

Atlantic States Marine Fisheries Commission

ISFMP Policy Board

*August 3, 2023
9:15 -10:45 a.m.
Hybrid Meeting*

Draft Agenda

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

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|-----------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. Welcome/Call to Order (<i>S. Woodward</i>) | 9:15 a.m. |
| 2. Board Consent (<i>S. Woodward</i>) | 9:15 a.m. |
| • Approval of Agenda | |
| • Approval of Proceedings from May 2023 | |
| 3. Public Comment | 9:20 a.m. |
| 4. Executive Committee Report (<i>S. Woodward</i>) | 9:30 a.m. |
| 5. Review and Consider Changes to Conservation Equivalency: Policy and Technical Guidance Document (<i>T. Kerns</i>) Possible Action | 9:40 a.m. |
| 6. Report from the Atlantic Coast Fish Habitat Partnership (<i>S. Kaalstad</i>) | 10:20 a.m. |
| 7. Review Noncompliance Findings, if necessary Action | 10:35 a.m. |
| 8. Other Business | 10:40 a.m. |
| 9. Adjourn | 10:45 a.m. |

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

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEETING OVERVIEW

ISFMP Policy Board
Thursday August 3, 2023
9:15-10:45 a.m.
Hybrid Meeting

Chair: Spud Woodward (GA) Assumed Chairmanship: 10/21	Vice Chair: Joe Cimino (NJ)	Previous Board Meetings: May 3, 2023
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 May 3, 2023

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time 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 (9:30- 9:40 a.m.)

Background

- The Executive Committee will meet on August 2, 2023

Presentations

- S. Woodward will provide an update of the Executive Committee's work

Board action for consideration at this meeting

- none

5. Review and Consider Changes to Conservation Equivalency: Policy and Technical Guidance Document (9:40-10:20 a.m.) Possible Action

Background

- The Executive Committee (EC) tasked the Management and Science Committee (MSC) to review the *Conservation Equivalency: Policy and Technical Guidance Document*. The Executive Committee requested a series of question regarding conservation equivalency. A sub group of the MSC members and others addressed the EC's *questions*. Based on these questions and guidance from the EC staff has revised the

*guidance document (**supplemental materials**). The changes provide more structure and details to the document.*

Presentations

- T. Kerns will review changes to the *Conservation Equivalency: Policy and Technical Guidance Document*.

Board action for consideration at this meeting

- Approve changes to the *Conservation Equivalency: Policy and Technical Guidance Document*.

6. Committee Reports (10:20-10:35 a.m.)

Background

- The Atlantic Coast Fish Habitat Partnership will meet the week of July 24, 2023.

Presentations

- S. Kaalstad will provide an update of the ACFHP's work

Board action for consideration at this meeting

- None

7. Review Non-Compliance Findings, if necessary Action

8. Other Business

9. Adjourn

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
INTERSTATE FISHERIES MANAGEMENT PROGRAM (ISFMP) POLICY BOARD**

**The Westin Crystal City
Arlington, Virginia
Hybrid Meeting**

May 3, 2023

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

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1. **Approval of agenda** by consent (Page 1).
2. **Approval of Proceedings of February 2, 2023 Hybrid Meeting** by consent (Page 1).
3. **Move that the Commission establish a temporary technical committee to review the two papers on Atlantic bonito and little tunny that were submitted by the American Saltwater Guide Association. The Commission will inform the State Directors of this proposal and ask them to nominate a scientific staff member of their choice to join the review. The review will assess the technical quality of the papers, the relevance of the information, and suggest possible revisions, data gaps, and management implications and options. The committee will convene online, elect their own chairperson, and prepare a report with their findings and recommendations for presentation to the ISFMP Policy Board at the Summer Meeting (Page 13). Motion by Mr. David Borden; second by Dr. Justin Davis. Motion fails (2 in favor, 11 opposed, 3 abstentions, 1 null) (Page 16).**
4. **Move to approve the ASMFC Stock Assessment Schedule as presented today (Page 28). Motion by Mr. Tom Fote; second by Mr. Mel Bell. Motion carries unanimously (Page 28).**
5. **On behalf of the American Lobster Board, recommend ISFMP Policy Board approve the creation of a subcommittee to engage Canada’s Department of Fisheries and Oceans to discuss transboundary issues related to the importation of lobster as it relates to different minimum 24 gauge sizes in the two countries. The subcommittee shall be made up of up to four members of the Lobster Management Board who have license holders that fish in Area 1 and/or 3, one representative from the National Marine Fisheries Service, and the Commission’s Executive Director or his designee (Page 31). Motion by Dr. Jason McNamee on behalf of the American Lobster Management Board.**
6. **Motion to substitute to request the ISFMP Policy Board create a subcommittee to be made up of up to four members of the American Lobster Management Board who have license holders that fish in LCMA 1 and/or 3 and at least one representative from NMFS and the Commission’s Executive Director or his designee. The Subcommittee, prior to the engagement with parties in Canada who have an interest in lobster management and commerce, shall discuss and develop an approach on how best to find solutions that would be beneficial to both the sustainability of the lobster stock and commerce between the countries (Page 32). Motion by Mr. Mike Ruccio; second by Mr. Pat Keliher. Motion passes by unanimous consent (Page 33).**
7. **Move to adjourn** by consent (Page 34).

ATTENDANCE

Board Members

Pat Keliher, ME (AA)	Loren Lustig, PA (GA)
Sen. Allison Hepler, ME (LA)	John Clark, DE (AA)
Cheri Patterson, NH (AA)	Roy Miller, DE (GA)
Doug Grout, NH (GA)	Craig Pugh, DE, proxy for Rep. Carson (LA)
Sen. David Watters, NH (LA)	Lynn Fegley, MD (AA) (Acting)
Dan McKiernan, MA (AA)	Russell Dize, MD (GA)
Raymond Kane, MA (GA)	Chris Batsavage, NC, proxy for K. Rawls (AA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)	Chad Thomas, NC, proxy for Rep. Wray (LA)
Jason McNamee, RI (AA)	Mel Bell, SC (AA)
Dave Borden, RI (GA)	Malcolm Rhodes, SC (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Chris McDonough, SC, proxy for Sen. Cromer (LA)
Justin Davis, CT (AA)	Carolyn Belcher, GA, proxy for D. Haymans (AA)
Bill Hyatt, CT (GA)	Spud Woodward, GA (GA)
Jim Gilmore, NY, proxy for B. Seggos (AA)	Erika Burgess, FL, proxy for J. McCawley (AA)
Emerson Hasbrouck, NY (GA)	Gary Jennings, FL (GA)
Jeff Brust, NJ, proxy for J. Cimino (AA)	Marty Gary, PRFC
Tom Fote, NJ (GA)	Mike Ruccio, NOAA
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)	Rick Jacobson, US FWS
Kris Kuhn, PA, proxy for T. Schaeffer (AA)	

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

Staff

Robert Beal	Madeline Musante	Jeff Kipp
Toni Kerns	Tracey Bauer	

Guests

Max Appelman, NOAA	Anthony Friedrich, SGA	Justin Pellegrino, NYS DEC
Pat Augustine, Coram, NY	Alexa Galvan, VMRC	Michael Pierdinock
Russ Babb, NJ DEP	Angela Giuliano, MD DNR	Marisa Ponte, NC DENR
Carly Bari, NOAA	Mark Grant, NOAA	Will Poston, ASGA
Julia Beaty, MAFMC	Hannah Hart, MAFMC	Jill Ramsey, VMRC
Alan Bianchi, NC DENR	Jay Hermsen, NOAA	Zachary Schuller, NYS DEC
Nicolas Calabrese, U MASS	Emily Keiley, NOAA	Chris Scott, NYS DEC
Blane Chocklett	Wilson Laney	McLean Seward, NC DENR
Luyen Chou	Mike Luisi, MD DNR	Ryan Silva, NOAA
Haley Clinton, NC DENR	Shanna Madsen, VMRC	Sam Truesdell, MA DMF
Derek Cox FL FWC	Anne Markwith, NC DENR	Mike Waine, ASA
Laura Deighan, NOAA	Nichola Meserve, MA DMF	Megan Ware, ME DMR
Ben Dyar, SC DNR	Steve Meyers	Angel Willey
Julie Evans	Tina Moore, NC DENR	Chris Wright, NOAA
Glen Fernandes	Allison Murphy, NOAA	Erik Zlokovitz, MD DNR
Cynthia Ferrio, NOAA	Thomas Newman	
James Fletcher	Gerry O'Neill, Cape Seafoods	

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The Interstate Fisheries Management Program Policy Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, a hybrid meeting, in-person and webinar; Wednesday, May 3, 2023, and was called to order at 10:15 a.m. by A.G. “Spud” Woodward.

CALL TO ORDER

CHAIR SPUD WOODWARD: For those here virtual, I’m Spud Woodward; current Chair of the Commission. Our first item of business is Approval of the Agenda. Everybody should have a draft agenda. I know we have one item of Other Business. New York tautaug. I assume you still want to do that, Jim?

MR. JAMES J. GILMORE: Yes, I was going to raise my hand and put that on, but I know staff has done a wonderful job and got ahead of me, so yes, thank you.

CHAIR WOODWARD: Any other additions, modifications to the draft agenda? Yes, Shanna.

MS. SHANNA MADSEN: I would just like to add something under Other Business. I just wanted to quickly discuss our practices for doing transfer letters. I have some suggestions there that I kind of just wanted to throw at the Policy Board, nothing super official.

APPROVAL OF AGENDA

CHAIR WOODWARD: All right, I’ve got that duly noted. Anything else? Any opposition to accepting the agenda as modified? Seeing none; we’ll consider that accepted by consent.

APPROVAL OF PROCEEDINGS

CHAIR WOODWARD: We also have Proceedings from the February, 2023 Meeting of the Policy Board. Are there any edits, modifications, corrections to those proceedings? Seeing none; any opposition to accepting those proceedings

as presented? All right, we’ll consider those accepted by consent as well.

PUBLIC COMMENT

CHAIR WOODWARD: This is the time in the Policy Board meeting where we’ll have an opportunity for Public Comment. Is there anyone in the room? I don’t see anyone. Anybody virtually who wants to make a public comment? No, okay, we’ll dispense with that.

EXECUTIVE COMMITTEE REPORT

CHAIR WOODWARD: I’ll give the report from this morning’s meeting of the Executive Committee.

We had several items we dealt with. First of all, which was the report on the draft Fiscal Year 2024 Budget. Our Vice-Chair is out of the country, and so Laura went over the draft budget and just remind everybody that pretty much that budget is based off of the action plan that has been prior deliberated on and approved by the Board.

We had unanimous approval of the proposed budget for 2024. Then we went into a discussion about the stipend proposal, and Bob Beal presented an overview of that. Roy Miller provided some comments. Yesterday during the Legislative and Governor’s Appointees Luncheon there was a robust discussion about that policy. Just a little background on it. It was contemplating financial compensation for Legislative and Governor Appointee Commissioners and Proxies based on concerns that the workload over the years has expanded beyond just four quarterly Commission meetings to requiring some of these Commissioners to have to attend joint meetings with Councils and other specialty meetings.

After a pretty lively discussion, a motion was made, seconded and ultimately approved with a vote of 14 to 1 to maintain status quo, which is no financial compensation for Legislative and Governor Appointee (LGA) Commissioners. However, that vote was taken recognizing that there needs to be further work to specifically determine the actual use

of a stipend if we were to go forward, because it's kind of a complicated issue.

You've got some LGA Commissioners who simply wouldn't be eligible to receive a stipend, even if it were available. You've got some that if it were available would just choose to not do it. The analyses that have been run were sort of a, if everybody took advantage of it that was eligible. There is going to be some further analysis of this, and it is certainly not an issue that is off the table. But it will be something that the Ex-Com will probably contemplate at a future.

Then Toni went into the Conservation Equivalency Policy and Technical Guidance Document Update, the draft of that. Again, there was a pretty lively discussion about that. Sort of the gist of it is that there is some good and there is some bad, and there is some stuff that may not be very practical.

What we're going to do going forward is take the input that was provided by the Ex-Com, take a subset of Ex-Com and other interested parties, and get some further feedback on it. Then Bob and Toni will work to refine this draft, and come back to the Ex-Com at probably the August meeting, assuming we can get everything done.

Again, you know the purpose of this is to, as much as possible, perfect the conservation equivalency guidance, so that the flexibility is retained but it addresses concerns about it being a little too loose around the edges sometimes. Again, this is a work in progress, and hopefully this is something that we can bring to closure before the end of the calendar year.

Then we had a legislative update from Alexander Law, there are some bills at play across the river over there. One of them I think everybody may be aware of is, and it's not a bill yet, but it is a discussion draft to establish NOAA as a separate entity, similar to EPA. Bob and I have talked about it since this kind of emerged.

One of the concerns I think we have is, that if you were looking at the draft, the word fish is never even in there. It seems to be very focused on weather and climate and that sort of thing. This was a little concern about the consequences of that. Whether that will get traction remains to be seen, but there were a few other bills. The Recovering America's Wildlife Act is back in play.

But again, it's being confounded by the who is going to pay for it part of the equation, which is still not resolved. But we'll continue to monitor those. The Legislative Committee is doing a great job of maintaining high situational awareness on these bills. When things start moving along, we'll make sure that everybody is fully aware of opportunities for engagement to support or either convey concerns, because we all know that sometimes things are not what they appear to be when these bills emerge out of Congress.

Then we've got an update on future annual meetings. Just to remind everybody, this year's annual meeting will be in Beaufort, North Carolina, October 15-19. I reminded everyone that the hotel we'll be using is actually built on the site of the former menhaden reduction plant in Beaufort.

It's a great site, great hotel, and it's hard to believe that they processed millions and millions of menhaden there, but it doesn't smell like that anymore, so don't worry about needing to bring your own individual Febreze to the hotel. That was it, we had closed session and we had Executive Director Performance Review.

We're happy to say that we're going to have Bob for a while longer. I think everybody agrees that Bob is doing a great job, and we're certainly happy to have him. That's my report on the Executive Committee meeting. If there are any questions. All right, seeing none; then we'll move on to our next item, and that is Discuss Possible Responses to Issues Identified in the Commissioner Survey. Bob.

DISCUSS POSSIBLE RESPONSES TO ISSUES IDENTIFIED IN THE COMMISSIONER SURVEY

EXECUTIVE DIRECTOR ROBERT E. BEAL: At the last Policy Board meeting, you know at the winter meeting, we went over the results of the Commissioner Survey, which we do annually, just sort of getting at the tone of where the Commissioner's feel we are on work products and output of the Commission, staffing and all the other things that we do at the Commission.

At the end of that presentation there was a bit of a discussion, and then a couple commissioners suggesting, there are recommendations in there, especially in the open-ended questions in that survey, about things we can do better and things we can change, and things we need to sort of start thinking about, sort of in the longer term.

We frankly didn't have enough time at the last meeting, and needed to get our thoughts a little bit organized to talk about that. That is what we're doing here. There was a document that was included in the briefing material, I think it was in supplemental, Toni, is that right?

MS. TONI KERNS: I believe it's main materials.

EXECUTIVE DIRECTOR BEAL: Main materials, okay. It's just a one-pager, titled Commissioner Survey Result Summary, March 24 of this year. It kind of goes over the background that I talked about. You know 29 Commissioners responded to the survey this winter.

It breaks up the responses, or lumps them into categories and breaks them up into a couple of different groupings, short term issues, long term issues, and then the notion that drivers have changed. What is the Commission going to have to react to over time? The short-term issues that are listed there are getting meeting materials out earlier, and brevity and clarity of these briefing materials. We get it, there is a lot of volume that is set out in these briefing materials, and a lot of you guys sit on at least one Council, and everything else that you have to do

homework on to get ready for these meetings. Any summary documents or brevity or decision documents, or anything that we can use, I think would be effective there.

This one is a little bit difficult to define. Improving the efficiency of meetings. I mean, I get it, quicker meetings are more efficient. But, if not everyone gets to talk, you end up with results that you have to revisit or don't really represent that will of the group, maybe that is not efficient. I think that one probably warrants some conversation.

Again, back to summaries of lengthy documents, easier access to graphs and tables. Those are the pieces that I think a lot of people study, and a picture is worth a thousand words, kind of an idea. Getting good graphs and tables is always effective. The long-term issues, bureaucracy in the federal partnership, you know that is always out there.

The notion of improving our partnership with National Marine Fisheries and USGS and U.S. Fish and Wildlife Service and the other federal agencies we interact with, obviously is important in keeping those partnerships improving and evolving is great. Following science and not political pressure, dealing with shifting in stock allocations, incorporation of ecological considerations. We do that for some of our species but not all.

Legislative changes, that is kind of what we talked about earlier in Spud's update. There are a lot of things being considered on Capitol Hill that may impact the Commission, and how we operate. They are not directly modifications to the Atlantic Coastal Act, but if things change under Endangered Species Act or NOAA becomes its own entity, and the word fish isn't anywhere in that bill that is considering that, that may be a problem, and all those different things we have to consider.

Offshore wind, that is an obvious one, I think, that is going to be something we have to react to. Risk and Uncertainty Policy is something we've been developing for a while, and we haven't fully implemented it yet. I think it's just about ready for prime time, but the last time we talked about it there

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was some interest in sort of test driving it one more time before we actually bought it.

Then drivers of change, again, these are things we're going to have to react to as a Commission over time, and sort of big picture climate change and unpredictable environmental conditions, and stock is not responding to our management decisions. You know we've got a number of species. You know northern shrimp is a great example, or a terrible example, depending where you sit, that we've had a moratorium on that stock for the last seven years, and the stock is not responding at all.

It's not because of obviously fishing mortality, it's an environmental condition. The Commission sometimes is criticized because we're not rebuilding some stocks, even though we've got full moratoria implemented on northern shrimp and sturgeon and other fisheries we've cut way back to just remnants of what the fisheries used to be, and the stocks aren't responding for a lot of different reasons, environmental conditions and other things. That is a quick summary. You know I think again, the short-term issues are something that we feel we can tackle, and if there are specific recommendations from this group on how to handle some of the meeting efficiencies and meeting materials, we want to hear them, and we're happy to react to that.

The longer-term issues, the idea there, is there something that we as staff or you all as a group of 45 Commissioners should be working toward to react to, as longer-term issues? We're happy to help move in that direction. Happy to answer any questions, Mr. Chair, but that is a summary of the background.

CHAIR WOODWARD: Thank you, Bob. Yes, I just want to offer a few minutes maybe, if folks are willing and ready to provide some feedback to Bob on some of these, especially the efficiency of meetings. I think that one was particularly challenging. You know during the meeting planning phase, you know there is an effort

made to allocate a sufficient amount of time, to ensure that there can be adequate discussions.

Obviously, some things are more complex than others. I think that, as Bob said, is one of those things, like where are we looking at the change to status quo to gain efficiency? Are we talking about the length of meetings, the time allocated for board meetings? If there is anybody that's got any thoughts on that, and certainly you know, you can communicate that outside of the Policy Board meeting environment, to me, to Bob, to Toni, to whoever. But if anybody has got any thoughts now, I would certainly appreciate hearing them. Yes Sir, Senator Watters.

SENATOR DAVID WATTERS: One thing I wanted to mention is that in our Capital Hill visits yesterday, of course as I was presenting some materials to each of our delegation staffers about the ongoing planning to establish an 11-state group on the Atlantic Coast to look at mitigation compensation issues for fisheries related to offshore wind.

Atlantic States Marine Fisheries Commission has no position on offshore wind, fine, but it just suggests to me that maybe we do need to have more directed Commission involvement in the policy that is being developed in offshore wind industry, related to fisheries and environment protection, mitigation and compensation.

I think in a way there will be an expectation, I think of the states and the fishing industry to look to this group, because of our expertise in fisheries management, to have some kind of opinion as to what measures are being taken. Whether it's in the BOEM Environmental Review once option areas have been described, or whether it might be on a policy about state's establishing funds for receipt of industry, or federal funds for mitigation compensation.

Of course, that may involve issues about how such funds get divided among states that are fishing out of the same species that might migrate, and being affected in different ways. I know we have a lot of areas in which this would come up, but I'm

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wondering whether it needs to be an opportunity for a particular focus in the Commission on the offshore wind industry on the Atlantic states.

CHAIR WOODWARD: I know Bob is involved with BOEM's discussions, so Bob, maybe you can just update everybody what you have been participating in, how you've been providing feedback and some of the discussions we've had internally about the role of ASMFC in this offshore wind topic.

EXECUTIVE DIRECTOR BEAL: Great, thank you, happy to do that. To be honest, the Commission is kind of wandering around a little bit in the woods, trying to find our direction on offshore wind. You know there has been, as you said, a lot of engagement with that 11-state group, which is the states of Maine through North Carolina, but it doesn't include Pennsylvania, since they don't have the offshore issues.

The Commission, frankly has stepped back a little bit since that group has become more active, and let those 11 states, and obviously it is external to the Commission process. But those 11 states have been represented, and are talking quite a bit. I have as the Chair mentioned, been involved with BOEM and some of those data groups on mitigation and compensation.

A number of Congressional Offices have reached out to us in the past, trying to get our perspective on compensation and mitigation legislation, what should that look like, who should be involved. Should the Commission, frankly, be the clearing house for all of that money, which generally the folks around this table have said, we probably shouldn't be the group that makes decisions on who gets the money and how much they get.

There may be a role for ASMFC in providing data to the group that ultimately makes those decisions through ACCSP and other things on harvest history and other things, for commercial and for-hire fisheries. I'm involved in a lot of

different angles, the State Directors in particular are involved in a lot of different parts of wind power.

The Commission, you know this body, hasn't really formally done a lot collectively. There is a lot of sorts of pieces that are very involved in it, but collectively the Commission hasn't done a lot. While I'm speaking, tomorrow at one o'clock, and Friday at one o'clock, Alexander and I are doing a Congressional briefing on compensation legislation that we've invited, essentially all the coastal offices from the House and Senate side.

The House is on Thursday, Senate is on Friday, I believe. If anyone is interested in participating in that sort of hearing what the 11 states have been up to, and hearing the perspective from a couple of Congressional Offices on where some of that legislation may go, those are open-ended meetings, and the invite is available for anyone that is interested in doing that. Senator Watters, that is a long-winded way of saying, we're doing a lot of pieces of wind power, and involved at a lot of different levels, at the staff level and obviously the state level.

But we don't have a wind power committee or anything set up at the Commission. Historically we've talked about it a lot, and decided kind of this piecemeal approach may be appropriate for the Commission, rather than a larger, more dedicated commitment to coming up with one position, because it's difficult for 15 states to come out with one position on wind power. Different governors have different perspectives, and it's just a lot of times when it's a controversial issue, or something that governors and legislative folks disagree on. The Commission's position is kind of watered down a lot, and it doesn't say a whole lot. But again, that is what we've done historically. That doesn't have to be what we do moving forward. If there is something different that we can and should do that is for this group to decide.

CHAIR WOODWARD: All right, thank you, Bob. Again, in regards to the survey results and the issues. If you don't feel about dealing with it today individually, please circle back to myself, Bob, Joe,

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you know share your thoughts and ideas about how to address some of these things, we would appreciate it. Loren, I saw your hand.

MR. LOREN W. LUSTIG: I appreciate always the opportunity to provide feedback to the Commission. I consider it a serious and important part of my role. I'm wondering though, about the number of respondents compared to the ones that do not respond. Has that norm changed over the years?

Is there anything else that we should do that would tend to increase the number of responders? I personally think that the document is efficient, easy to use. It is valued, and I couldn't propose any ways that we would change, but perhaps others in our group here could. That's my question. Thank you.

CHAIR WOODWARD: Yes, I'll look to Toni for a specific, but I think our participation trends have remained kind of stable over time. I thought maybe we could offer an all-expense paid trip to Arlington, Virginia as an incentive. But I guess that really won't work. But anyway, I'll look to Toni for that.

MS. KERNS: Spud, you're correct. I think we've had some low years of like maybe 21 or 22 individuals responding, and some high years of like closer to 35. But on average I don't think we veer too far from like 5 or 6 difference every year. Because the survey is anonymous, it's hard for us to sort of incentivize folks.

We just send out the reminder e-mails when it's really low. I asked Spud to send out a reminder e-mail that maybe motivates some more folks. If you all have ideas of what would push you to fill out the survey, I would bring it back to you all, since you are the ones that are filling it out. Please, let me know and I'm happy to utilize those methods.

CHAIR WOODWARD: Al right we have Ray and then Eric.

MR. RAYMOND W. KANE: Toni, question, 29 surveys out of a possible 45 were fulfilled. Are the Legislative Committee people, like Governor's Appointees and Proxies and Legislative Appointments responding more so than the Directors from each state?

MS. KERNS: The survey is anonymous and I cannot tell you.

MR. KANE: Pardon me, but after you fill out the survey, you're supposed to notify the office that you filled it out. I don't really know how anonymous it is, I don't really care. But I'm just curious to know. Maybe the Directors are too embroiled in other work to take time to fill out the survey. I would be curious to know if the appointees, the Legislative Appointees and Governor's Appointees are filling out the survey.

MS. KERNS: If 29 people filled it out, maybe 15 people told us that they did. I still can't tell you.

CHAIR WOODWARD: Yes, that's that nonresponse bias, you know it's always a problem in everything we do, isn't it? Eric.

MR. ERIC REID: What about the game? We played a game years ago, where everybody had a little button. We had a game. No more games, yes okay. Do you want to get the 100 percent response or something like that, bring back the game.

CHAIR WOODWARD: We'll take that into consideration, the game. Tom.

MR. THOMAS P. FOTE: With my BA and my MBAs marketing management, I realize if you get that many responders to a survey, that percentage, you're doing great, because usually you get 3, 4, 5 percent. You've done fantastic! I never sent back that I do it, but I do it every year. You probably wish I didn't, because I usually complain every year.

I mean that's how surveys are. I don't know how most of you people. You probably, because you are directors and things like that, get more e-mails than I, and I'm still getting 300 e-mails a day from all the people that want to send me and tell me what they want. You get bogged down and you forget. As we

get older, our memory is not as good as it used to be. I say, oh, I forgot about that survey. Luckily, you send out three or four reminders, so I think we're doing good.

CHAIR WOODWARD: Bill, did you have your hand up?

MR. BILL HYATT: We're all asking ourselves over here, what's the game?

MS. KERNS: There are controls that you can do, and like immediately fill out responses to questions that are up on the screen, so you would fill out the survey here at the meeting, and you would hit the button. I'll leave it at that.

CHAIR WOODWARD: We can certainly put some thought into bringing back the game, I guess. We would have to buy it. Yes, there is cost associated with it. I think probably one of the issues that we always face is that, okay so we fill out the survey, we get the summary of the results, but where does that change anything?

I think that is what we're trying to do here with this, is at least identify the issues that have emerged out of it, and where are some of these things actionable? You know where do we take some of those survey results and put them into action to affect change that people want to see. Again, I'm going to put the burden back on you all, to continue the feedback loop.

If you identify an issue, help us identify a solution, because that is how we get things done. With that we'll move on. Our next agenda item, and just to frame it up for Toni, is back in February some questions were raised regarding Atlantic Bonito management, and then we also ended up discussing some similar concerns about false albacore. Toni is going to give us an update on some of the internal analyses that have been done regarding management of those two species.

MS. KERNS: I just want to point out that there were some additional materials added, one from

the state of Massachusetts on measures that they are thinking about putting in place for Atlantic bonito, and then also there were reports that were compiled on both of these subjects that were quite extensive subjects, both of these species on life history landings and assessment information where available, and management information where available.

In the white paper that was in your meeting materials, there was information from the states about whether or not they would be able to implement management measures for the species, if the Commission did or did not have an FMP. But before we get into those pieces, if we were to add any additional species to the Commission's portfolio, it would impact both Commission staff and the state's staff.

We would probably either need to have another ISFMP staff member, and possibly a new stock assessment scientist, or we would need to have measurable changes in the current species priorities for both management and stock assessments, and we would have to have some pretty major shifts, in order to take this on if we don't add additional staff.

Then as well as the states yourselves would need to be able to populate TCs, Stock Assessment Subcommittees, Plan Development Teams and PRTs for both of these species, which I can imagine may be a little difficult, or maybe not for some of the states, depending on your staffing situations.

For the states that could implement management measures on their own. In the table, I hadn't heard back from two of the states, but in my presentation, I've included information for them. That's the first option, states could just put measures in on their own, from one or both of these species. There are four states that cannot put measures in on their own, but there are some caveats for those states.

For South Carolina and Delaware, they would not be able to move by themselves, but if there were federal measures, they could follow those. For North Carolina and Maryland, they cannot move on their own, unless they started a state FMP, but that could

take several years to do so. I believe North Carolina is thinking about doing an FMP for false albacore, that's correct, Chris, or not still thinking about it?

MR. CHRIS BATSAVAGE: Not necessarily an FMP, it's a little nuanced. The North Carolina Marine Fisheries Commission is considering moving forward with rulemaking authority for false albacore. We don't have rulemaking authority, so we can't set regulations, unless that species is managed through ASMFC or either the Mid or South Atlantic Councils.

That will take a few years to get in place, just kind of through the rulemaking process, in order for us to set regulations. Then if that happened, we could do that without an FMP. We could just have a rule that gives the Director Proclamation Authority, similar to what we have now for sheepshead, because we have sheepshead regs, no FMP. But it will take a few years and it would only limit our regulations to our state waters. It's limited in scope, considering the range of false albacore.

CONSIDER OPTIONS PAPER FOR ATLANTIC BONITO AND FALSE ALBACORE MANAGEMENT

MS. KERNS: Thanks, Chris. The second option, if the Board is interested in taking a next step for one or both of these two species, is to have staff develop a white paper that would be similar to what we did with welk, maybe that's five years ago now. Time just flies. This white paper would have information on distribution, habitat, life history, landings, any management history.

I would probably borrow from those wonderful papers that were in the supplemental materials, because a lot of that work has been done through that paper. Then lastly is a fishery improvement project, or a FIP. It's a stepwise, multistakeholder effort to improve fishery management practices. It's often used more for species that have a larger commercial fishery.

As an incentive to have more sustainable management for that species, it often goes along with certifications. We did do a FIP process when we did the Jonah crab fishery, and there were processors, grocery stores involved. I'm not sure that is the best FIP for these two species. There isn't as heavy of a commercial fishery for these that I am aware of, but I'm open to different ideas. That is all I have on my presentation.

CHAIR WOODWARD: I'll make sure we acknowledge the efforts of the American Saltwater Guides Association, who took it upon themselves to have a literature search done, and provide that information back to us, which certainly reduces the burden on the Commission for better understanding the biology, population dynamics and other elements of these two species.

We want to make sure we acknowledge them. They did this on their own, and I think it sets a good model that if you come to the Commission with a conservation concern, and you put your money where your mouth is, so to speak, so we certainly appreciate that. I've got David Borden has had his hand up virtually, so I'm going to stop off with him, and anyone else at this point. I've got Chris Batsavage and Senator Watters. David.

MR. DAVID V. BORDEN: Thank you very much, Mr. Chairman. I apologize for not being at the meeting, but I have had a chance to go through the different documents. I would like to start by commending the Mass DMF and the Saltwater Guides Association for all the work that they've done on these two. I think they are being proactive, which is what the intent is.

That said, I don't think we're at a juncture where we need to delve into the specifics or have a detailed discussion on how we utilize the information. I think it's actually premature. I appreciate the fact that Toni and staff have identified a number of different ways forward, but I think there is kind of an interim step that we need to follow, which would be a technical review of the documents that are available.

I'm also concerned about workload issues that Toni identified, and work priorities. My suggestion is, and

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I've developed like a tasking motion. My suggestion is that we basically move forward and ask the states directly, have the Commission send a letter to the State Directors, and ask that they appoint a technical or a management staff to the Committee. If they so choose, and the operable words there are "if they so choose". Then let the state staff do the work, and prepare comments and suggestions. I think if we follow that format, we'll be in a position where we can then have a little bit more of a consensus on the different strategies that we might want to utilize in the future. The one thing that would pretty much leave Commission out of this, unless they want to have a staff member participate in those discussions.

I think the one thing that would be useful would be to have one of the state's volunteer to coordinate that activity. As I said before, I've prepared a motion, but I'm going to defer to the Chair whether or not we use the motion. I think it might be possible if people like that idea to just do it by consensus. That's up to you, Mr. Chairman, thank you.

CHAIR WOODWARD: Yes, I've got a copy of your motion, so we'll keep that in the queue. I want to go now to Chris Batsavage and then Senator Watters.

MR. BATSAVAGE: Yes, I think it's an interesting idea that David Borden is bringing forward to get the states together, especially those with active fisheries for both species, if you look at the available information. But I think also, I think what might also be in there too, is just to get a sense of what management could look like.

With our ASMFC species there are some species we manage pretty intensely. We have a lot of information; we spend a lot of time on them. There are others that, I guess for lack of a better term, we just have passive management, where we have regulations in place and they are not revisited a whole lot. Both options have different workload responsibilities, you know for the states or if it was ASMFC in this case.

But I think it would also be helpful too, if this was ultimately something the states decided to do on their own, outside of ASMFC and the Councils, to at least work together, come up with at least some kind of relatively similar regulations that are kind of meeting the same objectives. If that is something that would be considered under what David is proposing, yes, I think it would be a good way to go, in addition to the other things he suggested.

CHAIR WOODWARD: Senator Watters.

SENATOR WATTERS: Kind of a question for Toni and for Bob as well, in that I can see the consequences, in terms of cost if we did an FMP through the ASMFC, and there we are. Because it is asking a lot to bring in new species to the Commission. My questions are around, what are the consequences, potentially, of our not taking species under management? What situation might we find ourselves in?

I think it's not unrelated to the question that we may be seeing more of this, because of what's happening with certain fishery pressures would develop in other species. Then of course, with warming of the ocean, what we've seen is the range is extended, and so the fishing might start occurring in places where these species weren't before. What situation do we find ourselves in a few years from now, in terms of potential depletion, or potential conflicts among the states. As I said, I don't expect this will be the first time that we notice something like this occurring.

MS. KERNS: It's hard to say what the exact consequence would be, without having a stock assessment for these species, and knowing how much fishing is going on or not going on, whether that fishing is going on in state waters versus federal waters. It's difficult to say. I mean yes, there potentially could be consequences, obviously, for not managing.

In particular if there is an emerging fishery that continues to get bigger, and there are no management measures on that species. It's one of the reasons why we took action on Jonah crab, because we were concerned, we were seeing the landings increase significantly very quickly.

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CHAIR WOODWARD: Yes, I think we would all like to be more precautionary than we are reactive, but I think there is always trying to figure out that balance. To determine whether a precautionary approach is necessary, you've got to better understand a risk. I think that is what is challenging in a lot of these situations.

It's okay, what kind of risk of overexploitation or whatever are we dealing with? A lot of times, you know if we've got species that we just don't have a very thorough and complete dataset on. Anyway, that is kind of, I think where we face right now. But Dan, and then I'm going to go to Adam Nowalsky online.

MR. DANIEL McKIERNAN: To Senator Watters question, you know the reason we're even having this conversation is, we received reports and many of us have seen it personally, that the Gulf of Maine is seeing these young of the year juvenile bonito that we've never seen before. Constituents wrote to me, and I said, well we'll take a look at it, and why don't we inform ASMFC, because heck, maybe this was happening in Rhode Island forever, or Connecticut, and now they've just moved up north and there is nothing new.

But if it is new, and these fish are vulnerable, because they've been taken as functional bait, as if people taking buckets of them, or whatever. Maybe it's appropriate to put a squeeze on that, and to prevent doing that. My objective going into this, looking at our Massachusetts Statutory Authority, was to go to my state commission and propose a very simple regulation to curtail that activity, if it was deemed warranted.

I was hoping getting some informal feedback from this group, from my neighboring states in a forum like this would give us some of that motivation. I did have a question, if you would indulge me, to Chris Batsavage. Chris, you mentioned that in your rulemaking you would only be able to affect the state waters catch. But could you not enact a possession rule that could be enforced at the pier upon landing?

MR. BATSAVAGE: Yes, thanks for the question, Dan. Yes, so if people were out in federal waters fishing, when they come into our state waters, they are bound to the state regulations.

MR. McKIERNAN: Okay, and as far as David Borden's conceptual ideas, we would be supportive of that, and we would provide staff to create a white paper if that is appropriate, and to just move this forward. But I am mindful that I don't know if we would regret going down the road of a new species in a management plan. But it would be ideal, as we've already kind of submitted to this Board some research, and if we want to go a little bit further and dive into other states data as well that may be appropriate. But I hope I haven't overburdened this Board or the Commission, but I do think it's appropriate when we see these emerging issues, to at least start the conversation and possibly take some action.

CHAIR WOODWARD: I'm going to go to Adam online, and then it will be Erika Burgess.

MR. ADAM NOWALSKY: I certainly support any organization out there that is willing to put their money where their mouth is on science. That is certainly for the benefit of the resource, as well as all of us as managers. My understanding is that the literature that we did receive from ASGA so far is in draft form, and is without peer review at present time, is that correct?

MS. KERNS: I believe that is correct, it is not peer reviewed, yes.

MR. NOWALSKY: Again, I certainly appreciate the efforts, but I do think whatever decisions we make moving forward should be based on independently funded science that goes through a peer review process, as we do with almost all the other data we review, and I certainly think that would be part of as we move forward. We've got to look at ways to go ahead and get that data to inform our decision making.

CHAIR WOODWARD: Yes, I think what we received from the American Saltwater Guides Association is

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really just a literature review of everything that was out there, and really no stock status determination or anything like that, that would typically require a peer review. But again, it never hurts to have someone else look at it and see where the gaps are, and how thorough that is. But thank you for that, Adam. I'm going to go to Erika Burgess and then Eric Reid.

MS. ERIKA BURGESS: Florida has looked into the need for conservation and management of little tunny for multiple times over the last decade and greater, and we've routinely come to the determination that additional management of this species is not warranted. For that reason, I do not see our need to continue to explore this. This might be something that other states might wish to do for their waters, but off of Florida, where we land upwards of 50 percent of the coastwide landings for that species, we've determined that management is not warranted.

We have the ability to implement regulations in our state waters and adjacent federal waters in the absence of an FMP. I can't support this, and I would welcome other states to explore options that they can do within their own authorities, but consistently we arrive at the same conclusion, and if you would like to know more, I would be happy to chat with others online.

CHAIR WOODWARD: Eric Reid, and then I'm going to go to Jim Gilmore.

MR. REID: These two species are highly migratory, and they're available throughout the northwest Atlantic as well as a lot of other places in the Atlantic. I'm pretty sure that the Service follows ICCAT regulations for these two species, which do not exist. However, you talk about a white paper. Doing a white paper is one thing, reading somebody else's white paper is much more cost efficient, I believe. On May 15 through 18, at the ICCAT Intercessional Meeting of the Small Tuna's Working Group, they are looking at reviewing the stats for biology and life history, age and growth, genetics, maturity and reproduction. They are also going to get an

update on data poor methods and review appropriate approaches for future development. Now, I'm pretty sure that the future in ICCAT time is like my great, great grandkids might have a problem with. It's something along those lines. My final point is that the IUCN, which is the International Union for Conservation of Nature, puts out a thing called the Red Book, which is species of most concern, and species of least concern.

It is the premiere document about species status, lists both these species as species of least concern. In my little red book, they are also species of least concern. The Commission has got plenty of other things to do that are more pressing, as we've just heard for the last two days, and probably for some time before that.

I don't think we should waste Commission resources on taking on these two particular species, because there is very little that is known about them. They are opportunistic in where they appear on the coast, and of course fishermen are opportunistic as well. People have been fishing for these fish for a very long time. I don't see any reason we should get in this management scheme at all. That is where I'm at, thank you.

CHAIR WOODWARD: Jim Gilmore and then I'll go to Tom Fote.

MR. JAMES J. GILMORE: Following up with Senator Watter's comment before. I think at this point yes, we have a system where we're seeing this in our states. You know we tend to react to it, and try to put in some management if it becomes an issue. As Toni said, it's worked well. I mean we saw it happening with Jonah crab, and it started out with states noticing it, and then we decided to do an effort on it.

In fact, right now with New York, if anybody wants to help us, we're going to do stuff on blowfish, because they are back in big numbers, and people remain concerned about that. However, the one caution we do is that, you know if we kick this down the road or whatever, not to forget that sometimes, and I'll use welk as the example.

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A few years back we all decided we really didn't need to manage welk, and there was a state well to the north of us, I won't say who, and former people that killed that. Then it took Connecticut and New York, what 10 years to get welk regulations in, and we probably did damage to that population.

In some points when we get to that tipping point, the Commission is very helpful in getting us to say, if we try to do it in the state and we get a lot of opposition, it's difficult to do it. If you say, well the Commission told us to do it, it is a lot easier. We've got to keep that in mind as we move forward. Thanks.

CHAIR WOODWARD: Tom, and then I'll go to Mel Bell.

MR. FOTE: Jim covered the points I was going to make, so I'll pass.

CHAIR WOODWARD: Oh, okay, very good. All right, Mel and then I'll go back to David Borden online.

MR. MEL BELL: I was just going to say, we in our state, just because of how we're set up, it's even a little more complex. You know I think the states that can implement through rulemaking or some process, something in place as Dan has done, that's great. We have an additional challenge in that all of our fishery's regulation is actually state law, which requires an act of General Assembly, and they only have authority for state waters.

The point about, well couldn't the state restrict harvest. The problem we run into there is we've had a case in federal court where we've lost before when we tried to do that. Unless our best-case scenario is basically adopting federal regulation by reference in the existing state law. We have some additional challenges too. The other thing is that we don't have the same degree perhaps, we haven't really heard from our fishermen that the same degree of interest.

The species are landed. There are some issues probably with identification, just because of use of common names or common names switching around. But I would say depending on which species you're talking about; you know most of ours are probably in federal waters. Just some additional challenges. But we are not in a position to take some sort of action at this point, nor could we, just to make that clear.

CHAIR WOODWARD: David, I'm going to go back to you and then Lynn and then Justin.

MR. BORDEN: I'll make this quick, because it's my second bite. I just want everybody to be clear. I did not suggest that we start managing these species. I think that I specifically said that it was premature. The only thing I suggested was a variation of what Adam indicated, that we need some kind of review on this. There is a lot of work that's been done.

I think we need a set of outside eyes to look at the information and see what we can use and not use, and where it might possibly lead. Then at a subsequent meeting put that back on the table, and then have some aspects of what has already been discussed, discussed. I was just suggesting an interim step that's all.

CHAIR WOODWARD: David, you alluded to the fact that you've got a motion that you had constructed and provided to staff. Do you want to make that motion, to maybe focus it?

MR. BORDEN: Yes, I'm happy to make that as a motion, but I was kind of hoping that we could avoid doing that, simply because what I was suggesting does not commit the Commission to anything other than writing one letter. It doesn't change any work priorities, doesn't change any assignments for the technical staff that are already overburdened. But if it's your preference, Mr. Chairman, I would be happy to make that as a motion.

CHAIR WOODWARD: Well, we've got it displayed on the Board, and I think at least the language of that motion will maybe help people better understand what you're talking about.

MR. BORDEN: Okay, so I move that the Commission establish a temporary technical working committee to review the two papers of Atlantic bonito and little tunny that were submitted by the American Saltwater Guides Association. The Commission will inform the State Directors of this proposal and ask them to nominate a scientific staff members of their choice to review the proposal. The review will assess the technical quality of the papers, the relevance of the information and suggest possible revisions, data gaps, and management implications and options. The Committee will convene online, elect their own chairperson, and prepare a report with their findings and recommendations for presentation to the ISFMP Policy Board at the Summer Meeting.

CHAIR WOODWARD: All right, thank you, so we have a motion, do I have a second? We've got a second from Justin Davis. Let's hold discussion on that until I go down the rest of my list here, and you can certainly discuss that if you want to. But I want to go to Lynn and then Justin, and then Mike Waine online and then Pat Keliher.

MS. LYNN FEGLEY: I just wanted to point out on a slight tangent that we've been having a little fun with Seafood Watch. I just wanted to say for the record that cobia is up on Seafood Watch. Cobia is, and the alternate name is bonito. Just so people are aware, we know bonito are not cobia and cobia are not bonito, but they are as listed as the same critter under the Seafood Watch.

CHAIR WOODWARD: All right thanks, Justin, and then I'm going to go to Mike Waine and then Eric and Dan.

DR. JUSTIN DAVIS: I'll be brief, and I think this is a good motion. It's a good approach suggested by David. I think, Mr. Chairman, you said earlier something about being precautionary and not reactive. I think just because there is a perception there is not an issue with these fish right now, is not a reason to not look into it, gather information.

Talk about what sort of precautionary regulation might be appropriate. It seems like a good next step, acknowledging the interest from some members of the public in seeing the Commission work towards some precautionary management. I think this is a good approach suggested by David.

CHAIR WOODWARD: Mike Waine online, is that right? I think he wants to speak to the motion. Go ahead, Mike.

MR. MIKE WAINE: I've been trying to keep tabs on this. As this continues to be discussed at ASMFC, and perhaps specifically across the states. I'm just curious about what the plan is to engage the broader recreational fishing community on this discussion. I think ASGA has done a good job messaging to the light tackle community, but there is a lot of other stakeholders within the recreational fishing industry that would be very interested in this discussion.

I just want to flag this before this thing gets too far down the field. I don't believe it's ASGA's intent to try to sneak in regulations on these species. I think a little help from some of the communication professionals within the states, and ASMFC would be needed as this conversation continues. I just want to flag this, because I don't really feel like that is being discussed right now. I want to make sure that it's in the mix.

MS. KERNS: Mike, at this time there is, I mean depending on what happens with this motion. Even if this motion passes, there is no Commission FMP, so there would be no Commission public hearings on this. If the Commission does decide to take this species on as an FMP, then we would do our regular FMP process where we scope first.

That is when we would start to engage with the public on the different types of broadscale management that we would do. Then we would then identify with the Board specific management measures, and then take those back out for public comment, so that we would be following our regular process.

MR. WAINE: Mr. Chair, just a quick follow up.

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CHAIR WOODWARD: Go ahead.

MR. WAINE: Based on Toni's response, am I interpreting that as, there are no plans to engage the broader stakeholders on this until management is being considered, because that wasn't really the point I was trying to make. I just wanted a little clarity.

MS. KERNS: There has been no decision, this motion is on the table, and this motion the way David describes it, is for the states to do all of these things. The Commission actually would not be doing this work. It would be up to the states. If the states that decide they want to be a part of this group wanted to engage with the public, that would be up to those individual states. But the Commission itself is not actually taking on any management at this time.

MR. WAINE: Understood. Mr. Chair, perhaps my comments are best directed to the states then, thank you.

CHAIR WOODWARD: Thank you, Mike. Did I miss you, Pat, all right, sorry, go ahead.

MR. PATRICK C. KELIHER: You went right over me to Mike Waine, and I'll never forgive you for that, Mr. Chairman. To Toni's point, this is not a Commission issue then, and we're making a motion. This is a process problem. We're making a motion to then direct the states, and the Commission isn't involved.

This should be a voluntary action by the states. If the states want to get together and do this, then I would suggest that that is the direction that we go in. I don't have a dog in this fight, other than the fact that I love catching bonito and albacore, and think that if there was warranted need to manage, then we should be moving in that direction. But for this first step, I almost feel like this is out of order.

CHAIR WOODWARD: Yes, I think we just have a little bit of a disconnect here between intent and procedure. But we now have something that

belongs to the Policy Board, so we've got to do something with it one way or the other. Let's try to tighten up this conversation here, because we are impeding on our time. We have other issues to deal with. I'm going to go to Eric really quick, and then Erika, and then I've got Mike Ruccio, then Tom and then back to you, Justin, and let's try to wrap this up. MR. REID: Thank you, Mr. Chair, I'll be brief. I agree with Mr. Keliher, the Commission should stay out of that. That's my position. To Ms. Fegley's point, that is why I cited the Red Book not Sea Watch, because they know what they're talking about. When they say it's of least concern, they mean it. Just so you know.

CHAIR WOODWARD: All right, Erika.

MS. BURGESS: I am most concerned about the process, and the precedent that this motion is establishing, that the Commission would turn around and write a letter to the states to say, hey you need to put your technical staff to work to review the work of a private organization, and do peer review.

Would anybody who submits a report to ASMFC from public comment then be directed? Would the states be directed to review the technical merit of those reports? That is a slippery slope, and I am very uncomfortable with. As I indicated earlier, Florida has undergone technical review of whether the species needs management multiple times. I cannot support a letter from this body to the state of Florida to ask that they participate in further review.

CHAIR WOODWARD: Mike Ruccio.

MR. MIKE RUCCIO: I'll also try to be brief. I admit that I don't have a particular dog in this fight, but I am struggling with this motion a little bit. I'm cognizant of the comments that Mr. Reid made regarding work that is being done to the management bodies. I'm also aware of the documentation that's already been provided by Mass DMF and Dan McKiernan's staff, and would like to see those incorporated in this if there is a comprehensive review.

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But I think the part that I am struggling with the most is perhaps what those findings and recommendations from this technical review are designed to do. It's one thing to conduct a literature review, but I'm finding myself lacking for, how is this directing towards a next step, and whether that involves the Commission consideration of management, to empower the states to pursue their own regulation, and I'm just a little bit unclear of that and I think some of that is playing out in others comments as well.

CHAIR WOODWARD: All right, Tom Fote and then Justin, and I think I'm going to call the question on this so we can dispense with it.

MR. FOTE: Basically, the fishery in New Jersey and in New York, mostly because I used to fish from New York, was in federal waters. We don't really have a fishery in state waters, it's all federal waters. It isn't because there is bunker coming in, because if you fish for bonito you know that they are taking small spearing and small fish. Now that's different from albacore. Albacore has always been in state waters. I really think it's part of NOAAs responsibility if they want to look at it, because New Jersey and New York it's federal waters. It's not a species that comes in our bays and estuaries.

CHAIR WOODWARD: Justin.

DR. DAVIS: My sense is the misgivings about this motion around the table are mostly around the idea that this is something that is directing the states to do something, when we think maybe the Commission doesn't have the ability to do that. I'm wondering if resolution to that issue is, rather than calling this a temporary technical committee, saying that we're establishing a workgroup.

That it's going to review this information, and that it's going to meet and then come back to this body at some point with a summary of the information they reviewed, and some recommendations about different ways to move forward. I think there is some interest around

the table in not dropping this issue altogether. But I think there is also a sense that we don't have enough information right now to decide what to do.

You know for instance, we've heard that Florida has examined this issue multiple times, and has presumably done some sort of analysis, and you know review of policy options, and has arrived at the idea that it's not necessary to regulate these species. I'm curious to learn more about that. I'm just wondering if we amended this motion to call it a work group, and struck a lot of the language directing exactly what the group is going to do, and made it simpler if that would help, recognizing that would drag this out longer, but just offering that.

CHAIR WOODWARD: My sense is that there is some trepidation with the Commission asking anybody to do anything at this point, with this. That is why I think we're probably at the point of just voting this up or vote it down. Perhaps we've had a good discussion, leave it to the states that have an interest in pursuing this individually, to find a mechanism to collaborate together.

Because right now I do think we've got a procedural and an authority issue here that is bad. I would really like to dispense with this if at all possible. I know Doug, you had your hand up. You haven't had a chance yet. I'll let you have the last word on this and then I want to have a vote on it.

MR. DOUGLAS E. GROUT: Just briefly. You know if we dispense with this by voting it down that's fine. But what I was going to say is, this Commission has thought of having us get involved with bonito management. Historically we used to have a group called the Management Science Committee that we would direct them to look into that issue, and then bring forward a paper describing the pros and cons of it. But if you want to just get rid of it that's fine.

CHAIR WOODWARD: I think that's a good point, but again, I think what we're really dealing with here is we've got states that individually have an interest in this, and maybe pursuing some conservation, and we have some that obviously don't. I think we're not going to have any public comment on it.

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I appreciate your being here, but I think we've got to resolve this issue, and we're running out of time. At that point, I'm going to call the question on this. We have a motion before us. All those in favor of the motion, signify by saying aye. All right, caucus for a minute or two. Our time is up on caucus. **I'm ready to call for a vote. All those in favor of the motion, signify by raising your hand.**

MS. KERNS: Connecticut, Rhode Island.

CHAIR WOODWARD: All right, those opposed.

MS. KERNS: New Hampshire, Delaware, Maryland, Virginia, South Carolina, Georgia, Florida, Pennsylvania, New Jersey, New York and Massachusetts, sorry, Dan.

CHAIR WOODWARD: All right, null votes. One null.

MS. KERNS: North Carolina.

CHAIR WOODWARD: And abstentions.

MS. KERNS: NOAA Fisheries and Fish and Wildlife Service and Maine and PRFC.

CHAIR WOODWARD: Okay, so motion fails. Where does that leave us? Dan, go ahead.

MR. McKIERNAN: What was mentioned earlier in the discussion, but we didn't really proceed down this road is to attack this like we did welk, which was voluntary. I think Pat Geer had organized it, I think he found us some Sea Grant money, and we all contributed to all of our technical information and our regulations, and we had numerous conference calls.

I think it's probably more appropriate to do that. You had mentioned if a state has an interest, they can do it on a voluntary basis, not under the authority of the Commission, but just under a lot of the relationships that we have around the table.

CHAIR WOODWARD: That's exactly what I was going to describe. You did a great job of it. Those states that do have an interest work together, do the necessary analysis, and if an aggregate of states believe that interstate management is the best way to address this, then they can come back to this Board, present their findings, and then we'll go from there.

How does that sound to everyone? All right thanks, thank you all for that good discussion. I know it's always a tough thing to consider a need, but not necessarily have an easy way to address it. I appreciate the discussion, and thank you, David for the motion, we appreciate it. Our next agenda item is an Update on the Follow Up Addendum for the Harvest Control Rule, and that's Toni.

MS. KERNS: I have failed to say that on the back room there is some waterproof cards of hard to identify mackerels and tunas that the Mid-Atlantic Council made with NOAA Fisheries, and Julia reached out. If anybody is interested in taking any of those card's home, please do so.

UPDATE ON FOLLOW-UP ADDENDUM FOR THE HARVEST CONTROL RULE

MS. KERNS: Next up is the Harvest Control Rule Addendum and the Recreational Management Measures Amendment.

In your briefing materials there were two timeline documents to these, if you want to reference them while I go through the document. As you all know, we are working with the Mid-Atlantic Council on developing both of these management documents. The Board and Council have a follow up to the Harvest Control Rule Addendum and Framework. The Board's directed the Plan Development Team to further develop the percent change approach, including a potential F-based approach for that, as well as continuing developing the biological reference point approach and the biomass-based matrix approach, and that the PDT should develop measures using modeling or other approaches for alternatives for the biological reference points and the biomass matrix approach.

OVERVIEW OF TIMELINE

MS. KERNS: For the timeline for this addendum, the document that is on your briefing materials has many more parts of this listed, but I was trying to keep it simple here. Today we need to approve a Plan Development Team that will work with the Council’s FMAT. This summer we will begin to develop the draft document itself.

Throughout the summer through next year, we’ll do some back and forth with the Board and Council as the document is being developed. In August of next year, we will approve the document for public hearings. We’ll have those hearings in the summer and fall. Then in April of 2025, we will take action, and in the winter of ’25 federal rulemaking would occur, and hopefully have this document implemented by 2026, which is the expiration date of the original Harvest Control Rule Addendum.

CONSIDER APPROVAL OF PLAN DEVELOPMENT TEAM MEMBERSHIP

MS KERNS: We did receive some Plan Development Team nominations, those were Mike Celestino, Rachel Sysak, Adam Nowalsky, Corinne Truesdale, and Sam Truesdell. For PDTs it is recommended, or traditionally Board members are not on Plan Development Teams because of the perception that a Board member would have two bites at the apple.

You all are giving recommendations and direction to the Plan Development Team to draft documents, and then you are making the decision on the document. For Board members to be on PDTs, it has the appearance of developing the measures that you would be finalizing. Because of this, we’re recommending that we consider having a small working group made up of Commissioners and Council members, to advise the PDT when needed.

This document was pretty difficult to put together. Last time there were times when the PDT and FMAT probably could have used some advice from the Board. We would utilize this

workgroup in that way if the PDT had some questions, and they could go back to that small workgroup. Staff is suggesting that Adam be placed on that workgroup instead of the PDT, based on sort of the general rules and processes that we normally follow for PDTs, and not having Board members on them.

But that is the decision of this Board to make. If you would prefer to have Adam on the PDT, then that is the decision you all can make today.

I just want to quickly go over the recommended timeline, and again this one is also greatly abbreviated from what is in your materials. But the Recreational Amendment is the amendment that looks at sector separation and recreational accountability.

This summer I’ll ask for PDT members for that, but I figured we would get the other document out of the way first. Then in December of this year, the FMAT and PDT will bring forward a scoping document for the Council and Board to approve. We would do scoping in the winter of ’24, provide a review of the scoping, and get direction from the PDT and the FMAT to develop management measures for the amendment document. In the spring of ’25, we would approve the public hearing document, have public hearings in the spring and summer of ’25. Then take final action in August of ’25. You can ignore those top ones.

Then in the winter of ’26, the EA would be developed and federal rulemaking would occur. The implementation date is a little unknown, since we don’t know how much time we would need for that EA development from the Council side of the process. It’s not something that the Commission does. If you could go back to the PDT nomination slide. Today, I’m just looking for approval of the PDT.

CHAIR WOODWARD: Okay, Shanna.

MS. MADSEN: Toni, if I may. I’m not sure. If the Board decides that they would move Adam to a Commissioner or Council Work Group, Virginia did have intent to nominate someone to this PDT, so I do

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have a replacement for you, because four seems kind of sparse to me. I think that e-mail might not have come through, so apologies. But I just verified with my staff member, who did want to be a part of this PDT if we need another person.

MS. KERNS: Shanna, we're happy to have another person. You can just tell us who it is and that person could be approved today. We were fine with this only being a smaller number, because we are working with the FMAT as well, so it's the combined group. We do have more than just these individuals. There would be the Mid-Atlantic Council staff that are on the FMAT, and also NOAA Fisheries staff that include both policy and scientific, socioeconomic, the typical folks that you see on an FMAT.

CHAIR WOODWARD: All right, Jason.

DR. JASON McNAMEE: Question about Adam, I guess here. Just a personal comment from me. Adam is very technically savvy; I think could be totally fine on the PDT. I'm not sure if we need to make that explicitly in the sort of action that we take care of for keeping him in, or if we want to move him. If this other, if the little asterisk is a thing, I would be interested in being on that group. If there is some mechanism to jump on there, I would be interested in that.

EXECUTIVE DIRECTOR BEAL: Just to respond to that, Jason. You know the asterisk next to Adam's name obviously is nothing personal. Adam is great, very technically sound and contributed a whole lot to the previous iterations of the Harvest Control Rule activities. You know it's the practice of the Commission has been that if somebody is on a management board, we don't put them on Plan Development Teams or Technical Committees or Advisory Panels, just because they get kind of two shots at it.

Nothing against Adam. The idea of potentially setting up a Working Group or something else that interacts with the PDT is really to accommodate Adam and others that may be interested and that technical expertise. If you

recall, the last go around with Harvest Control Rule conversations and PDT, there was a lot of input from National Marine Fisheries Service and Board members, and Mid-Atlantic Council members and others that contributed to that group. You know the PDT reacted to it, and flushed out some of those ideas. You know I think continuing that sort of process where there is a group of super interested Board and Council members that can contribute, I think is a good process. But we may not want to sort of go against the practice of the Commission of actually appointing Board members to a PDT. That's why, sure Adam's not here. I'm sure he's listening, but I just don't want him to think we're singling him out for any reasons, other than just his membership on the Board.

CHAIR WOODWARD: I'm going to go to Jeff Brust, and then Adam actually has his hand up.

MR. JEFF BRUST: I just wanted to get on record and say, I totally understand the optics concern we have here with folks double dipping on technical committees and then boards. I do want to reiterate the words of Jay Mac and Bob Beal though, that Adam is definitely very savvy technically. We've had very good success working with him through some of these technical issues.

I certainly think that he will bring something to the table, as he has already shown, as Bob already mentioned. I think it would be hard for any of us here to disagree that Adam was pretty instrumental in getting us to the point that we are now, with some of the options that we have on the table. I know that he has some other ideas to continue carrying the ball down the field. I would like to somehow get Adam involved in this, whatever the decision is.

I also just a question of clarification, I guess for Toni. I believe you said if we go with this working group that the PDT will connect with them as needed, which opens the opportunity for not at all. Is there a way that we can set up a schedule or some definitive interactions between these two groups, so that there is the direction and interaction that is, I believe deserved?

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MS. KERNS: I think we could try to figure something out. I don't know if we need to figure that out right at this very moment. I didn't want to obligate that group to have to check in after every single meeting that they had, because that could be a lot of work on the PDT and the workgroup. That would mean double the meetings for the PDT perhaps. But I think we could try to figure out what that needs to be, whether it's every other meeting that they can check in.

I mean obviously when the PDT has questions and they're struggling to get direction on an issue, they would reach out for sure. If the Board is directing them to look at other alternatives besides the ones that are identified in the motion, they may need to reach out to those Board members that developed those different ideas to get better direction on those options as well.

CHAIR WOODWARD: I've got Adam online, and then I've got Lynn and then Mike Ruccio and then Jeff.

MR. ADAM NOWALSKY: Thanks very much. First off, let me put my tissue away here, wiping the tear from the corner of my eye. I appreciate all the kind words here today. I think I am also flattered that I was put on this nomination list. I think the original request went out citing council members were appropriate, which I am presently, as well as previous experience with the percent change approach, which I had a lot of work doing. That being said, I think this approach of having a small Commissioner/Council Member group. I am not alone in my contributions. I am not alone in my abilities. I think there are a number of people at both the Council and the Commission that sit around the table that can contribute. But I do think Jeff's comments about trying to find some more specific input points, as opposed to simply when needed, is what would really make this work.

If the PDT was able and the FMAT was able to define, okay we don't have to check in with them, this isn't mom or dad checking your homework kind of thing. I think what we're looking for, because we know the options that came out of the last work. While they were certainly refined, and worked on by the FMAT/PDT, there were a number of individuals that were involved, including the Service submitting those originally.

I suspect the continued development of those, those individuals including myself would be willing participants to work on them, both from a conceptual as well as a technical nature. I think I would put that out there that this group, if we could find a way to provide predefined input points, I would certainly think that's a reasonable way forward. Again, I appreciate all the kind words I've heard today, and sorry I'm not there to personally thank you looking in the eyes. Thank you very much.

CHAIR WOODWARD: Thank you, Adam. All right, Lynn and then Mike Ruccio.

MS. FEGLEY: Well, it seems like sort of a convoluted workaround. You know if we have a workgroup that is advising the PDT of Commissioners, they still get two bites at the apple. I mean maybe I'm not seeing it correctly, but maybe we just need to call it what it is, and maybe this is just a Joint Plan Development Team with Commissioner/Council input.

Because I mean, for sure the input of people like Adam is going to be valuable. Nothing is going to go forward without being thoroughly discussed at the overarching management body. I don't know, it just seems a little convoluted, although I do understand the perception issues.

CHAIR WOODWARD: Mike, and then I'll go to Justin.

MR. MIKE RUCCIO: I echo what others have said about Adam. He brings value to whatever groups he's involved with, it's certainly nothing personal against him. But this issue does tend to come up time and again, I think particularly with the Service, because our folks tend to do a little bit of everything. I would really encourage, perhaps through this Board

and through the Commission to like tighten up the standard operating procedures for working group operations.

To have this explicit, it's very difficult when it is kind of the practice, but it's not written down. It would give it so much more backing to have these lines clearly delineated in one of the written documents, so that when these issues come up, we don't have to have this one-off conversation. It's clear that if you're a seated board member you can't participate in the PDT. You'll probably still be there, you'll probably contribute, or things of those nature. It's just encouragement to kind of decide how we want this to operate, and then capture that in writing.

CHAIR WOODWARD: All right, Justin.

DR. DAVIS: Sorry, Adam, I'm going to heap on here a little bit. Having worked with Adam when I was the Vice-Chair of the Fluke, Scup, Sea Bass Board and then now as the Chair, there is nobody who is as familiar with the details of this process. He's been with it since the beginning. It would be a disservice to the Commission if we don't find a way to have him involved with this.

I think the suggested approach, while it is admittedly sort of like a contrived work around. Maybe it will be an interesting experiment to try, to have these PDTs working on these policy issues, but then having periodic input from Board members in a focus, structured way. Maybe that will end up being valuable, maybe something we want to do again in the future. I would support the asterisk approach here.

CHAIR WOODWARD: I think we're at the point where we need to take action on this. We have basically two alternatives. We have a PDT nomination list that includes a Board member, and we have an alternative that would be PDT members that doesn't include, but has the creation of a working group that would be populated with people that would consult and advise and interact with the PDT, to ensure that

the PDTs products were the best they could be. That is where we're at. All right, John.

MR. JOHN CLARK: Sorry, Spud, I was just going to ask whether you need a motion for this.

MS. KERNS: Shanna, who is the person that you wanted to put on this list?

MS. MADSEN: Alexa Galvan.

MS. KERNS: Can you put Alexa on there, and I'll pretend to spell her name for you.

CHAIR WOODWARD: While she's doing that, we could resolve this by, if there is no opposition to using, I'll call it as Justin said, the asterisk approach. If everybody is okay with that, then we don't necessarily need a motion, per se. We then accept the nomination to the PDT with the asterisk.

Then we will populate a workgroup with Commission and Council members that will interact with them in a yet to be determined manner, to ensure again that there is some symmetry there, and that the outputs are better than they would be otherwise. How about that, does that make sense to everybody?

Is anybody opposed to that? Does everybody understand that? I don't see anyone opposed to it, Toni, so I'm going to for the record say that is what the Policy Board is supporting. Okay, any last, any confusion? I want to make sure we're not going at a place where nobody wants to go. Okay, all right. I see heads nodding. Very good, all right, thank you. I think, David, you had your hand up. Do you want to make a comment?

MR BORDEN: No sir.

CHAIR WOODWARD: All right, very good, okay thank you all. Now we'll move on to something really easy. Discuss the future of the Mid-Atlantic Fishery Management Council's Research Set-aside Program.

**DISCUSS FUTURE MID-ATLANTIC FISHERY
MANAGEMENT COUNCIL'S RESEARCH SET-
ASIDE PROGRAM**

EXECUTIVE DIRECTOR BEAL: Yes, I'm going to try to summarize a program that has got about 20 years with a history in a few slides, and Brandon Muffley is in the back of the room from the Mid-Atlantic Council, and he's my phone-a-friend for this whole meeting. If I need anything I'll ask for Brandon's help.

A lot of these slides I actually plagiarized from the Mid-Atlantic Council and put our background on it, and I'm taking full credit for it, just so you guys know what I'm up to. But no, the Research Set-aside Program, a little bit of history on it that most folks know. It started in 2001. The first Research Set-aside activity and programs were funded in 2002.

The species that ASMFC manages that are involved in that program are summer flounder, scup, black sea bass, bluefish and dogfish. The overall goal of this was to meet unaddressed research needs. You know there are a lot of research needs, there is a long laundry list of research needs that were unaddressed, didn't have funding, didn't have resources to conduct scientific work, and Research Set-aside was developed to address those unaddressed needs.

The way it functionally worked was up to 3 percent of the overall quota could be set aside for each of these species in any given year. That was agreed to by the Mid-Atlantic Council and ASMFC during a spec setting process. That amount would be taken off the top, and then the remaining 97 percent or so was then divided based on the allocation formulae that is in the FMP.

The overall goal was frankly just to convert fish into funding. Obviously that 3 percent, or up to 3 percent of the quota had a value, and those fish were turned into cash in two different ways. One is, and we're supposed to call it compensation fishing. One is a PI and a vessel, a

Principal Investigator and a vessel. Develop an arrangement to say test the gear.

If a vessel or a Principal Investigator wanted to try a new net configuration or a mesh size, or something along the way. They would obviously catch some of those species. As part of that research activity, they would keep what they caught and sell it. Selling those fish would then generate income to offset the expenses of conducting that research.

The second approach was a third-party auction, where a Principal Investigator would be allocated a certain quota of one of these species or multiple species. That quota would then go out to auction. In the old iteration the commercial and/or for-hire captains could purchase that quota, and the purchase of that quota then generated the revenue. The revenue then funded and supported the research.

The previous iteration, commercial, as I mentioned, commercial and for-hire vessels were both involved. State and federal vessels were involved. This program averaged about a little over a million, one to two million, two million in the highest years, dollars per year were generated, so quite a bit of money was generated with this program historically. In 2014 there were 103 vessels and more than 2,000 trips involved with this program, and I'll talk about that, the cumbersome difficulty of managing that many vessels and that many trips a little bit later. But that is an important highlight, how many people and how many trips were involved. One of the big things that this overall program funded historically was the NEMAP Survey. NEAMAP Survey wouldn't have been able to get up and running without the funding that came out of the RSA program.

That program is now funded through money directly from National Marine Fisheries Service. It moves through ASMFC, but ultimately ends up at the Virginia Institute of Marine Sciences. Here is the overall process. There is the Mid-Atlantic Council, NOAA Fisheries and the states all have different responsibilities within the overall program of the RSA.

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The Mid-Atlantic Council creates the program, sets the priorities, does a proposal review. The federal government has the grant administration, project selection, oversight, technical support, compensation, fishing permitting, et cetera. This part is where the states come in, the right-hand column, which is really important, and a pretty significant amount of work.

That's why we're having this conversation is the dockside enforcement, compensation fishing permitting and administration for all the vessels that are going to land in an individual state, and then quota monitoring, reporting and reconciliation if anyone goes over their quotas. This is again, a Principal Investigator could have got, say 10,000 pounds of summer flounder.

That 10,000 pounds could have been divided up into smaller allotments through the auction process, and that 10,000 pounds could have been spread across, you know 10, 15, 20 vessels, depending on how they divvy up the quotas. There is quite a bit of burden in this program on the states, and towards the end that is going to be the questions back to the Policy Board.

This is kind of a figure highlighting that not all species are created equal or have equal value. You know summer flounder and black sea bass are really where the money comes from in this program. As I mentioned, a lot of other species involved, but they just don't have the value that those two species have. That is where the revenue is coming from.

Program strength, the previous program had a lot of strengths and a lot of value. It did provide funding for high priority research, and really there were no federal dollars involved. There was federal activity involved, with administration of the program, but no federal dollars supporting that research.

It ultimately allowed managers to be involved with their decision process on what research gets carried out. It gets fishermen and

researchers working together. It created some more trust between the industry and the PIs and scientists, and it gave NOAA an opportunity to work with managers, and the fleet to solve a number of problems that they had.

However, there were some issues with the previous iteration of this program. As you've noticed, this slide has more words on it than the last slide. There were more concerns than strengths in a lot of people's minds. You know as I mentioned earlier, large administrative and enforcement cost that weren't expected initially, and some of that came or evolved over time, given the burden and the number of vessels that were involved in this fishery. The value of fishing opportunities, as I talked about earlier, there are a couple species that really generated the revenue here. You know, foregoing 3 percent of the harvest cost the industry. You know where no federal dollars were involved, it really worked out to folks that participated in this fishery sacrificed some of their fishing opportunities and funded the research directly.

Enforcement, there were a number of enforcement issues. There was financial incentive not to report trips. Trips came in, if nobody was at the dock, they kind of went and were sold, and away they went and weren't counted against RSA. A number of instances like that were noticed, and folks were caught.

This really led to potentially overfishing, so if trips were being landed no one is accounting for them, not count against the quotas, overfishing is resulting. Recreational landings reporting is not verifiable. They didn't have any one necessarily at the dock to catch every recreational trip that is coming back, and verify their catch.

Then as I mentioned earlier, capacity to monitor the 103 vessels and 2,000 trips in one year, was very limited at the state level, and put a lot of burden on the states. It took a lot of permitting to allow those folks to go out and do their work. The research had some problems as well, you know failed peer reviews for some of the projects.

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The application, some of the projects weren't that useful for management, weren't plugged directly into management, and limited number of groups and applied for this funding. Ultimately, all of this concerns and issues with the program led to the cancellation or suspension of the program in 2015, and that is where we are now. It's still suspended, and no activity is going on.

The Mid-Atlantic Council over the last couple years has put a lot of time and effort into this, looking at what would redevelopment look like? They've held four workshops, industry workshops, and those were all virtual because of COVID. The Mid-Atlantic Council's Research Steering Committee has met at least three times that I know of.

They had their SSC's Economic Working Group involved, and provided some feedback as well. The RSA Framework was developed through the Research Steering Committee in these workshops, and they developed a standard goal for administration, enforcement, funding and research. Here are all the key elements of this program.

Here is kind of where the Commission is involved. Here is where the Commission comes into play, and what message and what are your thoughts collectively on where we go from here? The new framework that has been developed and kind of now is an old system and a new system that is kind of described. In the briefing materials that went out to the Board there is a table with two columns in it, old versus new.

In that table there are a number of things that will fall to the states, potentially, for states to address and reconcile. They are kind of in the red text that is up here. Vessel and sector participation, so how many vessels can be involved? Is 103 too many? Is that a reasonable number? Should it just be 10 vessels. What sectors, is it for-hire and commercial, or is just one or the other? Are there state and federal permit holders? Could they all be included and

participate? Is there a phase-in option, where you start small and go bigger over time, as we deal with enforcement issues? Do you want to limit the location of where landings can occur, time of the day where they are, certain dealers that can be involved in this?

These are all things that narrow down the complexity of the program, and make it more enforceable, and take out some of the loopholes and shenanigans that were going on last go around. You know the notion of putting state staff on vessels as observers came up. Third party auction, there was a suggestion that maybe ASMFC is a good group to administer that third party, which is a pretty significant amount of work.

The last bullet there, you know the greater the restrictions that are put on this program that equals less participation. Less participation equals less funding generated. If you have fewer people bidding or interested, you are going to generate less income. You know that diminishes the value of the program overall.

The Research Steering Committee of the Council came up with a consensus conditional recommendation. The recommendation recognized the value of the program, it produced science, and a lot of work still remains to be done, and details need to be addressed. Then the final one is really where the Commission comes in, you know concerns about state administration burden, and the cost benefit of the program.

This is my final slide, which is, you know what feedback does this group want to provide to the Mid-Atlantic Council on where to go from here? You know should the Commission support continued RSA redevelopment? Again, there is a lot of work ahead. Are there other recommendations and feedback to the Mid-Atlantic Council?

If the Commission says yes, let's continue redevelopment, and we support that. Certain species, are there only certain sectors? What are the funding options with third-party auction or not the third-party auction? How does this group want to

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engage with the Mid-Atlantic Council. I know it's a whole lot of questions. This group has talked about the Research Set-aside in the past. But the Mid-Atlantic Council is going to revisit this issue at their June meeting.

I think they are looking for pretty direct feedback on what the Commission thinks, and what the state's ability is to address all of these administrative and enforcement issues and burdens that we placed on them, should this process go forward. Happy to answer any questions, I know I was kind of the lightning round of stuff for Research Set-aside, but there is a lot here, and the Council is looking for some help.

CHAIR WOODWARD: All right, let's start off with Emerson and then I'll go to Dan, and then Lynn.

MR. EMERSON C. HASBROUCK: I don't have any questions, but if it's appropriate at this time I would like to make some comments. Thank you. I was involved significantly in the old RSA program, and I continue to be involved in the monkfish RSA program. I conducted four Mid-Atlantic RSA projects that were all very successful, provided good information for management. For most of those I just worked with vessels directly. In terms of one of the slides, less participation equals less revenue. That's not necessarily true. I worked with a small number of vessels each time, 10 to 12 vessels, and were able to work out things to get market value for those compensation landings.

In any event, redevelopment is not going to look like the past program. It can't. That's why the workshops were held. I participated in those workshops, so that a new program does not look like and does not have the problems of the old program. I would ask when you think about RSA, don't think about the old program, other than what were the issues that need to be changed and addressed.

That is what the workshop was going through and developing, and it still needs to be

developed. The output from the workshops, Bob, you didn't have a slide on it but you referenced it. It's in our meeting materials. Under Goal 2, is to ensure effective monitoring, accountability, and enforcement of RSA quota.

That goal addresses not all, but most of the problems that came up during the previous RSA program, so that is being addressed. If you look at the objectives in there, some of that is to provide support for administrative or law enforcement activities with the states, to improve the state's ability to revoke RSA fishing privileges, and several other things as well, to assist the states. That gets at a lot of those specific issues.

I guess the bottom line is a newly developed RSA program is not going to look like the old program. It's not going to have the problems of the old program. Otherwise, why is the Research Steering Committee going through that. They realize that they need to address those problems. I'm not sure where you want to go with this, Mr. Chairman, but if you want a motion, I'm prepared to make a motion at some point here. Thank you.

CHAIR WOODWARD: I think at this point, Bob is just seeking feedback from as many interested parties or potentially participating parties about their perspective on their ability to achieve success, I guess with this. Just hold on your motion, and we'll see what else folks have to say, so Dan and then I'm going to go Lynn and then Tom.

MR. McKIERNAN: My concern is I don't think we have enough time to actually cover this topic in what is time remaining. I participated in all those workshops, and I raised a lot of concerns. I personally don't know what the Research Set-aside Committee is thinking, in terms of what recommendations or what concerns we had that they are going to heed. Many of them are simple. The idea of selling fish to for-hire vessels was a colossal mistake, and it was completely unenforceable. The currency isn't compatible.

For-hire trips work on bag limits and size limits, and suddenly you have poundage, and it was completely

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unmanageable. As far as the auctions. To multitudes of vessels, it put a lot of burden on us, and I would say that the Mid-Atlantic Council gave the states the fluke fishery, the sea bass fishery, the summer scup fishery, and I think the success in RSA is when the federal government has a very simple permitting scheme and a letter of authorization scheme, where you can manage and monitor this. You can't effectively manage and monitor this when you've got scores and scores of boats trying to capitalize on this. Also, the summer flounder isn't worth what it was. Emerson is right in a lot of ways. The money isn't there on fluke that used to be there, nor on sea bass, with these quotas being so high. I would like to see maybe this continued until the August meeting, or maybe a special conference call or something, because I don't know what the Mid-Atlantic Council is thinking.

CHAIR WOODWARD: All right, I think that is a good point, and we are getting tight on time, and if this is a subject that is much more complex than our ability to have the kind of discussion we need, then maybe that is something we need to contemplate. How does that? Brandon, would you, kind of maybe give us a little idea on the Mid's timeline on this, maybe help inform our discussions on this?

MR. BRANDON MUFFLEY: Brandon Muffley; Mid-Atlantic Council staff. I mean we don't have a specific timeline. It's actually not going to be on our June Council meeting. We had thought we might put it on our August Council meeting, since we tend to meet jointly with the Commission, it's not with the Policy Board at that time, but at least a number of Commission folks may be at that meeting.

We were thinking about bringing an update back to the Council at that time. You know I think we, particularly me as the person sort of overseeing how we may redevelop the program, is understanding where the states are. As Bob had pointed out, you all play a critical role in the sort of operationalization of the RSA program, and where you all are at in regards to supporting,

either the continued work to redevelop it, or not. It takes a lot of work.

GARFO hasn't had an RSA program to administer in the Mid-Atlantic for several years now, so there is going to be a lot of sorts of thinking through how we develop this program, to make sure we can do it successfully. But if the states aren't willing to support the program, and sort of commit the resources, because there is not going to be a lot of resources to do it.

It's challenging to sort of step through all of that work that is going to need to be done. You know getting your feedback in regards to where you are at with the program, I think would be really helpful. I think the plan is to bring it to the August Council meeting, where you all may be there.

CHAIR WOODWARD: All right, thanks, Brandon. Just a comment and then I'll go back to the list here. I was just talking to Bob. As Dan suggested, maybe a webinar between now and the August meeting, with the states that are directly affected by this have a chance to more thoroughly discuss this, understand it, prepare them just to have a broader discussion at the August meeting.

If that sounds like a reasonable course of action, because we don't need to give this short shrift, but we are running out of time, and as Brandon said, this is very complicated. There are a lot of moving parts, and if the states can't fulfill their part of the relationship, then it's doomed to failure before it ever starts again. I think it's going to be important that we give this the attention it needs. With that, I'll go to Lynn and then to Tom, and then back to Jay-Mac.

MS. FEGLEY: I sure would like to learn more about this. Brandon answered some of my questions. You know the state of Maryland, I have no idea where we would find resources for something like this. It's just inconceivable to me, and I'm not sure I understand the mechanism.

Would the states be voluntarily participating, or would a Research Set-aside Program happen that

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was determined by somebody that it was going to happen, and then suddenly we would be committed, you know without really having much of a choice. You know the resources are going to be tough, and the resource is put up against the benefit, is something we would have to look really hard at.

CHAIR WOODWARD: Just for those that are virtual, I just want to make it clear, we're not going to take any public comment on this particular topic, unless we do have a motion, and I don't think we're moving in the direction of a motion at this point. Tom, and then I'll go to Jay Mac.

MR. FOTE: I have concerns. I mean I looked at it the last time we did it, and we were in more robust times. We basically had extra poundage. Now when you take 3 percent or 4 percent or whatever you do take from the stock, it means days at sea for a lot of the recreational sector, and the same thing with the commercial sector. There was not a lot of support in the recreational community after the debacles that are going on there. I haven't paid much attention to it, so I would be interested in being better informed on it. But I have real concerns over it.

DR. McNAMEE: I'll be quick, because it sounds like we're maybe going to come back to this, so I'll save the majority of my comments for that. But maybe I'll give you the highest-level comments. I'm more optimistic than most of the comments that you heard here. You know I saw the value of the program in our state.

Respectfully disagree with Dan on the recreational, at least the one that I know that happened. I see value in it. I do. I also felt the administrative burden, so I would like to see those things get sorted out as well. I'm interested in continuing the conversation, and maybe could offer a different perspective to it.

CHAIR WOODWARD: I think the plan moving forward would be to try to organize a webinar, provide adequate time for this to be more

thoroughly discussed, questions asked, more clarity, and then we can bring this back to the Policy Board at the August meeting, if that is satisfactory to everybody. Does that seem okay? I don't see anybody vigorously shaking their head no, so I'm going to assume that's good. Okay, thank you all. Next, we've got Dr. Drew with an Assessment Science Committee Report.

ASSESSMENT SCIENCE COMMITTEE REPORT

DR. KATIE DREW: Assessment Science Committee met last month to discuss a number of things, but the most important relevant to this Board is the Assessment Schedule. Current benchmark schedule, we have eight benchmark assessments scheduled between 2023 and 2025, which are circled in red on this schedule.

We're not even counting the ones that the Northeast Fisheries Science Center and the Southeast Fisheries Science Center are doing, even though some of our Technical Committee members do participate on those work groups. There are a lot of benchmark assessments scheduled for the next three years, and we also have six assessment updates scheduled for this time. This does not even include the number of sorts of additional follow up tasks that are going on for eel and horseshoe crab and striped bass in between these assessments.

The workload over the next few years is pretty intense from the stock assessment side. The Assessment Science Committee recommended some changes to this schedule, in order to help balance some of the workload. The two key things we're highlighting here that would need to be approved by the Policy Board, would be to change the sturgeon and menhaden single-species assessments that are currently down as benchmarks to assessment updates.

Menhaden Board already got this information, and were basically fine with it. For menhaden, there are not changes to the model plan, the single species model, the BAM is a solid, well-developed model that has been peer reviewed multiple times, identified any new data sources. We're not planning

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any new changes to the data or the model that would warrant a benchmark.

Doing an update instead of a benchmark would reduce the workload for the TC and SAS, who overlapped significantly with the ERP Work Group, as well as staff and the Peer Review Panel, who last time specifically asked that we not (cut out) because it's a lot of work to produce that and to review that. By going to an update, it would create more time and energy to be directed towards the ERP, and the ERP Assessment would remain a benchmark.

Sturgeon, the 2017 benchmark assessment recommended an update in five years and a benchmark in ten years. We had it on the 2022 schedule, and that got postponed. We're kind of in between the timeline for an update and a benchmark right now, and the TC after reviewing the research recommendations and progress on those, recommended doing an update in 2024 to allow more time for existing projects to be completed.

We would do an update this year, spilling into finishing next year, and the TC would sort of recommend when we would do a benchmark, based on the status of those research projects and how the update went at the end of that. Those are the two major changes that would need to be approved by the Policy Board. I'm also going to highlight something that ASC did not talk about, but the Board should probably be aware of, which is that the river herring assessment, which is ongoing right now.

The SAS recommended pushing the completion of that assessment back, basically one meeting cycle. Originally, we were going to try to get it peer reviewed in August of this year, and present it to the Board at annual meeting in October of this year. But based on sort of progress, we would like to now have this peer reviewed in late November, early December, and presented to the Board in February. It would still be peer reviewed and completed in 2023, but the Board would not receive the results until 2024.

The River Herring Board is not meeting this meeting cycle, so we wanted to provide an update to the coastwide board of the Policy Board, just to get that on everybody's records. But the bigger change is the change to the sturgeon and the menhaden going from a benchmark to an update for those, so thanks, and I'm happy to take any questions.

CHAIR WOODWARD: All right, go ahead, Bill.

MR. HYATT: Just a quick question. Just curious of the thinking on tautaug. I just see that it's identified for an update in '24, but it might not be updated in '24. I don't see anything else schedule through '30 for it, and my recollection is it just sort of squeaked through in a couple of regions of getting out of overfished at the last update.

DR. DREW: I'll be honest. When we brought this to ASC and the workload issue, we didn't even count tautaug, because it only has little asterisks there on that schedule, and honestly, we weren't even thinking about that as something to contribute to this workload issue. Obviously, it would be additional work.

The thing about tautaug is it's actually four stock assessments, because it is four regions. ASC did not specifically talk about this. I would imagine that sort of the recommendation would be not to add any more assessments to the next two to three years. I think, you know we could definitely come back to that in 2026, and do an update of that at that point.

But I think that would probably something we would have to schedule in the future, in a few years, to get that on the schedule, without overburdening everybody else. But it's definitely something I think on our current radar for a future, that we want to make sure we don't let that slide too far.

CHAIR WOODWARD: All right, Eric.

MR. REID: At this point we spent a lot of time talking about modifying gear and maybe time-area closures for Atlantic sturgeon, so what would any change in the timeline for Atlantic sturgeon do to those pending regulations?

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DR. DREW: We're still going to complete the update next year. I think, so we would have some updated information on abundance and mortality, trends in abundance and mortality. I think it should not, well I don't want to speak to that group, in terms of whether that aligns or not. But I don't think doing a benchmark would necessarily provide any more different information than an update would at this point.

CHAIR WOODWARD: Any other questions? All right. What we need now is Board approval of the schedule, as presented by Dr. Drew. Tom Fote.

MR. FOTE: Make the motion to approve the ASMFC Stock Assessment Schedule as presented today.

CHAIR WOODWARD: We have a motion by Tom, second by Mel Bell. Any discussion? Justin.

DR. DAVIS: Just a quick question. By approving this motion, the issue of the tautaug stock assessment is still unresolved as to when that will next happen?

DR. DREW: Yes, it's still going to get the little asterisks, which is sort of like scheduled but not official. If the Board would like to make a recommendation on that, I guess they could, to officially take it off or bump it to another year. But ASC has not dealt with that we could come back to that.

CHAIR WOODWARD: All right, we have a motion and a second. Any opposition? Any further discussion on the motion? Any opposition to the motion? Seeing none; anybody online opposed? All right, no opposition, so the motion carries. Thank you. Next up we've got Kurt Blanchard giving us a report from the Law Enforcement Committee.

LAW ENFORCEMENT COMMITTEE REPORT

MR. KURT BLANCHARD: The following is a report on the activity of the Law Enforcement

Committee since the last reporting period. The LEC has been successful in and have participated in the following deliberations. We have worked with Ms. Toni Kerns on implementing a new membership orientation process., with replacement of four Committee members.

We have conducted outreach to new members with guidance on the roles and responsibilities of the LEC. We received very positive feedback in this effort. We participate in discussion in reference to the current tautaug tagging study, as well as collaborating with the Striped Bass Plan Review Team, with new law enforcement compliance reporting language.

The LEC convened a business meeting on May 2, 2023 to address the following topics. We conducted a review and update of the guidelines for resource managers on the enforceability of fisheries management measures dated August, 2015. This review by the LEC helped to identify new management measures, as well as considering the relevance of previous management measures.

The LEC established a subcommittee to finalize this document, and the goal is to forward the final draft to this Board for approval in 2023. The LEC received an update from the ACCSP on the status and implementation of the VMS program in the American lobster fishery, as well as receiving a presentation about, (and this is going to be a mouthful), National Association of Conservation Law Enforcement Leadership Academy, and the International Conservation Chief's Academy Wildlife Officer Exchange Program.

This program is of interest, as the Chair of the LEC was invited to participate in this program, in his role as a state officer, and then a clear graduate. The exchange was with the ICCA graduate from a fisheries compliance and enforcement agency of police. This shared experience helped to increase international collaboration and individual capacity to address wildlife crimes globally.

This next section are some notable cases. In the past I've been asked a number of times, people want to know what the Law Enforcement is doing, and they

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never hear back from us, an occasional report. I just wanted to highlight a few. The first is the one you saw last night in the Annual Awards of Excellence. It was the state of New York with the seasonal striped bass pulse operation, over three years along the Hudson River during the annual migration.

The second is a NOAA/U.S. Coast Guard conducting enhanced enforcement of the Right Whale speed rule, which state law enforcement part is along the Atlantic coast, and as well as the South Carolina. This is a cute one. I shouldn't say cute, but Operation "Sea Fluke", a catchy name. It's the South-Eastern Area Flounder Liberation from Unlawful Killing and Exploitation. This was a wide-ranging investigation into the illegal commercial harvest and sale of flounder, and other saltwater finfish species. This three-month investigation led to over \$48,000.00 in fines against four separate offenders with additional license sanctions. Mr. Chair, thank you, and I'm available for any questions.

CHAIR WOODWARD: Thank you, Kurt. Any questions for Kurt? Tom.

MR. FOTE: One of the questions I would like to ask is, we passed an emergency action yesterday on striped bass that will basically be 180 days, so we have to change the regulations for 180 days, and if we don't renew it, it would basically go back to the regulations. I asked my law enforcement about it.

I guess we should have asked the Law Enforcement Committee what enforcement problems you'll be having. I would like to have a report on that, maybe at the next meeting that we could discuss concerns with there. I think it's important. From the wording I got from the head of New Jersey Law Enforcement was not happy on this. All our regulations are published, and they are out in the New Jersey Registry and in the state documents.

MR. BLANCHARD: We would be happy to review that, Tom, we have similar concerns. We're going to have to wait and see how the next 180 days goes, and what the real impact is to law enforcement.

CHAIR WOODWARD: All right, any other questions? Thanks, Kurt. Next, we're going to get a brief update on East Coast Climate Change Scenario Planning Initiative.

UPDATE ON EAST COAST CLIMATE CHANGE SCENARIO PLANNING INITIATIVE

MS. KERNS: In the interest of time, I will go very fast. We did have the Summit meeting back in February for the East Coast Climate Change Scenario Planning, which is looking at how climate change is affecting our management of the Atlantic coastal fisheries. This meeting is with all of the three Councils, as well as the Commission and NOAA Fisheries. Core Team has written a report about the meeting, and then we have pulled together a list of potential actions that will be reviewed by the Northeast Regional Coordinating Council next week.

Those potential actions try to list out different ideas that came up at the workshops, as well as other ideas that we heard from both the Commissions and the Councils. The NRCC will kind of give us some direction on that draft action plan, and then at the August meeting I will have a very thorough report on that draft action plan, the summit, and the direction that the NRCC is giving.

CHAIR WOODWARD: All right, thanks, Toni, any questions for Toni on that? Yes Sir, Senator Watters.

SENATOR WATTERS: Yes, I wanted to thank all for the great work on this. Just speaking as a legislator, and given the timing of the August meeting that you're going to have. Has there been any thought to what interface that you might have, in terms of the policy issues that arise, and potential legislation that legislators would have to introduce in their individual states?

MS. KERNS: For any of the possible actions that could need legislative changes, and most of those are

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legislative changes to the Magnuson-Stevens Act. Those are sort of issues that the Core Team has identified to say, this may have a long-term change needed. That is what we've sort of pointed out in this draft action plan.

That the NRCC would need to think about and discuss those, and then give better direction. I mean the NRCC is not a decision-making body. Any potential actions that move forward need to go to the Commission, the Council and NOAA Fisheries to make those decisions on, so kind of have advice that way.

CHAIR WOODWARD: All right, any other questions for Toni? All right, seeing none we'll move along. We did not have any noncompliance findings, thankfully.

OTHER BUSINESS

CHAIR WOODWARD: We do have three Other Business items that hopefully we can dispense with quickly. One is related to lobster. I'm going to let Toni explain that.

MS. KERNS: I'll pass it over to Jason as the Lobster Board Chair to read the motion that the Lobster Board made to the Policy Board.

DR. McNAMEE: Okay, to read the motion into the record here: On behalf of, no that's not it.

CHAIR WOODWARD: All right, we'll hold off on that a minute, while that gets disentangled. I'm going to call on Jim Gilmore.

NEW YORK TAUTOG

MR. GILMORE: New York is still experiencing an issue with our Tautog Tagging Program, which I think you talked about back at the October meeting. Specifically, we're still getting reports of 10 to 25 percent mortality, lesions, damage to the fish, whatever. But obviously there seems to be mostly a problem in New York.

Going forward, we've got survey information that we've done with the help of the

Commission, where we'll be looking at the data. Is it a capacity issue with storage tags, is it water quality issues, those types of things. But the one thing that we wanted to bring up is that we are going to reevaluate the tags. The original study was up through Stonybrook.

The Commission is helping with that, but the one question that I wanted to raise is, under the guidance it required an opercula tag, and we are going to look at other options on a tag that may not be an opercula tag, so the states that are currently in the tagging program, we wanted to raise this.

Is there any issue with that, because if it turns out it is a tagging problem, that could change things. The question right now is again, is there any objection or any issue with us pursuing a non-opercula tag, and I'll leave it at that. Toni may follow up with a little bit more detail, because I probably missed some things.

MS. KERNS: Tautog has guidelines for what type of tag to use and where the tag should be put in the fish. The state is just asking to put the tag somewhere else for just this year. But it's still using the same tag. The TC is going to discuss whether or not it would be effective to put it somewhere else, making sure that it doesn't damage the fish. The reason for the ask is the damage that the tag is currently doing as reported by some New York fishermen.

CHAIR WOODWARD: All right, so response to that, concerns about what New York is proposing to do? Bill.

MR. HYATT: Just a question, because I'm not sure I'm hearing this correctly. Is the ask to do an evaluation of tags, different type of tags in different locations, or is the ask to implement the program differently?

MS. KERNS: The ask is to implement the program differently. Just as a reminder, the guidelines are recommendations they are not requirements.

CHAIR WOODWARD: Justin.

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DR. DAVIS: Just briefly a comment on this. I don't know if it was last year or the year before, we sort of asked some questions of the Law Enforcement Committee about this program, and they gave us some feedback. Maybe this is a better discussion at the Tautog Board, but I would be interested in going back to the Law Enforcement Committee two years later here, and essentially asking how has this program aided with enforcement?

Because the intent of this program was to assist in cutting down on unlawful tautog harvest. I think it was well intentioned. I would like to learn now that we've implemented it for some number of years that it's doing some good, and it's assisting enforcement. If we find out that it's not, I think this program is placing the administrative burden on agencies, certainly on my program, which is very short staffed.

I just feel like if this program is not serving the intended purpose, can we find out if there are ways to modify it so it could, or should we decide that it was a well-intentioned effort but it didn't work out the way we thought it would and abandon it? I don't know how it would be most appropriate to reach out to the Law Enforcement Committee and ask for that input.

MS. KERNS: The Tautog Board will receive a review of the program, again in August, and so we can make sure that we have another discussion with Law Enforcement prior to, specifically asking if they have seen better compliance.

CHAIR WOODWARD: Go ahead, Dan.

MR. McKIERNAN: Yes, I would be interested to hear from New York Law Enforcement, because I think the state of New York is sort of the hub of much of the tautog distribution in commerce, a lot of fish. I would be really curious to hear their take, because they are going to have to inspect fish from many states, and if one state deviates from the location of the tag. If it's not a problem

for New York Law Enforcement then I would feel more comfortable about it.

MS. KERNS: I think we can try to do that, Dan. As a reminder, this program was put in place because of the large volume of black-market fish that were being put into the market by recreational fishermen, not the commercial fishermen. We were trying to find a way to prevent those recreational fish making it into the commercial market.

CHAIR WOODWARD: Jay.

DR. McNAMEE: Yes, I like those suggestions here to kind of check back in, because I'm not super comfortable otherwise. I mean there was a lot of effort that were put into this particular tag. You know I think other tags were considered, and this one is what we kind of defaulted to. But as long as things are happening in an organized way, and we're getting feedback, I'm comfortable with kind of moving forward here, but I'm not otherwise.

CHAIR WOODWARD: Again, is your question answered? Okay. Sometimes it's kind of hard to discern whether the question gets answered, isn't it? We're going to go back to Jay on the lobster.

LOBSTER BOARD MOTION

DR. McNAMEE: That one looks right. I'll read the motion into the record for the Board. **On behalf of the American Lobster Board, we recommend to the ISFMP Policy Board to approve the creation of a subcommittee to engage Canada's Department of Fisheries and Oceans to discuss transboundary issues related to the importation of lobster as it relates to the different minimum gauge sizes in the two countries.**

The subcommittee shall be made up of up to four members of the Lobster Management Board, who have license holders that fish in Area 1 and/or Area 3, one representative from the National Marine Fisheries Service, and the Commission's Executive Director or his designee.

CHAIR WOODWARD: All right, this is a Board motion, so it doesn't need a second. We can have discussion on it. Mike, saw your hand.

MR. RUCCIO: The past 48 hours has been a flurry of activity on how to best engage with our northern counterparts, so I have a substitute motion to offer, if that would be appropriate at this time.

CHAIR WOODWARD: Okay.

MR. RUCCIO: I as well will read this into the record, and then if we need a second on this and I get one then I'll give some rationale for it. **This is a motion to substitute to request the Policy Board create a subcommittee to be made up of up to four members of the American Lobster Management Board who have license holders that fish LCMA 1 and/or 3, and at least one representative from National Marine Fisheries Service and the Commission's Executive Director or his designee.**

The Subcommittee, prior to the engagement with parties in Canada who have an interest in lobster management and commerce, shall discuss and develop an approach on how best to find solutions that would be beneficial to both the sustainability of the lobster stock and commerce between the countries.

CHAIR WOODWARD: All right, so we have a motion. This does need a second. I have a second from Pat Keliher. Discussion on the motion, questions. Cheri, questions? Seconding, all right. Mike.

MR. RUCCIO: Just give some very brief rationale, because I know we're pressed for time. The challenge is there is clearly a need to have these conversations with Canada. Being frank, I think it's in Canada's best interest to have these conversations with us, and the way the previous wording was suggested that the Commission and/or state would directly engage with DFO.

While that is not an absolute breach of protocol, typically the preference is for federal level conversations between National Marine Fisheries Service and DFO, so this would keep basically that same intent, have a small group to talk about, what is it that we want to talk about? How do we message this through? There are varying levels that that can occur with.

My suggestion would be that we work with the Greater Atlantic Regional Fisheries Office, as they are on point with management of lobster. They can speak directly with DFO at the behest of the Commission and the states that are interested in this issue. If for whatever reason that is unsuccessful, in terms of Canada not engaging fully, we have a more formal bilateral agreement with Canada, meet regularly with them at a higher level of government engagement.

There are varying degrees. My preference would be that as the Committee works, hopefully they can find kind of the lowest level at which to have these conversations, and try to forge out some conversations. But there are other options that move through, and escalate all the way up to Department of State. I think that is all the work the Subcommittee can do, but wanted to kind of tweak the language, so that we're trying to preserve the process and kind of the decorum that we've typically had in communications with our counterparts at the federal level in Canada.

CHAIR WOODWARD: Any questions? Pat.

MR. KELIHER: I just wanted to thank Mike Ruccio for working with me yesterday to refine this language, and I appreciate the partnership from him and his counterparts to try to find a way forward on this issue. This is critically important conversations that need to happen. I was prepared to just work with the states to engage, but I do think it's important that National Marine Fisheries Service is part of this conversation, and hopefully we can do this in a way that keeps the state department out of this conversation. Thank you very much.

CHAIR WOODWARD: Any other questions or discussion on the motion? Jeff.

MR. BRUST: Just a question on authority here, what the Subcommittee's authority is. We're asking them to develop an approach, and then are we leaving it to them to determine, are we giving them the discretion to determine that that approach is appropriate, or does it come back to Policy Board or the Lobster Board? Then, regardless of that answer, are we also giving them, once that approach is developed, are we then allowing them to engage with Canada or is that a separate action?

CHAIR WOODWARD: I can't answer that so somebody else better. A lot of finger-pointing going on, that doesn't bode well, does it?

MR. BRUST: If I may, Mr. Chair. I'm not opposed to this. I just want to make sure we know what authority the Committee has.

CHAIR WOODWARD: No, it's a good question, I think it's relevant, and I think it's important. Mr. Keliher.

MR. KELIHER: With all subcommittees, they usually report back to the Board and Policy Board, so that certainly would be the intent of the action here. I think because this Committee is going to engage with Canada, that is why I thought it was important to include the Commission's Executive Director as a designee as part of this, to flag any issues that he thought would be important to come back to this Policy Board before any action was taken. While not explicit, I was trying to create those safeguards, Jeff, that would address those issues.

CHAIR WOODWARD: Any further discussion, questions? **Any opposition to the motion? Seeing none; motion passes by unanimous consent.** Thanks. One last thing, Shanna, transfer letters.

PRACTICES FOR DOING TRANSFER LETTERS

MS. MADSEN: I'm going to make this super-fast, because I'm starting to get into hangry territory. I have been doing a lot of transfer letters, I think I know a lot of us have been. It gets really unclear for us to know who is supposed to send the letter first, who is supposed to send the letter of acceptance? Are there three letters, are there two letters? Where do the letters go to?

I was just hoping to bring to the Policy Board that maybe it would be a great idea if we came up with some sort of form that was really easy to fill out that said, here is the species that I intend on transferring and here it is between the two states, and hear what the stipulations are of that. I know that that might require some later discussion with our federal partners, because I recognize that they are also included on those transfer letters. But just something to make this a little bit more clear, concise and efficient, I think would be really useful for all of us.

EXECUTIVE DIRECTOR BEAL: Yes, just really quickly. Thanks, Shanna, for bringing that up. There are a lot of moving parts on our end to respond to all those letters as well. I don't recall the exact wording within some of the FMPs, if it says a letter will go from this state to that state, and if it specifically says a letter or if it just says in writing. I think a form would suffice for that, but if it does specify a letter has to be written. Let us go back and look at what the wording is, and we'll see if we can streamline that a little bit.

CHAIR WOODWARD: Any other business? Yes, Bob has one thing.

EXECUTIVE DIRECTOR BEAL: Very quickly. Yes, I just wanted to introduce the Commission's newest staff member, back in the back of the room, Simen Kaalstad is going to head up the Commission's Habitat Program. He'll be heading up the Atlantic Coastal Fish Habitat Partnership as well. He's been here for, I don't know, almost a month now. He should be up and running and a lively veteran at this point. If you guys can all introduce yourself to Simon, he's in the back of the room, so we just wanted to

welcome him here and introduce you to everybody. Thank you, Mr. Chair.

ADJOURNMENT

CHAIR WOODWARD: Thanks, and welcome, Simen to the three-ring-circus that is the Atlantic States Marine Fisheries Commission. All right, with no other business I'll entertain a motion to adjourn. How about a second? I assume there is no opposition, so we'll stand adjourned.

(Whereupon the meeting adjourned at 12:45 p.m. on Wednesday, May 3, 2023)

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The Center for Conservation Biology documents unprecedented osprey nest failures within the lower Chesapeake Bay

For release: July 14, 2023

Williamsburg, VA – In 2023, The Center for Conservation Biology has documented the highest rate of osprey nest failure ever recorded within the lower Chesapeake Bay. Only 17 of 167 nests monitored during the season produced any young. The nesting population produced only 21 young resulting in a reproductive rate of 0.13 young per pair. This rate is below that recorded during the height of the DDT era. In order for the population to sustain itself, pairs should produce 1.15 young per pair.

The poor reproductive performance documented during 2023 is a trend that has been observed for the past fifteen years. In Mobjack Bay, productivity peaked during the 1980s and has declined to the present day. Researchers within The Center believe that the ongoing decline in young production is driven by overharvest of Atlantic menhaden. Forage fish such as menhaden, anchovy, sardine, capelin and herring play significant roles in marine ecosystems throughout the world. These small schooling fish are responsible for transferring energy from plankton to higher-level predators such as osprey. When forage fish are overharvested the marine food web is broken and higher-level predators suffer.

Within Mobjack Bay young osprey are starving in nests because the decades-long overharvest of menhaden has caused local depletion. Within osprey pairs, males are responsible for hunting and providing fish to broods. Between 1985 and 2021, the rate of menhaden captures by male osprey declined from 2.4 fish per 10 hours to only 0.4 fish per 10 hours, a decline of more than 80 percent. Although osprey do feed on other fish species within the lower Chesapeake Bay none of these species offer comparable nutrient content. Atlantic menhaden is the keystone species that osprey depend on during the nesting season.

An experimental study conducted by Center biologists during the 2021 nesting season supplemented diets of osprey broods by providing menhaden and demonstrated that reproductive rates could be driven back to sustainable levels. On a broad scale, recovery of reproductive rates will require the restoration of menhaden stocks. Menhaden harvest policy has become a political mine field with special interests on all sides. Osprey within the lower Bay are increasingly demonstrating that our choices about harvest policy are having consequences for the broader Chesapeake Bay ecosystem.

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Atlantic JAI and Gulf LPUE time series show clear statistically significant predictability. More importantly, forecast skill increases with θ indicating the presence of deterministic nonlinear behaviour ($p < .05$), and that any environmental effects may be convolved with stock-recruitment dynamics. The nonlinear signal is less strong for Atlantic LPUE ($p < .2$) and Gulf JAI. In the latter case, baseline predictability is very low, indicating that the time series itself may not be very predictable.

Overall, year-to-year changes in both Gulf and Atlantic menhaden abundance show predictable nonlinear dynamics. However, for the Gulf, this is only recoverable from LPUE. The apparent lack of signal in the Gulf JAI time series could be due to (i) limited time-series length, (ii) too much uncertainty or incompleteness of the measurements or (iii) strong stochastic forcing.

3.2 Question 2: Is there evidence of interaction between stock and recruitment?

Next, we look for interactions between stock and recruitment by using convergent cross-mapping (CCM). Essentially, if stock and recruitment are dynamically related to each other, there should be a correspondence (mapping) between the attractors reconstructed from each that can be used predictively. Namely, if stock has a dynamic effect on recruitment, then the recruitment time series contains the signature of the stock dynamics, and so it should be possible to predict stock by cross-mapping from recruitment. As expected, CCM identifies clear and strong coupling between the JAI and LPUE time series of each species. In the Atlantic (Figure 5a), there is evidence of causation in both directions: stock affects recruitment, recruitment affects stock. For the Gulf (Figure 5b,c), there is evidence that stock affects recruitment, indicated by cross-mapping from JAI to LPUE. LPUE, however, cannot predict JAI at 0 time lag. Additionally, the effect of stock on recruitment is much clearer when Texas data are included ($\rho(L_{\max}) = 0.5x$) rather than excluded ($\rho(L_{\max}) = 0.2x$). That is to say, the JAI appears to contain much more information about the stock dynamics when it is constructed with Texas data. This justifies focusing on the JAI with Texas in the remaining analysis.

ASMFC Atlantic Menhaden Board Adopts Ecological Reference Points

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Date: Thu, Aug 6, 2020 5:42 pm

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ASMFC Atlantic Menhaden Board Adopts Ecological Reference Points

Arlington, VA – The Atlantic States Marine Fisheries Commission’s Atlantic Menhaden Management Board approved the use of ecological reference points (ERPs) in the management of Atlantic menhaden. By adopting ERPs, the Board will be accounting for the species’ role as an important forage fish. The 2020 Atlantic menhaden benchmark assessments, which were endorsed by an independent panel of fisheries scientists, used the Northwest Atlantic Coastal Shelf Model of Intermediate Complexity for Ecosystems (NWACS-MICE) in combination with the single-species model (Beaufort Assessment Model or BAM) to develop Atlantic menhaden ERPs by evaluating trade-offs between menhaden harvest and predator biomass.

“The Board took another important step in managing Atlantic menhaden in a broader ecosystem context,” stated Board Chair Spud Woodward of Georgia. “It’s the culmination of more than a decade of effort by state, federal, and academic scientists to develop ERPs that reflect menhaden’s role as a key food source for several fish species. These ERPs are not a silver bullet to resolve all our fisheries management issues, and the models on which they are based will continue to evolve. However, the use of ERPs for menhaden management will enhance the success of predator management by providing a more abundant forage base for rebuilding predator fish populations. It is important for us to keep those rebuilding efforts on track through the use of proven management tools such as controls on fishing mortality.”

In February and May, the Board tasked the ERP Work Group with additional analyses to explore the ERPs sensitivity to a range of ecosystem scenarios (different assumptions about fishing mortality for other key predator and prey species) and Atlantic herring biomass. These analyses suggested the original scenario (ERP target and threshold outlined below) most closely approximates short-term conditions for the ecosystem. As a result, the ERP Work Group recommended using the original scenario ERPs presented in the assessment report. Moving forward, the ERPs for Atlantic menhaden are:

ERP target: the maximum fishing mortality rate (F) on Atlantic menhaden that sustains Atlantic striped bass at their biomass target when striped bass are fished at their F target

ERP threshold: the maximum F on Atlantic menhaden that keeps Atlantic striped bass at their biomass threshold when striped bass are fished at their F target

Atlantic striped bass was the focal species for the ERP definitions because it was the most sensitive predator fish species to Atlantic menhaden harvest in the model, so an ERP target and threshold that sustained striped bass would likely provide sufficient forage for other predators under current ecosystem conditions. For the development of the ERPs, all other focal species in the model (bluefish, weakfish, spiny dogfish, and Atlantic herring) were assumed to be fished at 2017 levels.

In addition to adopting ERPs, the Board discussed setting fishery specifications for 2021-2022. In 2017, the Board set the total allowable catch (TAC) at 216,000 metric tons for 2018-2019, and then maintained that TAC for 2020 with the expectation that it would be set in future years using ERPs. With the adoption of ERPs, the Board tasked the Atlantic Menhaden Technical Committee to run a projection analysis to provide a variety of TAC scenarios and their risk of exceeding the ERP F target to compare in setting specifications for 2021-2022. The Board will review the projection analysis at the Annual Meeting in October and then determine a TAC for 2021-2022. As stated in Amendment 3, if a TAC is not set at the Annual Meeting, the TAC from the previous year will be maintained.

For more information, please contact Kirby Rootes-Murdy, Fishery Management Plan Coordinator, at krootes-murdy@asmfc.org or 703.842.0740.

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PR20-15

The press release can also be found here - http://www.asmfc.org/uploads/file/5f2c7891pr15AtlMenhadenERP_Adoption.pdf

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Sustainable and Cooperative Management of Atlantic Coastal Fisheries

SHARE ON

They don't look at the two seminal species being reproduced by Taylor. They don't know them. Shows us the real world as the Ecosystem approach requires. See page 12

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Assessment and Management History

Current Management Challenges and Future Work

The Path to an Ecosystem Approach for Forage Fish Management: A Case Study of Atlantic Menhaden

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the focus is on the ecosystem not the species @ 4/28/23

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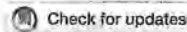
from BAM. All focal species had recently undergone single-species stock assessments, which provided life history, landings, and index data through 2017, as well as estimates of fishing mortality and population size. Newer data were not available for all of the groups included in the full NWACS EwE model; as a result, inputs for those groups were extrapolated from the terminal year of 2013.

The ERP WG evaluated the five ERP models based on their performance (i.e., residuals, sensitivities, and other diagnostics), their strengths and weaknesses, and their ability to inform the fundamental ecosystem management objectives (Buchheister et al., 2017a,b; McNamee, 2018; Uphoff and Sharov, 2018; Nesslage and Wilberg, 2019; Chagaris et al., 2020). The ERP WG ultimately recommended using the NWACS-MICE model rather than the other four for two reasons. First, the EwE framework used by the NWACS-MICE model was the only approach that could address both the top-down effects of predation on Atlantic menhaden and the bottom-up effects of Atlantic menhaden on predator populations, which were required to evaluate the key tradeoffs between Atlantic menhaden harvest and predator needs that were central to the identified ecosystem objectives. Second, the NWACS-MICE implementation was less data-intensive than the full NWACS model, which reduced some of the uncertainty associated with modeling the data-poor predators and prey in the full model. This meant the NWACS-MICE model could be updated more quickly and efficiently, on a timeframe that met manager's needs. Comparisons of the full and MICE versions of the NWACS model indicated that the NWACS-MICE model included the fish predators most sensitive to the menhaden population. Striped bass was the most sensitive fish predator to Atlantic menhaden harvest in both models. In the full NWACS model, nearshore piscivorous birds were also sensitive to Atlantic menhaden F , but their response was similar to striped bass over the range of scenarios explored by the full model (Southeast Data Assessment and Review [SEDAR], 2020b). This choice was consistent with a growing body of literature that has recommended models of intermediate complexity (i.e., MICE) for ecosystems as representing a compromise between complexity/realism and uncertainty for use in management (Plagányi et al., 2014; Collie et al., 2016; Punt et al., 2016). Specifically, the ERP WG recommended using the NWACS-MICE in conjunction with the single-species assessment model, BAM; the NWACS-MICE model would provide strategic advice about the trade-offs between Atlantic menhaden fishing mortality and predator biomass to set reference points, while the single-species model would be used to provide short-term tactical advice about harvest strategies to achieve the ERP F target (Chagaris et al., 2020; Southeast Data Assessment and Review [SEDAR], 2020b). The ERP report was peer-reviewed with the single-species assessment in 2019, and the ERP WG's recommended tool was deemed acceptable for management use by a panel of independent experts (Southeast Data Assessment and Review [SEDAR], 2020b). The peer-review panel also recommended the continued development of the alternative models going forward.

Current Management

The development and implementation of ERPs for Atlantic menhaden was a lengthy process (Figure 4 and Table 1), but in August 2020, ASMFC adopted the approach from the ERP WG for management use. The ERP target was defined as the maximum F on Atlantic menhaden that would sustain striped bass at their biomass target when striped bass were fished at their F target. The ERP threshold was defined as the maximum F on Atlantic menhaden that would keep striped bass at its biomass threshold when striped bass was fished at its F target. For both reference points, all other species in the model were fished at their *status quo* (i.e., 2017) F rates. Striped bass was the focal predator species for this analysis because it was the most sensitive to Atlantic menhaden F in both the NWACS-MICE and the full NWACS models. Thus, levels of Atlantic menhaden F that sustain striped bass should also sustain piscivorous birds and less sensitive predators, in the absence of significant disruptions to the ecosystem (Southeast Data Assessment and Review [SEDAR], 2020b). With these ERP targets and thresholds, the Atlantic Menhaden Management Board reviewed projections from the single-species model, BAM, and set a quota for 2021 and 2022 of 194,400 mt, a 10% decrease in the quota from 2020.

FIGURE 4



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Food supplementation increases reproductive performance of ospreys in the lower Chesapeake Bay

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The Atlantic States Marine Fisheries Commission (ASMFC), the governing body responsible for managing fisheries on the U.S. East Coast, formally adopted the use of Ecological Reference Points (ERPs) for Atlantic menhaden, *Brevoortia tyrannus*. Scientists and stakeholders have long recognized the importance of menhaden and predators such as ospreys, *Pandion haliaetus*, that support the valuable ecotourism industry and hold cultural significance. Landings in the reduction fishery are at their lowest levels and menhaden is facing potential localized depletion. Mobjack Bay, located within the lower Chesapeake Bay, has been a focus of osprey research since 1970 and represents a barometer for the relationship between osprey breeding performance and the availability of their main prey, menhaden. Since local levels of menhaden abundance were not available, we conducted a supplemental menhaden feeding experiment on osprey pairs during the 2021 breeding season. Our main objective was to determine if the delivery rate of menhaden had an influence on nest success and productivity. Nest success ($\chi^2 = 5.5$, $df = 1$, $P = 0.02$) and productivity ($\beta = 0.88$, $SE = 0.45$, $CI = 0.049, 1.825$, $P = 0.048$) were significantly higher within the treatment group. Reproductive rates within the control group were low and unsustainable suggesting that current menhaden availability is too low to support a demographically stable osprey population. Menhaden populations should be maintained at levels that will sustain a stable osprey population in which they are able to produce 1.15 young/active nest to offset mortality.

KEYWORDS

osprey, *Pandion haliaetus*, menhaden, *Brevoortia tyrannus*, localized depletion, ecological reference points, food supplementation

1 Introduction

World fisheries landings since the late 1980s have been steadily declining (Pauly and Zeller, 2016, FAO, 2020). With mounting concern over the state of our fisheries, management strategies have shifted focus from single-species to ecosystem-based objectives (Pauly et al., 2008). This style of management attempts to integrate ecological,

economic, and social factors to secure and protect the sustainability of our fisheries and the ecosystems within which they reside (Einoder, 2009). Thus, United States federal policy firmly reinforces the implementation of Ecosystem-Based Fisheries Management (EBFM) which is an approach that considers trophic interactions and aims to promote the health and resilience of the ecosystem (McLeod and Leslie, 2009; Link, 2010, NMFS (National Marine Fisheries Service), 2016). Apex predators are essential indicators within this management approach and may provide more sensitive measures of changing fish populations because of their dietary dependencies (Furness, 1982; Diamond and Devlin, 2003). Monitoring fish-eating bird populations may be both more cost effective and better suited to the problem of understanding fish populations within an ecosystem (Cairns, 1988). Bird metrics may play an increasing role in the assessment of prey availability, especially in areas where conventional fisheries data are insufficient (Cairns, 1988). Bird populations may serve as an early warning system for changes in fish populations that have ecosystem implications (Kabuta and Laane, 2003; Cury et al., 2005).

The Atlantic States Marine Fisheries Commission (ASMFC), the governing body responsible for managing fisheries on the U.S. East Coast, formally adopted the use of Ecological Reference Points (ERPs) for Atlantic menhaden, *Brevoortia tyrannus*. Historical estimates of menhaden were limited and the harvest effects did not produce sufficient information on important predator species. Therefore, the ASMFC developed an interest in establishing ERPs to set quotas and evaluate menhaden's status and role as a forage species (Drew et al., 2021). Scientists and stakeholders have long recognized the importance of predators, such as bottlenose dolphins, *Tursiops truncatus*, and humpback whales, *Megaptera novaeanglia*, that support a valuable ecotourism industry and hold cultural significance (Gannon and Waples, 2004; Glass and Watts, 2009; Butler et al., 2010; Smith et al., 2015; Drew et al., 2021).

Atlantic menhaden are a schooling fish that can be found along nearshore coasts along the Atlantic Ocean from Nova Scotia, CAN, to Florida, USA and go through large age- and size-dependent seasonal migrations (Dryfoos et al., 1973; Nicholson, 1978; Liljestrand et al., 2019). As indeterminate spawners, adults are capable of spawning multiple times in a season and inhabit estuarine and coastal areas such as Chesapeake Bay (Ahrenholz, 1991, Southeast Data Assessment and Review [SEDAR], 2020). As juveniles, they spend their first spring and summer in estuaries and by late fall, they join with other subadults and adults and migrate to nearshore coastal waters (Southeast Data Assessment and Review [SEDAR], 2020; Anstead et al., 2021).

Menhaden support the largest fishery in the U.S. East Coast by volume and is used for bait and reduced to fish oil and meal which are used for animal feed, fertilizer, and human health supplements (Anstead et al., 2021). The reduction fishery began in the mid-1800s with the use of purse seine gear and peaked in 1956 with over 20 menhaden reduction factories along the Atlantic Coast (Southeast Data Assessment and Review [SEDAR], 2020). Currently, landings in the reduction fishery are at their lowest levels (Southeast Data Assessment and Review [SEDAR], 2020) and at Chesapeake Bay, populations of menhaden are facing potential localized depletion. ASMFC defined localized depletion in Chesapeake Bay "as a

reduction in menhaden population density below the level of abundance that is sufficient to maintain its basic ecological, economic, and social/cultural functions" (Annis et al., 2009). Localized depletion has not been officially defined or evaluated by managers because estimates of the standing stock within Chesapeake Bay have been unavailable and thresholds for exploitation cannot be resolved.

Known as the fish hawk, we selected the osprey as an appropriate non-fish ERP to evaluate localized depletion of menhaden and food limitation within Chesapeake Bay. The ERP Work Group emphasized the research need for diet data collection and demographic responses of non-fish predators (Atlantic States Marine Fisheries Commission [ASMFC], 2017). According to Buccheister et al. (2017), the nearshore piscivorous birds such as ospreys are sensitive to the overfishing of menhaden. Ecologically, ospreys are generalized specialists (Beirregaard et al., 2014). Specialized in that they are obligate piscivores and generalized in that they predate upon many species of fish. Ospreys surface plunge at a maximum depth of one meter and are more susceptible to a decrease in fish density than other birds such as pursuit divers that search for prey while swimming on the water surface and dive to deeper depths (Ashmole, 1971; Cramp and Simmons, 1979). Piscivory and plunge diving influences an ecological indicator's response to fish supply perturbations (Einoder, 2009). Reduced prey availability and fluctuations in environmental conditions are more evident in the foraging behavior and breeding success of a specialist (Furness and Ainley, 1984; Montevecchi, 1993). Moreover, shallow divers and surface feeders are more vulnerable, are considered more sensitive indicators than pursuit divers, and show greater variation in breeding performance (Montevecchi, 1993; Monaghan et al., 1994; Scott et al., 2006). As one of the more recognized raptors, ospreys have been used as an ecotoxicological sentinel species of environmental health due to their reproductive responses to natural and anthropogenic pressures and life history traits (Henny et al., 2008; Johnson et al., 2008; Grove et al., 2009). Ospreys exhibit strong nest fidelity and their reproductive status is observable by ground, boat, or aerial surveys which makes them a valuable and efficient sentinel of the ecosystem (Ogden et al., 2014) and an appropriate ERP for menhaden (Buccheister et al., 2017).

The Chesapeake Bay supports one of the largest osprey breeding populations in the world (Henny, 1983; Watts and Paxton, 2007). As with many similar populations, ospreys in the Chesapeake Bay experienced dramatic declines in the post-World War II era due to reproductive suppression (Tritt, 1969; Kennedy, 1971; Wiemeyer, 1971; Reese, 1977) induced by environmental contaminants (Via, 1975; Wiemeyer et al., 1975). The population sustained a low point by 1973 when Henny et al. (1974) estimated its size to be 1,450 breeding pairs. From 1973 to 1995, the population more than doubled in size to nearly 3,500 pairs (Watts et al., 2004) and believed to be between 8,000-10,000 pairs in 2020. However, the population has experienced spatial variation in recovery (Watts et al., 2004; Watts and Paxton, 2007). For example, average doubling time for the population on low-salinity, upper reaches of tributaries, was less than four years while doubling time on higher-salinity reaches of the lower Chesapeake Bay exceeded 40 years (Watts et al., 2004). This variation reflects the extent of the

earlier decline, immigration from other regions of the Chesapeake Bay, and the local demography of pairs that may have been influenced by prey availability.

Mobjack Bay has been a focus of osprey research since 1970 and represents a barometer for the relationship between osprey breeding performance and menhaden availability (Glass, 2008). During the mid-1970s, there was little evidence of food limitation reflected in osprey reproductive performance and brood sizes within the higher salinity zones of the lower Chesapeake Bay (Stinson, 1976). However by the early 2000s, the proportion of menhaden in the diet had dropped by 40% and reproductive rates had dropped to precarious levels (Glass, 2008). We conducted a supplemental feeding experiment for osprey pairs nesting in Mobjack Bay during the 2021 breeding season. A clear barrier in resolving the relationship between osprey productivity and menhaden consumption is the lack of menhaden abundance data that can be scaled down to the local level. If such data were available, we could monitor osprey foraging, provisioning, and productivity, and assess the functional response to available menhaden. Since such data are not available, a food manipulative experiment in the wild was performed (Piatt et al., 2007). Our secondary objective was to determine prey composition and the dietary importance of menhaden.

2 Methods

2.1 Study species

Ospreys are large, long-winged raptors with a nearly global distribution that feed exclusively on fish (Poole, 2019). Most osprey populations across North America are migratory, spend the winter months in Central or South America and begin breeding at the age of three (Henny & Wight, 1969). Age-at-first-reproduction in Chesapeake Bay ospreys was recorded from 4 years (Kinkead, 1985) to 5.7 years (Poole, 1989; Poole et al., 2002). As the population reaches carrying capacity, age-at-first-reproduction increases (Spitzer, 1980; Poole, 1989). Poole (1989) estimated that pairs within the Chesapeake Bay must produce 1.15 young per year in order to offset adult mortality. On average, if the population consistently meets or exceeds this rate (demographic source) then the population would be expected to be stable to increasing (Pulliam, 1988). If the reproductive rate consistently falls below this threshold (demographic sink) the population would be expected to decline in the absence of compensatory immigration.

2.2 Food addition experiment

We established treatment (fish addition) and control (no fish addition) nests to assess the effect of increased provisioning on demography. We added $472 \text{ g} \pm 7.9 \text{ (SE)}$ of menhaden every $3.5 \text{ d} \pm 0.2$ to treatment nests from the time of hatching to six weeks of age. We delivered menhaden to nests using a telescopic pole with a mounted delivery device. We sourced fresh or previously frozen

menhaden from a local fishing supply company and the fish were counted, weighed, coded, and separated into packages for easy deployment. We selected study nests based on accessibility and randomly assigned accessible nests to treatments. We conducted an initial survey (late March to mid-April) of the study area for osprey nests ($N = 114$) and recorded location (latitude, longitude), accessibility by boat, nesting stage, nest substrate, height over water, and water depth. We screened nests for initial inclusion in the study based on accessibility, height over water (to allow for ready access to the nest) and water depth (to allow for boat access and maneuverability). We only included nests within the study that survived to hatching stage. We monitored all nests included within the initial draw until clutches hatched. Nests that hatched eggs were randomly assigned to two treatment groups (Figure 1) including a control group ($N = 15$) and a food addition group ($N = 16$). The nests in the East River were limited in boat accessibility and therefore assigned to the control group.

2.3 Demography

We monitored nests twice per week from clutch completion to fledging to quantify demographic parameters including clutch size, brood size, and the number of young fledged. From observations, we determined brood reduction (number of young lost between hatching and fledging). We noted the age that nestlings died and the stage when nests failed. We consider a nest to be successful if the pair produced at least one young to fledging age. We consider productivity to be the number of young that reached fledging age (7 wks) per active nest (Steenhof & Newton, 2007). We used a telescopic mirror pole to facilitate the examination of nest contents for nests that were $>2 \text{ m}$ above the water line.

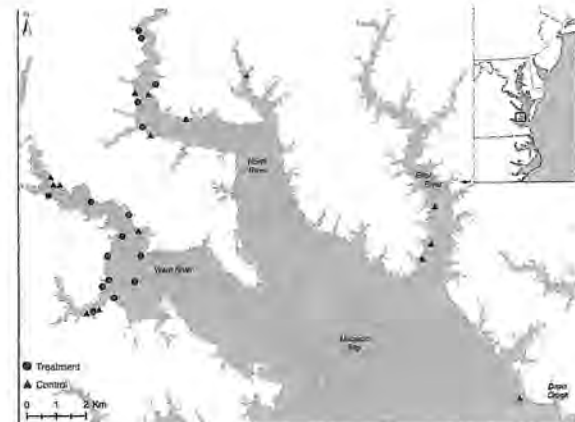


FIGURE 1
Map of the experimental area of Mobjack Bay on the lower eastern region of Chesapeake Bay, VA, USA. The locations of the control group ($N = 15$) represented by black triangles and the food addition group ($N = 16$) represented by black circles.

2.4 Provisioning

We used trail cams (Browning Strike Force HD Pro X - BTC-5HDPX) to quantify nest provisioning rates including the average number of fish (n/day), biomass (g/day) and energy (kcal/day) for a subsample of treatment (N = 7) and control (N = 4) nests. We deployed cameras on nest structures that would accommodate them. We fastened trail cams to 1.91 cm (3/4 inch) diameter conduit and mounted conduit to the nesting structure such that cameras were positioned approximately 1 m above the nest. Cameras were programmed to record an image every 5 min during daylight hours (05:00 to 22:00). We extracted images from the photo set that depicted fish delivered to nests and identified all fish to the lowest taxonomic level possible. Most fish were identified to the species level but others could only be identified to the genus or family level. We estimated fish length from photos within an image processing program, ImageJ with Java (<https://imagej.nih.gov/ij/index.html>) and compared to known lengths from reference structures (Poole et al., 2002) including adult bill (male = 32.5, female = 34.6 mm) and talon (male = 28.9, female = 30.0 mm). We estimated the biomass (g) of each fish using species-specific length-mass equations from published literature and FishBase (<https://fishbase.in/>, Appendix 2). We converted biomass to energy (kcal) using published species-specific energy density values (Appendix 3). For species that could not be identified to species, we used length-mass equations and energy density from a representative species of the taxonomic group. We consider the provisioning of control nests to include fish provided by adults and for treatment nests to include fish provided by adults and menhaden that we added to nests. It is important to note that treatment nests that did not have trail cameras were observed by boat and consumption of supplemented fish by the adults and young were verified.

2.5 Statistical analysis

Data were not independent, not normally distributed, and non-homogenous therefore, we used appropriate tests. We investigated the influence of treatment (control vs food addition) on demographic parameters including nest success, clutch size, the number of young hatched, brood reduction, and productivity. We constructed a two-by-two contingency table and used Pearson's Chi-squared analysis to compare the relationship between treatment type and nest success. We used Generalized Linear

Models (GLMs) to determine if there were the average differences in clutch size, the number of young hatched, brood reduction, and productivity between the treatment types. For provisioning (fish/d, biomass/d, energy content/d), we analyzed data from trail cameras to evaluate the relationship between provisioning and demographic parameters. It is important to note that our models were based on totals and/or average provisioning rates including naturally provisioned and supplemental fish.

We used Generalized Linear Mixed Models (GLMMs) with a negative binomial distribution and log link, nest and treatment type as the random effects, and food addition and total provisioning (natural and supplemented) as the fixed effects. For the influence of provisioning on demographics, we used GLMs with a negative binomial distribution and log link and compared the effects of the mean fish/d, biomass/d, and energy content/d (natural and supplemented) on productivity (both treatment groups combined, N = 11). We calculated the supplemented average biomass/d/nest and energy content/d/nest threshold needed for the production of 1.15 fledglings per nest-season (estimated break-even rate). All analyses were performed in RStudio 4.02 and we used the MASS and gmmTMB packages for model development and validated by the DHARMA package for residual diagnostics on hierarchical regression models (Venables and Ripley, 2002; Brooks et al., 2017; R Core Team, 2020; Hartig, 2021).

3 Results

3.1 Food addition and demography

For the food addition group, 13 of the 16 nests (81%) succeeded with an average productivity rate of 1.13 ± 0.18 (SE) young/active nest. The three nests that failed in this group failed on average during the first 1.38 ± 0.5 wks. or when young were 10 d old. For the control group, five of the 15 nests (33%) succeeded with an average productivity rate of 0.47 young/active nest. The ten nests that failed in this group failed on average during the first 2.2 ± 0.5 wks. The age at failure (d) between the food addition and control groups was not statistically significantly different ($\beta = -0.47$, SE = 0.41, P = 0.25). The age at failure for the control group ranged from 3 - 42 d with the highest mortality experienced during the first $15.5 \text{ d} \pm 3.4$ of the nestling period. Nest success and productivity were significantly different between the control and food addition groups (Table 1, Figure 2). Clutch size, the number of young hatched, and brood

TABLE 1 Two-way contingency table used for the Pearson's Chi-squared analysis that summarizes the relationship between treatment types and nest success during the 2021 osprey breeding season in the lower Chesapeake Bay, VA, USA ($\chi^2 = 5.5$, $df = 1$, $P = 0.02$).

TREATMENT	NEST SUCCESS (NESTS)		
	SUCCESSFUL	FAILED	TOTAL
FISH ADDITION	13	3	16
CONTROL	5	10	15
TOTAL	18	13	31

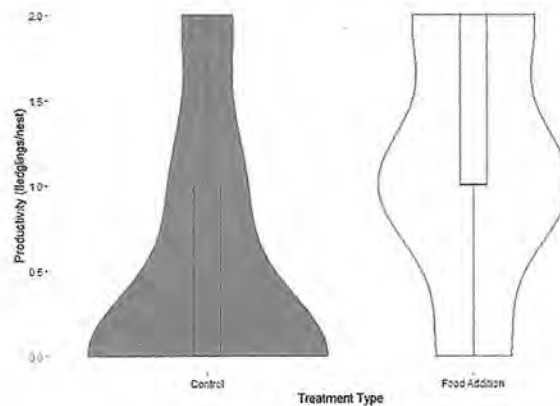


FIGURE 2

Productivity between the control group (N = 15) and the treatment group (N = 16) of ospreys during the 2021 breeding season in the lower Chesapeake Bay, VA, USA ($\beta = 0.88$, SE = 0.45, pseudo $R^2 = 0.14$, CI = 0.049, 1.825, $P = 0.048$). Violin shapes represent the density of data distribution and the middle horizontal line of the box plots represent the median values.

reduction were not significantly different between the control and food addition groups (Table 2).

3.2 Provisioning and productivity

Food supplementation had a significant influence on the number of fish and amount of energy available to osprey broods (Table 3). A total of 241 Atlantic menhaden was supplemented to the food addition group and contributed 32,384 g that represented an estimated 61,206 kcal. This increased the average total prey biomass and energy content within the food addition group to 226.5 g/d/nest and 396.2 kcal/d/nest. The average biomass that was delivered to the control group was 166.8 g/d/nest and the average energy content was 242.2 kcal/d/nest (Appendix 1). For the control group, adult osprey delivered an average of 1.2 fish/d/nest compared to 1.1 fish/d/nest for the supplemented group.

Food supplementation had a significant influence on the likelihood that pairs reached the threshold reproductive rate of 1.15 young/nest (Figure 3). The estimated average fish biomass and energetic content needed for a pair to produce the threshold reproductive rate was 202.7 g/d and 338.6 kcal/d respectively. Within the study area, pairs required supplementation of 63.4 g/d of menhaden or 121 kcal/d in order to reach the productivity threshold.

Diet composition included a diverse list of fish species (Appendix 1). A total of 600 fish were documented as prey by ospreys in which 81% of taxa were identified to 21 species or to at least family. Atlantic menhaden (39%) dominated prey composition. Other known species included Atlantic herring (*Clupea harengus*) (10.3%), Atlantic croaker (*Micropogonias undulatus*) (5.8%), gizzard shad (*Dorosoma cepedianum*) (5.7%), and spot (*Leiostomus xanthurus*) (5%).

TABLE 2 Results for GLMs used to compare demographic parameters between treatment types during the 2021 osprey breeding season in the lower Chesapeake Bay, VA, USA.

DEMOGRAPHIC PARAMETERS	β	SE	PSEUDO r^2	CI	P
CLUTCH SIZE	0.07	0.21	0.75	-0.34, 0.48	0.75
No. of YOUNG HATCHED	0.12	0.24	0.04	-0.33, 0.62	0.57
BROOD REDUCTION	0.20	0.31	0.02	-0.81, 0.40	0.50

TABLE 3 Results of GLMMs with treatment effects on provisioning rates per d of nests under trail camera surveillance (N = 11) during the 2021 osprey breeding season in the lower Chesapeake Bay, VA, USA.

TREATMENT EFFECTS	β	SE	Z VALUE	CI	P
FISH (number of fish/d)	0.25	0.02	13.4	0.21, 0.29	< 0.001
BIOMASS (g of fish/d)	0.002	0.0004	4.65	0.001, 0.003	< 0.001
ENERGY CONTENT (kcal of fish/d)	0.001	0.0002	5.22	0.008, 0.002	< 0.001

4 Discussion

Supplementation of osprey nests with menhaden had a significant influence on the ability of nesting pairs to reach reproductive rates required for population maintenance. Our study shows that productivity was food limited as previous studies have substantiated (Simons and Martin, 1990; Richner, 1992; Wiehn and Korpimäki, 1997; Ferrer et al., 2018). Osprey pairs that did not receive supplementation had reproductive rates (0.47 young/nest) that were less than half of threshold levels. Within Mobjack Bay, productivity rates have shifted from reproductive surplus to reproductive deficit since the 1980s. For example, populations at various locations along the main stem of Chesapeake Bay were considered strongholds (McLean, 1986; Byrd, 1988). During 1983 and 1984, the average reproductive rate was 1.39 young/pair (Byrd, 1987). By 1988 and 1990, average productivity had dropped to 0.91 young/pair (Byrd, 1988, Byrd, 1990) and by 2005 and 2006 productivity had dropped further to 0.75 young/pair (Glass, 2008). If fishing pressure on menhaden within Chesapeake Bay persists, osprey productivity rates could decline precipitously, threaten population stability, and eventually lead to widespread population collapse. Menhaden populations should be maintained at levels that will sustain a stable osprey population in which they are able to produce 1.15 young/active nest to offset mortality.

Our research suggests that food addition significantly influenced osprey provisioning rates and these rates impacted reproductive performance. Specifically, daily average biomass and energy content of the prey composition significantly influenced productivity. Lind (1976) used a model developed by Wiens and Innis (1974) and calculated that each adult osprey required 286 kcal/d and each nestling at 11–16 d old needed at least 113–170 kcal/d. Based on calculations in which fish with an energy content of 1 kcal/g, a nest with two young plus the female would require 794 g of fish/d in order

to successfully fledge and a nest with three young would require 1048 g of fish/d (Winberg, 1960). Along the U.S. Eastern Coast, Poole (1982) determined that male ospreys delivered 816–1426 g/d to nests that had young and nests that produced three–four young. In our study, menhaden consisted of 39% of the total diet composition and these fish have a high energy content of 1.89 kcal/g (June and Nicholson, 1964). Based on the calculations of Winberg (1960), if a nest fledged two young that was supplied with 39% or 309.7 g/d or 585.3 kcal/d of menhaden, the estimated additional biomass and energy content required would be 648.2 g/d or 1,225.1 kcal/d. Similarly if a nest fledged three young and was supplied with 39% or 408.7 g/d or 772.4 kcal/d of menhaden, the estimated additional biomass and energy content required would be 855.5 g/d or 1,616.9 kcal/d. For the nests in our study, the added average biomass and energetic threshold needed for a nest to reach the reproductive break-even point are 63.4 g/d and 121 kcal/d which would be a total average of 208.1 g/d and 347.6 kcal/d (Figure 3).

When we directly compared the provisioning rates in this study to historical studies in Mobjack Bay and the higher salinity areas of Chesapeake Bay, declines in daily fish deliveries were made evident. In 1975 and 1985, the fish delivery rate was 0.53 fish/hr/nest and 0.35 fish/hr/nest (McLean and Byrd, 1991). In 2006 and 2007, ospreys in the higher salinity areas delivered an average of 0.26 fish/h/nest (Glass, 2008). Our study revealed that in 2021, the fish delivery rate diminished to a mean of 0.11 fish/hr/nest. The average daily biomass delivered per nest fell from 237.1g and 172.3g in 1975 and 2007 to 144.7g in 2021 (Appendix 1, McLean and Byrd, 1991; Glass, 2008).

Brood reduction has been an effective parameter linking reproductive performance to food limitation in osprey (Glass, 2008). In a 5-yr study, Reese (1977) determined nestling loss rates in the upper Chesapeake Bay ranged from 8–23%. Nestling mortality rates were 47% and 78% for the supplementation and control groups respectively in this study. Poole (1984) conducted a

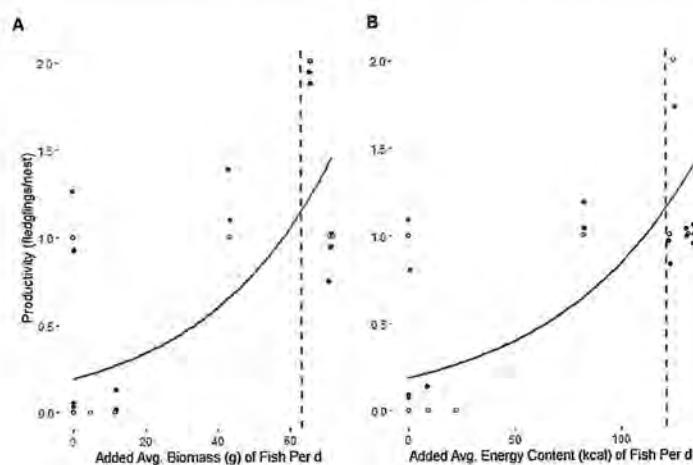


FIGURE 3

GLM's of the influence of the added (A) avg. biomass/d/nest ($\beta = 0.03$, SE = 0.01, Pseudo $R^2 = 0.60$, CI = 0.01, 0.05, P = 0.02) and (B) avg. energy content/d/nest (kcal) ($\beta = 0.02$, SE = 0.005, Pseudo $R^2 = 0.64$, CI = 0.006, 0.03, P = 0.02) for osprey pairs under trail camera surveillance after seven weeks post hatch of the first egg in 2021 breeding season in the lower Chesapeake Bay, VA, USA. The data points represented by white circles have been "jittered" along with random points represented in black circles for improved visibility of model fit. The dotted lines indicate the supplemented average biomass (63.4 g) and energy content (121 kcal) thresholds needed per d to produce 1.15 young per nest-season.

4-yr study in New England and determined that 75% of nesting mortality was caused by starvation. Glass and Watts (2009) determined that brood reduction was highly significant between nests in the lower estuarine sites compared to the higher estuarine sites and these data suggested that ospreys in the higher salinity areas were experiencing more food limitation than the lower salinity areas. Brood reduction has generally been linked with the lack of food availability in other study areas (Poole, 1982; Jamieson et al., 1983; Eriksson, 1986; Hagan, 1986; Forbes, 1991; Glass and Watts, 2009). Although brood reduction was higher in the control group, differences were not found to be significant in our study. This discrepancy could have been attributed to treatment effects in which the timing and intensity of the protocol was not strong enough to detect a significant signal. Perhaps if we supplemented more fish in greater frequency, we would have observed significant differences in the average brood reduction between the experimental groups.

The most compelling explanation for lower provisioning and productivity rates is localized depletion of the primary prey base. Although proximate causes of lower productivity may include storms, inter- and intraspecific competition, predation, as well as age-related care by parents, the ultimate cause of lower productivity may often be food shortage (Steenhof and Newton, 2007). Atlantic menhaden has a higher lipid content compared to other species with a nearly a 2:1 energy content/biomass ratio (June and Nicholson, 1964). Ospreys depend on menhaden and their reproductive performance is inextricably linked to the availability and abundance of this fish. In fact, previous studies have substantiated that menhaden are a vital prey item for ospreys during the breeding season particularly in the mid-Atlantic and northeastern United States (Spitzer and Poole, 1980; Poole, 1989; McLean and Byrd, 1991; Steidl et al., 1991; Glass and Watts, 2009). In 1985, this fish species consisted of 75% of the prey composition of ospreys in the lower Chesapeake Bay (McLean and Byrd, 1991). Then in 2006 and 2007, menhaden declined to 32% of the prey composition (Glass, 2008). In our study menhaden comprised of 39% of the total prey composition (Appendix 1). Assuming that the prey composition of ospreys reflects prey availability on a local level (Greene et al., 1983; Edwards, 1988; Glass, 2008), the current percentage of menhaden could indicate that this species has diminished in availability compared to the later portion of the 20th century.

Potential localized depletion of menhaden populations is one of the major sources of concern and conflict within Chesapeake Bay. According to the ASMFC, the coastwide stock assessment has determined that menhaden is not overfished and that no overfishing is occurring (Southeast Data Assessment and Review [SEDAR], 2020). However, a coastwide assessment does not capture spatial variation in menhaden availability for locations with persistent depletion such as Chesapeake Bay. Seine surveys of juvenile menhaden in Maryland and Virginia indicate that low levels of abundance and recruitment have been happening since the early 1990's and 2000's (Atlantic States Marine Fisheries Commission [ASMFC], 2004, Southeast Data Assessment and Review [SEDAR], 2020). Our data suggests that the reliable metric that links osprey population decline and food limitation is the osprey productivity rate. During the population decline in northern Florida, Bowman et al. (1989) determined that the productivity rate was 0.56 young/nest and this was due to

insufficient food availability. When the Florida Bay population was healthy and food was abundant (Henny and Ogden, 1970), the productivity rate was 1.22 young/nest which is similar to the rate acquired by the food addition group of our study at 1.13 young/nest.

5 Conclusion

EBFM evolves when ERPs are consistently monitored (Pilkitch et al., 2004). According to Amendment 3 of the Interstate Fishery Management Plan (FMP) for Atlantic menhaden (Southeast Data Assessment and Review [SEDAR], 2020; Anstead et al., 2021), ERPs are described as “a method to assess the status of menhaden not only with regard to the sustainability of human harvest, but also with the regard to their interaction with predators and the status of other prey species.” The ERP working group is tasked with developing ERPs that are menhaden-specific that can account for the abundance of menhaden and their species role as a forage fish (Amendment 3 to the FMP, Anstead et al., 2021). Ospreys are non-fish predators and can serve the ERP role which can allow management to practice informed decisions to develop harvest targets, assess menhaden's role as prey for upper trophic levels, and advance an ecosystem approach to fisheries management (EAFM) which considers multiple components of the ecosystem than just the target species (Patrick and Link, 2015). The menhaden population within Mobjack Bay is not currently adequate to sustain the osprey breeding population and we recommend that industrial purse seine fishing occur outside Chesapeake Bay.

Data availability statement

The original contributions presented in the study are included in the article/Supplementary Material. Further inquiries can be directed to the corresponding author.

Ethics statement

The animal study was reviewed and approved by Institutional Animal Care and Use Committee (IACUC-2021-05-03-14981-bjpxt).

Author contributions

MA and BW designed and conducted the research. MA and BW performed the experiment, statistical analysis, and wrote the paper. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fmars.2023.1172787/full#supplementary-material>

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Compose

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Study Area	Nests (N)	Successful (N)	Young (N)	Success Rate (% of nests)	Reproductive Rate (Young/Pr)
Polyhaline					
Lower York	44	3	5	6.8	0.11
Ware River	29	2	2	6.9	0.07
North River	33	1	1	3.0	0.03
East River	21	0	0	0.0	0.00
Lynnhaven River					
Total	127	6	8	4.7	0.03
Tidal Fresh					
Upper James	54	45	77	83.3	1.43
Upper Rapp	37	28	56	75.7	1.51
Total	91	73	133	80.2	1.46

From: Tom Lilly <foragematters@aol.com>
Sent: Friday, June 30, 2023 2:00 PM
To: michael academia <macademia@email.wm.edu>; Watts, Bryan <bdwatt@wm.edu>; Phil Zalesak <flypax@md.metrocast.net>
Subject: Fw: Mobjack Bav nestina collapse

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