigger performance 2016-2023.

	NEFSC Fall		Maine-New Hampshire Spring		
Trigger Evaluation Year	**Recruitment Estimate Year**	**Recruitment Estimate Above the 20th Percentile (Y/N)?**	**Recruitment Estimate Year**	**Recruitment Estimate Above the 20th Percentile (Y/N)?**	**Trigger Tripped (Y/N)?**
2016	2013	N	2014	Y	N
	2014	Y	2015	N	
	2015	Y	2016	Y	
2017	2014	Y	2015	N	N
	2015	Y	2016	Y	
	2016	Y	2017	Y	
2018	2015	Y	2016	Y	N
	2016	Y	2017	Y	
	2017	N	2018	Y	
2019	2016	Y	2017	Y	N
	2017	N	2018	Y	
	2018	Y	2019	N	
2020	2017	N	2018	Y	N
	2018	Y	2019	N	
	2019	N	2020	N/A	
2021	2018	Y	2019	N	N
	2019	N	2020	N/A	
	2020	N/A	2021	N	
2022	2019	N	2020	N/A	N
	2020	N/A	2021	N	
	2021	N	2022	N	
2023	2020	N/A	2021	N	N
	2021	N	2022	N	
	2022	N	2023	N	

Table 7. Species protected under the ESA and/or MMPA that may occur in the affected environment of the northern shrimp fishery (continued on next page).

Species	**Status**	**Potentially impacted by this action?**
Cetaceans		
North Atlantic right whale (Eubalaena glacialis)	***Endangered***	***Yes***
Humpback whale, West Indies DPS (*Megaptera novaeangliae)*	Protected (MMPA)	Yes
Fin whale (Balaenoptera physalus)	***Endangered***	***Yes***
Sei whale (Balaenoptera borealis)	***Endangered***	***Yes***
Blue whale (Balaenoptera musculus)	***Endangered***	***No***
Sperm whale (Physeter macrocephalus	***Endangered***	***Yes***
Minke whale (*Balaenoptera acutorostrata*)	Protected (MMPA)	Yes
Pilot whale (Globicephala spp.)[2]	Protected (MMPA)	Yes
Pygmy sperm whale (*Kogia breviceps*)	Protected (MMPA)	No
Dwarf sperm whale (*Kogia sima*)	Protected (MMPA)	No
Risso's dolphin (*Grampus griseus*)	Protected (MMPA)	Yes
Atlantic white-sided dolphin (*Lagenorhynchus acutus*)	Protected (MMPA)	Yes
Short Beaked Common dolphin (*Delphinus delphis*)	Protected (MMPA)	Yes
Atlantic Spotted dolphin (*Stenella frontalis*)	Protected (MMPA)	No
Striped dolphin (*Stenella coeruleoalba*)	Protected (MMPA)	No
Bottlenose dolphin, Western North Atlantic (WNA) Offshore Stock (*Tursiops truncatus*)	Protected (MMPA)	Yes
Bottlenose dolphin, WNA Northern Migratory Coastal Stock (Tursiops truncatus)	***Protected (MMPA)***	***Yes***
Bottlenose dolphin, WNA Southern Migratory Coastal Stock (Trusiops truncatus)	***Protected (MMPA)***	***Yes***
Harbor porpoise (*Phocoena phocoena*)	Protected (MMPA)	Yes
Sea Turtles		
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered	Yes
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Endangered	Yes
Green sea turtle, North Atlantic DPS (*Chelonia mydas*)	Threatened	Yes
Loggerhead sea turtle (*Caretta caretta*), Northwest Atlantic Ocean DPS	Threatened	Yes
Hawksbill sea turtle (*Eretmochelys imbricate*)	Endangered	No
Fish		
Shortnose sturgeon (*Acipenser brevirostrum*)	Endangered	No
Giant manta ray (*Manta birostris)*	Threatened	No
Oceanic whitetip shark (*Carcharhinus longimanus*)	Threatened	No
Atlantic salmon (*Salmo salar*)	Endangered	Yes
Atlantic sturgeon *(Acipenser oxyrinchus)*		
Gulf of Maine DPS	Threatened	Yes

New York Bight DPS, Chesapeake Bay DPS, Carolina DPS & South Atlantic DPS	Endangered	Yes
Pinnipeds		
Harbor seal (*Phoca vitulina*)	Protected (MMPA)	Yes
Gray seal (*Halichoerus grypus*)	Protected (MMPA)	Yes
Harp seal (*Phoca groenlandicus*)	Protected (MMPA)	Yes
Hooded seal (*Cystophora cristata*)	Protected (MMPA)	Yes
Critical Habitat		
North Atlantic Right Whale	ESA Designated	No
Northwest Atlantic DPS of Loggerhead Sea Turtle	ESA Designated	No

Notes: Marine mammal species italicized and in bold are considered MMPA strategic stocks.[1]

[1] A strategic stock is defined under the MMPA as a marine mammal stock for which: (1) the level of direct human-caused mortality exceeds the potential biological removal level; (2) based on the best available scientific information, is declining and is likely to be listed as a threatened species under the ESA within the foreseeable future; and/or (3) is listed as a threatened or endangered species under the ESA, or is designated as depleted under the MMPA (Section 3 of the MMPA of 1972).

[2] There are two species of pilot whales: short finned (*G. melas melas*) and long finned (*G. macrorhynchus*). Due to the difficulties in identifying the species at sea, they are often just referred to as *Globicephala spp*.

Table 8. Large whale occurrence, distribution, and habitat use in the northern shrimp fishery affected environment (continued on next page).

Species	Occurrence/Distribution/Habitat Use in the Affected Environment
North Atlantic Right Whale	● Predominantly occupy waters of the continental shelf, but based on passive acoustic and telemetry data, are also known to make lengthy excursions into deep waters off the shelf. ● Visual and acoustic data demonstrate broad scale, year-round presence along the U.S. eastern seaboard (e.g., GOM, New Jersey, and Virginia). ● Surveys have demonstrated the existence of several areas where North Atlantic right whales congregate seasonally, including Cape Cod Bay; Massachusetts Bay; and the continental shelf south of New England. Although whales can be found consistently in particular locations throughout their range, there is a high inter- annual variability in right whale use of some habitats. Since 2010, acoustic and visual surveys indicate a shift in habitat use patterns, including: > Fewer individuals are detected in the Great South Channel; > Increase in the number of individuals using Cape Cod Bay in the spring; > Apparent abandonment of central GOM in the winter; and, > Large increase in the numbers of whales detected in a region south of Martha's Vineyard and Nantucket Islands. Presence in this area is almost year-round, with highest sighting rates from winter through early spring. > Passive acoustic monitoring suggests a shift to a year-round presence in the Mid-Atlantic, including year round detections in the New York Bight with the highest presence between late February and mid-May in the shelf zone and nearshore habitat).
Humpback	● Distributed throughout all continental shelf waters of the Mid-Atlantic (SNE included), GOM, and GB throughout the year. ● New England waters (GOM and GB) = Foraging Grounds (~March-November); however, acoustic detections of humpbacks indicate year-round presence in New England waters, including the waters of Stellwagen Bank. ● Mid-Atlantic waters: Increasing evidence that mid-Atlantic areas are becoming an important habitat for juvenile humpback whales. ● Since 2011, increased sightings of humpback whales in the New York-New Jersey Harbor Estuary, in waters off Long Island, and along the shelf break east of New York and New Jersey. ● Increasing visual and acoustic evidence of whales remaining in mid- and high- latitudes throughout the winter (e.g., Mid- Atlantic: waters near Chesapeake and Delaware Bays, peak presence about January through March; Massachusetts Bay: peak presence about March-May and September-December).

Fin	● Distributed throughout all continental shelf waters of the Mid-Atlantic (SNE included), GOM, and GB; ● Recent review of sighting data shows evidence that, while densities vary seasonally, fin whales are present in every season throughout most of the EEZ north of 30°N. ● New England waters (GOM and GB) = Major Foraging Ground
Sei	● Primarily found in deep waters along the shelf edge, shelf break, and ocean basins between banks; however, incursions into shallower shelf waters do occur ● Spring through summer, sightings concentrated along the northern, eastern (into Northeast Channel) and southwestern (in the area of Hydrographer Canyon) edge of Georges Bank, and south of Nantucket, MA. ● Recent acoustic detections peaked in northern latitudes in the summer, indicating feeding grounds ranging from Southern New England through the Scotian Shelf. ● Persistent year-round detections in Southern New England and the New York Bight indicate this area to be an important region for sei whales. ● The wintering habitat remains largely unknown. Passive acoustic monitoring conducted in 2015-2016 off Georges Bank detected sei whales calls from late fall through the winter along the southern Georges Bank region (off Heezen and Oceanographer Canyons).
Sperm	● Distributed on the continental shelf edge, over the continental slope, and into mid-ocean regions. ● Seasonal Occurrence in the U.S. EEZ: >**Winter**: concentrated east and northeast of Cape Hatteras; >**Spring**: center of distribution shifts northward to east of Delaware and Virginia, and is widespread throughout the central portion of the mid-Atlantic bight and the southern portion of Georges Bank; >**Summer**: similar distribution to spring, but also includes the area east and north of Georges Bank and into the Northeast Channel region, as well as the continental shelf (inshore of the 100-m isobath) south of New England; and, >**Fall**: occur in high levels south of New England, on the continental shelf. Also occur along continental shelf edge in the mid-Atlantic bight.
Minke	● Widely distributed within the U.S. EEZ. ● Spring to Fall: widespread (acoustic) occurrence on the continental shelf; most abundant in New England waters during this period of time. ● September to April: high (acoustic) occurrence in deep-ocean waters.

Sources: Baumgartner et al. (2011; 2007); Baumgartner and Mate (2005); Bort et al. (2015); Brown et al. (Brown et al. 2018; 2002); CeTAP (1982); Charif et al. (2020); Cholewiak et al. (2018); Clapham et al. (1993); Clark and Clapham (2004); Cole et al. (2013); Davis et al. (2017; 2020); Ganley et al. (2019); Good (2008); Hain et al. (1992); Hamilton and Mayo (1990); Hayes et al. (2017; 2018; 2019; 2020; 2021; 2022); Kenney et al. (1986; 1995); Khan et al. (2010; 2011; 2012; 2009); Kraus et al. (2016); Leiter et al. (2017); Mate et al. (1997); Mayo et al. (2018); McLellan et al. (2004); Moore et al. (2021); Morano et al. (2012); Muirhead et al. (2018); Murray et al. (2013); NMFS (1991; 2005; 2010; 2011; 2012; 2015; 2021a; b); NOAA (2008); Pace and Merrick (2008); Palka et al. (2017); Palka (2020); Payne et al. (1984; 1990); Pendleton et al. (2009); Record et al. (2019); Risch et al. (2013); Robbins (2007); Roberts et al. (2016)); Salisbury et al. (2016); Schevill et al. (1986); Stanistreet et al. (2018); Stone et al. (2017); Swingle et al. (1993); Vu et al. (2012); Watkins and Schevill (1982); Whitt et al. (2013); Winn et al. (1986); 81 FR 4837 (January 27, 2016); 86 FR 51970 (September 17, 2021).

Table 9. Small cetacean occurrence and distribution in the northern shrimp fishery affected environment (continued on next page).

Species	Occurrence and Distribution in the Affected Environment
Atlantic White Sided Dolphin	● Distributed throughout the continental shelf waters (primarily to 100 m) of the Mid- Atlantic (north of 35ºN), SNE, GB, and GOM; however, most common in continental shelf waters from Hudson Canyon (~ 39ºN) to GB, and into the GOM. ● **January-May**: low densities found from GB to Jeffreys Ledge. ● **June-September**: Large densities found from GB, through the GOM. ● **October-December**: intermediate densities found from southern GB to southern GOM. ● South of GB (SNE and Mid-Atlantic), particularly around Hudson Canyon, low densities found year-round, ● Virginia (VA) and North Carolina (NC) waters represent southern extent of species range during winter months.
Short Beaked Common Dolphin	● Regularly found throughout the continental shelf-edge-slope waters (primarily between the 100-2,000 m isobaths) of the Mid-Atlantic, SNE, and GB (esp. in Oceanographer, Hydrographer, Block, and Hudson Canyons). ● Less common south of Cape Hatteras, NC, although schools have been reported as far south as the Georgia/South Carolina border. ● **January-May**: occur from waters off Cape Hatteras, NC, to GB (35º to 42ºN). ● **Mid-summer-autumn**: Occur in the GOM and on GB; Peak abundance found on GB in the autumn.
Risso's Dolphin	● **Spring through fall**: Distributed along the continental shelf edge from Cape Hatteras, NC, to GB. ● **Winter**: distributed in the Mid-Atlantic Bight, extending into oceanic waters. ● Rarely seen in the GOM; primarily a Mid-Atlantic continental shelf edge species (can be found year-round)
Harbor Porpoise	● Distributed throughout the continental shelf waters of the Mid-Atlantic, SNE, GB, and GOM. ● **July-September**: Concentrated in the northern GOM (waters <150 meters); low numbers can be found on GB. ● **October-December**: widely dispersed in waters from New Jersey (NJ) to Maine (ME); seen from the coastline to deep waters (>1,800 meters). ● **January-March**: intermediate densities in waters off NJ to NC; low densities found in waters off New York (NY) to GOM. ● **April-June**: widely dispersed from NJ to ME; seen from the coastline to deep waters (>1,800 meters). ● Passive acoustic monitoring indicates regular presence from January through May offshore of Maryland.

Bottlenose Dolphin	**<u>Western North Atlantic Offshore Stock</u>** ● Distributed primarily along the outer continental shelf and continental slope in the Northwest Atlantic from GB to Florida (FL). ● Depths of occurrence: ≥40 meters **<u>Western North Atlantic Northern Migratory Coastal Stock</u>** ● Most common in coastal waters <20 m deep. ● Warm water months (e.g., July-August): distributed from the coastal waters from the shoreline to about 25-m isobaths between the mouth of the Chesapeake Bay and Long Island, NY. ● Cold water months (e.g., January-March): stock occupies coastal waters from Cape Lookout, NC, to the NC/VA border. **<u>Western North Atlantic Southern Migratory Coastal Stock</u>** ● Most common in coastal waters <20 m deep. ● **October-December**: appears stock occupies waters of southern NC (south of Cape Lookout) ● **January-March**: appears stock moves as far south as northern FL. ● **April-June**: stock moves north to waters of NC. ● **July-August**: stock is presumed to occupy coastal waters north of Cape Lookout, NC, to the eastern shore of VA (as far north as Assateague).
Pilot Whales: *Short- and Long-Finned*	**<u>Short- Finned Pilot Whales</u>** ● Except for area of overlap (see below), primarily occur south of 40°N (Mid-Atlantic and SNE waters); although low numbers have been found along the southern flank of GB, but no further than 41°N. ● Distributed primarily near the continental shelf break of the Mid-Atlantic and SNE (i.e., off Nantucket Shoals). **<u>Long-Finned Pilot Whales</u>** ● Except for area of overlap (see below), primarily occur north of 42°N. ● Winter to early spring: distributed principally along the continental shelf edge off the northeastern U.S. coast. ● Late spring through fall: movements and distribution shift onto GB and into the GOM and more northern waters. ● Species tends to occupy areas of high relief or submerged banks. ● **<u>Area of Species Overlap:</u>** along the mid-Atlantic shelf break between Delaware and the southern flank of GB.
Notes: Information is representative of small cetacean occurrence in the Northwest Atlantic continental shelf waters out to 2,000 m depth. *Sources*: Hayes et al. (2017; 2018; 2019; 2020; 2022); Payne and Heinemann (1993); Payne et al. (1984); Jefferson et al. (2009).	

Table 10. Pinniped occurrence and distribution in the northern shrimp fishery affected environment.

Species	Occurrence and Distribution in the Affected Environment
Harbor Seal	• Year-round inhabitants of Maine; • September through late May: occur seasonally along the coasts from southern New England to Virginia.
Gray Seal	• Ranges from New Jersey to Labrador, Canada.
Harp Seal	• Winter-Spring (approx. January-May): Can occur in the U.S. Atlantic Exclusive Economic Zone. • Sightings and strandings have been increasing off the east coast of the United States from Maine to New Jersey.
Hooded Seal	• Highly migratory; can occur in waters from Maine to Florida. Usually occur between January and May in New England waters, and in summer and autumn off the southeast U.S. coast and in the Caribbean.
Sources: Hayes et al. (2019, for hooded seals; 2022).	

Table 11. Small cetacean and pinniped species observed seriously injured and/or killed by Category bottom trawl fisheries in the affected environment of the Northern Shrimp FMP.

Fishery	Category	Species Observed or reported Injured/Killed
Northeast Bottom Trawl	II	Harp seal
		Harbor seal
		Gray seal
		Long-finned pilot whales
		Short-beaked common dolphin
		Atlantic white-sided dolphin
		Harbor porpoise
		Bottlenose dolphin (offshore)
		Risso's dolphin
Mid-Atlantic Bottom Trawl	II	White-sided dolphin
		Short-beaked common dolphin
		Risso's dolphin
		Bottlenose dolphin (offshore)
		Gray seal
		Harbor seal
Source: NMFS Marine Mammal SARs for the Atlantic Region; MMPA 2017-2023 LOFs.		

FIGURES

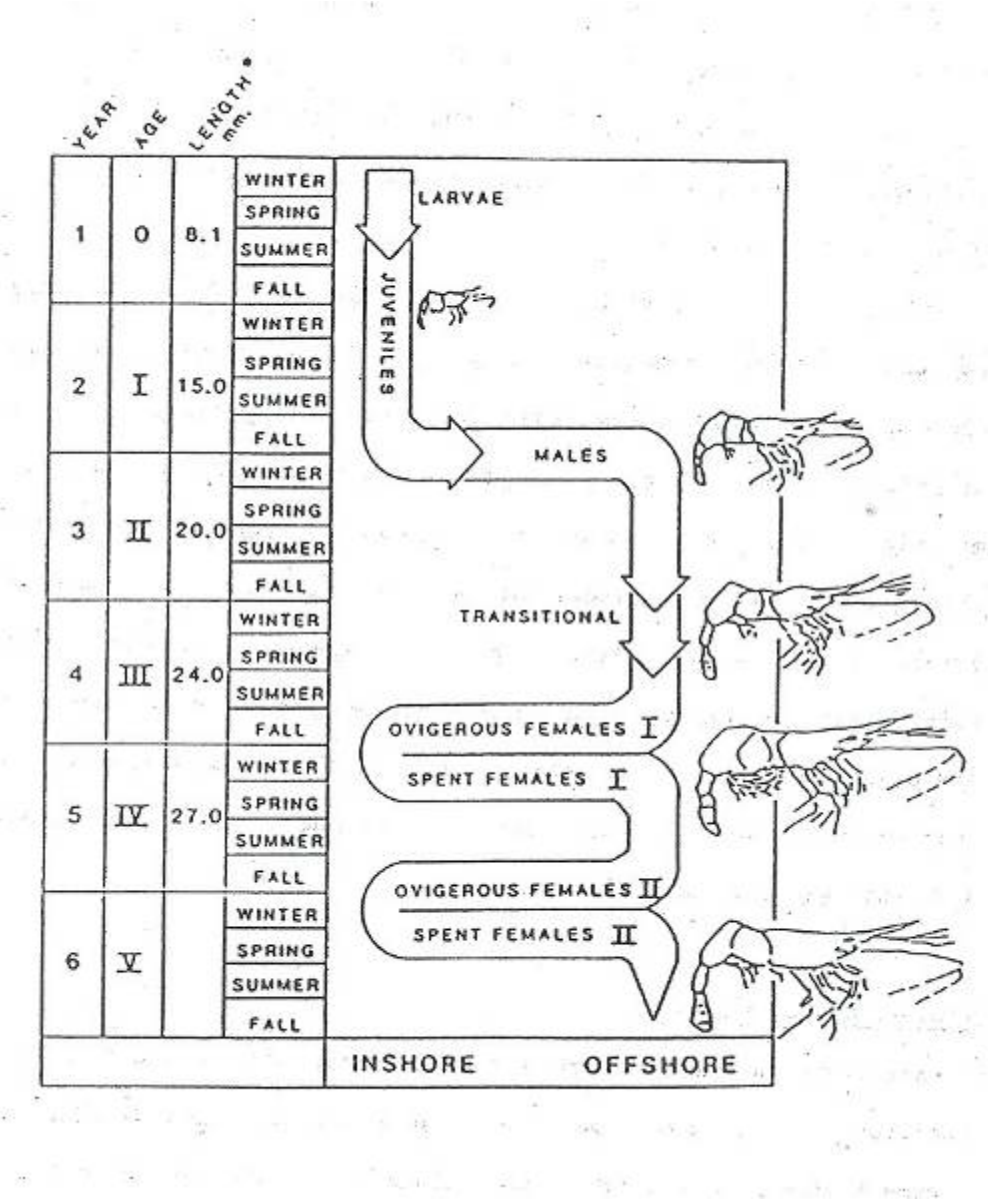

Figure 1. Schematic diagram of the life cycle of *Pandalus borealis* in the Gulf of Maine (modified from Shumway et. al. 1985)

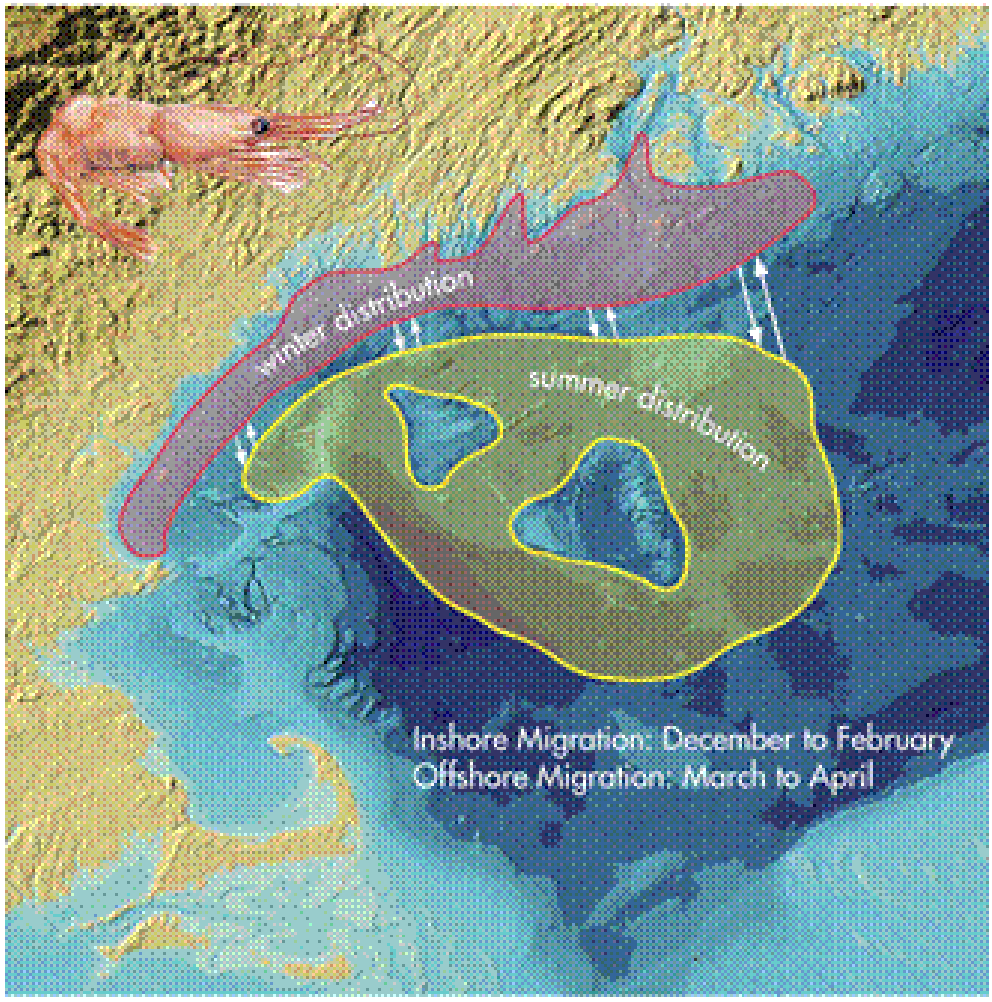

Figure 2. Distribution and migration of adult female shrimp in the Gulf of Maine (Anon. 2006 courtesy of NAMA)

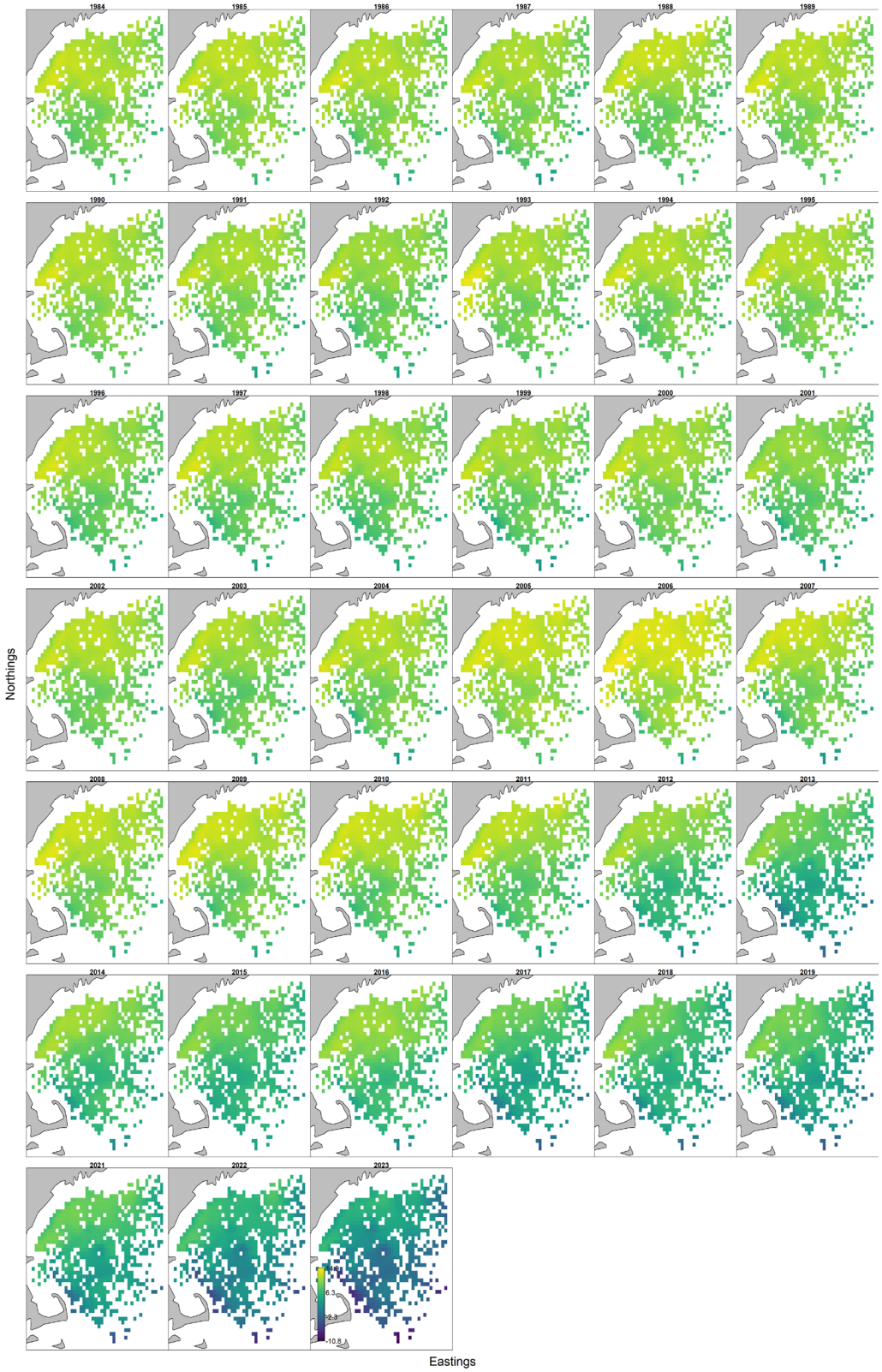

Figure 3. Heat map of shrimp abundance from the summer shrimp survey, 1984-2023. Yellows indicate higher abundance and blues indicate lower abundance. Source: 2024 Northern Shrimp Stock Assessment Update.

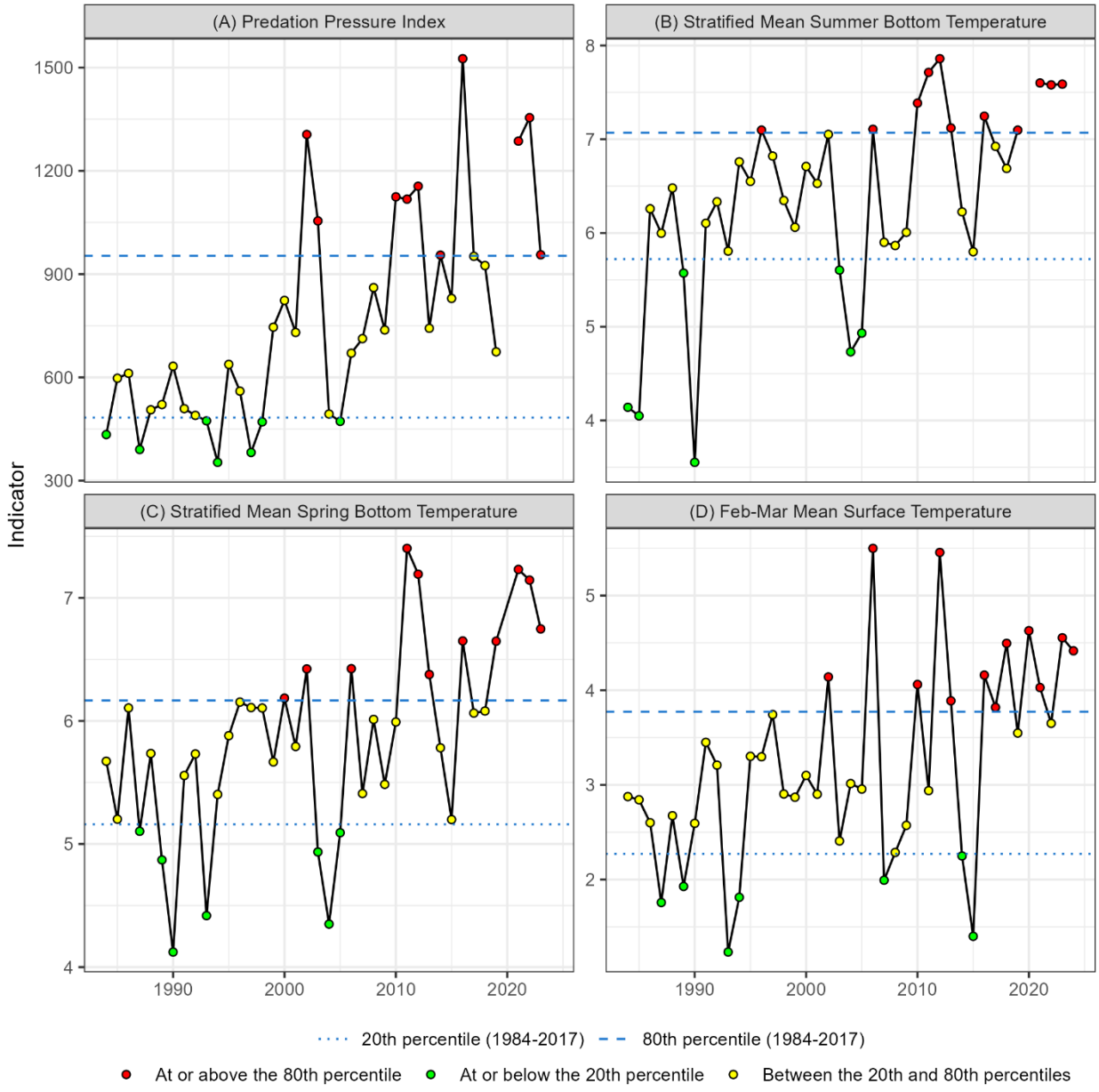

Figure 4. Traffic light analysis of environmental conditions in the Gulf of Maine 1984-2023, including predation pressure (A), summer bottom temperature (B), spring bottom temperature (C), and winter sea surface temperature (D). The 20th percentile of the time series from 1984-2017 delineated a favorable state, and the 80th percentile of the time series from 1984-2017 delineated an adverse state. Source: 2024 Northern Shrimp Stock Assessment Update.

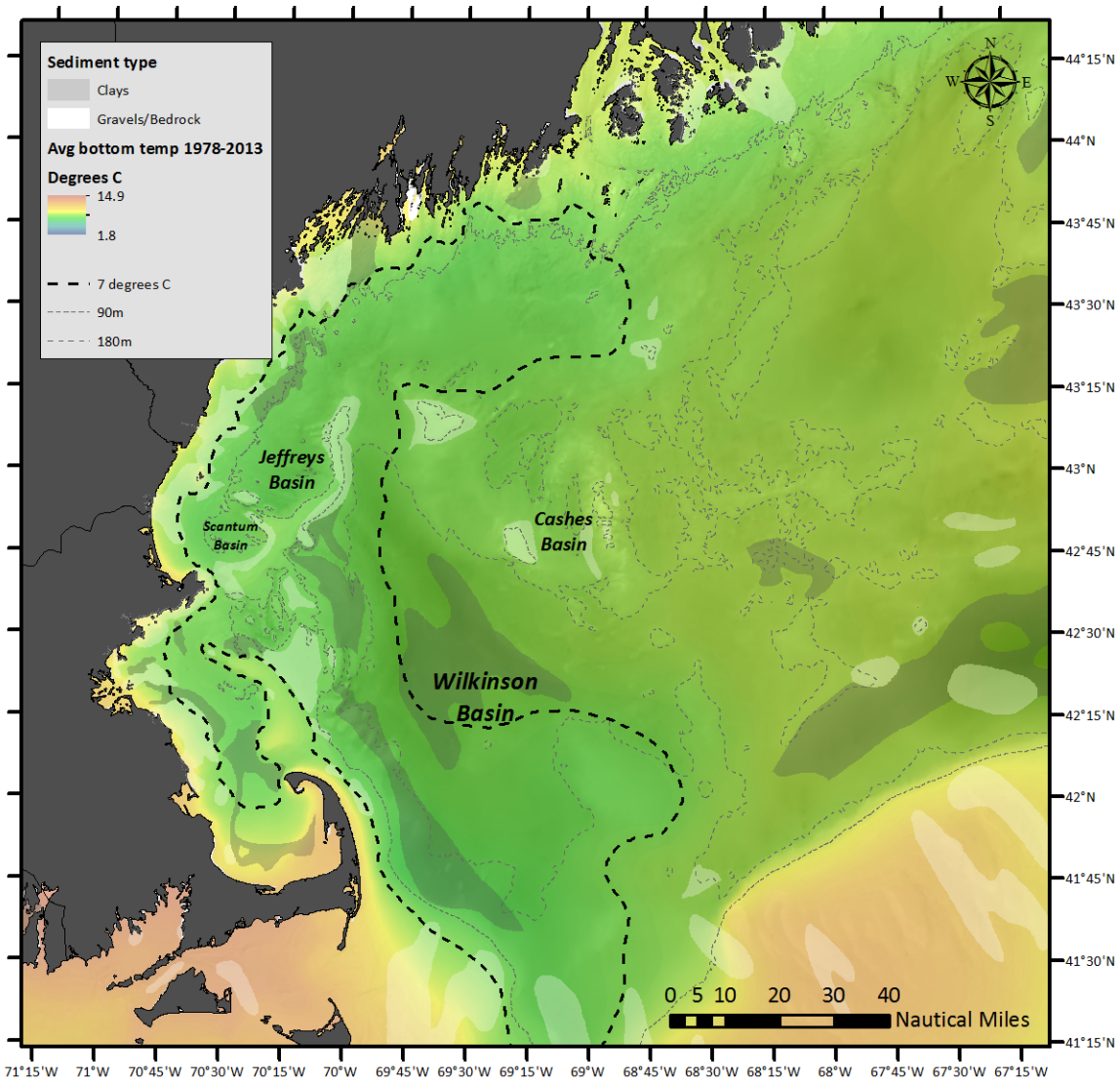

Figure 5. Habitat map for the Gulf of Maine. Colored shading indicates average annual bottom temperature based on the Finite Volume Coastal Ocean Model for the period 1978 to 2013, with the heavy dotted contour line enclosing areas where temperatures were on average below 7 degrees. Grey shaded patches indicate areas of clay or mixed clay sediments, while white patches show areas of gravel or bedrock. Other areas are sand or mixed sand/silt/clay. The light dotted lies show the 90 m and 180 m contours. Shrimp are commonly found between these depths during the spring, summer, and fall months.

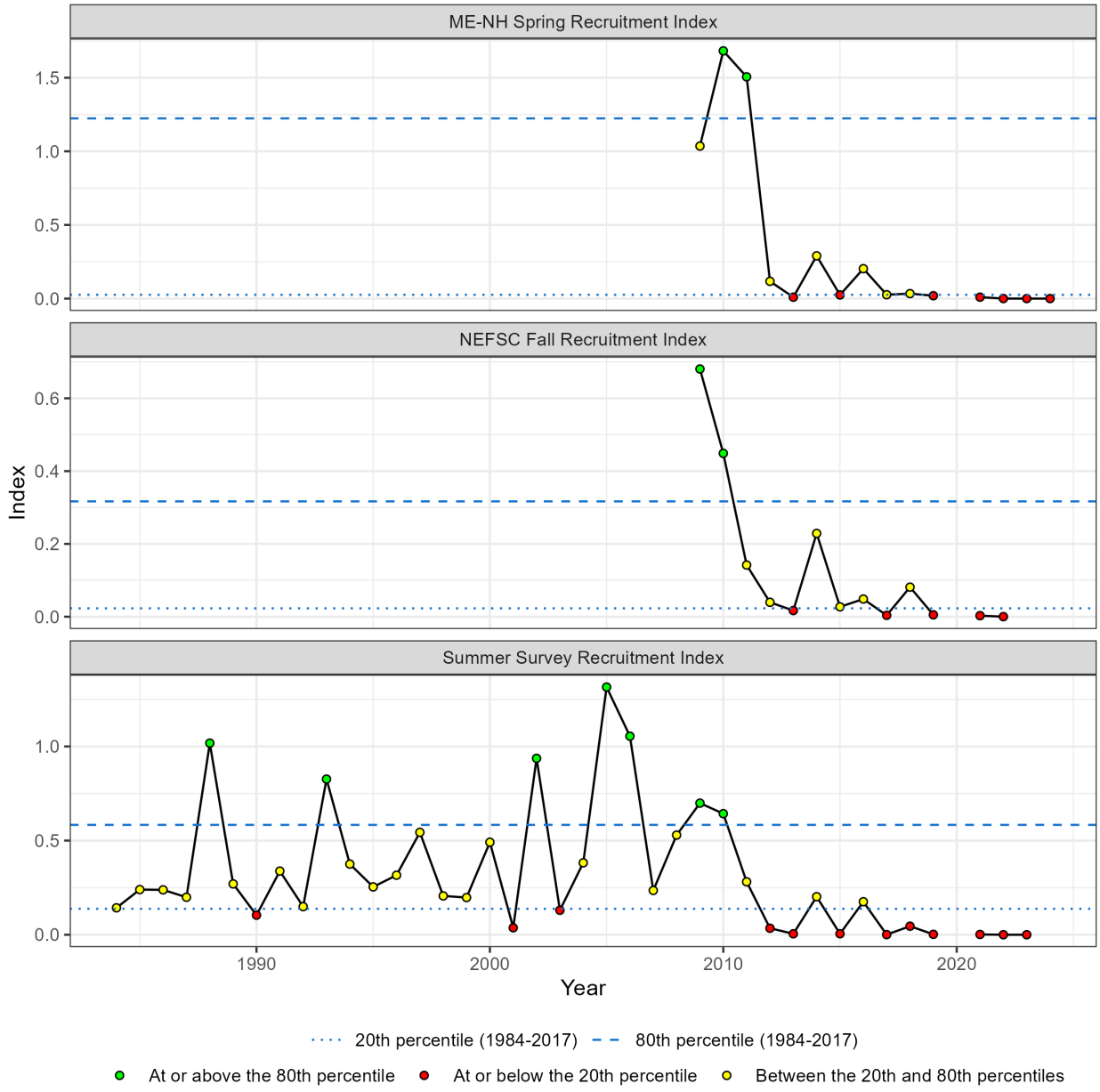

Figure 8. Traffic light analysis of recruitment of Gulf of Maine northern shrimp from the summer shrimp survey, Maine-New Hampshire Spring Survey, and NEFSC Fall survey. The 20th percentile of the time series from 1984-2017 delineated an adverse state (bottom dotted line), and the 80th percentile of the time series from 1984-2017 delineated a favorable state (top dashed line).

10.0 APPENDIX 1

APPENDIX 1.1 Preliminary Trip Limit Analysis

The Amendment 3 PDT analyzed trip limit options by vessel catch history and gear type. The PDT developed two methodologies to evaluate trip limits. First, the PDT computed the average trip weight for each individual vessel across all trips taken from 2008 through 2011 fishing years. The PDT also applied a range of trip limits to the 2010 fishery to determine the percentage of trips that would have been impacted.

When the PDT computed average trip weight, vessels that landed zero pounds during the four-year time series were excluded from the analysis (n=169). The remaining active vessels (n=249) were placed in a matrix by average pounds landed and vessel size class to determine the percentage of vessels impacted by specific trip limits (see Appendix 1.2) The analysis for the pot fishery was not conclusive as the average pounds landed by 54% of the fleet was less than 100 pounds. Appendix 1.1 provides a breakdown of the vessels by vessel class and poundage category.

Table A.1.1. Percent of trawl vessels impacted by various trip limits based on the average pounds landed by a specific vessel for fishing years 2008 - 2011. Total number of vessels was 249.

Trip Limits (LBS)	% vessels impacted
1000	81.6%
1500	64.3%
2000	40.6%
2500	26.9%
3000	16.9%

The PDT also analyzed trip level data excluding specific vessel catch history. Appendix 1.3 shows the number of trips by state, gear, and vessel size and trip poundage categories for fishing years 2007-2011.

Appendix 1.4 details the average trip weight (pounds) by state, gear, and vessel size class fishing years 2001-2011. The table below is a subset of these results from 2008 to 2011.

Table A.1.2. Average trip weight (pounds) by state, gear, and vessel size class from 2008 to 2011. This analysis excludes vessel catch history and is the average of trip data. Cells marked by an asterisk (*) are confidential data.

State and Gear	Vessel Size Class	2008	2009	2010	2011
Maine Trawl	< 20 FT.			125	*
	21 TO 30 FT.		*	764	*
	31 TO 40 FT.	1,641	1,582	2,130	1,824
	41 TO 50 FT.	2,555	2,453	3,032	2,391
	51 TO 60 FT	3,118	2,997	3,754	3,201
	61 TO 70 FT.	*		*	4,278
	> 70 FT.	5,715	*	6,508	5,039
	ALL VESSELS COMBINED	2,307	2,216	2,744	2,437
Maine Pots	< 20 FT.	*	*	*	245
	21 TO 30 FT.	814	934	1,301	819
	31 TO 40 FT.	1,132	922	1,495	1,108
	41 TO 50 FT.	1,151	993	839	532
	ALL VESSELS COMBINED	1,110	922	1,451	1,043
State and Gear	**Vessel Size Class**	**2008**	**2009**	**2010**	**2011**
New Hampshire Trawl	31 TO 40 FT.	*	*		
	41 TO 50 FT.	2,470	2,497	2,352	2,422
	51 TO 60 FT	2,639	*	3,675	2,853
	61 TO 70 FT.				
	> 70 FT.				
	ALL VESSELS COMBINED	2,488	2,518	2,734	2,539
Massachusetts Trawl	31 TO 40 FT.	*		*	2,148
	41 TO 50 FT.	*	*	1,449	1,992
	51 TO 60 FT				*
	61 TO 70 FT.				
	> 70 FT.				*
	ALL VESSELS COMBINED	1,695	1,660	1,560	2,252

Appendix 1.5 details the impacts of 1,000, 2,000, 3,000, and 4,000 trip limits applied to data from the 2010 fishery. The analysis includes impacts on trawl, trap, and the overall fishery. In 2010, landings would have been reduced overall by 62% if a 1,000-trip limit was in effect. Trawl landings would have been reduced by 66% and trap landings by 47%. Trawlers greater than 60 feet would have been reduced by 83%. Total landings would have been reduced by 12% if a 4,000-pound trip limit was in place for the 2010 fishery.

APPENDIX 1.2. Analysis by vessel catch history, size class, and gear (trawl and pot) across 2008 to 2011 fishing years.

Number of vessels by vessel class and poundage category for the ME, NH, and MA TRAWL fishery based on the 2008 to 2011 average catch per trip

Vessel Size	1 to 100 lbs.	101 to 500 lbs	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.	Total Vessels
< = 30 FT.		3	3	1							7
31 TO 40 FT.		6	21	32	28	12	7	2	3		111
41 TO 50 FT.	1	5	6	9	27	17	11	7	8		91
51 TO 60 FT	1			1	2	5	6	3	7		25
61 TO 70 FT.					1		1	1	3	1	7
> 70 FT.					1			2	3	2	8
ALL VESSELS COMBINED	**2**	**14**	**30**	**43**	**59**	**34**	**25**	**15**	**24**	**3**	**249**
% of Fleet	**0.80%**	**5.62%**	**12.05%**	**17.27%**	**23.69%**	**13.65%**	**10.04%**	**6.02%**	**9.64%**	**1.20%**	
% Impacted by Trip Limit Equal to Poundage Category MAX	**99.20%**	**93.57%**	**81.53%**	**64.26%**	**40.56%**	**26.91%**	**16.87%**	**10.84%**	**1.20%**		

Number of vessels by vessel class and poundage category for the ME, NH, and MA POT fishery based on the 2008 to 2011 average catch per trip

Vessel Size Total Vessels	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< = 30 FT.	1	4								
31 TO 40 FT.	6	7								
41 TO 50 FT.	127	33	5	1		1	1			
51 TO 60 FT										
61 TO 70 FT.										
> 70 FT.										
ALL VESSELS COMBINED	**134**	**44**	**5**	**1**	**0**	**1**	**1**	**0**	**0**	**0**
% of Fleet	**53.82%**	**17.67%**	**2.01%**	**0.40%**	**0.00%**	**0.40%**	**0.40%**	**0.00%**	**0.00%**	
% Impacted by Trip Limit Equal to Poundage Category MAX	27.96%	4.30%	1.61%	1.08%	1.08%	0.54%	0.00%	0.00%	0.00%	0.00%

APPENDIX 1.3. The number of trips by state, gear, and vessel size and trip poundage categories for fishing years 2007-2011.

Number of trips by vessel class and poundage category - N. Shrimp - 2007 MAINE- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
<30 FT.										
31 TO 40 FT.	3	64	153	140	137	127	130	80	155	65
41 TO 50 FT.	3	33	48	74	112	131	146	108	239	224
51 TO 60 FT.		4	19	31	55	45	62	50	142	129
>60 FT.	1	2	4	3	3	0	8	9	19	16
ALL VESSELS COMBINED	**6**	**101**	**220**	**245**	**304**	**303**	**338**	**238**	**536**	**418**

Number of trips by vessel class and poundage category - N. Shrimp - 2008 MAINE- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
<30 FT.										
31 TO 40 FT.	17	187	325	330	272	147	88	54	101	28
41 TO 50 FT.	5	59	110	186	242	182	178	118	184	97
51 TO 60 FT.	1	12	39	54	76	68	72	52	125	65
>60 FT.	0	1	4	8	8	4	5	3	14	39
ALL VESSELS COMBINED	**23**	**258**	**474**	**570**	**590**	**397**	**338**	**224**	**410**	**190**

Number of trips by vessel class and poundage category - N. Shrimp - 2009 MAINE- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 30 FT.		*	*	*						
31 TO 40 FT.	7	93	186	182	114	62	64	28	43	10
41 TO 50 FT.	1	37	116	94	86	90	61	50	88	59
51 TO 60 FT.	1	16	33	41	61	50	47	29	94	44
>60 FT.			*	*		*		*	*	*
ALL VESSELS COMBINED	**9**	**146**	**335**	**317**	**261**	**202**	**172**	**107**	**225**	**113**

* Confidential Data

Number of trips by vessel class and poundage category - N. Shrimp - 2010 MAINE- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 30 FT.	5	6	10	5	1					
31 TO 40 FT.	10	134	292	318	283	220	193	105	163	98
41 TO 50 FT.	4	39	101	130	146	134	120	90	200	161
51 TO 60 FT.	3	15	29	42	54	53	58	49	138	130
>60 FT.			1	3	1	8	5	2	28	35
ALL VESSELS COMBINED	**17**	**188**	**422**	**490**	**483**	**407**	**371**	**244**	**501**	**389**

Number of trips by vessel class and poundage category - N. Shrimp - 2011 MAINE- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 30 FT.	*	*	*							
31 TO 40 FT.	10	137	243	341	343	218	152	76	113	20
41 TO 50 FT.	8	71	113	173	230	222	198	117	179	54
51 TO 60 FT.		5	24	33	61	72	88	61	105	64
>60 FT.		5	9	6	11	15	23	30	123	111
ALL VESSELS COMBINED	**18**	**218**	**389**	**553**	**645**	**527**	**461**	**284**	**520**	**249**

* Confidential Data

Number of trips by vessel class and poundage category - N. Shrimp - 2007 MAINE- POT Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs	3501 to 5000 lbs.	> 5000 lbs.
<40 FT.	100	209	251	165	130	64	40	8	3	
41 TO 50 FT.	7	14	17	9	17	8	2			1
ALL VESSELS COMBINED	**107**	**223**	**268**	**174**	**147**	**72**	**42**	**8**	**3**	**1**

Number of trips by vessel class and poundage category - N. Shrimp - 2008 MAINE- POT Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 40 FT.	156	316	293	249	181	101	59	32	25	7
41 TO 50 FT.	8	28	32	38	28	11	5	1	1	
ALL VESSELS COMBINED	**164**	**344**	**325**	**287**	**209**	**112**	**64**	**33**	**26**	**7**

Number of trips by vessel class and poundage category - N. Shrimp - 2009 MAINE- POT Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 40 FT.	152	171	180	172	91	30	21	14	6	2
41 TO 50 FT.	14	7	16	11	16	4	1			
ALL VESSELS COMBINED	**166**	**178**	**196**	**183**	**107**	**34**	**22**	**14**	**6**	**2**

Number of trips by vessel class and poundage category - N. Shrimp - 2010 MAINE- POT Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 40 FT.	141	301	317	282	278	198	121	68	88	24
41 TO 50 FT.	6	21	14	23	7	1				
ALL VESSELS COMBINED	**147**	**322**	**331**	**305**	**285**	**199**	**121**	**68**	**88**	**24**

Number of trips by vessel class and poundage category - N. Shrimp - 2011 MAINE- POT Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 40 FT.	123	348	358	348	181	94	55	25	21	2
41 TO 50 FT.	13	39	22	11	2	1				
ALL VESSELS COMBINED	**136**	**387**	**380**	**359**	**183**	**95**	**55**	**25**	**21**	**2**

Number of trips by vessel class and poundage category - N. Shrimp - 2007 New Hampshire- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 20 FT.										
21 TO 30 FT.										
31 TO 40 FT.			*		*	*				
41 TO 50 FT.		6	27	25	27	20	18	14	36	27
51 TO 60 FT.		*		*		*	*	*	*	*
61 TO 70 FT.										
>70 FT.										
ALL VESSELS COMBINED	**0**	**6**	**27**	**25**	**27**	**20**	**18**	**14**	**36**	**27**

* Confidential Data

Number of trips by vessel class and poundage category - N. Shrimp - 2008 New Hampshire- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 20 FT.										
21 TO 30 FT.										
31 TO 40 FT.	1			*	*					
41 TO 50 FT.	3	15	17	41	55	51	41	21	32	16
51 TO 60 FT.		3	7	6	11	8	11	9	10	4
61 TO 70 FT.										
>70 FT.										
ALL VESSELS COMBINED	**4**	**18**	**24**	**47**	**66**	**59**	**52**	**30**	**42**	**20**

* Confidential Data

Number of trips by vessel class and poundage category - N. Shrimp - 2009 New Hampshire- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 20 FT.										
21 TO 30 FT.										
31 TO 40 FT.			*						*	
41 TO 50 FT.		3	13	29	12	10	9	5	17	10
51 TO 60 FT.			*	*	*	*	*	*	*	*
61 TO 70 FT.										
>70 FT.										
ALL VESSELS COMBINED	**0**	**3**	**13**	**29**	**12**	**10**	**9**	**5**	**17**	**10**

* Confidential Data

Number of trips by vessel class and poundage category - N. Shrimp - 2010 New Hampshire- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 20 FT.										
21 TO 30 FT.										
31 TO 40 FT										
41 TO 50 FT.	2	16	37	52	53	42	31	15	40	20
51 TO 60 FT.	1		3	4	14	19	15	8	37	24
61 TO 70 FT.										
>70 FT.										
ALL VESSELS COMBINED	**3**	**16**	**40**	**56**	**67**	**61**	**46**	**23**	**77**	**44**

Number of trips by vessel class and poundage category - N. Shrimp - 2011 New Hampshire- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 20 FT.										
21 TO 30 FT.										
31 TO 40 FT										
41 TO 50 FT.	1	11	35	52	80	81	60	25	44	18
51 TO 60 FT.		3	7	16	22	22	16	28	26	12
61 TO 70 FT.										
>70 FT.										
ALL VESSELS COMBINED	**1**	**14**	**42**	**68**	**102**	**103**	**76**	**53**	**70**	**30**

Number of trips by vessel class and poundage category - N. Shrimp - 2010 Massachusetts- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 40FT			1	2	5		2	1		
41 TO 50 FT.	2	6	8	9	5	3	5	2	1	
>50 FT.										
ALL VESSELS COMBINED	**2**	**6**	**9**	**11**	**10**	**3**	**7**	**3**	**1**	**0**

Number of trips by vessel class and poundage category - N. Shrimp - 2011 Massachusetts- Trawl Fishery

Vessel Size	1 to 100 lbs.	101 to 500 lbs.	501 to 1000 lbs.	1001 to 1500 lbs.	1501 to 2000 lbs.	2001 to 2500 lbs.	2501 to 3000 lbs.	3001 to 3500 lbs.	3501 to 5000 lbs.	> 5000 lbs.
< 40FT		1	4	16	21	15	9	6	6	
41 TO 50 FT.		3	3	6	6	12	7	2	1	
>50 FT.	3		2	3	9	8	8	5	14	3
ALL VESSELS	**3**	**4**	**9**	**25**	**36**	**35**	**24**	**13**	**21**	**3**

***All MA 2007, 2008, and 2009 trip level data are confidential**

APPENDIX 1.4. Average trip weight (pounds) by state, gear, and vessel size class from 2001 to 2011.

Average trip weight (lbs) of N. Shrimp Landed - MAINE- Trawl Fishery by Vessel Class

Vessel Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
< 20 FT.										125	*
21 TO 30 FT.			*				*		*	764	*
31 TO 40 FT	565	619	877	1,291	1,175	2,059	2,402	1,641	1,582	2,130	1,824
41 TO 50 FT.	836	992	1,241	2,366	1,772	2,816	3,494	2,555	2,453	3,032	2,391
51 TO 60 FT.	965	1,279	1,323	2,968	2,090	3,339	3,867	3,118	2,997	3,754	3,201
61 TO 70 FT.	1,325	*	1,606	*	2,982	*	2,949	*		*	4,278
>70 FT.	863	*	1,348	*	*	*	*	5,715	*	6,508	5,039
ALL VESSELS COMBINED	739	908	1,127	2,131	1,659	2,741	3,158	2,307	2,216	2,744	2,437

* Confidential Data

Average trip weight (lbs) of N. Shrimp Landed - MAINE- POT Fishery by Vessel Class

Vessel Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
< 20 FT.	188	126	*	*	*	*	790	*	*	*	245
21 TO 30 FT.	241	254	499	407	512	745	664	814	934	1,301	819
31 TO 40 FT	493	448	709	375	1,057	805	1,028	1,132	922	1,495	1,108
41 TO 50 FT.	461	*	816	*	1,041	1,234	1,190	1,151	993	839	532
51 TO 60 FT.											
61 TO 70 FT.											
>70 FT.											
ALL VESSELS COMBINED	456	420	712	364	1,019	809	1,007	1,110	922	1,451	1,043

* Confidential Data

Average trip weight (lbs) of N. Shrimp Landed - New Hampshire- Trawl Fishery by Vessel Class

Vessel Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
< 20 FT.											
21 TO 30 FT.											
31 TO 40 FT	850	512	775	1,050	1,184	*	*	*	*		
41 TO 50 FT.	880	726	1,190	1,685	1,738	1,766	2,953	2,470	2,497	2,352	2,422
51 TO 60 FT.	*	*	*		1,639	*	*	2,639	*	3,675	2,853
61 TO 70 FT.											
>70 FT.											
ALL VESSELS COMBINED	905	669	1,069	1,545	1,631	1,825	2,980	2,488	2,518	2,734	2,539

* Confidential Data

Average trip weight (lbs) of N. Shrimp Landed - Massachusetts- Trawl Fishery by Vessel Class

Vessel Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
< 20 FT.											
21 TO 30 FT.											
31 TO 40 FT	622	428	647	*	1,211	*	*	*		*	2,148
41 TO 50 FT.	677	*	688	774	984	1,161	*	*	*	1,449	1,992
51 TO 60 FT.		*	*		*		*				*
61 TO 70 FT.			*	*							
>70 FT.			*								*
ALL VESSELS COMBINED	645	544	681	803	1,044	1,147	1,196	1,695	1,660	1,560	2,252

* Confidential Data

APPENDIX 1.5 Analysis of trip limit scenarios applied to 2010 northern shrimp fishery data.

Trip Limit Scenarios Applied to 2010 Northern Shrimp Fishery Data*

		2010 Actual			Landings (lbs) with Trip Limit Scenarios if catches were cut off at (lbs)…..				Percent Reduction from Actual if catches were cut off at (lbs)…..			
Trawl gear	Vessel size	No. of Vessels	No. of Trips	Landings (lbs)	1,000	2,000	3,000	4,000	1000	2000	3000	4000
	Maine 20-30 ft.	6	27	19,341	16,841	19,341	19,341	19,341	13%	0%	0%	0%
	31-40 ft.	62	1,814	3,867,333	1,653,533	2,737,801	3,311,786	3,581,857	57%	29%	14%	7%
	41-50 ft.	39	1,125	3,410,622	1,073,373	1,934,979	2,526,090	2,898,241	69%	43%	26%	15%
	51-60 ft.	14	569	2,143,507	550,932	1,034,333	1,414,007	1,686,959	74%	52%	34%	21%
	61-87 ft.	4	83	499,191	82,600	162,725	234,614	296,050	83%	67%	53%	41%
	Maine Totals	125	3,618	9,939,994	3,377,279	5,889,179	7,505,838	8,482,448	66%	41%	24%	15%
	Mass. Totals 31-50 ft.	5	47	81,110	39,674	66,710	79,010	81,110	51%	18%	3%	0%
	New Hamp. 41-50 ft.	12	281	724,543	263,051	444,084	551,630	623,894	64%	39%	24%	14%
	51-60 ft.	3	125	459,416	123,415	238,487	324,949	385,520	73%	48%	29%	16%
	New Hamp. Totals	15	406	1,183,959	386,466	682,571	876,579	1,009,414	67%	42%	26%	15%
Trawl Totals		145	4,071	11,205,063	3,803,419	6,638,460	8,461,427	9,572,972	66%	41%	24%	15%
Trap gear												
	Maine 17-30 ft.	9	126	149,598	91,541	131,058	146,824	150,226	39%	12%	2%	0%
	31-40 ft.	94	1,693	2,531,195	1,307,188	2,046,269	2,347,589	2,456,869	48%	19%	7%	3%
	41-50 ft.	8	73	62,087	49,596	61,887	62,087	62,087	20%	0%	0%	0%
	Maine Totals	111	1,892	2,744,763	1,448,325	2,239,214	2,556,500	2,669,182	47%	18%	7%	3%
Trap Totals		111	1,892	2,744,763	1,448,325	2,239,214	2,556,500	2,669,182	47%	18%	7%	3%
Grand Totals (Trawl + Trap)		256	5,963	13,949,826	5,251,744	8,877,674	11,017,927	12,242,154	62%	36%	21%	12%

* 2010 Shrimp season harvester trip report data are preliminary, as of 7/7/11.