

# Atlantic States Marine Fisheries Commission

## ISFMP Policy Board

May 6, 2021

9:00 a.m. -12:00 p.m.

Webinar

### 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. Keliher*) 9:00 a.m.
2. Board Consent (*P. Keliher*) 9:00 a.m.
  - Approval of Agenda
  - Approval of Proceedings from February 2021
3. Public Comment 9:05 a.m.
4. Executive Committee Report (*P. Keliher*) 9:15 a.m.
5. Review and Consider New York Appeal of Addendum XXXIII to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (*P. Keliher*) 9:25 a.m.  
**Final Action**
6. Discuss *De Minimis* within Commission Fishery Management Plans (*T. Kerns*) 10:35 a.m.
7. Discuss East Coast Climate Change Scenario Planning Initiative (*T. Kerns*) 10:50 a.m.
  - Review Strategy for Scenario Planning Process
8. Discuss the Board Process of Approving Fishery Management Plan Reviews and Recommendations from Plan Review Teams (*T. Kerns*) 11:10 a.m.
9. Update on the Mid-Atlantic Fishery Management Council's Research Steering Committee to Evaluate Restarting the Research Set-Aside Program (*R. Beal*) 11:25 a.m.
10. SEAMAP Report (*S. Murray*) 11:35 a.m.
11. Review Noncompliance Findings (If Necessary) **Action** 11:45 a.m.
12. Other Business/Adjourn 11:50 a.m.

# MEETING OVERVIEW

ISFMP Policy Board  
Thursday May 6, 2021  
10:45 -11:45 a.m.  
Webinar

Chair: Pat Keliher (ME) Assumed Chairmanship: 10/19	Vice Chair: Spud Woodward (GA)	Previous Board Meetings: February 1 and 4, 2021
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 1 and 4, 2021

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

## 4. Executive Committee Report (9:15-9:25 a.m.)

### Background

- The Executive Committee will meet on May 5, 2021

### Presentations

- P. Keliher will provide an update of the committees work

### Board action for consideration at this meeting

- none

## 5. Review and Consider New York Appeal of Addendum XXXIII to the Summer Flounder, Scup, and Black Sea Bass FMP (9:25-10:35 a.m.) Final Action

### Background

- Addendum XXXIII to the Summer Flounder, Scup and Black Sea Bass FMP was approved in February 2021 (**briefing materials**). The Addendum established a new state-by-state commercial black sea bass allocation.
- New York is appealing the approval of the addendum (**briefing materials**).
- Following the Appeal Process (**briefing materials**), Commission leadership reviewed the appeal and determined the appeal should be considered by the ISFMP Policy Board under criterion 1 (**briefing materials**).

**Presentations**

- T. Kerns will present a background on the development of the management program as well as a summary of the justification provided in the record for the management board's action.
- New York will present rationale for appealing the decision under criterion 1 and provide a suggested solution.

**Board action for consideration at this meeting**

- Consider the Appeal of Addendum XXXIII to the Summer Flounder, Scup, and Black Sea Bass FMP

**6. Discuss *De Minimis* within Commission Fishery Management Plans (10:35-10:50 a.m.)****Background**

- The Commission includes *de minimis* provisions in interstate FMPs to reduce the management burden for states that have a negligible effect on the conservation of a species. The *de minimis* provisions in FMPs vary by species and include a range of requirements for management measures, reporting requirements, and *de minimis* qualification periods.
- Past Policy Board *de minimis* discussions focused on the balance between standardization across FMPs and the flexibility for the species management boards in developing *de minimis* provisions.

**Presentations**

- T. Kerns will present an overview of *de minimis* within Commission FMPs (**Briefing Materials**).

**Board action for consideration at this meeting**

- None

**7. Discuss East Coast Climate Change Scenario Planning Initiative (10:50-11:10 a.m.)****Background**

- In November 2020, the Northeast Region Coordinating Council (NRCC) initiated a region-wide scenario planning initiative. Through this [East Coast Climate Change Scenario Planning Initiative](#), fishery managers and scientists are working collaboratively to explore jurisdictional and governance issues related to climate change and shifting fishery stocks.
- This initiative is in the early stages of development, with the NRCC serving as the primary decision-making body with the addition of South Atlantic representatives. A newly formed core team of technical staff from participating organizations held an initial meeting earlier this month to discuss planning for this process.

**Presentations**

- T. Kerns will present an update on the East Coast Climate Change Scenario Planning Initiative and process (**Briefing Materials**).

**Board action for consideration at this meeting**

- None

**8. Discuss the Board Process of Approving FMP Reviews and Recommendations from Plan Review Teams (11:10-11:25 a.m.)**

**Background**

- Each year management boards review FMP Reviews and state compliance reports for approval. Plan Review Teams draft a recommendations section of the document. Unless a board specifically takes action to address a recommendation, it is not addressed by the approval of the FMP Review.

**Presentations**

- T. Kerns will present an overview of current process to approve FMP Reviews

**Board action for consideration at this meeting**

- None

**9. Update on the Mid-Atlantic Fishery Management Council's Research Steering Committee to Evaluate Restarting the Research Set-Aside Program (11:25-11:35 a.m.)**

**Background**

- The Research Steering Committee (RSC) met via webinar on March 18, 2021 to discuss redevelopment of the Research Set-Aside (RSA) program

**Presentations**

- R. Beal will present an update on the Council's Research Steering Committee

**Board action for consideration at this meeting**

- none

**10. SEAMAP Report (11:35-11:45 a.m.)**

**Background**

- The SEAMAP South Atlantic, Gulf of Mexico, and Caribbean components developed a 2021-2025 SEAMAP Management Plan and a 2021-2025 SEAMAP Strategic Plan (**Briefing Materials**).

**Presentations**

- S. Murray will provide an update on SEAMAP-South Atlantic activities and an overview of the joint SEAMAP five-year plans.

**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**

**Webinar  
February 1 and  
February 4, 2021**

These minutes are draft and subject to approval by the ISFMP Policy Board .  
The Board will review the minutes during its next meeting.

Draft Proceedings of the ISFMP Policy Board  
February 2021

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**INDEX OF MOTIONS**

1. **Approval of agenda** by Consent (Page 1).
2. **Approval of Proceedings of October 2, 2020 Webinar** by Consent (Page 1).
3. **Move to approve the changes to the species declared interest** (Page 3). Motion by Tom Fote; second by Malcolm Rhodes. Motion carried (Page 3).
4. **On behalf of the Lobster Board, move the Commission to send letters to NOAA Fisheries with comments on the proposed rule to amend the regulations implementing the Atlantic Large Whale Take Reduction Plan and the draft biological opinion. The Biological opinion letter should include the following:**
  - **The bi-op should be completed so it will support the proposed rule to avoid a jeopardy.**
  - **A statement that address the burden the US Fishery could bear based on the actions of Canada.**
  - **The Atlantic Large Whale Take Reduction Plan letter should include the following:**
  - **The rule should be completed by the end of May to ensure the court does not intervene.**
  - **Implementation timeline recommendations that address practical start dates**
  - **Supporting trawl conservation equivalency that would allow for modifications related to trawl lengths as well as address the need to fish a single endline in areas. Example 8 traps with 2 endlines = 4 traps with 1 endline**
  - **Support enforcement and coordination with state agencies**

Motion by Dan McKiernan (Page 43). Motion carried with one abstention (NOAA Fisheries) (Page 44).
5. **On behalf of the Lobster Board, move the Commission to send a letter to the Secretary of the Interior restating the Commission's position on modifying the Northeast Canyons and Seamounts Marine National Monument** (Page 44). Motion by Dan McKiernan. Motion carried with one abstention (NOAA Fisheries) (Page 45).
6. **Move to request the Commission send a letter to NOAA requesting a short extension of the comment period on the Endangered Species Act Section 7 Consultation-Biological Opinion from February 19 to March 1, 2021** (Page 44). Motion by David Borden; second by Cheri Patterson. Motion carried with one abstention (NOAA Fisheries) (Page 45).
7. **On behalf of the Shad and River Herring Board, move to send a letter to NOAA Fisheries to request that shad be made a higher sampling priority, particularly for genetic stock composition sampling, to improve our understanding of the impacts of mixed-stock fisheries on system-specific stocks, as recommended by the 2020 Assessment and Peer Review and the Technical Committee** (Page 45). Motion by Mike Armstrong. Motion carried with 2 abstentions (NOAA Fisheries and USFWS) (Page 45).
8. **Move to adjourn** (Page 46). Motion by Steve Bowman; second by Doug Haymans. Motion carried (Page 46).

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**ATTENDANCE**

**Board Members**

Pat Keliher, ME (AA)	Warren Elliott, PA (LA)
Sen. David Miramant, ME (LA)	John Clark, DE, proxy for D. Saveikis (AA)
Cheri Patterson, NH (AA)	Roy Miller, DE (GA)
Ritchie White, NH (GA)	Craig Pugh, DE, proxy for Rep. Carson (LA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	Bill Anderson, MD (AA)
Dan McKiernan, MA (AA)	Russell Dize, MD (GA)
Raymond Kane, MA (GA)	David Sikorski, MD, proxy for Del. Stein (LA)
Rep. Sarah Peake, MA (LA)	Steve Bowman, VA (AA)
Jason McNamee, RI (AA)	Shanna Madsen, VA, proxy for Sen. Mason (LA)
David Borden, RI (GA)	Chris Batsavage, NC, proxy for J. Batherson (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Jerry Mannen, NJ (GA)
Justin Davis, CT (AA)	Bill Gorham, NC, proxy for Rep. Steinberg (LA)
Bill Hyatt, CT (GA)	Mel Bell, SC, proxy for P. Maier (AA)
Jim Gilmore, NY (AA)	Malcolm Rhodes, SC (GA)
Emerson Hasbrouck, NY (GA)	Chris McDonough, SC, proxy for Sen. Cromer (LA)
John McMurray, NY, proxy for Sen. Kaminsky (LA)	Doug Haymans, GA (AA)
Joe Cimino, NJ (AA)	Spud Woodward, GA (GA)
Tom Fote, NJ (GA)	Erika Burgess, FL, proxy for J. McCawley (AA)
Adam Nowalsky, NJ, proxy for Asm. Houghtaling (LA)	Marty Gary, PRFC
Kris Kuhn, PA, proxy for T. Schaeffer (AA)	Karen Abrams, NOAA
	Mike Millard, USFWS, proxy for S. White

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

**Staff**

Robert Beal	Jeff Kipp
Toni Kerns	Laura Leach
Maya Drzewicki	Dustin Colson Leaning
Kristen Anstead	Savannah Lewis
Pat Campfield	Kirby Rootes-Murdy
Alex DiJohnson	Sarah Murray
Emilie Franke	Julie Defilippi Simpson
Lisa Havel	Caitlin Starks
Sarah Hylton	Deke Tompkins
Chris Jacobs	Geoff White

**Guests**

Fred Akers	Bonnie Brady	Alan Bianchi, NC DENR
John Almeida, NOAA	Delayne Brown, NH F&G	Ellen Bolen, VMRC
Max Appelman, NOAA	Jeff Brust, NC DENR	Rob Bourdon, MD DNR
Mike Armstrong, MA DMF	Andrew Cathey, NC DENR	Heather Corbett, NJ DEP
Pat Augustine, Coram, NY	Mike Celestino, NJ DEP	Nicole Costa, RI DEM
Russ Babb, NJ DEP	Yong Chen, Univ ME	David Behringer, NC DENR
Chris Balouskus, RI DRM	Richard Cody, NOAA	Rick Bellavance
Julia Beaty, MAFMC	Allison Colden, CBF	Karson Coutre, MAFMC

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**Guests (continued)**

Derek Cox, FL FWS  
Rip Cunningham  
Jessica Daher, NJ DEP  
Kiley Dancy, MAFMC  
Lorena De la Garza, NC DENR  
Jeff Deem  
Peter deFur  
John DePersenaire, RFA  
Greg DiDomenico  
Anthony DiLernia  
Sandra Dumas, NYS DEC  
Michelle Duval, MAFMC  
Julie Evans  
Lynn Fegley, MD DNR  
Marianne Ferguson, NOAA  
Cynthia Ferrio, NOAA  
Kimberly Fine  
Dawn Franco  
Tony Friedrich, SGA  
Tom Fuda  
Jack Fullmer  
Alexa Galvan  
Matt Gates, CT DEEP  
Lewis Gillingham, VMRC  
Angela Giuliano, MD DMR  
Willy Goldsmith, SGA  
Melanie Griffin, MA DMF  
Sonny Gwin  
Jon Hare, NOAA  
Bridget Harner, NOAA  
Amalia Harrington, U Maine  
Brendan Harrison, NJ DEP  
Hannah Hart, FL FWC  
Dewey Hemilright

Jay Hermsen, NOAA  
Helen Heumacher, US FWS  
Rich Hittinger  
Carol Hoffman, NYS DEC  
Asm. Eric Houghtaling, NJ (LA)  
Rachel Howland, NC DENR  
Peter Hughes, Atlantic Capes  
Bob Humphrey  
Miluska Hyde, USGS  
Jimmy Johnson, NC DENR  
Jeff Kaelin, Lund's Fisheries  
Emily Keiley, NOAA  
Maira Kelly, NOAA  
Adam Kenyon, VMRC  
Craig King, ME DMF  
Kathy Knowlton, GA DNR  
Rob LaFrance, Quinnipiac  
Wilson Laney  
Edward Leonard, GA DNR  
Tom Little, Ofc Asm.  
Houghtaling  
Chip Lynch, NOAA  
Genine McClair, MD DNR  
Ashleigh McCord, NOAA  
Conor McManus, RI DEM  
Nichola Meserve, MA DMF  
Chris Moore, MAFMC  
Patrick Moran, MA DMF  
Jerry Morgan  
Brandon Muffley, MAFMC  
Trish Murphey, NC DENR  
Allison Murphy, CBF  
Brian Neilan, NJ DEP  
Ken Neill

Derek Orner, NOAA  
Mike Pentony, NOAA  
Kelly Place  
Mike Plaia  
Nicholas Popoff, FL FWS  
Paul Rago  
Paul Risi, KCC NY  
Jessica Ruggieri, Univ RI  
Scott Sakowski, NOAA  
Sara Saunders, UFL  
CJ Schlick, NC DENR  
John Schoenig  
Matt Seeley, MAFMC  
McLean Seward, NC DENR  
Andrew Sinchuk, NYS DEC  
Tom Sminkey, NOAA  
Melissa Smith, ME DMF  
Somers Smott, VMRC  
David Stormer, DE DFW  
Mark Taylor  
Mark Terceiro, NOAA  
John Toth  
Wes Townsend  
Joseph Tripptree  
Corinne Truesdale, RI DEM  
Mike Waine, ASA  
Philip Welsh  
Meredith Whitten  
Kate Wilke, TNC  
Chris Wright, NOAA  
Sarah York, NOAA  
Erik Zlokovitz, MD DNR  
Renee Zobel, NH F&G

The ISFMP Policy Board of the Atlantic States Marine Fisheries Commission convened via webinar; Monday, February 1, 2021, and was called to order at 10:45 a.m. by Chair Patrick C. Keliher.

#### **CALL TO ORDER**

CHAIR PATRICK C. KELIHER: Welcome everybody to the ISFMP Policy Board. It is February 1st. This is the first part of our Policy Board meeting. We will be reconvening on Thursday afternoon. We have scheduled today this portion of the Policy Board to continue until 11:45.

I would like to try to make sure that we conclude all of our business, so people have time to take a break before Summer Flounder, Scup and Black Sea Bass resumes again at 12:45.

#### **APPROVAL OF AGENDA**

CHAIR KELIHER: I'm going to jump right into the second agenda item, which is Board Consent for Approval of the Agenda. Does anybody have any issues with the agenda? Is there any new business to be brought before the Policy Board?

MS. TONI KERNS: There are no hands raised, Pat.

CHAIR KELIHER: Great, we have consensus on the agenda.

#### **APPROVAL OF PROCEEDINGS**

CHAIR KELIHER: Then, Approval of the Proceedings from October, 2020. Does anybody have any questions or comments on those notes from those proceedings? Seeing no hands and hearing nobody's objections, the approval of the proceedings, we will say they have been approved by consensus, thank you.

#### **PUBLIC COMMENT**

CHAIR KELIHER: Item three on the agenda is Public Comment. Is there any member of the public that would have a comment? Has anybody signed up, or is there anybody that would like to raise your hand from the public?

MS. KERNS: I see no hands, Pat.

CHAIR KELIHER: Great, we're going to move it right along then.

#### **REVIEW STATE MEMBERSHIP ON SPECIES MANAGEMENT BOARDS**

CHAIR KELIHER: Agenda Item Number 4 is Review State Membership on Species Management Boards. I'm going to turn that right over to you, Toni.

MS. KERNS: Maya, if you could pull up the presentation for State Declared Interest that would be great. While Maya is pulling that presentation up, I'll just give a little background. Each year the states have an opportunity to declare interest in or out of species. If you declare an interest into the species, then you are saying that your state has landings in their state waters.

You have historical landings, you are a part of the FMP, and the management unit of that FMP, and you want to start taking an active role in the fishery on species management boards. Whether that is through, as species start to move north sometimes that is through de minimis measures, then the other times that is the real active directed fisheries in those states. We had a significant number of changes this year. We hadn't had very many changes in the species declared interest in quite some time. This year, the U.S. Fish and Wildlife Service withdrew from several species managed declared interest, and that includes black sea bass, summer flounder, scup, bluefish, Spanish mackerel, tautaug, weakfish, winter flounder, cobia, black drum, red drum, spot, spotted sea trout, and Atlantic croaker.

These were Boards that the Fish and Wildlife Service were not active on previously, and wanted to devote their time and resources to those species that there

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are more interactions with the Agency, and the Agency's science goals and objectives. The state of Massachusetts has pulled out of the Weakfish Board, due to the lack of the species in their state waters.

They will go ahead and hold onto the current regulations in the recreational fishery and the commercial fishery as they are for now. Then there are several states that want to declare interest into some species. As everybody knows, this year the South Atlantic State and Federal Species Management Board was split into two management boards this year.

We now have the Pelagics Board, which is cobia and Spanish mackerel, and we have the Sciaenid's, which includes spot, spotted sea trout, red drum, black drum, and Atlantic croaker. With that split we had a couple of states wanting to declare into either Spanish mackerel and/or cobia.

Then Delaware has started to see an increase in spotted sea trout in both their commercial and recreational landings, so therefore they felt as though they need to start participating into this fishery. Their recreational landings in the last five years have ranged anywhere from 0-11,000 pounds, and they also have some commercial landings, but I believe they are confidential, so I'm not going to say those out loud.

New York has declared into Spanish mackerel. They are starting to see commercial landings in their state for Spanish mackerel in the last couple years. They range from 800 to 5,000 pounds. Rhode Island is declaring into Spanish mackerel and cobia. They are starting to see both Spanish mackerel and cobia commercial landings in their state waters, which are in the commercial fishery, but these are confidential landings.

New Hampshire has asked to declare into the black sea bass fishery. New Hampshire is already in the management unit within the FMP for black sea bass. They receive an allocation,

and they are also required to keep regulations in place in the recreational fishery. They have been on this Board before, withdrawn, and are asking to come back onto the management board. That is my presentation and I am happy to take any questions on any of these changes, or go to the state or agency that has asked for changes, Mr. Chairman.

CHAIR KELIHER: Thanks, Toni, are there any questions for Toni?

MS. KERNS: I have Joe Cimino.

CHAIR KELIHER: Go ahead, Joe.

MR. JOE CIMINO: Toni, if I missed it, New Jersey's connection with spotted sea trout. I had mentioned sending in speckled trout compliance reports already, but I didn't know if that was all right.

MS. KERNS: I apologize, Joe. New Jersey is also declaring into the spotted sea trout as well. I somehow missed that. It should have been next to the Delaware.

CHAIR KELIHER: Any other hands, Toni?

MS. KERNS: Emerson Hasbrouck, Mr. Chair.

CHAIR KELIHER: Go ahead, Emerson.

EMERSON C. HASBROUCK: I'm wondering, when are these changes effective? When do they become effective? Is that going to start today, for instance, so will New Hampshire this afternoon be sitting in on the black sea bass discussion?

MS. KERNS: If the Policy Board approves these changes, then they would be effective immediately.

CHAIR KELIHER: Anybody else, Toni? Toni, I don't know why. Is there any way you can make the change so I can actually see the hands when they go up on my screen?

MS. KERNS: Yes, sure can, Pat.

CHAIR KELIHER: That would be great.

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MS. KERNS: All right, Pat, you should be able to see hands.

CHAIR KELIHER: Perfect, great, thank you. I don't see any other hands up at this time. Toni, do you think we can do this by consensus, or do you want a motion?

MS. KERNS: I think it would be good just to have a motion for the record, and thank you Maya for adding that for New Jersey. It can be a general motion for declaring into the Board meeting today. You can see if there is no objection, but just having a typed-out motion for the record would be great.

CHAIR KELIHER: Would somebody like to make a motion on the declared interest?

MS. KERNS: Pat, don't forget you have to click on that little hand, the black outlined hand, in order to get all of the hands raised, and you had Tom Fote with his hand up, and Ellen Bolen also had her hand up.

CHAIR KELIHER: All right, I'll go to Tom and then Ellen.

MR. THOMAS P. FOTE: I'll make the motion.

CHAIR KELIHER: Motion by Mr. Fote, do I have a second?

MS. KERNS: Malcolm Rhodes, and Tom, if you could read that motion.

**MR. FOTE: Move to approve the changes to the species declared interest.**

CHAIR KELIHER: Thank you, Tom, we have a motion by Mr. Fote and a second by Malcolm Rhodes, is there any discussion on the motion?

MS. KERNS: Do you see Cheri's hand, Pat?

CHAIR KELIHER: For some reason I'm not seeing those, but Cheri, go ahead.

MS. CHERI PATTERSON: No, I was just going to second the motion.

CHAIR KELIHER: Okay. The motion has been seconded. **Is there any further discussion on the motion? Hearing no discussion, is there any objections? Seeing no hands, hearing no objections, the motion passes by consensus.**

**DISCUSS RECREATIONAL MANAGEMENT REFORM  
INITIATIVES WITH MID-ATLANTIC FISHERIES  
MANAGEMENT COUNCIL**

CHAIR KELIHER: Great, thank you very much, we will move to the next item on the agenda, which is to Discuss Recreational Management Reform Initiatives, and I believe Julia Beaty is going to present on this one, am I correct, Toni?

MS. KERNS: That is correct.

MS. JULIA BEATY: Hi everybody, yes, I'm here ready to go. Toni, Council staff we're checking the attendance list, and when you last did audio checks, I think there are a few Council members still missing, so I don't know if any have joined, and if you'll go onto an audio check with any of them before I get started.

MS. KERNS: Yes, I'm happy to do that. If there are any Council members that have joined since we've gotten started. If you could raise your hand that will be the fastest way for me to find you. Just to note, Pat, that we would be as I get here, this portion of the meeting will now be convened jointly with the Mid-Atlantic Council, and Mike Luisi is the Chair of the Mid-Atlantic Council. I'll start with you, Sara Winslow on your audio.

MS. SARA WINSLOW: Can you hear me?

MS. KERNS: I sure can, Sara. Chris Moore.

MR. CHRIS MOORE: Hi, Toni.

MS. KERNS: Hi, Kate Wilke, you put your hand up again, and Tony DiLernia, you had put your hand up again.

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MR. ANTHONY DiLERNIA: Yes. Toni, should my name be listed with a double zero in front of it?

MS. KERNS: It's okay, it's more for the beginning of the meeting that that is helpful. At this point, explaining how to change it is a little difficult, and we can't change it for you, unfortunately, so you're fine. Any time you want to speak just raise your hand.

MR. DiLERNIA: Well, you'll know I'm here. Thank you, Toni.

MS. KERNS: Okay, just one last check, has anybody not been able to do an audio check? If you raise your hand by clicking on the little hand button, Scott Lenox, go ahead.

MR. SCOTT LENOX: Yes, good morning.

MS. KERNS: Good morning, Scott. All right, so we will not convene the joint portion of this Policy Board to go over the Recreational Reform Initiative, if that is good with you, Mr. Chairman.

CHAIR KELIHER: Yes, absolutely. Thanks for reminding me that we're now in a joint session. I will turn it over to Julia for her presentation.

MS. BEATY: Great, thank you, Mr. Chair, and good morning everybody. I have a fairly brief presentation. This is the outline of the presentation. First, I'm going to briefly summarize the timeline of how we go where we are today with the Recreational Reform Initiative. I'll remind you of the goals of the Recreational Reform Initiative. I'll briefly touch on the prioritized topics, and then we'll have a discussion of next steps.

In terms of how we got to where we are today. The Recreational Reform Initiative evolved out of conversations that had been happening for several years, mostly focused on black sea bass, and challenges with recreational management of that species. But the conversations really gained momentum after the Summer Flounder,

Scup, Black Sea Bass Management Board Chair and Vice-Chair at the time, put forward a document titled A Strategic Plan for Reforming Recreational Black Sea Bass Management, in the spring of 2018.

That document had a lot of suggestions for how to reform the management system, again with a focus on black sea bass, and this stimulated a lot of discussion among the Council and the Management Board, and ultimately as a result of those conversations, the Council and the Management Board agreed to form a joint Steering Committee to further develop some of those topics, and to kind of open it up to consider all four jointly managed recreational species, not just black sea bass.

Now it's Summer Flounder, Scup, Black Sea Bass and Bluefish, and the intent is to focus on improvements to the recreational management system that could apply to all four species, although some of the considerations might be slightly different, depending on the species and stock status, and things like that.

The Steering Committee consisted of staff and leadership from the Councils, the Commission and GARFO, and the Steering Committee over a little bit more than a year, developed a Goal Statement for the Recreational Reform Initiative, and an outline of suggested priority topics. In October of last year, the Council and the Policy Board considered all of those topics that the Steering Committee put forward, as well as some other topics that had been discussed through some other ongoing actions. Ultimately the Council and Board initiated a joint framework and addendum, and an amendment, to address several prioritized topics, as part of the Recreational Reform Initiative.

On a later slide I will summarize what those topics are, but first I wanted to remind you of the overarching goal of the Recreational Reform Initiative. This statement was developed by the Steering Committee, and approved by the Council and the Policy Board. The overarching goal is to have more stability in the recreational management measures, so the bag size and season limits for the four jointly managed recreational species. To have more flexibility in the

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management process, and to have accessibility that is aligned with availability in stock status.

There is a little asterisk, because the Steering Committee wanted to make it very clear that the intent is not to circumvent the requirement to constrain catch to the annual catch limit, nor is the intent to change the current method for deriving catch and landings, when it's as defined in the fishery management plan. But rather how can we work within the requirement to achieve these objectives of having more stability, flexibility, and accessibility for these fisheries.

This table lists all the topics that the Council and Board prioritized in October of last year, when they initiated a joint framework and addendum and an amendment to address all of the topics shown on the screen here. As you can see, there are many different topics. This table actually reflects a staff recommendation that some of the topics which were identified for inclusion in the framework and addendum be addressed through a Technical Guidance Document. That is what is showing in that first column there.

Specifically, this would include developing a process for identifying and smoothing outlier MRIP estimates, evaluating the pros and cons of using preliminary current year MRIP data, and developing guidelines for maintaining status quo management measures. If we can develop these topics through a Technical Guidance Document that would allow us to get this all done in a more efficient manner than if all of those things were also part of the framework and addendum.

We think this is possible, because depending on the specific details considered, we think these topics are not going to require a change to the fishery management plan. We think they could be done through a technical document, rather than a framework and addendum. That would leave four topics in the framework and addendum, including a harvest control rule,

which I will describe in more detail on the next slide.

Another topic, which we're calling the envelope of uncertainty approach, where we would explicitly consider variability in the projected harvest estimate, compared to the next years recreational harvest limit, when determining if measures should change. Another topic, which is developing a process for setting management measures that apply for two years at a time.

That is what we're calling multi-year measures here. There would be a commitment to making no changes in the interim year. Then the last topic is considering making recommendations for federal waters measures earlier in the year than December of the prior year, which is our current practice. I should say, in the briefing materials there is a lot more detail on what all of these mean. I'm just briefly touching on all of them here, just to remind you of what is part of all of these actions.

That leaves the last column here, which is the Recreational Reform Amendment, and that Amendment would consider recreational sector separation, which means managing the for-hire sector separately from the rest of the recreational sector, and there is a number of different ways you could do that, as well as actions related to recreational catch accounting.

This could include things such as private angler reporting, changes to the VTR requirements, and other topics. Again, these are all the topics that the Council and the Policy Board prioritized back in October, and this is a suggestion of how to put them in three different bins, to help get everything done in the most efficient manner possible.

I wanted to note that this binning, especially of those first two bins, isn't necessarily set-in stone. Some things might have to get shifted around between those first two columns, depending on future considerations related to the specific changes that are desired. It might be determined that something might need a change to the accountability measures, so if we put it in a framework and addendum category, or if something is more just guidelines related to how we

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use the data, then it could go to the Technical Guidance Document category.

But this is what we're thinking right now for how we think it should bin it, but I just wanted to give you the understanding that it might shift around a little bit. But everything that is listed under the amendment definitely requires an amendment, so that wouldn't change. Anyway, the intent to get all this done would be to first focus on the highest priority topics within this list.

That could be something to talk about today. What are the highest priority topics? For example, based on past discussions, we think the two items listed under the amendment, our understanding is that those are a lower priority for the immediate near term, compared to some of these other items.

As of now, we're not intending to make much progress on the amendment until later in 2021, but we could focus on some of these other topics first. Within those other two columns, some of them might be a higher priority than others. Some of them will be more straightforward to get done than others. We might focus on some of those first.

Related to the discussion of priorities, I wanted to provide a little bit more detail on the Harvest Control Rule that was listed in that framework and addendum column, that middle column. There has been some indication from GARFO and some Council and Board members, some discussion of previous meetings, suggesting that this topic might be one of the highest priorities for the Recreational Reform Initiative.

I wanted to provide more background on what this means to help inform the discussion today. I've summarized at the previous meetings, it's all in the briefing book, but just to kind of give you a refresher. This Harvest Control Rule was a proposal that was initially put forward by six recreational organizations, and the conceptual idea behind it is that you would have a range of

predefined management measures that are referred to as steps, and there is a figure on the screen here that is an illustration of how it would work. You have Step A, B, C and D. It doesn't have to be four steps; this is just an example.

Step A is associated with the highest biomass compared to the target level, so the best stock status, and it's associated with the most level of access. Step A is the most liberal management measure, and then as you move down and to the left, Step B is the most restrictive set of management measures, the least amount of access associated with the smallest biomass, the poorest stock status.

The idea behind this proposal is that each step has predefined management measures associated with it. Under the proposal that was put forward, it was noted that states could have different management measures from each other, and from federal waters, but everything would be predefined.

Step A, you have this set of management measures in federal waters, and then it also lists the management measures in each state that would be associated with that. The same thing for all of the other steps. You would determine which step you're at in a given year, just based on biomass. How does biomass compare to the target?

This is intending to address some concerns related to stakeholder perception that our current management measures don't feel like they are related to availability in biomass, because in some cases we have more restrictive management measures under higher availability than we did in the past, under lower availability.

This would explicitly tie the measures to stock status, and there is some level of predictability, in that you know what the measures are with each step. You might not know which step you're at in a given year, in a future year. But you know what your options are, because it will fall within one of these steps.

Then another important aspect to this proposal is that, as it's described in the proposal is that the upper and lower bounds, so Step A and Step B, are informed

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by stakeholder input. The idea is that Step A is the most liberal set of management measures that you would have, at the most high biomass, highest availability.

Stakeholders would inform that by saying, you know for this species this is the most liberal set of management measures that I could possibly need. I don't need a higher bag limit than however amount of fish. I don't need a smaller minimum size than X inches, for example, and that would inform Step A.

On the other hand, Step B, the most restrictive set of management measures would also be informed by stakeholder input, and stakeholders would provide advice such as, if you go any more restrictive than this set of management measures, then we're going to have major economic impacts, major loss of businesses. The proposal also suggests that maybe there is not even a conservation benefit of going more restrictive than a certain level. This is all conceptual at this point. We haven't analyzed this to see if this would really work the way it is spelled out. But there has been some interest expressed in going through the analysis to see if this could work. Discussions among staff and the Steering Committee, we think that we could come up with these steps, but it would have to be clear that these are just the starting point for consideration.

They would have to be regularly reevaluated. We wouldn't be able to, for example say we're never going to go more restrictive than whatever we put at Step D. There would have to be some flexibility within this. But again, the idea is to have these predetermined management measures, so that you have that predictability.

Also, just to emphasize that this would represent a big change from how we currently do things, because you would be choosing your management measures say on stock status, and you wouldn't be, for example, trying to predict next year's harvest, compare it to the RHL. The

measures would not be based on performance of the recreational fishery, compared to an RHL as explicitly as it has been in the past. It would be more explicitly based on biomass.

Again, this is something that is largely conceptual. We've heard a lot of interest in this proposal, and we could further evaluate this, to see if it could even meet the requirements of Magnuson, where we have to have an annual catch limit, and prevent overfishing by trying to control overall catch that we have to measure in pounds or numbers in fish.

How can we make this proposal work within those constraints? We think that's something that needs a little bit more evaluation, which brings me to the next slide, which is next steps for the Recreational Reform Initiative overall. Again, there is a lot of topics that are part of this initiative, and we have a lot of other pretty important, high priority, ongoing and anticipated actions for these four species over the next year or so.

The briefing book does include an example timeline, but I wasn't planning to touch on that in detail, because it's just an example, and it's highly dependent on prioritization, both within the Recreational Reform Initiative, compared to other ongoing actions, in terms of what do you want us to work on first, and things like that.

One suggestion for the immediate next step is for the Council and Commission and GARFO staff, to work with a few additional NMFS staff who have expertise in things like the Magnuson Act requirements, and maybe MRIP expertise, depending on the topics that we want to focus on first for the immediate next step. For example, if the Harvest Control Rule is a very high priority for the Council and Board to focus on in the immediate future, we think it would be helpful to first answer questions about how can we make the Harvest Control Rule so it will work within the confines of the Magnuson Act requirements.

That could help us determine the next step, figure out should this be a high priority, how do some of those other topics fit within that, and we think that would help us moving forward. That is the staff recommendations, again for the immediate next step

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is to focus on that, if that is what the Council and Board would like to do. That is basically all I had for my presentation, and next the intent was just to open it up for discussion of next steps. We can talk about that recommendation for Council, Commission, and GARFO staff working with additional NMFS staff, to focus on the Harvest Control Rule if that is what the Council and Board want to do. We don't necessarily need an explicit action today, or a motion to be moved forward.

We'll move forward with these next steps as presented, unless a different path forward is approved during the discussion today. With that I'm happy to answer any questions, and I can provide more detail on anything that I glossed over, if needed. Thank you.

CHAIR KELIHER: Thanks, Julia, I appreciate the presentation. It seems to me with that intercept with Magnuson, that working group would be a good first step. But let's open it up for questions before we determine what the path will be. Does anybody have any questions of Julia?

MS. KERNS: Pat, I don't know if you see the hands raised. I hope you get to see the hands raised. At the very top of your attendees pop out list, there should be an outline of a hand that is in black. If you click on that little black outlined hand, you should be able to see them.

CHAIR KELIHER: Yes, I've got them, thanks. The first three on the list are Jason McNamee, John Clark, and Mike Luisi.

DR. JASON McNAMEE: I thought I heard my name first. Thanks for the report, Julia. I am definitely interested in that Harvest Control Rule idea, and I think the suggestion here is a really good one. I would offer two other quick thoughts. You know on the slide it said, the steps would be kind of set based on stakeholder input.

I just think there needs to be, I think that is an important part, and it needs to be balanced with some sort of regulatory setup that won't

put the stock in jeopardy, as well. I'm guessing that balance is where you would end up anyways with this group. One other quick thought is, there is actually, I've been thinking about this a bit.

I'm aware of some work going on at the Science Center with yellowtail flounder, and the development of kind of an interesting tool by some scientists at the Science Center for yellowtail flounder. I just kind of put that bug in your ear, as I think there is application for what they are working on with yellowtail flounder in this situation as well. I would be happy to provide less cryptic information afterwards, if folks are interested.

CHAIR KELIHER: Great, thanks, Jason. Julia, did you need to follow up with any of that?

MS. BEATY: No, I don't think so.

CHAIR KELIHER: I've got John Clark then Mike Luisi, Martin Gary and Rick Bellavance.

MR. JOHN CLARK: Just to clarify. This definitely gives you a knowledge of what the regulations have changed to, based on the steps. But in terms of stability, you could still end up changing fairly often, depending on the stock status, or does this smooth that out somewhat also?

MS. BEATY: Yes, that is a good question. I guess it depends on how many steps there are. But yes, as you get new stock status information, there is a potential to change the step that you're at every time stock status is updated. It could still change frequently, but there is still some level of predictability, provided that you know ahead of time what measures are associated with each step.

CHAIR KELIHER: Mike Luisi.

MR. MICHAEL LUISI: Thanks for your presentation, Julia. I guess where I am right now with questions is, I'm trying to figure out. You know we've been talking about Rec reform for a number of years now, and I'm trying to get a sense both from a Council perspective, and from the state of Maryland, as to when. Nothing has been initiated.

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I mean we've supported the Policy Board and the Council has supported the continued development of the Rec Reform Initiative for the last couple years. But at what point do you think, Julia, that we need to initiate an amendment or addenda frameworks? Are we not there yet? Does staff need to continue to develop concepts, before we start something up officially?

Correct me if I'm wrong, but I just want to make sure that as far as process goes, that we've got a plan. I know that it's on the Mid-Atlantic Council's priorities list for 2021, as far as developing this initiative even further. But I don't know if you can give us some perspective from the staff level, as to when you would need decisions to put forth a formal document. I hope that question made some sense.

MS. BEATY: Great question. Maya, can you go back to Slide 5. In October, the Council and the Policy Board had a joint meeting, and did initiate a framework and addendum, and an amendment. This table lists all the topics that were part of the motion that the Council and the Policy Board already passed and approved for getting all of these things done.

The only thing that is different is that staff are recommending doing some of them through a Technical Guidance Document, rather than a framework and addendum. But an action already has been initiated by both the Council and the Policy Board. Staff do feel like we do already have the direction that we need, that we should move forward with all these, and these are all priorities.

Just the intent behind kind of having this discussion and talking about next steps, there is a lot on this list, and there is a lot of other things happening with these species. We just wanted to provide an update of what we think is the best path forward for getting all of this one, because there are some concerns about staff workload, between the Council, the Commission, and GARFO to get all this done.

We're operating as if, you know, these are already all priorities. The framework and addendum have already been initiated, so just how can we work within that to kind of get these all done? We're not going to work on everything all at once, initially just focus on what we think are the highest priorities, and/or the most straightforward, most helpful things. There is again the suggestion for how to do that in more details in the briefing book. But I just wanted to make it clear that we don't need to initiate any sort of actions today, because that already happened back in October.

CHAIR KELIHER: Toni, do you want to follow up on that as well?

MS. KERNS: I think actually Julia covered everything that I was going to say, Pat. Thank you.

MR. LUISI: Mr. Chairman, if I could just a quick follow up, Mr. Chairman that would be great.

CHAIR KELIHER: Go ahead, Mike.

MR. LUISI: Thanks, Julia. It's amazing what you forget, and yes, thanks for the reminder that we have approved the continued development of these options moving forward. I guess where I am, I am trying to figure out where do we start? There are a lot of things here. We have a lot of other activities going on with summer flounder, scup, black sea bass and bluefish. I guess that's what we need to think about, as far as prioritizing these different measures going forward. Thanks, Julia, I appreciate the reminder on the initiation of these actions, thank you.

CHAIR KELIHER: Next on my list is Marty Gary.

MR. MARTIN GARY: Thanks, Julia for your presentation. I appreciate all the hard work that has gone in to this, and I'm supportive of the concept going forward. My question is just out of curiosity, Julia. It was probably in the briefing materials, but you mentioned that six recreational groups supported this, and I'm just curious as to who those groups are. Given the diversity of our recreational stakeholder community, and all the different species they interact with, I'm curious who they are and how they might

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represent our coastal recreational community, if you have that available.

MS. BEATY: Yes, just give me a second, I'm pulling up the initial document. They initially put it forward as part of a different action in the, okay let' see. American Sport Fishing Association, Center for Sportfishing Policies, Coastal Conservation Association, Congressional Sportsmen's Foundation, National Marine Manufacturers Association, and the Recreational Fishing Alliance.

MR. GARY: Okay, thank you very much, Julia.

CHAIR KELIHER: Thanks, Marty. I've got Rick Bellavance, then Chris Batsavage and Roy Miller. Go ahead, Rick.

MR. RICK BELLAVANCE: Just a quick question. I was wondering if Julia could explain to me, what if any role the New England Council might have in the working group participation, just to get an idea on that.

MS. BEATY: Sure. At this stage we had envisioned it just being Mid-Atlantic Council, Commission and GARFO staff, and just a few additional folks from other parts of NMFS, maybe from Headquarters. You know, if the goal is to focus first on the Harvest Control Rule, we thought that would be the best way to do it, is to just have it be that smaller group of staff first to first try to answer questions about how can we make this work under Magnuson, and then when we get further into developing specific alternatives, maybe we could think about what other folks we need to bring in. But because we're just focusing on those initial questions, and the four species that are jointly managed between the Mid-Atlantic Council and the Commission. We hadn't planned to bring in the New England Council at these early stages.

CHAIR KELIHER: Chris Batsavage.

MR. CHRIS BATSAVAGE: Julia, I think earlier you said that some of the items on this table might be of higher priority to the Council and Policy

Board. Then there are others that are more straightforward to do, and also will help the process. I was curious to know, for the last item under framework and addendum, changes to the timing of recommending federal waters measures.

Would that kind of fall under the category of being a pretty straightforward issue to address? Well, I guess it will be up to the Council and Board to determine whether they want to pursue it, but would that be one that's maybe a little more straightforward than some of the others on the list? Thanks.

MS. BEATY: Sure, yes. It could be. Another thing about these topics is that a lot of them are potentially intertwined. If we changed the timing of when we recommend federal water measures, that also relates to how we use preliminary current year MRIP data, which is listed as a separate topic. But it's related.

There are considerations related to that, like what data you have available. It would require some probably minor changes to the fishery management plan, because that timing part is spelled out in some parts of the fishery management plan for the specific type of conservation equivalency, where you can wave federal waters measures, in favor of state waters measures.

That has been allowed for summer flounder for several years, and is now an option for black sea bass as well. There are parts of the FMP that relate to that, that do spell out the timeline. For that reason, it would require a change to the FMP, and it would require a framework and addendum, so that would make it a little bit more involved, and if we could just do it through a Technical Guidance Document.

But even within that, that is potentially more straightforward than some of the other topics, because I think mostly it would just entail, you know really thinking harder about the pros and cons of the data that you have available at different times of year, and how that would play into the process.

CHAIR KELIHER: Great, Chris, do you have a follow up on that?

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MR. BATSAVAGE: No, that answered my question, thank you.

CHAIR KELIHER: I've got Roy Miller and Eric Reid. Roy, go ahead.

MR. ROY W. MILLER: Julia, while these three columns are before us, I wanted to move over to the amendment side. You mentioned that that would be a lower priority, for instance, recreational sector separation, and yet as I think about it, some of the actions we've taken thus far for bluefish, for instance, and to a lesser extent for summer flounder.

That showed we've already dipped our toes into the waters of sector separation, and I'm wondering if by giving us a lower priority, are we in effect saying that future consideration of sector separation in our measures will wait, until we take action on this proposed amendment, or are we going to handle sector separation in the recreational fishery on a sort of ad hoc basis as it comes up, like we have done in the past? That's my question, thank you.

MS. BEATY: Yes, I can respond to that. I mean the intent was just not to say that we're deprioritizing it, but to say that we're focusing on some of these other things first, for the more immediate next steps. Then it would be potentially later in 2021 that we would pick up that particular amendment.

Start developing a scoping document, and moving forward with that, so that it is something that we do plan to move forward with, just maybe on a slower timeline than some of these other topics here. That is how the Council and Policy Board had talked about it back in October, but if the group wants to revisit that, then that is open for discussion too.

CHAIR KELIHER: Great, the last on my list is Eric Reid.

MR. ERIC REID: I appreciate that last question and answer. My question is about the Harvest Control Rule itself. I mean to me something is missing in that concept, the concept that is supported by the six groups. Step D is the most restrictive measure based on socioeconomics that can be tolerated without loss of business.

However, the biomass status could require a Step E, which means no fishing at all, and that has to be in any Harvest Control Rule. It's in place in some of our commercial fisheries that we use now. My question is, would the six support further development of a Harvest Control Rule if that step was included?

CHAIR KELIHER: Julia, if you're talking, you're on mute.

MS. BEATY: I wasn't talking, because I just don't feel like I can answer that question. I feel like that is a question for the groups that put that forward, and I don't think I can answer that for them. But that would be something, you know we still have to prevent overfishing, so we might have to consider something like that as part of the further developing that concept.

MR. ADAM NOWALSKY: Julia, and Mr. Chairman, this is Adam Nowalsky. Unfortunately, I don't have the ability to raise my hand right now. I'm still listed as an organizer from earlier this morning. If you would like me to respond, as having worked with those groups, I'll be happy to do so.

CHAIR KELIHER: Yes, go ahead, Adam.

MR. NOWALSKY: Part of one of the things with that most restrictive set of measures that the groups that I've worked with have definitely advocated for, is that one of the things we've learned in less management, learned it with weakfish, learned it on the commercial side with northern shrimp.

You get to a point where the set of measures that there is just no biological benefit anymore, or what we've learned with summer flounder that the path you think we go down could actually become more

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destructive biologically, by going in a particular direction, such as larger maximum sizes.

Mr. Reid's comment that that set of measures should incorporate something about biology is 100 percent on point, and the addition to that, the most restrictive set of measures that industry can support. There is a second part of that that would include without providing tangible, biological benefits.

CHAIR KELIHER: Great, thanks for that Adam, filling in the blanks. I've got Doug Haymans and then Roy Miller and Tom Fote.

MR. DOUG HAYMANS: Good morning. Since Roy opened the door, I thought I would step in. I continue to beat the drum regarding sector separation. Although I realize if we dipped our toe regarding the splitting of bag limits with bluefish between charter and recreational, I still feel as though us discussing sector separation amongst four species is a very dangerous precedent to be setting, especially since one-third of our membership just voted it down with the South Atlantic Council.

I would prefer to put off recreational sector separation as long as possible, and have it as a discussion amongst the entire Commission. I realize we're here as the Policy Board, but rather than targeting these four species, I would rather debate sector separation as a Commission, its merits and its dangers, than do it amongst a committee of four species. I'll just continue to beat that each time sector separation comes up, until I get my way. Thank you, Mr. Chairman.

CHAIR KELIHER: We'll look forward to more of that drum beating later, but actually, I think that's a good comment, Doug. As we're just sitting up here in the northeast corner, kind of away from these species. But thinking about the precedent that it would set; I think it may actually deserve a broader conversation with the Policy Board at a later date. The last hand up is Tom Fote. I think Roy, your hand was up

and then went down. I'm assuming you're all set?

MR. MILLER: I'm all set.

CHAIR KELIHER: Okay thank you, Tom Fote.

MR. FOTE: My follow up is to Roy's question. We did this on bluefish without actually going to public hearing. It was an arbitrary decision made at the time by the National Marine Fisheries Service that we could do this. But there really was no input from the public at the time, we did it at a Board meeting. I was very upset over the fact that we did this, so I really think if we're going to go down this road, we need to set up rules of how we do this, and how we basically take care of this before we do another sector separation without going out to the public.

CHAIR KELIHER: Thanks, Tom. I don't see any more hands. Julia, could you go back to your slide with the staff recommendation, please?

MS. BEATY: Yes, Maya will have to do that for me.

MS. MAYA DRZEWICKI: What slide is that?

MS. BEATY: Oh, sorry.

CHAIR KELIHER: I think it's the last slide.

MS. BEATY: Yes, Number eight.

CHAIR KELIHER: Perfect, great. I want to come back to this recommendation by staff, based on the comments, and several people did touch on the conversion with Magnuson. I think if we were going to move forward with this, we wouldn't need to do so with a motion, just an agreement to develop this expanded working group, to evaluate how a Harvest Control Rule would in fact work under Magnuson, and determine if there are any other issues, as well.

Does anybody object to moving forward with the staff recommendation? Seeing no hands, hearing no objections, I think we have consensus to move forward with that recommendation. Does anybody have any additional items as it pertains to Rec Reform? Mike Luisi.

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MR. LUISI: I think for process, maybe I should ask the Council as well.

CHAIR KELIHER: Yes, all right.

MR. LUISI: Let me ask the Council, is there anybody that objects to moving forward with the staff recommendation? I don't have the ability to see hands raised, so Toni or Pat, if you see somebody raise their hand, please let me know.

CHAIR KELIHER: No hands are up, Mike.

MR. LUISI: Okay, so I'll assume that the Council would support that based on consensus, thank you. That's all.

CHAIR KELIHER: Great, thanks, Mike. With consensus of both the Policy Board and the Mid-Atlantic, I think we've got a direction to move forward with a working group on this particular topic. Seeing no additional hands, I think what we will do is we will end this joint meeting of the Policy Board and the Mid-Atlantic Council, and I would remind everybody that the Policy Board will stand in recess until February 4 at 1:45 p.m. With that I want to thank everybody for your time today, it was good discussion, and we'll reconvene on the fourth, thank you very much.

**RECESS**

(Whereupon the meeting recessed at 11:45, to reconvene Thursday, February 4 at 1:45 p.m.)

**RESUME**

ATLANTIC STATES MARINE FISHERIES  
COMMISSION  
ISFMP POLICY BOARD

Winter Meeting Webinar

FEBRUARY 4, 2021  
DAY 2

The ISFMP Policy Board of the Atlantic States Marine Fisheries Commission reconvened via

webinar; Thursday, February 4, 2021, and was called to order at 1:45 p.m. by Chair Patrick C. Keliher.

CHAIR PATRICK C. KELIHER: Welcome everybody, we are reconvening the ISFMP Policy Board. We started with these conversations on Monday.

**PUBLIC COMMENT**

CHAIR KELIHER: As a reminder, we did approve the agenda, but before we get started, I do want to ask if anybody has anything additional at this point in time that they might want to add at the end. No seeing any hands, great.

MS. TONI KERNS: Mr. Chairman, as a note, we do have additional letters from two Boards, the Lobster Board and the Shad and River Herring Board.

CHAIR KELIHER: Great, I've got those, Toni, yes, I have those in my notes, thank you.

MS. KERNS: And Cheri has her hand up.

CHAIR KELIHER: I do have a hand up, Cheri.

MS. CHERI PATTERSON: I just wanted to under other business, bring up a question and a recommendation in regards to including TC or PRTs recommendations when we do our canned motions, thanks.

CHAIR KELIHER: Great, I will call on you under Other Business, thanks, Cheri. Anybody else? Not seeing any other hands. Great, as is customary when we start any of our meetings, I know this is kind of Round 2 for the Policy Board. I would like to ask if there is any member of the public that has anything that they would like to bring to the Policy Board that is not on the agenda? Desmond Kahn.

MR. DESMOND KAHN: Actually, my name is pronounced Kahn, but I know you couldn't tell that. In any case, I would like to speak for a minute about the MRIP program. I understand that some members of the Policy Board and other people have been expressing unease with some of the MRIP results, and I myself and other colleagues share that concern. Before the new version of MRIP, which greatly increased the estimates of effort and catch, my

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colleague Dr. Victor Crecco from the Connecticut Bureau of Marine Fisheries, he's now retired, started studying MRIP. He found that it was very difficult to ground truth the estimates from MRIP. However, there was one of their products that could be compared with other sources, and that was their estimate of the number of participants in fisheries.

On their query, you know query form, you can request that information. This was back in like say around 2010 or a little before. When we produced their estimates of the participants in the fisheries, they were extremely high, they were inflated. They were usually between three and four times the number of marine licenses sold in a state.

For example, I'm from Delaware, I was working for Delaware at the time. We were selling something like 110,000 licenses. According to MRIP, there were over 300,000 participants in our fishery most years. The one thing that implies is that the majority of people in our fishery, and this is also true for Connecticut, did not have licenses, because they couldn't.

Both Dr. Crecco and I checked with our respective enforcement agencies to find out, you know what percentage of people that they checked are unlicensed. In both cases it was about 15 to 20 percent. That evidence seemed to falsify the MRIP estimates. Now, since they were very greatly overestimating the number of participants, we thought that could indicate they were overestimating the number of fishing trips, and consequently the catch.

We talked to them about this, but they said well, that estimate of participants is not really the same thing as what we use to estimate trips and effort, and so forth. We were kind of stonewalled for a minute there. But then they did this upgrade. They were telling Dr. Crecco on some of the ASMFC Boards, they are trying to fix this.

They did a big effort, as you know, and it came up with all of a sudden, now they've got far more trips. I recently went back and queried them for the number of participants in the fishery, just to see if that had changed. Well, turns out they output the number of participants up to, I think it's 2016, and after that they do not derive anymore estimates. Now that is since they've increased the estimates of trips.

I don't know why they stopped producing these estimates, but I would like to suggest that the Commission consider investigating this, and find out how they calculate these estimates, because that's why they are not producing them currently, at least the last time I checked last year. See if that gives some kind of clues as to what has been going on with the MRIP estimates. I can provide the Board with reports, a report that Dr. Crecco wrote, and also some data I collected. I made a presentation to the Striped Bass Board.

CHAIR KELIHER: Desmond, I do have to cut you short, you're over three minutes into this. I appreciate you bringing that forward. If you do want to supply anything to the Commission, I would ask you to do so. I think you brought up issues that I know have been talked about amongst managers in the past. I do appreciate you raising that again, and again, please feel free to share anything that you might like to.

MR. KAHN: Yes, thank you.

CHAIR KELIHER: You're welcome, and sorry about mispronouncing your name. I knew how to do it, it just caught be by surprise. Any other members of the public? Not seeing any other hands go up.

#### **EXECUTIVE COMMITTEE REPORT**

CHAIR KELIHER: I am going to move right into the Executive Committee report, and I'll ask Director Beal to jump in and back me up on a couple of these issues.

As you all know, the Executive Committee has been meeting also by phone, in between the regular meeting schedules, to address issues in particular the CARES Act. I think we've had probably four or five, maybe even six calls between the October meeting

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and now. The February 3rd Executive Committee is part of this winter meeting.

It was fairly extensive. We discussed a few bigger topics. We discussed several times in particular, we've had many calls, excuse me, in particular around the CARES Act, and the third was no exception. We had a presentation by Kelly Denit on the CARES Act. She did explain to us that Round 2 was approved by Congress.

There will be an additional \$255 million that will go out to the states and territories, and another \$30 million for federally recognized tribes, and \$15 million for their Great Lakes Region. NOAAs company working with the new administration on the timing regarding the release of the funds, and they currently don't have an estimate at when that might happen.

I did tell the Executive Committee that they do have a date of September 2021, that they need to have the money out the door by, but as was the case last time, the states will have more flexibility on that, as long as their spend plans have been finalized. There will be some additional information coming regarding the remaining funds from Round 1 as well, and the fact that they are not going to be able to be comingled with funds that will be available in Round 2.

More details, as I say, will be coming on that. I know Laura Leach will be engaged in those conversations around that financial management of funds. The Executive Committee did have many questions for Kelly. I'm not going to go through them all here today. She has tried to work with us on a lot of these questions and answers over time, and I've been very appreciative of the support that she's given to all of the states.

There was one question in particular that was asked, I think that will be interesting for folks to find out, and hopefully we'll receive positive information. But it was in regards to the "made more than whole." Bill Anderson asked the

question around whether they could put a floor on that, because it's not part of the Act.

It's actually a policy that NOAA has put forward associated with the spend plans, and if their floor could be put in place, and we wouldn't have quite so much oversight on the "made more than whole." We are looking forward to getting an answer back in particular on that topic as well.

She did promise that she'll follow up with us on that, and many other questions, and I'm sure we'll have her back to the Executive Committee for any additional questions that might come up. As she gets that information, regarding the new Round 2, I know she'll be reaching out. With that, I'm going to just pause for a second to see if there are any questions that pertain to the CARES Act. Not seeing any hands, I'm going to keep going. Bob Beal did give us an overview of some legislative and appropriations issues.

He updated the Executive Committee. Bob presented that he and Deke will continue to monitor all Congressional activities, as always is the case. At this time there seems to be no focus on anything pertaining to the Atlantic Coast Act, so that is good news. As I'm sure you're all aware, the Secretary of Commerce appointment has been made, that is Governor Raimondo from Rhode Island.

I believe her confirmation hearing was today, and likely the vote will be today. Several leadership positions within NOAA, including the Chief of Staff have been named. The Assistant Administrative Position is yet to be filled, but Paul Doremus, who we all know, has been named the Acting Assistant Administrator.

Bob also reported out that the Hill Committees and the membership on those committees are continuing to be worked out, especially on the Senate side, with a 50/50 split in makeup. They are trying to figure out who will be leading what committee, so I'm sure it's going to be a little bit before we hear anything more final on that.

The Executive Committee also has approved a letter that was advanced by the Legislative Committee. This

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letter has been drafted and reviewed by the Executive Committee to be sent to the Office of Management and Budget. It spells out the priorities of the Commission. This particular letter did draw some conversation at the Executive Committee around the Chesapeake Bay and needed money for doing some assessments within the Bay, pertaining to menhaden.

The Executive Committee did support including a line around that need for additional dollars, and that change in the letter will be made and shared with the Executive Committee before it is sent out. If you did see my Chairs memo, in regards to the committee makeups and appointments. One of the committees that we did leave unnamed at the time was the Legislative Committee.

The Legislative Committee was renewed with new focus and energy last year, and it has been very active, looking at issues that are important to the Commission. The reason I left it blank this year was to not only review its progress, but determine whether we needed to strengthen the membership with people with stronger Hill experience.

I do want to make it clear with that statement, I'm not disparaging the people that are on it by any stretch of the imagination, but the conversations that Bob and I have had around Hill work, pertaining to a new administration coming in, raised the issues of do we need more people on that Committee with stronger Hill experience?

There was not a lot of input from the Executive Committee on that topic, other than seeing some head nods seeming you're on the right track. We will be looking at the membership, and we'll finalize the makeup of the Legislative Committee in the coming weeks. Are there any questions about the legislative issues or budgets for Bob or I? Not seeing any hands, I will continue on. Switching gears, Laura Leach did update us on the 2021 Annual Meeting.

Obviously, we're hoping by October the travel restrictions for all the states will be lifted, and we'll be seeing some positive changes dealing with the pandemic.

This we're going to hold true to the plan from last year, so Joe Cimino and the New Jersey delegation will be hosting us in 2021. Under new business, the Executive Committee did have a conversation around black sea bass allocation, and the decision that happened on Monday. Jim Gilmore from New York raised the issue, not to rehash the vote, but just to discuss how we as a body are going to deal directly with the allocations issue in the face of climate change.

John Hare did chime in on this topic, and reminded us that the Science Center, along with the Commission and the Nature Conservancy are pulling together a contract that would allow us to do some scenario planning on that topic. There will be more information coming on that, but after the meeting we did talk about the need for having a presentation to the Policy Board on scenario planning, and Dr. Hare did promise to make staff available to do that presentation.

There will be a lot more conversations around this going forward. There was recommendation that a working group consisting of members to the Policy Board get together to start working on this. Bob and I will be discussing that more, and the Executive Committee will hash that out, and we'll bring something back to the Policy Board for consideration, likely at the spring meeting.

That concludes my report of the Executive Committee. Does anybody have any additional questions before we move on with the agenda?

**PROGRESS UPDATE ON THE  
RISK AND UNCERTAINTY POLICY**

CHAIR KELIHER: Seeing no hands, we'll move right on to Agenda Item Number 8 then, which is Progress Update on the Risk and Uncertainty Policy, and that is Jason McNamee. Jason, are you out there somewhere in the virtual world? Go ahead, Jason.

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## **REVIEW DRAFT OF THE RISK AND UNCERTAINTY POLICY**

DR. JASON McNAMEE: Thanks everybody. We wanted to give you an update. There has been some work done on the Risk and Uncertainty Policy, and we've got our presentation that I'll jump through here. Just a reminder, the goal of the Policy is to provide a consistent yet flexible mechanism to account for risk and uncertainty in the decision making that we do as a Commission.

The reason for this is to protect all of the Commission managed stocks from the risk of overfishing, as one example, and to also minimize adverse social, economic, or ecosystem effects, or at least take account of them within our risk management, and when we're making these decisions. The tool consists of a series of questions. The questions, not shockingly, are related to risk and uncertainty.

These responses are weighted, based on their relative importance within the overall decision tree. These weighted responses are combined, and what they spit out at the end is a recommended probability of achieving whatever management objective it was that we were trying to achieve. As an example, it could be the probability that we want F to be less than that F threshold. That is just a graphical representation where you can see the weightings go along with the responses to each of the questions. They kind of make their way through the decision tool, and then provide a recommended probability. The tool questions are split basically into four components. The first is stock status, so that's one we talk about routinely. The second category is additional uncertainty, so that is model uncertainty, management uncertainty, environmental uncertainty. The third category is sort of an additional risk category.

One of the things that we've been thinking about for that category right now is ecosystem importance, so the importance of whatever species it is that we're talking about within the

ecosystem. Then there is a fourth category where we will consider socio and economic issues. The way the tool works is the first three components, they add to the probability, meaning they make it more conservative, depending on how much you add in, or where you are with regard to stock status and things like that.

This is the unique part for the tool that we're trying to develop. The socioeconomic component can add or subtract from that probability, so if you were going to, for instance impact dramatically a highly dependent fishing community. That would actually pull that buffer back, you know to make it less conservative to consider those types of factors.

We're talking a little bit more in detail about the criteria. The Risk and Uncertainty Working Group was tasked with refining the criteria for the decision tool inputs, basically the responses that would go into the tool, and a group of Risk and Uncertainty Working Group members and Assessment Science Committee members provided input on basically those first three categories, the model and management and environmental uncertainty.

I'm sorry, the third category, which was the model, management, and environmental uncertainty, and not the third category but the second category, sorry. From that group we got a recommendation, and that was for the criteria for those components, for them to be broad. The reason for that, that would allow the Technical Committees to adapt their scoring to factors that are most relevant for their species.

It's basically to allow customization for the species being analyzed. The individual technical committees may develop specific scoring rubrics for their species, so it will be spelled out specifically for that species, but everything will be working basically under the same framework. There is consistency there, but allowing for some customization, because each of the species that we manage have their own foibles, and they are unique.

The refined criteria, they include a list of factors that the Technical Committee may consider when scoring each decision tool question, and again, which factors

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are important for each individual species is up to the technical committee. They are going to provide that guidance. This is just a subsample of the different types of things that could fit under these different categories, just to give you a sense of what we're talking about here.

There is a little bit more in the meeting materials, a little more detail that you can look at. But this gives you, you know a sense of what we're talking about here. Model uncertainty would be things like retrospective patterns, sensitivity runs, and the uncertainty associated with those. The model fits, management uncertainty would be the performance of a management that we implemented in the past, initiation of relevant management actions, like how long does it take us to get those going, and then things like illegal or underreported fishing activities. Then under the categories of environmental uncertainty, we could be talking about environmental drivers on recruitment, climate vulnerability, natural mortality, or uncertainty in the natural mortality for that species.

Then the ecosystem trophic importance that could be, does the species provide some specific ecosystem services. What is the importance of that species to other key species in the ecosystem? That gives you a sense of the types of things that the Technical Committee could consider, and what they would build into their species-specific rubric for the decision tool.

Now, getting into some of the socioeconomic criteria. The Committee for Economic and Social Science, they've developed specific criteria for scoring these socioeconomic components. It's pretty formulaic. You've got short term and long-term effects of proposed management, and then those are subdivided into commercial and recreational.

You end up with roughly four questions for each sector, commercial or recreational, you have a short term and a long-term effect. This is just a

graphical representation of what I just talked about on the last slide, so for the commercial fishery importance you have the economic value of the fishery.

The fishery dependence for the communities that exist in the fishery, then you've got your short-term management effects, your long-term management effects, and then you get your score from those, same thing on the recreational side. You have your fishery desirability, like how popular, how many people participate in that fishery, and again dependent communities on that fishery, and then short term and long-term effects.

Now, these all pivot off of the proposed management action or actions that are being considered by the Board. I'll talk a little bit more about, you know the early stuff that I've been talking about, and then these socioeconomic criteria, and how those work in the process in a minute. The following indicators, they would be used for scoring that socioeconomic criteria.

You've got commercial and economic value, things like total ex-vessel value along the coast. Then you've got your commercial community dependents, and so that could be defined as ex-vessel value as a percent of the ex-vessel value for all species, for the top ten communities. I won't read through the entire slide; you can read it.

But, the idea here is you look at a three-year average for each of these and then this is the data you would put together to create your socioeconomic score. A little bit about the weightings, so I mentioned that early on. What the weightings are, they are multipliers that impact how much each decision tool question impacts that final outcome.

If you change the weightings, what that can do is it can actually change the size of the buffer that you're adding, so whether the overfished status adds 2 percent to 5 percent to 10 percent, you know onto your buffer, but it also defines the relative importance of that component within the overall tool. The example here is, is stock status on equal footing with the other components in the tool, or is it two times as important, ten times as important, et cetera, et

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cetera. You can get a sense of the importance of these weightings, and this is the really important policy aspect of the overall tool. How do we get at these weightings? One of the ways we could do that is we could develop a survey, and we can use that survey to determine the Board's preferences, and there is an example survey within the meeting materials. I think it's Page 58 of the PDF under the first link to the Policy Board meeting materials.

You can take a peek at that, and that is one mechanism we could use to get at these weightings, in kind of in an objective and comprehensive way with the Boards. Okay, so a little bit about the process. Some adjustments were made to what we've talked about previously with the risk and uncertainty process, and we did this to avoid bottlenecks in the management process.

It keeps the creation and updating of the decision tool from the actual, when you're in the throes of a management action, you want to have that tool developed already, to some extent, ahead of time. But it also allows the socioeconomic component to then assess the effect of the specified proposed management action. This would be separated out, so you would separate out the socioeconomic component, because that would be kind of more of the immediate reaction to a proposed management action.

This is where the Board can really, you know dig into this tool and have their influence. The nice thing about that, and what we've talked about all along is having these things kind of explicitly spelled out provides a lot of transparency in our process. We're out there telling the public why we're down weighting the short-term effect, or up weighting the short-term effect, relative to the long-term effect, and things of that nature.

Developing the decision tool, this tool is developed separately from the management action. Generally, the Board provides input on

the weightings, and then the Technical Committee and the Committee for Economic and Social Science, they provide the responses to the decision tool questions. But then the Board can make adjustments to those inputs if appropriate.

When developing the decision tool, all of the components of the decision tool will be completed, except the management effect portion of the socioeconomic component. Those will be scored when a specific management action is being developed and considered, and then this can be iterative. The Board can provide feedback on those weightings in the decision tool answers, and that will kind of feedback in to the tool, so it can evolve over time.

You're not locked into some static decision. But you'll have to do those types of changes explicitly, and yearly define why we want to make those changes. Almost to the end here, Mr. Chair. Let's say we had an anticipated management action for a species, so we had a stock assessment, and there is a need for action.

That will trigger a review, possible update of the decision tool. Then the Technical Committee, they are going to take a look at that. They may leave it. Everything might still be relevant, so they might not have much work to do at all, or they'll make any necessary updates that they need to make, you know based on stock assessment outputs or whatever.

Then they'll produce the preliminary probability and harvest level. This is without that socioeconomic component. Then that will be developed into a report. That report, including that preliminary probability will be forwarded to the SES. The SES then evaluates the management effect portions of the socioeconomic component.

They'll base that on the preliminary harvest level and other relevant information provided by the Technical Committee, and they may also update the other socioeconomic scores as needed. Then the final socioeconomic scores are added to the decision tool in a final recommended probability is produced.

The report is then made to the Board, it will include all of those decision tool influx justifications, and that

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preliminary probability and harvest level, and then the final recommended probability will be there for the Board's consideration. Then the Board can get involved. We can make any changes to the decision tool, and you just need to justify those changes, and add those to the reports, and now we've got a good document of our process.

Then once that probability is approved, it will be used to develop those management options. Here is a look at the striped bass example. Important note, this is just illustrative. There are a lot of things, we just made this up, just to kind of show you what it would look like. To orient you to the table, you can see here we've got the column called weight.

Those would be the weightings for each of those, and you can see in this case the weightings are all equal. Then you can see the various scores associated with each of those line items in the decision tool, and then you get your outcome. In this mock example this would have been a recommended probability of 62 percent probability of whatever the management objective was supposed to be.

Here is our proposed next step. You asked us previously to walk through that striped bass example. We've provided that a couple of times, I just did a quick run through. What we would like to do now is use the actual developed tool on the upcoming update assessment for tautaug. This would be a pilot case for the Policy. Unlike the striped bass example, which was just kind of mocked up, this will be a real implementation of the process, but we're doing that prior to making this the official policy of the Commission.

If the outcome, we're going to provide you the outcome. You could consider it in your management action that you take at the end of the tautaug assessment process, but you won't be bound by it. You can kind of see how it goes, and then we can update the decision tool by running through this real-world example. With

that, Mr. Chair, I am happy to take any questions that anybody has.

CHAIR KELIHER: Great Jason, I appreciate that. That was a great presentation. There will be a test at the end of the meeting. Does anybody have any questions of Jason? Bill Hyatt.

#### **DISCUSS STEPS TO CONSIDER FINAL APPROVAL OF THE POLICY**

MR. WILLIAM HYATT: Yes, Jay, I have a question. I've read through the materials, but I just can't grasp why socioeconomic uncertainty is combined with the bilateral stock assessment uncertainty, into a single outcome number. It just sort of intuitively makes more sense to me that those would be presented as separate uncertainty levels. I guess I don't know exactly how the justification for combining them, and I guess I don't understand why there is a benefit to combining them as opposed to presenting them separately.

DR. McNAMEE: Thanks, Bill. I mean I think that the short answer to your question is. I don't know how the Board would manage within our existing process with two kind of competing separate probabilities, you know of setting like a fishing mortality threshold tolerance, or something to that effect.

Now if your concern is that you want to be able to kind of look at these things separately. You'll be able to do that in that you'll have all of the information separated out. Remember in this latest process, we are actually doing the latter portion of the tool separately. That happens, you know once there is a management action proposed and on the table.

You can kind of see it, like what it's doing within the overall probability that is produced. But in the end what the Technical Committee needs is or the Stock Assessment Committee or whoever. What they need is a probability with which to then produce some options for the management board of different potential management outcomes. What we tend to do now is, you know we have this kind of multiplicative, okay give us a 40, 50, 60 percent probability of these four possible management actions. This cuts out that first layer of that and simplifies the process.

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CHAIR KELIHER: Bill, did that answer all your questions?

MR. HYATT: Well, it certainly gave me more to think about. I think it's going to take me a while to wrap my mind around this concept in total, but thank you, Jay.

CHAIR KELIHER: I have David Borden, John Clark, and then Eric Reid. David.

MR. DAVID V. BORDEN: Jason, fine job as always. Would your tautaug example, since we have multiple stocks, will the estimates be made? Will we have an estimate for each one of the stocks?

DR. McNAMEE: Yes, thank you for that, David. I said that same thing to Sara. Sara's very funny response was, "The good thing about using tautaug is that we get to test it four times, because there are four separate stocks, and the bad thing about doing the tautaug example is that we have to do it four times." Yes, that is the idea is there would be kind of four unique outcomes here, so good observation, David.

CHAIR KELIHER: I've got John Clark, Eric Reid, and then Justin Davis.

MR. JOHN CLARK: Thank you for the presentation, Jason, and this is really amazing work. My question is the weightings. I mean obviously that seems to be the more subjective part of this whole formula. Is the idea kind of like a wisdom of the crowds, where you would hope that everybody that is answering the survey is doing so independently, because obviously the results could be skewed if people knew? Well, take like if a faction of the Board knew that if we weight this heavily, it will work to the result we want to get. Just curious.

DR. McNAMEE: No, it's a really good point, John. I think you're right. You could. The first thing I'll say is, that is kind of the idea. By doing your stuff independent of a management action, it allows more objectivity. Within the overall process, yes this is absolutely. It's

subjective, it the part that the Board really applies its policy desires on the decision tool. That's kind of, it's subjective, but it's also reflective of the Commission or the Board's policy.

Meaning, we want to have really high weight, technical information, and less weight on the economic and social information, or we want equal weights on those things. Someone could game it. I think there could be things within it that would have counterintuitive effects. I guess I would suggest that people should take the survey and be truthful and sincere in taking the survey, because what they think they might be gaining in the system might backfire on them. I guess I'll end my yammering there.

CHAIR KELIHER: Thanks, Jason, Eric Reid.

MR. CLARK: Thanks, Jay, that was very interesting, and as I said, I think that if it is done in the spirit that you say, it could be very useful. Just one follow up on the economic considerations. The fact that you are weighting like short-term and long-term effects with the similar weight. Wouldn't they kind of offset themselves in some of these things? I mean, we always will say like, well we've got to cut harvest now, because it will pay off in the long run, so economically short-term pain but long-term gain.

DR. McNAMEE: Really good observation, John. I think you are right that they could offset each other, but they don't have to, and there are two ways that they might not directly offset each other. One would be if the weightings are not equal, so you thought, you know you wanted to up weight the long term over the short term. That could create a situation where they are not always just canceling each other out.

Then, the other way is in the actual score. You could have equal weightings on these things, but then the scores, depending on whatever the management objective is, management action that is being proposed. The scores could be different. You know you could get a really significant short-term effect with little long-term benefit, and so those two scores would be reflective of that, and they wouldn't cancel each other out.

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CHAIR KELIHER: Great, all set, John?

MR. CLARK: Yes, thanks a lot, Jay. That was very interesting.

CHAIR KELIHER: I've got Eric Reid, Justin Davis and then Tom Fote.

MR. ERIC REID: Thank you, Mr. Chair and thank you Doctor. I appreciate the fact that this socioeconomic data is in there. If I remember correctly, I think I have a vague memory of the few items we do with our partners at the Mid-Atlantic, I think there are a few. I appreciate the socioeconomic data being included there, especially in relationship with National Standard 8, which addresses communities. But my question is, I see in the presentation you talk about ex-vessel price and weightings and so on and so forth. Where does the economic multiplier for any particular species fit into this program? Do you also consider willingness to pay in the commercial fishing industry?

DR. McNAMEE: Awesome questions, Eric. The prime construct of these came from the experts on the Committee for Economic and Social Science, as some good solid metrics that they thought might be a good place to start. Now, as mentioned a couple times, I think some customization could occur within the tool itself.

If there were other metrics or ways of looking at the existing metrics in a different way, I think those could be built in. I think that's what we were talking about with regard to, you have this overarching framework that we've stepped through in this presentation. But then you would kind of get down to the species level, and that's where the stuff that you're talking about can kind of come into the tool, and influence it.

I think the stuff you're talking about could be built in as a standalone metric, or as a supplement to one of the existing four metrics that we've offered. I think those would have to be done, I would guess the economic multipliers and effects and things like that are very

different for the different species. That is where that would come into play.

CHAIR KELIHER: We're going to move right along to Justin Davis then Tom Fote.

DR. JUSTIN DAVIS: Thanks for the presentation, Jason, and all the work by you and the Workgroup. I've followed this with a lot of interest as it has moved along. I think this is great. It's providing transparency and standardization to a process that I think all of us as Commissioners or delegations do in our own heads, when we're making management decisions.

But we're all probably doing it a little different, or weighing things differently. It's probably a good idea to get it all out on paper and standardize it. One thought I had, in looking at the schemes you laid out. It's possible I missed this, but there is a point in there for input from the Board, from the TC, and from the Committee on Economic and Social Science.

But I'm thinking there should be a point in there where the Advisory Panel has some input, particularly when you're considering socioeconomic impacts. I think that is something that we have to give our Advisors a chance to weigh in on, because they have context and understanding there that probably goes beyond what the Board and TC have.

DR. McNAMEE: Justin, thank you very much, I think that is a really excellent point. I vaguely recall thinking about where the AP would fit into this process, and I think you've kind of put that back on the radar. That is an important consideration that we'll go back and figure out. I'm guessing it comes in, in parallel with where the Board kind of comes in. I think that would be the most logical place for that to come in. But we will address that, and I'll come back with a response to that.

CHAIR KELIHER: Thank you. Moving along to Tom Fote.

MR. THOMAS P. FOTE: I know there is a lot of work going into this. I'm always very concerned when I hear, you know the short-term pain, we're going to see long-term gain. Now, we've been telling that to

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commercial and recreational fishermen for the last 30 year, and we keep cutting back on the quotas, as we've done over the last 30 years and put more and more restrictions.

The only thing a lot of them have seen is commercial fishing is going out of business, recreational party and charter boats going out of business, recreational tackle stores going out of business. The short-term pain just turns into a long-term pain for a lot of members of the industry, both commercial and the recreational fishing industries.

We weight things, and the weighting seems never to basically really look at the pain it caused those fishing communities, both fishing communities. I have real concerns. I made promises 30 years ago, and one of those promises that I thought would actually happen never did. As we ask politicians, are we better off than we were 30 years ago?

Yes, we might have more fish in the water according to the estimates of MRIP, but has the recreational and the fishing communities done any better? When you start catching 25 percent of what fish you were catching 30 years ago when we started in most species, and we're just seeing more and more regulations.

We don't see the rebuilding of the stocks like we thought we would see, or because of the approaches we used are precautionary, are basically not allowed for those even increases to be circled through the community. I'm always concerned when we get new models, because the models are only as good, I learned a long time ago when I was going to graduate school, and I was in computers and advertising, and that's what my background was.

The surveys and the modeling you do is only as good as the data you put in. I'm still very concerned that that data that we put into it, especially with the new MRIPs numbers causing all this pain, and considerations that I'm not sure that those numbers are any better than

the numbers we had before. That's just my comments on it.

DR. McNAMEE: Yes, Tom, you know I think that's totally fair. What I would offer you. I appreciate the comments. I hear them myself; you know in Rhode Island. I think one of the attributes of this decision tool is, you can express that in here by up weighting the short-term effects and down weighting the long-term effects.

The long-term effects like you said, they are uncertain. I think there is a track record there as well, although it may be different, depending on the stock you're looking at. But you can actually express your views that you just offered, within the mathematics of this tool, by adjusting the weights commensurate with that.

MR. FOTE: Just one short follow up. If you're using tautaug, I know in the last 15 to 20 years, because New Jersey thought that was, and we all thought that one of the fish that state-by-state, because unlike black sea bass and summer flounder, they don't usually migrate out and north, they usually migrate in and out. The thing that we could basically get proposed to actually do state by state management of this. Even with all the data we tried to accumulate, we always got told it was not enough. Finally, we gave up, because you're spending time and effort trying to do that. You just find out you're never going to be able to do it. If this would help, I don't know.

DR. McNAMEE: Good point.

CHAIR KELIHER: Bill Gorham.

MR. BILL GORHAM: I think Tom's points are very well put. It seems like it's very important to get a lot of the socioeconomics right. Just looking at some of the more recent decisions by certain fisheries. It was in the recreational community, the subsections, that people that don't own boats.

There are bucket fishermen, pier fishermen, and maybe it's just a policy or acknowledgement, the Board or Commission needs to acknowledge is that when we get these reports in, if there is going to be an



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adverse effect on a certain subsection like pier fishermen, that we can reassess.

Oftentimes, you know we see reports and it's not taken into account. We're at this stage of the game we can't go back, but the report itself is lacking critical socioeconomics. I'm just wondering if that is something that this model has the capability of doing, if something is missed, you know during the input process. Thank you.

DR. McNAMEE: Yes, and you can kind of redirect me if I'm not actually answering the question you asked. But I think the answer is absolutely. This is meant to be kind of an evolutionary process; you know it's supposed to iterate. In particular in the beginning, you know we're going to learn as we go.

We learned a lot by running through kind of the mock striped bass example, and we're hoping we think it's improved a lot, and we hope that it continues to evolve. That is exactly how it is sort of built, to progress. Let's just stick with striped bass. Let's say we got to the Board and you noticed that, hey we've got a highly dependent shore fishing community, and that is not identified here. That comment could be made, and the tool can be adjusted to account for that.

I think there is, and we want to get to a point, where at some point it stabilizes, and we're not adjusting it every single time, because it sort of loses its effectiveness. But in particular on the first couple of uses, I do see that happening. Sometimes that's the best way to go, right? You don't recognize some things until you are kind of confronted with them. This process that we've outlined here, allows the ability to update and evolve.

MR. GORHAM: Yes, thank you. I think it is really critical, as you were going through the presentation, there was a lot of TC involvement, I guess a lack of public involvement, to where my fear is that we could continue to overlook

things that just aren't captured in the data, which we know is abundant. But if there is the ability to go back and reweight it, and a willingness to go back and reweight it, regardless of timeline. Not necessary process, but to get a better understanding of the world of the fishery and on the stocks, I think it would be fantastic, because on paper it looks great. But if it's lacking the critical information, it just looks great. Thank you.

CHAIR KELIHER: I see Tom Fote your hand is back up, and we have a member of the public that wants to make a comment. Are there any other Board members that have not spoken on this topic yet? Tom, do you have a very quick follow up?

MR. FOTE: I do.

CHAIR KELIHER: Go right ahead.

MR. FOTE: When he was starting to talk about shore-based anglers, and one of the things that really has grated me over the years, is that we look at the management measures we put in place, especially in the recreational community. We never look at the impact it has amongst different sectors of the fishery.

For example, every time we raise the size limit, we put shore-based anglers further and further away from the resource, because they do not see the same size fish as the boat anglers. Because they are not at most of the meetings, and you have the party and charter boats, which is important to the industry and everything else, but they get squeaky wheels, and we kind of lose those people on the side.

Over the years I've brought this up many times, but we've basically forced a lot of shore-based anglers, if they want to actually take a fish home to eat, they are going to be poaching most of the time, because they don't really see the size limit that we put in. Are you fishing Jamaica Bay stuff? You'll never catch one that is big enough to take home to eat. We could weigh this, if I am understanding this. We could give that more weight that we don't alienate that population when we do a rule.

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DR. McNAMEE: Yes. You know I think in that specific example, that would come into those dependent community parts of the socioeconomic aspects. Now the ability to get that granular with it, we'll just have to see how that kind of plays out, because I actually don't know if it can get that defined. But the answer to your question is yes, like that type of thing is directly, that is where that community dependency part comes into play.

CHAIR KELIHER: Captain Julie Evans, do you have a comment?

CAPTAIN JULIE EVANS: Yes, sir. Yes, I do. I'm amazed at this model, and appreciate it so much. I'm also, I've known Tom Fote for a very long time, and I appreciate his comments, as they are very true. I've been a reporter in commercial and for-hire industry in the past. I've also been a participant. There is one thing I might want to remind, well there are two things. We have more and more subsistence fishermen, as Tom was referring to in Jamaica Bay. I'm located in Montauk.

But people are, I think, more dependent on shore-based fishing and not just for fun recreation, but for food. That is one thing. I would like everyone to kind of be cognizant of that fact. The other is that we're faced here in East Hampton with a project that is going to be very disruptive to the fisheries. Our town leaders have gone into an agreement with a wind development company called Orsted, and they are going to be running a cable from Cox's Ledge to Wainscott.

CHAIR KELIHER: Julie, I'm going to ask you to stay on topic, as it pertains to the Risk and Uncertainty Policy.

CAPTAIN EVANS: Well, I was wondering whether the Risk and Uncertainty Policy would be considerate of the fact that will be disruptive to fishermen and fisheries.

CHAIR KELIHER: Okay, thanks for that question. Jason.

DR. McNAMEE: Yes, I think so. I appreciate the question. I think it's a tricky one, in that it would depend if that management action were somehow integrated into the Commission management process. Then things like that could be vetted in here. Now things are happening that are kind of outside of the realm of the Commission management action, you know that it wouldn't connect into this tool. Hopefully that made sense.

CAPTAIN EVANS: If I might. If people might be willing to think about this as something that might be put into this management tool in the future, I think a lot of people would appreciate it, thank you.

CHAIR KELIHER: Thank you, Julie. I'm going to ask staff if they can go back one slide, please with the recommendations here. Thanks for that. The proposed next steps are using this for a pilot case with tautaug. I just wanted to get a sense of the Policy Board and the direction you want to go. I don't think we need a motion on this, but if we have consensus, I think we can give Jason and the team what they need to start moving forward.

Is there anybody that would be opposed to the next steps? I'm not seeing any hands go up. Nobody is jumping in, so Jason, I think you have an answer and support for your proposed next steps. I want to just take a step back and thank you for that. I mean that is very comprehensive work that you've done, and I think it will be very beneficial as we move forward. I want to personally thank you for all that work.

DR. McNAMEE: Thank you, Mr. Chair. Could I have just five more seconds? I would like to thank someone also. You know Sara Murray has really kept this going, and so I get to be the front man here, and that is fun for me. But behind the scene Sara Murray has been the ASMFC person who has really kept on top of this and kept it rolling, and so my thanks go to her for a lot of the work in keeping this moving forward.

CHAIR KELIHER: Great, thank you for saying that. Your thanks are also our thanks as a Policy Board, so great

work, great team. Thank you very much. We will continue now to move right on, on the agenda.

### **REVIEW AND DISCUSS THE 2020 COMMISSIONER SURVEY RESULTS**

CHAIR KELIHER: The next item is Review and Discuss the 2020 Commissioner Survey Results. I believe, Deke, you're in the queue to give a presentation on that.

MR. DEKE TOMPKINS: Good afternoon! I think we can head over to the second slide, please, Maya. Cool, so this is a presentation of the overview. I'm going to break the analysis of the 2020 Commissioner Survey down into four categories. Check out some whole time series trends, the lowest and highest scores for 2020, and then we'll look at the declines and increases from last year to this year.

Finally, we'll do a brief summary of the comments. All right, so the survey was initiated in 2009. The 2020 version of the survey was open from January 7 through 24, and it is composed of 16 rating questions, and 5 comment questions. As I'm sure everyone who filled it out noticed there is a new question on the 2020 survey, asking you to rate the ACCSP product, so that is similar to Science and ISFMP. This slide shows the number of respondents and average scores for each year in the time series. It's pretty self-explanatory, you can see both categories ticked up just a little from last year. This is the whole time series slide, and this slide describes the negative trends throughout the whole time series, using a linear trend line.

Essentially, this is the slope of the trend running across all years, so you can see these are the questions that have gone down when you've got a linear trend line to that data point. I would also note that Questions 7, 8, and 9 are in italics, because those were added to the survey in 2014. Now when you get to the good news slide, these are same as last slide, but the questions have been trending up throughout the whole time series, and note Question 14

and 15 were new to 2014, so they don't go back all the way to 2009.

You can see here is a number of questions that are making good progress as well. This slide shows the lowest scores for the 2020 survey, and I would note that these were also the lowest two scores from 2019 as well. I'll also note that the score for Question 8, progress to end overfishing has fallen every year since 2017.

These are the highest scores, so everything that go above an 8, Questions 11, 13, 14, 15, and 16 have remained above 8 throughout the time series, so those are among our highest performers every year, and Questions 6 and 10 for securing resources and engaging with Legislator, while a bit noisy, are trending up overall in the time series, as described back in Slide 6.

We are going to now talk about the questions that had a score declining from last year to this year. It's pretty self-explanatory, cooperation with federal partners, progress to end overfishing, our relationship with constituent partners, cooperation among Commissioners, and engaging our state and federal legislators, all took a little reduction. This slide shows all the questions with a gain of over 0.1 on a scale of 1-10.

These are starting up top with some high performers, and then going down it's a pretty small increase, but I wanted to provide a complete picture here for you. All right, now we're moving into the comments. It's really tough to distill all the comments down into a couple slides, but I tried to stack the comments that were commented multiple times up top. For the obstacles to rebuilding fish stocks, I think you can see climate change and environmental conditions were a very popular one, and so was politics, cooperation, and outside interests. I think the second one and the first one both are really getting at some of the allocation issues that we have been dealing with recently, and that down there, there are actually some that definitely just referenced allocation. The most useful ASMFC products, so the science is always up there, and that was up there again.

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The meeting materials, all of Tina's great outreach products, and ASMFC staff and the ISFMP products are some of the most noted, and then Lisa Havel's Habitat technical products were also pretty popular ones, so thanks. This is always a tricky one, request for additional products. I think quota monitoring web page has been mentioned for a couple years now.

Then there are a number of other ones, I'm not going to read through all these, and they are in the meeting materials, if you want to take a closer look. These are issues needing more attention, and once again climate change and the environment is right up there on top. Public outreach and politics and cooperation and outside interest were up there.

Data management and MRIP was also one that received a couple multiple comments. Lastly under additional comments, this one should make all the ASMFC staff feel good, and thanks for the complements. A lot of these had to do with Laura's shop, and helping with the CARES Act stuff. With that I'll take any questions.

CHAIR KELIHER: Thanks, Deke, any questions on Deke around the survey? Steve Bowman.

MR. STEVEN G. BOWMAN: I was just noting the one page that dealt with a significant reductions. In looking over that page I was just wondering, it just seems to me that some of those things that have gone down may be an artifact of the pandemic that we're dealing with, the lack of being able to work with each other, see each other, and things like that. I just wanted to put that out for consideration. Thank you.

MS. KERNS: Pat, if you're talking, we can't hear you.

CHAIR KELIHER: Thank you. For some reason my computer has just frozen up here a little bit. Can you hear me now, Toni?

MS. KERNS: Sure can.

CHAIR KELIHER: You kind of froze up and all the audio stopped on there for a second, about half way into Steve's comment. Do I need to follow up with you, Steve on anything? I'm sorry.

MR. BOWMAN: No, sir, I was just indicating that before we take those comments too, not to be a double negative, but negatively. I was just making the point that I thought that maybe some of those may have been a result of the pandemic that we're dealing with, and the lack of our face-to-face communication, whether with our constituents, whether with our fellow Commissioners or other artifacts of that possibility. Thank you.

CHAIR KELIHER: Yes, the fact of angst. Steve, I think those are real good comments. Certainly, we are in a very, very different time. I looked at that survey as much more positive than negative. Actually, when I was talking to Toni about it, she said kind of we've got to look at the scale here of what some of those declines are. They are just off by a bit. Overall, I see it as very positive. Joe Cimino.

MR. JOE CIMINO: Thanks, Deke, I appreciate it when you hit us with this. There are always some interesting things in there. I think one of them to me was our Commissioner's concern with being able to deal with overfishing. One of the reasons why I say that is, it started in 2017 that we've been saying that.

It really wasn't until after we received the new MRIP numbers that we saw a stock status of overfishing for two of our key species. I think before that we were dealing with depleted status in quite a few species, but maybe only tautog that had overfishing. Yet, I still had to rank it high, because those are two species along with sea bass and fluke, where we can't necessarily seem to manage our way out of these things.

Rec discards and environmental conditions are such a challenge. I just wanted to put it out there that, you know we had a curve ball thrown at us in a big way with the new MRIP estimates, changing an entire understanding of our time series of management. But you know still a very real concern. Thank you.

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CHAIR KELIHER: Thanks, Joe, for those comments. Any other members of the Board like to comment? I don't see any other hands going up. I know Toni you had a comment you wanted to make?

MS. KERNS: Yes. You know Deke addressed for a couple years now; some folks have had interest in a quota monitoring page. It's not that we have been ignoring that suggestion, it's the difficulty that we find for the species that are left that have state-by-state quotas that aren't covered under the quota monitoring page through NOAA Fisheries, have a lot of confidentiality issues with them. We wouldn't be able to show several states landings, and so we seem to be settling with how then we would show quota monitoring page for those species.

CHAIR KELIHER: Seeing no other hands on this, Deke, I want to thank you for pulling all that information together. The survey, you know sometimes when I get it, I was like, ah the survey is here again already. It seems like we just did it. But I think it's important. We have a good reply rate from members of the Board.

I think it's important that we do this on an annual basis, to kind of keep us all on track.

**REVIEW STATE MEMBERSHIP ON  
SPECIES MANAGEMENT BOARDS**

Deke, I want to thank you again, and with that we'll move on to the next item on the agenda, which is Review State Membership on Species Management Boards, so that is you, Toni. It's all yours.

**REVIEW PENNSYLVANIA'S MEMBERSHIP ON  
THE ATLANTIC MENHADEN MANAGEMENT  
BOARD**

MS. KERNS: Since we moved the first half of this agenda item to Monday, we're going to go to the second part, which Bob is actually going to cover which is Pennsylvania's membership on the Menhaden Board.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Mr. Chair, is it okay if I jump right in?

CHAIR KELIHER: Yes, please do, Bob, sorry.

EXECUTIVE DIRECTOR BEAL: I wasn't sure if you had any comments before I jumped into it.

CHAIR KELIHER: No, no, no, no, go right ahead.

EXECUTIVE DIRECTOR BEAL: I'll try to keep this brief, but the Executive Committee has talked about this a number of times. There are a number of members of the Policy Board that probably haven't sat in on those conversations, or sort of been caught up on the whole issue around Pennsylvania and the Menhaden Management Board.

For those reading along in the briefing materials, Page 60 of the Policy Board materials has a draft memo that may memorialize the decision of the Policy Board at the end of this process. Ultimately at the end of this conversation, the Chair will likely ask if you are comfortable with that wording, and if so, we can adopt the language in that memo.

The quick background is, in February of 2016, five years ago, the Policy Board unanimously approved Pennsylvania's participation on the management board. Pennsylvania asked to be put on, and the Policy Board quickly and unanimously said yes that that works out. Since 2016, Pennsylvania, coincidentally, fell behind on their due's payments to ASMFC for a variety of reasons that have all been adjusted, and Pennsylvania is currently up to date, and in great standing financially with the Commission.

But, when they were in arrears the Executive Committee was looking into the consequences and impacts of states being behind on the due's payments, and we worked with the Commission's Attorney, Sean Donahue, to look into that issue and sort of figure out, all right if a state really falls behind, what can we and what do we do about that?

Coincident to that review, Attorney Donahue noticed, sort of brought to the attention of the Executive Committee, and he did this from the perspective of

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being a good attorney and good Commission Counsel, and said hey, you guys may have some exposure or liability here with Pennsylvania serving on the Menhaden Board.

His rationale for that was that he went back to the Guiding Documents of the Commission, the Compact and the Rules and Regulations. In the Compact there are a number of descriptions on how states operate and where states can and can't participate. One of those provisions is pretty direct, and it says Pennsylvania and Vermont are essentially limited to participating in the Commission process for anadromous species.

He raised a red flag and said, hey you may want to think about this issue, and should menhaden continue to be, continue to participate on the Menhaden Board. You know there may be some exposure here that the Commission needs to think through a little bit. We had that back-and-forth conversation at the Executive Committee. Then as the conversation evolved a little bit, the Commission also approved Ecological Reference Points through the Menhaden Board, and ultimately the Policy Board. As everyone knows, the Ecological Reference Points sort of intimately linked menhaden and striped bass, striped bass obviously being an anadromous species. As the conversations at the Executive Committee evolved, they came up with essentially what's included in this memo, which is given the importance and the linkage between menhaden as a forage base, and striped bass as an anadromous predator.

It seems to be acceptable for Pennsylvania to stay on the Menhaden Board, given that relationship between menhaden and striped bass. That's what's recorded in this memo. We talked through this with our Attorney again, and he feels that given the sort of new direction that the Commission is moving in, toward ecosystem management, and linkages between predator and prey.

He does not have remaining concern about exposure or liability of the Commission, feels that the Commission can justify keeping Pennsylvania on the Menhaden Board, if they choose to do so, and that does not cause significant or concerns to him that down the road he'll be in front of a judge or have a case that he's not able to adequately justify why Pennsylvania is participating on the Menhaden Management Board.

Again, the summary of my sort of long-winded background here, is included in that short memo. The last item, the last bullet Number 4 I think is important as well, which is this. This doesn't set a precedent, it is unique, it's sort of a one-off situation, where Pennsylvania is listed as a state in the charter that has limited participation in some of our species.

But, given that this sort of direction that the Commission is moving in, it seems to be okay in this one instance. But if there are other instances, we'll have to consider those individually in the future. I'm happy to answer any questions, Mr. Chair, but that's my somewhat quick summary of the issue.

CHAIR KELIHER: Thanks for that, Bob. I think that Bullet Number 4 in particular, or Item Number 4, is particularly important, as far as precedent setting. The fact, I think, the Executive Committee had a couple different conversations about this. I think the fact that the Attorney has looked at this and feels comfortable as well with this new information, gave the Executive Committee some comfort having this move forward, memorializing it with a memo in the file, so it's not lost in the future.

Before we make any final decisions here, I want to open it up for any questions or comments to Bob. Any hands? I don't see any hands. From a process standpoint, we do not need a motion, because Pennsylvania is on the Board. From my standpoint, Bob, correct me if I'm wrong, we can just memorialize this that consensus was reached on this issue, and we can put this letter in the file.

EXECUTIVE DIRECTOR BEAL: Yes, that's correct. We'll finalize this memo, you know include today's date, and I'll sign it, and we'll be all set. I can obviously share a copy of this with all the Commissioners, in

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case they want one just to have it in their files. But that is a good plan moving forward, Pat.

CHAIR KELIHER: Okay, that sounds good. Well, I don't see any other hands on this issue, or any hands on this issue, so with that we will have this letter signed. I think, Bob, that is a good idea, as far as getting this copy out to everybody on the Policy Board. If you guys could do that, that would be great. Okay, Toni, I don't think you had anything else under this item.

MS. KERNS: I did not, Mr. Chairman.

**DISCUSS COMMISSION PROCESS FOR  
WORKING ON RECREATIONAL REFORM ISSUES  
WITH MAFMC**

CHAIR KELIHER: Okay, we'll move right along, because you're up next as well, so Item Number 11 is Discuss Commission Process for Working on Recreational Reform Issues, Toni.

MS. KERNS: I have two, I guess things to go over with the Board on this one. The Policy Board has been meeting jointly with the Mid-Atlantic Council on Rec Reform for Commission species, summer flounder, scup, black sea bass, and bluefish. The Policy Board has been involved, because it is two management boards that are being addressed.

Since the Policy Board is the overarching management board for all the species management boards, we thought it made the most sense for this body to engage with the Mid-Atlantic Council on these Rec Reform issues. At some point along the way we said we would come back to this Board and confirm that that is the way we want to move forward, as management documents are initiated.

We have initiated a management document, so one, the first thing we want to do is just to confirm that it is this Policy Board that should be engaging with the Mid-Atlantic Council on these issues. Then the second piece of information that we want to get advice from

the Policy Board is, how to move forward with voting with the Mid-Atlantic Council. What we're looking for today is recommendations to bring back to the Council, as the two bodies discuss how voting would take place.

But we just want to get the position of the Policy Board before moving into those discussions with the Council. For the Summer Flounder, Scup, and Black Sea Bass Board and the Bluefish Board, who have joint FMPs with the Mid-Atlantic Council, the process that we use is making like decisions. If a motion is raised, each body has to have the exact same motion for that motion to be able to be voted on. Both bodies have to pass that motion for the motion to carry.

This is a unique system that we have with the Mid-Atlantic Council for these jointly managed species. When we take on issues that are for species that are complementary with other management entities, such as the South Atlantic Council, or the New England Council, we do not use this like-motion process. We are looking for recommendations on how we want to discuss the voting with the Mid-Atlantic Council. That is the second part, and that is my background of this discussion, Pat.

CHAIR KELIHER: Thank you, Toni, questions of Toni on this issue? Tom Fote.

MR. THOMAS P. FOTE: Thank you for your hard work on that, Toni. I mean I'm looking at, I see a serious problem here, and I'll just pick bluefish, because it basically shows the whole problem. We basically have representation from North Carolina to New York on the Mid-Atlantic Council. We have some New England representatives; Eric sits here as a representative from New England Council. When we come to the South Atlantic, there is no representation whatsoever, and those states do not have the votes on the Council to basically equalize. I mean I'm just looking at; the Mid-Atlantic Council can control what happens in the South Atlantic and the New England part.

Some of the member states from both New England and South Atlantic don't really like that too much, and I agree with them. There is a problem there. I don't know how we get around it. I mean if we had a super

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council, or a committee of the three councils that would meet on species like this, that we have a total membership of up and down the coast, that would make more sense.

But basically, the Mid-Atlantic Council as a deciding vote from our four members or five members below them, including southern then because of North Carolina, and from Rhode Island north. How do we correct that problem? That is one of the things I've been trying to think about. I think with everything else, over this pandemic it's actually given me more time to think about the whole process in what I've been doing. I think that's why some of those comments in the survey were more interesting this year. I'll leave it at that.

CHAIR KELIHER: Thanks, Tom for that. I've got two other hands up, Ritchie White and then David Borden.

MR. G. RITCHIE WHITE: Yes, sitting in black sea bass for the first time in a number of years. Watching or participating in that process, it just struck me that in the process the Mid-Atlantic gets to veto whatever the Commission comes up with, as the Commission determines votes first. The Commission would pass a motion, and then the Mid-Atlantic Council can just say no to it.

The concern is that it's obviously state waters and federal waters fishery, but to me I think it's new, in that it's allowing you know a federal entity or representative of the Feds, control over state water fisheries. I don't know the answer, because obviously species has to be managed in both entities. But it was new to me, and it gives me some concern, but I don't have any recommendations.

CHAIR KELIHER: I'm going to try to bring us back with some recommendations in a moment, but I would like to recognize Dave Borden, and then Adam Nowalsky.

MR. DAVID V. BORDEN: I'm just going to follow up on both Tom's point and Ritchie's point. You know over a long period of time I have had my ears burned by New England fishermen about the lack of New England representation on the Mid-Atlantic Council.

The issue that really comes up in my mind, is the fact that since you need identical motions, and there are no New England representatives on the Mid-Atlantic Council, then in essence it's very difficult for the New England contingent to get a motion, even on the floor. I think that is a real problem with the system. Like Ritchie, I don't know how to address it.

CHAIR KELIHER: Adam Nowalsky.

MR. ADAM NOWALSKY: Great, thanks very much, and I appreciate Ritchie's comments. I don't know if Mike Luisi is participating today that he would want to comment as Chair of the Mid-Atlantic Council. But I do want to highlight that the process that took place earlier this week between the joint bodies, was somewhat different, with regards to the order of voting that took place, and was in fact requested by some member states from the Commission.

It's typically the process when we vote on joint motions at a joint meeting that the Council and the Commission would alternate on a motion-by-motion basis, which body votes first, which then essentially gives the other body that veto power. When on black sea bass commercial, the two bodies met jointly in December.

It was determined, again at the request of board members in consulting with leadership. When we discussed the issue of inclusion of the allocations in the federal FMP, it was decided for the December meeting on that portion of the agenda, that we would forego the alternating process, only have the Mid-Atlantic vote first on those options, followed by a vote from the Board, if the Mid-Atlantic motion passed.

Then for the issue of the allocations at this meeting, it was again determined ahead of time that the Board would vote first on all of these motions, followed by the Council. But our typical joint meeting process is not what we saw. We typically go back and forth. The



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Board votes first on one motion, which gives Council, as you call it veto authority.

The next motion the Council would vote first, which again in the terminology we're using would give the Board veto authority, and go back and forth on motions throughout the order of the business of the day that way. This meeting was different this week. I know it's been a few meetings since New Hampshire has been a part of that, but I did want to highlight that.

CHAIR KELIHER: Thanks, Adam, I'm going to go to Mike Luisi, and then I'm going to try to bring an idea forward. Mike, go ahead.

MR. MIKE LUISI: Is there something that's being asked of? You know we've been dealing with joint meetings for quite some time, and I speak not as a member of the Policy Board, but as the Chair of the Mid-Atlantic Council. I feel like we try to make sure that everybody has an opportunity to speak, and to be represented, as far as the decision-making groups.

You know, I will say that I missed the beginning part of this conversation, I was on a phone call during another meeting. I don't know, Pat. Is there something being asked of the Mid? You know maybe I can ask you that question, and see where we go from there. But I'll limit my comment to that point, and see what you think.

CHAIR KELIHER: Yes, thanks, Mike, I appreciate that. There may be a question asked of the Mid. I've been talking to staff about this. I guess the one benefit of sitting up here in the northeast corner is that I've been kind of watching it from afar. Listening to the conversations, both at the table and obviously the online table, I guess I should say, as well as talking to a few folks around the virtual table, but talking to staff as well. We've got two issues we've got to consider, the first is the simpler one. Is the Policy Board still the right Board to take part in these discussions? Then second, what's the voting process? Does the Policy Board, if it is

the Board, want to recommend to MAFC? There may be a decision point here. As it has been stated by Toni, and you know we've got two Commission management boards. It seems reasonable for the Policy Board to take part in these discussions.

It was suggested that would be the case. Before I go on, I just want to make sure. Does the Board agree that the Policy Board is the right body to continue these discussions with the Mid? If not, is there a better process from who is going to be engaged in this? Does anybody object to the Policy Board continuing with those discussions?

MS. KERNS: Pat, can I just clarify that we're talking about Rec Reform here. We're not talking about how we engage with the individual Bluefish Board and the Mid-Atlantic Council, or the individual Summer Flounder, Scup, and Black Sea Bass Board and the Mid-Atlantic Council, it's about Rec Reform issues only is what we're getting a recommendation for, so then we can carry forward a recommendation to the Council about how we vote together, as well as is this the right body.

CHAIR KELIHER: Yes, thanks, Toni for saying that, because I think there is still a lot of energy around that black sea bass issue, so thanks for kind of refocusing this on the Rec Reform issue. Is there any objection from the Policy Board that the Policy Board remains the board that will be engaged with the Mid on this issue? Adam Nowalsky, your hand is up.

MR. NOWALSKY: I don't want to object to that process, but I just want to ask a question. Does the wording in the FMP allow the Commission as a whole to be part of that joint process for these jointly managed species? Is there something that explicitly states that joint management action takes place with one of those species-specific boards? In which case, action is part of Rec Reform that might modify the FMP, might need to come from the Board specifically. I don't know the answer to that, but I did want to ask.

CHAIR KELIHER: Yes, thanks Adam, that's a great question. I'm going to let staff jump in, but from my perspective, because this is an overarching policy around Rec Reform, the Policy Board is the right place,

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and then when it gets used at the lower levels with the species board, then that's where they become engaged. Toni or Bob, do you want to jump in on that?

EXECUTIVE DIRECTOR BEAL: Yes, Pat, I can jump in. I would have said the exact same thing you said, which is the Policy Board is the overarching board, and traditionally our practice is for the Policy Board to tackle multispecies issues, or issues that span more than one species management board. While I'm talking really quickly, Toni may have said this in her opening statement.

You know the other unique thing with Rec Reform is, some of our Commissioners during the development of this have suggested that, you know if we come up with some really good ideas in Rec Reform, those may be applicable to other Commission only managed species, striped bass, tautaug, whatever it might be. Sort of part of that conversation was, you know it seems awkward or strange maybe for the Mid-Atlantic Council to be too involved, if the Commission is developing a broad policy on rec reform that may apply to species outside of the four that we jointly manage with the Mid. That kind of muddies the water even a little bit more. Happy to answer questions on that.

CHAIR KELIHER: Mike Luisi.

MR. LUISI: Yes, I think honestly, you know I'm speaking on behalf of the Council at this point, as Chair of the Council. You know I think you, Pat, I think you, Bob, Toni and I, Chris Moore, we need to just have a conversation about how we're going to work forward with this Rec Reform Initiative.

You know I'm willing to have that conversation with you guys, to try to figure out how we're going to operate, so that we don't find ourselves in the position where the decisions that we make are questioned, to the point where whether the Commission or the Council votes in a particular way. I just think that we

need to be transparent in how we're going to handle that down the road. Right now, it's all kind of theoretical. You know there is a lot of good work to be done, but at some point, there are going to be motions made, and we just need to figure that out.

CHAIR KELIHER: I agree that we're going to have to have more discussions on this, and I note that there are a couple other hands that have gone up, and I'm going to come to you in a second. But I do want to put an idea on the table for the Policy Board's consideration, and I think it would fit into that broader conversation that you just referenced, Mike.

You know Toni discussed this earlier, as far as the joint management process, where we need to have like motions between the Commission and the Council. Sitting up here in the northeast, I looked at that process. It certainly does give the Mid kind of more voting power the way it is currently set up.

Adam brought up this idea about kind of switching back and forth on who gets potential veto power. In talking to staff, what we've come up with is potentially an idea that kind of removes that kind of veil of veto power. What I would like to do is suggest as far as Rec Reform decisions are made, like motions would not be required, as they are in a joint management process to vote on issues.

While this could potentially mean separate documents in final decisions, it preserves an equal voting voice in power among the states, as it's intended under ACFCMA. A little bit more work, two sets of documents, but after those things are done, then it would be kind of bring these things together, to try to resolve. But it just felt better than trying to see one body having veto power over another.

That is the thinking that has evolved with staff and myself. Again, I'm kind of looking at it from a distance. We have those two issues, the Policy Board, and this type of decision making, a new type of decision-making process. I've got two hands up. Karen, when your hand went up earlier, did you still have a question, or did your question get answered?

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MS. KAREN ABRAMS: I put my hand down. Thank you, Mr. Chair.

CHAIR KELIHER: I have a bunch of hands going up now. I'm going to start with Tom Fote, Eric Reid, Jim Gilmore, Joe Cimino, and Mike Luisi.

MR. FOTE: I have confidence in the Commission. I mean we have a lot of checks and balances that the Councils do not have. When you voted a caucus vote, you have to get a legislator, a state director, and a governor's appointee all to agree on a vote, otherwise you wind up with a null vote, we wind up with an abstention, or we wind up voting for an issue.

But it also makes sure that we basically cover all, whether commercial or recreational, it doesn't matter. You've got to work with your other Commissioners, so you all work together on getting into a consensus of what should be done for all your fishermen in your state. The Councils are set up a little differently.

You know I know they are supposed to represent all the fishermen, and look beyond whether you're commercial or recreational. After dealing with the Council for 35 years, I've noticed that that doesn't happen much. That is why I have confidence in the way the Commission deals with these issues.

Sometimes New Jersey is on the short end of the stick. We've been there a couple times, but at least I know I'm dealing with three Commissioners that have to caucus together, to bring out a decision. I always respected and still respect that process to no end, and will defend that process. I do not feel the same way as I've been watching the Council system operate over the last couple of years.

It's gotten more partisan to how you feel about it, you know how it affects you, not how it affects your state. I think that's where we do the best job at doing this. I want to complement the Commission for the job it does, because that's what it does best.

CHAIR KELIHER: Eric Reid.

MR. REID: I do appreciate this particular piece of guidance. I am fine with the Policy Board handling it. I am the liaison from New England to the Mid-Atlantic, and Chairman Luisi and Dr. Moore give me a lot of latitude. But at the end of the day, I'm not voting. I can't do it; I can't do a lot of things. That is not very comfortable. I've mentioned in every meeting there is, sooner or later how the New England position is diluted in the process, even joint with the ASMFC. If that helps distill the diluted mess down a little bit, I'm 100 percent for it.

CHAIR KELIHER: Thanks, Eric. I was going to say something about we all give you a lot of latitude, but I won't say that. Next on the list is Jim Gilmore.

MR. JAMES J. GILMORE: I think Pat, your suggestion, and first off yes. The Policy Board is the right place to do this. Your suggestion of trying to do this, I think some agreement between the Commission and the Council, I think is a good start, because if we can resolve this at the lowest level. I think that we'll give it a try, and maybe we can come up with something that works. My concern with it though is, and it really comes down to how the Councils were formed, which is now 45 years ago when Magnuson was passed. I don't think Magnuson envisioned a lot of things, maybe that the fisheries were going to be more static than they are now. As I've said, I've mentioned this before. A few years ago, we all went down to D.C. and the one thing that came out of that, that was clear, that was the governance based upon the structure of the Council was problematic for what we're dealing with, with stocks shifting around.

Unfortunately, I think if we really want to try to fix this beyond your suggestion, Mr. Chairman. I don't know if the statute that originally created Magnuson is going to allow for that. I guess we'll have to deal with it. But I think it's a good suggestion. Let's try to do this in a cooperative effort with the Council, and then if it doesn't work, we'll have to maybe do some more serious options.

CHAIR KELIHER: Joe Cimino.

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MR. CIMINO: I support the Policy Board's involvement in this. At first blush, your suggestion that for Rec Reform like motions aren't needed, sounds reasonable to me. I know a lot of us fear that the biggest challenges to some of those very good ideas in Rec Reform will be strict interpretation of Magnuson. As the Commission develops an overarching policy for other species, that may not be an issue. I do worry about those species that are jointly managed.

At times the Council, for certain species like sea bass and fluke will come up with non-preferred options, kind of nuclear options, if NOAA is too concerned that the options being chosen are not risk averse enough. I would worry that if Council and Commission are making different decisions for state waters on jointly managed species, that it could put the Council in a tough position at times.

CHAIR KELIHER: Thanks, Joe. Mike Luisi, back to you.

MR. LUISI: Yes, Joe just summarized where I was kind of going. Do you think there is an opportunity for the Policy Board and, so I guess my question to you, Mr. Chairman is, at what point are we going to make a decision on this? Is today the day to make a decision about whether or not the Policy Board and the Council don't have to have like motions in moving forward with Rec Reform?

I mean, my opinion would be that I don't think that's the right way forward. I think if we're going to do something, you know at the federal level and with the Council, that we would do it together. But I guess I'm looking for some advice, or some guidance from your end, as to when. It's part of the discussion today, but do we need to have a more thorough, more informed conversation, you know between now and when a decision gets made? I'm just looking to you for some advice, as to how you think the Commission is going to work through this.

CHAIR KELIHER: As I was thinking about this, you know a little spit balling here. You made a comment earlier, Mike, as it pertains to leadership getting together. I think there is likely agreement around the table now that the Policy Board is the right board from a Commission standpoint. Maybe what we need to do from this point is take this concept that I laid out, have leadership for both Mid and the Commission get together, to kind of work on that concept, you know just in the spirit of cooperation, and see where we go from there. I wouldn't mind getting Toni or Bob's thoughts on that as well.

MS. KERNS: Mr. Chairman, I think you hit the nail on the head. It was the intent here. We knew that this discussion needed to happen, and we wanted to know what it was that this body wanted us to bring forward in those discussions. We didn't want to speak for you, we wanted to know how you guys wanted to carry out actions. If we have that recommendation from this body, then we can take that to leadership. I see that Bob has his hand up as well, so I will let him take the reins from here.

CHAIR KELIHER: Go ahead, Bob.

EXECUTIVE DIRECTOR BEAL: Yes, I agree with where you're going, Pat, and Toni's comments. Only thing, sort of responding to Mike's question on the timeline, and when do these decisions need to be made. We don't have to do it today necessarily; we can have a leadership call.

But, I think we need to decide pretty soon because the Rec Reform schedule is ambitious, to say the least. You know, we're going to have to have a number of meetings throughout the remainder of this year to try to get that done, and maintain that schedule. We'll need to figure something out, whatever it looks like, pretty quick.

CHAIR KELIHER: Mike, does that make sense to you, this approach?

MR. LUISI: Yes. I think that the sooner the better. I'm going to be working out of my kitchen for the next year probably. I'm willing to have the conversation with leadership from ASMFC and the Council, you

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know anytime you guys want to plan it. But I do think that, so what I would like to see is a discussion that gets brought back to the Policy Board. The problem is, Bob and you guys, there is not another Policy Board meeting until May. Like the spring meeting is going to be the next time the Policy Board gets together, or could you do something in between now and May?

CHAIR KELIHER: I think there is possibility with a webinar to do something between now and May.

MR. LUISI: I would hate for a delay.

CHAIR KELIHER: Yes, I think as Bob said. I agree, Mike. As Bob said, there is an ambitious schedule that is laid out here. I think we may have to come back around to this, unless the Policy Board wants the Executive Committee to deal with it directly. I think the first step is, let's get, as long as there is agreement from the Policy Board now.

We agree that the Policy Board is the right body. Leadership gets together with the Mid to kind of work on this concept that came out, to see if it is the right way to go. Then we make a determination yes or no, and bring that back to the Policy Board for final adoption. We may be able to do it with an e-mail vote, or if it's needed, we may be able to pull together a webinar. Bob, I'll let you jump in.

EXECUTIVE DIRECTOR BEAL: I was going to say the same thing that a webinar between now and May, you know we can find an hour and a half or so to bounce this off the Policy Board, I would think. Unless the Policy Board wants to delegate the authority to the Executive Committee, and that is up to the group that's on the webinar right now.

CHAIR KELIHER: I've got one new hand that just, Tom Fote, I see your hand up. I'm going to actually go to Roy Miller who has not made a comment on this. Roy, go ahead.

MR. ROY W. MILLER: I would just suggest that we stick to the Policy Board, rather than the Executive Committee. If it's the Executive Committee then we lose a lot of potential participation from LGA. Right now, only Dennis Abbot and I represent the LGAs on the Executive Committee. I think everyone should be kept abreast of what develops with this Rec Reform issue, and joint voting with the Mid-Atlantic Council representation, et cetera. My opinion, thank you.

CHAIR KELIHER: Thank you, Roy, I think it's a solid opinion as well. Tom Fote.

MR. FOTE: I was just going to say what Roy was going to say. Also, the fact that we need to really do it, so we can get the LGAs basically at these meetings. It's hard for people, with their schedules, even though a lot of us are at home. It is hard for some people that still have to work, scheduling in between teaching their kids and everything else. You really need to have these meetings scheduled at a certain time, and not when it is a Council meeting, maybe not when it's a Commission meeting.

CHAIR KELIHER: I've got two other new hands that have gone up. I've got double O, Dennis Abbott. Dennis, the floor is yours.

MR. DENNIS ABBOTT: I agree with Roy. Neither he or I would be prepared to properly represent the LGAs in this issue. Their voices need to be heard individually, thank you.

CHAIR KELIHER: David Borden.

MR. BORDEN: I totally agree with your suggested way forward, and I think it's logical. I think it's in the best interest of the Commission, thank you.

CHAIR KELIHER: Seeing no other hands. Unless somebody wants to object, the Policy Board will continue to be the body that will move this forward. I agree with the comments, as far as bringing this back around to the Policy Board and not the Executive Committee. Staff will reach out to leadership of the Mid.

We'll get meetings set up as soon as possible, figure out what the time constraint is going to be on that, and then we will report back out to the Policy Board on how those discussions are going, and if we're going to need a meeting to adopt anything. If there are any objections to that, please raise your hand, if not, we're going to move this conversation along to the next item.

#### **DISCUSS POSSIBLE REPORTING PROGRAMS TO CAPTURE RECREATIONAL RELEASE DATA**

CHAIR KELIHER: Great, thank you very much that was a good conversation, and moving along on the agenda, Item Number 12, which is Toni again. Discuss Possible Reporting Programs to Capture Recreational Release Data.

MS. KERNS: This is a bit of a follow up from the Bluefish Board discussion that was had earlier today, and as well back in December when we met jointly with the Mid-Atlantic Council. I'll briefly cover for the background. In a recent review, the Biological Reporting Requirements, the Bluefish TC had noted that the stock assessment recommendation to accurately characterize the recreational release length is very integral to the assessments.

Improvements to the methodology used to collect this data is recommended. You heard this today at the Bluefish Board meeting. The TC discussed options for electronic reporting that could be used for collecting recreational angler release data to remove the need for states to create their own individual data collection system.

The TC at that time had recommended the Bluefish Board advance the importance of bodily collecting reliable recreational release length frequency data for all recreational species, by asking the Bluefish Board to ask the Policy Board to task the Assessment Science Committee to work with ACCSP, to develop a comprehensive program for recording released fish of all recreationally important species that the Commission manages.

The Bluefish Board had concerns about the lack of specificity in the recommended tasks, and weren't prepared to do so. What we said was that staff would put together some information for the Policy Board to think about, in terms of recreational discard data collection, and provide some recommendations to the Policy Board, instead of going to the specific task.

There are a lot of different electronic reporting Apps out there. In the past and currently, some concerns have been raised when discussing reporting Apps that produce population level estimates of recreational catch. A large portion of anglers would have to consistently use them to report accurate information about their fishing trips, and a specifically valid probability-based sampling survey would also have to validate self-reported data, monitor the extent of the reporting, and account for unreported trips.

But option or non-mandatory angler reporting Apps have been found useful in some cases for collecting quantitative data via citizen science incentives. For example, the Florida Fish and Gamefish Foundation, anglers working with Florida Fish and Wildlife assessment scientists to collect and use angler data in stock assessments.

However, in most cases the lack of comprehensive data collection and validation has limited the use of that data in stock assessments. But there are aspects of these opt in on mandatory angler reporting Apps that can be used for other information. Some of these reporting Apps that are being used, but none are completely comprehensive for the entire east coast.

A couple of examples are the scamp release program. Previously it was only used for scamp, but that program is adding other snapper grouper species in April of 2021. The My-Fish Count focuses on South Atlantic species. It has 23 species that can be reported through this APP, but not bluefish, iSnapper focuses on snappers, but in Gulf Waters. ACCSP is currently developing Scifish. This product is a combination of Scamp Release and Catch You Later, which is North Carolina DMF. It focuses on ten grouper species, plus flounder, spotted sea trout, weakfish, kingfish, and red drum.

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ACCSP is in the process of conducting scoping meetings for the Scifish application that will expand the features and standardize the data collection. The medium to long term goal is to expand this application, so that it can be customized for many different species. There will be a questionnaire that is going to be distributed on February 8, and there will be Town Hall meetings on March 9 and 11.

You can contact Julie Simpson at ACCSP for more information on these meetings. It's our staff recommendation that instead of having the Commission develop a specific program themselves that Commission staff and Assessment Science Committee continues to engage with ACCSP, as they develop Scifish.

The Assessment Science Committee continue to receive updates and advise in communication with the Rec Tec lead to this specific program. The comments and information that we can provide back to ACCSP will be relative to information that would be useful for Commission managed stock assessments, and management activities. We thought that this would be a more streamlined approach to trying to bring into the data needs for our stock assessment, instead of trying to recreate the wheel.

That is all I have here, and I can answer questions, and I also have some backup folks for questions that I cannot answer. I'm not really looking for an action here, I was just trying to provide a different path forward from the Bluefish TCs recommendation, but still find ways that we can co-access information. It might not be this year that these applications are ready for bluefish, but perhaps in the next coming years.

CHAIR KELIHER: I've got a couple hands up already for questions. Jim Gilmore and then John Clark.

MR. GILMORE: Toni, just a couple of questions, and I agree, I think the going with the ACCSP

approach with Scifish, although it sounds like a cable channel. Just a couple of questions. I'm assuming this would be an App that they would develop, and will there be a fee associated with it?

I think we should go with it, because I know we hitched our wagon to a couple of things like Pocket Ranger and Fish Rules that was a freebee to get information, and now they are all coming back looking for significant amounts of money now to keep the thing going. Yes, I think it makes sense to do our own thing, but what would it cost, and is this developing our own App?

MS. KERNS: We need to phone a friend for this, Mr. Chairman. I would ask that Geoff or Julie answer this question, one of them.

CHAIR KELIHER: Yes, go ahead, just remember you only have three lifelines.

MR. GEOFF WHITE: Thanks Toni, this is Geoff. Just confirm you guys can hear me on this headset.

CHAIR KELIHER: You're all set, Geoff, go ahead.

MR. WHITE: In terms of availability to the anglers developing it in-house, there is already plans for the development cost for Scifish for 2021. Those were two ACCSP approved projects. The cost to use these Apps out in the field is of course nothing to the anglers, and then the ongoing thought of what would it cost to support this, interact with the anglers. Points well taken, Mr. Gilmore, and the long-term costs have not been fully identified.

CHAIR KELIHER: Great, thanks, Geoff. I see Julie had her hand up too. Julie, did you have something on that topic?

MS. JULIE DEFILIPPI SIMPSON: I'm going to go with what Geoff said.

CHAIR KELIHER: Perfect, Excellent. John Clark.

MR. CLARK: Along the lines of what Jim was bringing up about the cost. I was approached by one of the three applications that Toni mentioned, and they did want a pretty sizable payment to provide it to anglers

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in Delaware, you know for Delaware Fish and Wildlife to pay for it. If we can get something that doesn't cost that would be great.

CHAIR KELIHER: Any comment on that? Toni.

MS. KERNS: Not beyond what Geoff provided.

CHAIR KELIHER: Jim Gilmore, your hand is back up, follow up?

MR. GILMORE: No, Mr. Chairman, I'm just sleeping, I've got to put it back down, thanks.

CHAIR KELIHER: I should have done that myself. They gave me control, which is always dangerous. I don't see any other hands up at this time. I take that back, Bill Gorham.

MR. GORHAM: I sent the e-mail to Mr. Beal yesterday, and there are line items for the most recent budget of 3.5 million to go to help the states implement such a plan. I would be really interested to see if you were to just put this out to the public, how many Apps we could probably get for relatively free, just getting the angler feedback information. But I would love to see it happen, and if you have to go through appropriate channels, and that seems to be the fastest way, I would love to see this go through.

CHAIR KELIHER: Toni, you're not looking for a motion here. What do you need from the Policy Board?

MS. KERNS: I don't need really anything, it was more of an informational update and a different route, a different solution/recommendation to what the Bluefish Board had started to talk about back in December.

CHAIR KELIHER: Hearing no objections, you did get some feedback, so I think Commission staff should move forward and engage with ACCSP on that. Assuming you will bring those conversations back to the Policy Board at the next meeting.

MS. KERNS: I'm not sure it will be at the next meeting, Pat, but we'll keep you updated on the progress of the application and we'll go from there.

CHAIR KELIHER: All right, that sounds good, perfect.

## COMMITTEE REPORTS

CHAIR KELIHER: Great, moving right along on the agenda. We have Committee reports. We've got Habitat Committee up first, so Lisa.

### ATLANTIC COAST FISHERIES HABITAT PARTNERSHIP

MS. LISA HAVEL: I'm going to start with ACFHP, since we don't have any action items for this one. The Steering Committee met virtually November 9 and 10, and we discussed the National Fish Habitat Conservation through Partnership Act. This was signed by President Trump at the end of October, and it codifies NFHP into law.

There are some major changes for how the Partnership operates that goes along with this Act, and how it administers funding. We're hopefully spending this year, 2021 to figure out this implementation collectively. We also had updates on current on-the-ground projects funded by the Fish and Wildlife Service, NOAA Recreational Fishing as well as NOAA GARFO and the Fish America Foundation.

We discussed the finalized conservation mapping project that I've presented to you all in the past. The funded projects in conservation mapping projects are on the ACFHP website under the Our Work tab, if you wanted to see more. For FY2021, Fish and Wildlife Service on the ground conservation funding, we received 14 applications this year, and we will be recommending 11 for funding.

We received proposals from seven states in the North, Mid, and South Atlantic sub-regions. These proposals would improve tidal vegetation, riverine bottom and shellfish bed priority habitats, and benefit species such as shad and river herring, Atlantic sturgeon, striped bass, American eel, horseshoe crabs and more.

Mutually, the Fish and Wildlife Service announces which projects are funded in the late spring. We also



endorsed a couple of projects since my last presentation to the Board back in August. The first one is the Big Pine Key Aquatic Habitat Hydrological Restoration Project. This is co-led by Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service, and it's taking place on Big Pine Key in the Florida Key.

It will restore 108 acres of freshwater marsh, 28 acres of mangrove forest, and 16 acres of salt marsh to provide fresh water to threatened and endangered species in the Florida Keys National Key Deer Refuge. Another project that we endorsed was evaluating an approach to long-term SAV monitoring in North Carolina. This was led by the Albemarle Pamlico National Estuary Partnership. As I said, it takes place in North Carolina, and this is in support of an RFP for the National Estuarine Research Reserve Science Collaborative. This project, if funded, will evaluate the effectiveness or recommended protocols for a North Carolina coast polyhalene sea grass monitoring and assessment program, and ACFHP serves on the Advisory Panel for this project.

Finally, the last project that we endorsed was Tuckerton Reef. This project is led by Stockton University, and takes place in Little Egg Harbor Bay, New Jersey. It is a research and restoration project on a constructed oyster reef, and they are hoping to expand the reef, as well as do some research on it.

It will improve water quality and provide fish habitat, and it involves state, local, NGO, academia, and industry partners. ACFHP would like to thank ASMFC for your continued operational support, as usual, and I'll move on to the Habitat Committee report, and I'll take questions about ACFHP at the end, if that's okay.

CHAIR KELIHER: Yes, that's fine.

## HABITAT COMMITTEE

DR. HAVEL: Great. The Habitat Committee met virtually November 12 and 13, and we received updates on the documents in progress, the acoustic impacts to fisheries and fish habitat, as well as the Habitat Hotline. The Habitat Hotline was released at the end of December, and focused on fish and fish habitat sustenance along the coast.

We also continued working on the fish habitats of concern. We've been making good headway with that project, and we had a discussion on dredge windows elimination proposal in the Army Corps Wilmington District, and I'll get into that a little bit more next. We included in the supplementary materials a comment letter about the dredging windows.

In August, the Army Corps of Engineers proposed to eliminate existing hopper dredging windows in portions of Wilmington Harbor and Morehead City Harbor, so that maintenance dredging and bed leveling can occur year-round, with offshore or nearshore placement of dredge material.

In December, the Army Corps addendum limits this proposal, which was originally put out in August, to a three-year period, ending at the end of December, 2023, and commits to studies on the impacts. But these studies are yet to be specified. The purpose of eliminating their window is to maximize flexibility to obtain contract dredges for maintenance dredging.

The current window is from December 1 to April 15, and has been in place for over 20 years, in order to minimize impacts to fishery resources migrating between the ocean and vital nursery habitats. The Habitat Committee was concerned with this decision. Concern for both the immediate impacts on ASMFC managed species in North Carolina, as well as the precedent it sets for the rest of the coast.

The comment letter that was included in the supplemental materials for your consideration, it includes references to other agencies and organizations that have made comments on this EA, and it elaborates on specific ASMFC managed species that this decision could impact. The draft letter was presented to the Executive Committee in early January, but it was updated to include information from the Addendum. Action is needed to approve the

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letter if the Policy Board so decides. I'm not sure if you would like to discuss action on the letter now, or at the end of my presentation.

CHAIR KELIHER: Let's do it at the end.

DR. HAVEL: Okay, great, I'll continue. Finally, for the Habitat Committee, there were a couple of updates to membership. We have a couple of new members. Robert LaFrance is representing Connecticut, Claire Enterline is representing Maine, and we're very excited about both of these members, because Connecticut and Maine haven't been represented for a few years now on the Committee.

"Tripp" Boltin is representing Fish and Wildlife Service for the Southeast Region, replacing Wilson Laney's position, and Wilson is now representing North Carolina Coastal Federation. We have a new Chair, Jimmy Johnson from North Carolina, and a new Vice-Chair, Russ Babb from New Jersey.

#### **ARTIFICIAL REEF COMMITTEE REPORT**

DR. HAVEL: I'll move on to the Artificial Reef Committee Report. The Artificial Reef Committee usually meets around now, but we decided to meet later in the year, with the hopes of possibly meeting in person. If not, we will meet virtually, but we decided to have a little hope for that. But in the meantime, the Committee drafted an update to the ASMFC profiles of state artificial reef programs and projects, which was published in 1988.

This update highlights some of the accomplishments of artificial reef programs in the states over the last 30 plus years. It summarizes the number of permitted sites, mitigation reefs, and average annual operating budget along the coast. It has an introduction and information for each state that has an artificial reef program.

For each state there is a summary table and contact information, as well as a map of the reefs, pre-1988, and post 1988. There is a summary of the state's programs since 1988,

and some of the highlights over the past 30 years. States have chosen to identify specific reefs, different successes in monitoring or collaborations, and this update will also include photos, once the text is approved by the Policy Board, if you so decide to approve it.

For this document, which was included in the briefing materials, we're seeking approval of the document text to go ahead with the formatting and the publication of this update. As always, we welcome the suggestions for action items that you would like for the Habitat and Artificial Reef Committees to work on, and with that I'm happy to take any questions, or comments on the two requests for approval for the document. Thank you.

CHAIR KELIHER: Thanks, Lisa, I appreciate that. Before we get to the letter, approval of your letter, is there any questions of Lisa? John Clark.

MR. CLARK: Thanks for the presentations, Lisa, very interesting. I just have a question about that Tuckerton Reef in New Jersey. You said it was going to be a constructed oyster reef. What material will that be made from? Is it still going to use shell, or is it going to be something different?

DR. HAVEL: I believe that it is a combination of, I think it's seeded reef balls, but I can follow up with you if I go back and look at the proposal for you. There is already a reef there, and then they are looking to expand upon the reef that is already there.

CHAIR KELIHER: Any other questions? Seeing none, Lisa, can you just do a very quick overview of the letter? I think a lot of people are aware of the letter and the issue, and just give it a couple minutes, and then we need to move, I think take action and approve it, as long as there are no objections, obviously.

DR. HAVEL: Sure, so the letter contains first background information on the Commission, and a little bit of background on the EA that the Army Corps put out, as well as the Addendum that they put out in December. The letter would be commenting on something that was already decided, but we have

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found in the past that even if the window for comments has closed, they do take what the Commission has to say into consideration.

Then it specifically calls out these different species that are likely to be impacted by the Wilmington District specific proposal, including alewife, American eel, shad, croaker, menhaden, striped bass, sturgeon, black drum, blueback herring, hickory shad, red drum, spot, spotted sea trout, and bluefish.

There is a potential for a lot of impacts, since a lot of these species migrate between the ocean and the nursery habitat, so we call that out in the letter. We also acknowledge the other agencies that have commented already, and then we have an attachment that lists all the species that I just mentioned, as well as who manages it, whether it's ASMFC, or it is jointly managed with the Council, and then under which fishery management plan it falls under as well. It's in total five pages, and that includes the attachment of the list of species.

CHAIR KELIHER: Great. Thank you, Lisa. Joe Cimino has got his hand up.

MR. CIMINO: Just to get back to John Clark's question, so Lisa doesn't have to follow up later. It's all going to be spat on shell for the Tuckerton Reef, John.

CHAIR KELIHER: Back to the letter. Are there any objections from the Policy Board to sending that letter? Jim Gilmore.

MR. GILMORE: Not an objection, just when Lisa went through the species, I didn't hear all of them. It was all of our managed species, but is there any mention of endangered or threatened species in that? That is a lot of the windows we have up in our core district, they tend to pay attention to Atlantic sturgeon and things like that, and the rest of the species there we're always fighting with them on. Are they included in the letter?

DR. HAVEL: We kept the letter focused on only species under ASMFC jurisdiction, and those that occur within the geographic range, which includes Beaufort and Cape Fear River Inlets, since that is what the proposed EA would impact. But we do express the concern that this could set precedents for other districts along the coast that also fall under the Commission's geography.

CHAIR KELIHER: I know the precedent setting issue is certainly what's important to my state. If there are no objections, I think we can just say that there is consensus that the letter would be sent, and seeing no hands, I think we can get that letter out by the end of the week. Great, thank you very much, Lisa. Moving along, Item Number 14 is Review Noncompliance Findings, Jim your hand went back up. Did you just to forget to put it down?

MR. GILMORE: No, no, I just had a quick follow up to Lisa on artificial reefs. I saw in New York it says we have our annual budget is zero. You can make that \$750,000.00 now, and the actual price last year was 10 million, but I don't think I'm getting that this year, just if you want to include that update, thanks.

DR. HAVEL: Okay, thank you. I'll make that edit. Mr. Chair, is it okay to have a discussion on the update to the artificial reef profiles as well, to get that approved?

CHAIR KELIHER: Oh yes, please. Is there anything else you want to bring forward on that? Any objections to that approval? I don't hear any objections, Lisa, so I think you're all set on the Artificial Reef Proposal as well.

DR. HAVEL: Great, thank you, Mr. Chair.

#### **REVIEW NONCOMPLIANCE FINDINGS**

CHAIR KELIHER: Moving along to Item Number 14 is Review Noncompliance Findings, and we have none, which is always good, which brings us to the last agenda item, which is Item Number 15.

## **OTHER BUSINESS**

CHAIR KELIHER: We do have some letters that need to be approved, so I'm going to ask, first I'm going to go to Dan McKiernan to discuss the letters that were brought forward in the Lobster Management Board discussion.

### **LETTERS REQUESTED BY THE LOBSTER MANAGEMENT BOARD**

MR. DAN MCKIERNAN: Thank you, Pat, there are three letters that came out of the Lobster Management Board. The first one had to do with the National Marine Fisheries Service's recent Biological Opinion on the bundled Biological Opinion concerning the impacts on endangered species, and notably right whales. The second is a comment letter on the proposed Take Reduction Plan Rules and the Draft Environmental Impact Statements. That particular comment period is open until the end of February.

Then the third is a letter concerning the Northeast Canyons and the Sea Mount. The Department of Interior is mandated by President Biden to comment on whether to amend President Trump's Executive Order, which allowed fishing within that particular monument. We hope that the Policy Board would approve three letters, one on each item. I believe there are some text for some motions that can be brought up to the screen.

CHAIR KELIHER: Did you have anything that you were going to show us, Toni?

MS. KERNS: Maya is working on just getting the motions up on the board for you guys to see. Two different motions.

MS. DRZEWICKI: I have them on separate slides, do you want me to put them all on one slide?

CHAIR KELIHER: That one slide fills the screen with the first letter. Dan, do you want to just read that into the record? It does not need a

second, because it's a motion that is coming from the Board.

**MR. MCKIERNAN: I certainly can. On behalf of the Lobster Board, move the Commission send letters to NOAA Fisheries with comments on the proposed rule to amend the regulations implementing the Atlantic Large Whale Take Reduction Plan and the draft opinion. The Biological Opinion letter should include the following:**

**First, the Bi-Op should be completed so it will support the proposed rule to avoid jeopardy. A statement that addresses the burden the U.S. Fishery could bear based on the actions of Canada. The Atlantic Large Whale Take Reduction Plan letter should include the following: The rule should be completed by the end of May to ensure the court does not intervene.**

**Implementation timeline recommendations that address practical start dates. Supporting trawl equivalency, I think that may be a typo there, that would allow for modifications related to trawl length, such as to address the need to fish a single end line in the areas, example 8 traps with 2 endlines equals 4 traps with 1 end line. Finally, to support enforcement and coordination with state agencies.**

CHAIR KELIHER: Great, thank you, Dan. That is the motion on the floor, it does not need a second, coming from the Board. David Borden.

MR. BORDEN: I totally support the Commission submitting a letter. The only thought I've had since is, we have two deadlines, one for the Bi-Op, and the other one for the proposed rule. One is February 19, and the other one is March 1. It might make some sense to request a minor extension in the comment period on the Bi-Op, so that both comment periods end on March 1. I don't think that will delay anything at NOAA. But in terms of how to handle it, Mr. Chairman, I'm prepared to make that as a motion to amend, or we could do it as a standalone motion, whatever you prefer.

CHAIR KELIHER: David thanks. I think what I would like to do is vote on this motion, and then bring that up as

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a standalone motion. Let's do that after we take care of this letter and the Monument letter.  
Karen Abrams.

MS. ABRAMS: This is Karen Abrams, NOAA Fisheries. I certainly have no objections to this motion, but I'm going to abstain from this vote.

**CHAIR KELIHER: Okay, thank you very much for that, Karen. Any objections to the motion? Noting the one abstention from NOAA Fisheries, and hearing no objections, the motion passes.** If we could put the next motion up on the board for the second letter. Dan, you've got the floor again.

MR. McKIERNAN: Sure. Move to request the Commission send a letter to NOAA requesting a short extension of the comment period on the Endangered Species Act Section 7 Consultation-Biological Opinion from February 19 to March 1, 2021.

CHAIR KELIHER: Well, that was not the one. Let's put a hold on that. That was the motion that Dave was going to make. Maya, you should have another letter or another motion from the Lobster Board on the Monument. There it is right there. There you go, Dan.

**MR. McKIERNAN: Okay. Regarding the Monument: On behalf of the Lobster Board, move the Commission send a letter to the Secretary of the Interior restating the Commission's position on modifying the Northeast Canyons and Seamounts Marine National Monument.**

CHAIR KELIHER: Great, thank you very much. Are there any objections to the motion on the board? It does not need a second. Karen, I assume you will be abstaining again, am I correct on that one?

MS. ABRAMS: Yes, that is correct, Mr. Chairman.

CHAIR KELIHER: Mike, I assume you'll be abstaining?

MR. MIKE PENTONY: Yes, sir.

**CHAIR KELIHER: Noting that both NOAA and U.S. Fish and Wildlife will be abstaining, are there any objections to the motion? Hearing and seeing none, the motion passes.** Maya, if you could put that other motion back up. I think that is the motion that David Borden was going to make. David, if you wanted to read that into the record.

**MR. BORDEN: I move to request the Commission send a letter to NOAA requesting a short extension on the comment period on the Endangered Species Act Section 7 Consultation-Biological Opinion from February 19 to March 1, 2021. I so move.**

CHAIR KELIHER: This is not a motion of the Lobster Board, so it would need a second. Cheri Patterson.

MS. PATTERSON: Yes, I'm seconding the motion.

CHAIR KELIHER: Thank you. Motion by Mr. Borden, seconded by Ms. Patterson. Is there any discussion on the motion? Karen, I'm assuming you're abstaining.

MS. ABRAMS: Yes, that is correct, thank you.

**CHAIR KELIHER: Noting the abstention from NOAA Fisheries, is there any objection to the motion? Seeing no objections, hearing no objections, the motion passes.** Great, thank you very much. That concludes the letters from the Lobster Management Board and the new motion by Mr. Borden. We do have one more letter that has been recommended by Shad and River Herring Board. Mike Armstrong, are you online?

MR. MICHAEL ARMSTRONG: I am.

CHAIR KELIHER: Great, would you like to read this motion into the record?

**LETTER REQUEST BY THE SHAD AND RIVER HERRING BOARD**

**MR. ARMSTRONG: Sure. On behalf of the Shad and River Herring Board, move to send a letter to NOAA Fisheries to request that shad be made a higher**

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**sampling priority, particularly for genetic stock composition sampling, to improve our understanding of the impacts of mixed-stock fisheries on system-specific stocks, as recommended by the 2020 Assessment and Peer Review and the Technical Committee.**

CHAIR KELIHER: Great, thanks, Mike. This is a motion brought forward by the Shad and River Herring Board, it does not need a second. Are there any questions of Mike? Karen, assuming it's an abstention?

MS. ABRAMS: That is correct, Mr. Chairman.

CHAIR KELIHER: Mike, the same with Fish and Wildlife?

MR. PENTONY: Yes sir, thank you.

**CHAIR KELIHER: Noting the abstentions of both NOAA Fisheries and U.S. Fish and Wildlife Service, is there any objections to the letter? Seeing no objections, the letter passes.** Thank you very much. That concludes the votes on what ended up being five separate letters. Cheri, you had one new item for business. Why don't you go ahead with that?

MS. PATTERSON: Yes, thank you. I'll start out with a question. When we are voting on species specific plans, and there are recommendations from the PRTs or the TCs, but yet we don't include those within the vote of accepting these plans. Is that correct that they follow through with the vote to accept these motions, or do we need to be including the recommendations from the PRTs or the TCs?

CHAIR KELIHER: I'm going to use one of my lifelines, and ask Bob or Toni.

MS. KERNS: Thanks, Mr. Chairman. Cheri, I would say oftentimes recommendations come in the form of tasking a body to do something for doing research. Those would require a Board tasking, so it would not automatically happen by approving the FMP review. If the Board does

want a task to occur that is being recommended, then you would need to task that body to do so. The approval does not make it automatic. Does that answer?

MS. PATTERSON: It does, thank you. I would just like to have a recommendation that when we are voting on, for example compliance reports and such, that there be an additional slide that indicates what the TC or the PRTs are recommending, so that that can be inclusive into the motions to accept. This is just an example, any compliance reports. It would extend out beyond that to assure that when we're approving a motion for accepting these reports, or whatever, that we can be inclusive of what PRTs and TCs are wanting us to include.

MS. KERNS: Following up, if that's okay, Mr. Chair.

CHAIR KELIHER: Yes, please.

MS. KERNS: When the ISFMP staff member, they would ask the Board that specific question, are you including any of the specific recommendations in this motion, or do you want us to remind the Board of that? Is that what you're asking for, or are you sort of saying in general, folks that are making that motion would need to also include the language of what recommendations they want to carry forward?

MS. PATTERSON: Inclusive with the, a lot of times we just have a canned motion that indicates, will you approve, for example the compliance report. If there was a PRT or TC recommendations to that, it might be nice for the management board to be able to see those recommendations, and include those in that canned motion.

CHAIR KELIHER: Cheri, if I might. I think I'm following where you're going, but I think there is a level of complication here, and looking at the hour. I'm wondering if we might want to just bring this back up at the Executive Committee, since we'll be having several calls between now and the next meeting, just to make sure we fully understand. Then we can have if need be, have additional Policy Board conversations around it.

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MS. PATTERSON: That's fine with me. Thanks.

CHAIR KELIHER: Great, thank you, Cheri, I appreciate that. Is there any additional business to be brought before the Policy Board? Bob Beal.

EXECUTIVE DIRECTOR BEAL: No, I was going to comment on the last thing, but all set. I knew my arm was tired. I guess I was holding my hand up too long.

CHAIR KELIHER: Great. I really appreciate the conversations we've had this week. This has been a long week, and ending here at 4:30 on a Thursday afternoon. The only benefit is we're not all running to Washington Reagan to jump on a plane. A lot of good conversations, a lot of difficult conversations this week. You know states' rights continue to prevail within the organization, which I'm always appreciative of. But obviously more work to do, and based on the survey results, there is always more work to do.

**ADJOURNMENT**

CHAIR KELIHER: At this time, knowing that we do not need a Business Session, I would be looking for a motion to adjourn. Steve Bowman. Steve has made a motion to adjourn, seconded by Doug Haymans. Any objections to the motion to adjourn? Seeing none. Mel Bell, your hand is up. Did you have something? Mel Bell's hand is now not up, so motion to adjourn passes without objection. I want to thank you all again for a very productive week. Have a great rest of the week, and be safe. Thank you very much. This concludes our business for the winter meeting.

(Whereupon the meeting adjourned on  
Thursday, February 4 at 4:30p.m.)

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Marine Resources

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March 19, 2021

Patrick C. Keliher, Chair  
Atlantic States Marine Fisheries Commission  
1050 N. Highland Street, Suite 200 A-N  
Arlington, VA 22201

Re: New York State Appeal of Black Sea Bass Addendum XXXIII (commercial state allocations)

Dear Mr. Keliher:

The State of New York hereby appeals the February 1, 2021 decision of the Atlantic States Marine Fisheries Commission (ASMFC) Summer Flounder, Scup, and Black Sea Bass Management Board ("Board") in Section 3.1 Management Options for Commercial State Allocations of Addendum XXXIII: the removal of New York's initial 2% quota increase while granting the same increase to Connecticut, as part of the modified Option F proposed by Massachusetts and detailed in its memorandum to the Board and the Mid-Atlantic Fishery Management Council.

### Background

Under section 3.1 of the draft addendum, the Management Board selected Alternative F (75:25 distribution of quota based upon initial allocations and regional biomass) with the inclusion of a modified Alternative B that increased Connecticut's historical allocation by 2% for an initial allocation of 3%. These changes to the fishery management plan (FMP) were the result of amendments to a main motion that originally included 2% increases to the historical allocations of both Connecticut and New York. A 2% increase to the historical allocations of both states was repeatedly introduced as part of the Dynamic Adjustments to Regional Allocations option, as an amendment to a trigger option, and finally as part of the initial percentage option.

The recent expansion of black sea bass into Long Island Sound was documented in the addendum by the inclusion of spring indices from the Connecticut Long Island Sound Trawl Survey (LISTS) which collects samples from the waters of both Connecticut and New York. The historical black sea bass allocations of Connecticut and New York were based upon historical landings from 1980 through 2001, a time when black sea bass were not abundant in Long Island Sound, as shown by the LISTS index. At this time, the New York commercial fishery for black sea bass operated primarily in the waters of the Atlantic Ocean. A dramatic increase in black sea bass abundance was observed in



Long Island Sound beginning after 2010. In the face of this abundance increase, Connecticut's historical allocation (1% of the coast-wide allocation) was deemed insufficient to allow for a directed fishery in Long Island Sound and the need for additional initial quota was universally recognized. New York State shares Long Island Sound with the State of Connecticut and is experiencing the same new availability of black sea bass. Historically, a fishery did not exist within Long Island Sound for New York State fishermen, just as it did not for fishermen from Connecticut. Despite these circumstances, the increase to New York's historical allocation was described by some Board members as a "handout" and the increase was removed from the motion under consideration with little justification.

The dramatic increase in black sea bass abundance in Long Island Sound was documented independently of the trawl survey index by Mercaldo-Allen et al. (2021) using fish traps. Bell et al. (2015) analyzed the spring NEFSC trawl survey data and found that the black sea bass center of biomass along the shelf has shifted north due to climate. These two changes in circumstance, acutely experienced by New York State fishermen, were not equitably addressed by the Management Board's decision on February 1, 2021.

#### **Justification for Appeal**

Commercial black sea bass allocations remain heavily based upon landings history from 1980-2001 despite the significant changes that have occurred since then in reporting, stock status, biomass distribution, and the species' range. While this appeal focuses on the approved Addendum's failure to properly address the expansion into Long Island Sound and its impact on all affected parties, we note as a broader matter that the species' climate driven shift has rendered 30+ year old landings patterns obsolete and inappropriate for management.

The Addendum's continued heavy reliance (~75%) on historic allocations violates the ASMFC Interstate Fisheries Management Program Charter's Standard 2 (best available science), Standard 4 (minimize waste) and Standard 7 (fairness and equity). Management measures, specifically commercial allocations, remain heavily based upon historic landings data despite the dramatic changes in the resource demonstrated by the best available science. It violates standard 4 because it is wasteful to allocate outsized shares to fishermen far removed from the biomass center who must travel significant distance to catch and land sea bass now found in greater abundance further north. This waste is compounded by an FMP that results in fishermen with access to an abundant nearshore resource to have to discard valuable fish they can neither avoid nor land. Finally, it violates standard 7 because New York fishermen are entitled to a share of the fishery that reflects the abundance shift towards the waters off Long Island rather than continued reliance upon outdated and incomplete landings history.

For the purpose of focusing this appeal, New York specifically calls the Commission's attention to the following defects arising from the Addendum's failure to properly

address equitable access and the increased abundance in Long Island Sound based upon Appeal Criteria 1, 2, and 4:

1. Criterion 1 - Decision not consistent with Statement of the Problem Section of Addendum

The last paragraph in The Statement of Problem in Draft Addendum XXXIII under section 2.1 reads:

*"In some cases, expansion of the black sea bass stock into areas with historically minimal fishing effort has created significant disparities between state allocations and current abundance and resource availability. The most noteworthy example is Connecticut, which has experienced significant increases in black sea bass abundance and fishery availability in Long Island Sound in recent years but is only allocated 1% of the coastwide commercial quota (this allocation was based loosely on landings from 1980-2001)."*

While perhaps "the most noteworthy" because of Connecticut's 1% historical allocation, New York State has also experienced a significant disparity between allocation and abundance/availability. This is due to the same expansion of the stock into the same waterbody, Long Island Sound, an area with historically minimal fishing effort for sea bass and historically low resource availability as shown by the LISTS index. Connecticut sees its historical allocation increased by 200% under the selected option and New York State fully supports this move by the Board. New York sought a similar increase of 2% for itself due to the same shared circumstances that would have increased its historical 7% allocation to an initial 9%, a relative increase of about 29%. This increase would help to address the new access fishermen have to black sea bass in state waters. New York's historical landings were amassed by fishing vessels operating largely outside of Long Island Sound. The dramatic expansion of the species into the Sound has put the same amount of pressure on New York's fisheries as it has on Connecticut's. The commercial fishery in New York State in recent years has been plagued by low trip limits and frequent unplanned closures, due in part to the increased abundance of fish in Long Island Sound where they were not historically available. The second aspect of the option, the redistribution of 25% of coastwide quota according to regional biomass, addresses the shift in distribution and increase in abundance of the black sea bass resource currently available to the traditional northern region fisheries, including those found in New York State.

2. Criterion 2 - Failure to follow process as identified in the ASMFC Interstate Fisheries Management Program (ISFMP) Charter, Rules and Regulations or other ASMFC guiding documents (e.g., conservation equivalency guidance).

The commercial black sea bass decision made by the Management Board when adopting Addendum XXXIII to the fishery management plan violates Standard 7 of the ISFMP Charter's (August 2019) Standards and Procedures for Interstate Fishery Management Plans:

(7) Fairness & equity.

*(ii) Fishery resources shall be fairly and equitably allocated or assigned among the states.*

The Board selected Alternative F with the inclusion of a modified Alternative B that increased Connecticut's historic allocation by 2% for an initial allocation of 3%, acknowledging the expansion of the black sea bass stock into Long Island Sound, an area with historically minimal fishing effort, and the significant disparity that exists between the state's allocation and current abundance and resource availability. In contrast, a similar 2% increase to New York State's historic allocation was rejected by Board members, despite the fact that Long Island Sound shares its boundaries with the coastline of both states and that the commercial management of black sea bass in both Connecticut and New York has become significantly more difficult due to the new presence of an abundant nearshore resource. New York's historic allocation of 7%, relatively low compared to its similarly sized neighbors' level of access, was established at a time in which no significant Long Island Sound fishery for black sea bass existed. A fishery in Long Island Sound now exists where it once did not, and the fishermen from New York State merit the same consideration from the Board as those from Connecticut.

3. Criterion 4 - Management actions resulting in unforeseen impacts that were not considered by the Board as the management document was developed.

The Board selected Alternative F (75:25 distribution of quota based upon initial allocations and regional biomass) with the inclusion of a modified Alternative B that increased Connecticut's historic allocation by 2% for an initial allocation of 3%. This is the first Atlantic Coast joint managed species plan that allows domestic commercial access to evolve with resource distribution. This option also made significant progress towards addressing Connecticut's low allocation in the face of an expanded, newly available resource. These are both important improvements to the fishery management plan. However, the removal of a similar provision for modifying New York State's historic allocation from the approved option has further exacerbated allocation differences between New York State and its other similarly sized regional neighbors. Under the historic allocations, New York State had 13%, 4% and 6% less allocation than New Jersey, Rhode Island and Massachusetts, respectively. As a result of the Board approved option (under recent stock conditions), those differences remain significant between New York and New Jersey (11.5%) and increase to 4.7% and 7.1% between New York and the states of Rhode Island and Massachusetts. This is contrary to the stated goals of this action, which include achieving a "more balanced access to the resource." This impact on balanced regional access by the approved Addendum was not considered by Board members who repeatedly spoke out against an initial increase to New York State's historic allocation and made amendments to remove a New York increase from motions being voted upon.

### **Corrective Action**

The February 1, 2021 decision by the Summer Flounder, Scup, and Black Sea Bass Management Board on commercial sea bass allocation as part of its approval of Addendum 33 was not consistent with the Addendum Statement of the Problem, violates the ISFMP Charter with regards to the Standard of Fairness and Equity, and results in unforeseen impacts that were not considered by the Board.

New York State's commercial fishery has experienced the overall increase in resource availability in the north due to the documented shift in biomass distribution and the significant expansion of the stock into the Long Island Sound, a body of water the state shares with Connecticut that formerly did not support a robust black sea bass fishery.

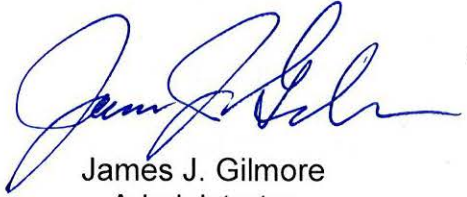
Many of the votes taken on this action were very close and were split along regional lines with predictable results given the current composition of the Management Board. New York State requests reconsideration of this allocation decision by the ISFMP Policy Board which includes jurisdictions without a stake in the fishery. This review is necessary to assess a fair and equitable outcome for all states within the management unit.

Specifically, New York State requests that in place of the February 1, 2021 Management Board approved option that allows for the initial increase of 2% only to Connecticut, the Policy Board approve commercial black sea bass allocations that include the 2% initial allocation increase to both states in addition to the subsequent distribution of 25% of the coastwide commercial quota according to regional biomass. This preferred allocation scheme is identical to the original motion made by the Commissioner from the State of Massachusetts and was included as part of the Winter Meeting briefing materials. It is worth noting that while this change would offer considerable relief to New York State, its impact on other fishery participants would be of a lesser nature. New York State does not discount the loss of fractions of a percent in allocation that would be experienced by other members of the management unit. In particular, it is noted that the greatest contributors to this change (from the currently approved Addendum) would be its 3 larger fishery-sized neighbors (Massachusetts, Rhode Island, New Jersey). The State of Rhode Island and Commonwealth of Massachusetts both opposed the removal of New York from inclusion in the 2% initial increase that occurred during the Board's deliberations. In addition, the corrective action identified here decreases the disparity in access among these four states, described above in the third appeal criterion.

New York State is unaware of other options to gain relief at the Management Board level and is aware that the inclusion of state allocations in the federal FMP by the Mid-Atlantic Fishery Management Council will present additional difficulties. Allocation decisions are difficult affairs in which equity and science-based management may be at odds with the social, political, and economic self-interests of participating states and state representatives. Proposed amendments to the Magnuson Stevens Act include solutions that would remove such issues from our immediate control. This is an indication that the Commission and Council are not alone in their struggle to deal with

allocation decisions in the face of climate driven species shifts. It is hoped that the ISFMP Policy Board, due to its more expansive membership, will be able to render a decision that equitably considers the needs of all states with a stake in the fishery.

Sincerely,



James J. Gilmore  
Administrator



Emerson C. Hasbrouck  
Governor's Appointee



Senator Todd Kaminsky  
Legislator



# Atlantic States Marine Fisheries Commission

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*Patrick C. Keliher (ME), Chair*

*A.G. "Spud" Woodward (GA), Vice-Chair*

*Robert E. Beal, Executive Director*

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*Sustainable and Cooperative Management of Atlantic Coastal Fisheries*

April 9, 2021

James Gilmore  
Director of Marine Resources  
New York State Department of Environmental Conservation  
Division of Marine Resources  
205 North Belle Mead Road, Suite 1  
East Setauket, New York 11733

Dear Mr. Gilmore,

This letter responds to New York's March 19, 2021 appeal of the Atlantic States Marine Fisheries Commission's (Commission) approval of Addendum XXXIII (Addendum) to the Summer Flounder, Scup, and Black Sea Bass Interstate Fishery Management Plan (FMP). On March 26 and April 5, 2021, in accordance with the appeals process, Commission Chair Patrick Keliher, Vice-Chair A.G. "Spud" Woodward, Mel Bell (Leadership), and Commission staff convened on a conference call to review the New York appeal. Mel Bell replaced James Gilmore, the Commission past-chair, on the Leadership call because Mr. Gilmore is a signatory of New York appeal. The purpose of the review was to assess the issues New York raises in its appeal and to determine whether those issues are of the type and substantiality that warrants review by the Interstate Fisheries Management Program (ISFMP) Policy Board.

During the call, it was determined the appeal **could be forwarded** to the ISFMP Policy Board for appeal consideration under criterion one (not consistent with the statement of the problem), however, the appeal did **not** meet the qualifying guidelines under appeal criterion two (failure to follow process) and criterion four (unforeseen impacts). Appeal criterion three was not considered because it was not referenced in the appeal.

## **A. Claims Under Criterion One: Decision Not Consistent with the Statement of the Problem**

The appeal referenced criterion one, "decision not consistent with, or is contrary to, the stated goal and objectives of the current FMP." Under this criterion, the appeal argues the allocation method fails to meet the statement of the problem of the Addendum by specifically increasing the base allocation of the resource for Connecticut to address the expansion of the stock into Long Island Sound (LIS), but not for New York. See letter from New York Commissioners to ASMFC Chair Patrick Keliher, pp. 3 (March 19, 2021). Leadership concludes the Policy Board should further consider New York's claim.

The Addendum's statement of the problem discusses the distribution of the black sea bass stock has changed, abundance and biomass have increased significantly, and there have been corresponding changes in fishing effort and behavior. Further, the Addendum addresses changes in the distribution of the stock specifically for LIS, which has experienced significant increases in black sea bass abundance and availability. New York correctly notes the Addendum only discusses this increase as it relates to Connecticut in the statement of the problem, though New York is similarly affected by the increase as LIS is a shared waterbody of the two states.

**B. Claims Under Criterion Two: Failure to Follow Process as Identified in the ISFMP Charter**

The appeal cited criterion two, "Failure to follow process as identified in the ISFMP Charter, Rules, and Regulations or other ASMFC guiding documents." Under this criterion, the appeal states the decision made by the Board when adopting the Addendum violated Standard 7 of the ISFMP Charter's Standards and Procedures for Interstate Fishery Management Plans, specifically fairness and equity in that fishery resources shall be fairly and equitably allocated or assigned among the states. See letter from New York Commissioners to ASMFC Chair Patrick Keliher, pp. 3-4 (March 19, 2021). Leadership rejects this claim.

Criterion two of the appeals process, "failure to follow process as identified in the ISFMP Charter, Rules, and Regulations or other ASMFC guiding documents", exists to guard against neglect and abuse of Commission processes. This criterion can be claimed as the basis for an appeal when a management board acts in a manner that does not comport with the accepted process and procedures identified in Commission Guiding Documents such as the ISFMP Charter. The standards identified in the Charter serve as guiding principles for the conservation and management programs set forth in the Commission's fishery management programs. A standard does not define process or procedure. For example, while management boards strive to make decisions that are fair and equitable, there are no prescribed processes or procedures identified in the Charter that must be followed to ensure the decision is fair and equitable to all. Therefore, an appellant should not use criterion two when they believe a decision has been made that is not fair and equitable unless there has been a clear neglect or abuse of a process or procedure that resulted in a decision that is not fair and equitable. Leadership concludes that substantial grounds for an appeal are not present on this issue.

**C. Claims Under Criterion Four: Management Actions Resulting in Unforeseen Impacts That Were Not Considered by the Board.**

The appeal letter cites criterion four, "Management actions resulting in unforeseen circumstances/impacts that were not considered by the Board as the management document was developed." The appeal recounts the Summer Flounder, Scup, and Black Sea Bass Management Board's (Board) decision to not increase New York's base allocation further exacerbated allocation differences between New York and its other similarly sized regional neighbors. The New York appeal states the difference in allocation between New York and Rhode Island and Massachusetts increased as a result of the allocation method approved in the Addendum. In the appeal, New York claims Board members did not consider the resulting imbalance within the region at the time the Addendum was approved. See letter from New York Commissioners to ASMFC Chair Patrick Keliher, pp. 4 (March 19, 2021).

Mr. James Gilmore

Page 3

April 9, 2021

Leadership disagrees with New York's position that these impacts were unforeseen during the Board discussion. In fact, for each of the motions considered by the Board, staff presented slides showing the resulting state-by-state allocations. While a direct comparison of New York's quota relative to the other states was not presented, Board members could easily determine the difference in quota from state-to-state with the data presented.

When considering action on the allocation method, scenarios were presented where New York would have different allocation percentages which would increase or decrease their allocation relative to other states in the region. The Board did consider the regional imbalance when, during the Board deliberation, Mr. Gilmore stated his concern that New York's allocation would not get closer to the allocation of Rhode Island and Massachusetts if the state's base allocation was not increased to 9 percent (see Draft Board Proceedings pp. 43-44). Since Commissioners recognized and weighed the potential impacts, Leadership does not find the allocation consequences of this Addendum as unforeseen.

In light of these conclusions, Leadership finds there are grounds for the appeal to be heard by the ISFMP Policy Board as to one of the three claims, under criterion one specified in New York's letter. Leadership concludes it is appropriate to provide New York an opportunity to present its appeal on this issue to the ISFMP Policy Board. During the ISFMP Policy Board meeting on May 6, 2021, the ISFMP Director will present background on the Addendum and the Board's justification. Following this presentation, the Commissioners from New York will be provided 15 minutes to present their rationale for the appeal and their suggested resolution of the issue. The ISFMP Policy Board will then be provided an opportunity to discuss the issue, consider the recommendation from Leadership and then decide what issues, if any, should be remanded back to the Summer Flounder, Scup and Black Sea Bass Board for corrective action. No additional public comment will be taken in connection with the appeal.

Thank you for the continued partnership and commitment to the Commission process and actions.

Sincerely,



Patrick Keliher  
Chair

cc: Emerson Hasbrouck,  
Senator Todd Kamisky  
Interstate Fisheries Management Program Policy Board

L21-42



# ***Atlantic States Marine Fisheries Commission***

## **APPEALS PROCESS**

Revised by the ISFMP Policy Board February 7, 2019

### **Background**

The Atlantic States Marine Fisheries Commission's interstate fisheries management process is based on the voluntary commitment and cooperation of the states. The involved states have frequently demonstrated their willingness to compromise and the overall process has proven to be very successful. However, there have been instances where a state/jurisdiction has expressed concern that the Board decisions have not been consistent with language of an FMP, resulted in unforeseen circumstances or impacts, did not follow established processes, or were based on flawed technical information. In order to address these concerns, the ISFMP Policy Board charged the Administrative Oversight Committee with "exploring and further developing an appeals process".

Under the current management process the primary policy development responsibility lies with species management boards. And, in the case of development of new fishery management plans or amendments the full Commission has final approval authority prior to implementation. The purpose of the appeals process is to provide a mechanism for a state/jurisdiction to petition for a management decision to be reconsidered, repealed or altered. The appeals process is intended to only be used in extraordinary circumstances where all other options have been exhausted. The management boards have the ability to go back and correct errors or address additional technical information through the recently clarified process on "amending or rescinding previous board actions".

During the December 2003 ISFMP Policy Board meeting, the decision was made to continue to have the Policy Board serve as the deliberative body that will consider valid appeals. This decision is consistent with the language that is included in the ISFMP Charter. However, the Charter does not provide detailed guidance on how an appeal is to be addressed.

This paper details for the Commission appeals process.

**Appeal Criteria** – The intent of the appeals process is to provide a state with the opportunity to have a decision made by a species management board or section reconsidered by the Policy Board. The following criteria will be used to guide what type of decisions can be appealed. In general, management measures established through the FMP/amendment/addendum process can be appealed. However, the appellant must use one of the following criteria to justify an appeal:

1. Decision not consistent with, or is contrary to, the stated goal and objectives of the current FMP (Goal and Objective Section of FMPs/Amendments or Statement of the Problem Section of Addenda).
2. Failure to follow process as identified in the ISFMP Charter, Rules and Regulations or other ASMFC guiding documents (e.g. conservation equivalency guidance).
3. Insufficient/inaccurate/incorrect application of technical information. Examples can include but are not limited to:
  - a. If for any calculations used in the decision, an error which changes the results was identified after the decision was rendered;
  - b. If any data used as the basis for a decision, undergoes a modification which impacts results after the decision was rendered (i.e. a landings dataset is adjusted significantly due to a recalibration or application of a control rule adjustment);
  - c. If data is incorrectly identified and therefore incorrectly applied, such as a misidentification of landings information as catch information, or incorrectly assigned landings/catch to a jurisdiction;
  - d. If information used as the basis for the decision lacked scientific or statistical rigor, thereby calling in to question the sound basis for the decision;
  - e. If the historical landings, catch, or abundance time series used as a basis for a decision is found to be incorrect.

Any appeal based on criterion 3 may be verified independently by a technical body appointed by the Chair, as needed.

4. Management actions resulting in unforeseen circumstances/impacts that were not considered by the Board as the management document was developed.

The following issues could not be appealed:

1. Management measures established via emergency action
2. Out-of-compliance findings (this can be appealed but, through a separate, established process)
3. Changes to the ISFMP Charter

**Appeal Initiation** – The ISFMP Charter provides that a state aggrieved by a management board action can appeal to the ISFMP Policy Board. Any state can request to initiate an appeal; also a group of states can submit a unified request for an appeal. The states are represented on the Commission by three representatives that have the responsibility of acting on behalf of the states' Executive and Legislative branches of government. Therefore, in order to initiate an appeal all seated Commissioners (not proxies) of a state's caucus must agree that an appeal is warranted and must sign the letter submitted to the Commission. If a multi-state appeal is requested all the Commissioners from the requesting states must sign the letter submitted to the Commission. During meetings where an appeal is discussed proxies will be able to

participate in the deliberations. Meeting specific proxies will not be permitted to vote on the final appeal determination, consistent with Commission policy.

A state (or group of states) can request and appeal on behalf of the Potomac River Fisheries Commission, District of Columbia, National Marine Fisheries Service, or the United States Fish and Wildlife Service.

The letter requesting an appeal will be submitted to the Chair of the Commission and include the measure(s) or issue(s) being appealed, the justification for the appeal, and the commitment to comply with the finding of the Policy Board. This letter must also include a demonstration that all other options to gain relief at the management board level have been exhausted. This letter must be submitted via certified mail at least **45 days** prior to a scheduled ASMFC Meeting Week. The Commission Chair, Vice-Chair and immediate past Chair will determine if the appeal meets the qualifying guidelines and notify the Policy Board of their decision. If the immediate past chair is no longer a commissioner the Chair will select an alternate from a state that is not affected by the appeal.

**Convene a “Fact Finding” Committee (optional)** – Upon review of the appeal documentation, the Commission Chair, Vice-Chair and immediate past Chair (or alternate if necessary, as described above) may establish a “Fact Finding” Committee to conduct analyses and/or compile additional information if necessary. This group will be made up of individuals with the technical expertise (including legal, administrative, social, economic, or habitat expertise if necessary) and familiarity with the fishery to conduct the necessary analysis. If such a committee is convened the schedule included in the last section of this document may need to be adjusted to provide time for the Committee to conduct analyses. The Commission Chair, Vice-Chair and immediate past Chair (or alternate if necessary, as described above) may set a deadline for the Committee to complete its work to ensure the appeal is addressed in a timely manner.

**ISFMP Policy Board Meeting** – Following the determination that an appeal has met the qualifying guidelines, a meeting of the Policy Board will be convened at a scheduled ASMFC meeting week. The agenda of this meeting will be set to allow sufficient time for all necessary presentations and discussions. The Chair of the Commission will serve as the facilitator of the meeting. If the Chair is unable to attend the meeting or would like to more fully participate in the deliberations, the Vice-Chair of the Commission will facilitate the meeting. The ISFMP Director will provide the background on the development of the management program as well as a summary of the justification provided in the record for the management board’s action. The ISFMP Director will also present the potential impacts of the appeal on other affected states. The appellant Commissioners will present their rationale for appealing the decision and provide a suggested solution. The Policy Board will then discuss the presentations and ask any necessary questions. The Board will vote to determine if the management board’s action was justified. A simple majority of the Policy Board is required to forward a recommendation to a management board for corrective action. If the Policy Board determines that the existing management program should be modified, it will issue a finding to that effect as well as any

guidance regarding corrective action to the appropriate species management board. The referral may be worded to allow the management board flexibility in determining the details of the corrective action.

Upon receipt of the Policy Board's recommendation the management board will discuss the findings and make the necessary changes to address the appeal. The management board is obligated to make changes that respond to the findings of the Policy Board. A simple majority of the management board will be necessary to approve the changes.

**Appeal Products and Policy Board Authority** – Following the Policy Board meeting a summary of the meeting will be developed. This summary will include a detailed description of the findings and will be forwarded to the appropriate management board and Policy Board upon completion. If the Policy Board determines that changes to the management program are necessary, the summary may include guidance to the management board for corrective action. The report of the Policy Board will be presented to the management board for action at the next scheduled meeting.

**Considerations to Prevent Abuse of the Appeals Process** – The appeals process is intended to be used only in extraordinary situations and is in no way intended to provide a potential avenue to preempt the established board process. The initiation of an appeal will not delay the Commission process for finding a state out of compliance nor delay or impede the imposition of penalties for delayed compliance.

**Limiting Impacts of Appeal Findings** – If a state is successful in an appeal and the management program is altered, another state may be negatively impacted by the appeals decision. In order to prevent an appeals "chain reaction," the Policy Board's recommendation and the resulting management board's decision will be binding on all states. All states with an interest in the fishery will be obligated to implement the changes as approved by the management board. Upon completion of the appeals process, a state is not precluded from taking further action beyond the Commission process to seek relief.

If the Policy Board supports the appeal and determines that corrective action is warranted, the potential for management changes to negatively impact other states will be evaluated by the Policy Board and the species management board.

### **Appeals Process Timeline**

1. Within **15 working days** of receipt of a complete appeal request the Commission Chair, Vice-Chair, and immediate past chair (or alternate) will determine if the state has an appeal which meets the qualifying guidelines.
2. Upon a finding that the appeal meets the qualifying guidelines, the appeal will be included on the agenda of the ISFMP Policy Board meeting scheduled during the next ASMFC Meeting

Week (provided an adequate time period is available for preparation of the necessary documentation).

3. Following the finding that an appeal meets the qualifying guidelines, Commission staff and the appellant commissioners will have a minimum of **15 working days** to prepare the necessary background documents.
4. The background documents will be distributed at least **15 days** prior to the Policy Board meeting.

A summary of the Policy Board meeting will be developed and distributed to all Commissioners within **15 working days** of the conclusion of the meeting.

***Atlantic States Marine Fisheries Commission***

**ADDENDUM XXXIII TO THE SUMMER FLOUNDER, SCUP,  
AND BLACK SEA BASS FISHERY MANAGEMENT PLAN**

***Black Sea Bass State-by-State Commercial Allocation***



**Approved February 2021**



**Sustainable and Cooperative Management of Atlantic Coastal Fisheries**

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## **1.0 INTRODUCTION**

Addendum XXXIII and the complementary Amendment developed by the Mid-Atlantic Fishery Management Council (Council) modify the allocations of the coastwide black sea bass commercial quota among the states, which were originally implemented in 2003 through Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP), and extended indefinitely through Addendum XIX (2007). Through the Council Amendment, the state-specific allocations will be added to the Council's FMP, and federal regulations for in-season closures of the coastwide fishery will be modified. These actions, jointly approved by the Council and Commission, address significant changes in the distribution of black sea bass that have occurred since the original allocations were implemented, and also account for the historical dependence of the states on the black sea bass fishery.

The management unit for black sea bass in US waters is the western Atlantic Ocean from Cape Hatteras, North Carolina northward to the US-Canadian border. The black sea bass fisheries are managed cooperatively by the states through the Commission in state waters (0-3 miles), and through the Council and NOAA Fisheries in federal waters (3-200 miles).

## **2.0 OVERVIEW**

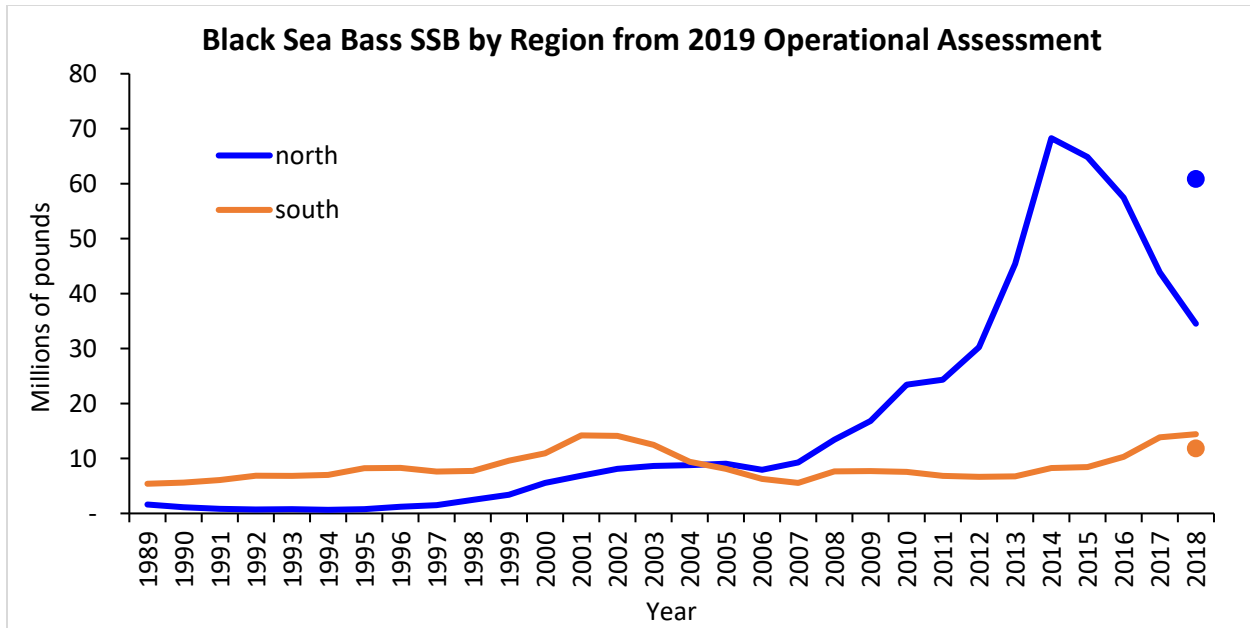
### **2.1 Statement of Problem**

State-by-state allocations of the commercial black sea bass coastwide quota were originally implemented in 2003 as part of Amendment 13, loosely based on historical landings from 1980-2001. The state shares in Amendment 13 allocated 67% of the coast-wide commercial quota among the states of New Jersey through North Carolina (North of Cape Hatteras) and 33% among the states of New York through Maine. These state commercial allocations had been unchanged since they were implemented in 2003.

Over the last decade, the distribution of the black sea bass stock has changed, abundance and biomass have increased significantly, and there have been corresponding changes in fishing effort and behavior. According to the most recent black sea bass stock assessment, which modeled fish north and south of Hudson Canyon separately, the majority of the stock occurred in the southern region prior to the mid-2000s (NEFSC 2019). Since then, the biomass in the northern region has grown considerably. Although the amount of biomass in the southern region has not declined in recent years, the northern region currently accounts for the majority of spawning stock biomass (Figure 1). This shift in black sea biomass distribution has also been supported by other peer reviewed scientific research (e.g., Bell et al., 2015).

In some cases, expansion of the black sea bass stock into areas with historically minimal fishing effort has created significant disparities between state allocations and current abundance and resource availability. The most noteworthy example is Connecticut, which has experienced significant increases in black sea bass abundance and fishery availability in Long Island Sound in recent years but is only allocated 1% of the coastwide commercial quota (this allocation was based loosely on landings from 1980-2001).





**Figure 1.** Black sea bass spawning stock biomass by region from the 2019 Operational Assessment Update. Open marks represent retro-adjusted values (used to set catch limits). Source: Personal communication with Northeast Fishery Science Center.

## 2.2 Background

The Commission’s FMP for black sea bass was approved in October 1996. The Council added black sea bass to their Summer Flounder FMP in 1996 through Amendment 9. Both FMPs established an annual process of developing commercial quotas, recreational harvest limits, and recreational and commercial management measures, as well as a series of permitting and reporting requirements. Under the original FMP, the annual coastwide commercial quota was divided into four quarters: January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31.

Under the quarterly quota allocation system, the fishery was subjected to lengthy closures and some significant quota overages. Fishery closures occurring as a result of quotas being fully utilized or exceeded resulted in increased discards of legal sized black sea bass in mixed species fisheries for the remainder of the closure period. Significant financial hardship on the part of the fishing industry also resulted from a decrease in market demand caused by a fluctuating supply. To address these issues, the Management Board enacted a series of emergency rules in 2001 establishing initial possession limits, triggers, and adjusted possession limits. While these measures helped reduce the length of fishery closures, the frequent regulatory changes confused fishermen and added significant administrative burden to the states. Addendum VI (2002) provided a mechanism for setting initial possession limits, triggers, and adjusted possession limits during the annual specification setting process without the need for further emergency rules.

The quarterly quota system was replaced with an annual quota system under Amendment 13, approved by the Commission and Council in May 2002. The Amendment implemented a federal coastwide commercial quota, and a state-by-state allocation system for 2003 and 2004 to be

managed by the Commission. This system was adopted to reduce fishery closures, achieve more equitable distribution of quota to fishermen, and allow the states to manage their commercial quota for the greatest benefit of the industry in their state.

At the time of final action on Amendment 13, the Council expressed a desire that the state allocations be managed at both the state and federal levels and contained in both the Council and Commission's FMPs. However, the NOAA Fisheries Regional Administrator at the time said a state quota system at the federal level could not be monitored effectively with the then current monitoring methods due to the anticipated low allocations in some states. As a result, the Council approved a federal annual coastwide quota, acknowledging that this would facilitate the use of state allocations through the Commission's FMP. Many of the concerns with monitoring state quotas at the federal level have subsequently been resolved with changes to how commercial landings are reported.

State-specific shares were adopted as follows: Maine and New Hampshire 0.5%, Connecticut 1%, Delaware 5%, New York 7%, Rhode Island, North Carolina and Maryland 11%, Massachusetts 13%, New Jersey and Virginia 20% (Table 1).

The individual state shares management program was continued in 2005 and 2006 through Addendum XII (2004). Addendum XIX, approved in 2007, extended the state shares of the commercial black sea bass quota indefinitely. No further changes have been made to the black sea bass commercial state shares. Addenda XII and XIX (2004 and 2007, respectively) allowed for the transfer of black sea bass commercial quota among states, and Addendum XX (2009) established the process for state to state quota transfers. Under the management program established through these Addenda, states have the responsibility of managing their quota to provide the greatest benefit to their commercial black sea bass industry. The ability to transfer or combine quota further increased the flexibility of the system to respond to annual variations in fishing practices or landings patterns.

In response to some states' concerns about changing resource availability and associated fishery impacts, the Board formed a Commercial Black Sea Bass Working Group in August 2018 to identify management issues related to changes in stock distribution and abundance, and propose potential management strategies for Board consideration. In February 2019, the Board reviewed the Working Group report. The key issue the Working Group identified is that the state commercial allocations implemented in 2003 do not reflect the current distribution of the resource, which has expanded significantly north of Hudson Canyon. The Board then requested the Plan Development Team (PDT) perform additional analyses and further develop proposed management options related to the issue of state commercial allocations. After reviewing the PDT report, in October 2019 the Board initiated Addendum XXXIII to consider changes to the black sea bass commercial state allocations. In December 2019, the Council initiated a complementary amendment to consider including the state shares in the Council FMP.

**Table 1.** State shares of black sea bass quota as allocated by Addendum XIX to Amendment 13.

State	Percent of Coastwide Quota
Maine	0.5 %
New Hampshire	0.5 %
Massachusetts	13 %
Rhode Island	11 %
Connecticut	1 %
New York	7 %
New Jersey	20 %
Delaware	5 %
Maryland	11 %
Virginia	20 %
North Carolina	11 %

### 2.3 Status of the Stock

The most recent stock status information comes from the 2019 operational stock assessment, which was peer-reviewed in August 2019 and approved for management use in October 2019 (NEFSC 2019). The assessment indicated that the black sea bass stock north of Cape Hatteras, North Carolina was not overfished and overfishing was not occurring in 2018, the terminal year of data used in the assessment.

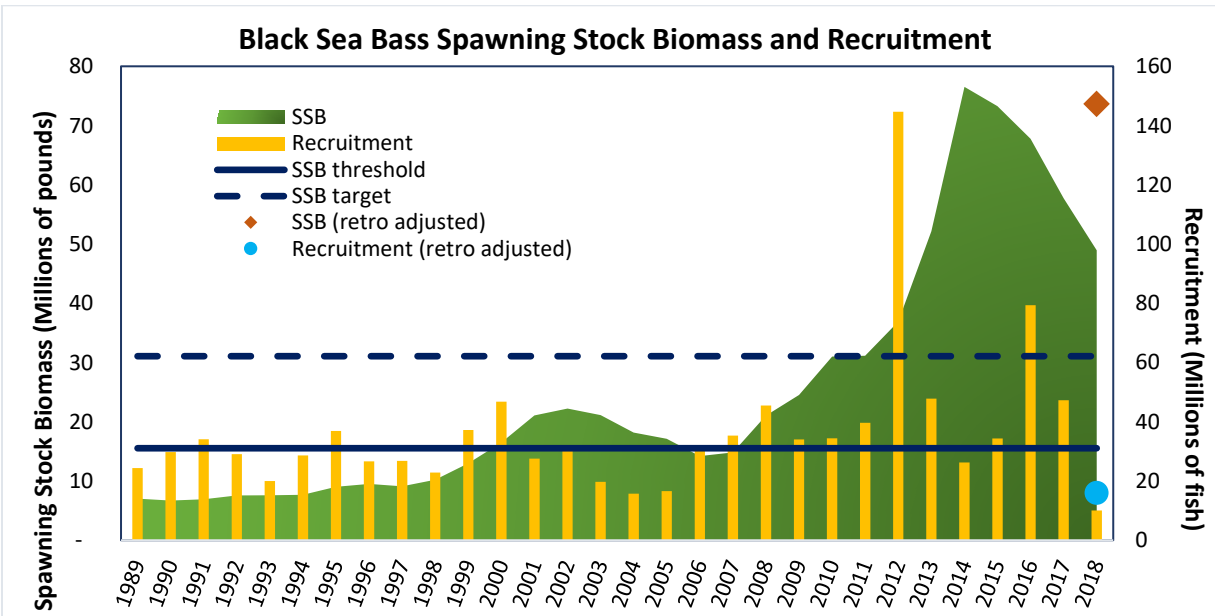
The operational stock assessment updated the Age Structured Assessment Program (ASAP) models used in the 2016 benchmark stock assessment with commercial and recreational catch data, research survey and fishery-dependent indices of abundance, and analyses of those data through 2018<sup>1</sup>. For modeling purposes, the stock was partitioned into two sub-units divided approximately at Hudson Canyon to account for spatial differences in abundance and size at age. The sub-units are not considered separate stocks. Although the stock was assessed by sub-unit, the combined results were used to develop reference points, determine stock status, and recommend fishery specifications.

Spawning stock biomass (SSB), which includes both mature male and female biomass, averaged around 8 million pounds during the late 1980s and early 1990s and then steadily increased from 1997 to 2002 when it reached 22.2 million pounds. From 2007 to 2014, SSB dramatically increased, reaching a peak in 2014 at 76.5 million pounds. Since 2014, SSB has trended back down but remains above the target level. After adjusting for retrospective error in the model, SSB in the terminal year (2018) is estimated at 73.6 million pounds, approximately 2.4 times the target SSB reference point ( $SSB_{MSY}$  proxy=  $SSB_{40\%}$  = 31.1 million pounds) (Figure 2). The (similarly adjusted) fishing mortality rate (F) in 2018 was 0.42, about 91% of the fishing mortality threshold reference point ( $F_{MSY}$  proxy=  $F_{40\%}$ ) of 0.46. Except for 2017, F has been

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<sup>1</sup> In July 2018, the Marine Recreational Information Program (MRIP) replaced the existing estimates of recreational catch with a calibrated 1981-2017 time series that corresponds to new survey methods that were fully implemented in 2018. The new calibrated recreational estimates are significantly higher than previous estimates, especially in later years of the time series. These revised data were incorporated into the 2019 operational stock assessment. This change was one of multiple factors which impacted the understanding of overall biomass levels.

below the  $F_{MSY}$  proxy for the last five years. Average recruitment of black sea bass from 1989 to 2018 was 36 million fish at age 1. The 2011 year class was estimated to be the largest in the time series at 144.7 million fish and the 2015 year class was the second largest at 79.2 million fish. Recruitment of the 2017 year class as age 1 in 2018 was estimated at 16.0 million, well below the time series average.



**Figure 2.** Black sea bass spawning stock biomass and recruitment. Source: 2019 Operational Assessment Prepublication Report, Northeast Fishery Science Center.

## 2.4 Status of the Fishery

The following information is based on commercial fishery dealer data (landings), the most recent stock assessment (discards), federal vessel trip reports (gear types and area of catch), and input from a small sample of fishermen and dealers. Input was provided by 6 individuals who primarily identify as fishermen and 4 individuals who represent two commercial fish dealers. Collectively, these 10 individuals are from 5 states and use three different gear types (i.e., bottom otter trawl, pot/trap, and hand line). Their input is not intended to be a representative sample of the commercial black sea bass fishery as a whole, but was solicited to provide context to trends shown in the data and document relevant information not captured in the available data.

Commercial landings have been constrained by a coastwide (i.e., Maine through Cape Hatteras, North Carolina) commercial quota since 1998, and state allocations were introduced in 2003. From 1998 to 2019, coastwide landings have closely followed quotas, ranging from a low of 1.16 million pounds in 2009 to a high of 3.98 million pounds in 2017. State landings have also closely followed quotas since they were implemented in 2003. A process for interstate quota transfers was established in 2009, but until 2017 states were highly constrained by low quotas and thus there was not much opportunity for transfers. Under higher quotas more interstate transfers have occurred; in the last three years, the states of Massachusetts through New

Jersey have all received quota transfers from other states to prevent or mitigate overages of their state quotas.

Since the coastwide quota was implemented in 1998, commercial discards have constituted 17% of total commercial removals on average. Over the last five years of the time series (2014-2018) discards were generally higher, averaging 33% of total commercial removals; discards in recent years have likely been influenced by high availability coupled with quota and minimum fish size limitations.

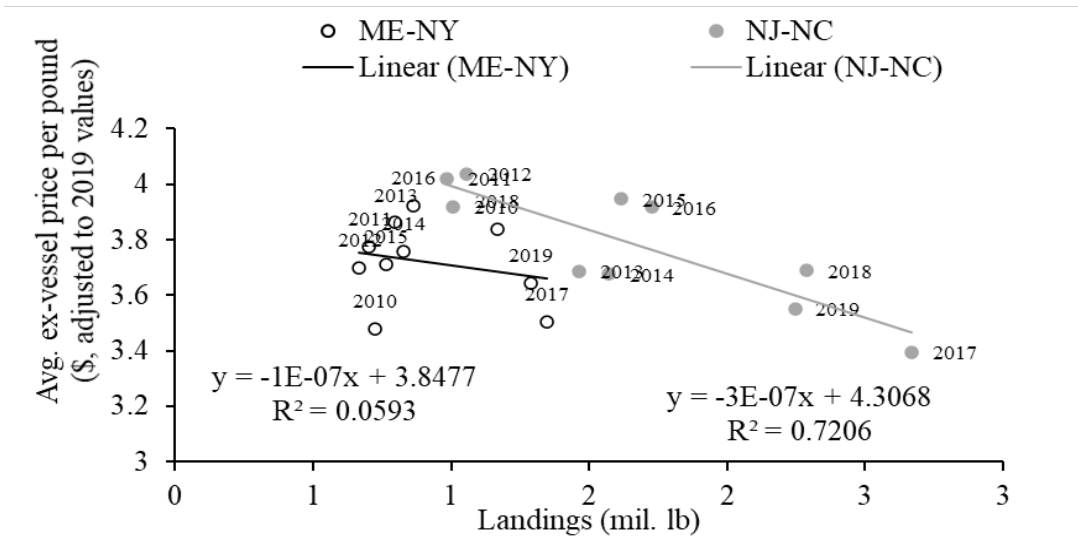
The average price per pound paid to fishermen by dealers for black sea bass (adjusted to 2019 values based on the Gross Domestic Product Price Deflator) appears to show an inverse relationship with landings in the southern region states (New Jersey - North Carolina) during 2010-2019 (i.e., price generally decreased with increases in landings,  $p=0.002$ ). There did not appear to be a strong relationship between price and landings in the northern region (Maine - New York) during 2010-2019 ( $p=0.498$ , Figure 3). Some fishermen and dealers said temporary price drops can occur at both local and regional levels due to increases in the coastwide quota, state-specific seasonal openings, or individual trawl trips with high landings, all of which can be interrelated. They note that these sudden price drops are often temporary and the price usually rises again. This is evident in the coastwide relationship between average price per pound and the coastwide quota, which increased by 52% mid-year in 2017 and then decreased by 15% from 2017 to 2018. The average coastwide price per pound dropped from \$3.92 in 2016 to \$3.49 in 2017, but increased to \$3.82 in 2018 (all prices are adjusted to 2019 values based on the Gross Domestic Product Price Deflator).

Input from fishermen and federal vessel trip report data from 2009-2019 suggest that in years with higher quotas, bottom trawl gear accounted for a greater proportion and pots/traps accounted for a smaller proportion of total commercial landings compared to years with lower quotas. For example, the lowest quotas during 2010-2019 occurred in 2010-2012. During those years, bottom trawl gear accounted for around 39-41% of total commercial black sea bass landings (depending on the year) and pots/traps accounted for about 33-36%. In comparison, the highest quotas occurred in 2016-2019, during which around 52-61% of total commercial black sea bass landings could be attributed to bottom trawl gear and around 21-26% to pot/trap gear. Some fishermen have said trawlers are better able to take advantage of increases in quota as they can land higher volumes than vessels using pot/trap gear. This can be especially beneficial when the price of black sea bass drops (usually temporarily) in response to sudden increases of fish on the market.

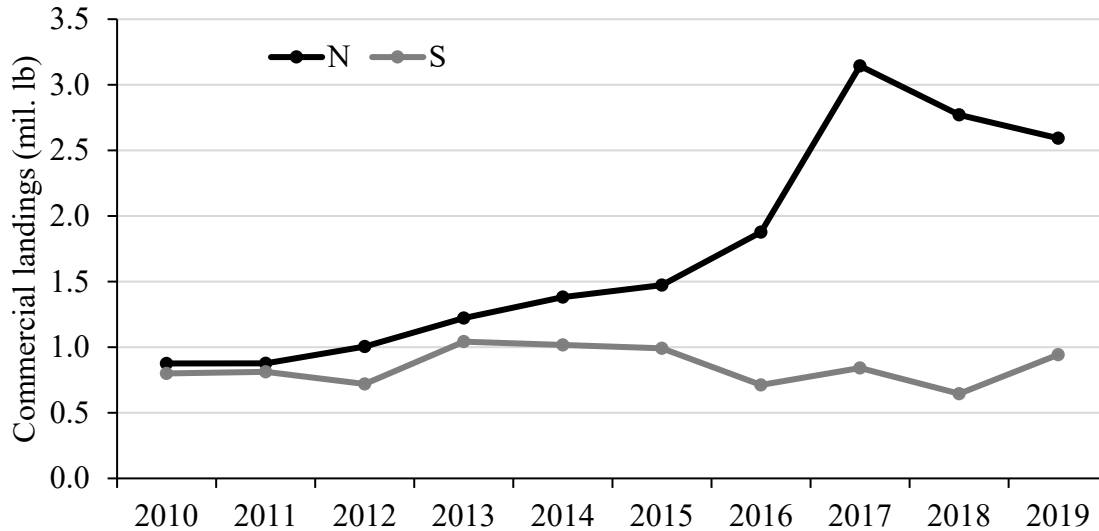
According to commercial dealer data for 2010-2019, the average coastwide ex-vessel price per pound for black sea bass caught with bottom trawl gear was \$3.90 (adjusted to 2019 values), 6% greater than the average price for black sea bass caught with pots/traps (\$3.70). However, some fishermen report that they can get higher prices for black sea bass caught with pots/traps as they can market their fish as fresher and better quality than trawl-caught fish. Pot/trap and hook and line commercial fishermen in some states also sell black sea bass to live markets, which offer even higher prices. Some fishermen and dealers say size has a greater impact on price than gear, though the two are interrelated as black sea bass landed using bottom trawl gear tend to be larger than those landed using pots/traps.

The states have taken different approaches to managing their commercial black sea bass fisheries. Delaware, Maryland, and Virginia use Individual Transferable Quota (ITQ) systems, while other states utilize different combinations of quota periods, closed seasons, and initial or adjustable trip and possession limits to prevent quota overages. For some states like Connecticut, quota availability and resulting management measures are highly dependent on quota transfers from other states. Some fishermen and dealers say they take these differences in state management measures into account when deciding when to fish, where to sell fish, and what price to offer for fish. For example, the price offered by local dealers may be higher when neighboring states are closed. Alternatively, some fishermen and dealers in comparatively low allocation states say they generally do not make business decisions based on black sea bass. Due to the low allocations in some states, black sea bass provides supplemental income for these fishermen and dealers, but is not a primary target species. For these reasons, the economic impacts of changes to state quotas can vary in part based on how states adjust their management measures in response to quota changes. For example, an increase in the possession limit could have different impacts than an extension of the open season. ITQ fishermen may be impacted differently than non-ITQ fishermen, and impacts may vary between gear types.

From 2010-2017, the commercial black sea bass landings from Maine through North Carolina which were caught in the northern region (as defined in the stock assessment, corresponding to approximately Hudson Canyon and north) increased steadily, with the greatest increases occurring during 2015-2017. After 2017, the proportion caught in the northern region declined, but remained much higher than the proportion from the southern region. During 2010-2019, the amount of commercial black sea bass landings caught in the southern region did not vary greatly (Figure 4).



**Figure 3.** Average annual ex-vessel price per pound for black sea bass compared to annual black sea bass commercial landings by region (ME-NY and NJ-NC), 2010-2019, with associated linear relationship. Prices are adjusted to 2019 values based on the Gross Domestic Product Price Deflator. Data source: dealer data (CFDERS, provided by the NOAA Fisheries Greater Atlantic Regional Fisheries Office Analysis and Program Support Division).



**Figure 4.** Total commercial black sea bass landings, 2010-2019, Maine through North Carolina, by region of catch location (North or South). Region is assigned based on statistical area of catch using the delineation defined in the stock assessment. Landings with an unknown statistical area were assigned to region based on the state of landing. Data source: dealer AA tables provided by the Northeast Fisheries Science Center

### 3.0 MANAGEMENT PROGRAM

#### 3.1 Revised State Commercial Allocation Process *(The following management program replaces Section 3.1 of Addendum XIV to Interstate FMP for Summer Flounder, Scup, and Black Sea Bass).*

This Addendum establishes a new process for establishing the annual state allocations of the coastwide commercial black sea bass quota. The first part of this process establishes new baseline allocations, as described in Section 3.1.1. The second part of the process is to distribute a portion of the annual coastwide quota to the states according to the baseline allocations, and the remaining portion according to regional biomass from the stock assessment, as described in Sections 3.1.2 and 3.1.3.

##### 3.1.1 Baseline Quota Allocations

Baseline quota allocations have been established (Table 2). Connecticut’s initial quota allocation is increased to 3% of the coastwide quota by adjusting other state allocations as shown in Table 2.

*Connecticut has experienced a substantial increase in abundance of black sea bass in state waters over the last seven years, though the state’s original allocation was only 1% of the coastwide quota. This allocation increase attempts to reduce the disparity between the abundance of black sea bass in Connecticut waters and Connecticut’s historical allocation. These revised allocations are used as the starting point for additional allocation changes described in Section 3.1.2.*

**Table 2.** Changes in baseline state allocations from historical allocations under Addendum XXXIII

State	Historical Allocation	Change in Allocation	New Baseline Allocation
ME	0.5%	-0.25%	0.25%
NH	0.5%	-0.25%	0.25%
MA	13.0%	-0.23%	12.77%
RI	11.0%	-0.19%	10.81%
CT	1.0%	2.00%	3.00%
NY	7.0%	0.00%	7.00%
NJ	20.0%	-0.35%	19.65%
DE	5.0%	0.00%	5.00%
MD	11.0%	-0.19%	10.81%
VA	20.0%	-0.35%	19.65%
NC	11.0%	-0.19%	10.81%

**3.1.2 State by State Coastwide Quota Distribution**

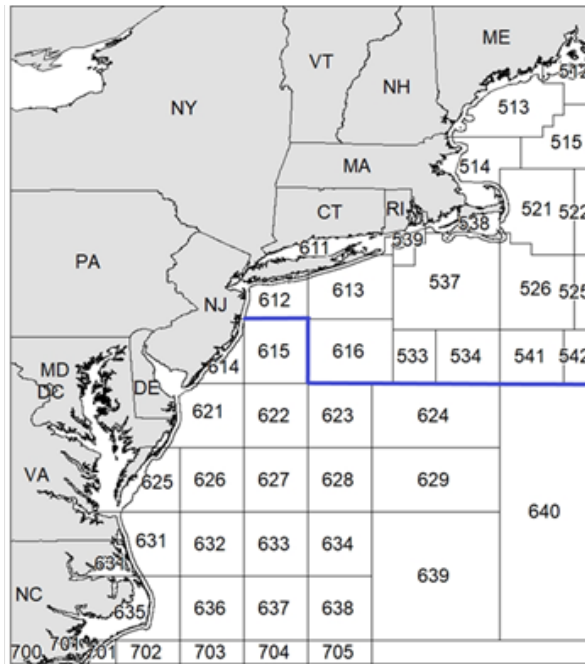
Annually, 75% of the coastwide quota will be distributed to states using the baseline allocations established in Section 3.1.1 (Table 2). The remaining 25% of the coastwide quota will first be allocated regionally based on the most recent regional biomass proportions from the stock assessment. Then, regional quotas will be distributed to the states within each region in proportion to their baseline allocations, with the exception of Maine and New Hampshire. Maine and New Hampshire will each receive 1% of the northern region quota.

The regional biomass proportions used to allocate 25% of the coastwide quota are dependent on information from the most recent stock assessment. Therefore, they will be updated according to future stock assessments, which may result in changes to the state allocations. An example of state quota calculations using the regional biomass proportions from the 2019 Operational Assessment is provided in Appendix 1.

**3.1.3 Regional Configuration**

For the purposes of allocating a portion of the coastwide quota on a regional basis, the following three regions will be used: 1) Maine through New York; 2) New Jersey; and 3) Delaware through North Carolina (North of Cape Hatteras). New Jersey is a distinct region, addressing its geographic position straddling the border between the northern and southern spatial sub-units (approximately at Hudson Canyon as defined in the stock assessment; Figure 5). New Jersey’s initial baseline allocation of 19.65% (Table 2) is treated as follows: 9.83% is considered to come from the northern region, and 9.83% from the southern region. As the regional allocations change, New Jersey’s “northern” 9.83% of the coastwide quota will change according to the proportion of biomass in northern region, and the “southern” 9.83% will change according to the proportion of biomass in the southern region. New Jersey’s total allocation is the sum of the northern and southern components of its allocation. This is consistent with the spatial distribution of black sea bass landings in recent years, which is roughly an even split between north and south of Hudson Canyon (Table 3).





**Figure 5.** NMFS statistical areas showing the dividing line between the northern and southern regions as defined in the black sea bass stock assessment.

**Table 3.** Proportion of black sea bass commercial harvest landed in New Jersey from northern and southern region statistical areas. Only landings associated with valid northeast region statistical areas were included in the calculations. Data were provided by the ACCSP. Landings by area were estimated by applying VTR proportions of landings by area to dealer data.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average 2010- 2019	Average 2010- 2014	Average 2015- 2019
% North	38%	28%	47%	46%	54%	78%	65%	74%	58%	57%	<b>54%</b>	<b>43%</b>	<b>66%</b>
% South	62%	72%	53%	54%	46%	22%	35%	26%	42%	43%	<b>46%</b>	<b>57%</b>	<b>34%</b>

### 3.2 Recommended Changes to Federal Regulations

A Council Amendment was developed in conjunction with Addendum XXXIII. The Commission and Council recommended the following changes to federal regulations be implemented through the Council Amendment.

#### 3.2.1 Commercial state allocations included in both Commission and Council FMPs

The Commission and Council recommended that commercial state allocations for black sea bass be included in both the Commission and Council FMPs. As a result, future changes to the allocations will be considered through a joint action between the Commission and Council. This change will require NOAA Fisheries, rather than the Commission, to monitor landings against state quotas and to receive and process all quota transfers between states. Transfers of quota between states will continue to be allowed, but will be subject to the NOAA Fisheries review process.

Adding the state allocations to the Council’s FMP will not change how overages of state quotas are handled. States will only pay back quota overages if the entire coastwide quota is exceeded. If a state exceeds their quota in a year when the coastwide quota is exceeded, then that state may be required to pay back overages of their quota.

### **3.2.2 Federal in-season closures**

The Commission and Council recommended modifying the federal regulations for in-season closures, such that the entire commercial fishery would close in-season for all federally permitted vessels and dealers, regardless of state, once landings exceed the coastwide quota plus an additional buffer of up to 5%. The Council and Board will agree to the appropriate buffer for the upcoming year through the specifications process. The intent behind allowing an additional buffer is to help minimize negative economic impacts of coastwide closures on states that have not fully harvested their allocations. This is not expected to create an incentive for quota overages as states would still be required to close when their state-specific quotas are reached, and states will still be required to pay back quota overages as described in Section 3.2.1.

## **4.0 COMPLIANCE**

The management program contained in Section 3.1 of Addendum XXXIII to Amendment 13 is effective January 1, 2022.

## **5.0 LITERATURE CITED**

NEFSC. 2019. Operational Stock Assessment Report

Bell, R. J., Richardson, D. E., Hare, J. A., Lynch, P. D., and Fratantoni, P. S. 2014. Disentangling the effects of climate, abundance, and size on the distribution of marine fish: an example based on four stocks from the Northeast US shelf. ICES Journal of Marine Science, doi: 10.1093/icesjms/fsu217

MAFMC. 2003. Amendment 13 to the Fishery Management Plan for Black Sea Bass. Available at: <http://www.mafmc.org/sf-s-bsb>

## **APPENDIX 1. Example state quota calculations using the most recent biomass distribution**

The table below shows example calculations for state quotas resulting from the allocation system adopted under Addendum XXXIII, using the regional biomass distribution from the 2019 Operational Stock Assessment and a coastwide quota of 6.09 million pounds. The regional biomass proportions are dependent on the most recent stock assessment, and are subject to change as regional biomass changes.

Each state's total quota under the Addendum XXXIII allocation system is calculated using both the state's baseline allocation (Column B) and regional allocations based on the most recent stock assessment (Column C). The regional biomass proportions based on the most recent stock assessment are 84% in the north (highlighted in orange) and 16% in the south (highlighted in blue) (Column C). These regional allocations are distributed to the states within each region in proportion to their baseline allocations, except that Maine and New Hampshire each receive 1% of the northern region quota (Column D).

Each state's baseline allocation is multiplied by 75% (Column E). Then, each state's proportion of the regional allocation (Column D) is multiplied by 25% (Column F). The resulting state allocations (Column G) are the sum of the portion based on the baseline allocation (Column E) and the portion based on regional biomass (Column F). New Jersey's total allocation is the sum of its northern and southern components. The annual state quotas are calculated by multiplying the resulting state allocations (Column G) by the annual coastwide quota.

### **Step 1: Calculate the Baseline Based Allocation**

$$\text{Baseline Based Allocations (Column E)} = \text{Baseline Allocation (Column B)} \times 75\%$$

### **Step 2: Calculate the Biomass Based Allocation**

$$\begin{aligned} \text{Biomass Based Allocation (Column F)} = \\ \text{State Proportions of Regional Allocation (Column D)} \times 25\% \end{aligned}$$

### **Step 3: Add Together for the Final Allocation**

$$\begin{aligned} \text{Final Allocation (Column G)} \\ = \text{Baseline Based Allocation (Column E)} \\ + \text{Biomass Based Allocation (Column F)} \end{aligned}$$

A	B	C*	D*	E	F	G	H
State	New Baseline Allocations	Regional Biomass Distribution (2019 Assessment)	State Proportions of Regional Allocation	Baseline-based Allocations (75% of Column B)	Biomass-based Allocations (25% of Column D)	EXAMPLE ALLOCATIONS based on current biomass distribution	EXAMPLE State Quota Based on 6,090,000 M lb Coastwide Quota
ME	0.25%	84%	0.84%	0.19%	0.21%	0.40%	24,208
NH	0.25%		0.84%	0.19%	0.21%	0.40%	24,208
MA	12.77%		24.22%	9.58%	6.06%	15.64%	952,230
RI	10.81%		20.50%	8.11%	5.12%	13.23%	805,733
CT	3.00%		5.69%	2.25%	1.42%	3.67%	223,646
NY	7.00%		13.28%	5.25%	3.32%	8.57%	521,841
NJ - N	9.83%		18.63%	7.37%	4.66%	20.10%	1,223,939
NJ - S	9.83%	16%	2.80%	7.37%	0.70%		
DE	5.00%		1.43%	3.75%	0.36%	4.11%	250,089
MD	10.81%		3.08%	8.11%	0.77%	8.88%	540,599
VA	19.65%		5.61%	14.74%	1.40%	16.14%	982,908
NC	10.81%		3.08%	8.11%	0.77%	8.88%	540,599
<b>Total</b>	<b>100%</b>		<b>100%</b>	<b>100%</b>	<b>75%</b>	<b>25%</b>	<b>100%</b>

\* These values in these columns are dependent on the most recent regional biomass distribution estimates from the stock assessment. They will be updated whenever regional biomass information changes, and the state allocations will change as a result. The methodology for calculating the allocations will not change.

**DRAFT PROCEEDINGS OF THE**  
**ATLANTIC STATES MARINE FISHERIES COMMISSION**  
**SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS MANAGEMENT BOARD**  
**AND**  
**MID-ATLANTIC FISHERY MANAGEMENT COUNCIL**

**Webinar**  
**February 1, 2021**

These minutes are draft and subject to approval by the Summer Flounder, Scup and Black Sea Bass Management Board.  
The Board will review the minutes during its next meeting.

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## INDEX OF MOTIONS

1. **Approval of Agenda** by Consent (Page 1).
2. **Approval of Proceedings of May 2020** by Consent (Page 1).
3. **Board Only Motions**  
**Move to approve the following 2021 recreational conservational equivalency season adjustments: New Jersey summer flounder fishery (May 28 through September 28), and Massachusetts's black sea bass fishery (options A, May 15 – Sept 3, and B, May 22 – Sept 14), and approve Virginia's proposal for adjusting recreational black sea bass measures to account for February harvest (Page 3).** Motion by Jim Gilmore; second by Mike Luisi. Motion carried (Page 3).
4. **Board and Council Motions**  
**Main Motion**  
**Move to Approve:**  
**Modified Option B - Increase CT to 3% and NY to 9%, with the change occurring over 2 years,**  
  
**Option C - DARA approach, with the following sub options:**
  - **Sub-option C1-B: allocations based 50% on stock distribution and 50% on the initial allocations at the end of the transition phase**
  - **Sub-option C2-A: 5% change in weights per adjustment**
  - **Sub-option C3-A: annual adjustment to factor weights**
  - **Modified allocation adjustment cap (C4-A): cap the change in regional allocations at a maximum of 5% per adjustment.**  
**Regional configuration option G2 – NJ as separate region**  
Board: Motion by Jason McNamee; second by Emerson Hasbrouck (Page 19).  
Council: Motion by Tony DiLernia; second by Maureen Davidson (Page 20).  
  
**Motion to Substitute**  
**Move to substitute to address Black Sea Bass Commercial State Allocations by approving Option B - Increase Connecticut Quota to 3%; Option D - Trigger Approach, with a trigger of 4 M lbs. (a trigger value between Sub Options D1-A and D1-B); Sub-option D2-B - Distribution of surplus quota based on regional biomass from stock assessment; Sub-option D3-B - Proportional distribution of regional surplus quota; Sub-option D4-A - Static base allocations; Option G - Regional Configuration Options; and Sub-option G2 - Establishing three regions with New Jersey as a separate region.**  
Board: Motion by John Clark; second by Ellen Bolen (Page 21).  
Council: Motion by Ellen Bolen; second by Joe Cimino (Page 21).  
  
**Motion to Amend Substitute Motion**  
**Move to amend the substitute motion option b: "increase Connecticut's base allocation to 3% and New York's base allocation to 9%."**  
Board: Motion by David Borden; second by Justin Davis. Motion fails for lack of a majority (5 in favor, 6 opposed, 1 abstention) (Page 30).  
Council: Motion by Dan Farnham; second by Tony DiLernia (Page 30).

## INDEX OF MOTIONS (continued)

### Motion to Substitute

**Move to substitute to address Black Sea Bass Commercial State Allocations by approving Option B - Increase Connecticut Quota to 3%; Option D - Trigger Approach, with a trigger of 4 M lbs. (a trigger value between Sub Options D1-A and D1-B); Sub-option D2-B - Distribution of surplus quota based on regional biomass from stock assessment; Sub-option D3-B - Proportional distribution of regional surplus quota; Sub-option D4-A - Static base allocations; Option G - Regional Configuration Options; and Sub-option G2 - Establishing three regions with New Jersey as a separate region.**

Board: Motion by John Clark; second by Ellen Bolen (Page 21). Motion fails for lack of a majority (6 in favor, 6 opposed) (Page 38).

Council: Motion by Ellen Bolen (Page 21); second by Joe Cimino.

### Main Motion

**Move to approve:**

**Modified Option B – Increase CT to 3% and NY to 9%, with the change occurring over 2 years**

**Option C – DARA approach, with the following sub options:**

- **Sub-option C1-B: allocations based 50% on stock distribution and 50% on the initial allocations at the end of the transition phase**
- **Sub-option C2-A: 5% change in weights per adjustment**
- **Sub-option C3-A: annual adjustment to factor weights**
- **Modified allocation adjustment cap (C4-A): cap the change in regional allocations at a maximum of 5% per adjustment.**

**Regional configuration option G2 – NJ as separate region**

Board: Motion by Justin McNamee; second by Emerson Hasbrouck (Page 19). Motion fails for lack of a majority (6 in favor, 6 opposed) (Page 37).

Council: Motion made by Mr. DiLernia and seconded by Ms. Davidson (Page 20).

### Main Motion

**Move to adopt the following options for black sea bass commercial allocations:**

- **Modified Alternative B: Increase CT's base allocation to 3% and NY's base allocation to 9%.**
- **Alternative F: Percentage of coastwide quota distributed based on initial allocations:**
- **Sub-alternative F1-B: 75% of the coastwide quota allocated using the initial allocations.**
- **Sub-alternative F2-B: Remaining quota (25%) allocated based on regional biomass from the stock assessment.**
- **Sub-alternative F3-B: Proportional distribution of regional quota.**
- **Sub-alternative G2: Establish three regions: 1) ME-NY; 2) NJ; and 3) DE-NC.**

Board: Motion by Nichola Meserve; second by Justin Davis (Page 40).

Council: Motion by Maureen Davidson; second by Dan Farnham (Page 41).

### Motion to Amend

**Move to amend to modify alternative B to remove “and NY's base allocation to 9%” and add at the end of the motion “to review the state by state allocations in not more than 5 years”.**

Board: Motion by Chris Batsavage; second by John Clark (Page 42). Motion carried (6 in favor, 5 opposed, 1 abstention) (Page 48).

Council: Motion by Chris Batsavage; second by Joe Cimino. Motion carried (14 in favor, 5 opposed, 1 abstention) (Page 42).

These minutes are draft and subject to approval by the Summer Flounder, Scup, and Black Sea Bass Management Board.  
The Board will review the minutes during its next meeting.



## INDEX OF MOTIONS (continued)

### Main Motion as Amended

Move to adopt the following options for black sea bass commercial allocations:

- **Modified Alternative B: Increase CT's base allocation to 3%.**
- **Alternative F: Percentage of coastwide quota distributed based on initial allocations:**
- **Sub-alternative F1-B: 75% of the coastwide quota allocated using the initial allocations.**
- **Sub-alternative F2-B: Remaining quota (25%) allocated based on regional biomass from the stock assessment.**
- **Sub-alternative F3-B: Proportional distribution of regional quota.**
- **Sub-alternative G2: Establish three regions: 1) ME-NY; 2) NJ; and 3) DE-NC.**

Review the state by state allocations in not more than 5 years.

Board: Motion carried (10 in favor, 2 opposed) (Page 52).

Council: Motion carried (13 in favor, 7 opposed) (Page 52).

5. **Board Only:**

**Move to approve Addendum XXXIII, as modified today, with an implementation date of January 1, 2022** (Page 54). Motion by Nichola Meserve; second by Justin Davis. Motion carried with one abstention (NOAA Fisheries (11 in favor, 1 abstention) (Page 53).

6. **Council Only:**

**Move to submit the Black Sea Bass Commercial State Allocation Amendment, with identification of the preferred alternatives, to NMFS** (Page 54). Motion by Peter defur; second by Joe Cimino. Motion carried (13 in favor, 2 opposed, 3 abstentions) (Page 54).

**ATTENDANCE**

**Board Members**

Cheri Patterson, NH (AA)	Tom Fote, NJ (GA)
Ritchie White, NH (GA)	Adam Nowalsky, NJ, Legislative proxy
Nichola Meserve, MA, proxy for D. McKiernan (AA)	John Clark, DE, proxy for D. Saveikis (AA)
Raymond Kane, MA (GA)	Roy Miller, DE (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)	Craig Pugh, DE, proxy for Rep. Carson (LA)
Jason McNamee, RI (AA)	Mike Luisi, MD, proxy for B. Anderson (AA)
David Borden, RI (GA)	Russell Dize, MD (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	David Sikorski, MD, proxy for Del. Stein (LA)
Justin Davis, CT (AA)	Ellen Bolen, VA, proxy for S. Bowman (AA)
Bill Hyatt, CT (GA)	Shanna Madsen, VA, proxy for Sen. Mason (LA)
Matt Gates, CT, proxy for Sen. Miner (LA)	Chris Batsavage, NC, proxy for J. Batherson (AA)
Jim Gilmore, NY (AA)	Jerry Mannen, NC (GA)
Emerson Hasbrouck, NY (GA)	Bill Gorham, NC, proxy for Sen. Steinburg (LA)
John McMurray, NY, proxy for Sen. Kaminsky (LA)	Marty Gary, PRFC
Joe Cimino, NJ (AA)	Mike Pentony, NMFS

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

**Ex-Officio Members**

**Staff**

Bob Beal	Dustin Colson Leaning
Toni Kerns	Savannah Lewis
Kristen Anstead	Sarah Murray
Maya Drzewicki	Kirby Rootes-Murdy
Emilie Franke	Mike Rinaldi
Chris Jacobs	Caitlin Starks
Jeff Kipp	Deke Tompkins
Laura Leach	Geoff White

**Guests**

Dennis Abbott, Newmarket, NH	K. Bradbury, Ofc. Sen. Whitehouse	Peter deFur
Karen Abrams, NOAA	Bonnie Brady	John DePersenaire, RFA
Fred Akers	William Brantley, NC DENR	Greg DiDomenico
John Almeida, NOAA	Delayne Brown, NH F&G	Anthony DiLernia
Bill Anderson, MD (AA)	Jeff Brust, NJ DEP	Steve Doctor, MD DNR
Nathan Andrews, RI DEM	Richard Cody, NOAA	Michelle Duval, MAFMC
Max Appelman, NOAA	Heather Corbett, NJ DEP	Warren Elliott, PA (LA)
Regina Asmutis-Silvia	Morgan Corey, NOAA	Julie Evans
Pat Augustine, Coram, NY	Karson Coutre, MAFMC	Dan Farnham
Richard Balouskus, RI DEM	Jessica Daher, NJ DEP	Lynn Fegley, MD DNR
Julia Beaty, MAFMC	Kiley Dancy, MAFMC	Marianne Ferguson, NOAA
David Behringer, NC DENR	Jessica Daher, NJ DEP	Cynthia Ferrio, NOAA
Rick Bellavance	Maureen Davidson, NYS DEC	James Fletcher
Alan Bianchi, NC DENR	Lorena de la Garza, NC DENR	Tony Friedrich, SGA
Sarah Bland, NOAA	Jeff Deem	Jack Fullmer

These minutes are draft and subject to approval by the Summer Flounder, Scup, and Black Sea Bass Management Board. The Board will review the minutes during its next meeting.

Draft Proceedings of the Summer Flounder, Scup, and Black Sea Bass Management Board and  
Mid-Atlantic Marine Fisheries Council Meeting Webinar  
February 2021

**Guests (continued)**

Alexa Galvan, VMRC	Pat Geer, VMRC	Lewis Gillingham
Angela Giuliano, MD DNR	Chip Lynch, NOAA	Matthew Seeley, MAFMC
Kurt Gottschall, CT	John Maniscalco, NYS DEC	McLean Seward, NC DENR
Sonny Gwin	Genine McClair, MD DNR	Thomas Sminkey, NOAA
Jon Hare, NOAA	Ashleigh McCord, NOAA	Somers Smott, VMRC
Bridget Harner, NOAA	Chris McDonough, SC DNR	Scott Steinback, NOAA
Amalia Harrington, Univ. Maine	Dan McKiernan, MA (AA)	David Stormer, DE DFW
Dewey Hemilright	Conor McManus, RI DEM	Mark Taylor
Jay Hermsen, NOAA	Mike Millard, FL FWS	Mark Terceiro, NOAA
Helen Takade-Heumacher, EDF	Chris Moore, MAFMC	John Toth, JCIA
Rich Hittinger	Patrick Moran, MA Env. Police	Wes Townsend, Dogsboro, DE
Asm. Eric Houghtaling, NJ (LA)	Jerry Morgan	Corinne Truesdale, RI DEM
Rachel Howland, NC DENR	Wendy Morrison, NOAA	Sam Truesdell, MA DMF
Peter Hughes	Brandon Muffley, MAFMC	Mike Waive, ASA
Bob Humphrey	Allison Murphy, NOAA	Megan Ware, ME DMR
Miluska Olivera-Hyde, USGS	Kennedy Neill	Craig Weedon, MD DNR
Jeff Kaelin, Lund's Fisheries	Gerry O'Neill, Cape Seafoods	Philip Welsh
Emily Keiley, NOAA	Derek Orner, NOAA	Peter Whelan
Moira Kelly, NOAA	Hanna Rose Peralta	Patrick White
Adam Kenyon, VMRC	Mike Plaia	Meredith Whitten, NC DENR
Tony Kratowicz	Chad Power, NJ DEP	Kate Wilke, TNC
Kris Kuhn, PA F&B	Paul Rago	Angel Willey, MD DNR
Robert LaFrance, Quinnipiac U.	Jill Ramsey, VMRC	Sara Winslow
Nicole Lengyel, RI DEM	Paul Risi, City Univ. of NY	Steven Whitthuhn
Scott Lenox	Jessica Ruggieri, URI	Anthony Wood, NOAA
Tom Little, Ofc. Asm.	Mary Sabo, NOAA	Chris Wright, NOAA
Houghtaling	Scott Sakowski, NOAA	Phil Zalesak
Paul Lozeau	John Schoenig	Erik Zlokovitz, MD DNR
	Tara Scott, NOAA	

The Summer Flounder, Scup, and Black Sea Bass Management Board of the Atlantic States Marine Fisheries Commission convened via webinar; Monday, February 1, 2021, and was called to order at 9:30 a.m. by Chair Adam Nowalsky.

### **CALL TO ORDER**

CHAIR ADAM NOWALSKY: Let's welcome everyone to the winter meeting of the ASMFC. This is the Summer Flounder, Scup, and Black Sea Bass Management Board. This will be Board action only this morning, but we are joined by the Mid-Atlantic Council today. We will have joint actions that will be taken up throughout the day, the Policy Board meeting coming up after this meeting, followed by continuation of this Board meeting for Black Sea Bass Commercial Addendum action, which will be joint actions with the Council.

Welcome everyone! To those being impacted by weather today, be safe. Enjoy, if you like the snow. If not, well put the shades down on that side. This meeting has been called to order.

### **APPROVAL OF AGENDA**

CHAIR NOWALSKY: We'll begin with an approval of an agenda, the agenda that was provided in the meeting materials. We'll note that after we recess this morning, we do plan to reconvene jointly at 12:45, not one o'clock. Are there any other objections to the agenda as provided, or changes?

Seeing no changes and hearing no objections, the agenda is approved by consent.

### **APPROVAL OF PROCEEDINGS**

CHAIR NOWALSKY: Next, we'll go on to approval of proceedings from the August, 2020 Board meeting. Are there any objections to approval of those proceedings? Okay, I'm not seeing any objections, so those proceedings will stand approved as provided.

### **PUBLIC COMMENT**

CHAIR NOWALSKY: Next, we'll go on to public comment for any actions that are not on this

morning's portion of the agenda, which is state proposals for the 2021 recreational season.

Is there any public comment for anything else that is not on our agenda? Not seeing any hands raised or hearing anything, we will then proceed.

### **2021 RECREATIONAL MANAGEMENT MEASURES FOR SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS**

CHAIR NOWALSKY: The next agenda item is a presentation for 2021 Recreational Management Measure changes by a select number of states. We'll turn it over to staff for that, thank you very much.

### **CONSIDER STATE PROPOSALS FOR ADJUSTING 2021 RECREATIONAL MEASURES**

MR. DUSTIN COLSON LEANING: As was just alluded to, this is the Summer Flounder, Black Sea Bass and Recreational Proposals Consideration for the Board. This agenda item was originally an hour and 15 minutes, and it got whittled down to 30 minutes, so I'll keep it very concise and to the point.

We'll just cover the background, give a little perspective on what this process is about, and then we'll cover the proposals to modify recreational fisheries themselves, then followed by the TC recommendations, and then the Board Action today will be considering approval of the proposals. Just to jog your memory, this happened before the holiday break. The joint meeting in December that was hosted by the Council was with the Board as well, and they voted to maintain status quo of summer flounder, scup, and black sea bass recreational measures for 2021. However, there was the exception made where the Board was allowed to have states submit proposals for small adjustments to season for recreational fisheries through the conservation equivalency process.

This would just allow states to add some flexibility, if they wanted to start on a Friday or a Saturday, considering that the dates were set as a number not a day of the week. In all, we received three proposals. Two are going through the conservation

equivalency process, New Jersey and Massachusetts for summer flounder and black sea bass respectively.

Then we have the annual Virginia February fishery proposal for black sea bass, and Savannah will be covering the black sea bass items. I'll launch right into the New Jersey proposal for summer flounder. This proposal is actually very similar to last year's proposal; New Jersey is very keen on opening on the Friday of Memorial Day Weekend, which would mean a May 28 to September 28 season.

This proposal would actually delay the start of the season by six days, compared to the status quo dates of last year, and it would then add nine days to the end of the season to account for the delay. It's not a one-for-one adjustment there, or a day-for-day adjustment, because we estimated effect of moving the season forward by six days would have a greater reduction than six days being added to the end of the season.

When you look at daily harvest rates, computed by taking total landings per wave in numbers of fish, and dividing by the number of days in each wave for each year. Then you get a daily harvest rate for Wave 3 and Wave 5. This analysis found that Wave 3 harvest daily average harvest is greater than Wave 5, using 2018 and 2019 MRIP data.

The proposal ends with just three more days than they would have had last year, but the actual harvest itself is projected to be 0.09 percent lower than harvest done under the status quo season. It's important to note here that all other regulations will be kept consistent. We're only talking about a small seasonal adjustment. Next slide, and Savannah, you can take it from here.

#### **CONSIDER VIRGINIA PROPOSAL FOR WAVE 1 RECREATIONAL BLACK SEA BASS FISHERY**

MS. SAVANNAH LEWIS: Now I'm going to review the proposals that we got for black sea bass. We received a proposal from Massachusetts to modify their 2021 recreational black sea bass fishery under conservation equivalency. Traditionally they've had

a Saturday opening. Currently, under status quo, the season will open on a Tuesday.

They came up with two different alternative options to have the season opening on a Saturday. Option A, which opens the Saturday before status quo on May 15, and Option B, which opens the Saturday after status quo on May 22. To account for the shift in season opening, they looked at modified season closure dates.

These dates were calculated using the mean daily harvest rates by wave for 2018 and 2019. The TC ended up approving a combined 2018 and 2019 methodology. Due to the difference in harvest rates for Wave 3 compared to Wave 5, different season openings resulted in different season closures dates. For Option A the season will close on September 3, for a total of 112 days. For Option B the season will close on September 14, for a total of 116 days. All other regulations will be kept consistent, and the options, if approved today, will be taken out for public comment to determine which option Massachusetts will go with. Both options are expected to produce harvest that is similar or less than previous harvest rates. They have to calculate the differences in season closures due to the different harvest rates between Wave 3 and Wave 5.

For Virginia, as Dustin alluded, this is again a traditional opening now for them. They will be opening their recreational black sea bass from February 1 to February 28, as a response to NOAA Fisheries opening in federal waters.

They intend to calculate landings in February from their mandatory angler reporting, and make appropriate season adjustments. Due to the lack of MRIP data in 2020, 2021 harvest will be compared to daily harvest rates by wave from 2018 and 2019 MRIP landings in pounds, and the number of days open in each wave by year.

VMRC will then submit a proposal for season adjustments for the remainder of 2021, to account for all February harvest. All other regulations will be kept consistent. The Technical Committee met on January 19 via webinar, to review the proposals from

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the three states. The Technical Committee had no concern for the proposals, and found all of the methods to be technically sound.

The Technical Committee recommends approval of all three proposals for adjusting measures. The Technical Committee was also supportive of streamlining this process, such that the TC would review proposals over e-mail, and the Board would then vote via e-mail instead of at a meeting.

Finally, here is a list of the Board actions to be taken today. First, the Board can consider approval of 2021 Summer Flounder Recreational Fishery Proposal from New Jersey, consider the approval of the 2021 Black Sea Bass Recreational Fishery for Massachusetts, and consider approval of 2021 Black Sea Bass February Recreational Fishery Proposal from Virginia. With that Dustin and I are happy to take any questions.

CHAIR NOWALSKY: All right, thank you very much to staff for that presentation. Are there any questions from anyone around the table on the information provided? Okay, not seeing any hands up or hearing anything for anyone that can't raise their hand. Our next step would be to entertain a motion for approval of these. Would anyone be willing to make that motion? First hand up I saw was Jim Gilmore. Would you like to make a motion regarding these proposals, Jim?

MR. JAMES J. GILMORE, JR.: Sure, Mr. Chairman. I move to approve the recreational measures for summer flounder for New Jersey, black sea bass for Massachusetts, black sea bass for Virginia. Oh, you've got one up already, all right, I'll go with that.

MS. TONI KERNS: Jim, we'll need you to read that for the record, please.

**MR. GILMORE: Move to approve the following 2021 recreational conservational equivalency season adjustments: New Jersey summer flounder fishery (May 28 through September 28), and Massachusetts's black sea bass fishery (Options A, May 15 – September 3, and B, May 22 – September 19), and approve Virginia's proposal for adjusting**

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**recreational black sea bass measures to account for February harvest.**

CHAIR NOWALSKY: Very good, thank you very much, I see a hand raised from Mike Luisi. Is that to second this motion?

MR. MICHAEL LUISI: That is Adam, thank you, yes, I'll second that.

CHAIR NOWALSKY: Very good, so we have a motion that has been made and seconded. Is there any discussion on this motion? Jim, did you want to go ahead and provide any other information, or was your hand still up from making the motion?

MR. GILMORE: Sorry, Mr. Chairman, my hand was just up. I'll put it down and I'm good to go.

CHAIR NOWALSKY: Very good, thank you very much, I've got a hand raised from Nichola Meserve.

MS. NICHOLA MESERVE: I just wanted to point out that the date for Option B in Massachusetts should be September 14.

CHAIR NOWALSKY: All right, we've corrected that on screen. Is there any objection to having that that perfected on screen with the Option B motion being corrected to an end date of September 14? Not seeing any objections to that. Would you like me to go ahead and reread the motion, since there was that change made to it since it was originally read in, or is that not necessary, Toni?

MS. KERNS: I think it's okay, since we have that correction on the record.

CHAIR NOWALSKY: Very good, is there any public comment on this motion? All right, not seeing any public comment, I am going to go ahead and ask the Board. **Is there any objection to this motion? Okay, seeing no objections the motion stands approved.** Thank you very much. With that, unless there is any other business to come before us this morning, we're ready to move to recess, Toni, for Policy Board.

MS. KERNS: That's correct, Adam. Policy Board starts at 10:15.

**RECESS FOR ISFMP POLICY BOARD & MID-ATLANTIC  
FISHERY MANAGEMENT COUNCIL (MAFMC)  
DISCUSSION ON RECREATIONAL MANAGEMENT  
REFORM INITIATIVE**

(Whereupon a recess was taken and the Board and Council reconvened at 12:45.)

**RECONVENE AS A JOINT MEETING WITH MAFMC**

ATLANTIC STATES MARINE FISHERIES COMMISSION  
SUMMER FLOUNDER, SCUP, AND BLACK SEA  
BASS MANAGEMENT BOARD AND  
MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

**CONSIDER ADDENDUM XXXIII AND COUNCIL  
AMENDMENT ON BLACK SEA BASS COMMERCIAL  
STATE ALLOCATIONS FOR  
FINAL APPROVAL**

MS. CAITLIN STARKS: Okay, this is Caitlin Starks. I am the, I guess outgoing FMP Coordinator for black sea bass. After this meeting we'll be passing that off to Savannah Lewis. But I'll be going over the Draft Addendum XXXIII and Council Amendment presentation today. In this presentation I'll first cover some background information on this action leading up to this meeting.

Then, I'll review the different options for the black sea bass commercial state allocations, go over the way forward versus the action on the Addendum and Amendment, and take steps for implementation. As a reminder, Draft Addendum XXXIII and the Council Amendment mainly address two things.

First is, considering modifying the state commercial allocations as the black sea bass quota, and second is whether to add those state allocations to the Council's FMP. In the December joint meeting the Board and Council met at the Mid-Atlantic Council meeting, and they reviewed Draft Addendum XXXIII and the Council Amendment, the public comment, AP input and a Draft Impact Analysis.

At that meeting the Board and Council selected alternatives for the federal management portion to the action, but agreed to postpone decisions on the allocation and the final action on the document until February 2021, for this meeting. This table summarizes the proposed alternatives for federal management that were selected, and the boxes highlighted in green are those alternatives that were selected by the Board and Council at the December meeting.

For the first issue, the Board and Council voted to add the state allocations to the Council FMP, and maintain status quo for payback of state quota overages, and on the next issue they voted to modify the regulations for federal in-season closures, so that a quota would occur when landings are projected to exceed the coastwide quota, plus a buffer of up to 5 percent, which would be established annually through specifications by the Board and Council.

Today the Board and Council will consider which of the options for the state allocations to adopt. I'll go over each of those options, which are summarized again on this flow chart, and I'm going to move fairly quickly through these, since they have been presented to the Board and Council before, but I can always come back with questions on more detail if there any at the end.

Option A is status quo state allocations, which are shown in the table at the right, and these allocations were implemented in 2003 through Amendment 13, and were loosely based on historical landings from 1980 to 2001. Option B proposes to increase Connecticut's allocation from 1 percent to 5 percent, in order to address the disparity between their current allocation and the increased availability of black sea bass in Connecticut state waters.

The option proposes to get that allocation from 1 percent to 5 percent by holding Delaware and New York constant, moving 0.25 percent each from Maine and New Hampshire to Connecticut, and finally moving some quota from each of the remaining states to Connecticut, in proportion to their current allocation as we get to that total of 5 percent for Connecticut overall allocation.

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The last column in the table shows what the allocations would be that result from this method. I'll note again that this option is intended either as a standalone change to the allocation, or as a starting point for additional allocation changes through one of the other options. Option C is dynamic adjustments to regional allocations a.k.a. the DARA approach, which aims to practically address the state allocations while incorporating information on the changing stock distribution.

During the first phase a transition would take place over several years, where the initial allocations are gradually adjusted using a formula to become more dependent on the current stock distribution. At the end of that transition period the allocations would be based partially on stock distribution information, and partially on the initial allocation.

In Phase 2, the formula is no longer being adjusted to give more weight to the stock distribution component, but instead allocations would only be updated when new information on regional stock distribution becomes available, such as when there is a new stock assessment. The sub-options for this approach are designed to represent ranges of values that the Board and Council can work within to determine how fast and how much the allocations are changed overall through this approach.

As a quick reminder of how the DARA approach works, the first step is to divide the coastwide quota into one portion that would be allocated based on the initial allocations, and one portion that would be allocated according to the stock distribution. What those percentages are in each year would be determined by the sub-options that are selected.

Next, the first portion gets distributed to all states, based on their initial allocation, and the second portion is divided regionally, based on the proportion of stock biomass in each region. Then those regional portions get allocated to the states in each region in proportion to their initial allocation, and finally each state gets its overall allocation from the part of it that got allocated using initial allocation, plus the part of the quota that allocated regionally.

As a quick note, this would look slightly different in the last few steps if New Jersey were made an individual region. Sub-option set C-1 for the DARA approach determines the relative weight of the initial allocations, versus the resource distribution information in determining the state allocations at the end of the transition phase.

Option C1-A is that at the end of the transition phase the allocations would be 90 percent based on stock distribution, and 10 percent based on the initial allocations. Option C1-B is that the allocations end up being based 50 percent on stock distribution and 50 percent on the initial allocation.

As a reminder, the Board and Council could choose a final option falling between these two if desired. These are just examples of how those would be split out under these two options. Sub-options set C2 would determine how much the relative weights of the initial allocation and the resource distribution factors change with each adjustment during the transition phase. Sub-option C2-A is that the relative weight could change by 5 percent per adjustment, which is a slower transition, and Sub-option C2-B is that the relative weights would change by 20 percent per adjustment, and that would give you a faster transition to those final weights. DARA Sub-option set C3 determines how often during the transition period those adjustments are made to the weight of the initial allocation and stock distribution factors, and the two actions are either to do adjustments every year or every other year.

Set C4 provides the option to set a task on the amount of change in the regional allocations per adjustment during the transition period. There are three options here, a 3 percent cap, a 10 percent cap, or no cap. The general function of a cap is that it reduces the amount of change in the allocations that can happen during a single adjustment.

If during an adjustment the formula is dictating that there be no allocations to change by 9 percent overall, but you have that 3 percent cap in place. In that adjustment the regional change would only be 3 percent. That does end up drawing out the

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transition period over time if the cap is needed during all full years.

The next proposed option is Option D, which is the trigger approach, and this establishes a minimum level of coastwide quota as a trigger for a change in the state allocations, and if the annual coastwide quota exceeds that trigger then the amount of coastwide quota up to and including that amount, would be distributed to the states according to the base allocation, their initial allocation, and the surplus quota above the trigger would be distributed differently.

Sub-options D1-A or D1-E would determine the trigger levels, and D1-A is a 3-million-pound trigger, whereas D1-B is a 4.5-million-pound trigger. The figure just shows how the trigger levels compare to the coastwide quotas since 1998, and as a reminder these sub-options are also meant to provide a range so the Board and Council could select something between 3 and 4.5 million pounds.

Sub-option set D2 determines how the surplus quota above the trigger value is distributed to the states. Option B2-A is to distribute the surplus quota evenly for all states from Massachusetts through North Carolina, and Option B2-B is to distribute the surplus quota among regions, based on regional biomass proportions from the stock assessment.

Under both of these options, Maine and New Hampshire would each be receiving only 1 percent of the surplus quota. If Option D2-B is chosen from the last set, then there are two sub-options that would determine how the regional surplus quotas would be divided among states within each region.

D3-A is that the states would each get equal shares of the regional surplus, and D3-C is that the regional quota would be divided among the states in a region in proportion to their initial allocations. Again, Maine and New Hampshire are the exception, each only getting 1 percent of the northern region surplus.

The last set of options for the trigger approach determines if the base allocations for the quota up to and including the trigger would change over time,

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and these sub-options are only applicable if the options for regional surplus allocations is selected. Sub-option D4-A is for a static based allocation, where the quota up to and including the trigger would always be allocated using the same initial allocation, and Sub-Option D4-B is for dynamic based allocations. That means that each year the quota up to and including the trigger amount would be allocated according to the previous year's final state allocation. That results in those base allocations changing over time. Next in Option E, this is also a trigger approach, but the surplus quota would be applied to increase the Connecticut and New York allocations first, before going to other states.

It proposes using the 3-million-pound trigger level, and the first 3 million pounds would be distributed based on those initial allocations, and then surplus quota would first be used to increase Connecticut's allocation from 1 percent to 5 percent, and then additional surplus after that would be to increase New York's allocation from 7 percent to 9 percent.

Then lastly, any remaining surplus quota would be split between the northern and southern regions, based on the proportion of biomass in each region from the stock assessment, and then allocated to the states within each region in proportion to their initial allocation. The last approach is Option F, which we're calling the percentage approach.

The way it would work is that it would allocate a certain fixed percentage of the annual coastwide quota to the states, based on the initial allocation, and the remaining percentage would be allocated in a different way, either evenly among the states or regionally. Sub-option set F1 determines the percentage of coastwide quota that would be allocated based on the initial allocations.

The two options are either 25 percent or 75 percent, and like other sub-options these are also meant to represent a range for the Board and Council to work within. The 25 percent option would result in allocations that are more different from the current allocations, and the 75 percent option would result in allocations that are more similar to the current allocations.

Like the trigger approach, this percentage approach also has sub-options that determine how to distribute the percentage of the annual quota that is not allocated based on the initial allocation. With Sub-option F2-A, remaining quota would be allocated to all states equally, except for Maine and New Hampshire, which again get 1 percent each of the remaining portion.

With Sub-option F2-B the remaining quota is distributed based on the regional biomass from the stock assessment, and if Option F2-B is chosen then Option set F3 determines how the regional quota is distributed to those states within a region. F3-A is to distribute the regional quota evenly to states within each region, and F3-B is to distribute the regional quota in proportion to the initial interregional allocation.

Again, under both these options Maine and New Hampshire are getting 1 percent of the northern region quota. For those options that would use a regional distribution of black sea bass from the stock assessment as a basis for regional allocation. There are two options for defining the regional configuration.

Option G1 would establish two regions, a northern region, including Maine through New York, and a southern region including New Jersey through North Carolina, and Option G2 would establish three regions, Maine through New York would make up the northern region. New Jersey would be an individual region, and Delaware through North Carolina would make up the southern region. While both of these are generally aligned with the spatial sub units used in the stock assessment, which are just divided approximately at Hudson Canyon, Option G2 is attempting to address New Jersey's unique position where some of its waters are in the northern region and some in the south.

Under Option G2, New Jersey is treated as if half of its initial 20 percent allocation comes from the northern region and half from the southern region. That covers all of the options for the state commercial allocations, and this is just a summary table of everything I just went over for reference.

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That brings us to today, the Board and Council will be considering which of the state allocations to adopt, and following that decision considering final approval of Addendum XXXIII and the Council Amendment. If the Addendum and Amendment are approved today, then these are the next steps for each action.

For the Commission Addendum, the Board can select the implementation date, and that's when a new allocation would go into effect for the states. For the Council Amendment, if approved, the Council would need to write out the Draft Environmental Assessment and submit that with the Amendment to NOAA Fisheries, and then additional changes to the document might be made based on the feedback from NOAA Fisheries, and once that's done, the federal rule making process would begin, including the proposed rule and public comment period, and then Final Rule.

From today to publishing the Final Rule, you would usually expect this process will take between 10 and 16 months, but there is a possibility of that taking longer if there is additional workload of some other actions ongoing. With that, that is all I have to cover, but I will pass it over to Julia Beaty of Council staff now, to go over the Council staff recommendation.

MS. JULIA BEATY: Just to kind of kick off the discussion. This is the Council staff recommendation for changes to the allocation percentages among states. It's based on the percentage approach, but it does first allow for that increase for Connecticut, the increase from 1 percent to 5 percent.

Then it uses the percentage approach to first allocate 75 percent of the annual quota, based on those initial allocations, which would account for that Connecticut increase to 5 percent, and then the remaining 25 percent of the quota will be allocated based on the most recent regional biomass distribution information from the assessment.

Then that regional amount is further divided among the states within the regions in proportion to their initial state allocations, which would account for that Connecticut increase to 5 percent, and accept that

Maine and New Hampshire would each receive 1 percent of the northern region quota, as Caitlin described.

Under this recommendation there is the three-region approach, with Maine through New York as one region, New Jersey as its own region, and Delaware through North Carolina as a third region. The reason that this combination of alternatives is the Council staff recommendation, is that first of all it addresses the unique position of both Connecticut and New Jersey, and they are unique for different ways. As Caitlin described, Connecticut has this particularly low current allocation, which is kind of a mismatch with the big increase in availability that they've seen in recent years, so this recommendation addresses that.

Then it also addresses the fact that New Jersey is in a unique position, in that it straddles the border between the northern and southern sub-units as defined in the stock assessment, so it allows for that kind of, for New Jersey to be treated as if it's different from the other states in that way.

But also, the rationale behind the percentage approach is that it allows for some amount of the quota to account for recent distribution information, regardless of whatever the overall quota level is. This is different than this trigger approach, for example. A trigger approach would have the allocations change, depending on what the overall quota level is.

This approach is the same no matter what the overall quota is. You always have some amount of the quota that would account for distribution information, but most of the quota, 75 percent would be allocated according to these initial allocations, so it is seeking to balance a desire to account for the historical dependence of states on the fishery, that is that 75 percent, and then while also allowing for some amount of allocation to shift around to account for more current biomass distribution.

This would be updated every time we get new distribution information from the stock assessment.

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In that way it will help to provide continued fair access to the resource, because it is not going to send allocation, this is going to stay completely unchanged for you know two decades, because part of it would be always updated every time, we get that new biomass distribution information.

There is an example of what the recommendations would look like under that most recent biomass distribution information, which is based on data through 2018, the information that we have right now. Again, the staff recommendation is to approve that process that I described. You wouldn't be approving a specific percentage to a state in any given year, but this is an example of what that process would result in with the current biomass distribution information.

To kind of walk through this table, there is a row for every state, and then that first column there is what the allocations currently are, and then the next column is what would be to find the initial allocations accounting for first bringing Connecticut up to 5 percent. Then the next column is the revised allocations, where 75 percent of the allocations is based on those initial allocations, and the remaining 25 percent accounts for biomass distribution, according to the most recent information that we have.

Then the last column is the difference between that revised allocations column and the current allocations column. You can see that under this example, no state would lose more than 4.21 percent of the total coastwide quota, and no state besides Connecticut would be more than 2.1 percent. It moves a total of 10.21 percent from New Jersey to North Carolina to Maine through New York. It does move some allocations to account for recent biomass distributions, but it's not taking a huge amount from some states and giving a huge amount to other states, so it's trying to keep a balance in that way. That's all I have for the Council staff recommendation for the group to consider, and I think that's it for the whole presentation. I don't know if Caitlin, you needed to say anything else at this point. But that's all I have to say for the Council staff recommendations.

MS. STARKS: Thanks, Julia, no that is all I have as well, so I think we're happy to take any questions, if that's okay with the Chairs.

CHAIR NOWALSKY: All right, thank you very much both Caitlin and Julia. First, let me begin for thanking Caitlin for all her time and efforts on black sea bass over the years. It's been a pleasure working with her. I suspect no one is counting down the clock until 4:30 faster than Caitlin today. That being said, let me first turn to Mike Luisi, to see if he's got anything he would like to add, based on the presentation we've heard. Then we will turn to the Board and Council for questions.

CHAIR LUISI: No, I don't have anything to add, other than I think what we need to discuss is process. During our December meeting we had the conversation about voting on these alternatives. We decided that at the time the Council would vote first on whether or not to add the allocations into the federal FMP, and we did that.

I think at this point, you know Adam, you and I have talked. We're at the point where any motion that is made regarding a state-by-state allocation will be taken up first by the Board, then the Council will follow, and I'll call the question for the Council. As far as process that is the one thing I wanted to add. The other thing I wanted. I had a question, if it's okay, Mr. Chairman, if I ask a question of Julia or Caitlin, is that okay?

CHAIR NOWASLKSZY: One hundred percent okay.

CHAIR LUISI: I wanted to get a little better handle on what the difference is between New Jersey being its own region or being within the southern region. Is there information about how allocations would be different, or does it all basically smooth out and, you know once it is all said and done, if New Jersey is its own region.

Are the allocations all the same? I just want to get a little bit better understanding about what the difference is between them being by themselves, or being with the southern region, as far as allocations go, based on the alternatives? Maybe that's a

question for Julia, or Caitlin, but if you can help me with that that will be great, thanks.

MS. STARKS: Mike, this is Caitlin. I'm happy to try and answer that in a general sense. In Draft Addendum XXXIII there were some analyses done in the appendix with all the different examples of the trigger approach and the percentage approach, and how those outcomes might look. Some of those examples included a two-region approach, and some included a New Jersey individual region. That is a good place to look if you want some specifics. But in general, I would say, from looking through most of those examples that were done, is that New Jersey when it's treated as an individual region, because it's treated as if some of its quota is coming from the northern region and some of it is coming from the southern region. As those allocations are shifted, based on the regional distribution of biomass, New Jersey has seen some increases for a part of this.

Its quota is derived from the northern region in part, so it is seeing an increase from that part, and a decrease simultaneously from the southern region. New Jersey's allocation doesn't change as much as some of the other states do over time, and I would say it kind of hovers around that 20 percent, more closely than some of the other state allocations, if that makes sense.

CHAIR LUISI: Yes, that helps, thank you.

CHAIR NOWALSKY: All right, so a full disclosure in the list of questions. Mike did have his hand up first, so that contributes to his 100 percent okay rating for going ahead and answering questions. In terms of hands that I see right now. I've got Jim Gilmore, Tony DiLernia, and then Jay McNamee, so we'll go to Jim Gilmore first.

MR. GILMORE: I got it pretty clear from Julia and Caitlin, so the staff recommendation was under F, and I think you explained pretty well the rationale behind it. However, the one thing you didn't elaborate on and I wish you could, is that I guess it supposes that this is better than the DARA option.

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But I'm still having a little trouble understanding why the DARA options are not being considered, or the F option was a higher priority than the DARA option, because the one thing that any of the triggers or Option F does, we're still holding onto the past. We're going to forever use data that we have that will become at some time 50 to 80 years old, and we're going to possibly include that.

To me the one thing that the DARA option provides is that it does this gradually, and it really looks at leaving the past and going into the future may be the right way to do it. Some of those DARA options provide less impact to the southern states, the percentages are a lot smaller. Could you just elaborate a little bit more, as to why the DARA options were not chosen, and why the F ones are really superior to them?

CHAIR NOWALSKY: Jim, before I turn to staff, let me just make a couple of clarifications. Number one, the recommendation that is before us right now is a Council staff recommendation, it is not an ASMFC staff recommendation at the present time, and Julia was kind enough to offer that up as a starting point for discussion. But let me say that as we go through the day, after we get through questions and we get to motions.

It is not my intention to have that be the first motion. It will be at the discretion of the Board. If in the order of operations of people speaking, we get to a point where we're ready for motions, and somebody chooses to make that motion and it becomes the first motion, so be it. But it is not the default first motion that we're going to consider, it is a Council staff motion and it is not an ASMFC staff motion. I just want to provide that little bit of clarity before we turn to Julia, if she wants to elaborate, since it was a Council staff recommendation or any other staff members that would be appropriate to provide feedback to Jim.

MS. BEATY: This is Julia, I can respond to that. You know in short, the reasons this was preferred by staff over the DARA approach is that it's more simple. The intent by half behind having it be the 75/25

percentage, is that gets at a similar idea to what you said with DARA, where it's not making a big change.

It would be updated every time you get new biomass distribution information that 25 percent as provided among the regions would shift, potentially every time you get new biomass distribution information. But you're right with the DARA approach, you could kind of phase the changes in more explicitly, and if you wanted a bigger change you could phase that in over time through the DARA approach, and this does not have a phase-in.

But because this 75 percent is always distributed based on the initial allocations, Council staff thought that this could be okay to not phase it in, because it's not a tremendous change. If there is any other part of the question that I missed, I can elaborate. But you know as far as this is a more simple, straightforward approach that was trying to achieve some similar things to what the DARA approach is trying to achieve.

MR. GILMORE: Thanks, Julia, that's good.

CHAIR NOWALSKY: I suspect there is going to be a lot more discussion as we get into motions about the merits of the opposed view, so thank you. Next up we're going to Tony DiLernia.

MR. TONY DiLERNIA: To continue this discussion on the DARA approach and what Julia was mentioning. Julia, the DARA approach basically is a percentage distribution, but could you use the formula in the DARA percentage distribution and apply it to the regions? Is that a way that this could be, the calculation of the DARA approach be applied towards the different regions. Can you do that?

MS. STARKS: This is Caitlin. I'm just going to jump in front of Julia, because I think I probably can answer that. First, I want to make sure it's clear that the DARA approach does a regional approach. That is the first part. I guess with that knowledge, does that answer your question?

MR. DiLERNIA: No, no, that is what I thought. I thought I could use the DARA approach; it is

extremely clear as a regional approach. Then, I guess the next question is a process question to leadership again, to you, Mr. Chairman. If there is going to be a decision tree that occurs in this discussion.

I would think that the first decision would be what the regions would look like. If we're going to use a regional approach and what the regions would look like, because once that is determined then I think everything else flows from the composition of the different regions. That's my thought. I don't know what your preference was, Mr. Chairman, in making again, following this decision tree. But my recommendation would be first to decide if we're going to use regions, and if we are going to use regions what those regions would look like.

CHAIR NOWALSKY: Well, I'll offer my thoughts on that. The document as it currently lays out would suggest that perhaps the greater precedent is what to do with regards to any slot late adjustment to any state, Connecticut in particular. With regards to the regional approach, I think the implication of those regions vary by approach that we take, and for example, once we get down to the trigger, the trigger does what it does regardless of what the configuration of the regions are.

From my perspective, in our conversations with leadership and staff. We did not come into this discussion with any preconceived notion of what the order of decisions would be. Again, I think I would leave it to the Board and the Council, and the preference of motions that are made, to actually decide that. I'll turn to Mike if he's got any other thoughts with regards to the preference, and whether he feels there is a need for a regional decision to be made before any other decisions.

CHAIR LUISI: No, nothing more to add. To Tony's question. Tony, I think what's going to happen, from discussions that I've had with folks over the week, last week, is that kind of a full suite of the allocation decision is going to be kind of packaged together like a suite of options that combined together present the direction forward.

But like Adam said, if you would rather take it piece by piece that's okay too. I just think that it might be cleaner if all of it presented, all of the allocation alternatives are presented in one package. I think of it as like a package. That might be an easier way to make decisions, because you're making a decision based on the full suite of options, instead of one option at a time.

MR. DiLERNIA: You're right, I understand what you're staying.

CHAIR LUISI: It's up to the Board and the Council how they want to deal with it.

MR. DiLERNIA: Okay, but there is a lot of moving parts here all at the same time. Maybe going back to what Adam was discussing, I want to say suggesting that maybe we make the decision first, do we want to use the trigger approach or not? If you don't want to use the trigger approach, if you discount the trigger approach, then that discounts automatically a whole bunch of different options, so that you can begin to focus on other options as you go down that decision tree.

That's fine. My suggestion would be somehow to try to just make this a linear type of decision process in which you decide trigger or no trigger. If there is no trigger then what's the next, that would probably be DARA, and then once you get there, well it would be DARA, and then do we want to do what are the regions going to look like? Just try to kind of slow down all these parts going in a different direction. Right now, I feel like an octopus here, trying to cover everything at the same time.

CHAIR NOWALSKY: What I've got on a list of people right now, and this is questions. Let's make sure that we leave ourselves enough time. Again, I'm expecting a number of motions to be made on this topic, and I think we're going to have a lot of debate and we're going to need time on them. Let's make sure that any questions right now are relevant to what is going to impact your decision making, as to whether or not you want to put a motion up. I'm going to go through a list of people that I have right

now to speak, and if you have a question, raise your hand now.

We'll go through this process one more time after this bout of questions, to see if it raised any other questions. Then after we get through the list of questions, then I'll come back and we'll go ahead and we'll have a race to raise hands to see who can get the first motion on the table first. Let me see a show of hands of people that have a distinct question that is going to impact their decision making. I had Jay McNamee from before, other hands have gone up.

I've got Eric Reid, I've got Emerson Hasbrouck, I've got Dan Farnham, and I've got Dave Borden. We're going to go with that for a list of questions, and then again, I'll ask one more time after we go through these five individuals, and then we'll get on to the business of decision making. Jay, you're up next with a question. I see Jay toggling back and forth in the webinar, but we're not getting anything on this end. Let me go on to the next person, Eric Reid, and then I'll come back to Jay again after Eric.

MR. ERIC REID: I've got a general question on, maybe on the process. Would that be fair game right now?

CHAIR NOWALSKY: Go ahead.

MR. REID: Since this is now a joint action of the Commission and the Council, my question relates to National Standard 4, which is allocations, and it's with regards to two specific states. Section B, National Standard 4 is discrimination amongst residence of different states, and it says that an FMP may not differentiate among U.S. citizens, national resident aliens or corporations on the basis of their state of residence.

Subsection 1 further states that an FMP that restricts fishing in the EEZ to those holding a permit from State X that violates Standard 4, with State X fishing permits only their own citizens. I asked this question. State X relates to Maryland and Delaware, and their ITQ fisheries which occur in the EEZ. Is there any guidance on how this action affects those?

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CHAIR NOWALSKY: Thanks for the question. Let me turn to staff to see if they've given any consideration, as I know they've done a lot of analysis work that would have to be included in an Amendment. Let me turn to staff first, and depending on what they're able to provide, perhaps we can go to Fisheries Service. I'm guessing if we were all in a room together, they would probably be looking at each other, wondering who was going to try to kick it.

MS. BEATY: This is Julia. I can start, I guess. On the one hand, from the federal perspective, it's not restricting who can have a permit in which state. It's just saying how much black sea bass can be landed in each state. The federal side of things isn't going to restrict to individuals as a resident of a state for example, it's just going to say where can these black sea bass be landed, and I'm not sure if there is anything else to add to that from the individual state perspective. Also, maybe GARFO might have other things to weigh in on that. But that's all I can say from my initial first thoughts on that from a Council staff perspective.

CHAIR NOWALSKY: Anything from the Service or legal from the Service might want to weigh in on National Standard 4 on the discussion so far, understanding that they haven't seen all the documents of the analysis, but based on Eric's questions? Mike Pentony, I see your hand is up. Is this to weigh in on this question?

MR. MIKE PENTONY: Yes.

CHAIR NOWALSKY: Go ahead, please.

MR. PENTONY: I'm actually trying to figure out, or see exactly what it was that Eric Reid was just reading, because there was some text that he was reading that went beyond the script reading of what is in National Standards 4 in the Magnuson Act, which in terms of this approach is. National Standard 4 says that allocation shall be fair and equitable to all fishermen, reasonably calculated to promote conservation, and carried out so that no individual has an excessive share. I'm hoping to get,

maybe Mr. Reid can point me to the additional text that he was reading.

CHAIR NOWALSKY: Eric, are you able to help Mike out on that?

MR. REID: Yes, sure. I'm reading an electronic code of federal regulations CFR data, current as of January 1, 2021. It's National Standard 4, which is 600-325, and I'm referring to Section B and Subsection 1 in that line.

MR. PENTONY: That's also sent out from the National Standard Guidelines. Let me take a quick look at that and I can get back to the Board and the Council on that.

CHAIR NOWALSKY: Yes, that would be great. If you just go ahead and put your hand down, and put your hand back up when you're prepared to go ahead and provide some more input, we'll come back to you. Next, Jay McNamee. How are you making out with audio on your end?

DR. JASON McNAMEE: Hi Mr. Chair, can you hear me?

CHAIR NOWALSKY: Outstanding, you're good to go.

DR. McNAMEE: Okay, and what I will do is say never mind, I'm good. Thank you.

CHAIR NOWALSKY: All right, well we've proved that we can get your audio going, so that gets you in a good spot. All right, next up Emerson Hasbrouck.

MR. EMERSON C. HASBROUCK: Thank you, Caitlin and Julia for your presentations. I have a couple of questions. Jim already asked kind of what I was going to ask, so I don't need to repeat that. But I'm wondering, Caitlin or Julia, would you have any information or a table that shows what percentage of the state quota each state harvested, in like 2020 or 2019? Have all states been harvesting 100 percent of their quota? I would like to see that; you know what percentage of the individual state quota states are harvesting.

CHAIR NOWALSKY: Do we have that information available, or would that be something we would have to pull up and come back to?

MS. STARKS: I would have to pull it up and come back to it. We do have the information for previous years, although I would say for 2020 data is still preliminary, so definitely not final. I don't know if we should share those data or not. More vetted, but I can pull up information from 2019 and previous.

CHAIR NOWALSKY: All right, we'll give you an opportunity to do that and come back to that. Emerson, did you have another question you wanted to ask? Right now, you're on mute on the webinar, Emerson.

MR. HASBROUCK: Yes, I'm sorry, Mr. Chairman. I couldn't hear what the response was. I lost audio from the webinar.

CHAIR NOWALSKY: The response from staff was they don't have that information immediately available; they will try to pull up 2019 info in short order. They may not be able to provide 2020 at this point, due to it not being finalized. We'll try to get an answer to that percentage of state allocation that was harvested as quickly as they can. While they are looking at that did you have another question you wanted to ask?

MR. HASBROUCK: No, thank you, Mr. Chairman, I'm good for now.

CHAIR NOWALSKY: We'll check back with staff. Just chime in, since I can't see hands raised for staff. Just when there is a break here just go ahead and chime in if you've got an answer to that. Let me go back to Mike Pentony, he's got his hand back up to try to address Eric's question about NS4 document. Mike.

MR. PENTONY: Yes, thanks. This isn't probably going to be a terribly helpful response, and John Almeida may want to follow on. As I'm reading the National Standard Guidelines, the section that Eric Reid was reading is kind of an expansion of National Standard 4, Subpart A. The National Standard is that all allocations, well allocations shall not discriminate between residence of different states.

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Any allocations that are necessary should be fair and equitable to all such fishermen. Then the National Standard 4 kind of expansion of that is getting at that you can't differentiate among citizens on the basis of their state of residence. I've always interpreted that, and I believe the Agency has always interpreted and applied that to mean that our regulations can't be based on the state of residence.

In other words, if we issue a fishing permit to Vessel A. We can't say, well your possession limit is 10,000 pounds if you come from Massachusetts, but if you come from New York your possession limit is 100 pounds. We issue a federal permit, and the federal permit does not discriminate what you can or can't do based on your state of residence. Now that's a very different issue than allocating quota of what can be landed in a state, which we've clearly done in a number of FMPs on the federal side, summer flounder and bluefish jump immediately to mind, and we've never had any National Standard 4 issues with the state-by-state allocation.

Allocating quota to a state for landing is, in my mind, a very different question than discriminating of the residence of the state, in terms of what they can or can't do with their federal permit. I hope that helps a little bit.

CHAIR NOWALSKY: All right, thanks Mike, we'll take that as a reply for right now, and as we get into motions later, perhaps that information will be used in rationalization for the motions, thank you. Next up I've got Dan Farnham, and Dan you are presently muted in the webinar. There you go, you are unmuted in the webinar, make sure your local device is not muted and go ahead.

MR. DAN FARNHAM: Number one, my internet is starting to go, I'm sure I might lose it here. If I do, I'm going to call you on my cell phone. But in the meantime, I just have a quick question for staff. On the memo for staff recommendations that I have. For regional configuration alternatives, I thought the original memo had down Sub-alternative 1G-1, which is two regions. But now in the presentation, if I heard it correctly it's 1G-2 with three, with New Jersey being alone. If that's the case, is there any

rationale. If I read this right and I see it right, what was the rationale for changing the opinion, if you did?

CHAIR NOWALSKY: You did read that correctly. That was a change in the Council staff recommendation from the December meeting. Julia, would you like to go ahead and offer Dan some feedback on that?

MS. BEATY: Sure, yes, that is correct. Back in December the Council staff recommendation was for two regions. Again, because it was a more simple approach, kind of just directly taking the regions and splitting them up that way. But then after further consideration, and you know discussion with staff and others. You know it was determined that New Jersey is in a unique position, and the stock assessment itself did acknowledge that New Jersey straddles that boundary.

It's not overly complicated to add on another step to it, split New Jersey out the way that is described in the document, where New Jersey will be treated as if half of its allocation is associated with the north and half associated with the south. Just further consideration it did seem appropriate to add one additional step in the calculations to acknowledge the unique position of New Jersey.

CHAIR NOWALSKY: Great, thanks, Julia. Next up I've got Dave Borden.

MR. DAVID V. BORDEN: I've got a couple of questions, simple ones. It's highly likely that somebody is going to propose something that is between, the values will be between some of the values that have been analyzed. Do we have all of this information in a spreadsheet, so it can be analyzed on the spot to answer questions about its impact on different states?

CHAIR NOWALSKY: I can't promise, Dave, that we're going to have every analysis for every possible range of percent option that could be come up with between status quo and the changes that these documents contemplate at their greatest divergence, if staff is able to at the time provide information. We will certainly ask them to provide as much as they

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can. But I can't guarantee that for every motion that comes before us today you're going to be able to see a concrete analysis of what that percent change means to every state, and in what timeline that is going to be.

MR. BORDEN: Okay, and then the follow up would be. On the landing information, I looked earlier on the NOAA site at the landing information. Basically, I recognize that it's preliminary, subject to change, and it will change. But that landing information basically indicates that most of the New England states, with the exception of Rhode Island, caught their quota in 2020, and the states south of New Jersey did not, some by very substantial amounts.

I would just make the comment that that I think is a significant factor we're all going to have to take into consideration. The last question relates to an issue that has already come up, which is ITQs. I'm just wondering whether or not the Council staff has gotten any guidance from NOAA about this issue. We have three states in the Mid that have ITQs, which is certainly their right. Do they have, has the Council staff looked at the issue of extending those ITQ fishing rights into federal waters without going through the formal process that is required by Magnuson?

CHAIR NOWALSKY: We'll turn to staff, if they have any input again, or the Regional Office, with regards to the implications of ITQs, and these allocations being written into the federal fishery management plan.

MS. BEATY: That sounded like a question related to alternatives impacting federal waters, so I think I'll take a stab at. This is Julia. If I understood the question it was, does the document contemplate using ITQs in federal waters basically, or extending the state waters ITQ to federal waters. The answer is no.

There are no changes to the federal waters permit, which the federal waters permit allows you to fish anywhere in federal waters, and that would continue to be the same under any of the alternatives in the document. The changes in this document that we're

talking about today just relate to how many fish can be landed in any particular state. Anybody who has the appropriate permits could land in whatever state.

If you have a federal permit you can catch your fish anywhere in federal waters, and you know all the states have different requirements for who can get a permit. There are plenty of fishermen who have permits in multiple states. Anything under consideration in this document you could continue to land in the states that is open, if you have the right permits. If you have a federal permit you could continue to fish anywhere in federal waters. There is no contemplation of extending ITQs into federal waters in this document.

CHAIR NOWALSKY: Thanks for that. It's a direct answer with regards to not extending the ITQs into federal waters. I appreciate that. Again, since we've already had the motion to go ahead and move that into the federal FMP, we'll leave that there, absent some motion to reconsider, which I don't think that anyone is intending to make that has been brought to my attention so far. We went through a list of initial people.

Additional hands have gone up during that discussion include John Clark and Wes Townsend, so I am going to go to both of those individuals. Let me also just bring to Dave Borden, Dan Farnham, Mike Pentony and Emerson Hasbrouck that your hands are still up. If you do have something else you need to add, I see we've got a lot of them down with that so that's good. But if you did have something else to add, then go ahead and leave the hand up. Let me go to John Clark and then Wes Townsend. John, you're up.

MR. JOHN CLARK: We have direct experience. Eric mentioned Delaware specifically on the question about the ITQs. We did have a black sea bass federal permit that was up for sale a couple years ago. We were challenged about the fact that you also needed a Delaware permit to land in Delaware.

Not to belabor the point, the upshot was that yes, we were found to be fine. We were operating under

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Magnuson Stevens, and there was no problem at the federal side, as far as us requiring both a federal and a state permit to land black sea bass in Delaware, and it was also fine for us to allocate our black sea bass by ITQ. Thank you.

CHAIR NOWALSKY: Thanks for that follow up, John. Wes Townsend, question?

MR. WES TOWNSEND: No, Mr. Chairman, just to answer Eric. Similar to what John had to say. There is, all Delaware permits are not owned by Delaware residents, and it's the same way in Maryland. All Maryland permits are not owned by Maryland residents. All right, thank you.

CHAIRMAN NOWALSKY: Paul Risi, did you have a question you wanted to ask? All right, I'll give him a moment. Again, I've got Paul's hand up, but I see he is muted in the webinar right now. We'll give him a moment. We're an hour into the agenda, we've gone through presentations, we've gone through quite a few questions. I'm going to ask one last time.

I've got Jay McNamee's hand up, we'll come back to him. We'll try to get Paul Risi here. Are there any other pressing questions before I ask everybody to put their hands down? Then I think we'll get onto the business of somebody getting a motion before us. Hands up if you have any more questions that have to get answered before we move forward. Let me go back to Jay McNamee, and then again, we'll try Paul, if he can get unmuted off the webinar, go ahead, Jay.

DR. McNAMEE: I was just nervous before that somebody had asked my question. I didn't want to waste everyone's time, but I don't think it has. My question is, there was a little bit of economic information in the document itself. My question is, I was wondering if there has been any synthesis of that information, either by the Mid-Atlantic Council or the ASMFC. I'm not sure, seeing as how this wasn't in the federal plan up until recently. I'm not sure if NOAA has looked at the economics, or doing any economic analysis. But I would be curious if there is any information on the economics of these various options that anybody is willing to share.

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CHAIR NOWALSKY: I'll turn to staff for trying to answer the question. Is there any economic information to help inform our decision making today?

MS. BEATY: This is Julia, I think I might be the best one to jump in here, unless Commission staff want to. But we did have some pretty simple economic analysis in the document. It's one of those backup slides, it looks like it's Slide Number 57, if someone could move to that slide. There is a figure in the document that shows the relationship between the average price per pound and total landings broken down by region. Yes, that one.

This is as fancy as we got. Landings, and sorry about that X axis. It's supposed to say 0.51, 1.52, not 11-22-33, so sorry about that. Anyway, the open circle, so the average price per pound associated with the landings in that year for the northern region states of Maine through New York, and in this figure, New Jersey is included with the southern region.

Then New Jersey through North Carolina are lumped together in those solid gray dots. What this is showing is that when you, if you first look at those gray dots, and there is a gray line associated with it. There is generally more towards the white, because there are higher landings on the right.

The states of New Jersey through North Carolina as a group have a greater amount of the allocation than the other states, but they have higher landings in any given year. Then you can see that that line is kind of like angling down, and that means that in years when there are higher landings in those states, the average price per pound tends to be a little bit lower.

Then for the northern region states that are over to the left, with the open circles, I guess. There is also a downward sloping line there, but you can see the equations on the chart that lower our squared value means that it's not a significant relationship. You can see that those open circles are kind of all over the place, they are not forming a clear downward trend like the gray circles.

Long story short that there does seem to be more of a relationship between price and volume landed in the southern region states compared to the northern region states. But the southern region states have been able to land more historically than the northern region. We didn't get into any particular specific alternative, in terms of quantifying the economic impacts in this way.

But in general, if you look at a figure like this you could make a conclusion, based on this price and volume relationship, maybe this would suggest that if you have a high amount of total allowable landings, and you shift some of that to the north. You know maybe that would have different economic impacts in the north than the south, because the south does seem to have more of this negative relationship between price in volume landed.

At the higher landing's levels, they are not seeing, you know from just this whole, some of that increase is mitigated by this relationship between price per pound, and there is not that same relationship in the north. Maybe the total economic benefits to harvesters could be increased if you moved some amount of allocation from the south to the north. But we didn't specify, this is the exact percentage that would maximize economic benefits. We didn't try to spell it out for any individual alternatives.

Also, you could make a socioeconomic statement along the lines of, you know if you knew how the states manage things differently. Maybe there are differences in terms of number of people that can participate in the fisheries, as you shift things to different states. It kind of makes some general statements along those lines, but nothing that can conclusively say, like this is the alternative. These are the allocation percentages that would maximize your economic benefits.

CHAIR NOWALSKY: I think the answer to your question, Jay, is that there has been some economic analysis done. Whether or not you feel it is complete enough or accurate is a different question. But I think this is something that there is some economic analysis has been done so far.

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DR. McNAMEE: I appreciate that, thank you.

CHAIR NOWALSKY: Let me try Paul again, I did see him get the webinar to toggle off his muting. Let's see if he can get that again. Paul Risi. Yes, there you go, you are able to speak on the webinar. Make sure your device is not muted, go ahead.

MR. PAUL RISI: My question is about the Council recommendation. I'm curious. Can staff offer any insight about how maintaining the volume harvest rate of the present state is affecting, and going forward how it is going to affect the already diminishing biomass that is down there? Like is there a table of local fishing mortality in each state, compared to the FMPs target F?

CHAIR NOWALSKY: With regards to the question about diminishing biomass. I think we've got a lot of information about increasing biomass in the north. I'll defer to staff if they think that information has suggested there has been a decrease in southern biomass, or if this increase is the increasing at the northern end at a faster rate. Then beyond that I'll turn to staff, to see if they've got anything else that they would like to add.

MS. STARKS: This is Caitlin, and I can at least answer the first part of the question related to the stock biomasses in each region. You are correct in saying that the southern region hasn't necessarily diminished over time, it's kind of a flattish line with a slightly increasing slope at the end of the last couple of years of the time series.

But the northern region has increased much more drastically over time, and you know there has also been a slight decrease in the northern region in the last year or two, according to the stock assessment. Then as for the question related to F in the different states. I don't believe we have that information. Julia, feel free to jump in if you have a different answer than that, but when it's appropriate I also have an answer to the previous question that was asked about the states harvesting their quotas as a percentage averaged over time.

CHAIR NOWALSKY: Great, so let me just see if Julia has anything else that she would like to add on this topic, and then we'll come back to you about that question that Emerson had. Julia.

MS. BEATY: I would like to add on to that. It's true, there is a figure that we didn't put in the presentation, but it's in a document that shows biomass remaining fairly stable over time in the south, but increasing in the north. In general, the stock assessment does show that overall biomass is on, last we knew anyway, it's still very, very high overall, but on a downward trend compared to a peak of a few years ago.

But I also wanted to make it clear that we don't have separate regional like target biomass levels or reference points. We're not managing them separately, so we're not aiming for like a target fishing mortality level for each region, or a target biomass level for each region. That is not the intent of this action at all. We're still managing it as one stock, with one biomass target, you know one overall catch limit.

The stock assessment does use a regional structure, but in the various levels of peer review of the assessment it was kind of very clear that they are not meant to be managed as separate stocks, that they're modeled separately because it helps into the model, but they are not separate stocks. We are going to continue to manage them kind of as a coastwide unit, and all these alternatives would do is just shift around where those fish could be landed.

Like I said earlier, if you have a federal permit you can still fish anywhere in federal waters, and then you can land them in any state that you have the permit for. States do allow you to have permits in multiple states, like was discussed you don't have to be a resident of the state to be able to land in that state.

You might have to meet some other conditions, depending on the state, but this is not expected to really change where the fish are harvested. It is going to change where they are landed. If you only have a state permit, maybe that will impact where

you harvest your fish, if you're not already fishing in federal waters.

But if you're already fishing in federal waters, to some extent you're already going where the fish are. You are choosing where to fish, based on a number of factors, and then you're landing also based on a number of factors, one of which is the allocation. I just want to make it really clear that we're not going to manage these with separate catch limits. We're not managing separate regions. We're just considering changing how many fish can be landed in each state.

CHAIR NOWALSKY: All right, thanks for that, Julie, I appreciate it very much. Let's go back to Caitlin at this point to try to wrap up Emerson's earlier question.

MS. STARKS: As I mentioned, 2020 data is not final, so I am going to be talking just about 2019 back to 2015 as kind of the most recent years. In those years, in general the states from Massachusetts to New Jersey have harvested their share of the coastwide quota, and then some of those states have also harvested beyond that through the use of transfers from other states. As for the states of Delaware through North Carolina, they've generally been close to their allocation. In some years they've fallen a little bit more below, and they have provided transfers to other states. That's a general sense, I don't know if you would like me to give more specific percentages, but that's kind of the average across those years.

CHAIR NOWALSKY: Emerson, is that generalization satisfactory right now, or do you need to see specific percentages inform you that are going to inform your actions as we go through motions today?

MR. HASBROUCK: Well, it's okay but it's just general, right. I mean it was some years they were generally below their quota. I don't know what that means, you know was it 5 percent below, or was it more significant than that? Dave Borden mentioned before that he had some preliminary 2020 data that showed that the southern states were utilizing far less than what their quota is.

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CHAIR NOWALSKY: Emerson, magic is appearing right before your very eyes, kind of like snowflakes out of the sky.

MR. HASBROUCK: That's great, thank you.

CHAIR NOWALSKY: I'll give staff an opportunity to go ahead and put this up here. I don't intend to get into a long discussion about it, but I'll ask staff to leave it up here for consumption by everyone.

What we're going to do at this point is I'm going to ask if anybody has still got a hand up from the Board and Council, we're going to go ahead and put hands down.

We will go to the public with regards to comments on motions before we vote on anything. We'll be sure to go to the public before we take a vote on motions. What we're going to do, is in a moment I'm going to go ahead and ask for hands to go up of people that intend to make a motion here.

I'll call on the first one that I see that goes up at that point. That motion will need to, it can be made by either the Council or the Board. It will need a second from the same body. It will then need to be made and seconded by the other body, either the Board or the Council. We will then go ahead, and if somebody has a substitute motion, I'm going to get right to getting that substitute motion posted at the same time.

Once somebody makes a motion, if there is a desire to make a substitute to the motion that is posted. We're going to get that up at the same time. At that point I'll then get a show of hands, and we'll go ahead and begin debating the motions. I expect they are going to be somewhat in opposition to each other. Then we'll make sure that if one of those motions, if we get to a point that we vote on it up or down, it becomes the main motion. If there is another action that needs to be taken on it, we'll go ahead and do that as well.

The vote again, as Chairman Luisi mentioned earlier, will be done Board first, and then assuming it passes,

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the Board, motions will then need to go before the Council. With that let me go ahead and see a show of hands of people that intend to make a motion on these state allocations.

All right, so I saw three hands up. In the order that I saw them, I saw Jay McNamee, John Clark, and then I saw Nichola put her hand down. Let me first go to Jay McNamee, for an opportunity here to make a motion. From Jay it would be coming on behalf of the Board, so it would need a second by a Board member, and then it will need like motions from the Council. Then we'll go ahead and turn to John Clark afterwards. Go ahead, Jay.

DR. McNAMEE: I'll make the motion, and then if I get a second, I'll come back to my reasoning. **The motion is, I move to approve a modified Option B, which is to increase Connecticut to 3 percent, New York to 9 percent, with a change occurring over two years. Then further that motion to approve Option C, the DARA approach, with the following sub-options. Sub-option C1-B, which is the allocations will be based on 50 percent on the stock distribution and 50 percent on the initial allocations at the end of the transition phase.**

**Sub-option C2-A, which is a 5 percent change in weights per adjustment. Sub-option C3-A, that there will be annual adjustments to the factor weight, a modified allocation adjustment cap, which is a modification for C4-A, which is to cap the change in regional allocations at a maximum of 5 percent per adjustment. Then finally, I will offer a regional configuration of Option G2, which has New Jersey as a separate region.**

CHAIR NOWALSKY: All right great, thanks for reading that and sparing me. I appreciate it very much. Let me just make a note to staff. Be prepared, please resize this, so we could fit something of similar size on the screen at the same time, when we get another motion. As you suggested, once we go ahead and get a valid motion with seconds and like motions.

I will come back to you to offer rationalization before I go back to John Clark. A second from the Board for

this. John Clark's hand was still up, but I don't believe that was to make a second. If I'm wrong, John, just let me know. I believe I saw Emerson Hasbrouck's hand go up. Emerson, are you seconding this motion for the Board?

MR. HASBROUCK: Yes, Mr. Chairman, I am.

CHAIR NOWALSKY: The next hand I saw go up from a Council member was Tony DiLernia. **Tony, are you making this motion on behalf of the Council?**

**MR. DiLERNIA: Yes, Mr. Chairman, I so move, thank you.**

CHAIR NOWALSKY: Thank you very much. We'll need a second from the Council to move forward. Do we have a second for this motion from the Council? We've got Maureen Davidson with her hand raised. Maureen, are you seconding this motion on behalf of the Council?

MS. MAUREEN DAVIDSON: Yes, I am.

CHAIR NOWALSKY: Okay, very good. We now have a valid motion before us. I'm going to turn back to Dr. McNamee to offer opportunity for rationalization on his motion, and then I'm going to turn to John Clark next. Then we'll debate the motion's pros and cons. Go ahead, Dr. McNamee.

DR. McNAMEE: I'm going to start off, I know there was a lot of hesitancy with the DARA approach, at least early on, where folks were concerned about its complexity. What I'll offer is, it's not actually at its core that complex. It's just the, it's addition, you know with some weighting. But it's fairly simple, and what made it appear complex was all of the options that got added in.

But those options were added in, not for the sake of complexity, but to give the Board maximum control over how they wanted this approach to work, and how fast they wanted it to go and how far they wanted it to go. I guess I just wanted to offer a comment that at its core it's really not that complex, it's just simply taking those distributions and

historical allocation, weighting them, and kind of combining them together.

The proposal that I've offered here kind of locks those things that made it seem kind of complex. It locks them in, so it takes away some of the mystique of the proposal. What this particular configuration does, it allows the change to occur slowly over a fairly long period, and it continues to give high weight to the historical allocations, even at the end.

It's still half of the weight on the historical allocation. I believe that this is the only option that truly addresses, Caitlin showed those two objectives of the document, and this one truly addresses that initial bullet. You know this one can account for climate driven population shifts, but it's also important to remember that these shifts can occur in both directions.

A lot of what happens with climate driven effects is there is a lot of uncertainty, a lot of variability in what goes on. The DARA approach can account for that. This configuration, it's a really slow transition. It continues to weight the historical, and it also addresses at the top there the inequities that have been voiced both by the state of Connecticut and New York, so it gets them lined up with the rest of the state.

Then the rest of the process kind of goes along. They do something like this right now with the Canadians, so this isn't a new approach, it's been used in other applications for a long time, over a decade at least. If we can do it with a whole separate country, I'm sure we could do it amongst the states. A couple of final points, Mr. Chair, and I'll wrap it up.

One thing I'll note with some of the trigger options is that when you're putting in a hard threshold, based on poundage. You're going to run into an issue if the assessment rescales at some point, and we've seen that happen with a number of different Commission stocks over recent years.

I just caution folks that that hard biomass trigger that's in there. You're going to run into difficulty if the assessment rescales it. Those 3 million, 4 million,

5-million-pound thresholds might not make as much sense in the future. Again, this approach is truly dynamic, so if the biomass shifts back to the south, you know south of the Hudson Canyon. This approach is going to be able to track that, and it will be able to adjust to that reverse shift in biomass. I think I've said enough there, Mr. Chair, so I'll let others have a chance to speak.

CHAIR NOWALSKY: With regards to the seconder for the Board, and the motion makers for the Council, I will come back to them and give them the opportunity to speak on this. Let me next go to John Clark, however, to see if in fact he had raised his hand when I asked for people who wanted to make a motion. John, do you have a substitute motion that you would like to offer us?

**MR. CLARK: I do have a substitute motion. I sent it to staff before, it's a motion developed by the Administrative Commissioners of the southern region, and I will read it. Move to substitute to address Black Sea Bass Commercial State Allocations by approving Option B – Increase Connecticut quota to 3 percent.**

**Option D – Trigger Approach, with a trigger of 4 million pounds, which is a value between sub-options D1-A and D1-B; Sub-option D2-B, Distribution of surplus quota based on the regional biomass from stock assessment. Sub-option D3-B, proportional distribution of regional surplus quota, and Sub-option D4-A, Static base allocations, and Option G – Regional Configuration Options, and Sub-option G2 – Establishing three regions with New Jersey as a separate region.**

CHAIR NOWALSKY: All right, thank you very much, John. Maureen and Jay McNamee, your hands are still up. Unless you intend to make a motion as part of John's motion, if you could put them down that would be great. Again, we'll come back to you with the opportunity to speak. Do we have a second for this motion on behalf of the Board?

We have a second on behalf of the Board from Ellen Bolen. Okay, let me next turn to the Council. Do we have an individual from the Council who would like

to make this motion on behalf of the Council? Ellen, did you want to make it both as a second for the Board and as a motion for the Council?

**MS. ELLEN BOLEN: I am happy to make the motion for the Council as well.**

CHAIR NOWALSKY: We'll have that motion made by Ellen Bolen. I had seen Joe Cimino's hand. Joe, were you going to second this on behalf of the Council?

MR. JOE CIMINO: I will, Mr. Chair.

CHAIR NOWALSKY: All right, very good. In like manner to the last motion, let me turn to John to offer rationalization on his motion, and then what we're going to do is we're going to take a five-minute break, we've been at this for an hour and a half.

During that five-minute time, I'm going to ask staff to take these two motions, format them a little bit to get the like sections in a similar order, so we can compare and contrast these motions on the screen very easily. We'll start by going through the individuals that had seconded and made the motion, and speaking for them, and then we'll open it up to the rest of the Board and Council members. John, you're up.

MR. CLARK: Going through the motion bit by bit, the first part of course it does provide a chance for Connecticut fishery, which we all recognize is a unique situation. A fixed trigger gives the necessary stability to harvesters in the southern region, who haven't been catching their allocations. Four million pounds is between the two options in the plan that's mentioned, and it's about a 66 percent of the 2021 total quota. It redistributes more of the current quota than the percentage approach, allocating 75 percent, as it would allow a third of the quota to be allocated based on distribution.

As it's been expressed at a previous meeting, and on this call right now, while the center of black sea bass distribution shifted north, there are still plenty of black sea bass in the southern region. Once again, we are not having a problem in the southern region,

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most of the southern region, we're catching the black sea bass.

We also recognize the fact that due to the changes in the sector allocations and commercial quota based on the assessment, there could be changes necessary for the future, and I think the southern region is well aware of that, and will consider those down the road. But for the time being, this motion provides more of the quota to the north, and also provides stability for the southern region. Thank you.

CHAIR NOWALSKY: All right, very good. We're going to take a five-minute break. We're going to come back at 2:25. Let's just go ahead and change the Board motion by Mr. Clark, to be consistent with everything else that we've done, and then during the five-minute break, if I could just ask staff to reformat this motion here, to make it look like it's divided the same way that the previous motion was. Perfect, they've already done that.

We're still going to go ahead and take the five-minute break though. Now staff gets a break also, so I'm actually really happy to see this, because I don't have to feel bad about myself now. Five minutes, 2:25, we'll have Emerson, Tony, Maureen, Ellen, and Joe up, and then we'll get a show of hands for additional people that want to speak on these motions. Thanks, see you in five minutes.

(Whereupon a five-minute break was taken.)

CHAIR NOWALSKY: I've got 2:25, so let's continue now that we've got a couple valid motions here. Let me begin by going back to the seconders and the makers of the motion for the Council. I will first ask individuals if they want to speak on it. Emerson, would you like to speak on behalf of the first motion, which is essentially in speaking.

When we vote, our first vote that we'll be taking will be on the substitute motion. Essentially, if you're speaking in opposition to the substitute at this point, you're basically speaking in favor of the main motion. Let me go to Emerson, would you like to speak?

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MR. HASBROUCK: Yes, thank you, Mr. Chairman. I'm opposed to the substitute motion. Stand by for a second, I've got several devices going here, and our caucus is still talking in the background. Sorry, Mr. Chairman. I'm in opposition to the substitute motion, and obviously I'm in favor of the original motion, for all of the reasons that Jason outlined when he made the motion. The substitute motion keeps us stuck in the past, stuck on those base allocations that for a variety of reasons were detrimental to New York and some of the other states. We need to move forward with an allocation based on biomass, not based on landings from 20 years ago or more. The northern region has 84 percent of the biomass, but it only has 33 percent of the allocation. We need to go into the future with this, not stuck in the past.

Also, I think all of you have seen the letter from New York Senator Schumer, who is also now the majority leader of the Senate, who is watching this very closely on behalf of fluke. We can either take care of business ourselves here with the Board and the Council, or we can chance having this decided for us through federal legislation. I would rather we take care of business ourselves, and I think the best option is the original motion. I cannot support the substitute motion. That's all I have right now, Mr. Chairman.

CHAIR NOWALSKY: Ellen Bolen, would you like to speak in favor of the motion to substitute?

MS. BOLEN: Sure, thank you, Mr. Chair. I want to echo Mr. Clark's comments, since he laid out a lot of the reasons that we support this. I think one of the things that I would stress is that we have a lot of uncertainties on the table right now for our commercial fisheries, when it comes to commercial recreation reallocation, stock assessments et cetera. One of my objectives is going to be to try to get some certainty for the commercial fishery, and I think that the DARA approach will create a lot of havoc initially, and I think that the trigger approach is the best way forward right now.

CHAIR NOWALSKY: Tony DiLernia, would you like to speak?

MR. DiLERNIA: I would like to speak to my motion. I think Jason mentioned that he said that this approach has been in use for quite some time. Actually, I think it was first developed when we had to deal with the Hague Line in the late seventies and the early eighties. It's up in New England for cod fish, and it's worked out pretty good.

I agree with everything that Jason said, that's why I was quick to jump on making that motion for the Council, because I believe that it is very consistent with, some of you may have seen a position paper that I've written recently regarding addressing species shift, how we should be managing species shifts.

I think this is consistent with some of the sentiments in the paper that has to be distributed to you, as well as it's consistent with the thinking of the current administration in DC, regarding how we're going to deal with climate change. Clearly, we're going to have to deal with climate change and species shifts in the management of our stocks.

As a matter of fact, in 2014 the Agency, NMFS, ran a whole workshop about dealing with species shifts, and very little has come out of it since then, but this is a good attempt at dealing with and addressing the species shift. It also does preserve the southern states ability to fish. We're not just swiping fish, but we're looking at it, and it's consistent with you know trying to preserve the past, while at the same time we address what's carrying the future. That's really about it. We either have to stay in the past, which is the substitute motion, or we can go forward in the future. Again, let me emphasize something that Jay said, this should go both ways. This goes back and forth. This is a way of addressing where the biomass is, which is consistent with the Magnuson Act. The Magnuson Act said, fishermen get to manage fish offshore of their states. Well, that's what this does. For all a whole bunch of reasons I think that are right, I made the motion, and I continue to support my original motion, and I oppose the substitute.

CHAIR NOWALSKY: Before I go to Maureen and Joe, and then get a list of hands that want to speak. I see

John Almeida's hand up. If you want to raise an issue with the process we're following here.

MR. JOHN ALMEIDA: Just process wise. If I could make a suggestion. It might be the best approach with a motion to substitute that the bodies try to perfect the motion, so that when the vote for whether to substitute or not comes up, we have the motions as the bodies would best like them to be, so they can make the choice then. Does that make sense?

CHAIR NOWALSKY: Certainly. I haven't heard any suggestions for perfection of these motions along the way. Did I miss a comment that suggested a perfection of one or both of these motions from the speakers so far?

MR. ALMEIDA: I might have misunderstood. But I thought I heard the path that you were proposing was to go straight to the motion to substitute, but not necessarily entertaining motions to amend to perfect the two options here. But if I misunderstood, and that option is still on the table, then by all means I would suggest that would be the way to go.

CHAIR NOWALSKY: No. Thank you for that clarification, and no I would certainly not be precluding anything that would be under normal operations of Roberts Rules at this point. It's not my intention to preclude any other parliamentary procedures outside of the motion.

MR. ALMEIDA: Thank you, Mr. Chair.

CHAIR NOWALSKY: No, thank you very much. I appreciate it very much. All right, so let me go to Joe Cimino. Did you want to speak on these motions, Joe?

MR. CIMINO: Yes, thanks, Mr. Chair. I want to say, I appreciate all the work that has gone into this document by staff and others, including Jason McNamee for bringing this DARA approach along. I have a lot of respect for it. Jay mentioned a concern that there is a lot of strong feelings that the model is too complex. To me, I agree, the model is math. It's not too complex. But there are a lot of moving parts

within this. When we talked about the socioeconomic impacts of any of these many, many alternatives.

To me that is where the DARA approach seems to be too complex. If we're slowly shifting quota away from states, only to get to a point where we're slowly shifting them back, in such short order that no state has a chance to really increase trip limits, or have extended seasons, compared to what they had. I don't know what it buys us, and I have great concerns over that, especially considering we have commercial rec reallocation looming. I support the substitute motion for that reason. I think despite this idea that we have to move on from the past. I think many state representatives would agree that you also have to protect the infrastructure and businesses that this has been so important to all these years. The trigger amount in the motion that is here is going to get more quota to the north in the short term. As I said, we're going to get by a new allocation amendment, that being commercial and recreational, and we'll have an updated assessment in the near future. I don't see this not being revisited in the future. I think for right now this is the best motion.

CHAIR NOWALSKY: Maureen Davidson, would you like to speak?

MS. DAVIDSON: Yes, thank you. I would like to speak in defense of the original motion. The motion to amend is heavily based on historic landings. Now, are we now and will continue to rely on landings that occurred decades in the past, regardless of where the actual biomass distribution is?

I understand now one of the reasons why we're doing this is to protect the investment and infrastructure of certain states. But in doing so, we're leaving other states to struggle economically, and not be able to improve their infrastructure, despite the fact fish are right there off their shores.

I understand the need to protect what you have and what your state has invested in. But through the DARA system the changes would be gradual, not as though one day your state has fish, and the next day

your state doesn't. Okay, we're just looking for a more fair and equitable opportunity to catch the fish that are right on our shore.

Now, the DARA system is responsive to where the biomass is located. Instead of us being chosen, we're going to be constantly competing for the fish that are there, either protecting our infrastructure, or trying to promote our economy in other states. You would have something that as we see the biomass change through a stock assessment, we would be able to adjust.

All of the states would be able to adjust to what is actually happening to the stock. I am very concerned that we are going to remain locked into the landings that happened a long time ago, and sort of for some people could remain feeling secure that their fisheries are fine, nothing is going to change, we'll always have that, and other states will not be able to have that kind of security.

I understand that we're all trying to protect our fisheries. We're trying to protect our investments. But how long will we do this? I would like to see some change. Let's move away from these historic landings, maybe not 100 percent, but let's step away from this, so that all the states can have an opportunity to benefit from, shall we say the amount of black sea bass we now have off our coast. All right, thank you very much. I didn't mean to go on for too long.

CHAIR NOWALSKY: Thank you very much, much appreciated. I do have a hand up from the public. Again, I will go to the public for any other questions or comments, prior to taking a vote on the motion. John Almeida, your hand was still up. Did you have anything else to add, or was that just up from your comments before, John?

MR. ALMEIDA: Yes, I'm sorry, it was up from before. Is it still up? I'm sorry.

CHAIR NOWALSKY: Still up as of right now. Great, now it's down, thank you so much. Let me now go ahead, and let me get a show of hands. If everybody could put their hand down for a moment. Let me get

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a show of hands that want to speak in favor of the motion to substitute. Okay, I've got Mike Luisi and Tom Fote, and I had Peter Hughes.

I don't have Peter Hughes any more, it's one of those up and down things in the room that we looked at and was not sure what it is. I try to look at this screen, and I try to envision people's faces and hands going up when I see it. It makes it more real here for me. For right now I've just got Mike and Tom. Let me see a show of hands.

If you two could put your hands down for a moment, of individuals that want to speak in opposition to the motion to substitute. I'm jotting them down; I've got a fairly substantial list here. In terms of Council and Board members, we've got Dave Borden, Justin Davis, Dan Farnham, Mike Pentony, Jim Gilmore, Nichola Meserve and Tony DiLernia. I see Dave Borden's hand went down. Dave was that just because I had recognized you added to the list, or because you did not want to speak in opposition to the substitute?

MR. BORDEN: Because you recognized me.

CHAIR NOWALSKY: All right great, thank you. Is there anyone else who would like to speak, but they aren't sure that they want to commit to the substitute in favor of/in opposition, but they know they want to speak and get something with regards to Board and Council members? Okay, nobody on the fence here right now.

I'm going to try to split this up somewhat evenly here, to try to maintain some decorum of debate. Let me go with Dave Borden and Justin Davis. Then I'll go back to Mike Luisi, then I'll take a couple more in opposition, and then I'll come back to Tom Fote. I would request that when you're making comments, please make comments that are new rationale for your position. We can save some time hopefully by not rehashing comments that other people have made. Dave Borden, you're up.

MR. BORDEN: I favor the underlying motion. I'm opposed to the motion to substitute. Jason did an excellent job of characterizing the reasons to do that,

and Emerson's added. I won't repeat that in the interest of time. But what I would like to emphasize is that part of the reason we're in this situation is we've had an underlying deficiency, in terms of Connecticut, for going on two decades.

That same deficiency exists for the state of New York. New York basically controls half of Long Island Sound, and that is where the Connecticut fish have been most abundant. I think we should, and I would be willing to make a motion to amend, a motion to substitute to add a provision, which would increase the New York base allocation to 9 percent.

CHAIR NOWALSKY: All right, so you're offering an amendment to the substitute, which would be a third level, which under Roberts Rules we could entertain. Are you offering that increase to 9 percent in conjunction, I guess, with the Connecticut increase, so it would look similar to what Jay's initial motion was, Dave?

MR. BORDEN: That is correct. You could use the exact language, so it would read Option B, increase Connecticut's quota to 3 percent, and increase New York's quota to 9 percent. I so move.

CHAIR NOWALSKY: Let me ask you this question, Dave. Before we take this up now, do you think this will materially change the vote on the motion to substitute, that it's worth taking that amendment up right now, or we should see whether or not the substitute becomes the main motion, and then pursue that amendment, if it should become the main motion.

MR. BORDEN: My answer, Mr. Chairman is yes, and I'm also prepared to make a motion to adjust the trigger.

CHAIR NOWALSKY: Well, we can go three levels deep with Roberts Rules, so if there is a modification to the motion to substitute that you would like to make, we can entertain those. Let me do the following. Let me go through our list of speakers, see where we are at that point, and then I'll come back to you with that potential modification.

Joe Cimino, were you raising a point of order? No, I don't think that's what it was, or were you just speaking, we're okay then. Let me go through a couple more comments, and you're suggesting that, and can you just describe the proposed change to the trigger that you would be offering also, Dave?

MR. BORDEN: I'm going to do it in separate motions. In the interest of time, it might be better to take it up separately. The concept would be to lower the trigger to Sub-option B1-A, the trigger value of 3 million pounds.

CHAIR NOWALSKY: Okay, so at least we know that that is out there. Let me get through a few more comments, and then we'll come back to pursuing an amendment to the motion to substitute. Justin Davis.

DR. JUSTIN DAVIS: It seems like Dave Borden and I are thinking along the same lines, so I think I'll save some of the comments I was going to make until the point at which we're able to have those motions for an amendment to the substitute motion on the board to discuss. I'll just make a couple of general points.

One is that I wanted to specifically address the fact that both these motions incorporate an increase of Connecticut's quota to 3 percent, rather than the 5 percent contemplated in Option B. I just wanted to get on the record that Connecticut is okay with that. Our ask under Option B had been for 5 percent.

We feel that generally the state was within its rights, wasn't making unreasonable ask to propose being increased to 5 percent, given that is sort of the de facto minimum allocation along the coast right now. As everyone around the table seems to agree, Connecticut's quota being at 1 percent was just way too low, and didn't make sense. Connecticut would acquiesce to an initial increase to 3 percent, for the sake of creating more room and more flexibility to achieve a follow-on action for broader reallocation along the coast. Along those lines, I do support the original motion, but not the substitute motion, for one reason being that incorporates an increase to New York as well as to Connecticut initially.

New York has also experienced a substantial rise in abundance of the species in their waters, particularly in the shared waters of Long Island Sound. Like Connecticut, they also do a relatively low current allocation within the northern region. I think an initial increase to New York, as well as Connecticut is completely appropriate. If you think about it, if you're thinking of increasing Connecticut from 1 to 5 percent that's a 4-percentage point increase.

Taking that and splitting it in half, and giving 2 percent to Connecticut and 2 percent to New York, I think is a very reasonable approach. I'll also just make a general point that I prefer the DARA approach to the trigger approach, because I think it is more forward looking. When you think about these approaches on a gradient of, to what degree are we using historical information and historical patterns of landings, and not incorporating new scientific information.

I view the DARA approach as being all the way on one side, where we're really making a big loop towards a more dynamic way of thinking about allocation that incorporates more information, and the trigger approach being all the way on the other side, where it's more conservative, particularly with a trigger formally in pounds, which I view as too high, and sort of giving heavy weight to historical allocations.

I completely understand the appeal of the trigger approach to those states that currently have high allocations, and has a history built up around those allocations. I recognize that a trigger approach might be the only path forward that is palatable to those states. But I expect we'll have some more conversation later on, when there is an amendment to this motion, about what the appropriate level of a trigger ought to be.

CHAIR NOWALSKY: I was planning to go to Mike Luisi next to speak in favor of the motion to substitute. However, the Chairman has indicated he's dealing with some technical difficulties, so let me go to Tom Fote to speak on behalf of the motion to substitute.

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MR. THOMAS P. FOTE: When I look at species distribution, it's been used I think in some ways wrongly. When we started making adjustments, back when we first put the black sea bass in the summer flounder plan, we started raising the size limits on black sea bass. We started to raise the size limit of summer flounder.

As we basically have known historically, as we raise the size limit and fish move to the north. The bigger they are, and it keeps going further and further north. When you wound up with the distribution of bigger fish up north, which means the poundage was larger. I don't know if the numbers of fish are any larger.

Nobody has really given me, and I've asked that question a couple of times, but we redistributed the number of fish that you can catch by doing this. I look at what was going on. No matter what happens, New Jersey is going to pretty much remain the same. In order to make this plan work years ago, New Jersey gave up 20 percent of its commercial quota. Though we look like we're going to be giving up a few percentages here no matter which way we say. We have no problem with that.

But most of that quota was given to New York, to basically firm up, because they said they didn't have a quota, so we used that 20 percent. We did not give it to the south, as far as I can remember. But I wasn't sitting on the Board at that time. That was the year I was off, way back when. I look at that and I basically say, okay. I have no problem giving Connecticut. I would have given you the 5 percent, because they really have gotten stuck by this.

But again, when I look at New York, I don't hear them saying, well we'll take 8 percent or 7 percent instead of going to 9 percent. They're just looking for an increase, and the same way they have looked at summer flounder and other species. They use the excuse of climate change and those fish are moving north, and a lot of time it's just because there are bigger fish up north, and they're landing by the size of the fish, and you pushed us out.

I also remember that when we first did this, the southern state's summer flounder took a huge hit, when we raised the size limit of summer flounder. The same thing happened with bass. New York, New Jersey, and other states didn't take a hit at all. We just increased our catch, because we basically got bigger fish.

History means something. I've been around a long time, and I get a lot of heat when I basically do history lessons here, but it does mean something. I'm not prone to basically flip a switch and just arbitrarily decide that we should move it here, and so I'm really, not really understand what is going on besides climate change. I agree climate change is sad to see. I mean look at cobia, and how its moving further and further north.

But again, we don't know what happens with some species. I don't know what's happened to weakfish, and I don't know what's happening with the clams. I think I know what happened, but we don't manage for environmental conditions, and it's a lot more than climate change that's the problem, it's the pollution and everything else we're doing in the Bays and estuaries. To conserve time, I'll just stop where I am right now. That's why I'm supporting the substitute.

CHAIR NOWALSKY: Next up we'll go to Dan Farnham. Do you have something you would like to add in opposition to the motion to substitute that we haven't heard so far? Dan, if you did want to speak, you're presently muted on the webinar. All right, while we're waiting on Dan, let me go to Mike Pentony.

MR. PENTONY: I'm not sure if I was jumping the line, or if you had me on your list already.

CHAIR NOWALSKY: I had you on the list.

MR. PENTONY: Okay, thanks. I think everybody recalls from the last meeting, I voted in opposition to the motion that proposed to bring the state-by-state allocations into the federal FMP. But given that I did not prevail on that, we are now looking at a joint amendment that would bring the state-by-state

allocations into the federal FMP, you know I'm paying close attention to this discussion. I will say that, you know at times there is discussions of, we need to do what is legal, and I don't know that this is one of those. I guess what I mean is, I think we're not talking about something that is legal versus something that is not legal.

I think what we're talking about is, how can we get the optimal outcome in this situation, given these discussions?. I think in this case, I have some concerns about the trigger approach, you know largely because it's not as adaptive as the DARA approach. I think with climate change, changes in stock distribution.

I'm hoping that the Commission, the Board, the Council, you know can start moving the needle to be responsive, and look at management strategies and approaches that can adapt more easily, and evolve as conditions change in the ocean. I'm concerned that the trigger approach as currently described, really doesn't do that. It certainly, you know is an approach to the right, you know it's going in the right direction when black sea bass stock levels are high, as they are right now.

But should we see a downturn in the stock, which obviously with climate change things can be pretty unpredictable. We could easily find ourselves back in a situation with 3.5, 4-million-pound quotas, and the stock having moved significantly during that time, or contracted to the north as the stock declines, and yet the allocations would still be based on the original allocations that don't reflect a shift to the north.

I'm going to vote against the motion to substitute, because I really want to see the DARA approach, you know kind of get its day in court, if you will, for a full discussion. I think what the DARA approach presents is an opportunity for the Council and the Board, as I said, to move the needle forward, to look at a more responsive, more adaptive management approach that can evolve as conditions in the fishery and in the resource change.

CHAIR NOWALSKY: Dan Farnham, did you get the, yes you are able to unmute yourself, go ahead.

MR. FARNHAM: I did, thank you, Mr. Chairman. I had to switch modes there. We lost our power at the east end of Long Island. I'm going to be brief here. I want to reiterate everything that Mr. Pentony just said, and I'm going to elaborate a little bit on that. In my mind we're going to have to address the discard issue, and potentially increasing discard issue that this fishery is going under right now. I mean we're not just seeing a slow increase in the biomass up here; we're seeing a large push to the east and the north with these fish.

We've had fish catch black sea bass last week on the Hague Line. Now, as these things start moving that way and become more prolific up in that area. If we don't allow more opportunity for the fishermen to keep what they're catching, they're not even targeting these fish. But right now, they have to discard them, and unless we give them more access to them as they move north and east, we're going to continue to have discards. Now this is an opportunity to turn discards into landings, if I've ever seen one.

CHAIR NOWALSKY: Mike Luisi, you're back with us, Mr. Chairman, I believe.

MR. LUISI: Wow, so after Mr. Pentony's comments, I'm a little, first of all let me just say that I support the substitute motion. I am not in favor of the leap, which I see it as, regarding the first motion on the DARA approach. You know it's really easy when you are a state asking for more, you can ask for more, it's really easy to do that.

But as a state that is going to be giving something up, it makes it very challenging. There are six states, including New Jersey, in the southern region that have discussed how we would approach this allocation review. We're committed, all of us are committed to finding a solution that works for everybody, something that works for our industry, as well as providing for additional resources, allocation resources, in New England, where their stock is plentiful.

I've heard a number of times during this conversation, I've heard a number of people say that the stock has shifted into New England. Well, that's not the case. Okay, everybody needs to understand that this is an expansion of the stock, and not a shift. We have lost nothing down in the Mid-Atlantic. We have the same resource that we had ten years ago here now.

You know our commitment to finding a solution to give more access to southern New England, is a real one. There are issues like Connecticut has with the quota that they have. You know we're committed to finding a little bit extra for them. But this leap into this DARA approach. There is so much uncertainty.

The uncertainty is where I personally, and where I won't speak for my other states in the southern region. But I think they would all agree, the uncertainty about where we're going to be in the near future, not only with the stock assessment coming up, but with the sector allocation amendment that we're dealing with. The uncertainty is too much.

The state of Maryland relies entirely on its black sea bass quota. The fishermen, and there are a few of them on this call today. They will support me in what I'm saying, in that black sea bass is the glue holding our fort together. If we give up too much, it's going to fall apart. What I'm committed to, what we are committed to in Maryland, is the substitute motion, which would give Connecticut a slight increase in their quota, so that they can have a directed fishery, and set an appropriate trigger.

We're talking about a 4-million-pound trigger. The quota is at 6 million pounds right now. That's a third of the quota is going to get distributed, 85 percent to New England. I don't understand why there are so many people against the idea of moving forward in that direction. It's making me crazy a little bit.

You know here we are as a group of states, where the stock has not changed. We have the resource available to us. We're trying to deal with the problem, and we've come up with a solution. We're

saying that we would send some quota north to increase all the northern states quotas to some degree, and we can all get onboard with that. All I've been hearing is negative criticism around that. We've built an industry. Our industry has built the infrastructure around black sea bass. If we lose too much, it's going to fall apart. This is a first step. I see it as a first step, this substitute motion is a first step in getting the time to try to solve some of the problems. But not taking away so much from the industry and the infrastructure that we have that things collapse. I hope that there are more people on this call that will support that idea, and you know continue to review. Maybe we review this in five years, and we'll see where we are.

I would have no problem with that. But right now, jumping to the main motion and going to the DARA approach, is just too much of a leap. There is too much uncertainty, and I can't support that. I'm going to support the new motion, thank you, Mr. Chairman, sorry for the long-winded explanation.

CHAIR NOWALSKY: Thank you, Mr. Chairman, for getting yourself back online. I appreciate it. We all have to take on this new role of being Tech Support pros for ourselves here that we didn't see coming a year ago. We've heard a number of comments in favor and in opposition. I had three more speakers that I was going to acknowledge on the opposition to the substitute, but one of the speakers so far has expressed a desire to amend the substitute motion.

At this point I'm going to go back to Dave Borden, who wants to offer a motion to, I believe his intention is to offer a motion to amend the substitute, and assuming that's the case, then we'll go to those other speakers I had in the queue. Dave Borden, let me come back to you now. You wanted to take these one at a time, which I think would be great. Do you intend to make a motion to amend the substitute?

MR. BORDEN: Yes, sir. Are you ready?

CHAIR NOWALSKY: Please go ahead with your motion to amend the substitute.

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**MR. BORDEN: I would amend Option B to read, increase Connecticut's quota to 3 percent, and New York to 9 percent.**

CHAIR NOWALSKY: That would not incorporate the two-year change that was in Dr. McNamee's original motion. Your period was your period.

MR. BORDEN: Correct.

CHAIR NOWALSKY: All right, thank you, I did not want to put words in your mouth, but you were very clear with the period, so thank you. Waiting for staff to complete getting that up on my screen. I don't know if they're still working on that.

MS. MYRA DRZEWICKI: Could you repeat the motion, please.

CHAIR NOWALSKY: Sorry Dave, can you repeat that once more?

MR. BORDEN: The motion would read: To move to amend the substitute motion to increase Connecticut's quota to 3 percent, and New York to 9 percent.

CHAIR NOWALSKY: Let's just change the wording of the beginning of this. Move to amend the substitute motion Option B.

MR. BORDEN: Correct. Thank you, Mr. Chairman.

CHAIR NOWALSKY: Thank you for your patience. Okay, you're making that on behalf of the Board. Again, if I could just get everybody else to drop their hands. Justin, do you want to make the motion to second on behalf of the Board?

DR. DAVIS: That's correct, Mr. Chairman. I'm also wondering if I could offer a friendly suggestion of the wording, if that's appropriate at this point.

CHAIR NOWALSKY: Go ahead.

DR. DAVIS: I'm wondering if it would be better worded as increase Connecticut's base allocation to 3 percent and New York's base allocation to 9

percent, to reflect that that is what we're doing is increasing the base allocation, and not setting Connecticut and New York's overall quota to 3 and 9 percent.

CHAIR NOWALSKY: Let me turn to staff, if they think that is more appropriate.

MS. STARKS: All right, I was trying to find my mute button, but I do agree with that. It does reflect that it's the base allocation that is changing to 3 percent and New York 9 percent.

CHAIR NOWALSKY: Then I assume when we get back to the other motion, we can make a similar perfection on those. But let's just deal with this right now. We're going to change the word quota to base allocation in the motion here. Dave, you're fine with that?

MR. BORDEN: Correct.

**CHAIR NOWALSKY: We've got the motion by Dave Borden now read, move to amend the substitute motion, Option B, increase Connecticut's base allocation to 3 percent and New York's base allocation to 9 percent. Motion for the Board by Mr. Borden, seconded by Mr. Davis.** Would someone like to make this motion on behalf of the Council? Mike Luisi, I saw your hand go up. Was that a comment as my Co-Chair here today, or was that actually to make that motion?

CHAIR LUISI: No, thank you, Mr. Chairman. No, I will not be making that motion. I had a question. But let's see if it becomes a motion first, before I ask my question.

CHAIR NOWALSKY: All right, I've got Dan Farnham's hand up. Dan, you would like to make this motion on behalf of the Council?

**MR. FARNHAM: Yes, I would, Mr. Chairman, thank you.**

CHAIR NOWALSKY: Do I have a second on behalf of the Council? Tony DiLernia, are you seconding this

motion on behalf of the Council? You are presently on mute on the webinar, Tony.

MR. DiLERNIA: Yes, Mr. Chairman, I will second this on behalf of the Council, but do not presume that I endorse the substitute motion. But I will second the amendment to the substitute motion.

CHAIR NOWALSKY: We have a motion by Mr. Farnham, seconded by Mr. DiLernia. All right, so now let's discuss and debate the amendment to the substitute only. Let's stay very focused just on that. People that I had listed to speak previously, do you want to speak on this motion? I had Jim Gilmore, Nichola Meserve, and Tony DiLernia. Jim, do you want to speak on this motion?

MR. GILMORE: Yes, Mr. Chairman.

CHAIR NOWALSKY: Go ahead, please. Are you speaking in favor or in opposition?

MR. GILMORE: I'm speaking in opposition to it, and I didn't get a chance before, so I'm going to delve back into the reasoning for the whole deal here. First off, it is an improvement, the 9 percent. Thanks to Dave Borden for recognizing the south side of Long Island Sound is indeed New York, so thank you, Dave.

It's an improvement in the motion, but it's still problematic to me, because it is the past, as I said before. I won't reiterate a lot of that. But what we've done in my entire time with the Commission and the Council and before that, was our management is snapshots. We take a snapshot.

We have these battles in these meetings, and then we come up with a solution, and then everybody doesn't want to touch it again for five, ten years, and sorry Mike, in five years we may want to look at it. No one is going to want to look at this again in five years, after the pain we're going through.

What we need is a change, an overall management change approach to a lot of what we're doing, not just black sea bass, not just summer flounder. John Hare's study a few years ago, and it's continued to, I

think there are only 30 species that are moving up and down the coast from climate change.

If we keep continuing to do these little tweaks to fixing this problem, we're all probably going to be in health problems, because of like the arguments we have to go through. We need a new approach to this. Unfortunately, the substitute motion is just taking what we've done for decades and tweaking it a little bit more, just to think that we're trying to fix this overall problem, when in indeed we're not doing that at all.

The DARA approach is really where we need to go in the future, for not only black sea bass, but a whole lot of species. It is the future. The way Jason McNamee has proposed it, it minimizes impact over a very long period of time, so these issues about infrastructure change and loss of fisheries. We're all talking about little tiny changes over time that eventually focuses us in on what the populations are doing, and how they're moving, and we should be managing for that, because that's what we all signed up for, to manage the resources as they change.

Additionally, that DARA approach doesn't run in conflict with Magnuson, it's using the most recent data. It's using the equity. It's essentially providing equity for all the states, so Magnuson there is no issue with that. It really comes up with, Mike Pentony used the word, it's an adaptive way to doing management, and it's really the way we should be going.

Just my last point to what was said earlier was that we've got a lot of focus on this from the federal government. Beyond some of the elected officials that wrote letters, we also have the Hoffman Bill, and now we've got the west coast looking at this, and looking at changes in distribution because of climate change, and recognizing that the way we've managed since Magnuson was passed in '76 is just not working anymore.

DARA is the future, and it's where we've got to go, so I am opposed to the amended motion, the substitute, and I'm back to the original motion, because I firmly believe it's where we need to go,

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and with that we can minimize impacts to each one of the members. I understand going back to your state and saying I lost 1 percent is difficult to do, they think they are being betrayed. But the reality is they are probably not going to harvest that 1 percent, because it's moving away, and we really need to move forward on this.

CHAIR NOWALSKY: All right, so I'm going to go to Nichola and Tony, because I had their hands up still from before. Speaking on this motion, or since you had your hands up before on the other motion. Nichola Meserve.

MS. MESERVE: My comment was going to be on the initial substitute motion. I do support the amendment to the substitute, because I think it helps to move New York in the direction that they seek to move away from the historical allocations that are incomplete for their state. But I don't support the substitute, because it uses the trigger approach, and as has been said, it fails to address the change in the stock, and the fishery conditions, as soon as you get one pound pull that trigger.

It doesn't meet, you know neither the Council or Commission's strategic plans that call for us to have adaptive management approaches that respond to these changing fishery conditions. It's been referenced as kind of good enough for now, and since it's a short-term fix, but I'm really more interested in a longer-term solution to the issue.

The semantics of a stock shift and expansion continue to come up, and I just wanted to address the fact that I recognize that the southern states have not seen a decline in their sea bass availability, but we are awash in them in the north. The increasing quotas that all the states have enjoyed last year is the consequence of that northern expansion growth/shift, all of it.

I do appreciate that the more southern states come in with this motion, and putting forward something that would reallocate 34 percent of the quota. However, it doesn't provide any stability, in that sense, as the quota may change. I go back to supporting the initial motion for DARA, thank you.

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CHAIR NOWALSKY: Thank you, Nichola, Tony DiLernia.

MR. DiLERNIA: I agree completely what I just heard come from Jim Gilmore and Nichola Meserve, 100 percent I agree with them. Let me just point out that this morning the Commission listened to petitions from northern states to add the speckled sea trout and Spanish mackerel. We recognized those states and put them on the management board for those species. It's consistent with the Commission's philosophy of managing, giving the states the ability to have a say in managing the fish offshore of their coastlines.

That is what the DARA approach does. I supported the amendment to the substitute motion, because I like the amendment, but I still oppose the substitute motion, and I will support the original DARA approach, because it is consistent with everything what we're trying to do here, recognizing climate change. It is not a shift; it is an expansion of the stock and it lets those states manage the expanded stocks offshore of their coasts. For all those reasons I will support the amendment and oppose the substitute. Thank you.

CHAIR NOWALSKY: All right, so at this point I'm going to ask for a show of hands of Board and Council members that wish to speak solely on the amendment to the substitute. Who would like to speak in favor of the amendment to substitute? Only keep your hand up if that is what you would like to speak to.

All right, I have no hands of people to speak in favor of the motion to substitute. Hands of people who would like to speak in opposition to the amendment to substitute. Yes, I've got two hands, three hands, and I've got a Dave Borden hand. Dave, you were going to speak in opposition of your amendment?

MR. BORDEN: No, sir. I would just like to, and I don't have to do it right now, you can call on the rest of the list. But I would like to comment on Mr. Gilmore's comment.

CHAIR NOWALSKY: We're going to go ahead and I've got Mike Luisi, I've got Justin Davis, and I've got Tom Fote. Let me start, the first hand I saw go up was Justin, so Justin you can speak in opposition to the amendment to substitute, and then I'm going to ask Mike and Tom to consider whether what they need to offer is going to materially change the conversation. Justin, you're up.

DR. DAVIS: I think there was a miscommunication. I was planning on speaking in favor of the Amendment. I'll defer to you as to whether you would like to give me the floor at this point or not.

CHAIR NOWALSKY: No, go ahead. I was somewhat surprised to see you as the seconder, so go ahead in favor of the amendment to substitute, Justin.

DR. DAVIS: I'll just real briefly reiterate some of what I said earlier in the discussions about the two motions we had up on the board. I think New York has also experienced a substantial increase in black sea bass abundance in their local waters, particularly in the shared waters of Long Island Sound. I think providing some initial increase to their base allocation, as well as Connecticut is appropriate.

I've heard at least one person around the table today say that they were in favor of Connecticut increasing to 5 percent in our base allocation need, that means that person is in favor of a 4 percent increase being given to Connecticut. What this is essentially doing is taking that 4 percent and splitting it between Connecticut and New York, which I think is appropriate, so I am in favor of the motion to amend here.

CHAIR NOWALSKY: Mike Luisi, in opposition of the motion to amend the substitute.

CHAIR. LUISI: Going into this discussion and considering these changes to allocation. I was comfortable with Connecticut's suggestion for increasing their allocation. They only have a 1 percent allocation. With 1 percent of the coastwide quota there is no way to have any type of directed fishery.

With the expansion of the stock into the Sound, I totally understand Connecticut's ask for additional quota, so that they can actually try to manage a commercial fishery. Under the alternative that I would be supportive of, which is the substitute motions for the trigger approach, two-thirds of the quota is going to be moved, 84 percent of it is going to move to New England.

I think that under that scenario, New York, Rhode Island, and Massachusetts, the other states that are in that area are going to receive additional allocation to help supplement their baseline quota. Therefore, I do not support the handout to New York with its base allocation increasing it to 9 percent. I feel like Connecticut had a point; we're going to address that point. But I cannot agree on just a handout to New York from a state perspective.

CHAIR NOWALSKY: Tom Fote, do you have anything to add that's going to materially change people's minds on the motion to amend the substitute?

MR. FOTE: I guess I think I do, Adam. I mainly was listening to the National Marine Fisheries Service, justifying his shift to the north. Instead of really looking at the quota, realize that we've had an artificially low quota, not based on what I consider real science, but basically considered on a lot of precautionary approaches, and because the north and the south again were not allowed to harvest, which should have been harvesting a larger quota for the last five years on black sea bass.

Now to get out of the fact that we haven't been able to basically harvest those, NMFS is agreeing that we should shift the quota to the north. I really find this strictly objectionable. I mean I really have a hard time dealing with this. You know, when we start talking about politicians, we've got the same politicians, and they happen to belong to the same party as the ones in charge of New York, so it's going to be an interesting battle if we want to go to Congress over this. I didn't want to use that; you know I think that's a false herring putting on us in this environment. But again, I will state what I said before. There is not any less fish in the south than there was before. That is why this trigger approach,

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basically, and I didn't talk about it before. I agree with what Mike Luisi just said. You're giving them allocation of more fish up north. I don't know where New Jersey is going to fall.

I mean, a place where we're going to be by ourselves or are we going to be put in the south, where we really get penalized, and you take away more than the 20 percent we gave years ago? I really have to look at, and when you say well, it's only going to be a small percentage in the southern states. We'll all surviving on small percentages.

With the COVID-19 and everything else that we've had in the south, and basically, we watched markets dry up the same way as New England has. Our industry is suffering unbelievably, and a lot of people are going out of business, both commercially and recreationally. Anything you do that will affect the next couple of years will have a dramatic effect of maybe putting those businesses out of business. I've really got to look out for what's going on to all the states south of me.

CHAIR NOWALSKY: Dave Borden, last word on this motion. Then I'm going to go to the public, specifically on the motion to amend the substitute. We're going to caucus, and then we're going to vote.

MR. BORDEN: I would just like to follow up on Jim Gilmore's comment. I totally agree with all the logic that he presented. I just want to be clear on the record that I like the original motion that Jason made, but since we have a substitute that's on the table, and we're going to vote on it first, which we may never get back to the original motion in that case, under certain circumstances.

I'm trying to make the underlying motion as palatable as possible, not because I prefer it, because I want to fine tune the ingredients in that motion, so that should it have, it addresses some of the concerns that various Board members have raised. That is my purpose, in terms of making these amendments. I still support the underlying motion, the original motion that Jason made, and will probably vote that way in the end. But I'm trying to at least correct some of these deficiencies.

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CHAIR NOWALSKY: If I could have Board and Council members put their hands down. Most everybody, I've got four still up that are people that have spoken recently. Let me next turn to the public, specifically for or against comments on the motion to amend the substitute motion. I've got Greg DiDomenico, go ahead.

MR. GREG DiDOMENICO: This is Greg DiDomenico, Lund's Fisheries, Cape May, New Jersey. On behalf of Lund's Fishery, we oppose the substitute motion, thank you.

CHAIR NOWALSKY: Thank you very much for being very direct, greatly appreciated. James Fletcher, comment with regards to the motion to amend the substitute?

MR. JAMES FLETCHER: We at National Fishermen's Association oppose this motion, but we also think it's right that we have put on the table a way to enhance the stock that New York and Connecticut can get fish, rule in hand, and not have to take anything from the southern states, and it has not been discussed. But we oppose this motion.

CHAIR NOWALSKY: Okay thank you very much, Mr. Fletcher. We're now going to take two minutes to caucus. What I'm going to ask states to do during their caucusing also, and maybe we'll extend this out to three minutes, is to begin the conversation at the state level on the other motions as well.

Let's take a couple moments to caucus. We will come back. We will call the question on the motion to amend for the Board. If it passes the Board, Chairman Luisi will then take the motion up for the Council. Three minutes, 3:33. All right, I've got 3:33, is there any state delegation on the Commission side that is not prepared to vote? Okay, I'm not seeing any indication of that.

MS. KERNS: Adam, I'm going to take these hands down, if that's okay. There are three hands that are up, I think they are leftover.

CHAIR NOWALSKY: Greg DiDomenico, Dave Borden, Mike Luisi, Justin Davis. Toni is about to remove

your hands. All right, it gives new meaning to all thumbs now. **Okay, on behalf of the motion, move to amend the substitute motion, Option B, Increase Connecticut's base allocation to 3 percent and New York's base allocation to 9 percent.**

All those state delegations in favor of the motion, please raise your hand. I have four in favor, Connecticut, Rhode Island, New York, Massachusetts. Please lower those hands. All those state delegations in opposition to the motion to amend the substitute please raise a hand. I count six, I have Virginia, Delaware, Maryland, New Jersey, North Carolina, Potomac River Fisheries Commission.

Please go ahead and put those hands down. Abstentions on the motion to amend, I have two, New Hampshire and National Marine Fisheries Service. **That is 12 votes. The motion fails the Board, 4 in favor, 6 opposed, 2 abstentions.** Chairman Luisi, did you have something to add with your hand?

CHAIR. LUISI: No Adam, sorry, I thought I put it down.

**CHAIR NOWALSKY: The motion fails, 4 in favor, 6 opposed, 2 abstentions.**

CHAIR. LUISI: It doesn't need to go to the Council at this point, because it failed the Board.

CHAIR NOWALSKY: That is correct.

CHAIR. LUISI: We're back to the substitute and the main motion.

CHAIR NOWALSKY: That is correct. I'm going to come back to Dave Borden. You had suggested you might have something to further modify Option D. However, given that the Option B Amendment did not pass, again I'll ask you, do you think this is going to materially change the vote on the motion to substitute, or does it make sense to move forward on dispensing with this motion, and potentially take further action, should the substitute become the main motion? Dave, how would you like to proceed?

MR. BORDEN: I think it changes the results. In other words, I think 3 million pounds is a lot more consistent with the quotas that we've had over the last few years, and that 4 is setting the value too high. But given the vote on the last motion, I think we all know the results without voting. I'm not going to make that. If somebody else thinks that is important, please step up and make that motion.

CHAIR NOWALSKY: We've had an awful lot of debate on this so far. What I'm going to do at this point is I'm going to go back to the public for an opportunity to comment on the motion to substitute, with the allowance for going ahead and providing comments on the main motion at this point as well.

At that point I will then come back and ask for any more for and against, or any other action to modify the motion to substitute, before we vote on that. Let me go back to the public again for public comment on the motion to substitute and the main motion. Yes, I've got a hand up Captain Julie Evans you can go ahead and speak. Please provide your name and any affiliations that you are speaking on behalf of today, thank you very much for doing that.

CAPTAIN JULIE EVANS: Yes, nice to meet you and thank you for recognizing me. I'm assuming you can hear me now. I represent the East Hampton Town Fisheries Advisory Committee, and I am very impressed by the way everyone is speaking and is so knowledgeable about this very complicated situation we have going forward.

I appreciate both sides of the issue, having been running commercial and charter boats in the Florida Keys and in Montauk with my late husband, Captain Mike Brown. You know it's important that people who are in the industry and have the ability to catch fish, can put them in the boat and provide them for public consumption when they're available.

My industry tells me there are a lot of fish in the area right now, I don't know black sea bass. I am for the first, the original Option B that would increase New York to 9 percent, because the fish are here. I also believe that the DARA approach is a nimble approach and will allow our people to make changes when

necessary, and I do like the fact that it will go over two years, it's not going to be something we're going to just jump into.

However, I do appreciate the people in the south, you know being a little anxiety ridden about losing any quota. We've gone through that too here. I do think that we need to change the way things are done, and so I ultimately, I hope that the people that can vote will vote for Option B, thank you.

CHAIR NOWALSKY: Thank you so much for joining us today, and taking the time to comment. I don't see any other hands up from the public. Is there anybody who is on the phone only, and doesn't have access to the webinar that wanted to comment on these motions? Okay, seeing no other comments from the public. I still have hands up from Mike and Cheri. Did either or both of you need to speak on something, before I go ahead and ask for, for and against of the motions here for any further debate? Mike's hand is down. Cheri Patterson.

MS. CHERI PATTERSON: I don't know what happened. There was some sort of delay. We were voting yes on that last, or we were going to vote yes on that last motion, and it ended up being an abstention.

CHAIR NOWALSKY: All right, let me turn to staff. Given the fact that that would not materially have changed the outcome of the vote, is there a level of comfort with just modifying this to reflect 5, 6, 1, or at this point that we've moved forward, should we leave it as such? How would staff like to proceed?

MS. KERNS: Adam, I think we can just reflect the 5, 6, 1 in the vote in this record. It doesn't change the outcome, you are correct.

CHAIR NOWALSKY: All right, so let the record reflect that the vote then will be 5 to 6, 1 that New Hampshire had a vote and did not abstain, had voted in favor of the previous motion. All right, let me ask again. We've had a lot of debate on this. I'm not still sure where we go. I think I'll just put out there that I believe there is a possibility that should the motion

to substitute become the main motion, that there may be another motion yet to come before us.

Again, given where we're at in time for the day, is there anyone else who needs to speak in favor or against the motion to substitute, before we go ahead and take the vote? All right, so I'm not seeing any hands. I had requested delegations consider caucusing on the last topic as well. I've got Mike Pentony's hand up, Mike.

MR. PENTONY: I guess this is a point of order question, which is, we have a motion to substitute and a main motion. I know this was mentioned earlier. I've certainly been at meetings where the idea is both motions get perfected before you vote on the motion to substitute, with the idea that if the motion to substitute passes, becomes the main motion, then you bar any future amendments, because those should have been brought forward while it was a motion to substitute. I'm not clear if you were going to entertain motions after this point, or if these two motions are effectively frozen as of right now.

CHAIR NOWALSKY: Well, at this point, Mike, we've had an awful lot of discussion. I did not hear anyone else, other than Dave Borden, offer suggestions for modifications to the motion to substitute. He had two options, one of them we went forward and voted on. The second item he decided to withhold. I haven't had anyone else bring anything forward.

I did not hear anything during discussion about interest in changing anything about the main motion, but following on John Almeida's comments earlier, I will allow before we go ahead and vote on the motion to substitute, is there any specific interest in making a modification to the main motion. Again, let me ask it with, do you think it's going to materially change the outcome of the motion to substitute of the vote? Again, to go ahead and to make a motion for something to change. Again, let's hear what you've got, but I would ask that it comes forward only if you think it's going to materially change the outcome of the motion to substitute. I've got one hand went up, Justin Davis, go ahead.

DR. DAVIS: Just a clarifying statement, I don't have a motion to amend the substitute now that were it to become the main motion, that at that point you wouldn't entertain any more motions to amend it.

CHAIR NOWALSKY: No, what I'm saying is that should the substitute motion become the main motion, I will entertain whatever other motions the Board would like to make, that are in order at that point to modify the motion that has become the main motion. What I'm saying is that if you believe there is something about the current main motion made by Dr. McNamee, that you think at this point.

Given the discussion we've had, we need to have discussion about modifying that main motion made by Dr. McNamee that's going to materially change the outcome of the vote on the motion to substitute, I'm willing to entertain that now. But any other motions, should the substitute become the main motion, we will then entertain those. That didn't quite come out as clearly as I hoped it would, but did that get through?

DR. DAVIS: It did, thank you, Mr. Chairman.

CHAIR NOWALSKY: I'm not seeing anything else. Mike Pentony, your hand was still up from raising that question, or did you? That's down, Justin, if you're good you can put your hand down please. **We are back to going ahead, and we are now going to vote on the motion to substitute.**

Does the Board need additional time to caucus? I'm not seeing any hands raised, nor am I hearing anything. Therefore, we're going to proceed with the vote on the motion to substitute. All those delegations in favor of the motion to substitute, for the Board, please go ahead and raise a hand.

I'll just note for Council members that we're presently on a Board vote, so if you're a Council member, please do not raise your hand right now. I'm not even saying that was the case, I'll just say that was a reminder, in case anybody was thinking about it. Okay, I have 6 votes in favor of the motion to substitute; Virginia, Delaware, Maryland, New Jersey, North Carolina, PRFC.

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Please go ahead and put those hands down. Those have been cleared. All delegations in opposition to the motion to substitute. Okay, I have 6 in opposition. I have New Hampshire, Connecticut, National Marine Fisheries Service, I'm back to 5, I lost one. Just make sure everybody who is in opposition please go ahead and raise your hand. All right, I'm back to 6 again. I've got 6 hands up; I'm going to read them again.

New Hampshire, Connecticut, National Marine Fisheries Service, Rhode Island, New York, and Massachusetts. Okay, so you can go ahead and put those hands down. **That is 12 votes, 6 in favor, 6 opposed. The motion fails for lack of a majority.** No action is required by the Council. We are now back to the main motion. I think at this point staff can go ahead and push everything below the main motion down the screen below the main motion back up, and we can then entertain a way to proceed on that. I've got a hand up from Dennis Abbott. Dennis, you're muted on the webinar presently, if you are trying to speak, and now unmuted on the webinar, go ahead.

MR. DENNIS ABBOTT: Thank you, Adam, you've been doing a wonderful job keeping this going. I don't think anyone could have done better. A question I would have. The substitute motion failed. Can I assume that anything that was in the substitute motion cannot be amended to be put into the main motion, being that it has failed previously? That would be my question.

CHAIR NOWALSKY: If the question is can you take anything from the substitute motion, and bring it into the main motion. I would say I would entertain that. I think the substantive point of the two was a trigger approach versus the DARA approach. I think if there is some element of things that want to modify something, I would certainly entertain it, and hear it, and then I would have to rule on it. But right now, I think my position is that that was the substantive difference between these two motions was the DARA approach versus the trigger approach.

MR. ABBOTT: Follow up, Adam?



CHAIR NOWALSKY: Yes, please go ahead, and your comments are greatly appreciated.

MR. ABBOTT: On Option C, we're really talking basically DARA versus trigger approach. I don't think that someone could come in and substitute Number 2 the DARA approach with the trigger approach. Maybe some sub-parts of that but not the major part. That's my issue. But thank you, Adam.

CHAIR NOWALSKY: All right, Chairman Luisi, where we're at, at this point. Would you like to add something?

CHAIR LUISI: Yes, thanks, Adam. I'm just going to jump ahead and say that I think we all know where we stand on all of this. With the votes being 6, 6, I don't expect that there is going to be any difference in any vote that is made over the next hour or two, where the southern region and the northern region are going to find compromise.

If we were to take a vote on this option right now, which is the main motion, it's going to be 6, 6, it's going to fail. The southern region has worked really hard to try to find some compromise, as a region who is giving up an enormous amount of fish to try to address the problem, and I'm just disappointed in the fact that we couldn't see through the options and find some compromising solution to something that the group that is giving up the most was okay with.

I'm just disappointed in that. I'm not going to support this motion. I would support another motion, perhaps that stayed with the trigger approach, perhaps with maybe some different numbers, but I'm not going to support the DARA approach. I think it's too much of a leap with the uncertainty that we have, and it's not something that I'm going to be able to support. I'll leave it there, thanks, Adam, I appreciate you calling on me.

CHAIR NOWALSKY: Thanks for that insight, and in full disclosure, my goal is to wrap this up in 37 minutes, not another hour or two, but we'll do the best we can. I do think it would be reasonable, given, we don't know for sure. I think we've got

some insight. If we took a vote on this motion right now, what would occur?

I think we've got some insight to that at this point. I think it warrants some discussion about what happens at that point. Should that fail, any motion fails on setting allocations. I think at that point we have no document, and this process stops entirely, or I'll defer to you, Mike. I'll defer to staff for some other way forward.

I'm of the opinion at this point that if we can't come up with an option that is acceptable to both bodies here today, that essentially it brings these documents to a halt. Again, I'm open to other thoughts on that. Let me hear. Mike, if you've got something to add, staff has something to add. Then I think my next step is to say, is there anyone that wants to make any other motion relative to the main motion.

My thinking again was that the difference between the two approaches in the motion was substantially the DARA approach versus the trigger approach. If there is another approach that someone felt a motion to make, I think we could entertain that. If anyone wanted to make any material modifications to this main motion, I think we can entertain that.

Mike, staff, do you have any thoughts about that if we can't move forward with this today, we're pretty much tossing this process, and everything just remains as it is, without anything in the FMP at the federal level. Then once we complete that, then we move into if anyone wants to make any other motions.

CHAIR LUISI: Yes, thanks Adam, you know I appreciate you recognizing me. I'll take that. I won't be long winded. Yes, we're at the point where, based on the previous vote in the interest of the southern region, unless one of the states decides to support this, this isn't going to pass either. That leaves us at status quo.

Status quo, it's not solving any of the problems that exist. The challenge is, the southern region put up a proposal that we thought was going to get some

support, in an attempt to provide more allocation, more resources to southern New England, but it failed, and now we're here. My biggest fear is that we end up with nothing, because I've been committed all along, and I made a point on the record and to my colleagues from other states that we're committed to trying to find some solutions.

This isn't the answer. This option is not the answer. It's too much of a reach with the uncertainties that exist. I'm hoping that maybe we can try to find something. Maybe there is a way. Maybe somebody can come up with another substitute motion. I don't know, I would like to hear from states about maybe dropping the trigger line down to 3.75 rather than 4. I mean its another 250,000 pounds being allocated to the northern states.

But Adam to your question, I think we need to end this. This isn't something, in my opinion, that should go on to another meeting. I think we need to come up with some kind of compromise today, and we need to solve the issues at hand at best we can as managers today, rather than punting this until, you know the spring meeting, or you know a meeting of the Council. That's where I am. As your Co-Chair that is my advice, but I'll leave it up to you to decide how we move forward, thank you. I appreciate that, Adam.

CHAIR NOWALSKY: Well, Mike, I want you to know that I really appreciate your making sure that this wound up at this Commission meeting for me to resolve that, thank you. I greatly appreciate it.

CHAIR LUISI: Yes, if we postpone it again, it will make us make sure that it's the Commission's spring meeting instead of the Council's June meeting.

CHAIR NOWALSKY: I don't want to go back and forth and have discussion about where we are, we've got to complete this or not. What I really want to do is if somebody has, one of two things is going to happen. One, we're going to take a vote on this motion, or two, somebody is going to offer a substantive change to the motion, via amendment or substitute, that they believe is likely to change the outcome of this process.

That's where we're at. Either we're going to vote on it, or somebody is going to make a motion to change something. I have a number of hands that are up. But I'm going to ask you to only leave your hand up, if you are ready to make a motion to modify this main motion.

MR. PENTONY: Point of order, Mr. Chairman.

CHAIR NOWALSKY: Yes, go ahead.

MR. PENTONY: I guess I'm trying to understand why those are the only two options. We have a motion, a main motion. We had a motion to substitute, a lengthy discussion over the motion to substitute. We're back to the main motion. This could pass, it could fail. If it fails, I fail to understand why at that point someone wouldn't be free to make a new motion.

CHAIR NOWALSKY: My preference would be at this point. I think we have a good sense of what will likely happen at this point. You raise a good point. No, just because we take a vote on this motion, the meeting does not come to an end. That is a valid point, thank you for raising it, and if I've provided that as the sense of things, fine.

But my sense is if somebody is going to make another motion, now is the time for that motion to come forward, is my sense. You want from the procedural perspective that if this fails, then some other motion may come forward afterward. But I think my preference would be to get that out on the table now. Nichola Meserve.

MS. MESERVE: You may have seen my hand go up and down a couple times there, because I'm a bit conflicted. I do potentially have a motion for another option, but I do not want to make it before I know for certain that the DARA approach cannot pass, so I'll just put it out there that if we can take this vote, conclude whether or not DARA can pass, then I would be in a position to make a different motion for an option that I think breaches the two.

CHAIR NOWALSKY: Okay. Emerson, do you have your hand up to make a motion?

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MR. HASBROUCK: I have my hand up to call the question.

CHAIR NOWALSKY: All right thank you for that. I'll go ahead and give one last chance here, and again, in line with Mike's comments, which again are completely valid that just because this motion fails doesn't mean we can't entertain any additional motions. But the point is that if we don't take definitive action on the allocations today that is when things come to a halt.

Do any of the state delegations need to caucus at this point? Then not seeing any hands nor hearing anything, we are going to go to the judges. **We are back to the main motion. All of those delegations in favor of the main motion, please go ahead and raise your hand. I have six in favor, New Hampshire, Connecticut, National Marine Fisheries Service, Rhode Island, New York, Massachusetts.**

Let's go ahead and put those hands down. Waiting on Connecticut, all right thank you. All those delegations that are opposed to the motion, please raise your hands. **We have six opposed, Virginia, Delaware, Maryland, New Jersey, North Carolina, and PRFC. The motion for the Board fails, 6 in favor, 6 opposed.** Are there any other motions that someone would like to put forward today? Nichola Meserve.

**MS. MESERVE:** I appreciate working through the steps with you. I would like to make a motion that maintains some elements of the first motion, but changes the most substantive change is changing the Option F, which is the Option in where a set percent of the coastwise quota is distributed based on the initial allocations.

This is very similar to the staff's recommended motion, but does make that change for the modified alternative B, where Connecticut goes to 3 percent and New York goes to 9 percent. I'll read it into the record, and I'll hope to get a second. **Move to adopt the following options for Black Sea Bass Commercial Allocations, modified Alternative B, increase Connecticut's allocation to 3 percent and New York allocation to 9 percent.**

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**Alternative F, percentage of coastwise quota distributed based on initial allocations, Sub-alternative F1-B, 75 percent of the coastwise quota allocated using the initial allocations. Sub-alternative F2-B, remaining quota (25%) allocated based on regional biomass from the stock assessment. Sub-alternative F3-B, proportional distribution of regional quota, and Sub-alternative G2, establish three regions, 1, Maine through New York, 2, New Jersey, and 3 Delaware through North Carolina.**

CHAIR NOWALSKY: Thank you, Nichola. Before I ask for a second for that, just to confirm, so this is the Council staff recommendation with a change to Alternative B. Instead of increasing only Connecticut, it is a change to both Connecticut and New York by increasing each of those state's base allocations by 2 percent. I'll just note that the language you have for Sub-alternative F3-B, differs slightly from how staff has worded it. But you make no modifications in your motion to F3-B from what appears in the document.

MS. MESERVE: That is correct.

CHAIR NOWALSKY: Thank you very much for clarifying that. Do I have a second from the Board? John Clark, are you raising your hand to second this on behalf of the Board?

MR. CLARK: No, Mr. Chair. I didn't realize my hand was up, sorry.

CHAIR NOWALSKY: Okay, Justin Davis, are you raising your hand to second this on behalf of the Board?

DR. DAVIS: That's correct, Mr. Chairman.

CHAIR NOWALSKY: Okay, thank you, Justin, we now have a valid motion for the Board. **Do we have a like motion on behalf of the Council? Maureen Davidson, are you raising your hand to make this motion on behalf of the Council?**

MS. DAVIDSON: Yes.

**CHAIR NOWALSKY: Dan Farnham, are you raising your hand to second this motion on behalf of the Council?**

**MR. FARNHAM: Yes, I am Mr. Chairman, thank you.**

CHAIR NOWALSKY: Nichola, let me turn to you, to give you an opportunity to further. I mean I think you went into pretty good detail before you made the motion. Now that you know it's a valid motion before us, would you like to add anything else?

MS. MESERVE: Just to reiterate a couple of points that were kind of already made on the prior motions. You know the problem with the DARA, I believe, was that the 50 percent redistribution was too much. This is 25 percent, which is less than the trigger option that was proposed using a 4-million-pound quota, based on the current quota. That would have reallocated 33 or 34 percent of the quota, so this is only 25 percent, so this moderates that problem.

But the problem with the trigger approach from a number of our standpoints is that it does not do any reallocation, if you go below that trigger level. It was my attempt here to find an option that is in between the two, and hopefully finds enough for both sides to support, so that we can do something here today, and not leave with the status quo situation, which you know is my sense that is really not a tenable situation at this point, so I appreciate it.

MR. NOWALSKY: Well, we appreciate your patience in getting to this as well. I think we worked through every possible combination before getting back here. Let me ask for a show of hands of Board and Council members that would like to speak in favor of this motion. Just put your hand up if you think you need to speak in favor of it. Again, I think we've had substantive discussion, so if you need to speak in favor because you think what you have to say you really need to sway somebody else's vote, I want to hear from you. Otherwise, we've had an awful lot today. All right, so I've got Justin and Tony to speak in favor. Is there anyone that wants to be recognized to speak in opposition to the motion? Mike Luisi, did you raise your hand to speak in opposition?

CHAIR LUISI: Yes.

CHAIR NOWALSKY: Okay. Chris Batsavage, I've had your hand come up. Were you going to speak for or against or somewhere in between?

MR. CHRIS BATSAVAGE: Probably more along the lines of somewhere in between. We'll see how it goes.

CHAIR NOWALSKY: All right. I'm going to go Justin in favor, Mike against, Tony DiLernia in favor, and then I'll come back to Chris. All right Justin, you're up.

DR. DAVIS: In the interest of time, I will try to be brief here. I think this option is sort of a Goldilocks option, it's just right, it's kind of in the middle. From the standpoint of trying to preserve some of the historic access to the resource that states with higher allocations have enjoyed, this option takes 75 percent of the quota, three-quarters of it, and says we will allocate that according to the initial allocations.

To me that represents a substantial sort of pretension of the historic allocation. However, it does take 25 percent, and say we will allocate that based on science, based on regional biomass, regardless of the overall quota levels. This gets away from the issue of the trigger option, where we're going to do reallocation, but only when the quota is above some level when times are good.

Then when times are tough, we're just going to resort back to the old way of allocating, and make those states that were enjoying the above trigger reallocation, essentially bear the brunt of conservation when we drop below the trigger. I think this incorporates options that I think there was general consensus around today at the table that there is some value in increasing Connecticut and New York states allocations, and of establishing three regions.

But for me I think, you know this option sort of meets that need that if these two bodies do our job, everybody should walk away from the table feeling like they got some of the things they wanted, but not

everything. This is sort of a good compromise middle ground. I'll just add that I think it would be really just a disaster, if at the end of this multiyear process all these meetings, all this work put in by staff and the Agency folks, contributions from the public.

If we get to a point where we can't take action and do something here, I just think that is a real black eye for both the Commission and Council. I really urge my fellow folks around the table today to give this some serious consideration as a reasonable compromise, and maybe just takes a small change to this to get it over the line, then somebody should offer an amendment. Thank you.

CHAIR NOWALSKY: Mike Luisi.

CHAIR LUISI: Thanks Justin for your comment. I agree with a lot of what you said. You know based on my previous comments, I have a little bit of a problem with modified Alternative B, considering New York in this case. In looking at the numbers, under the scenario that we're in with the quota that we have, this alternative actually provides less fish to the southern New England region than the trigger alternative.

But that is under the current situation. The concern that I have, speaking for my industry. If this quota were to fall, and get below 4 million pounds, we're going to really start to feel the pinch in our state. I don't know, I know we've talked a little bit about the idea of reviewing kind of how the quota allocation scenario plays out over the next few years.

I know there is an assessment this summer. I would feel a little more comfortable under this scenario right now, if the increase was only to Connecticut. Maybe there is something added to the language for a review of the allocation alternatives, if the quota drops below what the southern region kind of figured was kind of the hard line at 4 million pounds.

If the quota was to drop below 4 million pounds, maybe it would initiate some further review or action by the Council and the Board. I'm just thinking out loud, which is never a good thing. But I

would feel more comfortable in moving forward with those two provisions added to this motion, thanks, Adam.

MS. KERNS: Adam, I can't raise my hand, it's Toni. I just thought I would point out that at least through the Board action process, and I think through the Council process as well, the Board and Council can choose to bring up an addendum at any point in time for a framework through the Council process. If the stock assessment shows something, the Board and Council can always do an addendum or a framework.

CHAIR NOWALSKY: Thank you, Toni, now that you have everybody else's, you can just jump in whenever you need to, so that's appreciated. Next up, Tony DiLernia.

MR. DiLERNIA: My hand was up, I guess from before, so I didn't mean to put it up. But now that I have the floor and the base of what Toni just said. That is where I was going to go. Can we revisit this? If what I think is occurring is occurring, and there is a distribution of the stock, and trying to deal with a species shift.

I would be very comfortable if somehow, we're obligated to revisit this in five years. I don't know if you wanted it to be to amend the motion. But if we could revisit this in five years, as far as what the distribution of the stock looks like five years from now, I would be much more comfortable with this motion. Thank you.

CHAIR NOWALSKY: Chris Batsavage.

**MR. BATSAVAGE: I am willing to offer an amendment to this motion, I'll just see if we can move things forward. I would, I guess start by amending in Modified Alternative B, to remove New York's base allocations to 9 percent, and maybe at the end add language that the allocations will be reviewed in no greater than five years. I can make that on behalf of the Board and the Council.**

CHAIR NOWALSKY: All right, so we have Chris Batsavage that is going to move to amend to modify Alternative B to remove "and New York's base

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allocation to 9 percent” and add at the end of the motion “to review the state-by-state allocations in not more than five years.” Did I hear you correctly?

MR. BATSAVAGE: Yes, I think that will do, and if there are any perfection that we need to that language, I’m willing to do that.

CHAIR NOWALSKY: You’re making that motion on behalf of both the Board and the Council.

MR. BATSAVAGE: Yes, please.

CHAIR NOWALSKY: Okay, thank you very much, do I have a second to the motion for the Board? There were some other hands up. John Clark, your hand is one I recognize as a new hand that popped up. Are you making this as a second for the Board?

MR. CLARK: I will second for the Board.

CHAIR NOWALSKY: Thank you, John, do I have a second for the Council? Joe Cimino, I see your hand pop up. I wasn’t sure if that was to be a second, or to comment. Are you seconding this motion for the Council?

MR. CIMINO: Yes, Mr. Chair, it’s to second.

CHAIR NOWALSKY: All right, so we now have a motion to amend. Chris, would you like to comment on the motion to add anything beyond what you’ve already added?

MR. BATSAVAGE: Yes, really quick, Mr. Chair, because I think the other points have been made already. I think the motion Nichola offered is the best middle road approach to take, based on the how the votes have gone so far. The amendments I think are to cover some of the other concerns we heard today, to see if we could maybe find a solution here to reallocate the state quotas in some meaningful way.

CHAIR NOWALSKY: Let me see a show of hands, or if you have raised your hand previously, keep it up, so people that want to speak in favor of this motion. Hands to speak in favor of the motion only. Dave

Borden, your hand was up prior, did you want to speak in favor of this motion, or not?

MR. BORDEN: I would like to speak on the motion,

Mr. Chairman. Could the staff put up a table of state allocations that would result if this motion passes? The underlying motion.

CHAIR NOWALSKY: The main motion?

MR. BORDEN: Correct.

CHAIR NOWALSKY: I’ll go ahead and give staff a chance to think about that for a moment. We had in favor, all those people that want to speak in opposition to the motion to amend. All right, I’ve got Jim Gilmore, Emerson Hasbrouck, and Dan Farnham. Let me first briefly go to staff. Staff, do you feel that you can with some time or in short order, pull up something that reflects what those changes in quotas would be that would incorporate the modified alternative, or is that not something you think you would be able to pull up in short order?

MS. STARKS: This is Caitlin. I believe that if Nichola, who put the proposal together, were to send me her Excel spreadsheet, I could do it relatively quickly.

CHAIR NOWALSKY: All right, we’ll go to some speakers, and then we’ll see where we are. We last heard from Chris Batsavage in favor, I’ll go to Jim Gilmore in opposition to the motion.

MR. GILMORE: Before when I put my hand up, I was actually sort of on the fence about this, because the one thing I clearly liked was the 9 percent for New York. I’ll come back to that in a second. The thing that was concerning me still is that we were going with the past. However, with the five-year addition, that got me back over the edge.

But now that we’ve taken the 9 percent out, one thing that maybe some folks aren’t aware of, but like several species, New York is trying to get equity within the region. If you look across the states, take Connecticut out of it, because they are obviously, I

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think everybody agrees they need to have a higher percentage.

But if you go through New Jersey, New York, Rhode Island, and Massachusetts, New York's allocation has been half of those states, which I've said many times before makes absolutely no sense. If you've got a historic fishery that was harvesting those fish, and that those fish exist in the water equally, then New York gets some equal access to it.

At least the 2 percent increase for New York was making this at least going in the right direction, so I was supportive of it. However, if the 9 percent is taken out, then I cannot support this motion, because I think it's just somewhat punitive, quite frankly. Anyway, if someone wants to consider changing their mind on this, and putting the 9 percent back in, I would vote for it.

CHAIR NOWALSKY: Joe Cimino.

MR. CIMINO: I think if I was in Mr. Gilmore's place, I would feel exactly the same way, it just seems like it's punitive. I support this motion, and that's not what it is to me at all. I don't like the concept of just putting quota on the table for the sake of doing it, but none of these options were going to help Connecticut out enough to get them started in a fishery.

I hoped that 3 percent would do that. I was supportive of 5. For New York at a base of 7 percent right now, there are other states that are in a similar situation, and with some of these shifts in quotas, they'll be moving beyond that. Some states might be moving below that. I don't think 9 is necessarily a reasonable or needed baseline. These allocation discussions are tough, but you know doing it as a regional approach isn't necessarily that accurate either, right, because Connecticut is always going to be below everyone.

CHAIR NOWALSKY: Emerson Hasbrouck, on the motion to amend.

MR. HASBROUCK: I agree fully with what Jim Gilmore just said. I could support the underlying

motion, but I cannot support this amendment. I think that my esteemed colleagues from the south of New York need a bit of a refresher here on geography. You have a body of water up there called Long Island Sound, and it's situated between New York and Connecticut.

The increase of fish in Long Island Sound, are within both New York and Connecticut's waters. To say that New York should not get an increase here as part of Alternative B, is like saying that in the Chesapeake if there was an increase in abundance of fish, that perhaps Virginia should get an increase in allocation, but Maryland should not, even though they fish in the same water.

CHAIR NOWALSKY: Dan Farnham.

MR. FARNHAM: I haven't been here that long. I'm not sure what New York did before I got here, to get the reaction I'm hearing on this webinar today. I don't know. New York, I can understand one thing, these fish are being caught. Fish are being caught; they are being discarded. What we are trying to do is turn discards into landings.

I cannot support this motion to amend. I can support the main motion, but not with the motion to amend. When you take away the 2 percent from New York, New York goes up from 7 percent to 8.9 percent of the overall quota. It's not going to be enough to cover what we're catching and throwing back into the water right now. That's where I stand, thank you.

MS. STARKS: Mr. Chair, I believe staff has a table of what was asked.

CHAIR NOWALSKY: All right, let's go ahead and pull that table up, thank you. While staff is pulling that table up, Tony DiLernia, you still had your hand up. Did you have something substantive to add to this?

MR. DiLERNIA: Yes, I do, Mr. Chairman. I think some of the states are being a bit disingenuous. The states to our south. Boats know what happens when boats leave that coast, they're from New Jersey, they are steaming northeast. Those boats are steaming

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northeast to fish, and very often they are closer to the state of New York than they are to the state of New Jersey, when they are coming up to the northeast to fish.

They say that well, New York shouldn't get an increase in allocation of 9 percent. It's a bit disingenuous, because you realize the fish are there. You're steaming up here to fish for them in the first place, but then you say well, no, no, you guys shouldn't get an increase. Anyone who really knows how this fishery is being prosecuted understands that, and they are being a big disingenuous when you say New York should not get an increase to 9 percent.

CHAIR NOWALSKY: Thanks to staff for bringing this table up. This reflects the percentages on the main motion, and just for comparison's sake, if we were to apply the proposed amendment, I believe what that would do, is slightly decrease Mass, Rhode Island, New Jersey, Delaware, Maryland, Virginia, and North Carolina by a distribution that adds up to 2 percent, and would then increase New York by that 2 percent. Do I interpret that correctly what the amendment would do?

MS. STARKS: Mr. Chair, this table is showing the amendment that was suggested, and I also have a table for Massachusetts, the main motion that Nichola presented.

CHAIR NOWALSKY: This would include the New York 2 percent increase?

MS. STARKS: No, this includes New York with 7 percent only.

CHAIR NOWALSKY: This is the main motion as it stands, not the amendment to the main motion.

MS. STARKS: If I understand correctly, the amendment is to remove New York's getting 9 percent at the beginning, so this is the amended motion, and this is the main motion, let me make it larger.

CHAIR NOWALSKY: Okay, you're correct, thank you. You are 100 percent correct, thank you. Okay, so what we're going to do at this point is, I'm going to go to the public. I'm going to ask for comments on the motion to amend, as well as the main motion. We're then going to caucus as needed, and vote on the motion to amend.

The caucus, we're going to go ahead and take a five-minute caucus, to give people opportunity to one, get a break, because we've been at this over two hours, as well as to try to consolidate the caucus between the motion to amend and the main motion. Let me go ahead and get hands from the public. We're going to go ahead and entertain comments on the motion to amend and the main motion. I think at this point if staff could bring those both up again, so the public can comment, then I would appreciate that. Let me first go to Julie Evans, please.

CAPTAIN EVANS: Thank you for letting me speak. I have to urge people that will make this a reality to listen very closely to Jim Gilmore's comments, Emerson Hasbrouck, and Dan Farnham. This is a very small amount New York is asking for this increase. It seems very stingy, I have to say, on the part of the southern states exactly, not to allow New York a small increase of the fish that live in the waters where they fish.

These fish are going to be caught anyway, you know. They are going to be caught anyway, so I urge the people that can vote to allow New York a very small 2 percent increase, and let this proposal go forward. I do not support the amendment. I do support the original alternative, the modified alternative as presented, but I do not support the amendment on behalf of the East Hampton Town Fisheries Advisory Committee. Thank you.

CHAIR NOWALSKY: Thank you, Greg DiDomenico.

MR. DiDOMENICO: Good afternoon, Mr. Chairman. This is Greg DiDomenico, speaking on behalf of Lund's Fisheries. First, I would like to support the amendment to modify Alternative B from Mr. Batsavage and Mr. Farnham and Mr. Cimino. I would also like to point out, I believe that the intent in this



motion is not to cap New York at 9 percent, but I think they are saying 9 percent is not an appropriate baseline.

If I need to be corrected on that, that would be great. But I think I understand the intent of the motion, and consider the intent of the motion to be friendly, not stingy, and very generous. I look forward to continuing working on this amendment as it develops. But for now, I would like to see this, I do support this amendment to modify Alternative B, thank you very much.

CHAIR NOWALSKY: Bonnie Brady.

MS. BONNIE BRADY: Can you all hear me?

CHAIR NOWALSKY: Yes, Bonnie, go ahead.

MS. BRADY: Great, thank you, Bonnie Brady, Long Island Commercial Fishing Association. We cannot support the amendment. We've been asking for this on a myriad of fisheries. I've been at it for 20 years; you all have heard me. At this point, especially since we share the same waters, specifically around Connecticut. It would be really nice listening to other states who don't want to lose any of theirs, to feel the need to help to frankly throw New York a bone.

We have had one fishery after another lost via state by state, and it's always a have versus have not. Two percent for New York is amazing. Compared to everyone else, when we know to the north and south you both caught, we were on equal par 25 years ago. Please, I can't support the motion to amend, we support the motion as is by Ms. Davidson and Mr. Farnham, thank you.

CHAIR NOWALSKY: James Fletcher.

MR. FLETCHER: I find it amazing that those in advised where I put it on the table a number of times. I'm opposed, but I put it on the table a number of times for New York and Connecticut, if it will enhance both their stock, and justify increasing their landings more than 3 to 5 percent. All they have to do is stock enhancement program. I find it amazing that it's

been on the table for at least the last four years and it never makes his point. But I'm opposed to giving, United American Fishermen's Association is opposed to giving them quota. Thank you.

CHAIR NOWALSKY: Is there any member of the public who is on the phone only, and not on the webinar, and cannot raise their hand? All right, not hearing anything. We are at the point where I'm going to ask if there is anyone else who feels they have something substantive to add at this point, prior to taking a five-minute caucus break. Dave Borden and Emerson Hasbrouck, are your hands still up from before?

Emerson's is down, Dave, your hand. All right, that hand is down. I've got four hands that are up of people that want to speak at this point, so we're going to do those four people, and then we're going to take a five-minute break, and then we're going to call the question. I'm going to do them in the order I saw them go up. Joe Cimino.

MR. CIMINO: I felt I had to raise my hand, because some of the most recent comments sounded as if this is a vote to keep New York from being able to achieve 9 percent of the coastwide quota. This is a motion that says, we don't feel that 9 percent is a needed baseline. It's not that New York won't get that amount of quota.

If the biomass is there, that 25 percent reallocation that's moving around should get them there. If it goes away, then it won't. That is part of what we're dealing with, with these baselines. Again, you know we all felt that Connecticut was in somewhat of a different situation, being so low that none of these options could help.

CHAIR NOWALSKY: Thanks Joe. I've got Justin Davis, Mike Luisi, Ellen Bolen, and then we're taking a break.

DR. DAVIS: I just wanted to make a very quick comment that Connecticut does not support the amendment here, but it's because of the first part, about removing that about New York's base allocation being increased to 9 percent. Connecticut

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does support the idea of coming up with a timeline to revisit these decisions, five years seems appropriate.

I would just want to communicate that to other states that if that sort of requirement is something that might help states see their way to vote on the main motion, that even though we're going to vote no on this amendment, that is something that I think we would consider. Thanks.

CHAIR NOWALSKY: Mike Luisi.

CHAIR LUISI: Yes, I wanted to make sure that we would have the opportunity to comment after we caucused, in case there is something that comes up during that caucus regarding the motion. If we can, maybe just have an opportunity if need be, to make comments that would be great, before we cast a vote.

CHAIR NOWALSKY: Would you be comfortable with taking the vote on the motion to amend, and then take any further comments, or you think those comments may affect the motion to amend?

CHAIR LUISI: Honestly Adam, I think we're at a good stopping point. I need to talk with my representatives from Maryland. At this point, I think if we take a five- or ten-minute break, and we can talk about all of it, so that we don't have to take another caucus. You've made that recommendation before. But I think we're at a good stopping point for that discussion to happen.

CHAIR NOWALSKY: All right, Ellen Bolen.

MS. BOLEN: I think actually I was following up; I think what Mike was saying is, is there going to be a chance to speak to the underlying amendment after caucus? I know you had requested comments for both, but I just wanted to sort of figure out when those would best be spoken.

CHAIR NOWALSKY: Ellen, are you asking for a comment period from the Board and Council on the main motion or on the amendment after we come back from caucus?

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MS. BOLEN: Asking clarification, not asking for further comment on the amendment, because there is going to be additional conversation on the underlying motion.

CHAIR NOWALSKY: All right, so the plan is five-minute break, we're back at 4:50. We are going to vote on the motion to amend. We are then going to open the floor for any final comments on the main motion. We are then going to vote on the main motion. See everybody in five minutes, thank you.

(Whereupon a recess was taken.)

CHAIR NOWALSKY: We have before us a motion, move to amend to modify Alternative B to remove "and New York state's allocation to 9 percent" and add at the end of the motion "to review the state-by-state allocation in not more than 5 years." Again, we're going to go ahead and we're going to vote on this motion.

We'll then open the floor for some limited additional debate, and then move on to either polling the question on the main motion, or if there are any further modifications, perfections needed there. Let me just run down a couple of hands here. Jim Gilmore, you had your hand up, was there an issue regarding the caucus still, Jim?

MR. GILMORE: It was in the caucus, Mr. Chairman, so I had my microphone off before. We just discussed a possible modification to the amendment that maybe will get us through this quicker. Is that appropriate at this point?

CHAIR NOWALSKY: How would you like to modify it, Jim?

**MR. GILMORE: I would move to amend to modify Alternative B, and add at the end of the motion to review the state-by-state allocations in not more than five years. Essentially, remove this piece on the 9 percent.**

CHAIR NOWALSKY: Here is what we're going to do. We're going to vote on this motion, and then if we

want to add back that five-year part to the main motion, we'll do that. Mike Luisi, did you have something else to add?

CHAIR LUISI: Yes, I was going to ask for an extra minute. I was still having a caucus with my Commissioners, but we can probably handle that without an extra minute. I'm just going to go on mute and talk with them before we cast the vote. Yes, I'll leave it there.

CHAIR NOWALSKY: I'll take a long time adding the votes up. To Jim Gilmore's point, what we'll do if the goal of delegations and possibly Council members, is to ultimately have this first part of the motion to amend removed, but keep in the second part, vote no on this motion, and then we'll come up with a way to add a review back to the main motion. All right, let's go ahead and have all delegations in favor of the motion to amend, as posted on the screen, please raise your hand. I have five in favor of the motion to amend; **I now have six in favor of the motion to amend. Virginia, Delaware, Maryland, New Jersey, North Carolina, PRFC. I'm guessing I probably didn't need to read those six. But those are the six in the record.** Those hands can go down, please.

All those delegations in opposition to the motion, please raise your hands. I need to get the hands that were in favor down. Let's go ahead. Toni, can you just clear all the hands for me, please? If everybody could just leave their hands for a moment. Toni has cleared everybody, please have the delegations in opposition to the motion raise their hand.

**I have five in opposition, New Hampshire, Connecticut, Rhode Island, New York, Massachusetts. Please lower those hands. Abstentions on this motion, I have one abstention from the National Marine Fisheries Service. This vote carries, 6 in favor, 5 opposed, 1 abstention.** Mr. Chairman Luisi, you may now go ahead and call the question for the Council.

**CHAIR LUISI: To the members of the Council. The motion is: Move to amend to modify Alternative B to remove "and New York's base allocation to 9**

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**percent," and add at the end of the motion "to review the state-by-state allocations in not more than 5 years".** All those members of the Council that support the motion, please raise your hand. Toni, I'm going to ask you, I can't see that, so if you can give me a count.

MS. KERNS: Do you need me to read the names as well, or just count?

CHAIR LUISI: For the record, it wouldn't hurt to read the names. Yes.

MS. KERNS: I have **Adam Nowalsky, David Stormer, Kate Wilke, Ellen Bolen, Sara Winslow, Peter Hughes, Peter deFur, Sonny Gwin, Kris Kuhn, Chris Batsavage, Joe Cimino, Michelle Duval, Dewey Hemilright, and Scott Lenox.** If I didn't call your name and your hand is up, someone added their name as I was reading, and it goes in alphabetical order, so it's hard. I have 14, is that what you have, Julia?

MS. BEATY: I think I actually can't see all this, so sorry I couldn't run that.

MS. KERNS: Okay, I didn't know if you were counting or not. I have 14, I'll put your hands down.

CHAIR LUISI: Thanks, Toni, we'll get the count right, but let's go ahead and, I can't see it but are the hands down at this point?

MS. KERNS: Hands are down.

CHAIR LUISI: Let me ask, for those members of the Council that oppose this motion to amend, please raise your hand. I'm going to have Toni call that out, and I'll count as she calls it out.

MS. KERNS: Just going to give everybody a quick opportunity to get the hands up. **I have Maureen Davidson, Wes Townsend, Dan Farnham, Tony DiLernia, and Paul Risi.**

CHAIR LUISI: Is that five? I think it was five.

MS. KERNS: Yes, I had five.

CHAIR LUISI: Five and 17, that is too many people. It should be 5 and 15.

MS. KERNS: I said 14.

**CHAIR LUISI: Oh, I'm sorry, I thought you said 17. Okay, so 14 and 5 is 19, without my vote, there is one person missing. Maybe we could ask for abstentions.**

**MS. KERNS: We have one abstention from NOAA Fisheries.**

**CHAIR LUISI: Okay, perfect. One abstention, the motion carries.** Therefore, we've amended the main motion, and so I'm going to turn it back over to Adam, and allow staff to amend that motion, and then you can take a vote on the main motion, or consider any alternative to that motion.

CHAIR NOWALSKY: Very good, thank you very much, Mr. Chairman. We're going to take a moment and staff is going to provide the amended motion, which is now the property of both bodies, by removing "and New York states allocation to 9 percent" from the modified Alternative B, and going ahead and adding a line in about review in not more than 5 years, so we could see that as a main motion if we could get that amendment taken care of, please. We'll give staff a moment to do that.

MS. KERNS: Caitlin, for the wording of this, is that just an alternative B? Oh no, it's been modified still, because it's 3 percent. Never mind, I apologize.

CHAIR NOWALSKY: Again, this motion is now the property of the joint body, after the modifications that were made to it. At this point, again let me ask for a show of hands in favor of the modified motion. Again, please raise your hand if you think your comments are going to materially change the outcome at this point. Peter deFur, were you wanting to speak in favor, or did you have a general question, or did you want to speak in opposition?

MR. PETER deFUR: It's a general question, and I wanted to get clarification on a comment that I

thought I heard staff say is that will the review in 5 years take the form of an amendment or a framework? I thought I understood him to say that because we've had such extensive discussion that it would be a framework-able item, is that true?

CHAIR NOWALSKY: I'll turn to staff for that, with one answering is it a framework on the Council side? We know it can be done by addendum on the Commission side, since that's what we're doing. Then the second element of that is would this language be interpreted as begin that process within 5 years, not more than 5 years, or have the review process completed in not more than 5 years.

MS. BEATY: I can answer that, this is Julia. Right now, this is an amendment for the Council. Once this amendment is complete, then after that we can make changes to the allocation through a framework in the future. I would assume that this would mean that that review would start within not more than 5 years. I don't think that would mean completed. I would assume it would mean that it would start.

CHAIR NOWALSKY: All right, so let's go ahead with the review. The allocations to change via framework, the review would begin in not more than 5 years from the time this goes into effect.

MS. KERNS: Adam, just to make sure I'm clear of the Board's and Council's intention here, because the way the question was just given, not. But when the Commission has had review allocation in a certain time within its management documents, it doesn't mean that you have to initiate a management document. The Board can have a discussion, review information in front of them, and then decide if they're going to initiate a management document or not. It doesn't require the management document to occur. But they do have to review data, and then make that decision.

CHAIR NOWALSKY: I think that's a good clarification. I would just request removal of the form the time this goes into effect, because it wasn't actually written into the motion before. It is in the record now that we've heard it here today. All right, so people go ahead and raise hands if you feel you need

to speak on this motion. Right now, I have Jim Gilmore and Mike Pentony. Is there anyone else that feels they need to speak on this motion before we go ahead and vote on it? Jim Gilmore, are you going to be in favor or opposed to this motion? Your hand has gone down.

MR. GILMORE: I will be opposed to the motion, Mr. Chairman.

CHAIR NOWALSKY: We've got you opposed. Mike Pentony, are you going to be in favor or against?

MR. PENTONY: It's actually a comment on the preceding discussion about the review process.

CHAIR NOWALSKY: All right, Ellen, are you going to be in favor or against?

MS. BOLEN: I think it is just more commenting on the overall situation.

CHAIR NOWALSKY: Okay, so we've got lots of commenting on the overall situation. Go ahead, Jim Gilmore.

MR. GILMORE: Just quickly too, we're going to need a caucus for a couple minutes after this, so we can put that on the list. Just quickly, and I felt obliged that Mr. Luisi commented before how he was disappointed. I am disappointed right now in that we are trying to work towards equity in the future, and it seems we're getting stuck right now.

The one comment I will make is my 13-year experience with the Commission and the Council, every time we have gotten to the point where one vote decides a management approach, we're in a lot of trouble, and a lot of agita coming up. I just wanted to make that point, and we'll be voting shortly, thank you.

CHAIR NOWALSKY: Mike Pentony.

MR. PENTONY: I just hope we can be clear on the review of state-by-state allocations in not more than 5 years, does not compel either the Council or the Board to take an action. It seems to me that is

tasking the staff to conduct a review and present information for the Council and the Board, which then could be used to initiate an action.

But, whether that action is a framework or an amendment, at least I think a minor shift in allocation it probably could be done through a framework adjustment based on the current reading of this amendment. But even a substantial change or shift in how we determine the allocations in 5 years, could require an amendment, regardless of what is in the regulations regarding what can be done via framework action.

CHAIR NOWALSKY: Ellen Bolen.

MS. BOLEN: I wasn't being purposely obtuse when you asked support or opposed, but I think it's going to be a fairly last second decision for Virginia. I mean it's always a hard vote to take when it comes to allocation. I've been on the record saying that we understand that things need to shift as the stock expands.

The stock is expanding, but this stock would take quota from Virginia, when we still catch all of our quota. We catch all of our quota relatively close to our coast. It's a pretty hard vote to take, and I know that people will be walking away from the table sort of feeling like nothing went right. Anyway, I wanted it on the record that this is a pretty hard vote to take, and I also want to say that I really appreciate everybody's being willing to listen, and trying to come up with creative solutions to this. Thanks.

CHAIR NOWALSKY: We've got a number of hands that went up. Again, I'm going to come back to the point of, we're at a point where if you think there is something you want to change about this motion to change the outcome. I think it goes without saying at this point that there has been a lot of efforts been made, a lot of people have worked very hard today.

We've gone down a lot of different roads. Yes, we want to get to a point of something that we can all live with. There are no guarantees every time we come into this discussion we're going to get there. With the hands that are up, I'm going to ask, and

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those additional hands at this point would include Chris Batsavage, Tony DiLernia, and Emerson Hasbrouck.

I would ask, do you intend to modify this motion, to change the outcome of the vote? I don't think that having another period of how difficult this is. We all recognize how difficult it is. Either we've got something to move this forward, or we vote on the matter, and we accept the consequence. Tony DiLernia, you still have your hand up, so I'll assume that means you've got something substantial to add.

MR. DiLERNIA: My question is actually for the Regional Administrator, who just recently said, well relatively minor. How would we define relatively minor to a change in the state by state that would require that could be done by framework, versus an amendment? Based on the answer to that question, I'll decide whether or not I'm going to vote or not vote for this motion.

CHAIR NOWALSKY: Mike, are you prepared to answer that?

MR. PENTONY: Not with anything concrete. I don't have, so I think it's a discussion that we had in the December meeting that would authorize changes to the commercial quota allocation system in the framework. I'm not sure if there are any parameters around that contemplated in this current amendment.

Council staff might be better able to answer that part of it. But in general, I think we would have to look at the situation, and determine whether we're making, you know a small shift. Small, I don't know what that would mean. But within the overall structure, or completely changing the structure.

For example, shifting from alternative F to a trigger approach, or implementing DARA in a more comprehensive way. Those types of substantial changes would clearly require an amendment, in my view. Sticking with this approach, but making sort of small change to one of the parameters might be something we could do for a framework adjustment.

CHAIR NOWALSKY: All right thanks for that. I think that's the answer we're going to move forward with. Dan Farnham, last word, and then we're going to vote.

MR. FARNHAM: I think it might be helpful if we could take another look at the revised table from the Massachusetts option here. The revised table, but with New York not at 9 percent, at 7 percent. Is there any way we could take a look at that before we caucus and vote?

CHAIR NOWALSKY: We should be able to put that up. We'll take a three-minute caucus. Staff, you can put that back up as this motion is written, correct? I'm going to take their silence as they're working really hard to make that happen. While they are going to either get it up, or they're not. We're going to take three minutes to caucus, and we'll be back. Hopefully during that three-minute period, we'll get that up there.

CHAIR LUISI: Hey Adam, this is Mike. Do you think you can maybe add a few minutes to that caucus, maybe five?

CHAIR NOWALSKY: We'll go five, Mike. We'll see everybody back here at 5:20.

CHAIR LUISI: Sounds good, thanks.

CHAIR NOWALSKY: Those that are diligently caucusing, but can still see the screen and hear me. Staff has completed putting up the percentages as they apply to the current motion. Thanks so much for your efforts. All right, we're back. Here is what we're going to do. We're going to go ahead and vote on this motion.

If the motion passes, we're then going to go ahead and dispense with the other matters regarding implementation dates. If it doesn't pass, then what we're going to do is we're going to take another five-minute break to allow myself to consult with Mike and other staff about what they think we might still be able to accomplish today, should this not pass, or just to give a final what our path forward here is at this point. But again, the shortcoming here is not

being able to be in a room to huddle somewhere. If this passes then we'll move on with our business.

If it doesn't, then I'm going to need a couple minutes just to consult with staff, and Mike as Chair of the Council, to determine what else he thinks we could possibly accomplish today. If staff could go ahead and put the motion back up on the board, please. All right, the motion is back up. For the Board, all those delegations in favor.

**If you could go ahead and clear the hands, Toni. Okay, for the Board, all those delegations in favor of the motion, please raise a hand. All right, I count 10 in favor, Delaware, Maryland, New Hampshire, New Jersey, Connecticut, National Marine Fisheries Service, North Carolina, Rhode Island, PRFC, and Massachusetts. Please clear the hands.**

**I'm waiting for all the hands to go down. They are now all down. All delegations opposed. I have two opposed, Virginia and New York. The motion carries the Board by a vote of 10 to 2. I'll turn it over to you, Mr. Chairman to call the Council question.**

MS. KERNS: Did we lose Mike?

CHAIR NOWALSKY: Well, he's on mute on the webinar. We're waiting, you're back off mute on the webinar, Mike.

CHAIR LUISI: I'm sorry about that, I was having a sidebar on the other line. Okay, so I don't need to read the motion back into the record. I'm just going to call the question of the Council. With the question before us, for those members of the Mid-Atlantic Council that support the motion, can you please raise your hand? I'm going to have Toni call your names out, since I can't see those.

MS. KERNS: Mike, I'm just letting the hands come up, because they shift in order.

CHAIR LUISI: Take your time. Once everybody gets settled, if you could just read the names of those in support, and then we'll do opposition.

MS. KERNS: I have David Stormer, Kate Wilke, Sara Winslow, Peter Hughes, Peter deFur, Sonny Gwin, Kris Kuhn, Chris Batsavage, Joe Cimino, Michelle Duval, Mike Pentony, and Scott Lenox, so I have 12.

CHAIR NOWALSKY: Add Adam Nowalsky to that list, I can't raise the hand as the organizer, thank you very much.

MS. KERNS: Thanks Adam, sorry I wasn't looking at my phone, so that is 13 in favor. I'm going to put your hands down. The hands are down, Mike.

MS. TINA L. BERGER: Toni, I count 14, sorry.

MS. KERNS: There was a member of the public with their hand up, so it's okay, thanks though.

MS. BERGER: Got you!

CHAIR LUISI: We have 13 in favor, all of those who oppose the motion, please raise your hand. Toni will count those down.

MS. KERNS: I have Ellen Bolen, Maureen Davidson, Wes Townsend, Dan Farnham, Tony DiLernia, Dewey Hemilright, and Paul Risi, so I have 7.

CHAIR LUISI: That sounds right, are there any abstentions?

MS. KERNS: I don't see any hands raised with an abstention.

**CHAIR LUISI: There are 0 abstentions, motion carries the Council. Back to you, Adam.**

CHAIR NOWALSKY: Thank you very much. I think everyone has done a tremendous job in working forward on this today. This has definitely been very hard, and we're not quite done yet. Now that we have approved options for the document, there are two separate actions that would still need to occur for the Board only, an implementation date would have to be approved.

I think we had seen earlier today in the presentation, it doesn't seem like today anymore, but it still is. I

think we have seen a proposed January 1, 2022 implementation date from staff. On the Council side we would need a motion to submit the Allocation Amendment to the Service. Let me start on the Board side, and again, many, many, thanks to everyone involved here today around the table, and thank you to the public for participating. We would need a motion for the Board for an implementation date.

MS. KERNS: Mike Luisi, your microphone is on.

CHAIR NOWALSKY: Nichola.

MS. MESERVE: Could I do both of those things in one motion?

CHAIR NOWALSKY: No, unfortunately not, as a Board member you're going to have to make the Board motion only, I believe.

**MS. MESERVE: Right, I meant, okay if they have to be like motions then I would move to approve a January 1, 2022 implementation date for Addendum XXXIII. That was the combined motion I wanted to make, thank you, staff. Move to approve Addendum XXXIII as modified today, with an implementation date of January 1, 2022.**

CHAIR NOWALSKY: Thank you, Nichola. Is there a second, Justin Davis, you are seconding this motion, is that correct?

DR. DAVIS: That is correct.

CHAIR NOWALSKY: Thank you very much. Again, this is a Board only motion. Given the nature of the last vote, I'm going to go ahead and ask for a show of hands on this. All delegations in favor of the motion, please go ahead and raise your hands. **I'm counting 9 in favor; Delaware, New Hampshire, New Jersey, Connecticut, North Carolina, Rhode Island, New York, PRFC, and Massachusetts.** Go ahead and put all those hands down. Delegations in opposition, please go ahead and raise your hands. No hands raised, abstentions.

MS. BOLEN: Mr. Chair, this isn't an abstention, I was trying to vote yes to approve as modified. I think I got my hand up late, this is Ellen.

CHAIR NOWALSKY: Let's go backwards for a moment. Let's clear the hands. We've come this far, let's do this right. All delegations in favor of the motion. **Eleven in favor, and that is going to be all states, and this is going to be an abstention from the Service, would that be correct?**

MR. PENTONY: Yes.

CHAIR NOWALSKY: This motion carries 11 in favor, no opposition, one abstention.

MS. KERNS: Adam, when you say without opposition, is NOAA Fisheries? You already, sorry.

**CHAIR NOWALSKY: That's correct. There are 11 in favor, no opposed, 1 abstention, and that abstention is NOAA Fisheries.**

MS. KERNS: I'm not sure if that's Maya or Caitlin now. Can you just write motion carries without objection, with one abstention from NOAA Fisheries? Thank you, because this is final action, so I just need to make that note.

CHAIR NOWALSKY: I will turn it over now to Chairman Luisi, who has now gone offline. Mike, are you still with us? Well, Wes Townsend, you're on the spot.

MR. WES TOWNSEND: All right, not a problem. I guess I don't have to read the motion either.

CHAIR NOWALSKY: Wes, you are going to have to ask for the motion to submit the Allocation Amendment to the Service.

MR. TOWNSEND: Okay, so I guess I am going to have to take the motion to ask the Council to send the recommendation to the Service, is that correct?

CHAIR NOWALSKY: I think staff will.



**MR. TOWNSEND: Move to submit the Black Sea Bass Commercial State Allocation Amendment, with identification of the preferred alternative to National Marine Fisheries Service.**

**MR. deFUR: Move to submit, Peter deFur.**

MR. TOWNSEND: Do we have a second?

MS. KERNS: Joe Cimino.

MR. TOWNSEND: All right, I don't think we need really any more discussion on this, so all those in favor raise your hand.

MS. KERNS: I'm just waiting for the hands to settle, Wes, and then I will read them out for you. I have David Stormer, Ellen Bolen, Sara Winslow, Peter Hughes, Peter deFur, Sonny Gwin, Kris Kuhn, Chris Batsavage, Joe Cimino, Michelle Duval, Dewey Hemilright, and Adam Nowalsky.

MR. TOWNSEND: All right, should be 12.

MS. KERNS: I have 12, yes, and I'm going to put the hands down for everybody when the hands are clear we'll move on.

MR. TOWNSEND: All right, all those in opposition, please raise your hands.

MS. KERNS: Waiting for the hands to settle here. I've lost some Council members. I have Tony DiLernia and Paul Risi.

MS. BOLEN: Hey Toni, this is Ellen again. I'm speaking up for Kate Wilke, who is saying that she cannot raise her hand and cannot speak.

MS. KERNS: Okay.

MS. BOLEN: But she supported the motion.

MR. deFUR: Yes, she was a yes, this is Peter deFur. Exactly what Ellen said.

MR. TOWNSEND: That means our total now should be 13 to 2, so it passes.

CHAIR NOWALSKY: Would you like to confirm any abstentions on that vote?

MR. TOWNSEND: Oh, yes, any abstentions? Thank you, Adam.

MS. KERNS: I hadn't put the hands down yet, so if you guys don't mind, let me just get the hands down, and Wes, if you could ask them to raise their hands again.

MR. TOWNSEND: Tell me when you're ready, Toni.

MS. KERNS: I'm ready now.

MR. TOWNSEND: All right, any abstentions?

MS. KERNS: I have three abstentions, Maureen Davidson, Dan Farnham, and Mike Pentony.

MR. TOWNSEND: All right, that should make our totals 13, 2 to 3, is that what you have?

MS. KERNS: Yes.

**MR. TOWNSEND: With that the motion passes this time, and Adam, I guess it's back to you now.**

CHAIR NOWALSKY: Mike looks like he's on about four different times now. Are you with us, Mr. Chairman? No, all right, struggling. Thanks so much for that, Wes, appreciate it. If I haven't said thank you, I'll say thank you again. Let me turn to staff. Is there any other business that needs to come before us on this action today?

MS. KERNS: Adam, I just wanted to say thank you to Caitlin for all her hard work on black sea bass, in particular this document. I don't know if everybody realizes if all the Council members know that Caitlin has switched on to some new species, and Savannah Lewis is going to be taking over full time for black sea bass. I just wanted to say thank you to Caitlin for this, and onward to new challenges with lobster.

These minutes are draft and subject to approval by the Summer Flounder, Scup and Black Sea Bass Management Board.  
The Board will review the minutes during its next meeting.

Draft Proceedings of the Summer Flounder, Scup, and Black Sea Bass Management Board and  
Mid-Atlantic Marine Fisheries Council Meeting Webinar  
February 2021

CHAIR NOWALSKY: I'll reiterate my thanks as well from earlier today, and we managed to get an extra 68 minutes out of her on sea bass today, Toni.

MS. KERNS: I'm sure she loved it.

**ADJOURNMENT**

CHAIR NOWALSKY: I'm sure she did. All right, seeing no further business, and having completed the agenda as it was provided, we are adjourned. Thank you very much everyone, and many thanks to the Council for joining us today, and we look forward to you hosting us next week on the bluefish side. Thanks so much.

(Whereupon the meeting adjourned at 5:40 p.m. on  
February 1, 2021)



# Atlantic States Marine Fisheries Commission

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## ASMFC De Minimis Discussion Paper

*April 2021*

### **Background**

The Atlantic States Marine Fisheries Commission (Commission) includes *de minimis* provisions in interstate Fishery Management Plans (FMP) to reduce the management burden for states that have a negligible effect on the conservation of a species. The *de minimis* provisions in the FMPs vary by species and include a range of requirements for management measures, reporting requirements, and *de minimis* qualification periods. Current *de minimis* provisions in Commission FMPs are summarized at the end of this document.

The ISFMP Charter includes a definition of *de minimis* and the requirement to include *de minimis* provisions in the FMP.

*Definition: De minimis – A situation in which, under existing conditions of the stock and the scope of the fishery, conservation and enforcement actions taken by an individual state would be expected to contribute insignificantly to a coastwide conservation program required by an FMP or amendment.*

*FMP Provisions: ... and provided that each fishery management plan shall address the extent to which States meeting de minimis criteria may be exempted from specific management requirements of the fishery management plan to the extent that action by the particular States to implement and enforce the plan is not necessary for attainment of the fishery management plan's objectives and the conservation of the fishery.*

### **Previous ISFMP Policy Board Discussions**

The ISFMP Policy Board has discussed the *de minimis* provisions contained in the interstate FMPs in the past. The Policy Board discussion focused on the balance between standardization across FMPs and the flexibility for the species management boards in developing *de minimis* provisions. The idea of allowing the states to request *de minimis* status for recreational, commercial, or both sectors was introduced. The Policy Board also discussed the appropriate approach to implement changes to plan *de minimis* provisions. Two options were considered, (1) establishing a broad policy that would modify the *de minimis* provisions in all FMPs or, (2) each species board would consider modification to the provisions as amendments or addenda are developed.

While no decisions were made, a number of Policy Board members favored plan-specific consideration of standardizing the *de minimis* provisions rather than a broad policy statement.

Given the current provisions in the FMPs, a broad policy that would allow states to apply for sector specific *de minimis* status for each species would result in uncertainty regarding the provisions that a state is exempted from implementing. For example, if a state applied for *de minimis* status for its recreational lobster fishery, the current wording in the FMP does not detail the management measures that the state would be exempted from. Recently, as *de minimis* has been discussed at species board meetings, the following question has been raised: if a state qualifies for *de minimis* why would it need to implement regulatory changes to the FMP, because by definition a *de minimis* states *contribution to the coastwide conservation program is insignificant?*

Does the Policy Board want to consider changes to the *de minimis* provisions of FMPs? If so should the Board (1) establish a broad policy which would have uniform provisions to qualify for *de minimis*? This would require modification of the *de minimis* provisions in the majority of FMPs. Or (2) should the Board direct each species board to consider modification to the provisions as amendments or addenda are developed. If individual species boards were directed to consider modifications, the Policy Board would need to draft specific guidance to the species boards.

<b>Species</b>	<b>De Minimis Qualification (include # of landing years if applicable)</b>	<b>Sector Application: Commercial and/or Recreational; Both (can not split them)</b>	<b>Exemption From:</b>
<b>American Eel</b>	Applicable by life stage if, for the proceeding 2 years, the average commercial landings (by weight) of that life stage constitute less than 1% of coastwide commercial landings for that life stage for the same 2 year period.	Commercial	Having to adopt the commercial and recreational fishery regulatoins for that particular life stage and any fishery-dependent monitoring elements for that life stage and any fishery-dependent monitoring elements for that life stage.
<b>American Lobster</b>	Average of last 2 years commercial landings is not more than 40,000 lbs	Commercial	All FMP requirements except coastwide measures and those deemed necessary by the Board when de minimis is granted
<b>Atlantic Croaker</b>	Average commercial or recreational landings (by weight) constitute <1% of the average coastwide commercial or recreational landings for the most recent three years in which data is available.	Commercial and/or recreational	A state that qualifies for de minimis for commercial and/or recreational fisheries is exempt from implementing management response for the de minimis fishery when the 30% moderate response level from the Traffic Light Approach is triggered.
<b>Atlantic Herring</b>	Average of last three years' combined commercial landings (weight) is < 1% of coastwide for same two years	Commercial	Not specified in Plan
<b>Atlantic Menhaden</b>	A state's bait landings must be less than 1% of the total coastwide bait landings for the most recent two years. State(s) with a reduction fishery are not eligible for de minimis	Commercial (There is no management of the recreational fishery)	If granted de minimis status by the Board, states are exempt from implementing biological sampling as well as pound net catch and effort data reporting.

	consideration		
<b>Atlantic Sturgeon</b>	NA	NA	NA
<b>Black Drum</b>	The average combined commercial and recreational landings (by weight) constitute less than 1% of the average coastwide commercial and recreational landings in the most recent three years in which data is available.	Both	Not specified in Plan
<b>Black Sea Bass</b>	NA	NA	NA
<b>Bluefish</b>	Commercial landings less than 0.1% of the total coastwide commercial landings in the last preceding year for which data is available	Commercial	Allocated 0.1% of commercial quota. Exempt from the Biological Monitoring Program.
<b>Cobia</b>	In order for a state to be considered de minimis for its recreational fishery, its recreational landings for 2 of the previous 3 years must be less than 1% of the coastwide recreational landings for the same time period. In order for a state to be considered de minimis for its commercial fishery, its commercial landings for 2 of the previous 3 years	Commercial and/or recreational	A recreational de minimis state may choose to match the recreational management measures implemented by an adjacent non-de minimis state (or the nearest non-de minimis state if none are adjacent) or limit its recreational fishery to 1 fish per vessel per trip with a minimum size of 33 inches fork length (or the total length equivalent, 37 inches). Commercial de minimis states are subject to the same commercial regulations as the rest of the coastwide fishery but are not required to monitor their in-season harvests.

	must be less than 2% of the coastwide commercial landings for the same time period.		
<b>Horseshoe Crab</b>	For the last 2 years, a state's combined average landings, based on numbers, must be < 1% of coastwide landings for same 2-year period	Commercial	States that qualify for de minimis status are not required to implement any horseshoe crab harvest restriction measures, but are required to implement components A, B, E and F of the monitoring program.
<b>Jonah Crab</b>	States may qualify for de minimis status if, for the preceding three years for which data are available, their average commercial landings (by weight) constitute less than 10 1% of the average coastwide commercial catch	Commercial	States who qualify for de minimis are not required to implement fishery independent and port/sea sampling requirements
<b>Northern Shrimp</b>	NA	NA	NA
<b>Red Drum</b>	The PRT chose to evaluate an individual state's contribution to the fishery by comparing the two-year average of total landings of the state to that of the management unit.	Not specified in Plan	De minimis status does not exempt either state from any requirement; it may exempt them from future management measures implemented through addenda to Amendment 2, as determined by the Board.
<b>Scup</b>	NA	NA	NA

<b>Shad and River Herring</b>	A state can request de minimis status if commercial landings of river herring or shad are less than 1% of the coastwide commercial total.	Commercial	De minimis status exempts the state from the subsampling requirements for commercial biological data.
<b>Spanish Mackerel</b>	The previous three-year average combined commercial and recreational catch is less than 1% of the previous three-year average coastwide combined commercial and recreational catch.	Both	Those states that qualify for de minimis are not required to implement any monitoring requirements, as none are included in the plan.
<b>Spiny Dogfish</b>	Commercial landings are < 1% of coastwide commercial landings	Commercial only	State is exempt from the monitoring requirements of the commercial spiny dogfish fishery for the following fishing year. However, must continue to report any spiny dogfish commercial or recreational landings within their jurisdiction via annual state compliance reports.
<b>Coastal Sharks</b>	Not specified in Plan; determined on a case by case basis.	Not specified in Plan	Not specified in Plan, but unnecessary to implement all regulatory requirements in the FMP
<b>Spot</b>	A state qualifies for de minimis status if its past 3-years' average of the combined commercial and recreational catch is less than 1% of the past 3-years' average of the coastwide combined commercial and recreational catch.	Both	A state that qualifies for de minimis for both fisheries is exempt from implementing management response for the de minimis fisheries when the 30% moderate response level from the Traffic Light Approach is triggered.
<b>Spotted Sea Trout</b>	A state qualifies for de minimis status if its previous three-year average combined commercial and recreational catch is less than 1% of the previous three-year average	Both	Those states that qualify for de minimis are not required to implement any monitoring requirements, as none are included in the plan.



	coastwide combined commercial and recreational catch.		
<b>Striped Bass</b>	Average of last two years' combined commercial and recreational landings (lbs) is < 1% of coastwide for same two years	Both	State requested requirements that the Board approves (except annual reporting)
<b>Summer Flounder</b>	Landings from the last preceding calendar year which data are available are less than 0.1% of the total coastwide quota for that year	Commercial	State quota will be 0.1 % of the coastwide quota and subtracted from the coastwide quota before allocation to the other states (state waters only)
<b>Tautog</b>	Most recent years commercial landings are < 1% of coastwide commercial landings or less than 10,000 lbs	Commercial	The de minimis state is required to implement the commercial minimum size provisions, the pot and trap degradable fastener provisions, and regulations consistent with those in the recreational fishery (including possession limits and seasonal closures). The state must monitor its landings on at least an annual basis. If granted de minimis status, a state must continue to collect the required 200 age/length samples.
<b>Weakfish</b>	Combined average commercial and recreational landings (by weight) constitute less than 1% of the coastwide commercial and recreational landings for the most recent two year period.	Both	The recreational or commercial fishing provisions of Amendment 4, except BRD requirements and annual reporting
<b>Winter Flounder</b>	Preceding three years landings for which sector data are available	Commercial and/or recreational	Biological monitoring/sub-sampling activities for the sector for which <i>de minimis</i> has been granted

	average <1% sector coastwide landings		
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**Attendees:** Kiley Dancy (MAFMC), Deirdre Boelke (NEFMC), Roger Pugliese (SAFMC), Sean Lucey (NEFSC), Toni Kerns (ASMFC), Moira Kelly (NMFS GARFO), Brandon Muffley (MAFMC)

The core team reviewed a draft document with an overview of a proposed east coast climate change scenario planning process. The core team recommended some modifications to this document which will be provided to the Northeast Region Coordinating Council (NRCC), including leadership from the SAFMC, for discussion and approval. A summary of the core team comments during this meeting is provided below.

### **Core Team Membership**

- The core team recommends that the NRCC consider adding Wendy Morrison from NMFS headquarters to the core team, if available. Wendy served on the previous NRCC working group and has valuable experience with other NMFS scenario planning and climate change initiatives.
- The core team also recommends requesting involvement from a Southeast Fisheries Science Center (SEFSC) staff member, if there is someone available with the relevant climate change and fisheries expertise for the South Atlantic region. The core team felt that the group could use another individual with extensive science and climate background. While there was not a specific individual recommended at this time, SAFMC staff will explore potential individuals with relevant expertise that could be requested if the NRCC and SEFSC agree to this participation.

### **Facilitation**

- The core team was supportive of the proposed facilitation contract with Jonathan Star of Scenario Insight LLC and acknowledged throughout their meeting that much of the planning, including development of project objectives, timeline, and process, should be informed by future discussions with an experienced facilitator.
- The group discussed how the timing of bringing a facilitator on board may overlap with the beginning stages of this initiative. A scope of work for a contractor is in development currently, but it is still unknown exactly when a facilitator may start work on this project. This will influence the timing of the beginning stages of the project including scoping.

### **Objectives and Expected Outcomes**

- The core team agreed that identifying clear objectives early is important but noted that the advice of a facilitator on the most effective and efficient way to develop objectives will be important on this subject.
- The core team will draft strawman potential objectives for NRCC feedback, targeting the NRCC's late May meeting. Ideally, the facilitator would be able to provide advice on this subject as well prior to this May meeting, but the timing may be tight. Development of objectives can be an iterative process.

- The core team noted that it would be beneficial to leave objectives and focal questions as draft through the scoping process so that they can be refined if needed based on stakeholder input. This would improve buy-in and allow stakeholders to provide some early direction for this project.
- The NRCC should also review and discuss the preliminary list of possible expected outcomes currently in the draft document. These outcomes are something that the core team, facilitator, and NRCC should continue to develop as this process unfolds, but it will be important to clarify for stakeholders what deliverables they can expect out of this process.
- The draft outcomes in the document are relatively standard for a scenario planning process, but more specificity may be needed eventually to make them more relevant and specific to east coast management processes and enhance understanding by stakeholders.
- Eventually, clarification will be needed on how specific and far reaching the expected outcomes will be. The core team notes that the results will generally be more along the lines of broader organizational planning and strategizing, and recommendations related to governance issues. This process is not likely to result in highly specific fishery management plan level proposed changes. Scenario planning is more strategic and qualitative, not quantitative or species specific like a Management Strategy Evaluation.
- Region-specific applications and recommendations could be considered later in the process, but the core team would be wary of doing so in place of coast-wide recommendations and applications, given that this initiative should be aiming for improved coordination, cooperation, and multi-jurisdictional governance structures.

### **Timeline**

- Overall, the group felt that the tentative timeline presented to the NRCC in November 2020 (see Nov. 4 memo from MAFMC staff<sup>1</sup>) was overly ambitious and will likely need to be pushed back especially in the beginning stages. A facilitator has not yet started work on this process, and in addition, the group noted that scoping is likely to take longer than initially planned (see “Process and Scoping” below).
- The aim to have a scenario building workshop in late Fall 2021 may be reasonable but it depends on how quickly the scoping process gets started and how extensive the scoping phase is (e.g., use of surveys, multiple public meetings, etc.) as well as workshop preparation.
- NRCC feedback is needed on the feasibility of the draft timeline presented in the proposed process document as well as commitment from each body to provide adequate staff and resources.

### **Process and Scoping**

- Because scenario planning will be new to most participants (i.e., managers and stakeholders) and may cause confusion, the core team recommends investing the time and effort into ensuring that participating organizations and their stakeholders are well-informed about scenario planning basics and the goals of this project. Making sure the

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<sup>1</sup> Available at <https://www.mafmc.org/s/Scenario-planning-Nov-2020-for-NRCC.pdf>

scoping process is done well will help the NRCC get useful scoping input and help build stakeholder buy-in for this initiative.

- One way to contribute to up-front education would be some kind of kick off webinar and/or introductory video or presentation that could be presented to each management body, distributed to interested stakeholders, and posted online.
- Facilitator advice should be sought on the appropriate level of scoping and introductory materials. This might depend on the overall plan for how in-depth this process will be and the level of stakeholder engagement at each step. Scoping could involve regional workshops to get regional concerns first, followed by potential areas of overlap in concerns, but this should be further discussed with a facilitator.
- The core team noted that scoping feedback does have the potential to be overwhelming given the number and diversity of stakeholders involved along east coast. The need to get useful, focused input in a manageable way will have to be balanced with transparency in the process and reaching out to a broad stakeholder audience. More open-ended feedback would be more difficult to analyze, so the core team may need to consider asking fairly targeted questions.
- The proposed two-workshop model process provides a few major opportunities for potential stakeholder involvement: during scoping/development of information leading up to the first workshop, participating in the scenario building process (first workshop), and participating in the process to address applications of the scenarios (potential second workshop). Taking a broader initial approach to stakeholder engagement during scoping should be considered, while the workshops and latter stages of the process will likely need to be more focused and limited in terms of participation.

### **Other Comments**

- The group discussed how to coordinate updates and discussions for individual management bodies. For example, the MAFMC and NEFMC will coordinate information for updates on this topic at their respective April meetings. The ASMFC intends to use similar information to discuss this topic at their spring meeting in May, prior to the NRCC meeting. However, the SAFMC met in March and will not meet again until June, so they would be unable to review and discuss this topic as a full body before the NRCC discusses this topic in May. Due to different timing of various meetings, the level of information or discussion for each group may be different throughout this process but coordination of timing and messaging to the extent possible would be helpful and the core team discussed preparing consistent slides and documents for future presentations.
- The core team noted that SAFMC representation on the NRCC for discussions related to this initiative is currently expected to consist of the SAFMC Executive Director. The core team noted that it may also be beneficial to include SAFMC Council leadership (e.g., the Council chair) in these discussions.

# Proposed Framework for East Coast Climate Change Scenario Planning Initiative

## DRAFT for NRCC Review

*March 2021*

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### Overview

In November 2020, the Northeast Region Coordinating Council (NRCC) agreed to move forward with an east coast scenario planning initiative as a way to explore jurisdictional and governance issues related to climate change and shifting fishery stocks. The NRCC consists of leadership from the Atlantic States Marine Fisheries Commission (ASMFC), Greater Atlantic Regional Fisheries Office (GARFO), Mid-Atlantic Fishery Management Council (MAFMC), New England Fishery Management Council (NEFMC), and Northeast Fisheries Science Center (NEFSC). In addition, the NRCC and the South Atlantic Fishery Management Council (SAFMC) agreed that the SAFMC should participate in the process as well given that governance issues related to climate change and shifting stocks will need to be addressed along the entire East Coast.

Scenario planning is a tool that managers can use to test decisions or develop strategy in a context of uncontrollable and uncertain environmental, social, political, economic, or technical factors.<sup>1</sup> It is a structured process for managers to explore and describe multiple plausible futures and to consider how to best adapt and respond to them. Scenario planning is not a tool for predicting future conditions; rather, scenarios are essentially stories about plausible combinations of future conditions that allow for explicit consideration of uncertainty in future conditions. Scenarios are created in response to a focal question developed based on a major strategic challenge faced by an organization.

This document describes a proposed plan for a coordinated East Coast Scenario Planning Initiative. Some of the content below is adapted from the July 2020 recommendations of an NRCC scenario planning working group,<sup>2</sup> which was formed in 2020 to explore this concept and provide recommendations to the NRCC. The working group included representatives from all NRCC partners as well as NMFS Headquarters and the SAFMC.

As this process develops, additional information and documents will be posted to a dedicated website: <https://www.mafmc.org/actions/climate-change-scenario-planning>.

### Core Team

The core team for this project, listed below, will serve as the primary technical group working on this project in coordination with a contracted facilitator. Along with the facilitator, the core team will be responsible for much of the research, planning, coordination, and compiling of materials for this process. The core team is analogous to a Fishery Management Action Team (FMAT) or Plan Development Team (PDT) used in the development of Council management actions. The NRCC may determine that additional expertise is needed on this technical working group.

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<sup>1</sup> National Park Service, 2013. Using Scenarios to Explore Climate Change: A Handbook for Practitioners. National Park Service Climate Change Response Program. Fort Collins, Colorado. Available at: [https://www.nps.gov/parkhistory/online\\_books/climate/CCScenariosHandbookJuly2013.pdf](https://www.nps.gov/parkhistory/online_books/climate/CCScenariosHandbookJuly2013.pdf).

<sup>2</sup> Available at: [link to be added]

<b>Organization</b>	<b>Representative</b>
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ASMFC	Toni Kerns
NMFS GARFO	Moira Kelly
NEFMC	Deirdre Boelke
NMFS NEFSC	Sean Lucey
SAFMC	Roger Pugliese

### **Facilitation**

The NRCC agreed that an experienced process facilitator should be contracted to support the scenario planning exercise through the majority of the process. The scope of work for a facilitator is in development as of March 2021. The facilitator will be expected to work with the core team on major steps of this process including conducting a scoping process for gathering preliminary stakeholder input, developing materials and logistics for a scenario building workshop, facilitating and summarizing a scenario building workshop, and facilitating a follow up process to explore applications of the scenario building outcomes.

Funding for the facilitator will be provided by The Nature Conservancy (TNC), which was awarded a grant from the Gordon and Betty Moore Foundation to support East Coast scenario planning efforts in partnership with the NRCC. The Atlantic States Marine Fisheries Commission has agreed to administer these funds, which are expected to cover some costs of this initiative including process facilitation, meeting facilities and/or technology contracts for remote meeting platforms, potentially public invitational travel, and other miscellaneous expenditures such as printing, outreach, or scoping surveys. It is expected that the Councils, Commission, and agency personnel would have their respective participation costs paid by their organization.

### **Benefits of Scenario Planning**

As noted above, scenario planning is a tool that managers can use to test decisions or develop robust strategies in a context of uncontrollable and uncertain environmental, social, political, economic, or technical factors. In the case of the NRCC, conducting an east coast scenario planning exercise will be designed to evaluate challenging climate change related management and governance issues in a changing ocean environment across multiple jurisdictions. Scenario planning can be a useful tool in not only exploring and describing multiple plausible futures, but also to advance discussion of how an organization can plan for or adapt to different possible future scenarios.

Scenario planning can consider broader uncertain forces in the world such as societal change, climate and environmental change, as well as changes in the policy and legal environment, and consider how these drivers that are outside of the organization's control may affect organizational priorities and planning. Some benefits of scenario planning are that this process:

- Forces participants to explore their underlying assumptions and perceptions about the range of possible future conditions.
- Reduces the tendency for managers to become overconfident in their expectations of future conditions, too focused on a limited view of the future, or paralyzed by uncertainty.
- Provides a way to organize complex information about changing conditions and stimulates creative and innovative thinking about how to prepare for change, in a way that is disconnected from the typical regulatory process.

- Provides an opportunity for proactive thinking and planning, allows participant groups to be well positioned to be collectively ahead of the curve instead of merely reacting to new and dynamic information as it occurs.
- Can enhance stakeholder engagement, provide diversity and equity in decision making, and foster creativity and social innovations from stakeholders.

### **Project Objectives and Expected Outcomes**

The NRCC has identified the major issue to be addressed through this process as governance and management issues related to climate-driven changes in the fisheries, particularly changing stock distribution. The core team, facilitator, and NRCC will work to refine specific project objectives and focal questions to be addressed, as it is important to clarify the objectives of scenario planning at an early stage. In addition, these groups will identify a future time scale over which to evaluate driving forces in the fisheries and develop scenarios of future conditions, i.e., should the process consider possible conditions over the next 10, 20, 30 years or more? The time frame should be long enough to sufficiently consider longer term uncertainties and changes in conditions but should be short enough that near-term actions and strategies would still be relevant to influencing responses to future conditions. These objectives and time frame may need to be refined as the project progresses, particularly following a stakeholder scoping process.

The core team, facilitator, and NRCC will also work to further clarify the expected outcomes and products of this initiative. Some possibilities include:

- Development of near-term and long-term management priorities related to scenario outcomes. Specifically, managers can use the resulting scenarios to prioritize near-term actions that are likely to be beneficial under a range of future conditions and by planning to avoid actions that may reduce flexibility or increase the difficulty of adapting to future conditions. These recommendations may be organization-specific, broadly applicable across organizations, or some combination of both.
- Develop a better understanding of the limitations of current systems that may not be nimble enough to respond to change.
- Develop policy recommendations for broader governance changes that would improve our ability to adapt to varying future scenarios.
- Develop a list of data gaps, research needs, and monitoring needs for changing conditions.

### **Structure for Oversight and Participation**

The ultimate decision-making management body for this process will be the NRCC with the addition of at least one South Atlantic representative. Given the number of management groups involved and the variation in their decision-making processes and timelines, it is unlikely to be feasible to seek explicit approval at each process step from each management body. Instead, it is expected that participating organization representatives will provide periodic updates to their respective management bodies and seek their feedback for incorporation into the core team/NRCC process.

It is also possible that Council and Commission advisory bodies could be used to inform various parts of the process where appropriate. Specifically, Committees, Advisory Panels, Technical Committees, and/or SSCs could provide input during the scoping process, during the developing of specific driving forces to be explored during a scenario building workshop, and in the development of applications and products from this process. Members of these groups could also be identified to participate directly in the planned



workshops. The core team should discuss the feasibility of involvement of these groups, weighing the additional complexity of involving many different groups.

As the process develops, further discussion will occur to identify how participants will be directly involved in the development of the scenarios and/or the development of applications and recommendations.

**Proposed Scenario Planning Process and Timeline**

The proposed scenario planning process consists of six major steps and is outlined in the table below. This process is adapted from the recommendations of the NRCC working group in July 2020 and is loosely based on the scenario planning process outlined in the NPS 2013 scenario planning handbook.

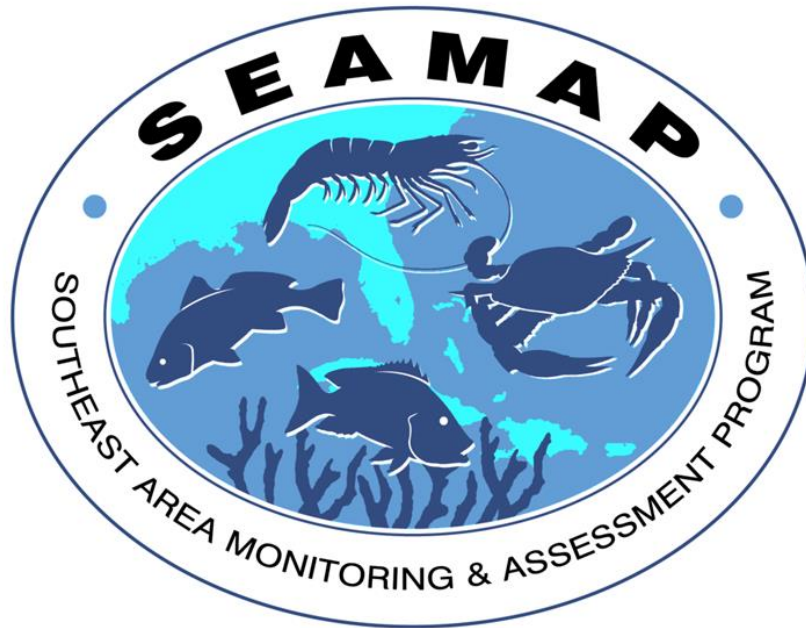
The NRCC working group recommended that the NRCC adopt a two-workshop model: the first workshop would be held to develop the draft scenarios in phase 4, and the second workshop would be held in phase 5 to discuss how the insights from these scenarios should be applied in the management process, including developing recommendations for management and governance strategies and priorities.

**Table 1: Proposed process for scenario planning, adapted from NRCC working group July 2020 recommendations and based loosely on NPS 2013 Handbook stepwise process. Approximate timeline is tentative pending further NRCC discussion.**

	Goal	Steps	Outcomes/Products	Who/What	When
<b>Phase 1: Orientation</b>	Establish project objectives, guidance structure, process, and timeline	<ul style="list-style-type: none"> <li>Form core team</li> <li>Develop facilitation contract</li> <li>Establish process, purpose, and scope of project, including focal issue (strategic challenge) to explore</li> <li>Determine decision-making structure</li> <li>Determine type of desired outcomes</li> <li>Plan for scoping process</li> </ul>	<ul style="list-style-type: none"> <li>Framework and timeline for a proposed process</li> <li>Contract with outside scenario planning expert/facilitator</li> <li>An understanding of the purpose, desired outcomes, focal issue, and scope of project</li> <li>Plan for scoping</li> </ul>	<ul style="list-style-type: none"> <li>Core team and facilitator with input from NRCC if needed</li> </ul>	Late 2020 – Early Summer 2021
<b>Phase 2: Scoping</b>	Gain stakeholder perspectives on focal issue and external driving forces for east coast fisheries	<ul style="list-style-type: none"> <li>Work with core team and facilitator to conduct structured outreach (“scoping” process)</li> <li>Refine project objectives and focal question if needed based on scoping feedback</li> </ul>	<ul style="list-style-type: none"> <li>Synthesize public and stakeholder input for further use in process, particularly regarding focal question and external driving forces to be further explored during scenario building workshop</li> <li>Introduce stakeholders to scenario planning and potential application in this context</li> <li>Build preliminary list of possible workshop participants</li> </ul>	<ul style="list-style-type: none"> <li>Core team, facilitator, interested stakeholders and public</li> </ul>	Summer 2021

	Goal	Steps	Outcomes/Products	Who/What	When
<b>Phase 3: Exploration</b>	Identify and analyze drivers, variables, trends, and uncertainties	<ul style="list-style-type: none"> <li>Identify and describe drivers, variables, and uncertainties from interviews with experts, advisory bodies, core team, public input results</li> <li>Identify potential impacts of these drivers</li> <li>Plan for discussion during synthesis phase (i.e., scenario building workshop)</li> </ul>	<ul style="list-style-type: none"> <li>A list of drivers, variables, or uncertainties that are likely to impact east coast fisheries over the specified time horizon</li> <li>Supporting introductory information on these drivers, such as overview text, tables, conceptual models, charts, or maps that will help process participants discuss potential impacts</li> </ul>	<ul style="list-style-type: none"> <li>Core team &amp; facilitator, with input from experts, management &amp; advisory bodies, stakeholders</li> </ul>	Fall 2021
<b>Phase 4: Synthesize &amp; Create Scenarios</b>	Produce small number of scenarios using critical drivers and potential impacts identified in Phase 3	<ul style="list-style-type: none"> <li>Determine critical uncertainties with large impact on focal issue</li> <li>Hold workshop to build scenario frameworks and choose scenarios</li> <li>Develop scenario narratives</li> <li>Review scenarios for plausibility</li> </ul>	<ul style="list-style-type: none"> <li>3-5 plausible, relevant, challenging and divergent scenarios using critical uncertainties to inform, inspire and test actions/strategies</li> </ul>	<ul style="list-style-type: none"> <li>Core team works with input from NRCC, others.</li> <li>Planned workshop to create scenarios</li> </ul>	Late 2021- Early 2022
<b>Phase 5: Applications</b>	Answer “So what?” questions: What are the impacts of these plausible futures? What can we do about it?	<ul style="list-style-type: none"> <li>Identify scenario implications</li> <li>Use scenarios to inform development of management strategies and priorities, and policy recommendations for future governance and research</li> <li>Develop recommendations applicable to collective group of participants and/or individual management organizations</li> </ul>	<ul style="list-style-type: none"> <li>Report with list of actions, strategies, or areas for additional research based on discussions initiated by scenarios</li> </ul>	<ul style="list-style-type: none"> <li>Core team works with input from NRCC, others.</li> <li>Workshop to understand management implications</li> </ul>	Spring/Summer 2022
<b>Phase 6: Monitoring</b>	Identify important indicators (trigger points) that can signal changes in the environment as future unfolds	<ul style="list-style-type: none"> <li>Select indicators to monitor</li> <li>Monitor environment changes</li> </ul>	<ul style="list-style-type: none"> <li>List of indicators and early warning signals for continued research and monitoring</li> <li>A monitoring strategy</li> </ul>	<ul style="list-style-type: none"> <li>Core team works with input from NRCC, others</li> </ul>	Summer/Fall 2022

# 2021-2025 SEAMAP Management Plan



Collection, Management, and Dissemination of  
Fishery-independent Data from the Waters of the Southeastern United States

Prepared by

Sarah Murray, Atlantic States Marine Fisheries Commission  
South Atlantic SEAMAP Committee  
Gulf of Mexico SEAMAP Committee  
Caribbean SEAMAP Committee

Prepared for

Caribbean SEAMAP Committee  
South Atlantic State-Federal Fisheries Management Board,  
Atlantic States Marine Fisheries Commission  
Technical Coordinating Committee, Gulf States Marine Fisheries Commission

Funding for preparation of this plan was provided by the U.S. Department of Commerce,  
NOAA, National Marine Fisheries Service under Cooperative Agreement Number  
NA16NMF4350112.



## PREFACE

Fisheries are a vital part of the nation's economy and, more specifically, the coastal communities and states of the South Atlantic, Gulf of Mexico, and Caribbean. In the region in which the Southeast Area Monitoring and Assessment Program (SEAMAP) is conducted, fisheries resources support valuable commercial and recreational fishing industries. In 2015, in the South Atlantic and Gulf region alone, commercial fishers landed over 2.9 billion pounds of seafood worth almost \$1.7 billion<sup>1</sup>. In the same year, recreational anglers across all three regions landed at least 213 million pounds of fish<sup>2</sup>. Recreational fishing is a growing industry in the SEAMAP region, where over 130 million angler trips were taken in 2018<sup>3</sup>.

Fishing and tourism industries contribute significantly to the economies of the nation's coastal communities by generating employment opportunities and associated revenues. As such, these industries directly improve quality of life and contribute to community diversity by maintaining traditional fisheries. Sustainable recreational and commercial fisheries are dependent on responsible resource management, which, in turn, requires accurate and timely data as a basis for management decisions. SEAMAP plays an integral role in providing fishery-independent data critically needed for effective fisheries management throughout the Southeastern United States, including the Atlantic, Gulf of Mexico, and Caribbean regions.

As the focus of fisheries management expands from single species management to ecosystem-based fisheries management, the need for basic information has also increased significantly. For example, in addition to the ongoing baseline data required for effective management of recreational and commercial fisheries, improved information is needed on prey and predator species life histories and interactions, essential fish habitat, and the effects of changing environmental conditions.

Long-term fishery-independent databases provide information essential to evaluating the status of the nation's fisheries, including population abundances, mortalities, recruitment, and ecological relationships. These fundamental parameters, combined with long-term assessments and monitoring, constitute the backbone of effective fisheries management. Only with this basic information can fisheries managers ascertain trends, determine potential causes of changes, and react responsibly to address these changes. Ongoing, regional fishery-independent efforts, such as those undertaken by SEAMAP, can generate data critically needed by fisheries management to address these issues.

Adequate funding continues to be a challenge in fisheries science and management. Federal and state government funding for fisheries activities will likely decrease over the coming years in order to meet the fiscal objectives of balanced budgets and reduced spending. Concomitantly, survey costs continue to increase, especially given the need for new data to

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<sup>1</sup> Fisheries of the US 2018

<sup>2</sup> Fisheries of the US 2018 (excludes Texas and Louisiana).

<sup>3</sup> Fisheries of the US 2018.

assess the status of emerging fisheries and transition to ecosystem-based fishery management. This could significantly impact the nation's capability to manage its valuable fisheries resources. However, by building partnerships, the federal and state governments can combine their limited resources to address issues of common interest. In particular, cooperative programs for collecting essential fisheries data would benefit all partners, providing valuable scientific information for management at the state, federal, and regional levels.

SEAMAP is a model partnership for cooperative federal and state data collection. SEAMAP is truly collaborative; fiscal, physical, and personnel resources are shared among participants and decisions are made by consensus. The experience and success of SEAMAP over the last 35 years illustrate its effectiveness. SEAMAP has great potential to increase and improve its usefulness for fisheries management by expanding its fishery-independent data collection programs, provided additional funding is made available. We strongly support this worthwhile program and its expansion to collect more fishery-independent data for purposes of fishery management.

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## ACKNOWLEDGMENTS

The SEAMAP Gulf, South Atlantic, and Caribbean Committees (Appendix A) would like to acknowledge those who have helped make SEAMAP such a successful program. Many individuals from various federal, state, and academic organizations provided their expertise to SEAMAP projects by serving as members of workgroups. The committees would like to thank all of the workgroup members for their efforts. In addition, the committees would like to thank the following: Jeff Rester (GSMFC), Sarah Murray (ASMFC), and Edgardo Ojeda (UPRSGCP) for their work as coordinators; Dr. Roy Crabtree and Dr. Clay Porch NMFS Regional Administrator and Regional Science Director, respectively, for their support of SEAMAP projects, including strategic planning; and the Atlantic States Marine Fisheries Commission staff for administrative support of this project. The committees also acknowledge Dr. Eric Hoffmayer for his efforts and support as SEAMAP's Program Manager at NMFS. Contributing to the success of the program are many other persons who assisted with the resource surveys and projects by providing equipment and donating their time and expertise.

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Georgia Department of Natural Resources (GA DNR)  
Gulf Coast Research Laboratory (GCRL)  
Gulf of Mexico Fishery Management Council (GMFMC)  
Louisiana Department of Wildlife and Fisheries (LDWF)  
Mississippi Department of Marine Resources (MDMR)  
NOAA Fisheries  
North Carolina Division of Marine Fisheries (NC DMF)  
South Atlantic Fishery Management Council (SAFMC)  
South Carolina Department of Natural Resources (SC DNR)  
Texas Parks and Wildlife Department (TPWD)  
US Fish and Wildlife Service (USFWS)  
Puerto Rico Department of Natural and Environmental Resources (PR-DNER)  
U.S. Virgin Islands Department of Planning and Natural Resources (USVI-DPNR)  
Caribbean Fishery Management Council (CFMC)  
University of Puerto Rico, Sea Grant College Program (UPRSGCP)

## SEAMAP COLLABORATIONS

Marine Resources Monitoring, Assessment and Prediction Program (MARMAP)  
NOAA - Beaufort, NC Laboratory  
Southeast Coastal Ocean Observing Regional Association (SECOORA)  
Southeast Fisheries Science Center Southeast Fishery-Independent Survey (SEFIS) group



## ABBREVIATIONS AND ACRONYMS

<b>ACL</b>	annual catch limits	<b>NMFS</b>	National Marine Fisheries Service (also referred to as NOAA Fisheries)
<b>AM</b>	accountability measures	<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>ASMFC</b>	Atlantic States Marine Fisheries Commission	<b>PR</b>	Puerto Rico
<b>BRD</b>	bycatch reduction device	<b>PRCRMP</b>	Puerto Rico Coral Reef Monitoring Program
<b>CFMC</b>	Caribbean Fishery Management Council	<b>PR-DNER</b>	Puerto Rico Department of Natural and Environmental Resources
<b>COASTSPAN</b>	Cooperative Atlantic States Shark Pupping and Nursery	<b>SAB</b>	South Atlantic State-Federal Fisheries Management Board
<b>CPUE</b>	catch per unit effort	<b>SAFIMP</b>	South Atlantic Fishery-Independent Monitoring Program workshop
<b>CSC</b>	Coastal Sciences Center	<b>SAFMC</b>	South Atlantic Fishery Management Council
<b>DOC</b>	Department of Commerce	<b>SC DNR</b>	South Carolina Department of Natural Resources
<b>EEZ</b>	exclusive economic zone	<b>SEAMAP</b>	Southeast Area Monitoring and Assessment Program
<b>EFH</b>	essential fish habitat	<b>SEAMAP-C</b>	Southeast Area Monitoring and Assessment Program-Caribbean
<b>FMP</b>	fishery management plan	<b>SEAMAP-Gulf</b>	Southeast Area Monitoring and Assessment Program-Gulf of Mexico
<b>FSCS</b>	Fisheries Scientific Computer System	<b>SEAMAP-SA</b>	Southeast Area Monitoring and Assessment Program-South Atlantic
<b>FRL</b>	Fisheries Research Laboratory (Caribbean)	<b>SECOORA</b>	Southeast Coastal Ocean Observing Regional Association
<b>FWRI</b>	Florida Wildlife Research Institute	<b>SEDAR</b>	Southeast Data, Assessment, and Review
<b>GA DNR</b>	Georgia Department of Natural Resources	<b>SEFIS</b>	SEFSC Southeast Fishery- Independent Survey (SEFIS)
<b>GIS</b>	Geographic Information System	<b>SEFSC</b>	Southeast Fisheries Science Center
<b>GMFMC</b>	Gulf of Mexico Fishery Management Council	<b>SERFS</b>	Southeast Reef Fish Survey
<b>GSMFC</b>	Gulf States Marine Fisheries Commission	<b>SERO</b>	Southeast Regional Office (NOAA Fisheries)
<b>GSMFC-TCC</b>	Gulf States Marine Fisheries Commission-Technical Coordinating Committee	<b>SERTC</b>	Southeastern Regional Taxonomic Center
<b>HMS</b>	highly migratory species	<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>LNG</b>	liquefied natural gas	<b>USVICRMP</b>	USVI Coral Reef Monitoring Program
<b>MARFIN</b>	Marine Fisheries Initiative Program	<b>USVI-DPNR</b>	U.S. Virgin Islands Department of Planning and Natural Resources
<b>MARMAP</b>	Marine Resources Monitoring, Assessment and Prediction Program	<b>UPRSGCP</b>	University of Puerto Rico Sea Grant College Program
<b>MSRA</b>	Magnuson-Steven Fishery Conservation and Management Reauthorization Act		
<b>NC DMF</b>	North Carolina Division of Marine Fisheries		
<b>NCRMP</b>	National Coral Reef Monitoring Program		

## EXECUTIVE SUMMARY

The SEAMAP 2021-2025 Management Plan provides a statement of current goals, management policies, and procedures for all SEAMAP components and partnerships. The plan also serves as a reference on SEAMAP history and accomplishments, and detailed priorities for future activities. The Management Plan complements the SEAMAP 2021-2025 Strategic Plan, which provides a prioritized list of future project activities to maintain and expand current activities if additional funding is available.

SEAMAP is a cooperative state/federal/university program for the collection, management, and dissemination of fishery-independent data and information in the Southeastern U.S. and Caribbean. Representatives from Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, Puerto Rico, the U.S. Virgin Islands, the U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS) jointly plan and conduct surveys of economically important fish and shellfish species and the critical habitats that support them.

SEAMAP's mission, detailed in Chapter 1 along with goals and objectives, is to provide an integrated and cooperative program to facilitate the collection and dissemination of fishery-independent information for use by fisheries managers, government agencies, recreational and commercial fishing industries, researchers, and others to enhance knowledge of marine fisheries and their associated ecosystems. SEAMAP is intended to maximize the capability of fishery-independent and associated survey activities to satisfy data and information needs of living marine resource management and research organizations in the region. The primary means of performing that task is to optimize coordination and deployment of sampling platforms used in the region to obtain regional, synoptic surveys and to provide access to the collected data through documents and accessible databases. Additional roles of SEAMAP are to document long- and short-term needs for fishery-independent data to meet critical management and research needs, and to establish compatible and consistent databases for holistic ecosystem and predictive modeling applications. SEAMAP promotes coordination among data collection, processing, management, and analysis activities emphasizing those specifically concerned with living marine resource management and habitat protection, and provides a forum for coordination of other fishery-related activities.

SEAMAP organization and management procedures and policies, fully described in Chapter 2, are structured to facilitate the implementation of the above roles. These policies and procedures include responsibilities of each member agency, development of planning documentation, and policies for program funding and budget priorities. The program presently consists of three operational components, SEAMAP-Gulf of Mexico (1981), SEAMAP-South Atlantic (1983), and SEAMAP-Caribbean (1988). Each SEAMAP component operates independently, planning and conducting surveys specific to the geographical region. Information dissemination conforms to administrative policies and guidelines of the NOAA Fisheries Southeast Regional Office (SERO). Joint coordination of the three regions is conducted annually.

Since 1982, SEAMAP has sponsored long-term standardized surveys that have become the backbone of fisheries and habitat management in the Southeast and Caribbean (Chapter 3). SEAMAP currently provides the only region-wide mechanism for monitoring long-term status and trends of populations and habitats within the region. As a cooperative effort, SEAMAP has the potential capability to monitor the distribution and abundance of fish and other populations from North Carolina through Texas and into the Caribbean.

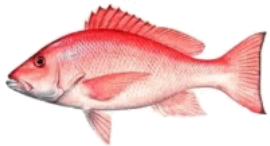
SEAMAP data have proven essential in SouthEast Data, Assessment and Review (SEDAR) stock assessments, and management decisions and in answering important ecological questions, including the following:



Assessing long-term trends in coastal marine species, thus providing data for linking population trends with changes in environmental conditions such as global warming, nutrient enrichment, and overfishing (all surveys).



Documenting and defining essential fish habitat in fishery management plans for the Gulf of Mexico, South Atlantic, and Caribbean Fishery Management Councils (all surveys).



Long-term monitoring of juvenile red snapper abundances and providing necessary information for red snapper stock assessments and habitat requirements in the region (Caribbean, Gulf, and Atlantic Reef Fish Surveys; Gulf Trawl Surveys; Gulf Plankton Surveys).



Identifying and verifying the recovery of Gulf and South Atlantic king mackerel stocks, leading to increased Allowable Catch Limits (Gulf Plankton and South Atlantic Trawl Surveys).



Providing the international community with essential data, demonstrating the need to discontinue longline fishing for Atlantic bluefin tuna in the Gulf of Mexico (Gulf Plankton Surveys).



Determining population size structures, abundances, and necessary life history information for (SEDAR) stock assessments of a variety of fish, crustaceans, mollusks, and other species (Caribbean, Gulf and Atlantic Reef Fish Surveys, Gulf and South Atlantic Trawl Surveys).



Evaluating the abundance and size distribution of penaeid shrimp in federal and state waters to assist in determining opening and closing dates for commercial fisheries (Gulf and South Atlantic Trawl Surveys).



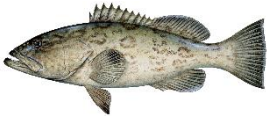
Surveying hypoxia in the Gulf of Mexico that continues to threaten the marine resources of Louisiana and adjacent states (Summer Trawl Survey).



Estimating finfish bycatch in the shrimp fisheries of the Gulf and South Atlantic, supporting bycatch reduction device regulations.



Evaluating community structure and trophic interactions in the various regions to assist in development of ecosystem models and support the transition to ecosystem-based management.



Collecting bottom habitat and snapper grouper species information, supporting designation of essential fish habitat and the establishment of deepwater marine protected areas and Spawning Special Management Zones in the South Atlantic.



Contributing to the compilation of existing deepwater habitat distribution and geologic information, which supports the South Atlantic Council's creation and conservation of 23,000 square miles of Deepwater Coral Habitat Areas of Particular Concern in the South Atlantic - the largest and least impacted deepwater coral ecosystem in the world.



Contributing to the assessment of the Deepwater Horizon oil spill impacts in the Gulf of Mexico by providing the primary baseline data in the Natural Resource Damage Assessment, as well as data used to identify species that were likely to be impacted (SEAMAP-Gulf Trawl and Plankton surveys).

The most compelling argument to continue funding is SEAMAP's ability to respond to recent and ongoing critical demands for data and information, such as those listed above, that only the program can provide. Accurate population assessments and informed resource decisions are impossible without basic annual data. Data collection and distribution activities, such as those performed by SEAMAP, are the foundation of resource assessments and responsible fisheries management. In turn, sustainable fisheries promote a continued source of recreation and employment for coastal communities. This 2021-2025 Management Plan sets the guidelines and priorities for fishery-independent data collection efforts that most appropriately use SEAMAP resources and address the needs of fisheries management in the Southeast and Caribbean regions.

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# 1 SEAMAP MISSION

## 1.1 INTRODUCTION

SEAMAP is a cooperative state/federal program for the collection, management, and dissemination of fishery-independent data in the Southeastern U.S. and Caribbean. Resulting data are used by state, federal, and interstate fisheries managers, academic researchers, and the commercial and recreational fishing industries. Long-term time series data are the foundation of SEAMAP. SEAMAP presently consists of three geographical components: SEAMAP-Gulf of Mexico (1981); SEAMAP-South Atlantic (1983); and SEAMAP-Caribbean (1988).

SEAMAP encompasses marine and estuarine waters and living marine resources within U.S. internal waters, territorial seas, and exclusive economic zones (EEZs) in the Gulf of Mexico, South Atlantic Bight, and Caribbean Sea. The scope may be expanded to include geographical areas beyond the EEZ in order to coordinate efforts with foreign governments and international bodies or commissions regarding resources of common interest. In general, the primary emphasis of SEAMAP has been on fisheries stocks subject to cooperative state/federal management, as opposed to stocks exclusively under the jurisdiction of a single political entity. However, SEAMAP can address issues involving resources managed primarily by a single entity that may affect fishery resources on a regional or national level.

SEAMAP is a successful example of a state/federal partnership in which the participants work jointly in a cost-effective manner toward common goals and objectives to obtain and utilize scientific information regarding living marine resources. Fishery management and research agencies at the state and federal levels share interest in and responsibilities for common fisheries resources, but often lack the funding needed to support regional surveys throughout the range of these resources. SEAMAP provides funds to involve regional member organizations in the coordination of fishery-independent sampling activities, sampling platforms, and procedures. Fishery-independent data are collected from research vessels following scientifically designed long-term surveys.

Successful fisheries management relies on combining fishery-independent data with information derived from fishermen. Fishery-dependent data is defined as fishery statistics, either raw or analyzed, that are collected directly from recreational and commercial fishing activities. Fishery-dependent data may be significantly influenced by varying economic conditions, changes in management regulations, changes in vessel and gear designs, discard patterns, willingness of fishermen to provide accurate data, and changes in fishing strategies and practices that cannot necessarily be measured. As managers implement alternative regulatory schemes, such as seasonal quotas or individual transferable quotas, the issue of bias in the fishery-dependent data must be considered.

Fishery-independent data are not statistically influenced or biased by changes in regulations or market considerations, and provide a relative measure of abundance compared to previous

years when conducted with standard protocols. Fishery-independent data typically provide relevant, unbiased information for conducting population assessments in conjunction with fishery-dependent data.

There is great potential for increased use of SEAMAP data in fisheries management. The South Atlantic Fishery Management Council (SAFMC) and Gulf of Mexico Fishery Management Council (GMFMC) have both developed lists of research and monitoring needs in response to the MSRA mandate for federal Regional Fishery Management Councils to develop prioritized research plans (GMFMC's [Updated List of Fishery Monitoring and Research Priorities for 2020-2024](#); the SAFMC's [Research and Monitoring Section of FEP II](#) includes the [SAFMC Research and Monitoring Priorities \(2020-2025\)](#)). These priorities highlight the need for life history data and fishery-independent sampling in support of stock assessments, especially for priority snapper-grouper species. The Atlantic States Marine Fisheries Commission's (ASMFCs) [2018 Research Priorities and Recommendations to Support Interjurisdictional Fisheries Management](#) identifies numerous needs for information on its managed South Atlantic species that may be fulfilled through SEAMAP. Specific examples of fisheries for which SEAMAP data are now being used to reach management decisions include red snapper, Atlantic bluefin tuna, king mackerel, brown shrimp, white shrimp, pink shrimp, blacktip shark, yellowedge grouper, greater amberjack, gag grouper, red grouper, gray triggerfish, and Spanish mackerel in the Gulf of Mexico; red drum, red snapper, vermilion snapper, black sea bass, scamp, red porgy, spot, Atlantic croaker, southern flounder, and Atlantic menhaden in the South Atlantic; and queen conch, spiny lobster, yellowtail snapper, whelk, parrotfish, red hind, snapper/groupers, and pelagic game fish in the Caribbean (see "Recent Data Uses" sections in Chapter 3).

SEAMAP data and the results of data management have played a key role in providing information to the SouthEast Data, Assessment, and Review (SEDAR) stock assessments. SEDAR is a cooperative Regional Fishery Management Council process initiated in 2002 to improve the quality and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and U.S. Caribbean. The SEDAR process has significantly improved the scientific quality of stock assessments and greatly improved constituent and stakeholder participation in assessment development and transparency. SEAMAP data have been used in SEDAR stock assessments and assessment updates for over 30 species, including snappers, groupers, sea bass, menhaden, and sharks (see [SEDAR Assessment Schedule](#)).

All directives, policies, and procedures presented in this SEAMAP five-year plan, and subsequent annual operations plans, supersede those set forth previously. Also included in this plan are descriptions of resource surveys and their data uses (Chapter 3). The 2021-2025 SEAMAP Strategic Plan provides proposed activities that restore the surveys which have impacted by decreased and stagnant funding as well as build upon the existing base program and, as such, will be dependent on the availability of additional funding.

Since its establishment, SEAMAP has developed datasets of sufficient quality and temporal scope to be particularly useful in providing indices of abundance and life history information for fisheries stock assessments. SEAMAP data have also been used in the development of fishery

management plans (FMPs) and EFH amendments. Examples include providing data on the distribution of coral in order to protect it from rock shrimp trawling in the South Atlantic, and consolidating bottom-mapping data for use by the SAFMC to define EFH. The time series and quality of fishery-independent data now available to fisheries managers and others interested in marine resources can be attributed to the success of the state/federal partnerships supported by SEAMAP. It is important to note that in addition to collecting marine fisheries data, SEAMAP collects vital environmental data, including physical, biological, geological, and chemical oceanographic information. Furthermore, SEAMAP provides sampling opportunities and educational experiences for researchers and students of various disciplines by allowing them to take part in SEAMAP cruises (if possible) to collect samples for their own analyses. This has the potential to considerably increase participation and maximize the use of survey/research platforms, especially since vessel costs are often prohibitive for smaller research projects. Thus, SEAMAP serves as a catalyst, bringing together available scientific resources and fishery-independent information within a region for use by fisheries managers, scientists, and others interested in our coastal marine fisheries.

## 1.2 PROGRAM MISSION AND GOALS

The mission of SEAMAP is to provide an integrated and cooperative program to facilitate the collection, interpretation, and dissemination of fishery-independent information for use by government agencies, the commercial and recreational fishing industries, researchers, and others to enhance knowledge of marine fisheries and their associated ecosystems. It is the *fishery-independent* collection of data that distinguishes SEAMAP. In the context of SEAMAP, fishery-independent data are defined as those data that are obtained without direct reliance on activities of commercial or recreational fishing. Data may be taken from such non-industry activities as trawl surveys for bottom-fish and aircraft surveys for schooling fish.

The overall approach of SEAMAP emphasizes the collection of fishery-independent data to fill specific short and long-term state, interstate, and council management needs. Maintenance of regional, multipurpose databases accessible to all participating management agencies allows for efficient data entry, storage, and dissemination. The SEAMAP database provides information for managers and scientists to monitor and assess the condition of species or species groups subject to management programs. Environmental parameters and community structure are monitored in order to provide insight concerning the dynamics of Southeast area living marine resources. Data collection and management procedures are coordinated among participants in order to enhance the usefulness of the data, minimize costs, and increase accessibility for fishery managers, administrators, and researchers. SEAMAP builds on current activities to develop optimum resource sampling and assessment capabilities.

Gathering and disseminating information are long-term goals of SEAMAP, as fisheries management is a dynamic function which continually requires current data. Moreover, as data are accumulated, their value and utility for assessing fish stocks increase. Long-term data are needed to describe and explain population trends and responses to fishing activities, environmental factors, and regulatory programs. Predictive capabilities for stock abundance, recruitment, and yield also require a long-term time series of data.



No single fishery management agency has the resources to meet the objectives of existing state, interstate, and federal FMPs currently in place, nor those planned for the future. However, SEAMAP's integrated approach to fishery-independent data collection can fulfill priority data needs for FMP development in the southeast region.

**Goal 1: Collect and analyze data on economically and ecologically important species and their essential habitats to support stock assessments and management needs with emphasis on ecosystem-based management data requirements**

**Objectives:**

- Conduct routine surveys and special studies, as needed, of regional resources and their environments
- Obtain, process, and archive, as appropriate, biological specimens and samples
- Obtain data, such as environmental and bottom-mapping data, from other agencies and organizations in order to plan and conduct SEAMAP activities
- Develop partnerships with governmental and non-governmental organizations to improve acquisition of fishery-independent data for the Southeast region
- Collect data on priority species to support stock assessments and other evaluations
- Collect information on species habitat use at different life stages to support evaluation and refinement of Essential Fish Habitat and Habitat Areas of Particular Concern designations

**Goal 2: Optimize fishery-independent survey activities and enhance coordination between surveys in the region**

**Objectives:**

- Develop and evaluate sampling systems and procedures needed for SEAMAP surveys and special studies
- Standardize and calibrate sampling systems and procedures used in SEAMAP surveys and special studies
- Sponsor special workshops and symposia to help evaluate or plan sampling strategies, design, or methods
- Cooperatively plan activities with representatives of foreign governments
- Work with existing partner state and federal surveys to identify areas of overlap as well as deficiencies in sampling and data
- Develop an annual operations plan for each SEAMAP component (Gulf, South Atlantic, Caribbean) consistent with budget and operational constraints that considers data needs of the region
- Sponsor individual and joint meetings of the SEAMAP components to cooperatively plan and evaluate activities

**Goal 3: Identify and prioritize long- and short-term needs for fishery-independent data to meet current and future critical management and research needs**

**Objectives:**

- Maintain and develop new partnerships with governmental and non-governmental organizations to increase knowledge of fishery-independent and associated ecological data needs for the Southeast region
- Serve as liaisons in various governmental and non-governmental organizations and committees to gain a more comprehensive understanding of data needs in the Southeast region
- Conduct periodic coordinated external reviews of specific management, administrative, and technical elements of the program to ensure that critical data needs are being met
- Develop a 5-year management plan for SEAMAP that makes recommendations on how to expand current or create new surveys to fill gaps in the data requirements for species assessments or management

**Goal 4: Maximize the accessibility and coordination of fishery-independent survey data****Objectives:**

- Design, implement, upgrade, and maintain SEAMAP data management systems that can be used to store information used to assess and monitor selected living marine resources and associated environmental and habitat factors and ensure that SEAMAP data are protected and archived
- Establish data handling and processing protocols for all SEAMAP data
- Compile and maintain a computerized directory of SEAMAP monitoring activities, including data summaries and inventories by gear, species, species-group, and geographic areas
- Create geographic information systems (GIS) and metadata products for priority species' abundance, distribution (by life stage), and habitat (such as EFH) served through an internet mapping application
- Coordinate and integrate, when feasible, the SEAMAP data management support systems (Gulf of Mexico, South Atlantic, Caribbean) with non-SEAMAP databases
- Make data and results from analyses available to stock assessment teams in an accessible format in support of assessing the status of the resources
- Coordinate and document SEAMAP administrative functions, information dissemination, the SEAMAP data management systems, archiving centers, and data collection by SEAMAP participants
- Inform fisheries research and management agencies, the fishing industry, and the general public of SEAMAP activities by the preparation and dissemination of newsletters, annual reports, annual operations plans, and/or other means
- Maintain partnerships with governmental and non-governmental organizations to improve dissemination and utilization of SEAMAP fishery-independent and ecological data
- Propose multispecies analyses that could directly inform EBFM approaches

## 2 PROGRAM ORGANIZATION AND MANAGEMENT

### 2.1 PROGRAM ORGANIZATION

The geographical components of SEAMAP – Gulf, South Atlantic, and Caribbean regions – operate independently but possess functionally similar systems. All components include systems consisting of two basic elements: program operations and program management. These elements are summarized below and discussed in more detail later in the document:

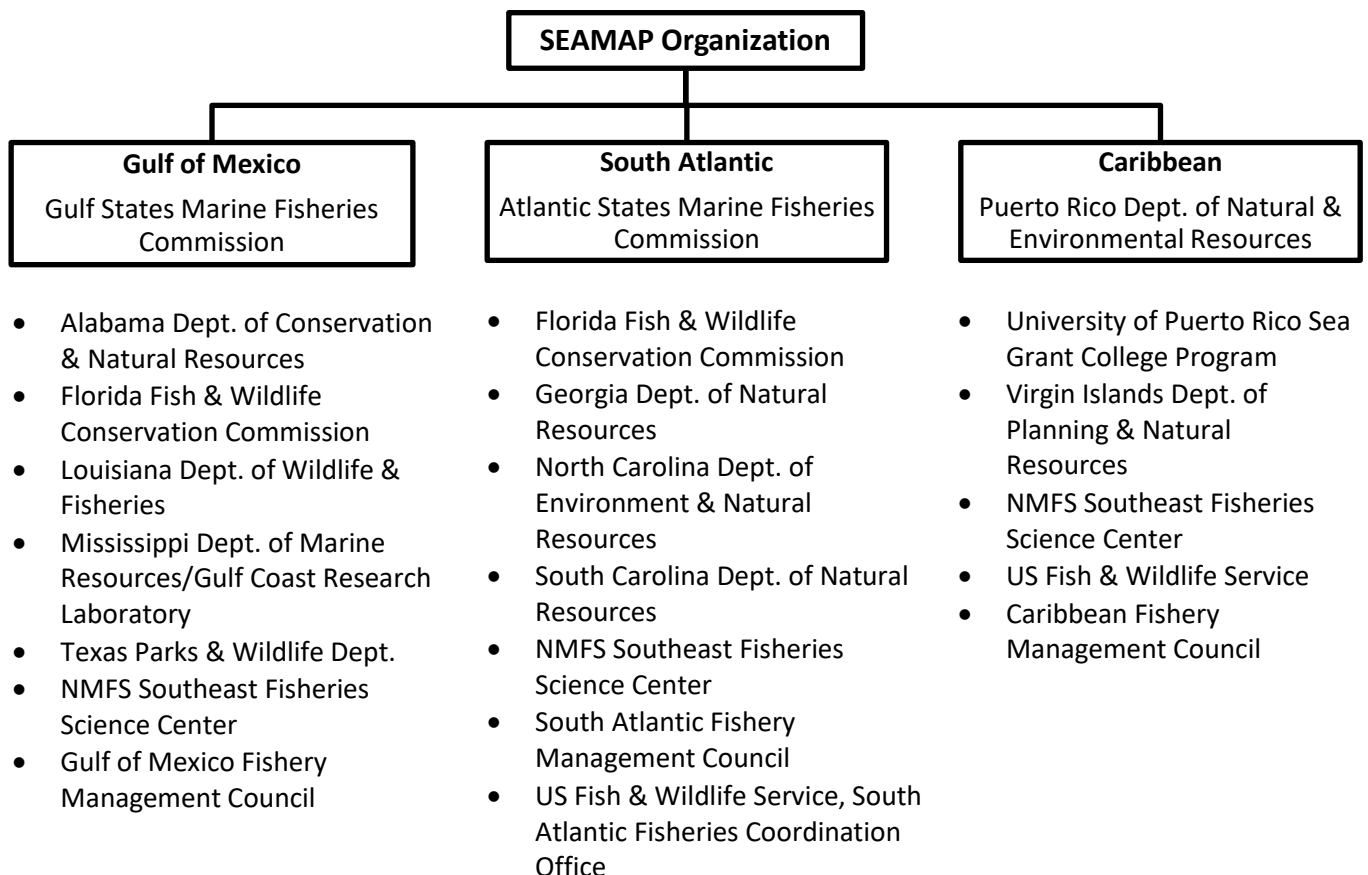
#### Operations

- Resource surveys
- Sampling gear assessment and standardization
- Data management
- Dissemination of SEAMAP-derived information
- Survey methodology workshops

#### Management

- Program and operations planning and administration
- Program evaluation

The activities for each element are performed by the structural bodies of each component, which are also similar in organization.



## 2.2 PROGRAM COMPONENT STRUCTURE

### 2.2.1 SEAMAP-Gulf

SEAMAP-Gulf of Mexico (SEAMAP-Gulf) is administered by the SEAMAP Subcommittee of the Gulf States Marine Fisheries Commission's Technical Coordinating Committee (GSMFC-TCC). The committee membership consists of one representative from each of the five participating Gulf states and representatives from the Gulf States Marine Fisheries Commission (GSMFC) and NMFS Southeast Fisheries Science Center (SEFSC). Committee approved plans, evaluations, and budget requirements are submitted to the TCC for approval. Daily operations of the program are administered by the SEAMAP-Gulf coordinator, an employee of GSMFC funded through SEAMAP, who is under the direction of the committee chair. Administrative supervision of the coordinator is performed by the GSMFC Executive Director, with authority to recruit, employ, and discharge the coordinator, in concurrence with the SEAMAP Subcommittee. The coordinator is employed on a yearly basis, subject to review by the subcommittee, subcommittee chair, and executive director.

In addition to the standing management agency (GSMFC), management body (TCC), and subcommittee, workgroups are established by the Subcommittee as needed to address specific issues. Workgroups are not standing committees, but are formed to accomplish specific objectives and are disbanded upon completion. The Plankton, Shrimp/Groundfish, Environmental Data, Data Coordinating, Reef Fish, Longline, Vertical Line, Habitat Mapping, and Adult Finfish Workgroups are all currently functioning in the Gulf component.

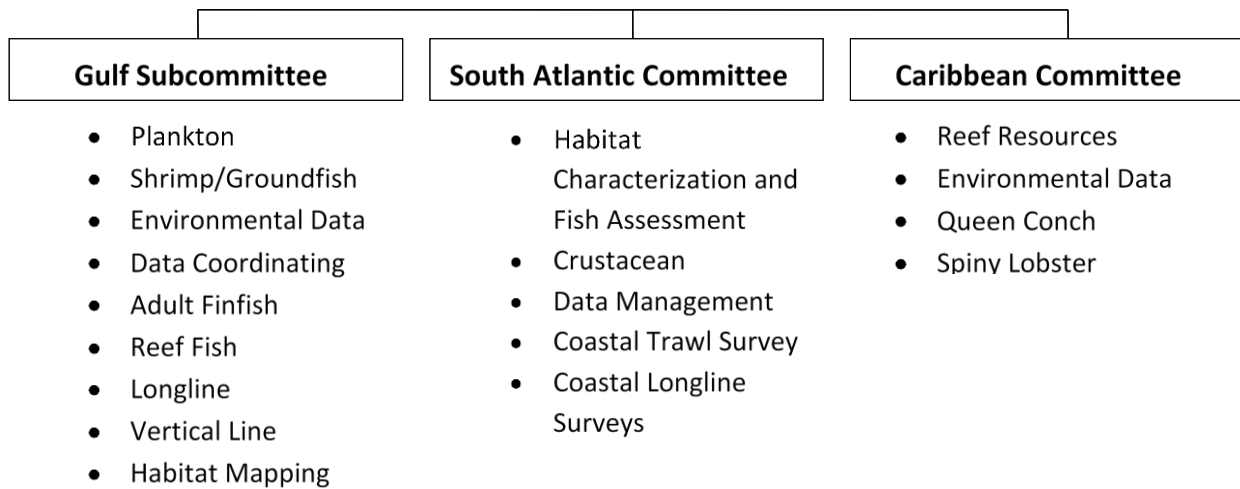
### 2.2.2 SEAMAP-South Atlantic

SEAMAP-South Atlantic (SEAMAP-SA) is one of several cooperative state-federal programs under the aegis of the ASMFC's Science Program. Within the ASMFC, policy and fiscal matters for SEAMAP-SA are reviewed by the South Atlantic State-Federal Fisheries Management Board (SAB), a fisheries decision-making body composed of members from the South Atlantic state delegations (a marine fishery management agency director, governor appointee, and state legislator from each state), and representatives of the SERO, USFWS, and SAFMC. The SEAMAP-SA Committee is the technical committee responsible for budget preparation and plan preparation and implementation. The committee consists of one representative from each participating South Atlantic state (NC-FL), the SAFMC, ASMFC, and SEFSC. Routine operations are administered by the SEAMAP-SA coordinator, an employee of the ASMFC, funded wholly or in part by SEAMAP. The SEAMAP-SA coordinator receives assistance from the ASMFC office and technical guidance from the committee. Workgroups may be established in addition to the standing management agency (ASMFC), management body (SAB), and committee (SEAMAP-SA Committee). Current workgroups established by the committee include the Data Management, Habitat Characterization and Fish Assessment, and the Crustacean Workgroups. The Coastal Trawl Survey and the Coastal Longline Survey Workgroups provide guidance to their respective surveys.

### 2.2.3 SEAMAP-Caribbean

SEAMAP-Caribbean (SEAMAP-C) is administered currently by the University of Puerto Rico Sea Grant College Program (UPRSGCP). Due to differences in political entities, the SEAMAP-C Committee membership differs from that of the other SEAMAP components and consists of one member each from the Commonwealth of Puerto Rico Department of Natural and Environmental Resources (PR-DNER), U.S. Virgin Islands Department of Planning and Natural Resources (USVI-DPNR), UPRSGCP, USFWS, SEFSC, and the Caribbean Fishery Management Council (CFMC). The SEAMAP-C coordinator is an employee of the UPRSGCP funded in part by SEAMAP. The coordinator receives administrative support from the UPRSGCP and technical guidance from the committee. Workgroups may be established in addition to the committee. Currently, the Reef Resources Workgroup coordinates the sampling strategies of reef fish, spiny lobster, queen conch, whelk, habitat assessment, and bottom mapping.

### Current SEAMAP Workgroups



## 2.3 PROGRAM RESPONSIBILITIES

### 2.3.1 Management Agency Responsibilities

Administrative services are provided by the GSMFC for the Gulf component, ASMFC for the South Atlantic component, and the UPRSGCP for the Caribbean component through their respective SEAMAP coordinator.

Administrative services rendered by each management agency include:

- Provide budget information to the SEAMAP committee;
- Coordinate SEAMAP meetings;
- Coordinate and schedule workshops;
- Administer funds associated with SEAMAP activities;
- Administer guidance of the coordinators;
- Supervise clerical personnel;
- Affirm committee representatives;

- Evaluate management personnel and facilities annually; and
- Review annual report.

Each SEAMAP component is sponsored by its respective management body, namely the TCC for the Gulf component, the SAB for the South Atlantic component, and the UPRSGCP for the Caribbean component. The management bodies for the Gulf and South Atlantic report to the GSMFC and ASMFC, respectively. The UPRSGCP acts as its own management body and management agency. Administrative and planning responsibilities of the management bodies include:

- Provide an ex-officio member to the respective committee;
- Review and approve component operations plans;
- Review annual report;
- Accept or reject actions recommended by an external or internal program review;
- Review and approve committee approved plans, evaluations, and budget requirements;
- Approve special surveys;
- Provide program policy; and
- Coordinate program and management agency directives.

### **2.3.2 Committee Organization and Responsibilities**

Each program component is managed by its respective SEAMAP committee (Gulf Subcommittee, South Atlantic Committee, and Caribbean Committee). Committee membership is determined by the respective management agency, with voting rights determined by that management agency. Obligatory committee members and designated alternates to the committees are selected by participant organizations and affirmed in accordance with procedures of the management agency. A committee member may designate a proxy to serve at a given SEAMAP meeting, in accordance with the guidelines set forth by the committee member's organization. Additionally, an authorized representative from the management body to each committee may serve as an ex-officio member of that committee.

The committee chair and vice-chair are elected annually by the South Atlantic, Gulf, and Caribbean SEAMAP committees, and may serve an unlimited number of one-year terms. Each committee meets as necessary to accomplish stated goals and objectives. Meetings are open to all interested persons except during discussions of personnel matters and other actions legally conducted at closed sessions, in accordance with statutes and regulations of the various program participants. Committee decisions may be made by either consensus or by a majority of the voting committee quorum. Recorded votes will be taken upon request of one voting member. Minutes must be prepared for each committee meeting.

At least annually, the three committees meet jointly. The presiding chair is one of the committee chairs and rotates each year as determined by the collective committee chairs. Joint committee decisions will usually be made by consensus; however, important issues will be

determined by vote when requested. In such instances, each program will be assigned a single vote, for a total of three. During joint committee meetings, one of the coordinators will be selected by the chair to prepare minutes.

SEAMAP committees are responsible for program management and take the leading role in program planning. The general responsibilities of each SEAMAP Committee include:

- Determine regional fishery-independent data needs that can be met by SEAMAP activities;
- Plan activities to meet identified data needs;
  
- Coordinate official survey activities in a fashion that will permit collection of the most useful data in the most cost-effective manner;
- Provide technical guidance to the coordinators, data managers, and curators;
- Determine program budgets;
- Establish workgroups with specific areas of expertise to assist in the development and evaluation of survey activities;
- Develop and maintain a data management system;
- Support an archiving system to process and store SEAMAP specimen collections;
- Sponsor workshops and other activities that will generate information needed to improve program operations;
- Develop information dissemination plans;
- Approve special travel and activity requests;
- Develop short term (operations) and long term (management) plans;
- Identify funding needs for SEAMAP operations;
- Define evaluation and review policies and procedures;
- Recommend actions to correct problems that may jeopardize reliability of survey databases; and
- Submit annual report to the respective oversight body, summarizing SEAMAP activities, accomplishments, needs, and plans.

### **2.3.3 Coordinator Responsibilities**

Coordinators are also responsible for program administration and planning in accordance with committee guidance. General coordinator responsibilities include:

- Work closely with the committee chair in all aspects of program coordination, administration, and operation;
- Implement plans and program directives developed by the committee and approved by the management body;
- Coordinate committee meetings and recommend appropriate agendas;
- Serve as information liaison between the committee and the oversight agency, participants, and organizations interested in SEAMAP activities;
- Submit preliminary administrative budget recommendations and assist the committee with preparation of the budget;

- Prepare or supervise preparation of selected SEAMAP publications;
- Distribute approved SEAMAP information in accordance with committee policies and procedures;
- Assist in representing the program to the community through public educational activities;
- Assist in the identification of regional needs that can be satisfied by SEAMAP activities;
- Maintain a file of all reports and publications which relied on SEAMAP data or SEAMAP specimens, and provide an annual listing to the committee; and
- Prepare the annual report to the oversight body.

### **2.3.4 Workgroup Organization and Responsibilities**

Workgroups are established by a committee to address specific issues or accomplish specific objectives. Directives to a workgroup may include:

- Plan approved surveys;
- Evaluate surveys;
- Generate an appropriate sampling design;
- Develop a data format compatible with the SEAMAP Data Management System;
- Estimate costs and related needs associated with SEAMAP activities in accordance with a specific schedule;
- Develop a schedule for processing collected data and samples and recommending persons or agencies that will be responsible for accomplishing this work.

Members of workgroups are appointed by the respective committee and are generally not members of that committee. Members may be drawn from universities, state and federal marine resource agencies, and the fishing industry in order to obtain the best scientific advice. Workgroup leaders may be elected by the workgroup or appointed by the committee at the committee's discretion. When elected, leaders are subject to approval by the committee and are responsible for preparing a written report to the respective committee after each workgroup meeting. Upon the completion of specific tasks assigned to the workgroup by its appointing committee, the workgroup may be disbanded by the committee or, depending upon the objectives assigned to the workgroup, may exist indefinitely.

### **2.3.5 NMFS/SEFSC Program Management and Responsibilities**

NMFS employees are appointed as program manager by the SEFSC Director and program officer by the SERO Administrator. These positions were created to ensure program compliance with Department of Commerce (DOC) rules, regulations, and policies. The program manager has overall authority and responsibility for the program, including allocation of funds among participants and ensuring that goals, objectives, and activities are appropriate to the program mission.

The program officer is responsible for ensuring proper program documentation by the respective components, especially cooperative agreements and cooperative agreement amendments. These documents must be complete, accurate, and submitted on time to ensure



timely processing and distribution of funds. The program officer also ensures that participants are in compliance with their cooperative agreements, and assists in communication among program components, and, when necessary, the DOC grants administration offices.

### **2.3.6 Cooperators and Other Interested Parties**

Cooperators and other interested parties are not SEAMAP member organizations, although their input is essential to the cooperative approach of the program. Cooperators include persons or organizations actively involved in SEAMAP operations, such as workgroup members or researchers collecting data for SEAMAP. For example, Sea Grant organizations are included as cooperators in the SEAMAP Gulf and South Atlantic components. In the Caribbean component, Sea Grant is a full participating member of the program, and as cooperators, their participation is voluntary. Sea Grant organizations are invited to participate in all SEAMAP committee meetings as non-voting participants. Their technical, management, and administrative advice and assistance are often sought, especially in forming workgroups, evaluating program performance, organizing workshops and symposia, and disseminating information from and about the program. Sea Grant is generally perceived as representing all universities within a region.

Universities also serve as a major source of technical expertise for workgroups. As cooperators, university investigators are often invited to officially participate in functions of SEAMAP, such as committee and workgroup meetings, with their travel costs paid by SEAMAP.

### **2.3.7 SEAMAP Project Initiation**

A SEAMAP survey is a fishery-independent project that is fully or partially funded via SEAMAP resources. Its data are fully integrated and compatible with other SEAMAP surveys, and are used by state, federal, and interstate fisheries managers, academic researchers, and the commercial and recreational fishing industries to provide information on managed species' stock trends and status. Data collection and sampling protocols for SEAMAP surveys should undergo a review and acceptance from partner workgroups and be approved by the appropriate management body.

The following steps are taken to develop a new SEAMAP survey within each component:

1. Partners (SEAMAP workgroups or state/interstate fisheries managers) identify a topic of concern where data are either missing or insufficient for stock assessment and/or fishery management purposes.
2. The appropriate SEAMAP workgroup(s) discusses the issue and begins developing methods to address concerns. Outside experts from state, federal, and interstate agencies should be involved in the discussion to ensure the survey is statistically robust, unbiased, and the data are suitable for stock assessments.
3. The workgroup chair (or their proxy) will present the concerns and proposed survey to the appropriate management body, including proposed methodologies, required funding, goals, expected benefits, and principal participants.

4. The appropriate management body will discuss the merits and importance of the survey and prioritize the need among existing ongoing projects. If approved, the management body will recommend the survey for funding under existing financial restrictions.
5. If approved by the appropriate management body, the principals will submit a SEAMAP proposal through the National Oceanic and Atmospheric Administration (NOAA) for funding.
6. Once established, the survey principals will provide annual updates. If the survey is long-term, it may undergo occasional peer review to ensure data collection methods and sampling remain of the highest statistical integrity.

A SEAMAP partner survey is one that receives no directed funding from SEAMAP, but whose data are valuable for regional fisheries management and stock assessment. State, federal, and interstate agencies all possess surveys that can be of value, including, but not limited to:

- USFWS: Cooperative Winter Tagging Cruise
- Georgia Department of Natural Resources (GA DNR): Ecological Trawl Survey, Marine Sportfish Population Health Survey
- North Carolina Division of Marine Fisheries (NC DMF): Juvenile Trawl Survey, Pamlico Sound Gill Net Survey
- National Marine Fisheries Service (NMFS)/South Carolina Department of Natural Resources (SC DNR): Marine Resources Monitoring, Assessment and Prediction Program (MARMAP)
- NMFS: Southeast Fishery Independent Survey (SEFIS), Bottom Longline Survey, Marine Mammal Survey, Pelagic Trawl Survey, Beaufort (NC) Ichthyoplankton Survey
- Alabama Department of Conservation and Natural Resources: Fisheries Independent Monitoring
- Mississippi Department of Marine Resources: Fisheries Independent Monitoring
- Gulf Coast Research Laboratory: Fisheries Independent Monitoring
- Louisiana Department of Wildlife and Fisheries: Fisheries Independent Monitoring
- Texas Parks and Wildlife Department: Fisheries Independent Monitoring
- Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute (FWRI): Fisheries Independent Monitoring
- South Carolina Department of Natural Resources (SC DNR): Fisheries Independent Monitoring.
- National Coral Reef Monitoring Program (NCRMP)
- Puerto Rico Coral Reef Monitoring Program (PRCRMP)
- USVI Coral Reef Monitoring Program (USVICRMP)

### 2.3.8 Collaborations

The coordinated efforts of data collection and management are invaluable for providing stock assessment teams and resource managers with consistent high-quality data. Centralized data management also provides an efficient quality control mechanism and can serve as a vehicle to easily update data when new information becomes available. SEDAR stock assessment research

recommendations have included the importance of and desire to standardize the collection of information across programs. SEAMAP has served as a vehicle to accomplish such standardizations. Through the input the program receives on fishery-independent sampling from multiple state agencies' collaborations with federal agencies, SEAMAP programs represent partnerships in the truest sense of the word. As SEAMAP surveys are implemented and methodologies approved by the committees and workgroups of each component, those surveys become a template by which partner states can develop future inshore surveys or modify existing fishery-independent programs within state territorial waters.

In the Gulf of Mexico, SEAMAP's partnership with the states of Florida, Alabama, Mississippi, Louisiana, and Texas has led to individual states adopting SEAMAP sampling and data protocols, in whole or in part, for state-managed fisheries research projects. For instance, Mississippi has modified the laboratory processing procedures for its inshore trawl survey to be consistent with current SEAMAP guidelines, resulting in datasets that are more readily integrated for assessment purposes. Recent longline survey development has also been a collaborative measure, with both the federal and state components discussing and agreeing to adopt uniform standards for vertical longline sampling. Additionally, states are investigating the potential for utilizing the NMFS Fisheries Scientific Computer System (FSCS) for laboratory processing of samples collected through state monitoring efforts. The integration of FSCS with electronic fish measuring boards and bench top scales provides for more efficient data acquisition, reduces data recording and entry errors, and enables efficient data integration.

In the South Atlantic, SEAMAP's mission is carried out as a cooperative effort between USFWS, NOAA Fisheries, SAFMC, ASMFC, and the states of North Carolina, South Carolina, Georgia, and Florida. An example of cooperative efforts includes fishery-independent sampling to monitor spatiotemporal trends in abundance of reef fish species in South Atlantic waters. Historically, these efforts were carried out entirely by the SC DNR MARMAP Program, until SEAMAP-SA began cooperative efforts in 2009 via the Habitat Characterization and Fish Assessment Workgroup. Beginning in 2010, the Southeast Fishery Independent Survey (SEFIS) was established at the NOAA Beaufort Laboratory (NC) to work cooperatively with MARMAP and SEAMAP-SA Reef Fish Surveys to enhance fishery-independent sampling efforts in South Atlantic waters. SEAMAP-SA and SEFIS have adopted many of the MARMAP sampling protocols and staff were cross-trained in sampling methods, sample processing, and data management. This comprehensive approach means that new data can be integrated into the long-term dataset without compromising the integrity of the existing information and analyses. Currently, the three reef fish surveys (MARMAP, SEAMAP-SA, and SEFIS) are integral partners in the fishery-independent data collection for the snapper/grouper management complex in the Southeast region, now called the Southeast Reef Fish Survey (SERFS). Relative abundance (index) and life history information acquired through these monitoring efforts are an essential part of the assessment process. Data and analyses are provided to various stock assessment teams and South Atlantic partner staff have participated in assessment workshops and contributed to the assessment reports. Data from the reef fish survey has been included in the SEAMAP-SA Oracle database and made available to third parties such as NMFS assessment teams, academic institutions, and state agencies.

In the Caribbean, the SEAMAP fisheries independent sampling program has been made possible thanks to an effective partnership among the US Virgin Islands and Puerto Rico districts, represented by the VI DPNR/DFW, and the PRDNER. Special collaboration has been received from the PR-Fisheries Research Laboratory during all the PR reef fish and the VI parrotfish gonads samples processing for the reproduction analysis. The University of Puerto Rico's Sea Grant College Program has been serving as the coordinating entity for the SEAMAP-Caribbean Program. Some queen conch survey and quality control including preliminary data analysis providing close professional help to the program, has been conducted by the Department of Marine Sciences. The University of the Virgin Islands (UVI) has also been providing collaboration to SEAMAP-C during the hydroacoustic Spawning Aggregations surveys conducted at two of the main fish SPAG's known at the USVI, the MCD and the Hind Bank. Clear sampling protocols have been produced for both PR and USVI districts through close collaboration of NMFS and the CFMC. SEAMAP-C has been collaborating with the University of South Carolina (MARFIN) while providing fish hard parts for age and growth studies of several reef fish species, and with the Virginia Institute of Marine Sciences providing parrotfish samples.

SEAMAP constituent groups are also developing cooperative efforts with groups such as the Southeast Coastal Ocean Observing Regional Association (SECOORA) to obtain oceanographic data and multi-beam bottom mapping and habitat data that can be linked to species' distribution data. SEAMAP is positioned to provide information on the distribution, status, and habitat of the South Atlantic to regional partners in collaborations and to support ecosystem-based management and marine spatial planning. Developing partnerships in the region include, but are not limited to, SECOORA, South Atlantic Landscape Conservation Cooperative, and regional fish habitat partnerships including the Southeast Aquatic Resource Partnership and the Atlantic Coastal Fish Habitat Partnership (ACFHP).

## **2.4 PLANNING DOCUMENTATION**

Three levels of planning documents are used in SEAMAP: the five-year plan, annual reports, and cooperative agreements. This five-year plan serves as the basis for program coordination among the Gulf, South Atlantic, and Caribbean components and provides a set of goals and objectives for all components, along with an outline of policies and procedures for program management. This plan is revised every five years to assure current relevance to all aspects of SEAMAP. Details of activities developed by each component to meet annual objectives for their region are given in the joint annual report. Cooperative agreements serve two purposes: they provide the basic legal document used by NOAA to transfer funds, and they provide the detailed annual operating and budget plan for each SEAMAP partner, with the exception of NMFS and other federal agencies. Annual detailed NMFS plans are included in each of the cooperative agreements prepared by the other participants. If SEAMAP funds are transferred to another federal agency, such as in the Caribbean component, the transfer is done through a memorandum of understanding which details that agency's activities under SEAMAP.

## 2.5 PROGRAM FUNDING AND BUDGET MANAGEMENT

### 2.5.1 Program Funding

Funding for SEAMAP activities depends on congressional and state legislative allocations, with the largest share funded through NOAA. Federal funds provided through SEAMAP are used primarily to fund or expand existing state and federal survey programs.

<b>Fiscal Year</b>	<b>Gulf of Mexico 41.3%</b>	<b>South Atlantic 32.9%</b>	<b>Caribbean 10.5%</b>	<b>NMFS 15.2%</b>	<b>TOTAL (millions)</b>
<b>2016</b>	\$1,781,296	\$1,418,999	\$452,872	\$659,901	\$4.313
<b>2017</b>	\$1,769,178	\$1,409,346	\$449,791	\$655,410	\$4.283
<b>2018</b>	\$1,956,840	\$1,558,838	\$497,502	\$724,931	\$4.738
<b>2019</b>	\$1,950,274	\$1,553,608	\$495,832	\$722,499	\$4.722
<b>2020</b>	\$1,981,466	\$1,578,456	\$503,762	\$734,054	\$4.798

SEAMAP is conducted as a zero-based budget program. Federal funds are allocated annually to each geographic program component in accordance with approved annual operations plans, while non-federal participants contribute various amounts of support for SEAMAP activities such as salaries and equipment. Allocations of federal funds to participants are made to maximize participation and operating efficiencies. The components have agreed to percent allocations as follows: Gulf of Mexico (41.3%), South Atlantic (32.9%), Caribbean (10.5%), and NMFS (15.2%). Internal state and federal budget allocations for specific surveys and survey-related functions may vary significantly among participants and fiscal years. Thus, the individual state or federal share of the SEAMAP appropriation also may vary significantly from year to year, depending on budget needs to meet program objectives (budget history in Appendix B).

While SEAMAP's Congressional appropriation had increased since 2013, the amount available for collecting valuable fishery-independent data had up to 2018 actually decreased for a variety of reasons. Taxes and assessments on SEAMAP's budget constituted almost 16% of the total SEAMAP appropriation in FY2018, while taxes and assessments were only 5% in FY2014. In 2018 Headquarters administrative assessments were dropped. Regardless, SEAMAP has still had to secure other funding sources to help gather critical fishery-independent data. State partners have also contributed approximately \$500,000 to SEAMAP data collection activities. These external funding sources cannot continue to support future SEAMAP sampling. With limited state budgets, state partners cannot continue to support SEAMAP in this way. These budget constraints have impacted days at sea, the number of stations sampled, and therefore the amount of fishery-independent data collected. In addition, with increasing vessel and personnel costs each year, even level funding leads to cuts in data collection.

### 2.5.2 Budget Policies

Federal SEAMAP funds are allocated, administered, and monitored in accordance with DOC, NOAA, and SERO policies, directives, and guidelines. The program manager, as designee of the

SEFSC Director, has approval authority for allocation of SEAMAP funds provided by NMFS. The program officer, as designee of the Southeast Regional Administrator, has administrative oversight responsibility for SEAMAP funds allocated to the states, commissions, councils, and others through cooperative agreements and contracts.

Every effort is made to ensure full and efficient utilization of SEAMAP funds. If for any reason allocated funds are determined to be in excess of the planned needs of a participant, the participant will immediately notify the program officer and manager of the projected excess. An attempt will be made to reallocate the excess funds to satisfy other program needs. SEAMAP may accept supplemental and reimbursable funds for specific activities and functions. Administration of these funds can be arranged through a number of mechanisms, such as contracts or cooperative agreements with NMFS, the interstate commissions, or the states.

### **2.5.3 Budget Priorities**

SEAMAP funds may be used for surveys, including vessel and aircraft operations and charters, gear, supplies, personnel and travel; coordinator salaries; administrative support; staff, facilities, equipment, and supplies; communications; specimen archiving (including personnel, equipment, facilities, and supplies); publications; travel; meetings (committees, workgroups, workshops, and symposia); survey-related analyses; data management (hardware, software, operations, and personnel); program reviews; and other purposes designated by the committees and program manager.

SEAMAP budget priorities are as follows:

1. Long-term fishery-independent surveys;
2. Data management;
3. Coordination (coordinator salaries, meeting costs and coordination, and administration);
4. Calibration trials;
5. Sorted specimen archives (including ageing structures, gonads, and stomachs for diet);
6. Special surveys;
7. Unsorted specimen archives; and
8. Workshops, symposia, and special meetings.

Budget priorities 1-3 are considered by the committee to be essential for maintaining the integrity of the program. Priorities 4-8 are determined on a case-by-case basis in the context of each component's activities, SEAMAP's goals and objectives, and available funding.

### **2.5.4 Budget Planning**

Budget planning is conducted in open meetings. The following annual procedure has been developed jointly by all three SEAMAP components:

1. The committees develop the activities and statement of work for the coming year in advance of the joint meeting.

2. Based on best available information, the program manager will provide a preliminary target budget for the program in mid-summer.
3. The program manager will meet with the chairpersons and coordinators from each program component collectively to develop preliminary budget targets for each program component.
4. A late summer joint SEAMAP meeting will be held soon after the meeting defined in step 3 to present budget needs and plans, to negotiate component budgets (based on the preliminary targets), and to arrive at a recommended budget allocation plan for the total program. This plan will include a budget breakdown by participant.
5. If agreement cannot be achieved during any step in the budget planning process, the program manager will develop a recommended budget allocation plan. Each program participant will use this recommended budget plan for subsequent planning until either a new plan is negotiated, or the program manager's plan is overruled by the SEFSC Director.
6. Individual component operations plans will be revised in accordance with the budget plan and submitted to the respective management body for review and approval.
7. Individual cooperative agreements will be developed based on the budget allocation plan and appropriate operations plan for submission to the program officer. These agreements normally will be submitted on or about the start of the new federal fiscal year.
8. If the budget allocation plan has to be changed for any reason (such as due to a change in the appropriated amount or in the amount made available to SEAMAP by NMFS), the program manager will immediately notify the committees and work with the committees in developing a modified allocation plan.

With the exception of NMFS, budget allocations to SEAMAP participants normally are made through individual cooperative agreements. This method, however, does not explicitly exclude the use of contracts by NMFS when cost effective and appropriate.

## **2.6 PROGRAM REVIEW AND EVALUATION**

Program reviews and evaluations will be conducted to determine program effectiveness in meeting defined objectives and to improve data collection and standardization, data management (including specimen archives), and information dissemination. Program reviews may be classified into two categories: regional program evaluation and external review. Regional program evaluations serve as a summary of activities and are performed by each of the structural components of SEAMAP. External reviews can be designed to either evaluate the functional or technical aspects of SEAMAP.

### **2.6.1 Regional Program Evaluation**

A review of each programmatic element, including administration, expenditures, survey operations, data management, and information dissemination will be conducted primarily through internal procedures within and among SEAMAP components each year. This review will be included in the annual report of program administration, data management, and

information dissemination prepared by the coordinators in accordance with approved policies and procedures. The report will be submitted to the appropriate committee and management body for review. Responsibility for the reviews resides with the committee. Portions of the review may be delegated to the coordinators, workgroups, data manager and curators. In addition, SERO's grant administration of SEAMAP amounts to an annual review, with acceptance of annual progress reports on the various grants under SEAMAP.

### 2.6.2 External Reviews

External reviews may be executed at the request of any management body in accordance with the collective direction of all management bodies. The program manager may request an external review of any aspect of program activities at any time. These requests will be coordinated with the appropriate committee and management body. External reviews will be written and documented and no such review will be released publicly without evaluation and comment by affected committees, management bodies, management agencies, and the program manager. When accepted by the affected committees and management bodies, actions recommended by an external or internal review will be executed within a reasonable time frame.

External technical reviews to evaluate specific operations and other aspects of the program can be called for and sponsored by any committee, with approval from the management bodies and program manager. These reviews are fully coordinated with all program components, and, whenever possible and appropriate, they are conducted jointly. The last comprehensive external review was conducted in FY 1987.

Prior to public release, technical publications produced by SEAMAP undergo peer review. Explicitly excluded from this requirement are data summary documents (e.g., atlases), reports to oversight bodies (e.g., annual reports), and reports from workshops and symposia, which represent collections of individual papers and abstracts.



### 3 SEAMAP ACCOMPLISHMENTS

SEAMAP has been functional since 1981 and has been collecting fishery-independent data since 1982. Program accomplishments can best be summarized when considered by activity type. Activity types include resource surveys, specimen archiving, data management, and information dissemination. The following also reviews the application of SEAMAP data by each resource survey.

It is ultimately the analysis and application of SEAMAP data, particularly to fisheries management, that demonstrates the vitality of the program. SEAMAP has developed a distinguished record for supporting stock assessments, and its role is almost certain to grow as survey/sampling time series lengthen and new surveys are brought online. A few of the most important applications to date are:

- Determining year-to-year trends in abundance
- Setting seasonal openings and allowable biological catch levels
- Evaluating existing management actions
- Evaluating proposed management actions
- Designating essential fish habitat and habitat areas of particular concern
- Estimating and monitoring bycatch
- Obtaining basic biological data
- Supporting marine spatial management
- Providing a baseline resource for damage assessment
- Providing baseline species and habitat distribution information for environmental assessments and impact statements
- Establishing and monitoring marine protected areas
- Establishing and monitoring Spawning Special Management Zones
- Analyzing multispecies temporal changes as a product for EBFM evaluations.

#### 3.1 RESOURCE SURVEYS

Resource surveys encompass both short- and long-term surveys of fisheries resources and their environments. Although long-term databases form the foundation of SEAMAP, the program has flexibility to accommodate short-term data requests within the overall long-term program. For example, SEAMAP can provide data to address emergency resource information needs without impacting the program's long-term database. Surveys by each program component reflect distinct regional needs and priorities; however, survey operations in one geographic area often provide information useful to researchers in all three regions. For instance, the South Atlantic program's bottom mapping will be useful in SEAMAP-Gulf gear calibration efforts, while plankton and environmental surveys in the Gulf program have set the standards for the entire region's much-needed long-term database. Due to the diverse scope and target species involved in the SEAMAP's survey operations, activities are discussed here by geographic region.

Following each survey description, a chart of recent data uses is provided. This list is by no means intended to be exhaustive, but recent SEAMAP data applications are highlighted.

### 3.1.1 GULF OF MEXICO RESOURCE SURVEYS

#### 3.1.1.1 Spring Plankton Survey

##### Objectives

The SEAMAP-Gulf Spring Plankton Survey began in 1982, with the objectives of collecting ichthyoplankton samples in offshore waters of the Gulf of Mexico for abundance and distribution estimates of Atlantic bluefin tuna larvae, and collecting environmental data at all ichthyoplankton stations.

##### Survey Design

Plankton samples are taken with standard SEAMAP-Gulf bongo and neuston samplers. The bongo sampler consists of two conical 61cm nets with 333-micron mesh. Tows are oblique, surface to near bottom (or 200m), and back to surface. A single or double 2x1m pipe frame neuston net, fitted with 0.947mm mesh netting, is towed at the surface with the frame half-submerged for 10 minutes. Samples are taken upon arrival on station regardless of time of day. At each station, either a bongo and/or neuston tow are made. In addition, hydrographic data (surface chlorophylls, salinity, temperature, and dissolved oxygen from surface, mid-water, and near bottom, and water color) are collected at all stations. Right bongo and neuston samples collected from SEAMAP-Gulf stations are transshipped to the Polish Sorting and Identification Center. Left bongo samples are archived at the SEAMAP-Gulf Invertebrate Plankton Archiving Center. The SEAMAP-Gulf Spring Plankton Survey usually samples approximately 150 stations every year during the April and May time period.

##### Optimization of Present Sampling

The Spring Plankton Survey can be optimized by sampling across oceanographic fronts and eddies associated with the Loop Current to sample for Atlantic bluefin tuna larvae, as they tend to congregate along these boundaries. The current Spring Plankton Survey design is based upon a grid system that may or may not coincide with an oceanographic front or eddy. Additional days to sample across fronts and eddies would allow directed sampling in areas where Atlantic bluefin tuna larvae are more likely to be encountered, therefore providing better data for stock assessments.

##### Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2020	Bluefin Tuna	X			ICCAT Stock Assessment	<a href="https://www.iccat.int/en/assess.html">https://www.iccat.int/en/assess.html</a>

### 3.1.1.2 Bottom Longline Survey

#### Objectives

The Bottom Longline Survey began in 2007, complementing an existing long-term fishery-independent longline survey currently conducted by NMFS. The Bottom Longline Survey targets coastal shark and finfish species within the shallow waters of the Gulf of Mexico. The objectives of the survey are to collect information on coastal shark and finfish abundances and distribution with a 1 mile longline and to collect environmental data.

#### Survey Design

Sampling occurs during three seasons: spring (April-May), summer (June-July), and fall (August-September). Sampling is conducted in waters defined by the 3-10m depth contour. Stations are proportionally allocated and randomly distributed within the 3-10m depth contour in each statistical zone based on the proportion of those depths present. Partners usually survey the stations that occur off their state boundaries for each season. All species are measured, tagged, and returned to the water alive when possible. The longline gear consists of 1 mile of 426kg test monofilament mainline with 100 baited (*Scomber scombrus*) #15/0 circle hooks with 3.7m gangions of 332kg test monofilament. A hydraulic longline reel is used for setting and retrieving the mainline. Radar high-flyers with bullet buoys are used to mark the longline locations. The mainline is weighted down at either end, as well as the midpoint, and set for 1 hour. The data are used in stock assessments for coastal sharks and finfish.

#### Optimization of Present Sampling

The Bottom Longline Survey can be optimized by extracting otoliths to age fish, performing dietary analysis to determine trophic interactions, and examining reproductive stage from fish currently captured in normal survey operations. This information would provide a wealth of data that could be used for current fisheries management, understanding predator/prey interactions, and support the development of ecosystem-based fisheries management.

#### Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2018	Blacktip Shark	X	X		SEDAR Stock Assessment	<a href="http://sedarweb.org/sedar-29u">http://sedarweb.org/sedar-29u</a>

### 3.1.1.3 Vertical Longline Survey

#### Objectives

The primary purpose of the SEAMAP-Gulf Vertical Longline Survey is to characterize the spatial and temporal distribution, indices of abundance, and age and size distribution of commercially and recreationally important reef fish species by habitat type and depth strata in the coastal waters of the Gulf of Mexico and the adjoining EEZ. Fishery-independent data characterizing population dynamics of fish assemblages on non-structured and structured bottom habitats (e.g. natural hard bottom and artificial structures) in offshore waters are also obtained.

## **Survey Design**

Participating partners use three 22ft backbones containing ten 18in gangions outfitted with either an 8/0, 11/0 or 15/0 circle hook (each backbone has only one hook size), and terminating in a 10lb lead weight. Three bandit reels deploy the gear simultaneously on or near a reef structure and, once locked in at depth, are allowed to fish for 5 minutes. All bandit reels then retrieve the lines simultaneously. Catch data are collected once the lines are on board. Environmental data is collected upon completion of fishing at each station. Stations are randomly selected within three depth zones (10-20m, 20-40m, and from 40-150m) with effort allocated among five habitat types.

## **Optimization of Present Sampling**

The Vertical Line Survey can be optimized by extracting otoliths to age fish, performing dietary analysis to determine trophic interactions, and examining reproductive stage from fish currently captured in normal survey operations. This information would provide a wealth of data that could be used for current fisheries management, understanding predator/prey interactions, and support the development of ecosystem-based fisheries management.

### **3.1.1.4 SEAMAP-Gulf Reef Fish Survey**

#### **Objectives**

The primary purpose of the SEAMAP-Gulf Reef Fish Survey, which began in 1992, is to assess relative abundance and compute population estimates of reef fish found on natural habitat in the Gulf of Mexico.

#### **Survey Design**

The reef fish video survey was initiated by the NMFS Pascagoula lab in 1992 and targeted primarily high-relief reef habitats along the shelf break. These efforts were expanded in 2006 by surveys conducted by the NMFS Panama City lab targeting shallow reef habitats on the northeast Gulf of Mexico shelf, and in 2008 by surveys conducted by FWRI targeting shelf and shelf-break reef habitats across the West Florida Shelf. All surveys targeted natural reef habitats, and utilized stereo baited remote underwater video (S-BRUV) arrays to provide data on relative abundance, size, and habitat composition of reef fish, and associated habitats. Collection of fish for life history studies were conducted opportunistically as time and funding allowed.

In 2020, all three surveys were integrated into a new survey design under the Gulf Fishery Independent Survey of Habitat and Ecosystem Resources (G-FISHER). This new survey, which utilized S-BRUV arrays baited with a combination of squid and Atlantic mackerel, incorporated a stratified-random survey design where effort was allocated among eighteen spatial strata and eighteen habitat strata, including the addition of nine artificial reef habitat strata. All survey efforts were restricted to reef habitats that had been identified and characterized via side-scan or multibeam sonar and classified via habitat type (artificial or natural), relative relief (low, medium, or high relief), and scale of the individual reef feature (small, medium, or large). Approximately 2,000 stations are selected to be sampled annually. These efforts are supported

by additional funding beyond that provided by SEAMAP. Associated environmental data collected at each site typically includes salinity, temperature, depth, and dissolved oxygen, and may include measures of transmissivity and fluorescence.

### Optimization of Present Sampling

The SEAMAP-Gulf Reef Fish Survey could be optimized through development of automated image analysis, which would the time required to provide data for assessment. In addition, funding to support fish collections for life history would enhance the collection of otoliths/spines for ageing, stomach contents for trophodynamics analysis, and reproductive histology. This information would provide a wealth of data that could be used for current fisheries management, understanding predator/prey interactions, and support the development of ecosystem-based fisheries management.

### Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2016	Almaco Jack	X	X		SEDAR 49 Stock Assessment	<a href="http://sedarweb.org/sedar-49">http://sedarweb.org/sedar-49</a>
2016	Lesser Amberjack	X	X		SEDAR 49 Stock Assessment	<a href="http://sedarweb.org/sedar-49">http://sedarweb.org/sedar-49</a>
2016	Snowy Grouper	X	X		SEDAR 49 Stock Assessment	<a href="http://sedarweb.org/sedar-49">http://sedarweb.org/sedar-49</a>
2016	Speckled Hind	X	X		SEDAR 49 Stock Assessment	<a href="http://sedarweb.org/sedar-49">http://sedarweb.org/sedar-49</a>
2016	Yellowmouth Grouper	X	X		SEDAR 49 Stock Assessment	<a href="http://sedarweb.org/sedar-49">http://sedarweb.org/sedar-49</a>
2018	Gray Snapper	X	X		SEDAR 51 Stock Assessment	<a href="http://sedarweb.org/sedar-51">http://sedarweb.org/sedar-51</a>
2018	Red Snapper	X	X		SEDAR 52 Stock Assessment	<a href="http://sedarweb.org/sedar-52">http://sedarweb.org/sedar-52</a>
2019	Red Grouper	X	X		SEDAR 61 Stock Assessment	<a href="http://sedarweb.org/sedar-61">http://sedarweb.org/sedar-61</a>
2019	Yellowtail Snapper	X	X		SEDAR 64 Stock Assessment	<a href="http://sedarweb.org/sedar-64">http://sedarweb.org/sedar-64</a>
2020	Vermilion Snapper	X	X		SEDAR 67 Stock Assessment	<a href="http://sedarweb.org/sedar-67">http://sedarweb.org/sedar-67</a>

### 3.1.1.5 Summer Shrimp/Groundfish Survey

#### Objectives

The SEAMAP-Gulf Summer Shrimp/Groundfish Survey began in 1982, takes place during June and July every year, and samples approximately 360 stations from the U.S./Mexican border to south Florida. Data from the survey are used in evaluating the abundance and size distribution

of penaeid shrimp in federal and state waters to assist in determining opening and closing dates for commercial fisheries; evaluating and plotting the size of the hypoxic zone off of Louisiana; assessing shrimp and groundfish abundance and distribution and their relationship to such environmental parameters as temperature, salinity, and dissolved oxygen; and providing juvenile abundance indices for red snapper stock assessments. The Survey objectives are to monitor size and distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf, aid in evaluating the “Texas Closure” management measure of the GMFMC Shrimp FMP, and provide information on shrimp and groundfish stocks across the northern Gulf of Mexico from inshore waters to 60fm.

### Survey Design

The sampling sites are chosen using a random design with proportional allocation by bottom area within shrimp statistical zones throughout the Gulf of Mexico. Trawl stations sampled by NMFS, Florida, Alabama, Mississippi, and Louisiana are made with a standard SEAMAP-Gulf 42-ft trawl net. Trawls are towed perpendicularly to the depth contours for 30 minutes. Environmental data are also taken during the survey. All *Litopenaeus setiferus*, *Farfantepenaeus aztecus*, and *Farfantepenaeus duorarum* are separated from the trawl catch at each station. Total count and weight by species are recorded for each station. A sample of up to 50 shrimp of each species from every trawl is sexed and measured to obtain length-frequency information. Estimated total numbers are derived from the total weights of those processed. Other species of fishes and invertebrates are identified, enumerated, and weighed. Weights and individual measurements of selected species, other than commercial shrimp, are also recorded.

### Optimization of Present Sampling

The Summer Shrimp/Groundfish Survey can be optimized by extracting otoliths to age fish, performing dietary analysis to determine trophic interactions, and examining reproductive stage from fish currently captured in normal survey operations. This information would provide a wealth of data that could be used in current fisheries management, understanding predator/prey interactions, and developing ecosystem-based fisheries management.

### Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2018	Gray Snapper	X	X		SEDAR 51 Stock Assessment	<a href="http://sedarweb.org/sedar-51">http://sedarweb.org/sedar-51</a>
2018	Red Snapper	X	X		SEDAR 52 Stock Assessment	<a href="http://sedarweb.org/sedar-52">http://sedarweb.org/sedar-52</a>
2009-2019	White, Brown, and Pink	X	X		Shrimp Stock Assessment	<a href="http://www.galvestonlab.sefsc.noaa.gov/publications/">http://www.galvestonlab.sefsc.noaa.gov/publications/</a>
2019	Red Grouper	X	X		SEDAR 61 Stock Assessment	<a href="http://sedarweb.org/sedar-61">http://sedarweb.org/sedar-61</a>
2020	Vermilion Snapper	X	X		SEDAR 67 Stock Assessment	<a href="http://sedarweb.org/sedar-67">http://sedarweb.org/sedar-67</a>

Data have been incorporated into several Atlantis-GOM and Ecopath with Ecosim ecosystem models to determine the biomass of each species present in the model area.<sup>456</sup> Data has also been incorporated into a large monitoring database to develop fish and invertebrate spatial distributions to support ecosystem models.<sup>7</sup>

### 3.1.1.6 Fall Plankton Survey

#### Objectives

The SEAMAP-Gulf Fall Plankton Survey began in 1984 and takes place every August and September in waters of the northern Gulf of Mexico. Approximately 200 stations are sampled each year. The objective of the survey is to collect ichthyoplankton samples with bongo and neuston gear for the purpose of estimating abundance and defining the distribution of eggs, larvae, and small juveniles of Gulf of Mexico fishes, particularly king and Spanish mackerel, lutjanids, and sciaenids.

#### Survey Design

Plankton samples are taken with standard SEAMAP-Gulf bongo and neuston samplers. The bongo sampler consists of two conical 61cm nets with 333-micron mesh. Tows are oblique, surface to near bottom (or 200m) and back to surface. A single or double 2x1m pipe frame neuston net fitted with 0.947mm mesh netting is towed at the surface with the frame half-submerged for 10 minutes. Samples are taken upon arrival on station regardless of time of day. At each station, either a bongo and/or neuston tow are made depending on the specific survey. In addition, hydrographic data (surface chlorophylls, salinity, temperature, and dissolved oxygen from surface, midwater, and near bottom, and Forel-ule color) are collected at all stations.

#### Optimization of Present Sampling

The Fall Plankton Survey can be optimized by using a 1-meter Multiple Opening and Closing Net Environmental Sensing System (MOCNESS) to sample the vertical distribution of fish larvae by

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<sup>4</sup> Ainsworth, C.H., C.B. Paris, N. Perlin, L.N. Dornberger, W.F. Patterson III, E. Chancellor, S. Murawski, D. Hollander, K. Daly, I.C. Romero, F. Coleman, and H. Perryman. 2018. Impacts of the Deepwater Horizon oil spill evaluated using an end-to-end ecosystem model. PLOS One. <https://doi.org/10.1371/journal.pone.0190840>

<sup>5</sup> Chagaris, D.D., W.F. Patterson, and M.S. Allen. 2020. Relative Effects of Multiple Stressors on Reef Food Webs in the Northern Gulf of Mexico Revealed via Ecosystem Modeling. *Frontiers in Marine Science*. Vol. 7:Article 513. <https://doi.org/10.3389/fmars.2020.00513>

<sup>6</sup> de Mutsert, K. J. Steenbeek, K. Lewis, J. Buszowski, J.H. Cowan Jr., and V. Christensen. 2016. Exploring effects of hypoxia on fish and fisheries in the northern Gulf of Mexico using a dynamic spatially explicit ecosystem model. *Ecological Modeling* 331:142-150.

<sup>7</sup> Grüss, A., H.A. Perryman, E.A. Babcock, S.R. Sagarese, J.T. Thorson, C.H. Ainsworth, E.J. Anderson, K. Brennan, M.D. Campbell, M.C. Christman, S. Cross, M.D. Drexler, J.M. Drymon, C.L. Gardner, D.S. Hanisko, J. Hendon, C.C. Koenig, M. Love, F. Martinez-Andrade, J. Morris, B.T. Noble, M.A. Nuttall, J. Osborne, C. Pattengill-Semmens, A.G. Pollack, T.T. Sutton and T.S. Switzer. 2018. Monitoring programs of the U.S. Gulf of Mexico: inventory, development and use of a large monitoring database to map fish and invertebrate spatial distributions. *Reviews in Fish Biology and Fisheries*. 2018. 25 pp.

sampling at discrete depths in the water column. A Methot fish trawl can also be used to sample the size fraction of fishes that are underrepresented in bongo and neuston samples.

### Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2018	Red Snapper	X			SEDAR 52 Stock Assessment	<a href="http://sedarweb.org/sedar-52">http://sedarweb.org/sedar-52</a>
2019	King Mackerel	X	X		SEDAR 38 Update King Mackerel Assessment	<a href="https://sedarweb.org/sedar-38">https://sedarweb.org/sedar-38</a>
2020	Vermilion Snapper	X			SEDAR 67 Stock Assessment	<a href="http://sedarweb.org/sedar-67">http://sedarweb.org/sedar-67</a>

### 3.1.1.7 Fall Shrimp/Groundfish Survey

#### Objectives

The SEAMAP-Gulf Fall Shrimp/Groundfish Survey began in 1985 and is currently conducted from South Florida to the U.S./Mexican border. Data from the survey are used in evaluating the abundance and size distribution of penaeid shrimp in federal and state waters to assist in determining opening and closing dates for commercial fisheries; assessing shrimp and groundfish abundance and distribution and their relationship to such environmental parameters as temperature, salinity, and dissolved oxygen; and providing juvenile abundance indices for red snapper stock assessments.

#### Survey Design

The survey collects samples at over 330 stations annually. Vessels sample waters out to 60ftm with trawls in addition to environmental sampling. The sampling sites are chosen using a random design with proportional allocation by bottom area within shrimp statistical zones throughout the Gulf of Mexico. Trawl stations sampled by NMFS, Florida, Alabama, Mississippi, and Louisiana are made with a standard SEAMAP-Gulf 42-ft trawl net. The objectives of the survey are to sample the northern Gulf of Mexico to determine abundance and distribution of demersal organisms from inshore waters to 60ftm; obtain length-frequency measurements for major finfish and shrimp species to determine population size structures; and collect environmental data to investigate potential relationships between abundance and distribution of organisms and environmental parameters.

#### Optimization of Present Sampling

The Fall Shrimp/Groundfish Survey can be optimized by extracting otoliths to age fish, performing dietary analysis to determine trophic interactions, and examining reproductive stage of captured fish.



## Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2018	Red Snapper	X	X		SEDAR Stock Assessment	<a href="http://sedarweb.org/sedar-52">http://sedarweb.org/sedar-52</a>
2009 - 2019	White, Brown, and Pink	X	X		Shrimp Stock Assessment	<a href="http://www.galvestonlab.sefsc.noaa.gov/publications/">http://www.galvestonlab.sefsc.noaa.gov/publications/</a>
2019	King Mackerel	X	X		SEDAR 38 Update King Mackerel Assessment	<a href="https://sedarweb.org/sedar-38">https://sedarweb.org/sedar-38</a>

### 3.1.2 SOUTH ATLANTIC RESOURCE SURVEYS

#### 3.1.2.1 Coastal Trawl Survey

##### Objectives

The objective of the Coastal Trawl Survey is to provide spatial and temporal data on resident and transient fish, crustaceans, and other species inhabiting shallow coastal ocean off the Southeastern US. Collected information includes community level data, relative abundance, length compositions, and life-history information for use in stock assessments and management.

##### Survey Design

Sampling cruises are conducted seasonally in April-May, July-August, and October-November between Cape Hatteras, North Carolina and Cape Canaveral, Florida. Between 102 and 112 stations (4.6 to 9.1m depth) are sampled each season. Sampling is done with a pair of 22.9m mongoose-type Falcon trawls, with tickler chains, and without TEDs or bycatch reduction devices (BRDs). Sampling is conducted during daylight hours and trawls are towed for 20 minutes. Contents of each net is processed independently. All finfish, elasmobranchs, crustaceans, and cephalopods are sorted to species or genus, counted, and weighed. Additional length and weight data are recorded, and age structures and reproductive tissues are collected from selected priority species. Note that due to stagnating or reduced funding there have been discussions about adjusting the sampling strategy, which may result in sampling two, rather than three seasons each year.

##### Optimization of Present Sampling

This survey currently uses the SCDNR owned Research Vessel *Lady Lisa* as its sole sampling platform. This vessel had been fully utilized by various surveys, but lack of funding has halted several studies in recent years. It may be possible to collect additional samples, such as water quality, algae, and bottom samples, at marginal additional cost.

## Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2016	Bluefish	x	x	x	ASMFC Benchmark Assessment	<a href="http://www.asmfc.org/fisheries-science/stock-assessments">http://www.asmfc.org/fisheries-science/stock-assessments</a>
2016	Weakfish	x	x	x	ASMFC Benchmark Assessment	<a href="http://www.asmfc.org/fisheries-science/stock-assessments">http://www.asmfc.org/fisheries-science/stock-assessments</a>
2016-2020	Atlantic Menhaden	x	x	x	ASMFC Stock Assessments	<a href="http://www.asmfc.org/fisheries-science/stock-assessments">http://www.asmfc.org/fisheries-science/stock-assessments</a>
2016-2020	Penaeid Shrimp	x	x		SC-DNR Fisheries Management	
2016-2020	Atlantic Croaker and Spot	x	x		ASFMC Assessment Review and "Traffic Light" Analysis	<a href="http://www.asmfc.org">http://www.asmfc.org</a>
2016-2020	Bluefish, Weakfish, Atlantic Croaker, Spot, Spanish Mackerel, and Horseshoe Crab	x			ASMFC compliance Reports	<a href="http://www.asmfc.org">http://www.asmfc.org</a>
2017	Atlantic Croaker	x	x		ASMFC Benchmark Assessment	<a href="http://www.asmfc.org/fisheries-science/stock-assessments">http://www.asmfc.org/fisheries-science/stock-assessments</a>
2017	Southern Flounder	x	x		NCDMF Southern Flounder assessment	
2018	Horseshoe Crab	x	x	x	Horseshoe Crab Stock Assessment	<a href="http://www.asmfc.org/fisheries-science/stock-assessments">http://www.asmfc.org/fisheries-science/stock-assessments</a>
2018	Bluefish	x	x	x	NEFSC Bluefish Update Stock assessment	<a href="https://nefsc.noaa.gov/">https://nefsc.noaa.gov/</a>
2018-2019	Atlantic Menhaden	x	x	x	SEDAR 69 Atlantic Menhaden Benchmark Assessment	<a href="https://sedarweb.org/sedar-69">https://sedarweb.org/sedar-69</a>
2019	King Mackerel	x	x	x	SEDAR 38 Update King Mackerel Assessment	<a href="https://sedarweb.org/sedar-38">https://sedarweb.org/sedar-38</a>
2016-2020	Various species		x	x	Diet information for Ecopath/Ecosim modelling for SAFMC coordinated modeling efforts	<a href="https://safmc.net/fishery-ecosystem-plan-ii-south-atlantic-ecosystem/">https://safmc.net/fishery-ecosystem-plan-ii-south-atlantic-ecosystem/</a>

Coastal Trawl Survey data are supporting continued development of South Atlantic Ecopath with Ecosim model.<sup>8</sup> An initial list of species where collection of diets will significantly enhance the model are provided in Section 2.1.5 of the [Review Report for the 2019 South Atlantic Ecopath with Ecosim Model](#).

### 3.1.2.2 North Carolina Pamlico Sound Trawl Survey

#### Objectives

The Pamlico Sound Trawl survey provides a long-term fishery-independent database for the waters of the Pamlico Sound and associated river systems. Data collected from the survey provide juvenile abundance indices and long-term population parameters for interstate and statewide stock assessments of recreationally and commercially important fish stocks. The primary objectives of the survey are to monitor the distribution, relative abundance, and size composition of fish, shrimp, and crabs in the survey area and how they vary temporally and spatially. This data is used to ascertain fishery-independent estimates population size and mortality, identify nursery areas, determine if catch rates are correlated with indices of juvenile abundance, and monitor movement out of nursery areas.

#### Survey Design

During June and September each year, 54 randomly selected stations (one-minute by one-minute grid system equivalent to one square nautical mile) are trawled for 20 minutes using double rigged 30 ft demersal mongoose trawls over a two-week period, usually the second and third week of each month. Stations sampled are randomly selected from the following strata: Pungo River, Neuse River, Pamlico River, Pamlico Sound east of Bluff Shoal ( $\geq 3.6\text{m}$ ), Pamlico Sound east of Bluff Shoal ( $< 3.6\text{m}$ ), Pamlico Sound west of Bluff Shoal ( $\geq 3.6\text{m}$ ), and Pamlico Sound west of Bluff Shoal ( $\geq 3.6\text{m}$ ). The randomly drawn stations are optimally allocated among strata based upon all previous June or September sampling to provide the most accurate abundance estimates. Catches from both nets are combined to comprise a single sample to reduce variability. All captured species are sorted, enumerated, and weighed. Economically and environmentally important species are measured. Environmental data is recorded at each station.

#### Optimization of Present Sampling

The Pamlico Sound survey could be optimized to collect stomachs of sampled fish species during the survey. Diet analysis of sampled fish species could provide insight into predator-prey interactions, as well as an additional resource for multi-species and ecosystem management approaches for Pamlico Sound. Collection of information (e.g., life history, tagging) from other species captured in the survey could be used to address additional data needs.

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<sup>8</sup>[https://safmc.net/download/Briefing%20Book%20SSC%20Oct%202019/A12\\_Update\\_on\\_Construction\\_of\\_SA\\_Ecopath\\_Model\\_Diet\\_Matrix.pdf](https://safmc.net/download/Briefing%20Book%20SSC%20Oct%202019/A12_Update_on_Construction_of_SA_Ecopath_Model_Diet_Matrix.pdf)

## Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2017	Spot	X	X		ASMFC 2017 Spot Stock Assessment Peer Review	<a href="http://www.asmfc.org/uploads/file/59c2b9edSpotAssessmentPeerReviewReport_May2017.pdf">http://www.asmfc.org/uploads/file/59c2b9edSpotAssessmentPeerReviewReport_May2017.pdf</a>
2017	Atlantic Croaker	X	X		ASMFC 2017 Atlantic Croaker Stock Assessment Peer Review	<a href="http://www.asmfc.org/uploads/file/59c2ba88AtlCroakerAssessmentPeerReviewReport_May2017.pdf">http://www.asmfc.org/uploads/file/59c2ba88AtlCroakerAssessmentPeerReviewReport_May2017.pdf</a>
2018	Blue Crab	X	X	X	NCDMF Stock Assessment of the North Carolina Blue Crab ( <i>Callinectes sapidus</i> ), 1995–2016	<a href="http://portal.ncdenr.org/c/document_library/get_file?uuid=0c228bdc-d11b-440e-b1e7-ef9cbf0cb249&amp;groupId=38337">http://portal.ncdenr.org/c/document_library/get_file?uuid=0c228bdc-d11b-440e-b1e7-ef9cbf0cb249&amp;groupId=38337</a>
2019	Southern Flounder	X	X		NC Stock Assessment of Southern Flounder in the South Atlantic, 1989-2017	<a href="https://files.nc.gov/ncdeq/Coastal%20Management/4-StockAssessmentReportSouthernFlounder-2019-Jan-v3.pdf">https://files.nc.gov/ncdeq/Coastal%20Management/4-StockAssessmentReportSouthernFlounder-2019-Jan-v3.pdf</a>
2019	Weakfish	X	X		ASMFC Stock Assessment Overview	<a href="http://www.asmfc.org/uploads/file/5df29fd92019WeakfishAssessmentOverview_Nov2019.pdf">http://www.asmfc.org/uploads/file/5df29fd92019WeakfishAssessmentOverview_Nov2019.pdf</a>

### 3.1.2.3 SEAMAP-SA Reef Fish Survey

#### Objectives

The objective of the SEAMAP-SA Reef Fish Survey, coordinated with MARMAP and SEFIS sampling efforts into the broader SERFS, is to collect and provide abundance and life-history information on reef fish species for use in stock assessments, research, and management decisions.

#### Survey Design

Sampling is aimed at monitoring populations of important species in some of the most heavily fished habitats off the southeastern US. Sampling locations are reef sites from 15m to about 300m, depths between Cape Hatteras, NC, and the area off St. Lucie Inlet, FL. The main gear types used are chevron traps, short bottom longline, and rod and reel, and oceanographic variables (mostly temperature, salinity, and depth) are measured using a CTD (see MARMAP 2009, SAFIMP 2010, Reichert et al. 2011 for gear details). Sampling occurs from late April to

early October using the SCDNR Research Vessel *Palmetto*. Sampling sites are randomly selected from a universe of confirmed live-bottom reef habitat locations.

The primary gear is the chevron trap, which are baited arrowhead shaped fish traps (1.5m x 1.7m x 0.6m). They are generally deployed at depths less than 100m and soaked for approximately 90 minutes. Each trap is equipped with two underwater video cameras located on top of the trap and facing opposite directions. The cameras provide information on habitat, visibility, trap behavior (e.g. movement), and relative abundance for species seen around the traps. Video data are provided to SEFIS for examination and analyses. Sampling in habitats at depths greater than ~ 75m in areas with considerable vertical relief is done primarily using short bottom longline gear. This gear consists of a 25.6m ground line with 20 gangions with non-offset circle hooks baited with whole squid, and the soak time is approximately 90 minutes. In addition, rod and reel gear with a variety of tackle and bait is used to collect samples for diet studies and additional life history information, particularly for species with low catches in traps and on longlines.

All fish caught during sampling are identified and measured on board and a total weight by species is determined. Additional samples, including otoliths and reproductive tissues, are taken from managed priority species, stored, and further processed in the SC DNR Reef Fish laboratory to determine age, reproductive parameters, diet, etc.

### **Optimization of Present Sampling**

The survey has been optimized through direct collaboration within SERFS (between the SEAMAP-SA, MARMAP, and SEFIS programs) to complement and effectively cover depths including shallow, shelf, and deepwater habitats. All sampling activities are coordinated and planned in consultation with SC DNR and SEFSC partners, and annual planning meetings are held prior to each sampling season. SEAMAP-SA funding has resulted in increased annual reef fish sample sizes and sampling coverage and allowed longline surveys to resume after they were halted in 2014 due to a significant funding cut to the MARMAP program. All data are incorporated in the SEAMAP-SA database and available for online queries and data download. The data are also used for the SAFMC's mapping service ([http://ocean.floridamarine.org/safmc\\_dashboard/](http://ocean.floridamarine.org/safmc_dashboard/)), research by third parties, stock assessments, and management.

## Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2014- 2016	Gray Triggerfish	x	x	x	SEDAR 41	<a href="https://sedarweb.org/sedar-41">https://sedarweb.org/sedar-41</a>
2014- 2016	Red Snapper	x	x	x	SEDAR 41	<a href="https://sedarweb.org/sedar-41">https://sedarweb.org/sedar-41</a>
2016- 2020	Red Snapper	x	x		Updates to the Council	<a href="http://www.SAFMC.net">www.SAFMC.net</a>
2016- 2020	Various Reef Fish Species	x	x	x	SSC, Council, and Advisory Panel (Annual) Updates	<a href="http://www.SAFMC.net">www.SAFMC.net</a>
2016- 2020	Various Reef Fish Species	x	x	x	Updates to SAFMC SSC to assist with ABC recommendations	<a href="http://www.SAFMC.net">www.SAFMC.net</a>
2016- 2017	Blueline Tilefish	x	x	x	SEDAR 50	<a href="https://sedarweb.org/sedar-50">https://sedarweb.org/sedar-50</a>
2016- 2017	Red Grouper	x	x	x	SEDAR 53	<a href="https://sedarweb.org/sedar-53">https://sedarweb.org/sedar-53</a>
2017- 2018	Vermilion Snapper	x	x	x	SEDAR 55	<a href="https://sedarweb.org/sedar-55">https://sedarweb.org/sedar-55</a>
2016- 2018	Black Sea Bass	x	x	x	SEDAR 56	<a href="https://sedarweb.org/sedar-56">https://sedarweb.org/sedar-56</a>
2018- 2020	Greater Amberjack	x	x	x	SEDAR 59	<a href="https://sedarweb.org/sedar-59">https://sedarweb.org/sedar-59</a>
2018- 2020	Red Porgy	x	x	x	SEDAR 60	<a href="https://sedarweb.org/sedar-60">https://sedarweb.org/sedar-60</a>
2020- 2021	Golden Tilefish	x	x	x	SEDAR 66	<a href="https://sedarweb.org/sedar-66">https://sedarweb.org/sedar-66</a>
2019- 2021	Scamp	x	x	x	SEDAR 68	<a href="https://sedarweb.org/sedar-68">https://sedarweb.org/sedar-68</a>
2020- 2021	Red Snapper	x	x	x	SEDAR 73	<a href="https://sedarweb.org/sedar-73">https://sedarweb.org/sedar-73</a>
2020- 2021	Gag	x	x	x	SEDAR 71	<a href="https://sedarweb.org/sedar-71">https://sedarweb.org/sedar-71</a>
2020- 2021	Snowy Grouper	x	x	x	SEDAR 36 - Update	<a href="https://sedarweb.org/sedar-36">https://sedarweb.org/sedar-36</a>
2016- 2020	Various species		x	x	Diet information for Ecopath/Ecosim modelling for SAFMC coordinated modeling efforts	<a href="https://safmc.net/fishery-ecosystem-plan-ii-south-atlantic-ecosystem/">https://safmc.net/fishery-ecosystem-plan-ii-south-atlantic-ecosystem/</a>

Data supporting continued development of South Atlantic Ecopath with Ecosim model.<sup>9</sup> An initial list of species where collection of diets will significantly enhance the model are provided in Section 2.1.5 of the [Review Report for the 2019 South Atlantic Ecopath with Ecosim Model](#).

### 3.1.2.4 State Coastal Longline Surveys

#### ***South Carolina Coastal Longline Survey***

##### **Objectives**

The objective of this project is to conduct a multi-species (target species adult red drum and coastal sharks) survey in the Southeast region. Adult red drum (otoliths, reproductive tissues, and genetic samples) as well as coastal shark (depending on external funding: genetics, life history, guts and muscle) samples are collected and processed to describe the population in the Southeast. Regional collaboration is aimed at efforts to optimize planning and survey design in the Southeast region with GA DNR and NC DMF partners.

##### **Survey Design**

The coastal longline survey is conducted following a stratified random design in Winyah Bay, Charleston Harbor, St. Helena Sound and Port Royal Sound, all in SC. Sampling in each of the four strata is conducted during August 1 – September 15, September 16 – October 31, and November 1 – December 15. Locations within each stratum are randomly selected resulting in approximately 30 stations per time period, per stratum. The sampling gear is a bottom longline deployed from the SC DNR owned R/V *Silver Crescent*. It consists of a 617m long 272 kg test monofilament mainline. Forty clip-on, monofilament gangions with baited hooks are placed at 15.2m intervals. Hooks are baited with striped mullet, Atlantic mackerel, or other readily obtainable baitfish. The sets are anchored and buoyed at each end. Gear soak times are 30 minutes and the collected fish are measured, sexed (sharks), and tagged (selected species) before release. Red drum are tagged with external dart tags and internal PIT tags. Fin clip are collected from all red drum and some other species to identify stocked fish and determine population structure. Coastal sharks of all life stages are tagged with external tags provide by the NMFS Apex Predator Program. Red drum are randomly sacrificed (30 - 50 fish per stratum/season) and various samples are taken for multiple investigations, including otoliths, reproductive tissues, and DNA.

##### **Optimization of Present Sampling**

In early survey years, catch per unit effort (CPUE) data were analyzed to maximize potential encounters with target species (red drum and coastal sharks). Areas with low CPUE of these species were eliminated, and productive areas were expanded to include more sampling locations. We have continued discussions with technical monitors to attempt to standardize the SCDNR and GADNR longline surveys.

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<sup>9</sup>[https://safmc.net/download/Briefing%20Book%20SSC%20Oct%202019/A12\\_Update\\_on\\_Construction\\_of\\_SA\\_Ecopath\\_Model\\_Diet\\_Matrix.pdf](https://safmc.net/download/Briefing%20Book%20SSC%20Oct%202019/A12_Update_on_Construction_of_SA_Ecopath_Model_Diet_Matrix.pdf)

## ***North Carolina Coastal Longline Survey***

### **Objectives**

The North Carolina Coastal Longline survey provides necessary information to develop fishery-independent index of abundance for adult red drum to be used in future stock assessments. Tagging of red drum captured during the survey allows for additional information on migratory behavior and stock identification. Collection of biological information and age structures provides information on size at age, recruitment, genetic composition, age structures of stock, and much more. Fishery-independent surveys allow determination of CPUE, which is necessary to determine population size and trends in abundance.

### **Survey Design**

The study occurs within the Pamlico Sound, divided into twelve regions ranging from Gull Island to the mouth of the Neuse River. A stratified-random sampling design based on prior NC DMF red drum sampling is used to select 72 random samples between mid-July and mid-October annually. Additional non-random exploratory samples may be made during the study period in Pamlico Sound and also in the nearshore waters of the Atlantic Ocean from Ocracoke to Cape Hatteras. All captured individuals are recorded at the species level and measured. Red drum are tagged with internal and external tags and released to identify migratory patterns, while a subset of red drum taken are processed for sex, maturity, stomach contents, and age data. Coastal shark species are identified by species and sex and are measured and tagged according to Cooperative Atlantic States Shark Popping and Nursery (COASTSPAN) survey procedures.

Sampling is conducted using bottom longline gear during nighttime hours starting no earlier than an hour before sunset. Samples are conducted with a 1,500m mainline with gangions placed at 15m intervals (100 hooks/set). Terminal gear are clip-on, monofilament gangions consisting of a 2.5mm diameter stainless steel longline clip with a 4/0 swivel. Leaders on gangions are 0.7m in length and consist of 91kg (200lb) monofilament rigged with a 15/0 Mustad tuna circle hook. Hooks are baited with readily available baitfish. All soak times are standardized to 30 minutes. In order to maintain consistency, all samples are made in the vicinity of the 1.8m depth contour with sample depths ranging from 1.2 to 4.6m.

### **Optimization of Present Sampling**

The NC Coastal Longline survey could be optimized by providing additional life history information on red drum. Collecting diet data as part of the survey could provide needed information which is largely nonexistent, including information on predator-prey relationships to enhance available data for the development of multi-species and ecosystem management. Collection of information (e.g., life history, tagging) from other species captured in the survey could be used to address additional data needs.

## ***Georgia Coastal Longline Survey***

### **Objectives**

The primary objective of the Georgia Coastal Longline Survey is to provide a fishery-independent index of abundance for adult red drum and coastal shark species.



## Survey Design

Sampling consists of a stratified random sampling design based on spatial strata: inshore (sounds, estuaries), nearshore (0-3 nm) and offshore (3-12 nm). From June through December, 35 longline sets are conducted during each four 6-week sampling period (Jun 16-Jul 31, Aug 1-Sep 15, Sep 16-Oct 31, Nov 1-Dec 15) in southern Georgia waters. Strata weights are adjusted during the sampling season (more heavily inshore and nearshore Jun 15-Sep 15; more heavily offshore Sep 16-Dec 15) to account for the distributional shift of adult red drum. Sampling gear consists of an ~926 m long, 2.5 mm monofilament main line supporting 60 branchlines. Branchlines are 0.7 m long, 1.6 mm monofilament, equipped with a single 15/0 depressed barb circle hook, baited with cut mullet. Soak times are 30 minutes measured from second anchor deployed to first anchor retrieved. All catch is processed to the species level. Red drum are landed, processed for standard morphometrics and, if viable, tagged with dart and PIT tags and released. Sharks are processed for sex, life stage, and morphometric data. Sharks > 1.5 m remain in the water to ensure safe handling and therefore are not weighed. Sharks < 1.5 m are tagged with Roto tags on the first dorsal, while those > 1.5 m are tagged with stainless steel dart tags, when possible. Shark tags are supplied by National Marine Fisheries Service's Apex Predator Program and the tagging data are managed as part of their cooperative tagging database.

## Optimization of Present Sampling

Species encountered by this survey will be checked for telemetry and conventional tags released by GADNR and other researchers. Red drum may be opportunistically implanted with acoustic tags in conjunction with ongoing state research projects. Information from tagging encounters and efforts can provide information about mortality and movement for management plans and stock assessments. GADNR is in the process of purchasing a new vessel to perform the longline survey. The new vessel will potentially improve the efficiency of survey operations.

## Recent Data Uses (for all Coastal Longline Surveys, NC, SC, GA)

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Envir./ Habitat		
2016-2020	Red Drum	x	x	x	SCDNR red drum management	
2017	Red Drum	x	x	x	State Specific Assessment	
2017	Red Drum				ASMFC 2017 Red Drum Stock Assessment	<a href="http://www.asmfc.org/uploads/file/58b5c1eaRedDrumAssessmentOverview_Feb2017.pdf">http://www.asmfc.org/uploads/file/58b5c1eaRedDrumAssessmentOverview_Feb2017.pdf</a>
2017-2019	Sandbar Shark	x	x	x	SEDAR 54 HMS Sandbar Shark	<a href="https://sedarweb.org/sedar-54">https://sedarweb.org/sedar-54</a>
2019-2020	Blacktip Shark	x	x	x	SEDAR 65 Blacktip Shark Benchmark	<a href="https://sedarweb.org/sedar-65">https://sedarweb.org/sedar-65</a>
2020	Coastal sharks		x		Tagging life history	<a href="https://www.nefsc.noaa.gov/nefsc/Narragansett/sharks/tagging.html">https://www.nefsc.noaa.gov/nefsc/Narragansett/sharks/tagging.html</a>

### 3.1.3 CARIBBEAN RESOURCE SURVEYS

#### 3.1.3.1 SEAMAP-C Reef Fish Survey

##### **Objectives**

The objective of the SEAMAP-C Reef Fish Survey is to collect and provide abundance and life-history information on reef fish species for use in stock assessments, research, and management decisions. As part of the life history information, high definition videos are analyzed and gonads samples of species are collected, from the reef fish surveys at insular platform of Puerto Rico and the USVI to provide information on the reproduction. In addition, data from reef fish surveys have been used to analyze multispecies trends of fish assemblages associated with coral reef. This information is key for the construction of ecosystem-based models, which in turn are the foundational stones for an effective EBFM.

##### **Survey Design**

The SEAMAP-C Reef Fish Survey officially began in 1992 as a SEAMAP survey in Puerto Rico. Until 2004, sampling was conducted using two gears: hook-and-line and fish traps. The use of fish traps ceased in 2006, and hook-and-line is now the primary gear used for this survey. In 2016, the reef fish survey was revamped and expanded to include video and bottom longline to complement the hook-and-line gear.

For each five-year funding cycle, reef fish survey sampling usually occurs in years 1, 2, 4, and 5. Reef fish survey sample site selection includes a two-factor random stratified sampling design based on depth and benthic habitat type within the 50 ftm contour of Puerto Rico and the U.S. Virgin Islands (St. Thomas/St. John and St. Croix). A total of 200 stations are conducted by Puerto Rico, about 100 off each the east and west coasts, and 140 stations will be sampled off the U.S. Virgins Islands, about 70 stations off each of the St. Thomas/St. John and St. Croix islands.

Sample collection has been conducted using three sampling gear types at each station: A) video camera (a 2 GoPro Hero4 Silver camera array), B) a 100ft bottom longline (50 #9 circle hooks) and C) a 2-hook handline (one #9 “J” and one #9 circle hook). Each sample gear has been deployed at the same station area, but at least 50 m apart to avoid interaction of different gear types. For all samples, all pertinent station data is recorded, and fish length, sex, and gonadal condition is determined from each specimen collected. Most of the data is entered in real-time into NOAA Fisheries’ SEAMAP-C Data Management System. The software SCS and Sellit will be used, once they become available and functional to enter the data collected in PR and the USVI.

In all reef fish surveys, data on sexual maturation of each individual is recorded and used to determine spawning season and size of 50% population maturation. Samples are also provided for the reproduction program established at the Fisheries Research Laboratory (FRL) for some of the species under study by this program. Data is also being used to compare the relative precision of macroscopic and microscopic/histological sexing. All individuals are

macroscopically sexed. In Puerto Rico all gonads are photographed, removed, and preserved for histological sexual determination. Comparison between macroscopic and microscopic sex is performed. This information is used as a guide to determine the sexual maturation for different species, and to increase the precision of sexing individuals.

### Optimization of Present Sampling

In addition to the reproductive data already collected during this survey, the SEAMAP-C Reef Fish Survey has been optimized by extracting otoliths to age fish and performing dietary analysis to determine trophic interactions. This information would provide a wealth of data that could be used for current fisheries management, understanding predator/prey interactions, and supporting development of ecosystem-based fisheries management. Otoliths are sent to Dr. Shervette at the College of Charleston, University of South Carolina.

### Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
2019	Tropical Reef Fisheries Systems	X			Ecosystem Based Quantitative Models	<a href="https://www.lenfestocean.org/en/research-projects/new-effort-to-inform-an-ecosystem-approach-to-managing-us-caribbean-fisheries">https://www.lenfestocean.org/en/research-projects/new-effort-to-inform-an-ecosystem-approach-to-managing-us-caribbean-fisheries</a>
1999 - 2019	Entire Fish Assemblage	X			Integrative analyses and visualization of SEAMAP-C data in Puerto Rico and the US Virgin Islands	In Progress
1999 - 2019	Fish Communities	X		X	EBFM FEP	In Progress

### 3.1.3.2 Queen Conch Survey

#### Objectives

The objective of the SEAMAP-C Queen Conch Survey is to determine the spatial and temporal variations in stock abundance within the territorial seas of Puerto Rico, the USVI, and respective EEZs for use in stock assessments, research, and management decisions. The survey is also of great importance to evaluate catch quotas implemented in USVI. Lately, the objective of collecting this information has gained importance, since the PRDNER/FRL data indicates that,

after Hurricane María, apparently this species has been less reported in recent landings. In Puerto Rico, data collected through this survey was used to implement management measures that include minimum size, catch quota, and a closed season.

### **Survey Design**

The survey has been conducted every five years in Puerto Rico and USVI starting in 1995. This survey is the only source of monitoring, since the queen conch (*Lobatus gigas*) is restricted in federal waters, and can only be harvested within the EEZ of the USVI, so long as it meets the minimum size limit of 9" length or 3/8" lip thickness, does not exceed the ACL of 50,000 pounds per district, and is not harvested during its annual closed season, July 1 to September 30.

Originally, a visual census survey that utilizes a transect survey methodology was used, as designed by Freidlander *et al.* (1994). New pilot method designed by Appeldoorn and Cruz-Motta, discussed and accepted in the 2019 Seemap-C Committee Meeting will be in use for the next surveys. The survey is conducted in state and federal waters around Puerto Rico, including the Islands of Culebra, Vieques, and Mona. In the USVI, it is conducted in St. Thomas, St. John, and St. Croix. Most of the work will be performed in Puerto Rico and USVI during the queen conch closed season (July 1-September 30). The divers estimate conch abundance and density along the transect line for a maximum survey time of 45 minutes. A differential Global Positioning System (GPS) unit will be tied to the divers' safety buoy, towed by one of the divers. The other diver will carry the compass to follow a fixed direction for a set period. A camera (GoPro) will be set on each scooter to record the entire transect surveyed with a resolution of 720 p and 30 frames per second. This design and associated sampling is considered a pilot survey and it is expected that the resulting data will be used to propose a complete conch survey the following year.

In addition to counting all conch, depth, habitat type (e.g. sand, coral, hard ground, gorgonians, seagrass, and algal plains), start and end time, and time at each habitat change is recorded. The length of each individual conch is measured to the nearest millimeter and adult age is estimated to one of the four relative age classes (newly mature, adult, old adult, and very old adult).

Lastly, to account for queen conch aggregations, a sampling design such as manta tow could be used to identify aggregation location. Then the standard transect survey, or a density assessment based on Stoner and Waite, 1990 could be conducted upon the aggregations.

### **Optimization of Present Sampling**

The SEAMAP-C Queen Conch Survey can be optimized by also recording the number of other important species such as spiny lobster, snappers, and groupers. This information would provide a wealth of data that could be used for current fisheries stock assessments. Additionally, the SEAMAP-C Queen Conch survey design will be re-evaluated this cycle to ensure the best data is being collected for future stock assessments. Anecdotal evidence of conch spawning aggregations known locally as 'conch volcanos' occur throughout the region,

and efforts to identify these areas would be critical to properly managing this species.

Known issues with assessing queen conch populations are their burrowing behavior, and unknown habitat of their first year class. There is not a clear methodology description on sampling burrowed conch, however, sample sites should be expanded beyond the standard transect sites surveyed each period so that additional sites are surveyed, which may include those associated with age class one. Additionally, preferred habitat for queen conch is seagrass meadows. These habitats could be sampled more heavily than others. More so, the non-native species, *Halophila stipulacea*, may be displacing native seagrasses and associated queen conch. Better understanding the interaction between this non-native seagrass and queen conch could be studied.

Lastly, to account for queen conch aggregations, a sampling design such as manta tow could be used to identify aggregation location. Then the standard transect survey or a density assessment based on Stoner and Waite, 1990 could be conducted upon the aggregations.

**Recent Data Uses**

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmenta l/Habitat		
1999 - 2019	Queen Conch	X	X	X	Management Plan	<a href="https://caribbeanfmc.com/fishery-management/fishery-management-plans">https://caribbeanfmc.com/fishery-management/fishery-management-plans</a>

**3.1.3.3 Spiny Lobster Survey**

**Objectives**

The spiny lobster constitutes the most economically important commercial fishery species in Puerto Rico and the USVI, since lobsters sell for much more per pound than fish, which drives the economic importance. The objective of the SEAMAP-C Spiny Lobster Survey is to determine the spatial and temporal variations in stock abundance. It was done for pueruli and juvenile spiny lobsters. Currently this methodology plans to focus on the adult lobster population, within the territorial seas of Puerto Rico, the USVI, and respective EEZs for use in stock assessments, research, and management decisions.

**Survey Design**

The first SEAMAP-C Spiny Lobster Survey was conducted in 1996 using pueruli settlement collectors and occurs every five years. Starting in 2003, juvenile spiny lobsters were also monitored using artificial shelters, called “casitas,” and the modified Witham model pueruli collectors were constructed to monitor pueruli settlement. The lobsters’ casitas were sampled once every month between the full and new moons. Aiming to study reef recruitment of juveniles and adults, a new methodology was designed to be used during the next years.

To provide additional information on Spiny Lobster’s life history, the ageing will be included in the surveys by using the technique of growth readings on the ‘ossicles’ hard parts.

### Optimization of Present Sampling

The SEAMAP-C Spiny Lobster survey could be optimized by providing additional information on other fishery important species that are collected on the pueruli settlement collectors or in the casitas. To provide additional optimization on future Spiny Lobsters studies, the ageing will be included in the surveys by using the technique of growth readings on the ‘ossicles’ hard parts.

### Recent Data Uses

Year	Species/ Complex	Data Used			Product Type/Name	Reference or Link
		Abundance /Biomass	Life History	Environmental /Habitat		
1999 - 2019	Spiny Lobster	X	X	X	Management Plan	<a href="https://caribbeanfm.c.com/fishery-management/fishery-management-plans">https://caribbeanfm.c.com/fishery-management/fishery-management-plans</a>

### 3.1.4 SPECIMEN ARCHIVING

#### 3.1.4.1 Gulf

The SEAMAP-Gulf Ichthyoplankton Archiving Center houses SEAMAP-Gulf collected specimens of fish eggs and larvae that have been identified by the Polish Sorting and Identification Center. All data are managed in an Access database system, which minimizes mistakes, eliminates coding errors, and allows for much faster data entry.

The SEAMAP-Gulf Invertebrate Plankton Archiving Center manages planktonic invertebrates from sorted sample collections and backup plankton collections obtained during SEAMAP-Gulf surveys.

Just as SEAMAP-Gulf provides a level of consistency in sampling within Gulf waters, individual states can provide a framework for the expansion of SEAMAP-Gulf surveys through procedures and protocols established for long-term monitoring efforts. For instance, Florida currently processes otoliths and stomach contents for fish collected through its inshore monitoring program and has developed sound methodologies to collect and process those samples. As fishery management needs continue to grow, age estimates determined from otolith annular counts and trophic dynamics data obtained from gut content and stable isotope analyses will be vital to assess factors affecting managed fish stocks and associated ecological conditions. As SEAMAP-Gulf progresses and expands to include more ecosystem-based components in its data collection process, coordination with Florida and other knowledgeable entities would be advisable in developing procedures to address those needs.

#### 3.1.4.2 South Atlantic

Collection, cataloguing, and archiving voucher specimens from surveys is important and SEAMAP-SA funds used to support Southeastern Regional Taxonomic Center (SERTC), which has been largely responsible for these reference collections in the South Atlantic. SERTC is located in the Marine Resources Research Institute (SC DNR) in Charleston, South Carolina. This facility developed a curated collection of marine and estuarine animals from the South Atlantic Bight and is maintaining a searchable library based on taxonomic peer-reviewed literature. Through collaborations with other labs and museums, SERTC collected and preserved representative specimens from numerous habitats throughout the Southeast, documenting several range extensions for Atlantic species. Since many specimens are too large to be stored whole, SERTC has an image library containing photographs of fresh or frozen specimens of species collected by SEAMAP-SA Surveys. SERTC can also play a role in preparing graphical and informational content for webpages that describe the biodiversity of fauna collected during the SEAMAP-SA Surveys.

Given the limited available funding, SERTC support was reduced to minimal levels to maintain the existing collections only. It is expected that direct funding to SERTC will cease in this 5-year period and the archiving of specimens is likely to be folded into the individual survey program activities.

Archiving and storing otoliths and gonadal tissues has proven to be essential for high quality fish stock assessments. For example, some stock assessments required re-examination of otoliths or spines as a result of calibration studies (e.g. red porgy, vermillion snapper, and gray triggerfish) or to provide additional information such as edge types to determine the calendar age of fish (e.g., vermillion snapper, red snapper, and black sea bass). In addition, these samples provide material for laboratory calibrations and training. Genetic techniques are increasingly becoming available that can utilize material obtained from stored otoliths to address important population issues such as changes in life history parameters and dynamics as a result of fishing pressure and other factors affecting fish populations. Otolith and gonad samples collected by the SEAMAP-SA Reef Fish Survey (and MARMAP and SEFIS) and the SEAMAP-SA Coastal Trawl Survey provide a unique historical sample archive that has increasingly been utilized for such studies.

#### 3.1.4.3 Caribbean

In 2009, Puerto Rico began collecting and processing gonads of all captured reef fish to determine the sexual maturation of each individual. The data are used to determine spawning season and size of 50% population maturation. Also, samples are provided to the reproduction program established at the FRL for some species under study there. The FRL performs histological analysis to provide much needed information on reproduction of fisheries resources.

The relative precision between macroscopic and microscopic/histological sexing is also being explored. All individuals are macroscopically sexed and gonads are photographed, removed, and preserved for histological sexual determination. The macroscopic and microscopic sex

determination is then compared, which may increase the precision of sexing the individuals macroscopically. Providing samples to other programs within the FRL helps improve the data needed to evaluate important species, and reduces costs of obtaining samples and processing gonads.

In sampling conducted in the early 1990's, otoliths were collected and archived. A number of species' otoliths were aged and these data are available to interested parties. Some samples are provided to external researchers at the national level for various purposes, such as genetics studies, age and growth, and reproduction.

See Appendix C for more details on specimen archiving in the different SEAMAP regions.

### **3.1.5 DATA MANAGEMENT AND INFORMATION DISSEMINATION**

Biological and environmental data from SEAMAP surveys are managed at the regional level. Data may be obtained from each region's data manager by specific request. Information on data may be obtained from SEAMAP participants, published reports, and through the internet at [www.seamap.org](http://www.seamap.org) and [www.gsmfc.org/seamap.html](http://www.gsmfc.org/seamap.html). More detailed information on data management in each region is also available at these websites. Investigators who use SEAMAP data may publish their results with the understanding that SEAMAP is acknowledged for supplying the data. A bibliography of these publications along with documents published by SEAMAP may be found on [www.seamap.org](http://www.seamap.org) and [www.gsmfc.org/seamap.html](http://www.gsmfc.org/seamap.html).

In order to promote participation in SEAMAP and utilization of the program database, SEAMAP information is distributed in the form of reports and data summaries to interested parties. Products resulting from SEAMAP activities may be divided into two basic categories: datasets and program information. Datasets include both digital and analog data, as well as directories of specimen collections. Program information is defined as communications released to current and prospective participants, cooperators, investigators, or other interested agencies or persons. This information may be produced in a number of document types, described in Appendix D.

While each regional component's data management system currently operates independently, the long-term goal is to develop an overall SEAMAP Information System that crosses the regional component boundaries. NMFS could provide an important coordination function in this regard. Activities that should be addressed when resources are available include data management aspects of specimen and image archiving.

#### **3.1.5.1 SEAMAP-Gulf Data Management System**

Biological and environmental data from all SEAMAP-Gulf surveys are included in the SEAMAP Information System, managed by GSMFC in conjunction with NMFS. Raw data are edited by the collecting agency and verified by the SEAMAP-Gulf Data Manager prior to entry into the system. Verified SEAMAP-Gulf data are available conditionally to all requesters, although the highest



priority is assigned to SEAMAP-Gulf participants. More information about SEAMAP-Gulf data can be found at [www.gsmfc.org/seamap.html](http://www.gsmfc.org/seamap.html).

SEAMAP-Gulf data are maintained in relational databases. The GSMFC has developed several tools that allow users to visualize and map SEAMAP-Gulf data from the Gulf of Mexico over the Internet, and users are able to download the entire SEAMAP-Gulf dataset. Verification of new data and detection of invalid legacy data has improved significantly, and standardized methods of data submission have improved reliability and turnaround time of data availability.

Data summaries distributed to interested parties include real-time data reports during the Summer Shrimp/Groundfish Surveys, SEAMAP-Gulf biological and environmental atlases, and SEAMAP-Gulf directories. Cruise reports, quarterly reports, and annual reports are also distributed and are available online.

#### **3.1.5.2 SEAMAP-South Atlantic Data Management System**

Data management duties and funding for the SEAMAP-SA have been administered through the SC DNR since 2007, with support from NC DMF, GA DNR, and FWRI. The SEAMAP-SA Data Management Workgroup was formed to oversee the SEAMAP-SA Data Management System, a web-based information system that facilitates data entry, error checking, data extraction, dissemination, and summary of fishery-independent data and information for all ongoing SEAMAP-SA surveys and special studies. The full version of the SEAMAP-SA Oracle Database came online in 2014. Since then, the system has been improved and data are accessible through customizable data queries to end-users. Data from the Coastal Trawl Survey, the Pamlico Sound Survey, the Coastal Longline Surveys, and the Reef Fish Survey can now be accessed through the online data portal. In 2015, three ichthyoplankton datasets were added to the system. In the future, additional datasets such as the Cooperative Winter Tagging Cruise will be considered for inclusion. Analysts from several stock assessments, managers, and researchers have accessed the online data for queries that were used directly in stock assessments, for management, and in research projects.

In 2018, SCDNR data management staff began collaborating with the Southeast Coastal Ocean Observing Regional Association (SECOORA) and Axiom Data Science to test the feasibility of migrating the SEAMAP-SA online database to the SECOORA Data Portal. The SECOORA portal historically housed oceanographic and meteorological data and limited biological data sets. Their portal, however, has much more advanced end-user capabilities to explore and summarize and combine data sets across surveys and programs that is not feasible in the current SEAMAP-SA Oracle system. Based on a pilot project funded by SECOORA using SEAMAP-SA Reef Fish Survey data, Axiom Data Science was able to recreate the functionality of the current Oracle system and increase the quality of the end-user experience using their pre-existing data processing tools. In addition, this pilot improved on the structure of the SEAMAP-SA database with the addition of several fields not available before, but was not able to address the addition of all data and code tables. Based on the structure of the pilot, all SEAMAP-SA surveys currently available through the Oracle database can be incorporated into the SECOORA portal. Survey metadata has been

standardized to Darwin Core as part of the pilot and updates and tutorials for the SECOORA portal will be added to seamap.org. Once the SECOORA portal for SEAMAP-SA data is fully operational and the migration is complete, the SCDNR portal will be disabled.

The SEAMAP-SA Data Management System includes a website (SEAMAP.org) to view cruise reports and state contacts and to access summarized datasets and appropriate project metadata. The SEAMAP-SA Data Management Guidance Plan was morphed into a User Guide, a Data Manager Guide, a Data Provider Guide, and a Metadata Guide. The website is hosted and supported by SC DNR through an agreement with SEAMAP-SA and ASMFC. Input from the other SEAMAP-SA partners (NCDMF, GADNR, and FWRI) is incorporated in the form of annual survey data transmission to SC DNR, annual cruise reports and other related documents as well as assistance with website enhancements to ASMFC. Data will continue to be updated and improvements to the data provision workflow will be made under the guidance of the Data Management Workgroup. FWC-FWRI is using ArcGIS for Server to visualize the SEAMAP-SA GIS data via a web map service. The map service provides details for the map layers, spatial reference, geographic extent, and other supporting information. The map service is accessible through a variety of clients, including ArcMap, ArcExplorer, Google Earth, and web mapping applications.

The SAFMC Fisheries ([http://ocean.floridamarine.org/sa\\_fisheries/](http://ocean.floridamarine.org/sa_fisheries/)) application provides an enhanced suite of online tools to support the surveys of the SEAMAP-SA database. This application will help achieve the goal of providing users access to view, query, and download GIS data in a user-friendly, web-enabled environment. The primary benefits of this approach include:

- Provide access to information through one location, allowing managers and researchers to search, view, and acquire SEAMAP-SA GIS data from across the region.
- Facilitate the sharing of information by consolidating research efforts and making data easily accessible online.
- Store information geographically so scientists and managers can identify gaps for planning future research efforts.

### **3.1.5.3 SEAMAP-Caribbean Data Management System**

The data collected by each Caribbean component is handled by the respective island and sent to the SEAMAP-C Database Manager at NMFS. A new database format was provided in 2009. All the information gathered by SEAMAP-C is distributed in the form of reports and data summaries to interested parties. The data is also provided in digital form to managers and researchers.

## 4 APPENDICES

### A. SEAMAP Committees Membership 2020

(check [www.seamap.org](http://www.seamap.org) for current membership)

#### ***SEAMAP-Gulf of Mexico Committee***

**CHLOE DEAN**, Louisiana Department of Wildlife and Fisheries

**JOHN FROESCHE**, Gulf of Mexico Fishery Management Council

**JILL HENDON**, Mississippi Department of Marine Resources/Gulf Coast Research Lab,

**JOHN MARESKA**, Alabama Department of Conservation and Natural Resources, *Chair*

**FERNANDO MARTINEZ-ANDRADE**, Texas Parks and Wildlife Department

**TED SWITZER**, Florida Fish and Wildlife Conservation Commission

**ADAM POLLACK**, National Marine Fisheries Service, Pascagoula Laboratory, MS

**JEFF RESTER**, Gulf States Marine Fisheries Commission, *Coordinator*

#### ***SEAMAP-South Atlantic Committee***

**PATRICK CAMPFIELD**, Atlantic States Marine Fisheries Commission

**JARED FLOWERS**, Georgia Department of Natural Resources, Coastal Resources Division

**SARAH MURRAY**, Atlantic States Marine Fisheries Commission, *Coordinator*

**ROGER PUGLIESE**, South Atlantic Fishery Management Council, *Chair*

**TINA UDOUJ**, Fish and Wildlife Research Institute, FL

**TODD KELLISON**, National Marine Fisheries Service, Beaufort Laboratory, NC

**MARCEL REICHERT**, South Carolina Department of Natural Resources

**KATY WEST**, North Carolina Department of Environment and Natural Resources

#### ***SEAMAP-Caribbean Committee***

**NICOLE ANGELI**, Virgin Islands Department of Planning and Natural Resources/Division of Fish and Wildlife

**MATTHEW KAMMANN**, Virgin Islands Department of Planning and Natural Resources Division of Fish and Wildlife. *Chair*

**JUAN JOSE CRUZ-MOTTA**, Puerto Rico Sea Grant College Program / University of Puerto Rico Department of Marine Sciences

**RICHARD S. APPELDOORN**, Independent consultant

**GRACIELA GARCÍA-MOLINER**, Caribbean Fishery Management Council

**MIGUEL ROLON**, Caribbean Fishery Management Council

**RICARDO LOPEZ**, Puerto Rico Department of Natural and Environmental Resources

**VERONICA SEDA**, Puerto Rico Department of Natural and Environmental Resources

**AIDA ROSARIO**, Emeritus Puerto Rico Department of Natural and Environmental Resources contractor

**EDWIN MUÑIZ**, U.S. Fish and Wildlife Service

**EDGARDO OJEDA SERRANO**, University of Puerto Rico/Sea Grant College Program, *Coordinator*

**RUPERTO CHAPARRO**, University of Puerto Rico Sea Grant College Program

## B. SEAMAP History

### Birth of the Five-Year Management Plan

The first SEAMAP Strategic Plan was published in January 1981, and provided a conceptual framework for planning the program by outlining and considering goals, objectives, requirements, priorities, approaches, and guidelines for consistent actions by state and federal agencies, as well as other NOAA components. Along with input from regional fishery management councils, state marine fisheries agencies, interstate fishery commissions, appropriate federal agencies, and other interested parties, the SEAMAP Strategic Plan served as a basis for the development of subsequent operational plans, including the SEAMAP Gulf of Mexico Operations Plan: 1985-1990 and the SEAMAP South Atlantic Operations Plan: 1986-1990. The five-year SEAMAP Management Plans (1990-1995, 1996-2000, 2001-2005, 2006-2010, 2011-2015, and 2016-2020) provide conceptual framework for all three SEAMAP components.

### Budget

For the first three operational years (FY 1982-1984), SEAMAP received no federal programmatic funding and was supported only through existing state and federal resources. Dedicated federal programmatic funding for SEAMAP began in FY 1985 at approximately \$1 million. For most of its history, SEAMAP has been level-funded with small periodic increases, though a notable increase was observed in response to Hurricane Katrina in FY 2007. This event served to boost funding considerably in the following years, to over \$5 million by FY 2009.

<u>Fishing Year</u>	<u>Federal Funding</u>	<u>Fishing Year</u>	<u>Federal Funding</u>
FY 1982-1984	None	FY 2001-2003	\$1.4 million
FY 1985-1991	\$1 million	FY 2004	\$1.67 million*
FY 1992	\$1.4 million	FY 2005-2006	\$1.385 million
FY 1993	\$1.37 million	FY 2007	\$4.37 million**
FY 1994	\$1.32 million	FY 2008	\$4.39 million
FY 1995	\$1.34 million	FY 2009-2010	\$5.09 million
FY 1996-2000	\$1.2 million		

\*The budget in FY 2004 was initially set at \$1.75 million, but was reduced to \$1.67 million by rescission.

\*\*SEAMAP-Gulf and NMFS were allocated additional funding in FY 2007 in response to Hurricane Katrina, while the SEAMAP-SA and SEAMAP-C remained level-funded.

### Joint Activities

The Gulf and South Atlantic components met jointly for the first time in October 1984. The components decided to meet annually and publish a joint annual program report, beginning in FY 1985, in order to review and document their activities.

In FY 1985, the Gulf and South Atlantic data management workgroups held a joint workshop, where they approved the development of a new data management system design in FY 1986. By FY 1987, the requirements report for the new data management system, Data Management

System Requirements Document for Gulf and South Atlantic, 1987, was published, and the new system was integrated in FY 1988.

In FY 1987, SEAMAP and the UPRSGCP sponsored a passive gear assessment workshop to investigate gear alternatives in areas where trawling is not suitable or may not be preferred.

An external program review was completed in FY 1988, conducted by a four-member review panel including representatives from NMFS, the National Sea Grant College Program Office, the New Jersey Marine Science Consortium, and Auburn University. The review consisted of a comprehensive evaluation of SEAMAP relative to goals and objectives outlined in the operations plans of the Gulf and South Atlantic components. The review panel completed a written report of their findings and recommendations on October 1, 1987. The recommendations were discussed at the SEAMAP joint meeting in January 1988, and a final slate of recommendations for the program was endorsed. Preparation of the 1990-1995 joint five-year plan for all three SEAMAP components was an important recommendation of the review report.

**SEAMAP-Gulf**

The first SEAMAP component, SEAMAP-Gulf, was implemented in the Gulf of Mexico region in December 1981 under guidelines formulated by the GSMFC-TCC. Initial operations were designed to coordinate, standardize collection, manage, and disseminate data from fishery-independent surveys conducted in the Gulf of Mexico during the summer of 1982. These initial activities established the basic framework for the current program in the Gulf of Mexico, South Atlantic, and Caribbean regions. A table of SEAMAP-Gulf surveys is included below.

<u>Survey</u>	<u>Initial Year of Operation</u>
Summer Shrimp/Groundfish Survey	FY 1982
Spring Plankton Survey	FY 1982
Winter Plankton Survey	FY 1983
Fall Plankton Survey	FY 1984
Fall Shrimp/Groundfish Survey	FY 1985
SEAMAP-Gulf Reef Fish Survey	FY 1992
Bottom Longline Survey	FY 2007
Vertical Longline Survey	FY 2010

With the onset of data collection in 1982, staff began compiling data for annually produced documents such as SEAMAP marine directories (regional listings of fisheries research facilities and survey plans in the Gulf of Mexico) and SEAMAP atlases (summaries of survey results and data). Distribution of "near real-time data" was initiated, and weekly computer plots and data listings were produced for managers, researchers, industry, and the general public. Additionally, expert workgroups drawn from state research agencies, universities, NMFS, and other research centers were established to accomplish specific tasks, including planning and coordinating surveys, data reports, and other SEAMAP functions.

The Summer Shrimp/Groundfish Survey began in FY 1982, sampling offshore waters from the Florida/Alabama state line to the U.S./Mexican border. With increased funding in subsequent years, Florida was able to begin participating in this survey, and it now extends down into south Florida waters. The Spring Plankton Survey also began in FY 1982 to target larval Atlantic bluefin tuna, but the initial survey design did not maximize likelihood of capture due to the concentration of Atlantic bluefin tuna larvae along oceanographic fronts and eddies. Increased funding in later years allowed additional sampling to directly target larvae across these areas, resulting in improved data on bluefin tuna in the Gulf of Mexico.

FY 1983 marked the second operational year of SEAMAP-Gulf, and the establishment of the SEAMAP Information System and SEAMAP Ichthyoplankton Archiving Center. The SEAMAP Information System was established at the Stennis Space Center in Stennis Space Center Station, Mississippi, as the primary management system for all SEAMAP generated data. The SEAMAP Ichthyoplankton Archiving Center was established at the Florida Fish and Wildlife Research Institute in St. Petersburg, Florida, to archive all sorted SEAMAP-collected ichthyoplankton specimens archived from SEAMAP cruises, which were made available for use by interested agencies and researchers. In FY 1985, the SEAMAP Ichthyoplankton Archiving Center acquired a computer system, and a second archiving center was added. Both marked advances in data management and specimen archiving. The second center, the SEAMAP Invertebrate Plankton Archiving Center, was established at the Gulf Coast Research Laboratory (GCRL) in Ocean Springs, Mississippi. This archiving center maintains the unsorted bongo samples that are not sent to the Polish sorting center. Additionally, the sorted and identified invertebrates (shrimp, crab, lobster and cephalopods) from the Poland assessed samples, are returned to GCRL for long-term archiving. A database was created to manage and track the archived data stored in this location.

The Winter Plankton Survey also began in FY 1983, and occurred five times until 2006 (FY 1984, 1985, 1993 and 1996) in the open Gulf of Mexico. An abbreviated survey took place in 2007, and full surveys were conducted in 2008, 2009, 2012, 2013, and 2015. The Winter Plankton Survey is now scheduled as a biannual survey for the northern Gulf of Mexico.

During FY 1983, the Gulf component conducted a plankton survey of coastal and continental shelf waters in August, targeting king mackerel larvae and collecting data on ichthyoplankton during a winter plankton survey. Also in FY 1984, the Gulf component established an annual fall plankton survey of coastal shelf waters targeting the larvae of king and Spanish mackerel and red drum.

In FY 1985, the Gulf component began three special studies, including (1) an evaluation of shipboard weighing procedures, (2) gear investigations for a squid/butterfish fishery and a coastal herring fishery, and (3) location of trawlable concentrations of these species. A trawl survey of outer continental and shelf edge waters was conducted to assess stocks of squid and butterfish in the Gulf of Mexico during FY 1985 (July and August) and FY 1986 (May and June).

In addition to its annual Summer Shrimp/Groundfish Survey, SEAMAP-Gulf began a Fall Shrimp/Groundfish Survey in FY 1985, which mainly targeted groundfish. This activity was built on the NMFS Fall Groundfish Survey, conducted since 1972. In addition, the declining status of red drum in the Gulf of Mexico prompted the red drum workgroup and other scientists to collaboratively produce a cooperative three-year plan for red drum research in the Gulf. Reporting of planning, progress, results, and evaluation of red drum research have continued to be managed by SEAMAP-Gulf. A short-term special study on the distribution of shortfin squid was added to the activities of FY 1987. A spring SEAMAP-Gulf Reef Fish Survey was initiated in FY 1992 to assess the relative abundance and compute population estimates of reef fish in their natural habitat in the Gulf of Mexico.

Funding for SEAMAP has seen a considerable increase beginning in FY 2007 and FY 2008, allowing SEAMAP-Gulf to expand several existing surveys and start new fishery-independent surveys. New surveys include the Bottom Longline Survey, initiated in 2007 to collect coastal shark and finfish abundances and distribution in Gulf of Mexico shallow waters. The SEAMAP Vertical Longline Survey is another recent addition, initiated in FY 2010 by Alabama to complement the SEAMAP Bottom Longline Survey and the NMFS Bottom Longline Survey. Where the longlines of these surveys are too long to adequately sample around hard bottom, coral reefs, or artificial reef areas, the Vertical Longline Survey better assesses reef fish abundance. Louisiana began vertical line sampling around oil and gas platforms and artificial reefs in 2011.

### *International Activities*

SEAMAP has frequently interacted with Mexico's National Institute of Fisheries, which is the research agency of SEPESCA, the country's Ministry of Fisheries. SEAMAP and SEPESCA met for a major cooperative event in Mexico City in August 1986. The meeting was attended by representatives of SEAMAP-Gulf and SEAMAP-SA as well as SEPESCA scientists and administrators. Participants presented information on research and data collection activities of common interest, such as king mackerel, red drum, shrimp, and ichthyoplankton.

SEAMAP and SEPESCA have also worked closely under the NMFS MEXUS-Gulf Program for cooperative Mexican-U.S. research, especially in assessing the abundance and distribution of Gulf of Mexico ichthyoplankton. The SEAMAP-Gulf of Mexico Ichthyoplankton Atlases display results of these surveys, with collected samples identified cooperatively by both U.S. and Mexican personnel. Mexican scientists have also participated in SEAMAP shrimp surveys and gear technology cruises in order to establish standardized methodologies for monitoring and assessing Gulf of Mexico resources.

### *Workshops*

To coordinate surveys and information exchange among participants and other involved organizations, SEAMAP periodically sponsors workshops and symposia. In FY 1983, a calibration workshop on trawling gear was sponsored by SEAMAP. This workshop was intended to assist in

coordinating and standardizing data collection. Results were published as workshop proceedings.

In September 2010, SEAMAP-Gulf held a fishery-independent data needs workshop. Items discussed at the workshop included potential sampling gears, statistical and survey design, and potential costs associated with proposed surveys. Attendees were from agencies and universities along the Gulf of Mexico that had experience in managed species stock assessments, ecosystem-based management, and designing and implementing fishery-independent sampling programs. Workshop outcomes are used to guide SEAMAP sampling in the Gulf of Mexico.

SEAMAP-Gulf held a trawl workshop in March 2019 where state and federal SEAMAP partners reviewed trawling protocols, discussed gear specifications, reviewed data entry and QA/QC procedures, and reviewed species identifications. The group also discussed recent taxonomic changes and how to handle historical species identifications when taxonomists have now determined that what we thought was one species could actually be two to three species that look very similar. SEAMAP partners have been conducting crew exchanges the past few years to assure that all SEAMAP trawling operations were being conducted consistently amongst all partners. The workshop continued those efforts to make consistency in trawling operations a top priority.

In March 2020, a Reef Fish Survey workshop was conducted to discuss the transition of the reef fish survey to a unified design where effort is allocated among spatial and habitat strata. As part of these efforts, recommendations were also developed to transition to a common set of video annotation protocols among all survey partners.

### **SEAMAP-South Atlantic**

SEAMAP-SA was formally established in October 1983 under the auspices of its management body, the ASMFC SAB. An operations plan was developed and published in FY 1984, entitled SEAMAP South Atlantic Operations Plan: 1986-1990. A table of SEAMAP-SA surveys is included below.

<u>Survey</u>	<u>Initial Year of Operation</u>
North Carolina Pamlico Sound Trawl Survey	FY 1987
Coastal Trawl Survey	FY 1989
SEAMAP-SA Reef Fish Survey	FY 2009
State Coastal Longline Surveys (NC, SC, GA)	FY 2006

Operations for SEAMAP-SA began in FY 1985, including a spring benthic resources survey, development of objectives and procedures for a bottom mapping project, and development of a calibration protocol for shallow water trawling procedures in the South Atlantic.

In FY 1986, a pilot project for the Coastal Trawl Survey began with preliminary investigations on gear and calibration. The three-year preliminary study continued during FY 1987 and was



completed in FY 1988. The Coastal Trawl Survey sampling strategy was finalized and implemented in 1989, standardized in 1990, and an external program review in 2001 led to changes in the sampling design. This project continues today as a long-term survey and constitutes the largest component and highest priority activity in the South Atlantic program. The research vessel used by the SEAMAP–SA Coastal Survey is the R/V *Lady Lisa*. The R/V *Lady Lisa* is a cypress planked vessel that is no longer being built due to the downturn in the shrimp trawling industry. Therefore, options for the future include the repair and refit of the R/V *Lady Lisa* or the purchase of a different style of vessel, either fiberglass or steel hulled. The R/V *Lady Lisa* has undergone a considerable amount of rework and the replacement of beams and planks and at an annual cost of \$30,000 or more. This work is ongoing and expensive, necessitating increases in vessel charges. Irrespective of the maintenance the age of the vessel will require vessel replacement in the near future at an expected cost of well over \$1,000,000.

The Pamlico Sound Survey has been carried out annually since FY 1987. The survey was initially designed to provide a long-term fishery-independent database for the waters of the Pamlico Sound, eastern Albemarle Sound, and the lower Neuse and Pamlico Rivers. However, in 1990, the Albemarle Sound component was eliminated from the sampling area.

In FY 1995, the SEAMAP-SA Committee was asked by NMFS to coordinate development of finfish bycatch estimates in the South Atlantic shrimp fishery. The SEAMAP-SA Committee formed the Shrimp Bycatch Workgroup, which consisted of sixteen members from appropriate state and federal agencies with expertise in shrimp bycatch research and management. The workgroup guided data identification and summarization, evaluated estimation methods, and reviewed final estimates of bycatch removals by the South Atlantic shrimp fisheries. Technical support was provided by NMFS in conducting the specific analyses requested by the workgroup. A final report was completed in April 1996.

FY 1999 concluded ten years of standardized data collection for the shallow water trawl program, marking the maturity of the dataset and solidly establishing its utility in fisheries stock assessments. The Shallow Water Trawl Workgroup produced a 10-year summary report in FY 2000.

In FY 2003, the SEAMAP Data Management Workgroup developed a plan to update the NMFS data structures to contain the full extent of data collected by the Coastal Trawl Survey. The SEAMAP data management system underwent updates throughout 2004 and 2005 in collaboration with NMFS, and the Data Management Committee concurrently developed the SEAMAP.org website. A new SEAMAP logo was produced and the SEAMAP.org website went online in FY 2005. The SEAMAP website also includes general links, information, and documentation (surveys, reports, metadata, and special studies) for SEAMAP-SA programs. In 2008, development of an Oracle database for public access of SEAMAP-SA data began. The Oracle database is constructed to provide access to “normalized data” for a number of fishery independent programs including, but not limited to, SEAMAP Coastal Survey, the NCDMF Pamlico Sound trawl survey, the Coastal Longline Surveys, and the SEAMAP-SA Reef Fish Survey. In 2013, the SEAMAP-SA database became publicly available for data exploration and

extraction via the ASMFC maintained [www.seamap.org](http://www.seamap.org) site and the SCDNR maintained based Oracle relational database ([www.dnr.sc.gov/seamap](http://www.dnr.sc.gov/seamap)).

ASMFC's SAB initiated a Coastal Longline Survey in 2006 to gather information on adult red drum populations emigrating from estuaries, using ACFCMA funding. The project was designed to sample from North Carolina to Florida to develop a better understanding of abundance, distribution, and age composition of the stock and allow for more effective and responsible management. Derived information is also used for coastal shark assessments in the South Atlantic. Collaborating partners are North Carolina DMF, South Carolina DNR, and Georgia DNR.

SEAMAP-SA received increased funding in FY 2008. That summer, SEAMAP-SA used some of these funds to complement and expand MARMAP reef fish sampling. This addressed high-priority needs for overfished species in the snapper-grouper complex. The primary objective was to enhance the fishery-independent reef fish data collected by MARMAP by increasing sampling in underrepresented regions of the sampled area, particularly in shallow and offshore areas. The increased funding also helped to support reef fish life history studies not consistently supported in previous years. These include a monitoring program developed between 1995 and 1998 by MARMAP to provide an annual index of juvenile gag abundance in estuaries. Future year class strength can be predicted by surveying for juvenile gag ingress to estuaries. That study employed Witham collectors, which are an effective method for sampling ingressing reef fish larvae and postlarvae. Additionally, samples are taken for diet studies targeting several reef fishes. As a result of declining funding, the Gag ingress study was halted after the 2015 sampling season. The SEAMAP-SA Reef Fish Survey conducts research in the field primarily aboard the R/V *Palmetto*, which is over a decade past her projected life expectancy. Issues related to the advancing age of this research vessel has been documented extensively in SEAMAP management plans and reports, and various other documents over the years. In the fall of 2015, SCDNR invested significant funds (close to \$1,000,000) on a major renovation of the R/V *Palmetto*. Given the age of the vessel, this renovation was well overdue and was critical for the safe and efficient functioning of the vessel. The renovation included replacing the engines, generators, shafts and propellers, and repairing external and internal hull plating and structures. The renovation was completed in the spring of 2016 and the vessel is operating more fuel efficient and at a slightly faster vessel speed. Above all, it is expected that sampling operations will be significantly more efficient as reduction in lost sea days due to vessel maintenance and equipment failure issues are expected to be diminished.

#### *Bottom Mapping Study*

Objectives and procedures for a bottom mapping project were formulated in FY 1985, and by FY 1986, a pilot study focusing on hard bottom areas and reefs in the South Atlantic was completed. Although a full study was scheduled to begin in FY 1988, lack of funding prevented implementation of the first element in this study until FY 1992. When funding resumed in FY 1992, the SEAMAP-SA Bottom Mapping Workgroup developed a database format designed for easy incorporation into GIS or other mapping software. The regional database includes the location and characteristics of hard bottom resources throughout the South Atlantic Bight.

In FY 1993, the workgroup initiated a search for existing data sources, and captured more than 8,000 records in the first year. By FY 1995, several bottom mapping reports were completed off the coasts of South Carolina, Georgia, and North Carolina. Florida was funded in FY 1996 to create a hardbottom mapping report by FY 1997. By FY 1998, the Florida Marine Research institute received enough data to create a GIS formatted Bottom Mapping Report encompassing North Carolina through Florida on a distributable CD. During FY 1999, the Bottom Mapping Workgroup revised the CD to produce version 1.1, and began discussing improved data access and interactive mapping on the Internet. A cooperative effort with the Coastal Sciences Center (CSC) allowed posting of that data as an information layer on the CSC website. In FY 2000, the Bottom Mapping Workgroup developed a summary hardcopy document to accompany the CD. The report was completed in FY 2001. The CD has been broadly distributed to scientists, natural resource managers, fishermen, consultants, environmental groups, and others.

In FY 2001, the Bottom Mapping Workgroup developed a list of issues necessary to create deepwater protocols and future workgroup priorities. They developed a three-phase approach to compile existing deepwater (200-2000m) bottom characterization data from existing datasets and extend the bottom mapping GIS product from the 200 to 2,000m depth contour. Phase 1 began in FY 2002; in order to convert existing data on deepwater bottom habitats into standard format, the Bottom Mapping Workgroup and Deepwater Subcommittee defined deepwater habitat characterization and the types of data for which transformation protocols would need to be developed. The subcommittee also approved the completion of a data source compilation document of deepwater bottom type data sources, titled "Summary of Seafloor Mapping and Benthic Sampling Conducted in 200-2000m, from North Carolina through Florida" (Phase II). In FY 2004, the Bottom Mapping Workgroup began work on Phase III of the deepwater habitat mapping project, working with the SAFMC to map bottom habitat in deepwater regions (200-2000m).

SEAMAP-SA received increased funding in FY 2008. With these funds, the Bottom Mapping Workgroup was restructured to include habitat considerations and fish characterization. The new Habitat Characterization and Fish Assessment Workgroup helped identify and develop new survey priorities to address high priority management needs.

The Florida Fish and Wildlife Research Institute (FWRI-previously FMRI), SC DNR, University of North Carolina – Wilmington, and Harbor Branch Oceanographic Institute collaborated to synthesize data on habitat distributions for water depths between 200 and 2000m within the U.S. EEZ, extending from just south of the Virginia/North Carolina border to the Florida Keys. SEAMAP bottom mapping data and associated GIS information have been incorporated into the South Atlantic Habitat and Ecosystem Atlas<sup>10</sup> and the South Atlantic Fisheries map viewer<sup>11</sup>. In addition, the SAFMC has highlighted SEAMAP's role in supporting the move to ecosystem-based

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<sup>10</sup> [http://ocean.floridamarine.org/safmc\\_atlas](http://ocean.floridamarine.org/safmc_atlas)

<sup>11</sup> [http://ocean.floridamarine.org/sa\\_fisheries/](http://ocean.floridamarine.org/sa_fisheries/)

management in the region through the South Atlantic Habitat and Ecosystem Homepage<sup>12</sup>. These tools support the development of a Fishery Ecosystem Plan for the South Atlantic Region and convey the importance of SEAMAP involvement and expansion in order to move toward ecosystem management.

### *Workshops*

During FY 1994, the ASMFC convened a Workshop on the Collection and Use of Trawl Survey Data for Fisheries Management. SEAMAP-SA provided partial funding for the workshop, and its members participated. A report of the proceedings was published in December 1994.

During FY 2002, the Crustacean Workgroup held a symposium in conjunction with the Southeast Estuarine Research Society (SEERS). The symposium focused on “Management, Monitoring, and Habitat Considerations for Crustacean Fisheries in the Southeastern United States”. The meeting provided a means for technical information exchange between scientists working for both academic and management purposes.

In FY 2003, the SEAMAP Data Management Workgroup met jointly with the Northeast Area Monitoring and Assessment Program (NEAMAP) Data Management Workgroup to share information on data structures and various methods to build a fishery-independent data warehouse.

Also in FY 2003, the Crustacean Workgroup met to discuss state harvest information on shrimp. They sponsored a shrimp symposium at the Crustacean Society Meeting (June 2-5, 2003 in Williamsburg, Virginia), focusing on disease, transport, genetic variability, and population status.

Finally, in FY 2003, the Crustacean Society convened a Blue Crab Symposium, and the ASMFC’s SEAMAP Crustacean Workgroup convened a Blue Crab Workshop. A report entitled “The Status of the Blue Crab (*Callinectes sapidus*) on the Atlantic Coast” was produced in FY 2004 as a result of these meetings.

The South Atlantic Fishery Independent Monitoring Workshop was held in November 2009 to develop recommendations for the design of one or more multispecies fishery-independent surveys focused on species in the South Atlantic snapper grouper complex (see Carmichael et al, 2010 for details). The workshop was sponsored by the SAFMC and NOAA Fisheries and held at the SEFSC in Beaufort, North Carolina.

In January 2015, SEAMAP-SA survey leads met with NEAMAP and other Atlantic coast state survey leads at a Catch Processing Workshop. The goals of this workshop were to facilitate communication and collaboration among Atlantic coast fishery-independent surveys, discuss

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<sup>12</sup> <http://safmc.net/ecosystem-management/mapping-and-gis-data>

methodologies surrounding catch-processing for each individual survey, identify areas where further standardization among surveys could be feasible, and identify future sampling needs.

### SEAMAP-Caribbean

In FY 1988, a SEAMAP Caribbean Committee was established under the administrative guidance and supervision of the CFMC. Initial efforts toward establishing a long term SEAMAP-C monitoring program in this area were oriented towards environmental monitoring and ichthyoplankton and pelagic longline fishery studies. A table of SEAMAP-C surveys is included below.

<u>Survey</u>	<u>Initial Year of Operation</u>
Queen Conch Survey	FY 1990
SEAMAP-C Reef Fish Survey	FY 1992
Spiny Lobster Survey	FY 1996
Habitat Surveys	FY 2017

The operational phase of SEAMAP-C began in 1988 with plankton sampling, a cooperative venture involving the NOAA vessel DELAWARE II, SEAMAP-C members, and representatives of the British Virgin Islands. During FY 1989, a cruise of the NOAA vessel R/V OREGON to the Caribbean monitored longline catches around the U.S. Virgin Islands (USVI).

The SEAMAP-C committee recognized long-term monitoring of reef resources as its most important priority. Over FY 1989-1992, procedures were developed for a Reef Resource Survey, but efforts toward implementation were inhibited by a lack of funding for SEAMAP-C operations. In FY 1991, a three-year sampling cycle of a Reef Resources Survey was initiated, using funding sources external to SEAMAP, including sampling by hand line and fish traps in waters off Puerto Rico and the USVI. This extended to St. Croix in FY 1994 and 2000 and to St. John, USVI in FY 1999. Some data for the Reef Resources Survey have also been collected by the U.S. Virgin Islands Division of Fish and Wildlife using underwater cameras.

In FY 2004, SEAMAP-C began another cycle of reef fish surveys. Puerto Rico began trap and hook-and-line surveys that continued into FY 2005, enabled by supplemental SEAMAP funds received in FY 2004. These funds also supported the investigation and completion of the SEAMAP-C USVI trap and hook-and-line database. The USVI delayed these surveys until a new research vessel could be purchased; funding was approved in FY 2005, and a new vessel arrived in May 2007. In FY 2007, trap and hook-and-line surveys were once again conducted in St. Thomas/St. John and St. Croix. In 2015, a new vessel for Puerto Rico was approved and is in the process of procurement.

In FY 1990, SEAMAP-C conducted its first survey to determine the relative abundance of the queen conch (*Lobatus gigas*) resource around the USVI. Its methodology is modified from previous surveys undertaken in the USVI (Woods and Olsen, 1983 and Boulon, 1987). Since

then, this survey has been conducted in FY 1995, 2001, 2003, 2007 and 2013 as a joint venture between the USVI Division of Fish and Wildlife, the National Park Service (which supported the St. Thomas portion of the study), the PR-DNER, and the University of Puerto Rico, Mayagüez Campus. The survey covers all of Puerto Rico and the three main islands of the USVI. The most recent FY 2013 queen conch survey in Puerto Rico included 46 sites sampled for a total of 37.45 hectares (ha; transect areas ranged from 0.3ha at site 5 to 3.97ha at site 11). Survey areas included the west and southwest coasts of Puerto Rico. In FY 2008 and 2010, 144 underwater scooter transect surveys were completed for St. Thomas and St. Croix to assess queen conch resources around the USVI, and the final report was submitted in December 2010.

In FY 1996, 1997, 2004, 2009 and 2015, SEAMAP-C examined the spatial and temporal variation of spiny lobster pueruli settlement in coastal waters adjacent to St. Thomas, USVI. Puerto Rico completed a similar study in 1998. In FY 2004, 2009, and 2015, pueruli lobster settlement and juvenile lobster attractor surveys were conducted in the US Caribbean.

In FY 2003, six sets of ten artificial shelters, or “casitas,” made of concrete blocks were deployed at various sites on the west coast platform of Puerto Rico. These casitas are used to monitor the settlement of juvenile spiny lobsters.

Spiny lobster pueruli surveys were completed in FY 2008 and 2009 in St. Thomas and St. Croix and in FY 2009 in Puerto Rico. In FY 2008, Puerto Rico deployed seven spiny lobster larvae collectors, conducting an additional component to this study. Off the west coast of Puerto Rico, twenty-four modified Witham collectors are used as artificial habitat for pueruli settlement at six stations. The collectors are deployed at different depths, at mid-water and close to the bottom. Once this monitoring project is completed, the Witham collectors will be removed to avoid interaction with boaters and protected species.

In FY 1998, SEAMAP-C began benthic mapping studies of the USVI and Puerto Rico shelf using side-scan sonar. In FY 2003, whelk surveys were conducted around Puerto Rico and on all three islands of the USVI.

In FY 2006, a five-year cycle started in Puerto Rico and the USVI in which the queen conch, lobster, reef fish, parrotfish, yellowtail snapper, and lane snapper surveys were undertaken for one year each, using the standardized methodology established in the early years of the SEAMAP-C Program. The studies were conducted to provide information requested by the SEDAR stock assessment evaluation. Collected data has also been used in evaluating any proposed fishing regulations for US Caribbean waters.

In FY 2008, within the first five-year cycle, SEAMAP received increased funding which allowed expansion of some of these surveys. In Puerto Rico, the shallow water reef fish, yellowtail, and lane snapper surveys were expanded to include the east and south coasts, and in the USVI, sampling was expanded include St. Croix. Several special projects were included, regarding gonad collection of three important parrotfish species in the USVI, and data collection on

spawning aggregations in Puerto Rico. Also in Puerto Rico, gonad samples were collected and evaluated histologically for all samples of reef fish, yellowtail, and lane snapper. Histological analysis of species is an ongoing part of the SEAMAP-C Reef Fish Survey in Puerto Rico and the continued collaboration between the Puerto Rico FRL Reproduction Program and SEAMAP-C.

In FY 2009, fishery-independent hook-and-line surveys were conducted for reef fish and yellowtail snapper in Puerto Rico off the west coast. Similar surveys were conducted in FY 2010 for reef fish and yellowtail snapper in St. Thomas/St. John. Due to staff shortages, an 18-month no-cost extension was requested and granted for the SEAMAP-C project cycle, allowing St. Croix to complete their hook-and-line surveys in 2011. The final component of this five-year study used the gonads collected from three parrotfish species to study their reproductive cycles. During FY 2010, parrotfish sampling was conducted in St. Thomas/St. John and St. Croix.

In FY 2011, the next five-year funding cycle began in Puerto Rico and USVI, repeating the same species rotation and methodology used in the previous cycle. In the USVI, a new survey was included for monitoring deepwater snapper species. Though the FY 2011 five-year funding cycle was initiated in Puerto Rico and the USVI, little was accomplished in the USVI between FY 2011 and 2016 as a result of severe staff shortages due to the retirement of several senior staff, high turn-over of biologists, and the need for a deep seafaring vessel in St. Croix. Regardless of these limitations, several studies initiated and continued during a 12-month no-cost extension that was requested and granted for completing all studies ending March 31, 2017.

The five-years sampling cycle 2016 – 2021 originally proposed to have Reef Fish Monitoring surveys on years 1, 2, 4 and 5, while the conch and lobster surveys would be conducted in the third year. Reef Fish surveys encompassed the use of: 1) hand lines, 2) longline fishing and 3) videos recording for habitat description and reef fish abundance estimations. Posteriorly, the Caribbean Committee decided to modify the Statement of Work (SOW) for the 3rd year (FY 18-19) to conduct Reef fish sampling instead of conch & lobster, which was moved to the fourth year. New sampling protocols for reef fish, conch and lobster surveys have been improved for this period to increase the data quality acquisition for management use. During this five-year cycle (2016 – 2021), several environmental events affected the continuity of the proposed surveys. Hurricanes Irma and María (September/2017) affected the normal life including all samplings in Puerto Rico and in the USVI. This situation was worsened with the occurrence of a series of earthquakes in PR which started in January 2020, followed by a worldwide Pandemic with the Coronavirus, causing a total lock down on both districts, Puerto Rico and the US Virgin Islands

#### *Special Studies: Highlights*

- Histology of specimens collected in reef fish, four parrotfish species, and yellowtail and lane snapper surveys have provided vital biological information needed for fisheries management from FY 2003 to present in Puerto Rico.
- Gonad collection of four parrotfish species were macroscopically sexed and staged for reproductive condition in FY 2008 and 2016 in the USVI.

- Reef fish spawning aggregations were characterized using DSG hydroacoustic dataloggers in the USVI and Puerto Rico.

#### *International Activities*

The SEAMAP-C component has established close working relationships with other Caribbean nations in an effort to assess recruitment patterns common to the entire Caribbean Basin. Information has been exchanged to develop the SEAMAP-C Directory of Fishery-Independent Activities, cooperative surveys may be conducted in association with the British Virgin Islands and the Dominican Republic in the near future.

To facilitate survey coordination and information exchange among participants and other involved organizations, SEAMAP-C periodically sponsors workshops and symposia. In 1995, the Caribbean Community Secretariat (CARICOM) sponsored a workshop on spiny lobsters and queen conch in Jamaica (CFRAMP 1997). Resulting recommendation included establishment of pueruli collectors and juvenile artificial shelters (Cruz and Auil-Marshalleck 1997).



## C. SEAMAP Specimen Archiving

### Curators

The SEAMAP curators are responsible for the maintenance of selected collections of ichthyoplankton, invertebrate organisms, unsorted plankton samples, and stomach contents, gonads, or otoliths collected during SEAMAP survey operations. The SEAMAP-Gulf Ichthyoplankton Archiving Center stores sorted ichthyoplankton samples and is located at the Florida Fish and Wildlife Research Institute, St. Petersburg, Florida. The SEAMAP-Gulf Ichthyoplankton Archiving Center curator and curatorial assistant are Florida state employees whose positions are supported by SEAMAP funds. The curator and curatorial assistant receive administrative support from the Florida Fish and Wildlife Research and direction from the joint committees. The SEAMAP Invertebrate Plankton Archiving Center is located at the University of Southern Mississippi Gulf Coast Research Laboratory in Ocean Springs, MS. This center houses the identified invertebrates (shrimp, crab, lobster and cephalopods) from the Poland assessed samples that have been returned to GCRL for long-term archiving, as well as the unsorted "backup" station samples and sorted larval invertebrate specimens. The Invertebrate Plankton Archiving Center curator and curatorial assistant are employees of Gulf Coast Research Laboratory, whose positions are partially supported by SEAMAP funds. Administrative support and supervision are received from the Gulf Coast Research laboratory and joint committees. The SERTC stores sorted post-larval (non-planktonic) invertebrate samples and is located at the Marine Resources Research Institute in Charleston, South Carolina. SEAMAP Coastal Survey staff maintain the stomach sample collection with assistance from the SERTC. SERTC staff are all state of South Carolina employees supported in whole or in part by SEAMAP funds.

The SEAMAP curators maintain SEAMAP specimens and samples in the most efficient and effective manner, processing specimen requests and insuring archiving and loans are carried out in accordance with the approved policies and procedures outlined in the SEAMAP Shipboard Operations Manual. Specific responsibilities of the curators include:

- ② Maintain collections in a manner consistent with approved policies and procedures,
- ② Receive authorized specimens and their accompanying information, and catalog these materials,
- ② Process user requests and provide specimens and/or information in accordance with the approved policies and procedures,
- ② Maintain information on specimen requests, and
- ② Assist coordinators in the preparation of each annual report and reviews of the specimen archiving component of SEAMAP.

### Archiving Procedure

Specimen collectors are classified in the same categories as data collectors, which include SEAMAP participant and SEAMAP cooperator. Collected specimens are classified as

ichthyoplankton, invertebrate zooplankton, or phytoplankton. Collections are preserved and processed aboard ship in accordance with the SEAMAP Operations Manual for Collection of Data. Primary collections are shipped to the NMFS Miami Laboratory where data sheets are completed and reviewed. The samples are then packaged and forwarded to the Polish sorting center. Backup collections are shipped to the Invertebrate Plankton Archiving Center where they are stored.

Specimens sent to the Plankton Sorting and Identification Center in Szczecin, Poland are separated to ichthyoplankton and other plankton fractions. Ichthyoplankton fractions are sorted to at least the family level and returned to the SEAMAP Ichthyoplankton Archiving Center, where they are catalogued and stored. Currently, all ichthyoplankton archiving information is maintained on a local database at the SEAMAP Ichthyoplankton Archiving Center. The sorted and unsorted invertebrate fractions are returned to the Invertebrate Plankton Archiving Center and accessioned. All invertebrates are archived and data maintained in a computerized data management system.

A collection of invertebrate (excluding zooplankton) and fish specimens, including those collected by SEAMAP-SA surveys, is maintained by the SERTC. With the exception of some cnidarians and a number of formalin-fixed specimens that were collected prior to the inception of the SERTC program, the samples in the SERTC invertebrate collection are preserved in 95% ethanol, an acceptable procedure for storing tissues that are expected to be useful for DNA extraction. Through this preservation process, SERTC provides material to molecular systematists upon request. A software package called Specify, which was developed by the Informatics Biodiversity Research Center at the University of Kansas, is used to manage a database of the catalogued collections of the SERTC program. The Specify software allows modification to the taxonomic hierarchy of the Integrated Taxonomic Information System, providing SERTC the ability to incorporate up-to-date taxonomic information into the database. Currently, 67% of the SERTC invertebrate database is accessible through a portal of the Global Biodiversity Information Facility. Queries of the database can provide detailed collection for each lot of specimens contained in the SERTC collection. To date, 2050 records of occurrence (520 species and 49 additional taxa that are identified at a level higher than species) can be viewed at the Global Biodiversity Information Facility website.

Implementation of the SEAMAP Data Management System improves information management for both archiving centers by allowing user site access to the entire SEAMAP database at each archiving center. All station information is readily available to the curators. Specimen data is entered directly to the SEAMAP database at the archiving centers, and all archiving information stored on the Data Management System is readily available to SEAMAP participants.

All specimen requests are directed to the SEAMAP curators to be processed in accordance with the annual SEAMAP operations plan. The curator sends a Specimen Loan Agreement Form to the requestor, requiring the following information:

1. Name of requestor and associate investigators using specimens;
2. Affiliation and address of requestor;
3. Required date of receiving loan and probable length of use;
4. Purpose of specimen use, including identification of contracts or grants associated with such use;
5. Intended publication format (journal, report, etc.) for project; and
6. Copy of grant, grant proposal, or contract indicating proposed use of SEAMAP data or specimens, if applicable.

This form also contains notification of charges associated with processing and handling the specimen loan. In most cases, the archiving center will cover cost of shipping to the loan recipient, whereas the requesters cover the cost of return shipping. This form also notifies the requestor of the procedure to be used in referencing SEAMAP as the source of specimens in any presentation, report, or publication resulting from their use. Procedures for handling and maintaining loan specimens are included on this form. Normally, all sorted, unmodified, or modified (unless fully destroyed) specimens are returned to the archiving center. When examination of SEAMAP specimens by a recognized expert in marine fish taxonomy leads to re-identification of larval specimens, these changes are incorporated into the SEAMAP Data Management System. The curator must advise the requestor to provide the appropriate SEAMAP coordinator with eight copies of each report and publication which relied on SEAMAP specimens. A bibliography of reports generated from SEAMAP data are published in the SEAMAP Annual Report. The requestor is advised to treat all received specimens in a professional manner, precluding redistribution of the specimens to other parties without prior approval by the committee.

Specimen requests are normally handled in the order received, but in the event of personnel or funding limitations, priorities for specimen requests are assigned as follows: SEAMAP participant, SEAMAP cooperators, SEAMAP investigators, and non-SEAMAP investigators. Questions relating to adjustments in priorities, costs, and use of specimens should be forwarded to the coordinators and committees for resolution.

## D. Documents Produced by SEAMAP

A bibliography of SEAMAP reports, as well as reports utilizing SEAMAP data, may be found on [www.seamap.org](http://www.seamap.org) and [www.gsmfc.org/seamap.html](http://www.gsmfc.org/seamap.html). SEAMAP information may be produced in a number of different types and formats:

- Annual Reports** Prepared by the coordinators and committees. These reports summarize and, to some extent, evaluate survey operations, data management, administration, and information dissemination activities. Annual reports also offer a financial statement, listing of official SEAMAP publications, listing of data requests and publications that relied on SEAMAP data, a proposed budget, and recommendations for SEAMAP activities to be conducted the following year. Annual reports are distributed to management bodies and funding agencies to be used in evaluating the performance of SEAMAP.
- Cruise Plans** Provide agencies and organizations with advance notice of intended surveys. These brief notices detail scheduled sampling activities and describe itineraries of vessels participating in the surveys. Cruise plans are distributed upon approval by the appropriate committee.
- Cruise Reports** Provide an overview of cruise activities (time at sea, staff at sea, gear used), collection information (sampling locations, number of gear deployments, number and species of organisms collected, specimens kept for analysis), and data (summaries, CPUE, etc.).
- Public Relations Communications** Newspaper and journal articles and interagency reports that may be helpful in fulfilling the program's goals and objectives.
- Newsletters** Provide agencies and organizations with advance notice of intended SEAMAP surveys. These brief notices detail scheduled sampling sites and activities, and describe the itineraries of vessels participating in the surveys.
- Quick Reports** Issued periodically during survey operations. The reports contain information such as shrimp catch rate, satellite transmission of chlorophyll concentrations, and surface temperatures that may be useful to scientists, management agencies, and the fishing industry. The reports are prepared for the committee under the supervision of the SEAMAP data manager and are distributed by the coordinator to persons responding to periodic SEAMAP data summary use questionnaires and others expressing a desire to receive these reports.
- SEAMAP Atlas** Summarizes annual ichthyological, shrimp/groundfish, and environmental data collected on cruises. Atlases are joint products of two

or more workgroups under the supervision of the coordinator, and are distributed to participants, cooperators, investigators, and interested fisheries research organizations.

**SEAMAP Marine**

Summarizes information on fisheries research survey activities, personnel, facilities, and gear, and is updated annually for distribution to regional fisheries organizations.

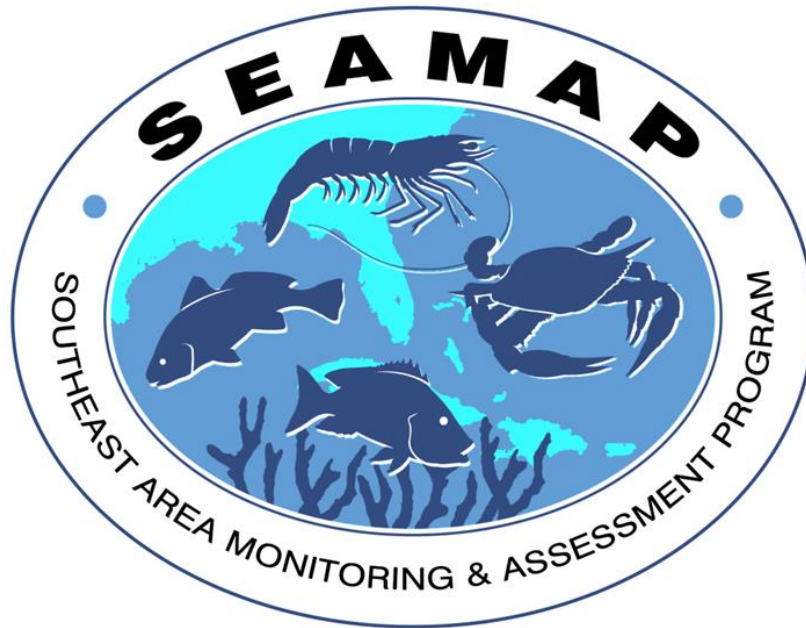
**Directory**

The directory was previously prepared for SEAMAP by NMFS personnel, but is now be under the supervision of the SEAMAP coordinator.

**Special Reports**

Supervised by the committee and prepared to provide timely information that fulfills the program's goals and objectives. These may include descriptions of standard sampling protocols and gears, results of gear comparisons, workshop proceedings, etc. Special reports will be available to state agencies, universities, and other researchers concerned with collecting data that will be compatible with those of SEAMAP organizations.

# 2021-2025 SEAMAP Strategic Plan



Collection, Management, and Dissemination of  
Fishery-independent Data from the Waters of the Southeastern United States

Prepared by

Sarah Murray, Atlantic States Marine Fisheries Commission  
South Atlantic SEAMAP Committee  
Gulf of Mexico SEAMAP Committee  
Caribbean SEAMAP Committee

Prepared for

Caribbean SEAMAP Committee  
South Atlantic State-Federal Fisheries Management Board,  
Atlantic States Marine Fisheries Commission  
Technical Coordinating Committee, Gulf States Marine Fisheries Commission

Funding for preparation of this plan was provided by the U.S. Department of Commerce,  
NOAA, National Marine Fisheries Service under Cooperative Agreement Number  
NA16NMF4350112.



## PREFACE

Fisheries are a vital part of the nation's economy and, more specifically, the coastal communities and states of the South Atlantic, Gulf of Mexico, and Caribbean. In the region in which the Southeast Area Monitoring and Assessment Program (SEAMAP) is conducted, fisheries resources support valuable commercial and recreational fishing industries. In 2015, in the South Atlantic and Gulf region alone, commercial fishers landed over 2.9 billion pounds of seafood worth almost \$1.7 billion<sup>1</sup>. In the same year, recreational anglers across all three regions landed at least 213 million pounds of fish<sup>2</sup>. Recreational fishing is a growing industry in the SEAMAP region, where over 130 million angler trips were taken in 2018<sup>3</sup>.

Fishing and tourism industries contribute significantly to the economies of the nation's coastal communities by generating employment opportunities and associated revenues. As such, these industries directly improve quality of life and contribute to community diversity by maintaining traditional fisheries. Sustainable recreational and commercial fisheries are dependent on responsible resource management, which, in turn, requires accurate and timely data as a basis for management decisions. SEAMAP plays an integral role in providing fishery-independent data critically needed for effective fisheries management throughout the Southeastern United States, including the Atlantic, Gulf of Mexico, and Caribbean regions.

As the focus of fisheries management expands from single species management to ecosystem-based fisheries management, the need for basic information has also increased significantly. For example, in addition to the ongoing baseline data required for effective management of recreational and commercial fisheries, improved information is needed on prey and predator species life histories and interactions, essential fish habitat, and the effects of changing environmental conditions.

Long-term fishery-independent databases provide information essential to evaluating the status of the nation's fisheries, including population abundances, mortalities, recruitment, and ecological relationships. These fundamental parameters, combined with long-term assessments and monitoring, constitute the backbone of effective fisheries management. Only with this basic information can fisheries managers ascertain trends, determine potential causes of changes, and react responsibly to address these changes. Ongoing, regional fishery-independent efforts, such as those undertaken by SEAMAP, can generate data critically needed by fisheries management to address these issues.

Adequate funding continues to be a challenge in fisheries science and management. Federal and state government funding for fisheries activities will likely decrease over the coming years in order to meet the fiscal objectives of balanced budgets and reduced spending. Concomitantly, survey costs continue to increase, especially given the need for new data to

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<sup>1</sup> Fisheries of the US 2018

<sup>2</sup> Fisheries of the US 2018 (excludes Texas and Louisiana).

<sup>3</sup> Fisheries of the US 2018.

assess the status of emerging fisheries and transition to ecosystem-based fishery management. This could significantly impact the nation's capability to manage its valuable fisheries resources. However, by building partnerships, the federal and state governments can combine their limited resources to address issues of common interest. In particular, cooperative programs for collecting essential fisheries data would benefit all partners, providing valuable scientific information for management at the state, federal, and regional levels.

SEAMAP is a model partnership for cooperative federal and state data collection. SEAMAP is truly collaborative; fiscal, physical, and personnel resources are shared among participants and decisions are made by consensus. The experience and success of SEAMAP over the last 35 years illustrate its effectiveness. SEAMAP has great potential to increase and improve its usefulness for fisheries management by expanding its fishery-independent data collection programs, provided additional funding is made available. We strongly support this worthwhile program and its expansion to collect more fishery-independent data for purposes of fishery management.

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## ACKNOWLEDGMENTS

The SEAMAP Gulf, South Atlantic, and Caribbean Committees (Appendix A) would like to acknowledge those who have helped make SEAMAP such a successful program. Many individuals from various federal, state, and academic organizations provided their expertise to SEAMAP projects by serving as members of workgroups. The committees would like to thank all of the workgroup members for their efforts. In addition, the committees would like to thank the following: Jeff Rester (GSMFC), Sarah Murray (ASMFC), and Edgardo Ojeda (UPRSGCP) for their work as coordinators; Dr. Roy Crabtree and Dr. Clay Porch NMFS Regional Administrator and Regional Science Director, respectively, for their support of SEAMAP projects, including strategic planning; and the Atlantic States Marine Fisheries Commission staff for administrative support of this project. The committees also acknowledge Dr. Eric Hoffmayer for his efforts and support as SEAMAP's Program Manager at NMFS. Contributing to the success of the program are many other persons who assisted with the resource surveys and projects by providing equipment and donating their time and expertise.

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Gulf Coast Research Laboratory (GCRL)  
Gulf of Mexico Fishery Management Council (GMFMC)  
Louisiana Department of Wildlife and Fisheries (LDWF)  
Mississippi Department of Marine Resources (MDMR)  
NOAA Fisheries  
North Carolina Division of Marine Fisheries (NC DMF)  
South Atlantic Fishery Management Council (SAFMC)  
South Carolina Department of Natural Resources (SC DNR)  
Texas Parks and Wildlife Department (TPWD)  
US Fish and Wildlife Service (USFWS)  
Puerto Rico Department of Natural and Environmental Resources (PR-DNER)  
U.S. Virgin Islands Department of Planning and Natural Resources (USVI-DPNR)  
Caribbean Fishery Management Council (CFMC)  
University of Puerto Rico, Sea Grant College Program (UPRSGCP)

## SEAMAP COLLABORATIONS

Marine Resources Monitoring, Assessment and Prediction Program (MARMAP)  
NOAA - Beaufort, NC Laboratory  
Southeast Coastal Ocean Observing Regional Association (SECOORA)  
Southeast Fisheries Science Center Southeast Fishery-Independent Survey (SEFIS) group

## ABBREVIATIONS AND ACRONYMS

<b>ACL</b>	annual catch limits	<b>NMFS</b>	National Marine Fisheries Service (also referred to as NOAA Fisheries)
<b>AM</b>	accountability measures	<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>ASMFC</b>	Atlantic States Marine Fisheries Commission	<b>PR</b>	Puerto Rico
<b>BRD</b>	bycatch reduction device	<b>PRCRMP</b>	Puerto Rico Coral Reef Monitoring Program
<b>CFMC</b>	Caribbean Fishery Management Council	<b>PR-DNER</b>	Puerto Rico Department of Natural and Environmental Resources
<b>COASTSPAN</b>	Cooperative Atlantic States Shark Pupping and Nursery	<b>SAB</b>	South Atlantic State-Federal Fisheries Management Board
<b>CPUE</b>	catch per unit effort	<b>SAFIMP</b>	South Atlantic Fishery-Independent Monitoring Program workshop
<b>CSC</b>	Coastal Sciences Center	<b>SAFMC</b>	South Atlantic Fishery Management Council
<b>DOC</b>	Department of Commerce	<b>SC DNR</b>	South Carolina Department of Natural Resources
<b>EEZ</b>	exclusive economic zone	<b>SEAMAP</b>	Southeast Area Monitoring and Assessment Program
<b>EFH</b>	essential fish habitat	<b>SEAMAP-C</b>	Southeast Area Monitoring and Assessment Program-Caribbean
<b>FMP</b>	fishery management plan	<b>SEAMAP-Gulf</b>	Southeast Area Monitoring and Assessment Program-Gulf of Mexico
<b>FSCS</b>	Fisheries Scientific Computer System	<b>SEAMAP-SA</b>	Southeast Area Monitoring and Assessment Program-South Atlantic
<b>FRL</b>	Fisheries Research Laboratory (Caribbean)	<b>SECOORA</b>	Southeast Coastal Ocean Observing Regional Association
<b>FWRI</b>	Florida Wildlife Research Institute	<b>SEDAR</b>	Southeast Data, Assessment, and Review
<b>GA DNR</b>	Georgia Department of Natural Resources	<b>SEFIS</b>	SEFSC Southeast Fishery- Independent Survey (SEFIS)
<b>GIS</b>	Geographic Information System	<b>SEFSC</b>	Southeast Fisheries Science Center
<b>GMFMC</b>	Gulf of Mexico Fishery Management Council	<b>SERFS</b>	Southeast Reef Fish Survey
<b>GSMFC</b>	Gulf States Marine Fisheries Commission	<b>SERO</b>	Southeast Regional Office (NOAA Fisheries)
<b>GSMFC-TCC</b>	Gulf States Marine Fisheries Commission-Technical Coordinating Committee	<b>SERTC</b>	Southeastern Regional Taxonomic Center
<b>HMS</b>	highly migratory species	<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>LNG</b>	liquefied natural gas	<b>USVICRMP</b>	USVI Coral Reef Monitoring Program
<b>MARFIN</b>	Marine Fisheries Initiative Program	<b>USVI-DPNR</b>	U.S. Virgin Islands Department of Planning and Natural Resources
<b>MARMAP</b>	Marine Resources Monitoring, Assessment and Prediction Program	<b>UPRSGCP</b>	University of Puerto Rico Sea Grant College Program
<b>MSRA</b>	Magnuson-Steven Fishery Conservation and Management Reauthorization Act		
<b>NC DMF</b>	North Carolina Division of Marine Fisheries		
<b>NCRMP</b>	National Coral Reef Monitoring Program		

## INTRODUCTION

The SEAMAP 2021-2025 Strategic Plan provides a prioritized list of future project activities for each of the SEAMAP components. The Strategic Plan complements the SEAMAP 2021-2025 Management Plan, which provides a statement of current goals (Chapter 1), management policies and procedures (Chapter 2), and current activities and accomplishments (Chapter 3). The Management Plan also serves as a reference on SEAMAP history (Appendix B).

SEAMAP is a cooperative state/federal/university program for the collection, management, and dissemination of fishery-independent data and information in the Southeastern U.S. and Caribbean. Representatives from Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, Puerto Rico, the U.S. Virgin Islands, the U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS) jointly plan and conduct surveys of economically important fish and shellfish species and the critical habitats that support them.

SEAMAP's mission, detailed in Chapter 1 of the Management Plan, is to provide an integrated and cooperative program to facilitate the collection and dissemination of fishery-independent information for use by fisheries managers, government agencies, recreational and commercial fishing industries, researchers, and others to enhance knowledge of marine fisheries and their associated ecosystems. SEAMAP is intended to maximize the capability of fishery-independent and associated survey activities to satisfy data and information needs of living marine resource management and research organizations in the region. The primary means of performing that task is to optimize coordination and deployment of sampling platforms used in the region to obtain regional, synoptic surveys and to provide access to the collected data through documents and accessible databases. Additional roles of SEAMAP are to document long- and short-term needs for fishery-independent data to meet critical management and research needs, and to establish compatible and consistent databases for holistic ecosystem and predictive modeling applications. SEAMAP promotes coordination among data collection, processing, management, and analysis activities emphasizing those specifically concerned with living marine resource management and habitat protection, and provides a forum for coordination of other fishery-related activities.

The SEAMAP Joint Committee has developed a list of future project activities. They are prioritized in three broad categories that maintain and expand upon existing SEAMAP data collection activities and propose new data collection efforts, dependent on the availability of additional funding (Chapter 1). Funding provided in FY2020 for SEAMAP was \$4,797,738 which allows for the dissemination of readily available regional fish and habitat data for use in stock assessments of state and federally managed species. Enhancement and expansion of the program will directly improve the ability of scientists to refine existing assessments with better data, as well as perform more assessments of overfished resources, eventually leading to more effective management in the Southeast region.

- I. **Operate existing programs at full utilization:** In recent years, SEAMAP activities have been impacted by stagnating and declining funding to the core surveys. SEAMAP activities have been reduced across sea days and stations while entire survey components have been eliminated. Additionally, survey costs will continue to increase over time. In order to bring SEAMAP activities back to full utilization, funding will need to be restored and increased.
- II. **Expand current projects to collect additional data on existing platforms:** Several additional data collection activities could be performed as low-cost expansions of current surveys. As fisheries management moves to age-based assessments, there is a greater need to collect age, growth, and reproductive data and expand the geographical scope and capabilities of existing program trawl, plankton, lobster, conch, and bottom mapping surveys. Furthermore, with increasing focus on ecosystem management, there is a critical need for data on stomach contents and environmental variables that can be collected during existing surveys.
- III. **Develop new fishery-independent data collection programs:** Additional identified priorities include fishery-independent surveys targeting adult finfish, plankton, crustaceans, identification/mapping of existing live bottom and other essential fish habitat (EFH), pelagic fish monitoring, and assessments of deepwater reef fish, including snapper and grouper stocks.

The most compelling argument to continue funding is SEAMAP's ability to respond to recent and ongoing critical demands for data and information that only the program can provide (see the SEAMAP 2021-2025 for further details on SEAMAP data uses and accomplishments). Accurate population assessments and informed resource decisions are impossible without basic annual data. Data collection and distribution activities, such as those performed by SEAMAP, are the foundation of resource assessments and responsible fisheries management. In turn, sustainable fisheries promote a continued source of recreation and employment for coastal communities. This 2021-2025 Management Plan sets the guidelines and priorities for fishery-independent data collection efforts that most appropriately use SEAMAP resources and address the needs of fisheries management in the Southeast and Caribbean regions.

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## 1 EXPANDING AND MAINTAINING SEAMAP ACTIVITIES

In the stock assessment process, SEAMAP-based abundance indices now are used routinely both as stand-alone indices of abundance and as criteria for "tuning" stock assessment models. Key applications in the stock assessment process have been Atlantic menhaden (South Atlantic Trawl Surveys), bluefin tuna (Gulf Plankton Surveys), bluefish (South Atlantic Trawl Surveys), cobia (Gulf Trawl Surveys), king mackerel (Gulf and South Atlantic Trawl Surveys and Gulf Plankton Surveys), Spanish mackerel (Gulf and South Atlantic Trawl Surveys), red snapper (Gulf Trawl and Plankton Surveys), red drum (Gulf Plankton Surveys and Coastal Longline Surveys), red hind (Caribbean Reef Resources Surveys), shrimp (Gulf and South Atlantic Trawl Surveys), striped bass, kingfish, weakfish, spot, and croaker (South Atlantic Coastal Trawl Survey). In addition, there is great potential for expanding SEAMAP to collect data on stocks that are not well covered by current surveys (example, cannonball jellyfish - *Stomolophus meleagris* in the South Atlantic), expanding life history sample collection for species currently encountered, or adding other survey methods to existing surveys. As fish stocks fluctuate in response to natural conditions and human actions (i.e., changes in fish abundance, survival, and recruitment), scientific information regarding marine fish populations is continually needed by managers.

There is potential for increased use of ongoing SEAMAP data collection for fisheries management, especially as the SEAMAP resource surveys continue to grow into longer time series of fishery-independent data. In addition to providing regional, long-term, fishery-independent data, SEAMAP datasets also provide valuable baseline trends of fishery stocks. These long-term baseline trends can be used to assess the impacts of a tragedy such as the Deepwater Horizon oil spill in the Gulf of Mexico or other environmental perturbations.

The South Atlantic Coastal Trawl Survey and Reef Fish Survey provide immediate feedback regarding the effectiveness of fisheries management regulations. SEAMAP trawl survey data are used by Texas, South Carolina, and Georgia to set seasonal openings for the shrimp fisheries. SEAMAP-Gulf trap videos have been used to judge the effectiveness of various types of artificial reef materials for their structural and geographical stability, biofouling community succession, and fish biomass and diversity. Where catch is limited and fishing is restricted, making catch data unavailable, fishery-independent data are of even greater importance and may be the only source of information for characterizing stocks. Expanding SEAMAP activities can provide for even greater application for evaluating management actions.

More recently, data from the Caribbean Reef Fish Survey has provided data for an ecosystem-based evaluation of temporal trends of fish assemblages (abundance and biomass) associated with coral reefs in the region. These trend analyses, together with analyses of other databases, will feed into a more general quantitative model aimed at describing the structure and composition of these fish assemblages and identifying potential drivers of their temporal change.



The demand for adequate scientific information will likely increase in the future as management moves towards alternative approaches, such as property-rights-based management (including individual transferable quotas or catch shares), habitat-based management, multi-species management, and ecosystem management.

SEAMAP surveys record data on the distribution of fish both geographically and within environmental variables such as temperature and salinity, which is the first step in defining environmental limits in essential habitats utilized by each species. For example, SEAMAP data are used to identify the bottom habitat distribution in the South Atlantic region to adopt management measures to protect coral and allow rock shrimp trawling to continue. Using SEAMAP data, SAFMC has developed alternative management options to protect coral areas from rock shrimp trawling, define EFH, and investigate marine protected areas. The nearshore trawl surveys may have a new use in the realm of coastal wind farm development for identifying low and high impact areas when citing farms.

The three SEAMAP committees regularly discuss future SEAMAP activities, and each developed a list of activities that would implement changes according to the following priorities:

1. **Operate existing programs at full utilization**
2. **Expand current projects to collect additional data on existing platforms**
3. **Develop new fishery-independent data collection programs**

The SEAMAP Joint Committee supports priorities that restore and maximize ongoing program activities over the implementation of any new fishery-independent data collection efforts. Lack of adequate funding is the major impediment for maintaining and expanding surveys. In recent years, the level funding and loss of funding has led many of the components to reduce sampling and these reductions are reflected within Tier I of this list. The Committee notes that surveys not included in Tier I currently are at risk of being added in the near future should funding remain level or decrease further. The projects below are designed specifically to rebuild and expand upon existing SEAMAP data collection activities and as such, will continue to have a high benefit to cost ratio and all cost estimates are based on current rates (August 2016).

## **1.1 OPERATE EXISTING PROGRAMS AT FULL UTILIZATION**

In recent years, SEAMAP activities have been impacted by stagnating and declining funding to the core surveys. The following items and funding are required to maintain these baseline survey activities or bring SEAMAP to full utilization.

### **1.1.1 Gulf of Mexico**

(Increase of \$600,000/year)

## **Trawl Surveys on the West Florida Shelf**

In 2008, Florida began participating in the SEAMAP-Gulf Summer and Fall Shrimp/Groundfish Surveys. Its sampling coverage ranged from just south of Tampa Bay to Pensacola on the west Florida continental shelf. Due to limited funds in 2011, this survey was cut back to once a year. Funding is needed to continue the survey twice a year. This will allow additional information to be collected on shrimp and fish stocks where they have historically not been sampled on a regular basis. (\$350,000 annually)

## **Bottom Longline Survey**

The SEAMAP-Gulf Bottom Longline Survey is currently conducted in water depths of 3 to 10m from statistical 10 in northern Florida to statistical zone 21 at the U.S./Mexican border. Funding limitations do not allow sampling in statistical zones 1-9 off Florida. Additional funds would allow the survey to sample the entire Gulf of Mexico during the Spring, Summer, and Fall time periods. (\$250,000 annually)

### **1.1.2 South Atlantic**

(Increase of \$745,910 annually)

## **Coastal Trawl Survey**

Due to reduced funding and increased cost of the SEAMAP-SA Coastal Trawl Survey (see Section 2.5.1 of the Management Plan), current funding levels will not allow the continuation of three sampling seasons each year. We considered reducing the number of stations, but unless this reduction is in the northernmost and southernmost area, the cost reduction would be marginal, relative to the large loss in data and geographic coverage. We are currently investigating the effect of dropping one of the sampling seasons on data and analyses for assessments etc., which can be considerable. Maintaining the current sampling efforts (3 seasons, 102 stations per season) would require additional funding of ≈\$80,000 annually.

## **Pamlico Sound Survey**

Due to funding limitations, staff salaries are currently supplemented with outside funding sources. In particular, 25% of the NC Biologist salary is no longer covered under SEAMAP-SA. An additional \$9,950 is required to fully fund the NC Biologist.

## **SEAMAP-SA Reef Fish Survey and Bottom Mapping**

SEAMAP-SA contributes 40% to 45% to the SC DNR Reef Fish Survey efforts (SEAMAP-SA and MARMAP), and about 20% of total current funding for the regional Reef Fish Survey (SERFS). The SC DNR Reef Fish Survey has seen considerable funding reductions over the years, most significantly through reduced funding for MARMAP and SEFIS funding to MARMAP. Increases in vessel cost per sea day, as well as personnel and other costs, have led to a reduction in sea days, suspension of the bottom long-line surveys in 2012 and the gag ingress study in 2015. Due to incidental funding, mostly as a result of the need for data

on deep water snapper/grouper species, the long line surveys were, partially resumed in 2014.

A full utilization of the SEAMAP-SA Reef Fish Survey will require:

1. Restoring sampling effort to at least 50 sea day per year (25 each for MARMAP and SEAMAP-SA). Required funding: \$ 66,500 annually (~7 seadays). It's important to realize that the current reef fish survey can only be conducted in collaboration with MARMAP (funding between \$600K and \$750K annually in recent years), SEAMAP-SA Reef Fish, and the NMFS SEFIS program (funding variable).
2. Restoring the longline surveys as laid out in the SAFIMP and Longline Workshop Reports (See Carmichael et al. 2009, Carmichael et al. 2016, and Kellison et al. in prep). Participants in these workshops, have recognized the importance of a comprehensive fisheries independent deep-water snapper grouper survey. Data for these species are lacking and funding reductions over time have reduced or eliminated sea days for the longline surveys. This would require 10 additional sea days for the R/V *Palmetto* and 15 sea days for the R/V *Lady Lisa*. Required funding: \$ 146,000 annually.
3. Note that in 2020, a cooperative-with-industry, regional-scale (northern NC to FL Keys) South Atlantic deepwater longline survey was initiated. The survey, coordinated cooperatively by SCDNR and NMFS, utilizes longline sampling from contracted commercial vessels, targeting predominantly deepwater grouper species and tilefish (golden and blueline) in depths ranging from ~ 75 - 365 m. The main objective of the survey, which is anticipated to continue in subsequent years, is to generate abundance indices and life-history information for focal species, for use in stock assessments.
4. Funding to process all life history samples (in particular the otoliths and reproductive tissues) within one year after collection. This will allow the survey to respond to the frequent and unexpected changes in the stock assessment schedules and continue to provide critical information to all assessments. Required funding: \$50,000 annually.
5. The gag ingress study was halted in 2015 as a result of funding cuts. Evaluation of the cost/benefits of resuming this study is needed, and if resumption is considered, this study should become part of a comprehensive larval and juvenile fish survey plan. Full restoration of a multi-state juvenile ingress study at the level of the 2015 efforts is expected to require \$150,000 annually.

### **Coastal Longline Surveys**

The SEAMAP-SA Coastal Longline Surveys are designed to provide a long-term fishery independent database on the distribution, relative abundance, catch per unit effort, size distribution and age composition of red drum along the South Atlantic coast. Additionally, the surveys provide information on the relative abundance, size distribution, sex, and maturity of multiple species of small and large coastal sharks.

**North Carolina:** Unless additional funding is available, there will be a reduction in the number of North Carolina longline days and a reduction of an equivalent amount of data for stock assessments. This means that there is no support to sample the full number of sampling sites per week (72 samples). One week of sampling (8 samples) would need to be

omitted and precision in estimates would be reduced. The survey needs restoration of \$6,500 annually to maintain current sampling efforts. (\$6,500 annually)

**South Carolina:** To return to the historical breakdown of funding to this survey (75% federal, 25% state funded) the survey would require a restoration of \$39,000 (based on FY17 levels). Increases in staff salary, as well as daily vessel charges have resulted in a higher proportion of outside funding, with current funding sources (xx% SEAMAP and xx% other). As funding for state agencies has also stagnated, we will likely be forced to reduce sampling if additional funds are not available. (\$39,000 annually)

**Georgia:** SEAMAP-SA presently covers 55% the costs to fund this survey May to December (8 months, 44 sea days). GADNR has offset the annual costs for years with a combination of state and other federal fund sources to cover personnel services and vessel maintenance. However, these funds continue to be cut and during the FY2016-2020 cycle we reduced our number of sampling days and discontinued sampling in northeast Florida due to these constraints. The total FY20 cost for this survey was \$156,291 (SEAMAP-SA portion was \$85,960).

### **Data Management**

To maintain the current level of data management, which would include uploading new survey data annually and minimum maintenance of the data base, an increase in operating costs of \$10,000 is needed to cover increases in staff and other costs. Additional funds are also essential for standard database maintenance, application refinements, additional queries, bug correction or programming errors that have been discovered within the structure of the database or associated extraction reports. Furthermore, for other partner data management staff, reduced SEAMAP funding has been temporarily offset by outside funding sources. All SEAMAP-SA partners (including NCDMF, GADNR, and FWRI), which are important contributors to the database and the position accountable for data quality and transferring each individual survey's data to SEAMAP, has experienced reduced funding to support data management. Fully restored funding is necessary to ensure the crucial database support for these critical database aspects. (\$30,000 annually)

### **SERTC**

SERTC funding has been severely reduced in recent years. This has significantly affected the support for diet studies in the SEAMAP-SA surveys at SCDNR. To restore SERTC support for the surveys would require a minimum of \$82,000 annually, which is roughly the FY14 requested funding level for SERTC through SEAMAP-SA. Note that this would restore activities to fully support for SEAMAP-SA activities, in particular the Coastal Trawl Survey and the SEAMAP-SA Reef Fish Survey. Specifically, this will allow SERTC to once again support the diet studies, curating the SEAMAP-SA biological reference collection, maintain and expand the computerized and searchable literature, and some minor outreach activities (such as publishing diet and other identification guides, etc.). (\$82,000 annually)

### 1.1.3 Caribbean

(Increase of \$790,000/year, once every five years)

Sampling efforts have been scaled back significantly for all SEAMAP-C surveys. Level funding over the last several years, coupled with inflation and rising project costs, have resulted in dramatic reductions in overall sampling effort. Maximum effort is needed to increase funding so that initial sampling efforts can be maintained. The last review of the program by the program manager includes the recommendation to conduct all the surveys, reef fish, queen conch and lobster, every year. Other recommendations are to increase the number of sample stations. In order to fully implement these recommendations, an increase in funding is necessary.

#### **Conch Surveys**

The level of effort for conch surveys has decreased over the last few decades. Without an adequate sample size, results may not be statistically valid. Funding should be increased so that adequate sampling can be completed to be statistically valid. The proposed budget is \$120,000/year, once every five years (USVI) and \$120,000/year once every five years (Puerto Rico).

#### **Lobster Surveys**

The level of effort for lobster pueruli surveys has decreased over the last few decades. Without an adequate sample size, results may not be statistically valid. Funding should be increased so that adequate sampling can be completed to be statistically valid. Proposed budget is \$120,000/year, once every five years (USVI) and \$120,000/year, once every five years (Puerto Rico).

#### **Video Cameras, and Hook and Line Surveys**

The level of effort for fishery-independent hook and line surveys have decreased over the last few decades. Without an adequate sample size, results may not be statistically valid. Funding should be increased so that adequate sampling can be completed to be statistically valid. Proposed budget is \$150,000/year, once every five years (USVI) and \$160,000/year, once every five years (Puerto Rico).

## 1.2 EXPAND CURRENT PROJECTS TO COLLECT ADDITIONAL DATA ON EXISTING PLATFORMS

### 1.2.1 Gulf of Mexico

(Increase of \$6,150,000/year)

#### **Hooked-Gear Survey of Reef Fish**

The SEAMAP-Gulf Reef Fish video camera survey, which has recently been expanded through supplementary grant funding, provides valuable data on the relative abundance, size composition, and habitat associations of reef fish assemblages on natural and artificial reefs

throughout the U.S. Gulf of Mexico. While data from this survey are critical to most reef fish stock assessments in the Gulf, periodic supplementary life history information (primarily size/age, fecundity, sex and sex ratio) is necessary to translate size-based information provided by the non-extractive video survey into age-based information for age-based stock assessments. Existing sampling programs initially relied on the use of chevron traps and, more recently, vertical longline sampling to provide both measures of relative abundance and size composition data. However, both approaches are limited by notable issues of species and size selectivity. Accordingly, a complementary hooked gear approach is required to provide biologic samples in support of the reef fish camera survey. Because of the diversity of managed reef fishes for which life history data are necessary, it is likely that a set of species- or guild-specific survey methods may be required; however, because estimated life history parameters are unlikely to change quickly, only periodic (e.g., every 5 years) synoptic sampling should be required. Target species or guilds would be determined based on upcoming stock assessment schedules and most critical life history data needs. (\$1,000,000 annually)

### **Expanded Reef Fish Video and Vertical Line Sampling**

SEAMAP-Gulf surveys of reef fish using stationary camera arrays have been conducted on natural hard bottom habitat along the shelf break since the 1990s and long-term funding is in place. Additional surveys of shallow hard bottom reef habitat in the Panama City region began in 2004 and in mid-peninsular Florida in 2008. Additional funding is required to continue these existing surveys, expand these surveys into regions where fishery-independent surveys of managed reef fish are lacking, and target critical habitat types that are excluded from current surveys (e.g., artificial reefs). Current funding only allows vertical line sampling off Alabama, Louisiana, and Texas during the Vertical Line Survey. The Vertical Line Survey collects much needed information on red snapper and other reef fish. Additional funds are needed to expand the Vertical Line Survey across the Gulf of Mexico. (\$3,300,000 annually)

### **Otolith Processing**

Age and growth data are invaluable when conducting stock assessments for managed fish, especially those data collected from fishery-independent surveys that target a much broader size-range than fishery-dependent surveys. In addition, the emerging field of otolith microchemistry has exhibited increasing utility in recent years to examine connectivity among various life history stages as well as discern the relative contribution of presumed estuarine and nearshore nurseries to the fishery. Most fishery-independent surveys have the ability to provide a large quantity of material for the examination of age/growth and otolith microchemistry; however, any substantial increase in the amount of material collected would rapidly exceed processing capabilities of existing age and growth facilities. Funds are requested to support expansion of one or two otolith processing laboratories in the Gulf of Mexico. This will ensure that collected otoliths and spines are sectioned and aged in a timely manner, as well as foster the application of otolith microchemistry techniques in assessing recruitment dynamics and connectivity of spatially explicit life history stages for managed fish. (\$500,000 annually)

## **Dietary Analysis**

Though management is moving toward an ecosystem-based approach, its utility has been severely compromised by the lack of sufficient trophodynamic data. To better understand predator/prey dynamics, trophic interactions, and to support the development of ecosystem-based fisheries management, gut contents analysis is essential. As with age and growth analyses, gut contents can readily be collected from existing fishery-independent surveys at little to no additional cost. Identifying and quantifying gut contents is a time intensive process that requires specialized skills, so funds are requested to establish a diet analysis lab in the Gulf of Mexico. This lab would focus on integration of traditional gut content analyses with genetic barcode identification of unidentifiable prey items to the lowest possible taxonomic level, as well as the addition of stable isotope analyses to more broadly define predator-prey relationships. Inclusion of genetic barcoding techniques for more discrete prey identification allows for finer resolution of specific trophic interactions, thereby enhancing the utility for ecosystem-based models. Stable isotope analysis offers an alternative to gut content analysis and involves using a mass spectrophotometer to identify the isotopic signature from fish tissue. Variations in isotopic concentrations can be applied to the food web to draw direct inferences regarding diet and trophic level. (\$1,000,000 annually)

## **Reproductive Histology**

Reproductive data (e.g., fecundity, size/age at maturity, spawning frequency, and periodicity) are essential when conducting stock assessments for managed fish. As with age, growth, and dietary analyses, biological material can be readily obtained from fishery-independent surveys. Reproductive analyses, which include the preparation and interpretation of histology slides, require specialized skills, so funds are requested for the establishment of a reproductive biology lab in the Gulf of Mexico. (\$350,000 annually)

### **1.2.2 South Atlantic**

(Increase of \$649,000 annually and \$410,000 once)

## **Coastal Trawl Survey**

After an initial increase in life history study activities in 2009/2010, these studies have gradually been reduced as a result of available funding. However, age information, reproductive parameters, and other data such as diet composition in fish and black gill disease in shrimp, are critical for stock assessment and management decisions. As the samples are being collected as part of the ongoing survey, the cost of obtaining this important information is mostly in processing on-board and in the laboratory. The additional cost to the Coastal Trawl Survey of collecting and processing of relevant life history information for key managed species is expected to be \$50,000, mostly in staff cost and some supplies.

## SEAMAP-SA Reef Fish Survey

If activities under “Tier I” are realized, the R/V *Palmetto* will be fully utilized and further expansion of activities may require additional vessels. However, life history studies (in particular diet studies) and additional data acquisition equipment are expansions that can be made without additional vessel time and will greatly enhance data collection, especially in the areas of oceanographic and bottom habitat characterization and ecosystem-based assessment and management. Reef Fish diet studies were mostly halted in 2015 due to reduced funding. Resuming these studies would require minimal field effort. Costs would mostly be in supporting staff to examine the sample and analyze the data and some supplies. One biologist would allow processing and samples of 2-6 species each year, depending on the number of samples collected for each species, each year. The collected species would rotate on a set schedule to collect and update diet composition for most managed species over time (estimated costs \$80,000 annually, including fringe, overhead, and supplies). Note: many species of management interest (snappers, groups) require DNA barcoding to adequately characterize the diet, which would require additional funding for processing and sequencing.

An Acoustic Doppler Current Profiler will allow estimates of the current speed and direction (corrected for vessel speed and direction) throughout the water column. This ocean current data can be used in the survey and provided to other (SEAMAP) programs and researchers to improve sampling efficiency and enhancement and ground-truthing of oceanographic modeling efforts in the region (e.g., SECOORA efforts). It is also important in decisions for safe gear deployment and reducing the risk of losing gear. The cost of purchase and installation of an ADCP is \$60,000)

Multi-beam equipment can provide information on bottom relief and habitat type. Various vessels utilized by SEAMAP-SA surveys cross the southeast region on a regular basis. During transit (or during sampling, depending on the survey) multibeam equipment (either towed or on independently operated under water vehicles) could be used to obtain bottom habitat information that would otherwise not become available unless additional targeted cruises are conducted. Besides the cost of the equipment, a possible additional crew member on the research cruises is needed to operate and maintain the equipment and assure proper data collection and potentially extra sea days to augment the reductions in vessel speed during transit that would be required to produce accurate data in deeper water. Extra costs would be associated with post sampling data analysis, but this can be done in collaboration with academic or federal partners. The advantage of integrating the field activities is that there is no need for additional cruises, which would otherwise come at a considerable additional cost. (The cost of a multibeam unit is dependent on the type of gear/vehicle, estimated \$350,000; one full-time trained technician and analyst, including fringe, estimated \$65,000-\$110,000 annually; the cost of indirect, and sea days would be \$19,000 annually)



## Bottom Mapping

Managed areas offshore of South Atlantic states, of specific concern to fishery managers, include Marine Protected Areas (MPAs), deepwater coral HAPCs, Spawning Special Management Zones and other bathymetric features or unique benthic habitats that warrant specific characterization due in part to their unique habitat characteristics or importance as essential fish habitats for managed species (see Appendix B, Figures 1-7 for existing managed areas). Bottom mapping priorities and objectives vary at both the state and management council levels (at least 20 managed areas are identified in the South Atlantic Habitat and Ecosystem Atlas<sup>4</sup>). Bottom mapping initiatives conducted under SEAMAP would build from previous efforts to expand coverage of known benthic habitats to essentially begin filling the gaps along depth contours (current coverage is shown in Figure 7. in Appendix B). Offshore habitat has been subdivided into 10 depth strata to capture target species and significant habitat distribution evaluate mapped and characterization accomplished to date and focus future mapping on priority needs for management. These areas were identified for a baseline of the South Atlantic Mapping Strategy being developed as a supporting tool for the SAFMC Fishery Ecosystem Plan II. Further review of existing habitat and mapping information and species associated will provide the opportunity to direct sampling to expand and complete mapping habitat north and south between known habitats and in managed areas.

Bottom mapping can be accomplished with use of side-scan (generally for shallower depths) or multi-beam sonar systems (generally for deeper depths). For areas within 200 m bottom depths and utilizing a multi-beam system on a vessel moving at 10 knots, during a 24-hour period of survey operations with a bottom resolution swath width of 200 m, 24 n. mi.<sup>2</sup> of bottom can be mapped.

Using SEAMAP-SA/MARMAP vessels of opportunity, SCDNR/SAFMC is developing regional partnerships investigating purchase or lease new technology such as an AUV (e.g., Submarine by Ocean Arco) to be used in conjunction with existing operations. For bottom mapping costs, 25 sea days of bottom mapping could be accomplished for \$300,000 and would provide approximately 600 n. mi<sup>2</sup> of bottom mapping coverage. In general, the final data product would include raw and processed multibeam sonar data in ArcVIEW and ASCII formats, metadata describing survey methods, and processed image files. (\$300,000 annually)

The newer NOAA fisheries research vessels (NOAA Ships *Pisces* and *Henry Bigelow* in the Atlantic) are equipped with the Simrad ME70 multibeam sonar capable of mapping the bottom. The NMFS SEFSC Southeast Fishery-Independent Survey (SEFIS) group typically has ~ 30 days at sea each year in the South Atlantic region on the NOAA ship *Pisces*, during which mapping efforts occur at night (trap-video surveys occur during the day). SEFIS mapping efforts typically result in ~ 250 km<sup>2</sup> of newly mapped areas each year.

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<sup>4</sup> <http://safmc.net/habitat-and-ecosystems/safmc-habitat-and-ecosystem-atlas/>

### **Pamlico Sound Survey**

The Pamlico Sound Survey began in March 1997 and initially covered the months of March, June, September, and December. The December, leg of the cruise was discontinued in 1990, and the March portion was discontinued in 1991. This decision was made because it was felt that limited data was being collected during winter months and effort would be better allocated towards other projects. However, recent Pamlico Sound Survey annual reports have recommended adding an additional leg of the cruise at the end of July/beginning of August to increase temporal coverage. Adding additional cruises would increase the amount, and temporal distribution of biological data collected including length frequency and age data. Expanded sampling may also be useful in producing more accurate indices of abundance for target species and potentially for species not currently targeted. In addition, reinitiating sampling during the winter would begin a baseline of winter estuarine habitat use by species as ranges shift due to environmental changes. Approximately \$25,000 are budgeted each year to cover expenses for the June and September cruises. Adding two additional months would double this figure while adding one would require an additional \$12,500. (\$25,000 annually)

### **Coastal Longline Surveys**

The longline surveys were initiated in 2006 as part of ACFCMA supplemental funding with the primary objective to monitor the adult population of red drum as they move offshore in the fall. However, the surveys have also proven to be successful at monitoring coastal shark species with SEAMAP-SA data from SC and GA being used in multiple shark stock assessments. Biological samples (fin clips, reproductive tracts, stomachs and vertebrae) are currently only taken from sharks when outside funding is available, additional funds would allow these samples to be taken opportunistically (from moribund individuals) as well as under a sampling regime. These samples could then be archived and available when life history updates are requested for these species. (\$15,000 annually)

### **Data Management**

The SEAMAP-SA data management system would require expansion to address new data sets or analytical needs that arise with expanded SEAMAP-SA surveys. There is a likelihood of the need to take advantage of technological advances, as well as expanding to include database aspects such as diet study data, an image library of sampled species, the winter tagging cruise, and bottom habitat information into the comprehensive SEAMAP-South Atlantic data management system. These things can be accomplished in a cost-reasonable manner in the new SECOORA data system, but would require data management staff time and Axiom Data Science programmer time. An estimated budget increase of \$50,000 for SEAMAP-SA data management would be needed to accommodate these expansions. (\$50,000 annually)

### 1.2.3 Caribbean

(Increase of \$835,000/year, plus \$540,000/once every two years)

#### **Lobster Surveys**

Pueruli lobster studies have been ongoing for several decades. More recently, scientists associated with the program have recommended that greater emphasis be given to study the stages of individuals present in the coral reef system (juveniles and adults). These studies would not only offer information on potential existing juvenile stocks, but help tie in the larval settlement data USVI and Puerto Rico have collected over the past decade (settlement-recruitment relationship studies). Proposed additional budget is \$120,000/year, once every two years (USVI) and \$150,000/year, once every two years (Puerto Rico) to include other coasts around Puerto Rico.

#### **Conch Surveys**

Diver surveys of conch have been ongoing for several decades. However, during recent CFMC meetings, the validity of the protocol used was raised. It would be appropriate to assess the current protocol and refine it as necessary so that statistically valid data are collected that can be used as the basis for stock assessment and management. For this reason, a new methodology was developed with technological innovations in the use of cameras and GPSs. Here also a budget is required to be able to work considering the prevention of infectious diseases. Proposed additional budget is \$120,000/year, once every two years (USVI) and \$150,000/year, once every two years (Puerto Rico).

#### **Video Cameras, and Hook-and-Line Surveys**

At the SEDAR 8 meeting, the limitations of the SEAMAP-C trap and hook-and-line survey data were revealed as stock assessment scientists attempted to assess key stocks of fish. It would be appropriate to assess the current protocols and refine them as necessary so that statistically valid data are collected that can be used as the basis for stock assessment and management use. Video Cameras and hook-and-line surveys have been geographically limited due to personnel and budget constraints. Surveys need to be expanded to the whole of the U.S. Caribbean. Proposed additional budget is \$150,000 annually (USVI) and \$175,000 annually (Puerto Rico).

#### **Reproductive Histology**

Reproductive data (e.g., fecundity, size/age at maturity, spawning frequency, and periodicity) are essential when conducting stock assessments for managed fish. As with age and growth and dietary analyses, biological material can be readily obtained from fishery-independent surveys. Reproductive analyses, which include the preparation and interpretation of histology requires specialized skills, so funds are requested for the expansion of activities undertaken by the reproductive biology lab in Puerto Rico to process the samples gathered at the USVI at \$175,000 annually, and for samples gathered at Puerto Rico \$335,000 annually.

### 1.3 DEVELOP NEW FISHERY INDEPENDENT DATA COLLECTION PROGRAMS

These items include new fishery-independent surveys for data that is needed on a regional basis and is not sufficiently collected now. Specific survey methodology will be determined at the time of survey design with known funding.

#### 1.3.1 Gulf of Mexico

(Increase of \$3,000,000/year and \$3,000,000 once)

##### **Synoptic Life History Surveys**

The accurate assessment of managed fisheries stocks often requires life history data that cannot be provided from ongoing fishery-independent surveys alone. Of particular importance are size- or age-specific estimates of fecundity and fraction of the population capable of spawning through time, which can be used to improve the accuracy of estimated annual stock reproductive potential, and sex ratios of hermaphroditic species such as groupers. To be most useful, these life history data require systematic (e.g., monthly) synoptic sampling covering the full spatial distribution and spawning season of the species of interest. Species vary with respect to both spawning season and susceptibility to various fishing techniques, so sample collection will likely require species- or guild-specific survey methods; however, because estimated life history parameters are unlikely to change quickly, only periodic (e.g., every 5 – 10 years) sampling would be required. Target species or guilds would be determined based on upcoming stock assessment schedules and most critical life history data needs. (\$1,000,000 annually)

##### **Habitat Mapping**

Managed offshore areas of concern to fishery managers include MPAs, deepwater coral, HAPCs, and other bathymetric features or unique habitats that warrant characterization due in part to their importance as EFH for managed species. Habitat mapping surveys utilize remote sensing technologies to identify and describe features of the sea floor and habitats that reside on it. Mapping used in conjunction with fishery-independent surveys will allow ecosystem models to describe the interactions of species or multi-species complexes with a variety of habitats or bottom types. Mapping is best accomplished with use of side-scan in shallower depths or multi-beam sonar systems in deeper waters. (\$1,000,000 annually for approximately 700 km<sup>2</sup> mapped)

##### **Fisheries Acoustics Surveys**

Several ongoing Gulf-wide surveys (groundfish trawling, bottom longline, plankton, reef fish video) are conducted at various times throughout the year. Because of this, there is tremendous potential for adding value to these surveys and providing important information through no additional vessel costs. One component that has tremendous potential is the incorporation of fisheries acoustics to existing surveys. Active fisheries acoustics can provide valuable information on the distribution, abundance, and size/biomass of nekton throughout the water column. Pairing fisheries acoustics surveys with ongoing survey operations provides insight into the catchability, selectivity, and overall effectiveness of existing surveys, which will

aid in the development of more accurate estimates of population-level abundance. Additionally, data provided by these surveys would be extremely useful in support of ecosystem modeling efforts by providing estimates of overall system productivity, especially in terms of baitfish for which effective surveys are somewhat lacking. Estimated costs are an initial cost of \$3,000,000 for equipment, software, and training, and approximately \$300,000 - \$1,000,000 annually thereafter.

### 1.3.2 South Atlantic

(Increase of \$2,394,000/year and \$320,000 once)

#### **Pelagic Survey**

Currently, there is no fishery-independent survey to monitor pelagic fish such as mackerels, dolphin, wahoo, cobia, and other species in the Southeast region, all of which are of considerable importance for commercial and recreational fisheries. Several pelagic species have undergone SEDAR stock assessments and the need for fishery-independent survey data was clearly identified in research recommendations. A pelagic survey would require initiating a new monitoring effort since it would require gear specific to the pelagic environment (pelagic long line and acoustic equipment). This cannot be done in a consistent manner during any of the current SEAMAP-SA monitoring efforts, and a new survey would require new funding. The level of funding would depend on the level of effort and geographic area covered, but is estimated to be between \$500,000-\$750,000/year if an appropriate survey vessel is available. This new survey could potentially be done in collaboration with the fishing industry. (750,000 annually)

#### **Cobia Survey**

No coast wide index of abundance is available for the Atlantic Migratory Group of cobia. Reliable regional indices of abundance cannot be generated due to the lack of targeted monitoring programs and low incidental catch of cobia in most existing surveys. In particular, few surveys consistently encounter and sample adult fish due to their size and gear avoidance in primary survey methods, such as trawls. The Fishery Management Plan and SEDAR stock assessments for cobia outline multiple research recommendations that a new fishery-independent survey could address:

- Develop fishery-independent survey methods to monitor adult abundances
- Continue to collect and analyze current life history data from fishery independent and dependent programs, including full size, age, maturity, histology samples and information on spawning season timing and duration; increase spatial and temporal coverage of age samples collected regularly in all states.

Cobia at times co-occur with Spanish mackerel (fall) and sharks (summer). A nearshore, cooperative research survey with fishermen, using hook and line or gillnet gear, targeting multiple species groups could be achieved at relatively low cost aboard recreational or commercial vessels. (\$180,000 annually)

### **Regional (Ichthyo) Plankton Surveys**

The initial concept for SEAMAP-SA included a plankton survey. Larval distribution of fish and crustacean species remains largely unknown. Such a survey, which was recommended as part of an optimal fishery-independent sampling strategy in South Atlantic waters (SAFIMP)<sup>5</sup>, might be run as a stand-alone project standardized among researchers regionally or associated with the trawl survey. The lower tiers (phyto- and non-ichthyo-zooplankton) should also be considered. (\$500,000/yr.).

### **Early Life Stage Sampling; Support Collaborator Subregional Ichthyoplankton Surveys**

Long-term ichthyoplankton surveys are operated out of the NOAA Beaufort, North Carolina Laboratory and the Belle W. Baruch Institute for Marine and Coastal Sciences in Georgetown, South Carolina. In combination with a long-term ichthyoplankton survey in New Jersey operated by Rutgers University, these fixed-site collection programs offer the potential for combined, large-scale assessments of changes in larval recruitment patterns over space and time, with implications ranging from fishery applications (developing recruitment indices for use in stock assessments) to assessing impacts of climate change.

### **The NOAA Beaufort Bridgenet Ichthyoplankton Sampling Program**

Initiated in 1986, the Beaufort Bridgenet Ichthyoplankton Sampling Program (BBISP) at the NOAA Beaufort Laboratory represents a multi-decade time series of larval fish ingress through Beaufort Inlet, North Carolina. Fall/winter spawned larvae are sampled weekly from mid-November through April/May at the Pivers Island Bridge. As of 2016, more than 868,000 larval fish from > 100 taxa have been identified from BBISP samples, including multiple species of recreational and management importance [e.g., Atlantic croaker (*Micropogonias undulatus*), spot (*Leiostomus xanthurus*), summer and southern flounder (*Paralichthys dentatus* and *Iethostigma*, respectively), American eel (*Anguilla rostrata*), Atlantic menhaden (*Brevoortia tyrannus*) and striped mullet (*Mugil cephalus*)]. Research efforts using these data include examining the link between estuarine ingress, juvenile abundance, adult abundance, and climate variability for a variety of estuarine-dependent fish species along the U.S. East Coast. Operational indices of larval abundance have been used as tuning indices for stock assessments of southern flounder (NC DMF 2008). Ingress densities for other species could serve similar needs in stock assessments (American eel, Atlantic croaker, striped mullet, spot, summer flounder) or as fish community indicators of climate variability or anthropogenic impacts. Catch and densities are available for 1986-2013. The sampling is ongoing and performed by volunteers, but sample processing from 2013-present is currently unfunded. (\$29,000 annually including data uploads to SEAMAP database)

### **North Inlet-Winyah Bay, SC Ichthyoplankton Survey**

Collections of larval fishes and more than 45 zooplankton (invertebrate) taxa have been made in North Inlet estuary, South Carolina since the survey's inception in 1981. Based out

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<sup>5</sup> SAFIMP. 2009. Final report: South Atlantic fishery independent monitoring program workshop. In: Willams EH, Carmichael J (eds), Beaufort, NC, 85 pp.

of the Belle W. Baruch Institute for Marine and Coastal Sciences, University of South Carolina in Georgetown, the survey samples biweekly and year-round. Replicated collections with 365- and 153-micron nets have provided insights into seasonal and interannual patterns of occurrence for fishes and crustaceans of economic importance. The collections have also provided an understanding of the factors that influence early life stages of fishes and other planktonic species. Impacts of climate variability on the timing of larval production of resident species and the timing of ingress of ocean-spawned larvae have been demonstrated. This program appears to be the longest, comprehensive zooplankton time series from Atlantic and Gulf estuaries. Along with other multi-decadal time series from North Carolina and New Jersey, South Carolina ichthyoplankton data through 2013 are now available at <http://www.seamap.org/seamapDatabase.html>. The survey and associated short-term studies have been supported by multiple, non-permanent sources over the decades including the North Inlet- Winyah Bay NERR. Additional funds are necessary to sustain the collection program and sample processing. (\$35,000 annually including data uploads to SEAMAP-SA database)

#### **Develop Nearshore Live Bottom Surveys**

Most studies of "live bottom" habitats have been conducted seaward of the ten-fathom line off the Carolinas and Georgia. Biologists acknowledge that substantial live bottom areas exist inside of ten fathoms and are important fishing grounds for recreational fishermen. These areas provide habitat for black sea bass, red drum, weakfish, and others. A combined live-bottom mapping and finfish trapping program could identify and categorize these poorly-known habitats. These nearshore habitats are at risk to channel-deepening projects, dredge material disposal, and heavy fishing pressure. Include purchase of passive mapping system, e.g., towfish. (\$475,000/yr.)

#### **Stock Structure Studies**

Several state fisheries agencies and university researchers in the South Atlantic region conduct tagging studies of fish, sea turtles, and marine mammals to better understand movements, migrations, and geographic population structure. A variety of acoustic and conventional physical tags have been deployed on species ranging from red drum, cobia, striped bass, and sturgeon. Applying tagging study results to stock identification, stock assessments, and other products for fisheries management can be challenging because individual studies are often 1) limited in temporal and geographic scale, and 2) inhibited by inconsistencies between research groups in data storage and sharing capabilities. Presently, the southeast has several acoustic arrays located off the Georgia, South Carolina, and Florida coast extending from the shoreline out to approximately 12 miles. These arrays have proven effective at capturing the migratory behavior of many species including Atlantic Sturgeon, Lemon Sharks, Bull Sharks, White Sharks, Red Drum, Black Drum, and Tripletail. Expansion of these arrays could include additional array transacts to fill in gaps off north Georgia (Savannah region), north Florida (Jacksonville region) and North Carolina, in addition to providing funding for maintenance and tagging supplies. SEAMAP, in conjunction with the ASMFC Interstate Tagging Committee, could expand evaluations of tag

types and protocols in conjunction with ongoing SEAMAP surveys. Funds could be allocated to complete and maintain strategically placed ocean acoustic gates in order to track migration across states. Given its experience with developing the SEAMAP\_SA database in Oracle, its Data Management Work Group could evaluate the various tagging projects data schemas and databases and recommend best data processes, and data sharing considerations in order to enhance the use of tagging study results to answer stock structure and other fisheries management questions. (\$300,000 initially, divided between the three states and \$225,000 divided between each state annually for subsequent maintenance)

### **Cooperation of the SE Regional Estuarine Trawl Surveys**

There are several trawl surveys conducted in the southeast that SEAMAP has identified as partners or potential partners. These surveys all have a long time-series that can provide information for Commission managed species. Additionally, SEAMAP's Crustacean Committee would greatly benefit from data sharing from many of these surveys. Ultimately, these data can be shared within the SEAMAP data portal for broader use. Costs per survey (or state) would be similar to that for the Pamlico Sound Trawl Survey (\$50,000) to provide QA/QC, management, and uploading of the data to the portal. Surveys may include:

State	Agency and Survey
NC	NCDMF Anadromous Trawl Survey (Program 100)
	NCDMF Estuarine Trawl Survey (Program 120)
SC	SCDNR Crustacean Monitoring Trawl Sampling
FL	FWC Fishery Independent Monitoring (FIMS)
GA	GADNR Ecological Monitoring Trawl Survey (EMTS)
	GADNR Juvenile Trawl Survey (JTS)

### **Crustacean Assessments**

A regional crustacean stock assessment would improve management coordination between states and inform crustacean status throughout the region. If there is an issue in one state, it may be an indication of an issue in the larger population as a whole. SEAMAP SA proposes to coordinate a regional South Atlantic blue crab and/or shrimp stock assessment, incorporating fisheries-dependent and independent data as well as environmental data (\$10,000 per species for one data workshop and assessment workshop, \$20,000 total). The SEAMAP Crustacean Workgroup recommends investigating the feasibility of a comprehensive fishery independent golden crab survey, possibly in collaborations with the industry (\$150,000/year) to monitor this species which has only a limited entry trap fishery, operating off the coast of Florida. (\$150,000 annually, \$20,000 once)

#### **1.3.3 Caribbean**

(Increase of \$270,000/once every three years; \$400,000 annually; and \$100,000/once every two years)



**Whelk** – In 2003-2004, whelk surveys were substituted for one of the St. Croix and Puerto Rico trap and hook-and-line survey years, providing the first U.S. Caribbean-wide information on this species. These surveys should be continued on a periodic basis. Recommended additional studies on whelk should include conducting reproduction and maturity studies. The capture of specimens at two to four-week intervals over a calendar year can help determine the period of maximal spawning activity, in which some type of gonadal index to examine this can be used. Data should also be collected on shell length, height, total weight, and tissue/ weight relationships. Proposed additional budget is \$120,000/year, once every three years (USVI) and \$150,000/year, once every three years (Puerto Rico).

**Priority Fish Species** – At the recent CFMC meeting, priority fish species (yellowtail snapper, lane snapper, and parrotfish in the USVI) were identified for seasonal closures. In PR predator reef species (barracudas, moray eels) and commercially important species (parrotfishes, mutton snapper, hogfish, queen triggerfish, trunkfishes and deep-water snappers) are of concern. Information on these fish species is extremely limited, and it would be appropriate to develop fishery-independent data collection programs so that future management can be based on data, rather than subjective opinions. Other species under management by the CFMC through annual catch quotas and data is needed to evaluate those resources. Proposed additional budget is \$180,000 annually (USVI), and \$220,000 annually (Puerto Rico).

## 2 APPENDICES

### A. SEAMAP Committees Membership 2020

(check [www.seamap.org](http://www.seamap.org) for current membership)

#### ***SEAMAP-Gulf of Mexico Committee***

**CHLOE DEAN**, Louisiana Department of Wildlife and Fisheries

**JOHN FROESCHE**, Gulf of Mexico Fishery Management Council

**JILL HENDON**, Mississippi Department of Marine Resources/Gulf Coast Research Lab,

**JOHN MARESKA**, Alabama Department of Conservation and Natural Resources, *Chair*

**FERNANDO MARTINEZ-ANDRADE**, Texas Parks and Wildlife Department

**TED SWITZER**, Florida Fish and Wildlife Conservation Commission

**ADAM POLLACK**, National Marine Fisheries Service, Pascagoula Laboratory, MS

**JEFF RESTER**, Gulf States Marine Fisheries Commission, *Coordinator*

#### ***SEAMAP-South Atlantic Committee***

**PATRICK CAMPFIELD**, Atlantic States Marine Fisheries Commission

**JARED FLOWERS**, Georgia Department of Natural Resources, Coastal Resources Division

**SARAH MURRAY**, Atlantic States Marine Fisheries Commission, *Coordinator*

**ROGER PUGLIESE**, South Atlantic Fishery Management Council, *Chair*

**TINA UDOUJ**, Fish and Wildlife Research Institute, FL

**TODD KELLISON**, National Marine Fisheries Service, Beaufort Laboratory, NC

**MARCEL REICHERT**, South Carolina Department of Natural Resources

**KATY WEST**, North Carolina Department of Environment and Natural Resources

#### ***SEAMAP-Caribbean Committee***

**NICOLE ANGELI**, Virgin Islands Department of Planning and Natural Resources/Division of Fish and Wildlife

**MATTHEW KAMMANN**, Virgin Islands Department of Planning and Natural Resources Division of Fish and Wildlife. *Chair*

**JUAN JOSE CRUZ-MOTTA**, Puerto Rico Sea Grant College Program / University of Puerto Rico Department of Marine Sciences

**RICHARD S. APPELDOORN**, Independent consultant

**GRACIELA GARCÍA-MOLINER**, Caribbean Fishery Management Council

**MIGUEL ROLON**, Caribbean Fishery Management Council

**RICARDO LOPEZ**, Puerto Rico Department of Natural and Environmental Resources

**VERONICA SEDA**, Puerto Rico Department of Natural and Environmental Resources

**AIDA ROSARIO**, Emeritus Puerto Rico Department of Natural and Environmental Resources contractor

**EDWIN MUÑIZ**, U.S. Fish and Wildlife Service

**EDGARDO OJEDA SERRANO**, University of Puerto Rico/Sea Grant College Program, *Coordinator*

**RUPERTO CHAPARRO**, University of Puerto Rico Sea Grant College Program

## B. Bottom Mapping Priority Areas

Source for spatial layers presented in Appendix B: SAFMC Digital Dashboard–  
([http://ocean.floridamarine.org/safmc\\_dashboard/](http://ocean.floridamarine.org/safmc_dashboard/))

Figure 1. Existing Managed Areas- Deepwater Snapper Grouper Marine Protected Areas

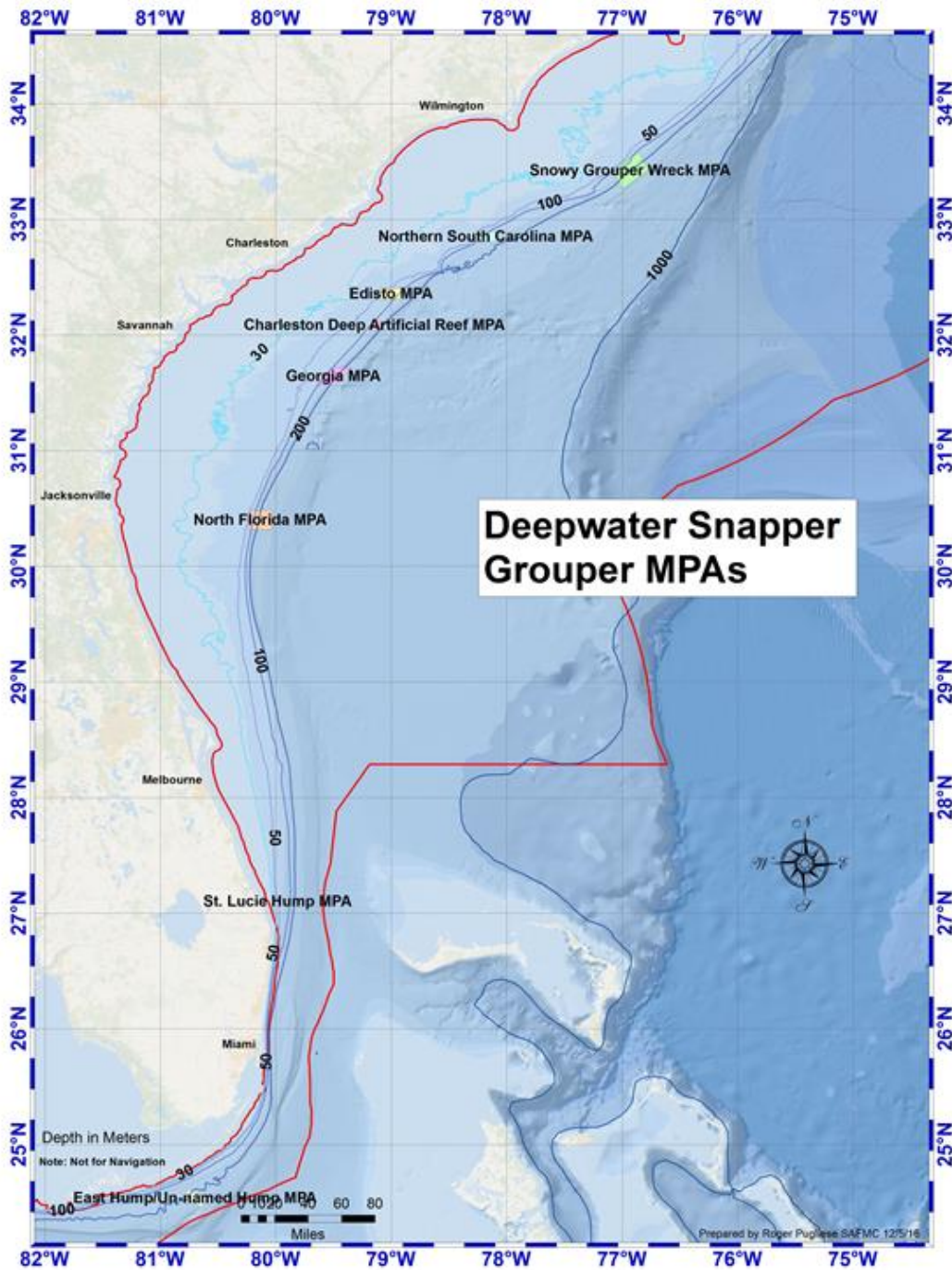


Figure 2. Existing Managed Areas- Oculina Bank Coral Habitat Area of Particular Concern and Oculina Experimental Closed Area.

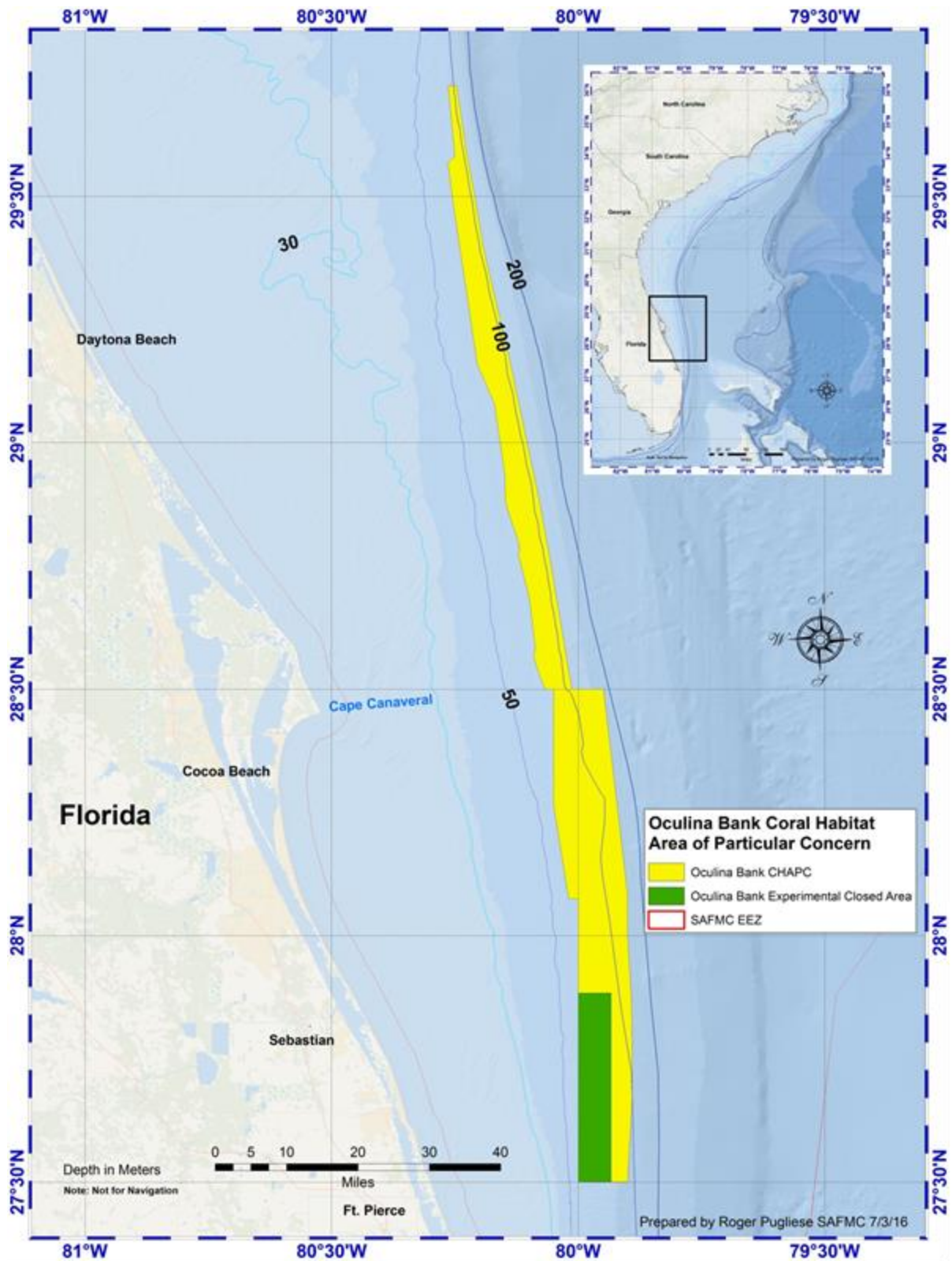


Figure 3. Existing Managed Areas- Deepwater Coral Habitat Area of Particular Concern.

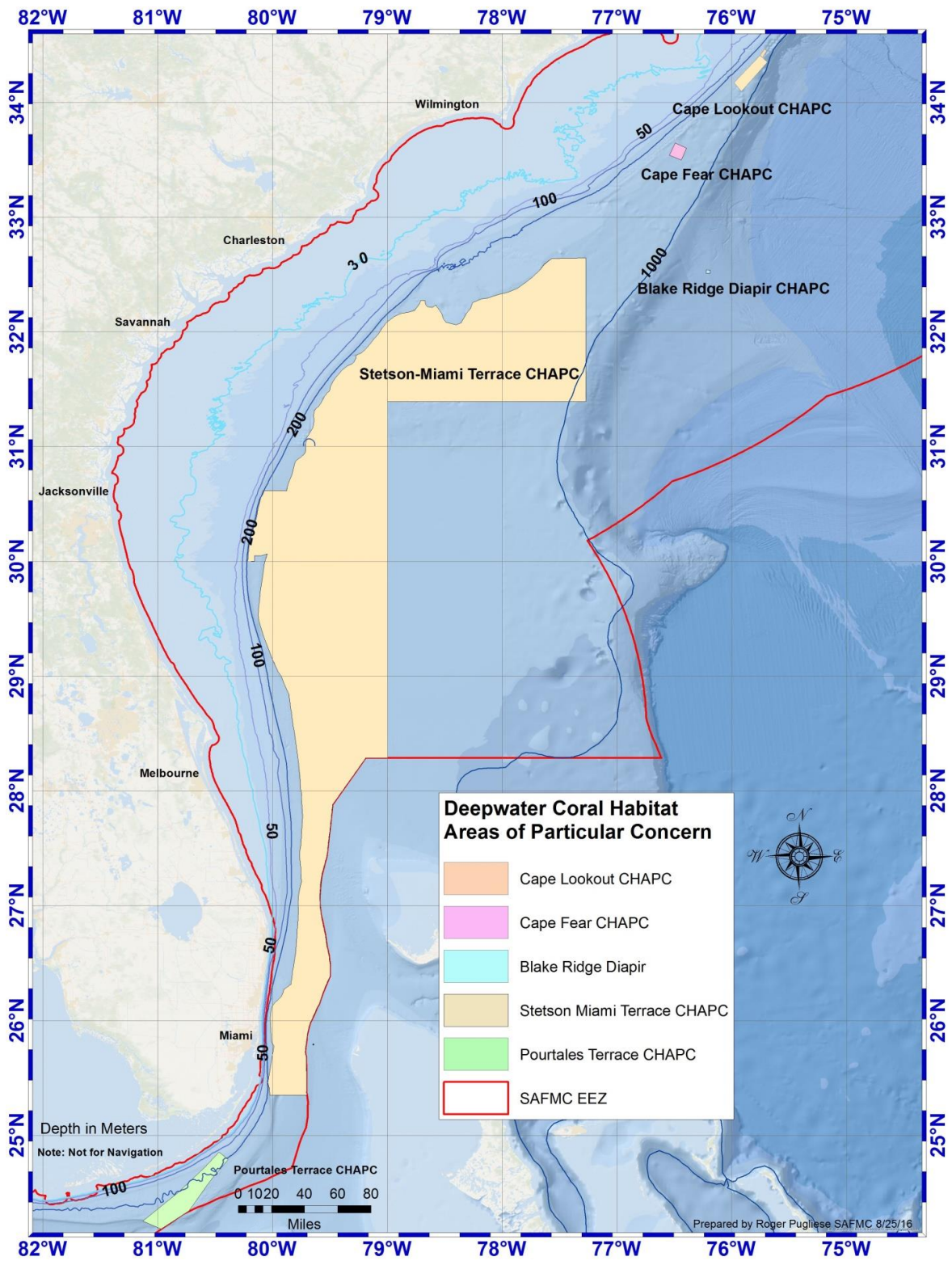


Figure 4. Snapper Grouper Spawning Special Management Zones (SMZs) off South Carolina.

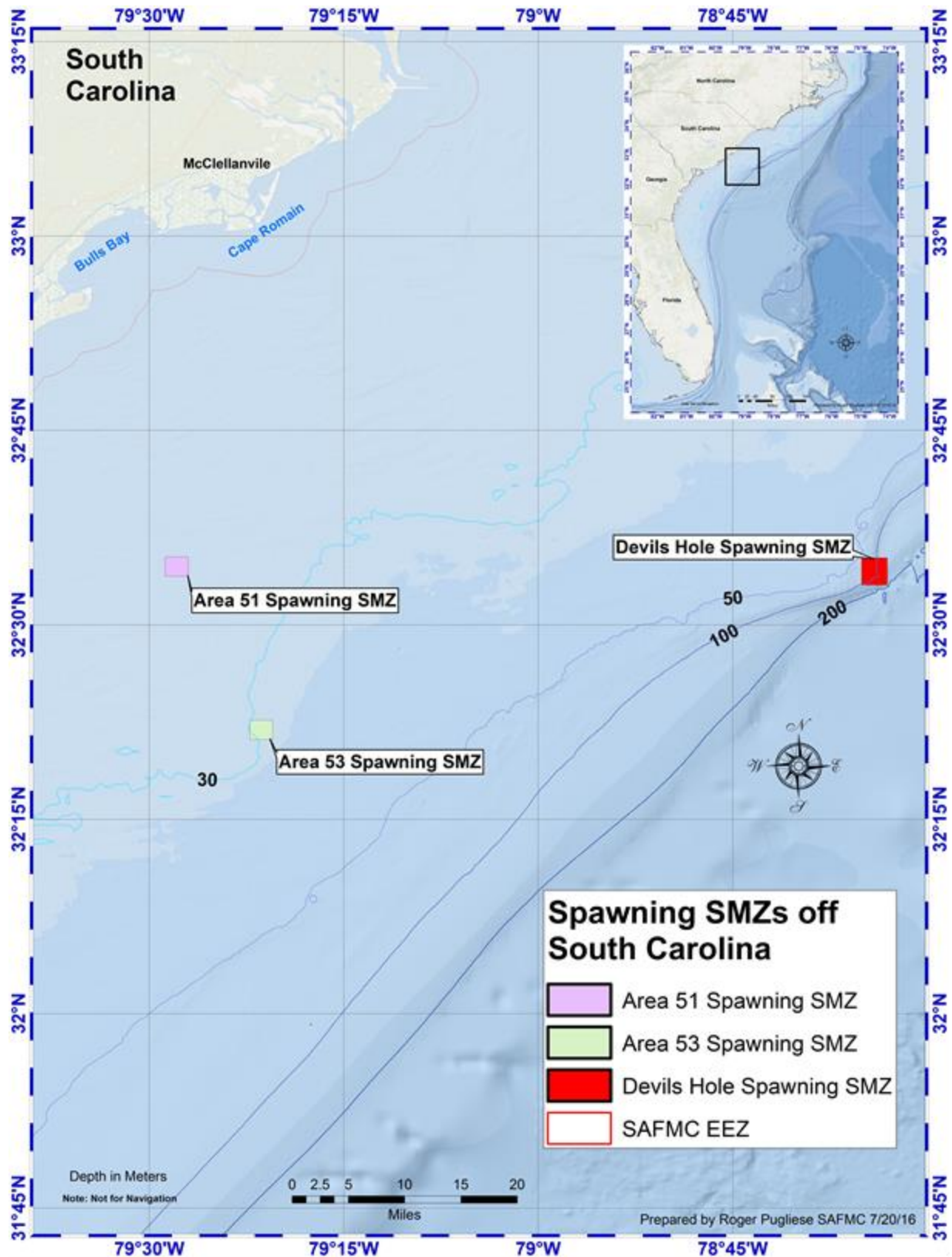


Figure 5. Snapper Grouper Spawning Special Management Zones (SMZs) off North Carolina.

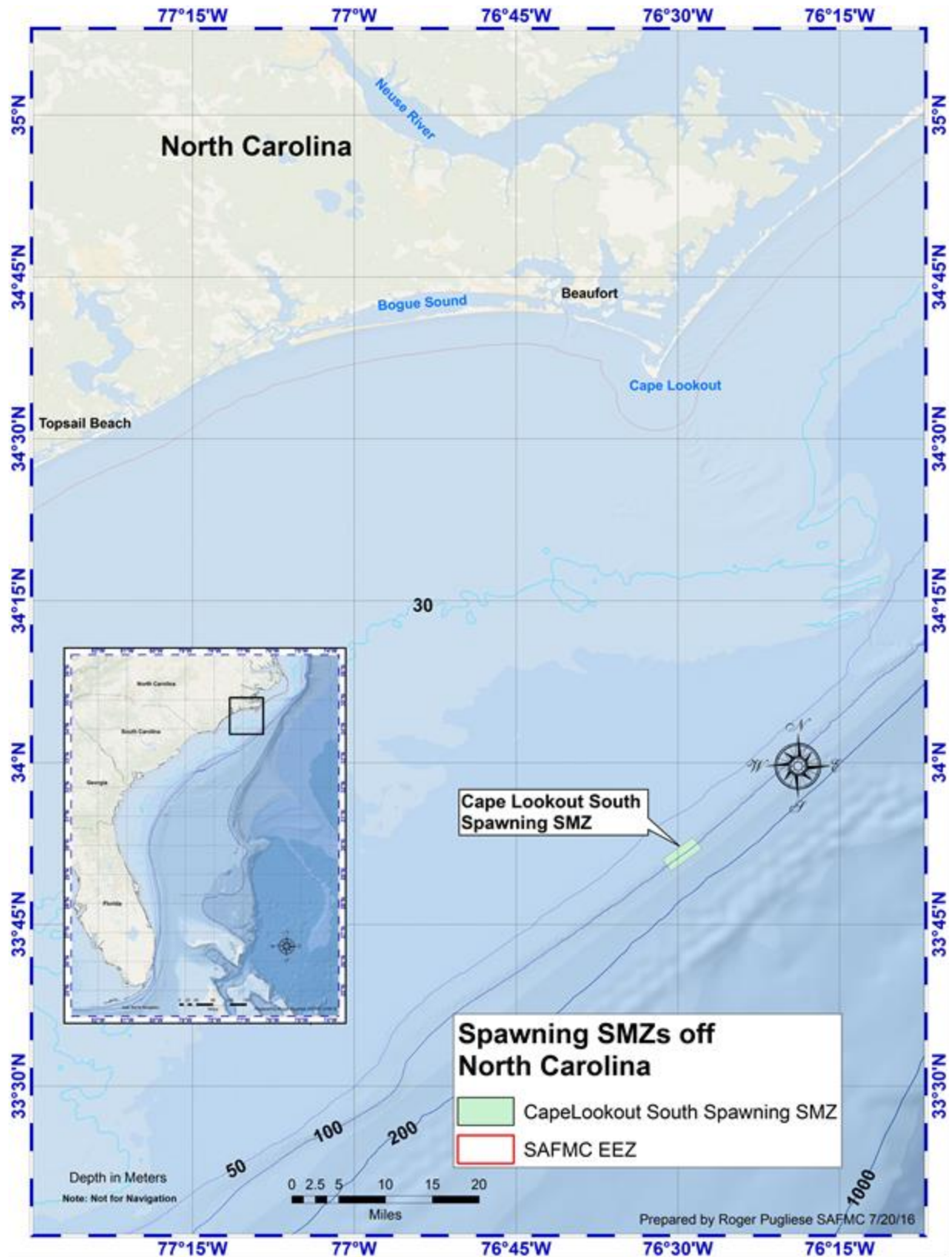


Figure 6. Snapper Grouper Spawning Special Management Zones (SMZs) off Florida East Coast.

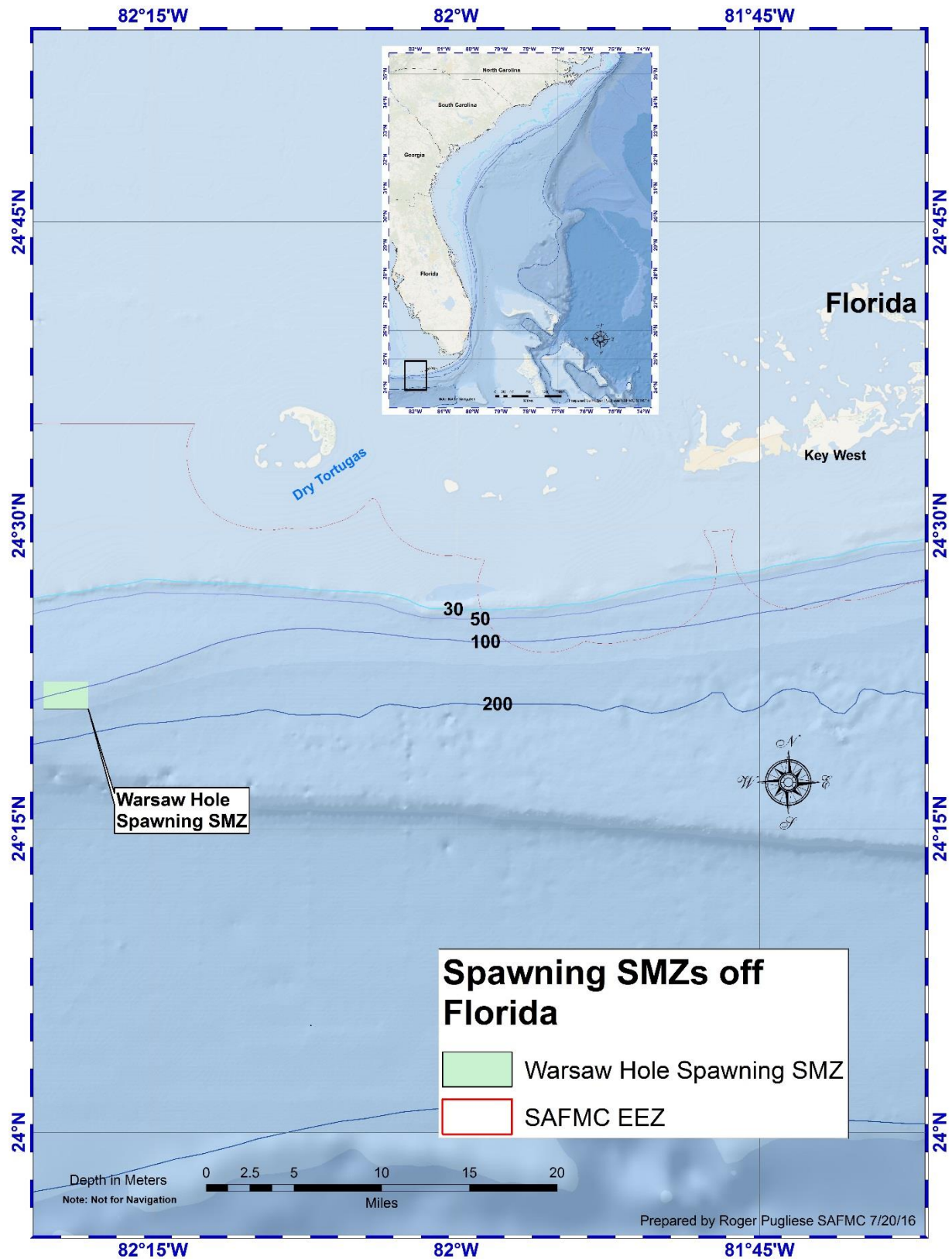




Figure 7. Habitat Zones and SEAMAP Bottom mapping data - Developing SA Mapping Strategy SAFMC FEP II.

