Atlantic States Marine Fisheries Commission

ISFMP Policy Board

October 21, 2021
12:45 - 4:30 p.m.
Webinar

Draft Agenda

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

A portion of this meeting will be held with the Mid-Atlantic Fishery Management Council (MAFMC).

1.	Welcome/Call to Order *(P. Keliher)*	12: 45 p.m.
2.	Board Consent *(P. Keliher)* • Approval of Agenda • Approval of Proceedings from August 2021	12:45 p.m.
3.	Public Comment	12:50 p.m.

The below agenda item will be considered with the MAFMC.

4.	Update on Draft Addendum/Framework on Harvest Control Rule for Bluefish, Summer Flounder, Scup, and Black Sea Bass	1:00 p.m.
5.	Executive Committee Report (*P. Keliher*)	3:00 p.m.
6.	Review Management and Science Committee Tasks to Address Conservation Equivalency Concerns (*T. Kerns*)	3:15 p.m.
7.	Presentation of NOAA Fisheries on Efforts and Next Steps to Reduce Sea Turtle Bycatch in Several Trawl Fisheries in the Greater Atlantic Region, including Summer Flounder, Atlantic Croaker, and Longfin Squid (*M. Pentony*)	3:45 p.m.
8.	Update on East Coast Climate Change Scenario Planning Initiative (*T. Kerns*)	4:15 p.m.
9.	Review Noncompliance Findings (If Necessary) **Action**	4:20 p.m.
10.	Other Business/Adjourn	4:30 p.m.

This meeting will be held via webinar, click here for details.
Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEETING OVERVIEW

ISFMP Policy Board
Thursday October 21, 2021
12:45 – 4:35 p.m.
Webinar

A portion of this meeting will be held with the Mid-Atlantic Fishery Management Council (MAFMC).

Chair: Pat Keliher (ME) Assumed Chairmanship: 10/19	Vice Chair: Spud Woodward (GA)	Previous Board Meetings: August 5, 2021
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (19 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from August 6, 2021

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

The below agenda item (4) will be considered with the MAFMC.

4. Update on Draft Addendum/Framework on Harvest Control Rule for Bluefish, Summer Flounder, Scup, and Black Sea Bass (1:00- 3:00 p.m.)

Background

- After reviewing nine topics that were either recommended by the Recreational Management Reform Initiative Steering Committee or by stakeholders through scoping for two separate ongoing amendments, the Council and Board agreed to initiate a joint framework/addendum and a joint amendment to address several recreational issues. During the February 2021 meeting, the Council and Policy Board prioritized development of the harvest control Rule as the first step in addressing recreational reform.
- A joint Plan Development Team (PDT) and Fishery Management Action Team (FMAT) has been developing the Recreational Harvest Control Rule Framework/Addendum as part of the Recreational Reform Initiative. The PDT/FMAT recommendations for the management options have been incorporated into the Draft Addendum document

(**Briefing Materials)** but have identified additional recommendations for the Board and Council's review in a memo to the Board and Council (**Briefing Materials**). Lastly, the PDT/FMAT requests additional time to fully develop the options and to further develop two statistical models which can be used to inform the recreational measure setting process for the framework/addendum (**Briefing Materials**).

Presentations

- Staff will present progress on the Draft Amendment/Framework

Board/Council discussion at this meeting

- Provide feedback to the PDT regarding recommendations outline in the memo to the Board and Council

5. Executive Committee Report (3:00-3:15 p.m.)

Background

- The Executive Committee will meet on October 20, 2021

Presentations

- P. Keliher will provide an update of the Executive Committee's work

Board action for consideration at this meeting

- none

6. Review Management and Science Committee Tasks to address Conservation Equivalency Concerns (3:15-3:45 p.m.)

Background

- The Executive Committee raised questions and concerns regarding the use of conservation equivalency in Commission FMPs. The Committee tasked a subgroup to create a list of tasks for the Management and Science Committee to address general concerns that have been raised either through the Executive Committee or species management boards, e.g. Atlantic striped bass. The subgroup develop a list of tasks for the MSC to consider (**Supplemental Materials**).

Presentations

- T. Kerns will present the list of tasks for the MSC

Board discussion at this meeting

- Provide feedback on MSC tasks

7. Presentation of NOAA Fisheries Efforts and Next Steps to Reduce Sea Turtle Bycatch in Several Trawl Fisheries in the Greater Atlantic Region, including Summer Flounder, Atlantic Croakers and Longfin Squid (3:45-4:15 p.m.)

Background

- NOAA Fisheries has been considering ways to reduce sea turtle bycatch in several trawl fisheries in the Greater Atlantic Region, including summer flounder, longfin squid, and Atlantic croaker. Research with the industry on various gear modifications that could reduce turtle mortality has been ongoing for several years.

Presentations

- M. Pentony will present NOAA Fisheries efforts and next steps to reduce sea turtle bycatch in the Greater Atlantic Region

Board action for consideration at this meeting

- None

8. Update on East Coast Climate Change Scenario Planning Initiative (4:15-4:20 p.m.)

Background

- In November 2020, the Northeast Region Coordinating Council (NRCC) initiated a region-wide scenario planning initiative. Through this East Coast Climate Change Scenario Planning Initiative, fishery managers and scientists are working collaboratively to explore jurisdictional and governance issues related to climate change and shifting fishery stocks.
- The specific focus of this scenario project is (i) to assess how climate change might affect stock distribution, availability and other aspects of east coast marine fisheries over the next 20 years, and (ii) to identify what this means for effective future governance and fisheries management.
- The Core Team conducted a series of webinars that introduced the East Coast Fisheries Climate Change Scenario Planning Initiative.

Presentations

- T. Kerns will provide an update of the initiative

Board action for consideration at this meeting

- None

9. Review Non-Compliance Findings, if Necessary Action

10. Other Business

11. Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ISFMP POLICY BOARD

Webinar
August 5, 2021

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

Draft Proceedings of the ISFMP Policy Board Webinar
August 2021

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August 2021

ATTENDANCE

Board Members

Pat Keliher, ME (AA)
Cheri Patterson, NH (AA)
Ritchie White, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Dan McKiernan, MA (AA)
Raymond Kane, MA (GA)
Jason McNamee, RI (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
Maureen Davidson, NY, proxy for J. Gilmore (AA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Asm. Houghtaling (LA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
John Clark, DE, proxy for D. Saveikis (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Lynn Fegley, MD, proxy for B. Anderson (AA)
Russell Dize, MD (GA)
Pat Geer, VA, proxy for S. Bowman (AA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Jerry Mannen, NJ (GA)
Bill Gorham, NC, proxy for Rep. Steinberg (LA)
Mel Bell, SC, proxy for P. Maier (AA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Marty Gary, PRFC
Karen Abrams, NMFS
Lowell Whitney, USFWS

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

Staff

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

Guests

Dustin Addis, FL FWC
Renee St. Amand, CT DEP
Bill Anderson, MD (AA)
Max Appelman, NOAA
Pat Augustine, Coram, NY
Lauren Benoit
Dierdre Boelke, NEFMC
Bonnie Brady
Jeff Brust, NJ DEP
Mike Celestino, NJ DEP
Richard Cody, NOAA
Heather Corbett, NJ DEP
Judd Curtis, SAFMC
Jessica Daher, NJ DEP
Cynthia Ferrio, NOAA
James Fletcher, Wanchese Fish Co
Dawn Franco, GA DNR
Alexa Galvan, VMRC
Matt Gates, CT DEEP
Lewis Gillingham, VMRC
Zoe Goozner, Pew Trusts
Melanie Griffin, MA DMF
Jay Hermsen, NOAA
Carol Hoffman, NYS DEC
Harry Hornick, MD DNR
Emily Keiley, NOAA
Kathy Knowlton, GA DNR
Ben Landry, Omega Protein
Rob LaFrance, Quinnipiac Univ
Wilson Laney

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

Guests (continued)

Nicole Lengyel, RI DEM
Mike Luisi, MD DNR
Chip Lynch, NOAA
Shanna Madsen, VMRC
Alyson Martin, CBF
Nichola Meserve, MA DMF
Steve Meyers
Mike Millard, US FWS
Chris Moore, MAFMC
Brandon Muffley, MAFMC
Joseph Munyandor, FL FWC
Allison Murphy, CBF
Brian Neilan, NJ DEP
Joe O'Hop
Gerry O'Neill, Cape Seafoods
Michael Plaia, Newton, CT
Nicholas Popoff, FL FWS
Kathy Rawls, NC (AA)
Story Reed, MA DMF
Scott Schaffer, MA DMF
Tara Scott, NOAA
Michael Seeley, MAFMC
Olivia Siegal, VMRC
David Sikorski, CCA MD
Thomas Sminkey, NOAA
Melissa Smith, ME DMF
Somers Smott, VMRC
David Stormer, DE DFW
Kevin Sullivan, NH FGD
Chris Swanson, FL FWC
Douglas Vaughan, Beaufort, NC
Craig Weedon, MD DNR
Kelly Whitmore, MA DMF
Kate Wilke, TNC
Rich Wong, DE DFW
Chris Wright, NOAA
Erik Zlokovitz, MD DNR
Renee Zobel, NH F&G

The ISFMP Policy Board of the Atlantic States Marine Fisheries Commission convened via webinar; Thursday, August 5, 2021, and was called to order at 12:15 p.m. by Chair Patrick C. Keliher.

CALL TO ORDER

CHAIR PATRICK C. KELIHER: All right, it's 12:15; I am going to call the ISFMP Policy Board to order. This is Pat Keliher, Board Chair. We have a fairly lengthy agenda today, so I'm going to try to move through it as efficiently as we can. It is noon hour, so probably a lot of people are going to use this as a working lunch.

Just remind yourself to mind your mute button on this great rainy day. It's raining up here too, Spud, so it's a long storm here.

APPROVAL OF AGENDA

CHAIR KELIHER: I want to just first bring your attention to the first item, which is the approval of the agenda. Does anybody have any comments on the agenda? Are there any new additions to the agenda? Adam Nowalsky.

MR. ADAM NOWALSKY: I was just hoping for a few minutes this afternoon under Other Business to talk about a couple of issues that came to my attention about the appeals process, as Chair of the Summer Flounder, Scup, and Black Sea Bass Board, as we worked through the New York issue.

CHAIR KELIHER: Great, thanks, Adam. We'll add that to Other Business. Is there anybody else? Seeing no other hands, is there any objection to adding that to the existing agenda? Hearing no objections, we have consent for the approval of the agenda.

APPROVAL OF PROCEEDINGS

CHAIR KELIHER: Moving along to the approval of the proceedings from May, 2021. Does anybody have any comments on the minutes from that meeting? Seeing no hands, we have consent on the approval.

PUBLIC COMMENT

CHAIR KELIHER: That brings us to public comment. I have one person signed up for public comment today on items not on the agenda, and that is Ben Landry. Is there anybody else that has an item that they would like to bring to the Policy Board that is not on the agenda? Not seeing any hands, so with that, Mr. Landry, are you on with us?

MR. BEN LANDRY: I am, thank you.

CHAIR KELIHER: We do have a pretty lengthy agenda today, so I'm going to try to keep you to three minutes, if I could, Ben.

MR. BEN LANDRY: No, that's fine, thank you, Mr. Chairman, and members. My name is Ben Landry, I represent Omega Protein and Omega harvesters a menhaden fishing operation out of Greenville, Virginia. For what it's worth, I mean you guys have likely heard of Omega Protein understands the regulatory process that seems to be ever present about this fishery. My comment today, or more to urge the Commission to review its public comment process. You know I've been to these meetings somewhere in the neighborhood of 15, 16 years, and it is increasingly getting a little bit more outrageous, in terms of the public comment.

You know this is not an effort to sensor anyone's views or to ensure that someone can't share their personal thoughts, but these have to be rooted in fact. My company particularly goes extra hard, to ensure that anything that we say in the public domain is accurate. We oftentimes present citations, particularly in our written communication to that statement that we make.

That doesn't appear to be occurring with a number of people that are making public comment. You know opinions are one thing, but they have to be rooted in fact. The species in particular of menhaden, I do not think is getting that right now,

in terms of the public comment. You know for instance yesterday, and for several meetings leading up to it.

We've heard a couple of gentlemen, particularly from the state of Maryland, you know constantly repeat overfishing of menhaden, overfishing of menhaden in the Bay. You know the BAM model and the ERP model that this Commission is extraordinarily proud of. We had recently put out a press release explaining the ERP process and how it is a great success.

None of those documents indicated that it is overfishing. Yet, when the public makes those comments, it just falls flat. There is no one there to correct it. There is no one there to say, well listen, actually this species is very healthy, and we've taken precautionary measures over a decade to ensure that it's healthy.

I would like to see the Commission look inward, and see if there is some policy that could be developed or some committee that can be formed, even if the individual TC Chairman from that specific species, step up and correct some of the more egregious things during the public comment process.

I see that I'm running up against my three minutes, but it's a big deal to us, particularly a company like Omega Protein that is always seen under the gun. Let's kind of clean out this public comment process, and make sure that accurate information is being shared, and not misstatements. Thank you for your time, and if there is anything that you guys ever need from Omega Protein, please don't hesitate to ask.

CHAIR KELIHER: Thank you, Ben, I appreciate those comments. Is there anybody else from the public that would like to make a comment today? Not seeing any other hands, so we'll move right along on the agenda.

UPDATE ON THE MARINE RECREATIONAL INFORMATION PROGRAM

CHAIR KELIHER: The next item on the agenda is the Update on the Marine Recreational Information Program, and I believe Richard Cody is presenting. Richard, are you on?

DR. RICHARD CODY: Yes, I'm on.

CHAIR KELIHER: Great, the floor is yours.

DR. CODY: All right, I have two back-to-back presentations here, so if it's okay, Mr. Chair, at the end of the first one we can allow time for questions, or we can keep them for the end. It's whatever your call is on that one.

CHAIR KELIHER: No, Richard, I think it's fine. Let's pause at the end of the first presentation, take a few questions, then we'll go right into the second one.

2020 CATCH ESTIMATE METHODOLOGY REVIEW

DR. CODY: All right, well thank you. The title of the talk today is an Overview of the Methodology of Use for the 2020 Estimation Process. Basically, as you all know, we had some challenges last year, in terms of data collection in light of COVID. I have a few points that I wanted to make up front, and try to guide the presentation as I complete it.

The main point is that for 2020 Catch and Effort Estimates, in general there were no really, what I would call extreme or unexpected results, as a result of the methodology that we used, 2020 is typically in line with the prior years or recent trends, so 2018 or 2019 in particular. The impact of the data gaps and imputation was variable, of course.

But as you increased the resolution of the estimates, you know it tends to be more variable. But at the state level, not the regional level the impacts were fairly minimal. What I'll do today is I'll review the data gaps from COVID-19, to try and give

you a picture of some of the challenges to the MRIP surveys, and other state led surveys as well.

I'll provide a brief overview of the data imputation and estimation methods. I don't have particularly detailed descriptions of these, because basically, our methodology for 2020, with the exception of including the imputation process, a simple imputation process, didn't vary that much. We tried to keep it as consistent as we could with previous years, just so that the information would be comparable.

Then lastly, I have a presentation of the Catch and Effort Estimates, starting out with catch, looking at recent time series, 2018 through 2020. Then a comparison of estimates with and without imputed records included. Then there is a little piece on next steps. As far as 2020 data gaps were concerned, the main impacts were to the access point angler intercept survey.

That is the source of our catch rate information, but it's also used to supply some supplemental effort information. It accounts for fishing effort made by out of state or noncoastal anglers. It also is how MRIP allocates effort to fishing areas, so it's a state and federal in inland waters. The largest data gaps, or the main data gaps, I should say, were primarily focused in Wave 2, so March and April, although it did extend into May and into later months as well.

But the main point here is that most states had resumed sampling at some level in May, or by the end of May. There were a couple of exceptions, Connecticut, New Jersey, and Virginia. These states didn't resume until later, and that was largely because of state mandated safety protocols. Headboat mode, no state had resumed by the end of 2020 their headboat sampling.

A couple of attempts were made, but social distancing was very difficult to maintain, as you can imagine on a headboat. Then the point here is that the APAIS sampling for those headboats occurs at sea, as ride-along trips or observer trips. Then, and this is largely limited to the Mid-Atlantic and New England Regions. In the Southeast, North Carolina south, we had the Southeast Regional Headboat Survey. Biological sampling by that survey was suspended, but samplers were able to continue their validation and quality assurance visits, so just to verify trips made, things like that, but no biological data were collected.

These are a little busy, so I'm going to spend a little bit of time on this first slide, because the next few are basically the same, but refer to lengths and weights information as well. But what you have here is a heat map of assignments or intercepts, so our intercept tallies. What we've done here is we've compared 2020, we'll call it sampler productivity or the numbers of intercepts, with the previous three years, 2017 through 2019.

They are compared to the average of those previous three years, so where you have a green box that means that sampling was at a level of 75 percent or above the average for the previous three years. Then it cascades down to zero, so the gray boxes refer to an absence of sampling. You'll see at the top there the various states included in the different regions.

We have Region 4, 5, 6, and 7; Region 4 being the North Atlantic, Region 5 the Mid, 6 South Atlantic, and then 7 the Gulf of Mexico. I'm going to focus largely on the Atlantic Coast and I won't be providing any catch examples from the Gulf. What the main point of this graph, you see that there are weeks and months on the vertical axis, and you have a number of different boxes, depending on the state.

The boxes really refer to a mode and a region within the state. Some states may have more than others. But the main point here is that you can see that most of the gaps occurred earlier in the year, starting in March, where sampling had initiated, and continuing through August in some states. But largely by August sampling had resumed, and was

approaching levels that we have seen for the previous three years.

But you can see for April in particular, there is almost a complete absence of sampling, with just a few states, Rhode Island being one, that were able to maintain their sample levels. What we have here are the collection of lengths associated with those intercepts. One of the main concerns that we had when we were evaluating the data throughout the year, was the impact that social distancing might have on the collection of lengths and weights from fish.

Obviously, you have to get close to a fisherman and to his cooler, or her cooler, to get the weight and lengths of the fish that are landed. We do see, I would say less weights, once we resumed sampling throughout the year than we have in the previous three years, in some cases. There are some blocks here where you will see the gray boxes extend to the end of the year, basically. That is something that did concern us, because we do use an imputation process for length and weight information.

This is just the equivalent of the weight's measurements. For our intercepts, generally samplers will try to get a weight and a length, and priority is given to a weight, although that is not always possible, depending on the amount of time that an angler has available. But you can see it's a similar pattern to what we've seen with the length information, and also with the intercept information. You see some difficulties were had, and some differences between the states existed, in their ability to collect weights through the end of the year. As far as data imputation and estimation is concerned, as you've seen, the sampling suspensions and resulting data gaps for the states varied. But they are known, so that does help us identify where the data gaps are.

We had a lot of help in doing this, and I have to commend the states and state directors. I was able to participate in Mike Pentony's monthly, or regular meetings with state directors, and this was very beneficial to us, in terms of assessing where states were in their recovery process, when it comes to sampling.

I'm grateful for the chance to hear from the states at that venue. As I said, we used a simple imputation approach to fill gaps. Basically, what that means is that where our gaps were identified, and you saw them in the first few slides. That is where we included imputed data. We looked at 2018 and 2019, the two most proximate years that were available to fill those data gaps.

One thing that I will mention is that because we used two years of data, we down weighted each year by a factor of 2, to take into consideration that we were using two years of data. We did have input from statistical consultants Jean Opsomer, Mike Brick and others on the reliability or the ability approach that we looked at.

As far as estimation is concerned, standard MRIP methodology, as I said, we continued to use that for both catch and effort estimates. For 2020, even though we didn't produce the wave level estimates during the year, wave level estimates are available at this point, along with the final annual estimates. Just to give you some context for the decision on imputation, we did look at other more complex methods, modeling approaches, et cetera.

The decision was made because of the urgency with the need for the data, that this would be a rather resource intensive approach. I mean we could look into it at a later point, but in the interest of getting data out as quickly as possible, and then also in trying to maintain a level of fidelity with our current estimation methods. We went with the simpler approach, which we felt would be more reproduceable and less subject to variation, and keep us basically at a level of comparability that we wouldn't have had if we had gone the modeling approach.

The other thing about looking at more complex methods is that they do require some sources of axillary information. You know part of our decision process there was that during the year we did

approach the White House Office of Management and Budget for TRA clearance on modifications to the APAIS questionnaire.

Those were not approved, and we felt that since that was our vehicle for obtaining additional information, it would be difficult for us to entertain standalone surveys in addition to the MRIP APAIS surveys. We were forced really, to abandon any modifications to the APAIS questionnaire.

Then the last thing I'll mention here also, is that we do plan to revisit the 2020 estimates when complete data are available for 2021. One of the suggestions that has been made to us, and I think it's really a responsibility of ours to look at the two shoulder years, rather than the two most recent proximate, or previous years, to see if there were any differences between using 2019 and 2021 versus 2018 and 2019 data. That is something we plan to do, once 2021 data become available. There are still some questions regarding the integrity of the 2021 data.

You know we're part way through the year, we haven't had what I would call any interruptions of sampling so far. But we will monitor that as the year continues. The next few slides I'm going to basically categorize them as two different kinds. The first set will sort of concentrate on 2018 to 2020 time series.

I'll have annual landings by state and region, just for a select few species as examples. Then the second set will look at 2020 estimates in particular, with and without imputed records for comparison. But we'll do a similar type of comparison. I apologize about the amount of detail that is in this slide. Obviously, if you're looking at a laptop, this is going to be hard to see.

The take home here is that we have three years of data side by side, represented in the various bars. I'll present this for the South Atlantic, Mid-Atlantic and North Atlantic Regions. Basically, you have three years of data represented by the blue, sort of red and green bars, 2018, 2019, and 2020 data, or estimates.

The 2020 estimates are the imputed estimates. For South Atlantic we have black sea bass, scup and gray snapper, gray triggerfish, king mackerel, red drum, Spanish mackerel and spotted sea trout. You can see for the most part there were not real large deviations from the previous years. I do highlight one here, Spanish mackerel, and if we go to the next slide, I can show you what we have here is a comparison of estimates with and without the imputed data included.

For instance, the blue bars refer to the estimates with imputed data included, and then the red bars are without imputed data. You can see for the Spanish mackerel example that the two data, the two versions, are similar. The relative effect of the imputed data on the estimate is low. It wasn't due to the imputation methodology in this case, that we saw a spike in the Spanish mackerel landings.

I can't say with 100 percent certainty that that would be the case for all comparisons, it would depend on the species, and on the data that were available, and the level of sampling that occurred as well. There were a number of different factors that would come into play. But in general, what you see here is that at this regional level we don't see very much in the way of variation, or differences between imputed and non-imputed estimates, for which the non-imputed estimates are available.

This is a similar set of graphs for New England and Mid-Atlantic. For New England I have Atlantic cod, mackerel, black sea bass, bluefish, haddock, and you can see the estimates, well hopefully you can see, for total landings here are fairly similar between the three years, in most cases. Then for the Mid-Atlantic we have Atlantic croaker, black sea bass and bluefish, again.

In the case of New York, we see that for bluefish, 2019, is the spike here. When you combine the imputed data for 2018 and 2019, and down weight them based on the fact that there are two years of

data being used of imputation. It doesn't, at least it's not terribly obvious from the data, or from the estimate in 2020 that it had an impact, you know a large impact on the estimate. Again, this is the same set of species, and we're looking at imputed versus non-imputed estimates. You can see fairly good agreement between the two.

There are some situations such as Atlantic croaker, where there is quite a bit of a difference between the imputed versus the non-imputed estimate. We recognize that using imputed data is not an ideal situation, when it comes to providing catch information or advice, at least in terms of predicting or estimating landings.

To give managers at least some tools to at least evaluate the data, based on the contribution of the imputed data to the overall estimate. What we did for the query tool is we provided for each of the different catch components, Type A, Type B-1, Type B-2, and then harvest versus release catches. We provided an evaluation, or at least a metric for looking at the relative weighted contribution of the imputed data to the overall estimate.

This gives you an idea of the amount, we'll say, of the contribution to the estimate from the imputed data. For instance, with shore mode in the North Atlantic at the top row there. For shore we have 38 percent of the catch rate information came from imputed data. That's the way to interpret that information. We hope that that will at least provide managers and assessors with some kind of a metric that will allow them to assess the overall contribution of imputed data.

The next slide is really a similar slide to the last one, but for black sea bass. You can see for party boat mode, obviously there is a high amount of imputed data used in that estimate, largely because there were very few trips being made, and then also the amount of information that was possible on an absence of APAIS information.

That would mean that largely the estimates would be based on 2018/2019 data. This is sort of a similar presentation on the effort estimates, and again we're looking at 2018 through 2020 annual effort by region, and then annual effort by charter and headboat modes as well, broken out. Then the second set will be the estimates with or without imputed records.

I've got the four different MRIP regions here. You have New England, Mid-Atlantic, South Atlantic and Gulf of Mexico. Overall, the annual effort estimates were in line with previous years. We didn't see the huge reductions that were predicted early on, at least not for the private boat and shore modes.

Then in fact, you know there was plenty of anecdotal information that suggests that fishing picked up in certain areas, as a way to get outside and do something, or you could socially distance and still take advantage of the outdoors. In these slides here we have the imputed estimates. As I said, the effort survey continued largely uninterrupted throughout the year.

For the charterboat mode, we did stop conducting telephone calls for a short period. I think it was New York shut down the sector, but resumed it just to confirm zero trip reporting from the fleet. In this graph here you can see that in some cases, the Mid-Atlantic and the Gulf of Mexico, you had increases in effort in 2020, relative to the previous years. In this slide we have it broken out for charter and headboat effort, and it's a different picture really for the for-hire sector. If you look at New England you can see there is a fairly marked drop in effort for charter and headboats from 2019 to 2020. We see a similar trend in the Mid-Atlantic as well, and to a lesser extent in the Gulf of Mexico.

But the trend stayed pretty consistent for the South Atlantic for 2019 and 2020 were similar in the level of headboat or for-hire effort. As far as 2020 effort estimates are concerned, in the New England and Mid-Atlantic Regions, we did have, as I said,

domains or estimation domains that had zero trips reported.

We were interested in seeing how these might have affected the overall effort estimates, if we included those in the imputation process. In this case here you can see the red bar compared to the green bar and the blue bar. You have imputation, you have imputation excluding the zero trips, or you don't have corresponding catch rate information for trips that were zeros, basically.

Then you have the full complement of imputed information. You can see for the Mid-Atlantic and New England, where that occurred, those values are consistent, so there is little or no impact due to the inclusion of zeros. In the South Atlantic and the Gulf of Mexico, we didn't experience that data gap to that extent, so you don't see a red bar in either of those two regions.

As far as next steps are concerned, we did release the estimates in April, on schedule for our normal annual release, and along with that release we did also include the wave level estimates as well. Those are available on the website right now through the query tool. The complete data are also available for download, included the imputed data as well.

We are continuing our communications efforts with the regions to try and keep our finger on the pulse, basically, of sampling efforts. You know this has been sort of a roller coaster ride for many people. You know we're trying to keep up abreast as much as we can with any changes that might occur in sampling efforts.

With that, you know we are continuing to monitor the sampling, as we had in 2020 throughout 2021. Part of the reason for that too, is if we do revisit or when we do revisit the estimates at the end of early 2022, and we plan to look at the 2021 estimates. Any information that we have that can inform the use of those data, will hopefully help us in evaluating whether they provide any benefit relative to the 2018/2019 imputed estimates.

I think that is the last slide in the estimation process, and I know I kind of threw a lot of data at people, and the slides were maybe a little bit hard to follow. Ahead of asking any questions, I will offer, my e-mail is on the first slide, so if you need to reach out to me after this meeting or anytime, please do. But if it's okay with you, Mr. Chair, I could take questions now, if you would like.

CHAIR KELIHER: Yes, let's do that, Richard. Does any member of the Policy Board have any questions for Richard on the 2020 Catch Estimates? I've got a couple hands up; we're going to go with Jason McNamee and then Lynn Fegley. Jason.

DR. JASON McNAMEE: Thank you, Richard for that really good presentation. In particular, I liked seeing those comparisons. It's really helpful to kind of see it in that way. Two quick, I guess I'll call them comments more than questions, if you don't mind. The first is, I think it is important to think ahead a little bit to the use of this data in stock assessments.

The main thing I think could use some thought is, how to characterize the uncertainty for that year, so you have kind of a standard method to encountering uncertainty in the normal survey, and I imagine it's different, or will be different for that year. That may or may not matter, but I think it could become an important factor, as folks are kind of working through various stock assessments.

If your team is able to provide some information on what you think is best, you know that would be I think helpful to the analytical teams. Then the other quick thing I wanted to offer is, I really like this idea of kind of revisiting. You know you used an imputation method that kind of patched your through leaning on the preceding two years.

I like this idea of now kind of looking, okay now we can use a year before and a year after. I think it's good and smart idea to continue to investigate the best process for patching in that 2020 number, with limits. I think at some point, a year, or maybe two

years from now, we should call it good and move on. You know, so it doesn't get recreated forever off into the future. Just a couple of comments, thank you, Mr. Chair.

DR. CODY: Thank you, Jay.

CHAIR KELIHER: Richard, if you have a response, feel free to jump in.

DR. CODY: I will mention that we are looking at using a similar approach that we used for 2020, and evaluating the 2021 data to look at if there were any, it looks like there is a drop in productivity, because you know there are still some concerns about the ability of samplers to do their jobs safely in the field.

We'll be trying to look at that throughout the year. I think that that will be important, I think in any consideration of using 2021 as a shoulder year, you know to compare with the previous imputation method. Jay, I do take to heart your advice there to look at what we have, and try to at least provide the context that is needed for management and assessment, to treat the data appropriately.

CHAIR KELIHER: Great, thank you, Richard. I had Lynn Fegley's hand up, but Lynn, it's down now. Lynn, did you have a comment?

MS. LYNN FEGLEY: I did. I just had a quick question. I wonder, Maya, if you could go back to the screen that showed the query, the screenshot of the query for the catch. Yes, that's it. My question really is, because I can see constituents jumping on this a little bit, and I'm just trying to figure out what a good answer might be. For black sea bass in the Mid-Atlantic on your party boat, you've got 100 percent imputed data, yet the PSE for that estimate is quite low. Then above that you've got black sea bass onshore at the very low imputed data, but a very high PSE. Clearly there is no impact of the amount of contribution of imputed data on the PSE. But I just wondered, especially given the criteria that are coming forward about not publishing the data whose PSE is greater than a certain amount, I forget what it is. I just wondered if you had any comment on that sort of relationship between the estimate that is almost 100 percent imputed, and to Jay Mac's point, you know how to characterize the uncertainty, and is it explainable that an imputed estimate has a very low PSE. If that makes sense, I think.

DR. CODY: No, no, that makes perfect sense. What you pointed out is exactly right, is that the variance estimation process makes no distinction between different years of data. The only thing it takes into consideration is the weighting applied to the data. There are some things possibly that we can do to better tie the contribution of the imputed data to the variance estimate.

That will be something that we can look at this year, to see if there is a better metric that we can apply. I mean our concern was really, if people see that all of the data comes from the 2020, 2018, 2019 year, regardless of the PSE, then it should be treated with some caution. But I think that you're right, there might be a need for at least some other metric that might frame the variance estimate a little better.

MS. FEGLEY: Thank you so much.

CHAIR KELIHER: The next hand up is Chris Batsavage. Chris, the floor is yours.

MR. CHRIS BATSAVAGE: Thank you, Mr. Chair, and thank you Dr. Cody, you learn something new every time I see this presentation, so I appreciate you giving it again. On the heat maps, where you showed the different sampling by state over the course of 2020, and how to compare to the other years.

I think you mentioned that some of that was due to limitations of what the samplers were able to do, as far as sampling in the different states. Did refusal rate fishermen play a role in getting fewer samples, due to their concerns with social distancing and the pandemic, and if so, has that refusal rate by anglers improved in 2021?

DR. CODY: Yes, I don't have the actual numbers for the refusal rates, or at least mid-interview refusals. But we could look at that for certain. My guess is, and this is a guess, is that it is a mix of different things. We know for instance, in the conversations that I had with some of the state directors, that there were concerns in some regions and some states, with the ability of samplers to conduct their surveys safely.

It wasn't so much based on whether an angler would participate or not, or hostile or not. It had a lot to do with the amount of anglers that were present on a site, and how crowded a site was. You know that, I think, played a role, probably more so than I think refusals did. But we can certainly look at the refusal rates across the different modes, to see if that was the case.

CHAIR KELIHER: Thank you, Richard, I don't have any more hands up at this time. Why don't we move right along into your second presentation?

MRIP SURVEY DATA STANDARDS AND FUTURE PRESENTATION CHANGES

DR. CODY: All right, thank you. In December of 2020, MRIP unveiled their Survey and Data Standards. The whole idea, or the focus of the data standards were to guide the design and improvement, and quality of information produced by the various surveys participating in MRIP, and also to provide guidance for state level surveys, in terms of precision levels, compatibility, and some of the parameters that would be important, in terms of their comparability of information to other surveys.

Why did we do this? Well, probably the most important driver for it was advice that came from the 2017 National Academies Review. Their message was that we establish performance standards and guidance for regional surveys. That was really a recommendation that NOAA provides some leadership, in terms of guidance for development of surveys.

Following up on that, and we just got the 2021 National Academies Review of data management and strategies, with respect to ACLs. There is information in there that would probably modify, or at least be added to some of the recommendations that were provided earlier by the National Academies, in terms of the components that we have identified as different standards, such as transitioning surveys, and development of surveys.

We're looking at those right now, and it's going to take a while to, I think, nail down the different recommendations, and our responses to it, but I can provide people with the length of this report, if you're so interested. The guidance and the recommendations are largely summarized in the final two chapters of that report. Lastly, the main reason, or the other reasons why we developed these standards, is to support our strategic goals, to provide quality products and ensure sound science.

Those are the two main drivers, as I said, for the development of these standards. I'm not going to go into an awful lot of detail right now on what the specifics are for the standards, but I will summarize what the basic categories of the different standards, and we'll focus a little bit of attention to the publication standard, which I think is the main concern of this group.

Some of the building blocks or the framework used to develop these standards, largely come from existing federal guidelines and best practices, in terms of the dissemination of statistical information. We noted that most surveys have precision standards that they maintain for the publication of data, and we felt that we needed to be consistent with those surveys, in terms of the standard of information that we provide.

Some of the sources that we looked at were the National Academies themselves. They have a report on Principals and Practices for Federal Agencies. There is also an OMB guideline or document for standards and guidelines for statistical surveys, and then also there are various other survey documentation available.

Surveys themselves that have information available on their practices, such as the CDC, the Census Bureau, United Nations, and then various collaborative, I call it international types of surveys that are conducted, sort of collaboratively with different country and state entities. Then we have the Australian Bureau of Statistics, so those are some of the sources that we used to come up with the standards. As I mentioned, there were seven standards in all, and they have various components to them, and I won't get too much into the details here. But the whole idea here is to provide our partners and our stakeholders with a single set of guidelines, with respect to those seven standards, focusing on recreational data collection and estimation. Sorry for breezing through these.

But I'm going to pump the standards three per slide, and then focus on the last one separately. The first one pertains to survey concepts and justification, and really this is about identifying the need for the survey, whether it be a legislative mandate or a data need within a region that is not being met.

Also, how the survey plans to produce the key statistics that are needed, that and provide information on precision or uncertainty with the survey. Then of course, from the federal perspective, if there are some legislative mandates, there may be a need to look at adherence to OMB guidelines for a paper or report production, and reducing responsibility on surveys as well.

The second one is largely a documentation standard, and basically what it tries to do is to provide some guidance, so that when multiple sources of data are provided, say for stock assessment purposes or for management purposes, they have comparable information of sufficient quality, to be able to compare those survey designs, and those survey designs are adequately described within those.

Then an important aspect of that would be the tie in between the survey design and the actual estimation that they match up accordingly. Then the third one here is data quality, and that describes some procedures for data processing and handling things like item nonresponse and weighting of data, things like that that help with evaluating the responses that are received for a given survey, and also providing some guidance on where these adjustments are made within the process for estimation.

These next three slides, and I think the last two standards, really refer to developing implementing surveys, and transitioning between surveys. Also, the quality control that is needed for the improvement process. Number 4 here talks about transition planning. As part of our certification process, one of the things that surveys or sponsors for surveys are supposed to have, is a transition plan for the survey.

If it's replacing another source of data, or it's augmenting other source of data, there should be a plan in place to handle the transition. That might mean developing calibrations for that survey, if needed, and taking into consideration any breaks that might occur in a time series. I will point out that for a lot of surveys, they don't produce a calibrated continuation of a time series, or calibrations going back in time.

Many times, what is done is a break in the survey that timelines indicate, and a disclaimer is put in there that data before and after the break can't be compared directly. They leave it up to the data user to find ways to do that. The review procedures, some of you here, Jay McNamee in particular, is familiar with some of the review processes that we have in place for the calibration that we use for the APAIS and the FES surveys. It's important that there is a comparable level of review, and that the review methods are meaningful and consistent. We put some emphasis there on that, and tie it into the existing certification requirements that we have developed through our Policy and Procedure Directives. Then 6, the process for improvement. One thing that is important with surveys is that, you

know it is a constant quest for improvement, so it is to be expected that surveys are not static into these, that they respond to the populations that they are trying to monitor.

There may be improvements or changes made to the surveys over time, and it's important that those are documented, and at least accounted for in comparisons of data, where there have been survey changes made. Then lastly, I would say, you know for the first six standards that we rolled out, we didn't get much in the way of, I would say negative feedback.

For this seventh standard here we did receive some concerns from stakeholders and data users, that this would restrict access to data. We do recognize that that is an issue. What this standard does is, you know we currently we publish all PSEs or all estimates with PSEs of all levels. Now we do flag the ones that occur above 50 percent.

But it's common practice among most of the statistical surveys to provide a cut off for a reasonable estimate, or for a valid estimate with a PSE of around 30 percent. You will see some variation among the survey. Our plan is to, realizing that we do have data needs, and we do have users that may have a need to examine the data.

We're not being as restrictive, or as conservative in our PSE standard. We are pushing that to 50 percent, so instead of flagging values that are above 50 percent, we will now be adhering to that standard of 50 percent that those estimates above that will not be published on the wave level. We have tried to put into effect some ways to mitigate the data loss, or concerns over the data.

One being that we would produce estimates that are cumulative. At some point during the year for most estimates, those values would reach the 50 percent threshold and be published. Obviously, for some species at some domain levels, we won't be able to reach that. That said, we're not planning to leave people just to fend for themselves.

The intent of the standards was to really, to use practices that were already in use largely, and to remove some of the ambiguities over whether something is a practice or a recommendation, and provide some clear guidance on that. We realize that there are some impacts that are expected from the rollout of these standards, and in particular the last one, the publication standards.

Ultimately, the goal here is to promote data quality consistency and comparability. The standards we hope will improve our ability to ensure integrity in the quality of our statistics. But also, put our money where our mouth is, in terms of our standing behind an estimate that we publish on our website.

What we plan to do is not just flip a switch at some point, and the queries won't be available. We plan to do this is a phased approach, and as I mentioned earlier, we do expect some input from the current National Academies Review, which will take some time to assess. Realistically, we had looked at the standards for data access and publication being implemented no sooner than 2022. But I think that that date is probably pushed out, possibly a year at this point, because there were some things that we would like to do before we get to that stage. One is to produce a data user manual, which we're in the process of doing right now. We also plan to hold some data user workshops, which will provide guidance and tools on how to do custom estimates for the data that are available.

The difference being that those estimates that would have been available, now would have to be produced by the data user, or with our help, but not be published on our website. Then the idea also would be, in this data user workshop, that we would preview some of the anticipated changes to the query tool, and have input from data users on what that might look like, and if there are improvements that could be made that would still be consistent with the standard, we would be able to do that.

But as I said, you know the idea isn't to just flip a switch and remove people's ability to get to estimates at a wave level that are somewhat imprecise or highly imprecise. We will provide tools and guidance on how to do custom estimates. There is some information on the website regarding the standards.

As I said, we're in the early stage of development here. We're in the process of producing the Data Users Guide, and that is going to take some time to happen. As I said, this is a phased approach, so we will be working with our state partners, to make sure that people have the tools they need to get the information they need. I think that's it; I can take any questions.

CHAIR KELIHER: Thank you, Richard. We do have one hand up, Bill Hyatt.

MR. WILLIAM HYATT: I have kind of a general question, it's not specific to the data standards, but more general in nature. If the state had a desire or a need to increase the precisions of estimates of catch and effort vs a specific fishery or specific area, presumably by increasing their sample size by some amount.

Could you talk for a minute about the possibilities of doing that, you know figuring out what is needed to achieve what those objectives of increased precision, what the process and the timing might be? I'm just curious if there are any states that are doing that for specific fisheries or areas.

DR. CODY: Thanks for the question. There is flexibility within the APAIS draw to add samples, and to actually even target samples to say an offshore mode or to state waters or federal waters. There are some ways that sampling can be targeted that way. That said, we were able to get some funding through the Modern Fish Act, where we would try to address the primary regional implementation plan priority for advantaged states, and that was improving precision and sample size., 900K sounds like a lot of money.

But it only goes so far. I think from my perspective, we do need the standards to help us identify where the gaps are, in terms of possibly improving sample sizes, or the coverage of the different surveys. It does set ourselves up for some criticism, but in the long run, I think it does provide us with some way to assess improvements as they occur. The only thing I would say is that we'll work with ACCSP and the states to allot the funding that we have available to us, to try to address the primary precision concerns the best we can, you know within the constraints of the survey. But there are some things, I think, that can be done, in terms of the flexibility of the draw, to incorporate sample that might improve precision of some species. That's probably a roundabout way of saying it. Yes, go ahead.

MR. HYATT: Yes, so just wondering if a specific state wanted to allocate funding, for example, to increase sampling. Is there the option of doing that, and are say federal statisticians available to work with state folks, to figure out what actually needs to be done?

DR. CODY: Yes, we already do that to some extent with some of the other states, particularly in the Gulf, where we coordinate our sample draws. We have in the past had state add-ons in North Carolina and other states that add sample to what's available through MRIP. In some cases, the states will identify how much personnel that they may have available.

The draw is flexible enough to account for the addition of personnel, or the addition of assignments to the draw. For instance, if a state for instance wants to, say double their sample size, that is a fairly easy undertaking to do. It's just a matter of refining the draw so that it knows there are more samplers available, and that sample draw can be increased.

MR. GEOFF WHITE: Mr. Chairman, this is Geoff White with ACCSP. I have my hand up when you want to get there.

CHAIR KELIHER: Thanks, Geoff, your hand does not show on my screen. First up is Erika Burgess.

MS. ERIKA BURGESS: Thank you, Mr. Chairman, I just want to take this opportunity to respond to that last question, by highlighting the Florida State Reef Fish Survey, which we're very proud of in Florida. We worked with the MRIP folks to develop this supplemental survey to MRIP. First to improve estimates of recreational catch and harvest of reef fish on the Gulf Coast, and our state legislature appropriated continuing funding for it, to extend throughout our state.

I know Richard was very closely involved in the development of that program when he was with FWC, and as he transitioned over to NOAA. I don't have the exact numbers for how it improved precision with me right now, but if anyone would like to know more about how we're approaching it in Florida, I would be happy to talk with you after the meeting.

CHAIR KELIHER: Erika, thanks for offering that up, Erika. Do we have any other members of the Policy Board that have questions for Richard? I don't see any other hands. Geoff, do you want to go ahead?

MR. WHITE: Yes, thank you very much. As organizer from the last meeting, I wasn't able to raise my hand. Richard, thank you again for the presentation, and the opportunity to discuss this. ACCSP has a role in state conduct, and for the rest of the Policy Board, states that have already been doing state funded add-ons include Massachusetts, Rhode Island, Delaware, and North Carolina. When that is organized and done with state staff or other staff, it's actually a very open process to say, if you want more additional sample, and to request that through ACCSP, and MRIP in the process says to add those samples. I do think Tom Sminkey and the rest of the MRIP team have been able to help guide what would make the most impact on PSE for particular fisheries. One of the things with the Modern Fish Act $900,000.00, that resulted in about 2,000 additional six-hour site assignments for the calendar year 2021.

That was spread across all of the states, and is in process of occurring. That is going on, and if there is desire to do additional sampling from Maine through Georgia, Florida is handled through the Gulf Commission, then please let us know. On a different tact. Of course, ACCSP is also kind of a data user and stakeholder.

I want to offer that we've been in contact with MRIP a lot about the Survey Data Standards and presentation, and we'll be attending the user workshops, and we're looking forward to ways that we can help with kind of standardized data access to more detailed domain estimates, which is the smaller scale, the wave-based estimates or other things, to help the management process along the Atlantic coast. I don't know exactly what that will look like yet, but we are certainly participating in the process to help that out. Thank you, Mr. Chairman for the time to comment.

CHAIR KELIHER: Thanks, Geoff. Are there any other additional questions from the Policy Board? Seeing no hands, and hearing nobody jumping in, Richard, thank you very much for those presentations. We appreciate the thoroughness of them, and unless you have any closing comments, we're going to move right along.

DR. CODY: The only think I would mention is that my e-mail is on the first slide, so if anybody has any follow up questions, you know please feel free to contact me. I appreciate the opportunity to talk to this group. Thank you.

CHAIR KELIHER: You bet, thank you, Richard, thank you very much, appreciate that. We're going to move right along on the agenda.

REPORTS FROM THE EXECUTIVE COMMITTEE AND STATE DIRECTOR'S MEETING

CHAIR KELIHER: Next up are the reports from both the Executive Committee and the State Director's meeting**,** and I'm going to jump right into those.

This past Monday morning, the State Director's had an opportunity to get together with NOAA leadership.

It included the new Assistant Administrator for Fisheries Janet Coit, along with Sam Rauch, Paul Doremus. There were a lot of folks from the Agency on the webinar. We did have leadership from the Science Centers and the Regional Offices as well. I'm not going to go into all the names, but you folks know who they are.

It was really good to have an opportunity to have Janet be part of the meeting. She stayed on for the entire meeting, which was appreciated, gave us an overview of what she sees the big priorities, as she's coming into her new role. I know I for one am excited to have somebody with a state background coming into this.

I think she'll come at it with a perspective of understanding the concerns that we raise as a Commission, and as states. I think that's good news for us. In particular, her comments were focused around climate change, offshore wind, a diversity, North Atlantic Right whales, bycatch and seafood marketing, a pretty good discussion about all those issues. It's clear that she's going to remain personally engaged with the Commission. Her former role as Secretary of Environmental Agency for the state of Rhode Island certainly gives her a lot of background on all of those particular issues. It's nice to have someone that's coming in with that fishery perspective, again from the state level.

We also had a presentation from Paul Doremus on the federal budget. Paul gave a very high-level overview. There are a lot of pieces to this. I think the take home is that there was some good news in these particular budgets, and I think some of that good news will spread down to benefiting the state and the Commission.

Immediately following that, our Executive Director gave an overview of the Commission's budget priorities, and you could definitely see some overlap between these two, which was good to see. In particular, the top items were the Atlantic Coastal Act, NEAMAP, SEAMAP, ACCSP and FINS, as well as the Interjurisdictional Fisheries Act and Recreational Data Collection.

Again, a lot of overlap between our priorities and what we heard within the federal budget, so some additional good news. Jennifer Anderson from GARFO also did an update on the Right Whale conservation framework that was included in the most recent bi-op for right whales. As a reminder, that's a 10-year rebuilding plan, and it is going to touch us all now.

I'm sure you all participated in the presentation by GARFO beyond the trap pot fisheries for lobster. Certainly, gillnets and other trap pot fisheries up and down the east coast are going to come into play now, so we can all enjoy the discussions on this, instead of just the northeast now.

Brian McManus from Florida did a presentation on Fisheries Disaster Assistance, the process and the improvements that were needed. He went over some of the improvements. We've had some of these conversations at the Executive Committee. It was good to be able to elevate it to the Agency directly, with Janet being involved.

No additional information there, but certainly it was good to get that in front of them. Then lastly is this issue, which is a high priority for the Biden administration, which is diversity within the regional fisheries management councils, along with the appointments that are going to be made. Both Janet and Sam led the discussion on this, and raised the issue of expanding diversity on the Councils.

A lot of very good input from the states. I think a lot of us that have advisory panels within our agencies certainly use those as a stepping stone into coming up and getting more involved in fisheries management issues. There was a lot of conversation around that, and around the use of committees as well. It's something that we commented on from a Commission perspective that

we may need to take a look at as we move forward, and especially with our advisory panels.

That concludes the big items from the State Director's meeting, and I'm not even going to pause there, I'm going to go right into the Executive Committee meeting that was held yesterday morning. I'll leave some room at the end to take a few questions, if there are any. The Executive Committee met yesterday morning. The Executive Director did a Cares Act update, gave us a quick update on Cares Act 2.0, as I call it. About half of the states have filed spend plans with the Commission. Bob did remind us all to not panic too much, because there is a September 30th deadline within the federal statute around spending the money. That is not a hard deadline, there is a lot of flexibility around that.

The good news is we have the money in-hand, and we will have time beyond that to spend it. Some of us may not even get finalized until right up until that deadline, as far as our spend plans are concerned. That flexibility and that report out on that was certainly appreciated. Next up on the agenda was the report from the Administrative Oversight Committee, and it was a very quick report, because the committee didn't have an opportunity to meet.

The AOC was schedule to meet to address an issue of the investments that we have within our finite side of the business around the Commission, and we'll be doing so between now and the annual meeting, and we'll report out to the Policy Board at that time. The next item on the agenda was to discuss the meeting attendance and future meeting formats.

Again, our Executive Director reported out on the results of the survey that was sent out to everybody. Around 34 people filled out the survey. All did state that they were going to attend the in-person annual meeting, but they also had a caveat to say, you know except things change within the pandemic, then that may change their thinking of where we're going.

Now, immediately following the release of the survey, and as we're gathering information back at the office, we started hearing the concerns around the Delta variants. We started to see an uptick in the infection rates around the country, and some of the high-level infection rates. You're all watching the news, I don't need to go into that.

But it does leave a question mark going forward, in particular looking at the annual meeting this October. The Executive Committee leadership will continue to report to the Executive Committee during these interim meetings between now and the annual meeting. If we see that we need to make any kind of change between now and then, we will obviously report out to the Full Commission.

Bob and I did discuss this particular issue this morning, and we would encourage you at this time not to start buying plane tickets for the annual meeting. Just put a hold on those, we'll continue to communicate around that. Right now, Joe Cimino is keeping us up to date on any issues going into New Jersey.

Right now, he reported out that it is status quo there right now, but as we all know, things can change and can change quickly. I would also ask the State Directors, if you have any policy changes in the coming weeks that would impact your travel, to please let Bob or I know as soon as possible.

I know here in Maine we had a meeting earlier this week. It was reported out that we may see some additional travel restrictions, depending on what goes on with the rest of the country. I'm sure all of our agencies are going to be hearing from our own respective governor's offices on things like that, so any information you have that could give us a heads up on would be very much appreciated. We also had a discussion on pending shark finning legislation. There are several bills in Congress. Deke and Bob gave us an update on where those are. Deke gave a thorough update of the conversations that have been happening with our Legislative Committee. In particular, there are a

few different processes that each bill looks at from a banning of sale of fins, to more of a fisheries management approach.

No action was taken by the Executive Committee, other than to ask the Legislative Committee to continue to remain fully engaged in that topic, and to report out to the Executive Committee if there is any change. That leads us into other new business that was brought up to the Executive Committee.

The first item was the Recovering America's Wildlife Act or RAWA. For those of you that don't know, it's a bill that provides funding for the conservation and restoration of wildlife from plant species to the greatest conservation in need or listed species. The Wildlife Conservation strategies of states, Indian tribes or territories and wildlife conservation education and recreational projects.

The Commission has had some conversations with AFWA on this particular issue, and we've engaged our Legislative Committee. Earlier this summer the Executive Committee approved a letter to support RAWA, and sent that letter to House leadership, and at yesterday's Executive Committee meeting, approved sending a second letter that will be sent to Senate Leadership as the bill moves in that direction.

This particular bill with a little bit finer point on it. This is money that would come in through other federal funds, and then if the bill passes it would be money that would be directed back out to the states to work on those species of the greatest need. It certainly would be much needed money for the states, as we work on issues related to ESA.

Then lastly, Dennis Abbott raised the issue of conservation equivalencies. There has been a lot of focus on this as a management tool as of late, especially as it related to the striped bass addendum. Because the question was asked by Dennis, his thinking was, should we be having a Commission-wide conversation around this particular issue.

There was good discussion at the Executive Committee, and there was a recommendation that maybe the Management and Science Committee look at this. It was felt as the conversation continued that it probably wouldn't be a good idea to just send it to him broadly and say, hey look at our policy around conservation equivalencies, let us know what you think.

A small workgroup is going to be established. That workgroup will look at the existing policy, look more broadly at some of their most recent conversations, and then make some recommendations on whether we should make some recommendations on what the focus of a conversation with the Management Science Committee would be.

That is going to move forward, and then if obviously any actions that come up through the Committee process will come back to the Policy Board for further conversations. That concludes the business of the Executive Committee. At this point in time, I would be happy to, that's a lot of information between the two State Directors and Executive Committee meetings, but I would be happy to answer any questions or take any comments on those items. I am not seeing any hands. Bob, did I miss anything, just before I move on to the next agenda item?

EXECUTIVE DIRECTOR ROBER E. BEAL: No, I don't think you missed anything, just one thing to add to it, and a segue for your next agenda item is, when Janet Coit was giving her presentation, and sort of the important issues that she'll be working on. One of the things she brought up was governance along the East Coast, and noted the difficulties of climate change, and how quickly things are changing, and the relationship between the three councils and ASMFC and the 15 states.

It's just a really complex structure, and she was looking sort of within the existing laws and what could be done to streamline governance, or have governance be more responsive to climate change.

One of the things she brought up was the very next agenda item, which is the Scenario Planning Initiative along the east coast, which will bring together all three councils and the Commission, and Toni will explain that better. But I think, you know governance along the East Coast is on Janet's radar, and that was interesting to hear for me.

CHAIR KELIHER: Great, it certainly was. I'm glad you reminded me of that, because when that issue did come up, I came back around to it with her, because governance, when you hear government is broadly, and she's focusing on the East Coast, I was wondering if that was going to include the Commission and the Commission process.

The example she gave certainly didn't at this time, but that will be interesting to see how things move forward, especially with reauthorization of Magnuson, if that gets any traction in the future. It's obviously something our Legislative Committee is going to have to keep a really close eye on. That was an excellent pivot town. Before I do pivot all the way over to Toni, just looking for any hands, if there are any comments.

UPDATE ON EAST COAST CLIMATE CHANGE SCENARIO PLANNING

CHAIR KELIHER: Seeing no hands, let's segue right into the next item then, the Update on East Coast Climate Change Scenario Planning, Toni.

MS. TONI KERNS: Thank you, Mr. Chairman, and thank you, Maya for pulling the presentation up. As a reminder, this East Coast Climate Change Scenario Planning is an initiative that we are working on with NOAA Fisheries and the three Atlantic Coastal Fishery Management Councils, so it is a cooperative effort.

Just a quick reminder of what this Scenario Planning Initiative is. This initiative is a way of exploring how fishery management might have to evolve in the next couple of decades, as climate change becomes a bigger issue. We don't know exactly how climate change will play out and the precise effects it will have, so we're using scenario planning to explore what might happen, and think through what we need to do, in order to adapt to those potential changes.

Scenarios are stories about possible future development. We create different scenarios, thinking of things like a rain shift here, warm waters over there, wind farms are over here, to imagine the worlds that we can face in the decades ahead, and we use these worlds to think about the changes we as managers need to make now, to be better prepared for the future. In this case we're thinking broadly about the implications of climate change for the East Coast fishery management and governance process. But we expect that the conversations could take us into other territories as well. More than anything else, these scenarios are structured in an engaging way, to bring a variety of people together with different perspectives, to discuss complex issues, and in this case it's all about how we as fishery managers and stakeholders prepare for the future of climate change.

For our specific process, the project objectives hope to explore how fisheries governance and management issues will be affected by climate change in fisheries, particularly shifting stock availability and distributions on the East Coast, and second, to develop a set of tools and processes, which provide flexible and resilient fisheries management strategies that will effectively address uncertainty in an era of climate change.

Our draft project focal question is how might climate change affect stock distribution, availability, and other aspects of east coast marine fisheries over the next 20 years, and what does it mean for the future of governance and management across multiple jurisdictions? Some of the expected outcomes that we are thinking we are going to get is a set of scenarios.

These are a few stories that describe in qualitative terms different ways the changing climate might affect the future of fisheries. We'll have a better understanding of the challenges and opportunities facing fishery management. We'll look at a set of near-term and long-term management priorities that help achieve fishery management objectives under different future conditions.

We'll have policy recommendations for broader governance changes that could improve our ability to adapt to these future scenarios. We'll have a list of data gaps and research needs, and monitoring needs for changing conditions, and a framework for ongoing conversations and idea generations for all stakeholders to use.

This is just a quick timeline for process steps that we're going to be using. Currently, we are about to be in the scoping stage. The core group, which includes members from each of the participating organizations, for the last couple of months have been busy putting together draft objectives and expected outcomes, and working on presentations that we're going to use with stakeholders for scoping.

After we scope, we'll go through the exploration stage, where we analyze different forces driving climate change in greater detail, through the analysis of the scoping. Then we will conduct a series of workshops to construct and discuss different scenarios. Then we'll use the scenarios to identify actions and recommendations to the management bodies.

Then from there, we'll identify key indicators to monitor change and outline the next step. As I just said, we are stepping into the scoping stage. In the next couple weeks, you'll see press releases from each of the participating organizations, announcing kick-off webinars to introduce the initiative.

You see on the screen here the dates of those webinars. This is really to introduce climate change and scenario planning to both managers and stakeholders, and we're looking for all different kinds of stakeholders to come and learn about this process, and to start to gather some information. Following the webinars, we will put out a questionnaire to gather information from the public on these driving forces. That is all I have, Mr. Chairman. I can take any questions.

CHAIR KELIHER: Thank you, Toni, any questions for Toni? John Clark.

MR. JOHN CLARK: Yes, Toni, I was just curious. Thanks for the presentation. I was curious if one of the scenarios being discussed will cover situations such as black sea bass, where the stock is still abundant in its original range, but has expanded greatly into a new range, because as we saw that definitely leads to a very difficult situation to manage.

MS. KERNS: John, the scenarios are not predefined, so through the scoping process we'll hear all different types of ideas. That is something that you can bring to the process. I can't imagine that range shifts and abundance shifts wouldn't be part of those discussions, but anything is fair game. We don't predetermine what the scenarios will be.

CHAIR KELIHER: Thanks for the question, John, any other hands? I am not seeing any hands. Toni, thank you for that update.

UPDATE ON THE MID-ATLANTIC FISHERIES MANAGEMENT COUNCIL'S RESEARCH STEERING COMMITTEE TO EVALUATE RESTARTING THE RESEARCH SET-ASIDE PROGRAM

CHAIR KELIHER: Moving right along on the agenda, the next item is Update on the Mid-Atlantic Fisheries Management Council's Research Steering Committee to evaluate Restarting the Research Set-Aside Program, and I've got Adam Nowalsky up for this one. Adam, are you there?

MR. NOWALSKY: Yes, good afternoon, I am. I appreciate the opportunity. I am Chair of the Mid-Atlantic Council's Research Steering Committee.

The Research Steering Committee has been spearheading the Council's effort with these RSA Workshops. Research Set-Aside is something that has been a collaborative effort between a lot of organizations, including the ASMFC.

When the program was suspended a number of years ago, there was discussion last year, well prior to last year, about how best to consider restarting the program, and what would need to change. These workshops were developed with the goal to develop recommendations regarding whether and how the RSA Program should be redeveloped.

It's just important to note that restarting of the program itself is not a foregone conclusion as part of this process. That is one of the questions that we intend to answer. Regionally, we had planned to do a couple of in-person workshops last year during 2020. COVID put a hold on that. We had at the Council and Committee level considered whether to delay the in-person workshops until after the health emergency had completely passed, and we could definitely meet in person.

The decision was made, due to the uncertainty, to try to get a jump start on things, so the Committee went with a hybrid approach, where we're hosting three webinars with one planned in-person workshop later this year. Our first workshop was held on July 15. We had approximately 40 participants, in addition to members of the public. Those participants came from a number of states and different groups at the federal and state level, with experience either n administering the program or taking part of it, including fishermen that have been part of the program, a number of people that had participated as principal investigators on projects as well. Again, that first workshop from July 15, was focused on a research aspect. Next steps for the process are to hold our second workshop, which will center around funding concerns. That is scheduled for August 31.

The third workshop will center discussion around enforcement concerns. That is scheduled for October 14, and the in-person workshop is presently scheduled to be held in Baltimore on November 16. Again, we're hoping to be able to do that in-person, but as the Executive Committee discussion went about in-person meetings.

We'll play it by ear, see how things go, and hope for the best. I'll extend a word of thanks for all those people from the Commission who did participate in the first workshop, look forward to their continued contributions, and I would be happy to take any other questions. Thank you again for the time.

CHAIR KELIHER: Great, thanks, Adam, for that report. Any questions from the Policy Board for Adam? Not seeing any hands going up, Adam, you're off the hook.

COMMITTEE REPORTS

CHAIR KELIHER: Perfect, let's move right along to the next item, which are committee reports, starting off with the Assessment Science Committee. Who is up for that one, Sara?

ASSESSMENT SCIENCE COMMITTEE

MS. SARA MURRAY: Yes, thank you, Mr. Chair. I'll just give a brief report from the Assessment Science Committee. The Committee met on May 13 to address several agenda items, including assessment report streamlining, 2020 data challenges, and revising the stock assessment schedule.

The schedule proposed by the ASC is available in meeting materials. However, I will also briefly review the changes that have been made to the schedule since the Board last approved it at the 2020 summer meeting. First the update of the ecological reference point assessment that was on the schedule for 2022, was removed per the ERP Workgroup's recommendation to only update the single-species assessment and the BAM model before the next benchmark.

For striped bass, the assessment update was shifted from 2021 to 2022, to allow time for management

changes to take effect, and also to avoid challenges that could result from having a 2020 terminal year for the assessment. The 2023 assessment for striped bass, the assessment update was also shifted to 2024, to maintain the two-year assessment update schedule.

A benchmark assessment for black drum was scheduled for 2022, per the Black Drum Technical Committee's recommendation. The assessment schedule was revised for river herring, there was just an error that indicated it was an update, when in fact it will be a benchmark assessment. Then finally, the Spanish mackerel assessment has been shifted from 2021 to a 2022 expected completion, and with that I'm happy to take any questions on the proposed schedule.

CHAIR KELIHER: Thank you, let's see we've got one hand up with questions. Chris Batsavage.

MR. BATSAVAGE: Thank you for presenting the schedule, because it's pretty busy for the next few years. I noticed that weakfish and cobia aren't on the list just for the next few years. Are those on the horizon for say 2025 onward? I don't know if the Assessment Science Committee has talked about future plans for those two species.

MS. MURRAY: Yes, I don't have the schedule in front of me for the NRCC. Katie or others may have better recollection of that. My thought is that yes, they are on the horizon. If anyone has that off the top of your head, feel free to chime in.

CHAIR KELIHER: Not hearing anybody else chime in.

MS. KERNS: Cobia would be on the SEDAR, Sara, and weakfish would just be something that we would do.

MS. MURRAY: Oh sorry, I heard winter flounder.

MS. KERNS: Cobia and weakfish, and I don't remember weakfish off the top of my head, what the TC recommended last year.

MS. MURRAY: Yes, I know that last time around we sort of pushed for an update to align with the ERP assessment, so I would hope and guess that that may be the case as well. In which case that would be an update in 2022. But I can't promise things for the weakfish.

MS. KERNS: Sara, Pat's got his hand up. He might be able to help us out.

MR. PATRICK A. CAMPFIELD: Thanks Toni, thanks, Mr. Chairman. For cobia specifically, I'm digging for the SEDAR schedule right now. But we'll have to get back to you, as it shows on the schedule here, cobia was assessed a couple years ago, and that was a multiyear effort to evaluate cobia stock structure, as well as follow that with a benchmark assessment.

I think it will be several years, and perhaps beyond this 2024 horizon, in terms of what the SEDAR crowd is considering. But I might pitch the question back to you, Chris. If there is a preference or an urgency to the next cobia assessment, please let us know what that is, and at least for Bob and my part and participating on the SEDAR Steering Committee, we can put a request in formally, to get that on the schedule for an out year.

CHAIR KELIHER: Thanks, Pat, and Chris can chime in with you offline if he needs to on that. Lynn Fegley.

MS. FEGLEY: I have similar questions, spot and croaker, I should probably know the answer to this. But I was under the impression that those would go through another benchmark, and I'm just curious what that means in 2024 that if the trigger date/potential review. Would they be doing a benchmark, or what are we doing there?

MS. MURRAY: Yes, the trigger is just that it hasn't been formally scheduled yet. I believe you are correct that it's a benchmark though. I can't remember if it is for both of them. I'm trying to pull up our last go around we had shifted them back to

account for the bottleneck that was occurring in 2022, I believe it was. Give me a moment, I can try to pull that up though, or if one of the stock assessment scientists knows off the top of their head.

DR. KRISTEN ANSTEAD: Yes, this is Kristen. Those are supposed to be benchmarks, croaker and spot in 2024.

MS. FEGLEY: Awesome, thank you so much.

CHAIR KELIHER: Thank you, I appreciate that. I don't see any other hands. We have a proposed update to the assessment schedule. Is there any opposition to the changes in the schedule? If there is, if you could raise your hand.

MS. KERNS: Mr. Chairman, before you ask for that, can I just ask one more clarification from Sara?

CHAIR KELIHER: Absolutely, go ahead.

MS. KERNS: I apologize, I just want to make sure we have it right on the record. The slide says an update in 2024 for striped bass here, and I thought your other slide said benchmark for 2024 for striped bass. I just want to be clear of what it is.

MS. MURRAY: I believe update is correct. I don't know if the previous slide had the wrong information.

DR. KATIE DREW: This is Katie.

MS. MURRAY: Yes, it's update.

DR. DREW: I think 2024 would be the five-year trigger for striped bass, but it has not been officially scheduled or added to the SARC schedule yet. I think we have an update, because we would be doing at least an update to support the ERP benchmark process, as well as management. But it hasn't been formally scheduled either way, and I think that is something that the TC needs to weigh in on, to figure out if we'll be ready for a benchmark or not in 2024.

MS. KERNS: Thanks, Katie.

CHAIR KELIHER: Great, and thank you for that clarification, so back to the Policy Board. We have an updated assessment schedule in front of you. Are there any objections to the updated schedule? Seeing no hands going up, hearing nobody chiming in, then we'll consider the assessment schedule updated by consensus. Thank you very much, and let's move right along with the reports, and we'll go to the Habitat Committee. Lisa.

ATLANTIC COASTAL FISH HABITAT PARTNERSHIP STEERING COMMITTEE

DR. LISA HAVEL: I'm going to start with the ACFHP one. The ACFHP Steering Committee met virtually June 29 to 30. We discussed the progress made on the National Fish Habitat Conservation Through Partnership Act, which was passed back in October of 2020. The Steering Committee also received an update on current on the ground projects, and I'll go into some of those in the next couple slides. I gave an update on the progress on our fundraising development strategy. The Steering Committee approved the 2021 Melissa Laser Fish Habitat Conservation Award recipient, and hopefully we'll be able to present that award in October in New Jersey at the annual meeting, but of course we'll be keeping an eye on Delta, as Mr. Chair already mentioned.

We welcome Restore America's Estuaries as the newest ACFHP partner. For fiscal year 2021, National Fish Habitat funding, we received funding for three on the ground projects plus operational support for ACFHP, and the amount of funding was considered Level 3, which is the highest amount of funding available to a fish habitat partnership, and this is based on performance in previous years. We're excited to be getting this level of funding.

The first project that we'll be funding for 2021 is titled Living with Water-USS Battleship North

Carolina Habitat Restoration. This is in the Cape Fear River, Wilmington, North Carolina. They'll be receiving $50,000.00 from NFHAP funding, and the total cost of the project is 3 million dollars, led by Battleship, North Carolina, and the goal is to connect hydrologic function and services to the Cape Fear River, to restore 800 linear feet of inner tidal shoreline, and establish two acres of tidal wetland.

Here is an aerial view of the project site. The second project that will be funded is Armstrong Dam Removal on the Monatiquot River in Braintree, Massachusetts. Hopefully I pronounced that correctly. They'll be receiving $50,000.00 of NFHAP funding. Total cost of the project is 3.34 million.

This project is led by the town of Braintree, and will restore 36 miles of upstream access for river herring and American eel, and it's part of a multi-barrier removal project on the river. Here is a picture of the Armstrong Dam, as well as an aerial view of the project site. The third project that will be funded with NFHAP funding is ecological restoration of 39 salt marsh acres at Great Meadows Marsh.

This is at the Stewart B. McKinney National Wildlife Refuge in Stratford, Connecticut. They'll be receiving $47,333.00, and the total cost of the project is 1.57 million. This is led by Audubon Connecticut, and the goal is to remove invasive plants and dredged fill soils, in order to restore marsh elevation, to reconnect a pond to the tidal channel, and remove two defunct culverts.

Here is an image of the degraded marsh, as well as an aerial view. ACFHP also received funding from NOAA Recreational Fisheries through a grant called Increasing Recreational Fisheries Engagement through the Fish Habitat Partnership. This funding will go towards Bill Burton Pier in Cambridge, Maryland.

We received $65,968.00, and the funding will go to CCA Maryland, in order to improve outreach, both in Spanish and English about the 350 reef balls that are located under the pier. The outreach will include a live camera, as well as reef ball building activities. A video about the project and signage along the peer about the project and the species that it's benefiting. Here is a map/aerial view of where the live cams will be, as well as where the restoration site is. ACFHP also endorsed four projects since the last time I provided an update. Two of these are proposals that are led by universities, and two of them are on the ground projects. As far as the two on the ground projects, the first on is Carysfort Estuarine and Rockland Hammock Restoration on Key Largo. This project is led by Florida Department of Environmental Protection and Dagny Johnson Key Largo Hammock Botanical State Park, which is quite a mouthful.

It will restore over two acres of mangrove, tidal flat, and rockland hammock. The second project endorsement is also in Florida, it is Cape Sable Coastal Wetland Restoration Project in the Everglades, led by Florida Fish and Wildlife Conservation Commission. It will restore 50,000 acres of salt marsh, mangrove and loose fine sediment.

ACFHP as always, would like to thank ASMFC for your continued operational support, and I'm going to jump into the other updates, and then I'll be happy to take any questions at the end, if that's okay. Next up is the Habitat Committee report, and this one will be much more brief. The Habitat Committee met virtually on June 24, and they received updates on the documents in progress, Acoustic Impacts to Fish and Fish Habitat, as well as the Habitat Hotline. The topic of this year's Habitat Hotline will be Coastal Fish Habitats as Climate Change Buffers.

We also continued working on the Fish Habitats of Concern, which is very close to going out to the Technical Committee's for review. I'm happy to say I just have a couple species left to go on that one. We had a discussion on dredge window elimination proposal in the U.S. Army Corp of Engineer Savannah District, and the Habitat Committee has a draft letter in process.

This letter is very similar to the letter that was sent by the Commission earlier this year to the Army Corp Wilmington District, in regards to concerns around the Army Corps proposal to eliminate dredging windows, and how the elimination of those dredging windows will affect Commission managed species, as well as set precedent for other districts along the coast. But this letter to the Savannah District will also include additional information on protected species.

HABITAT COMMITTEE

DR. HAVEL: The Habitat Committee is hoping to get right now from the Policy Board, consensus to send the letter to the Corp, and staff has discussed with leadership to have the Commission Chair, Vice-Chair and Doug Haymans sign off on the letter, in order to get this out in a timely fashion. I might stop right here, Mr. Chair, if that is okay with you, and see if we can get consensus from the Policy Board, to just have the Chair, Vice Chair, and Doug Haymans sign off on the letter once it's ready.

CHAIR KELIHER: Sure, thanks, Lisa. I did see a draft of the letter, and I do know it's still a work in progress at this time. Does the Policy Board have any objections of leadership working with Doug, to finalize this letter? I am seeing no hands, so I will take that as consensus of the Policy Board to advance the letter to leadership to be finalized. With that, you can continue on, Lisa.

DR. HAVEL: Great, thank you, Mr. Chair. Finally, with the Habitat Committee, we have a couple of new members since the last update, Alexa Fournier from New York, David Dippold from Pennsylvania, and Randy Owen from Virginia.

ARTIFICIAL REEF COMMITTEE

DR. HAVEL: Finally, the Artificial Reef Committee report, which I have just one slide to put on here. The Artificial Reef Committee released an update to the ASMFC Profiles of State Artificial Reef Programs and Projects, and this original publication was from 1988, and the update was released in July, and highlights some of the accomplishments over the last 30 plus years.

The Policy Board approved the language of this update, I believe back in the winter. The publication summarizes the number of permitted sites, mitigation rates and average annual budget along the coast. Has information for each state with an artificial reef program, and the publication is available on the ASMFC website. As always, the Habitat Committee and Artificial Reef Committee welcome any suggestions for action items that you would like to have us work on. With that I'm happy to take any questions.

CHAIR KELIHER: Thanks, Lisa, any questions for Lisa on any of these issues? Adam Nowalsky.

MR. NOWALSKY: Thanks very much for that report. Could you provide some further detail about the scope of the acoustic impacts work that you're doing and reporting out on through the Habitat Committee? Specifically, what I would be interested in knowing, if any of that would be doing any research related to offshore energy development, wind in particular.

We at the Mid-Atlantic Council have had some discussion about concerns and potential impacts that have been reported with angler interactions with sub-acoustic bottom profiling, for example. Was wondering if the acoustic impacts work that you're doing right now would include something like that, and if not what the scope of it would be that might be relevant to wind development.

DR. HAVEL: Sure, a lot of the acoustics draft right now is completed, except for, I would say the impacts to fish habitat sections. We have a lot of information right now ready to go on the introduction, Impacts to Fish, and we're still trying to compile the literature on how it might impact the habitat portion.

We are considering wind as part of that, and I would assume one of the recommendations would

be to research more, because as we saw earlier today, you know there are impacts on the fish, but the studies are few and far between. I think we're limited right now, in terms of the literature and the case studies on this. But we do want to include wind in the report.

MR. NOWALSKY: Just one follow up if I may, Mr. Chairman.

CHAIR KELIHER: Absolutely.

MR. NOWALSKY: Would you agree that impacts of sub-acoustic bottom profiling gear would be appropriate for inclusion in the report, at least as to whether or not you can find any literature that may be relevant to those impacts? Would I expect to see that in this report, or would I not expect to see that in this?

DR. HAVEL: If we can find the literature on sub-acoustic bottom profiling gear, and if you have any to send me, I'm happy to share that with those preparing the report. Any literature that you have on that, I'm happy to review, and then the Habitat Committee is happy to consider putting it into the report.

MR. NOWALSKY: Thank you very much.

CHAIR KELIHER: Thanks, Adam, do we have any members of the Policy Board that have any questions for Lisa? We do have one member of the public. Mr. Fletcher, we're starting to run into some time constraints, so I'll give you three minutes, please.

MR. JAMES FLETCHER: The National Coastal Conditions Report put out by EPA lists a number of chemicals, man-made chemicals in all of the coastal waters. When will the Habitat and stuff address the man-made chemicals and plastics in the coastal waters? Will that ever be addressed by the Habitat Committee? Will water conditions be addressed by Habitat Committee? Thank you.

CHAIR KELIHER: Thank you, Mr. Fletcher. Lisa, do you have any comment on that?

DR. HAVEL: If that is of interest for the Policy Board or a specific management board for the Habitat Committee to take on and discuss, we're very happy to do that. Water quality is definitely an issue, and the water column is obviously a habitat for fish. If that is something that the Commission is concerned with, we are happy to take that on.

CHAIR KELIHER: Great, thank you, Lisa. Before I switch, I'm going to give the Policy Board one more bite at the apple here for any last questions, before we go to the next item. Seeing no hands, that concludes the committee reports. I want to thank Sara and Lisa for those excellent reports. The next item is Review of Noncompliance, and happy to report that we have no noncompliance finding at this time.

OTHER BUSINESS

With that we will move on to Other Business, and I have Adam Nowalsky regarding the appeals process. Adam.

NEW YORK APPEAL OF ADDENDUM XXXIII TO THE SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN

MR. NOWALSKY: Thank you very much, Mr. Chairman. As I'm sure probably everyone has heard by now, the Summer Flounder, Scup and Black Sea Bass Management Board did complete its deliberations yesterday in working with the Mid-Atlantic Council. As a result of the appeal, New York was given a 1 percent increase to the baseline allocation.

Let me just start off by thanking everybody that was involved in that process. It was a lengthy meeting yesterday. Thankfully, it didn't seem to impact the Menhaden Board by us taking up too much time, so thanks again to everybody for their working on that. During the course of getting ready for that meeting, there were two items relevant to the appeal that

came to my attention that I wanted to bring before the Policy Board today.

I've passed these notes along to you already, Mr. Chairman, so you have seen them earlier today. The first one is that the appeals process as it was last modified and approved back in 2019, is essentially silent on what happens after the Policy Board makes a directive to a species management board. What we're left with in the document right now is, upon receipt of the Policy Board recommendation, the management board will discuss the findings and make the necessary changes. The management board is obligated to make changes that respond to the finding of the Policy Board. Specifically, what's come up is the question of, should a management board not be able to come to a decision that is within the findings of the Policy Board, what happens at that point?

Some possible scenarios that have been discussed between myself and staff was that the Policy Board may take ultimate action. What is also missing here is any type of timeline. There was some discussion that perhaps a management board might benefit from some work by a technical committee or a PDT potentially.

The timeline that will be required, I think the assumption was that the management board would take action at its next meeting. But I think there might be some room for discussion. I'm not saying that decision has to be made here today, but I just wanted to raise that issue of what happens after the topic goes back to the management board. I think the appeals process is somewhat lacking in further detail in that.

The other item to bring up, and this came up during the discussion yesterday, as well as some management board members have brought it up today, and I don't know if you want to entertain any input from some of them who may be on. There is concern about, is there a potential precedent setting by a Policy Board being drawn into an appeals process that results in a change to an allocation decision.

There was talk about whether perhaps this might be appropriate to bounce back to the Allocation Working Group. There was talk about the management board itself possibly trying to dive deeper into this and discuss it. We did not have time yesterday, but possibly at a future meeting. But I certainly think it would be helpful for the Policy Board to at least provide some direction to those that were interested in that concern, about what you may be doing to address it. Thank you for giving me the opportunity to bring those issues forward.

CHAIR KELIHER: Thanks, Adam, I appreciate you bringing those forward. I think on the first point, well let me back up. I did have a conversation with our Executive Director around these particular issues. I think we were both in agreement that the appeal process, as it pertained to black sea bass, and the appeal from the state of New York.

Certainly, the process worked, and we carried it right out through to the very end, with the result of the 1 percent change in the allocations, as you suggested, Adam. I think from that standpoint things worked. This question of what happens if the species board did not act. To me the natural thing would be that it would have to then go back to the Policy Board and be addressed.

With that in mind though, I think it's clear that the document is silent on that. What I would suggest is that staff takes a look at that document, makes potentially some corrected changes in a draft format, and then brings it to the Executive Committee, and then ultimately back to the Policy Board for a final vote on any changes that are needed in that document. Then, regarding the deliberations. I mean I felt like we were really consistent with the issue at hand yesterday, with both leaderships finding that the appeal was warranted, and the fact that the Policy Board then stayed very focused on that one particular issue, and trying not to broaden it. I think the fact that we didn't broaden it has raised some level of criticism.

I wouldn't necessarily agree with it, but I am just one of many of us. I would be happy to entertain a few comments around the particular issues that Adam has raised at this time.

Maybe if there is agreement by the Policy Board that we have staff take a look at this and bring it back up through. We'll use the Executive Committee again, as kind of a workgroup on this matter, and then we can bring it back to the Policy Board for any final adoptions, if that is the case. I'm going to go back to the Policy Board at this time. I've got one hand up, Pat Geer.

MR. PAT GEER: First I would like to thank Mr. Nowalsky for bringing this up. I don't sit on the Summer Flounder, Black Sea Bass and Scup Board, but I was listening in. The entire Virginia delegation from both the Council and the Commission expressed concerns about this. We would greatly appreciate the Executive Board looking into this, and exploring it further. I just want to again thank you for the consideration on this, and hopefully we can straighten this out so we don't have the problem moving forward in the future.

CHAIR KELIHER: Great, thanks for that comment, Pat. John Clark.

MR. CLARK: I'm glad these points came up. I think the process was, depends on your perspective. I don't think it worked very well, mainly because I think the Policy Board, what they sent back to the management board were options that were not in the Addendum. I know we're not as restricted as we are, like in a regulatory process, where you have to follow the Administrative Procedures Act, I know every state has one, federal government has one.

But at the same time, we ended up being told to do an option that wasn't even in the plan. I've heard that went out to the public for comment. You know in those cases, I think we need to be a little more careful with the Policy Board, that if they are going to remand something back to the management board, that they need to remand something that is based on what went out to the public, and was seen by the public.

I mean this came as a rebuke, in my estimation, to the states that had voted legitimately for the options that went into what was then the approved Addendum XXXIII, and then to have it come back, you know I get it, with the appeal, fine. But to be told to then cobble together some options that weren't even in the Addendum that went out to the public. I think that is something else we have to look at. I mean if there is going to be remand, I think it has to be something that is in the actual Addendum that goes out for public comment. Thank you.

CHAIR KELIHER: Thanks, John. I believe some of that was in the document that went out and was discussed at the Board meeting back in February, but not to debate the point. The level of flexibility.

MR. CLARK: Pat, I don't want to debate it, I'm just saying that you kind of have to look at the Draft Addendum cross eyed and sideways to come up with that option. I mean it really was not a straight up option that was reviewed by the public. I mean I know we often do things that are between two options when it is in a single option, as we did with Connecticut. You know, instead of 5 percent they were given 2 percent. But this was really cobbled together from several different options there, and that was never discussed in the Draft Addendum that the public saw. I'll just leave it at that, but you know again, if this happens again let's just be a little more careful.

CHAIR KELIHER: Pat, I see your hand is back up. Was it left up, or do you have another comment?

MR. GEER: I apologize, Sir.

CHAIR KELIHER: No need to apologize, thank you. Any other questions or comments from the Policy Board? I'm not seeing any additional hands. I do want to thank Adam for bringing this particular issue up. Similar to the conservation equivalency

conversations that were had at the Executive Committee, we have a Policy Document on this.

These policy documents are meant to be adaptive and meant to change as we come up with or run into issues that hadn't been thought of, right? This is the case here. With no objection, we'll have staff go back, review the document, review the comments here today, and then bring any potential changes to the Executive Committee for further discussion, use the Executive Committee, as I said, as a workgroup, and then we'll advance it back to the Policy Board for the October meeting. Any objections to that approach?

ADJOURNMENT

CHAIR KELIHER: Seeing no hands and hearing no objections, then we'll move forward in that direction. That concludes our business of the ISFMP Policy Board, unless there are any additional items that people would like to bring up under Other Business. Seeing no hands, I will adjourn the Policy Board meeting at this time.

The Business Session is scheduled to begin at 2:45, and let's just stick with that schedule. We've all been here sitting in our chairs for quite some time. We'll take a 15-minute break, and then we'll come back at 2:45, where we've got some quick business to deal with. Well, thank you very much for your time on this particular item, and we'll talk to you in about 15 minutes. Thank you.

(Whereupon the meeting adjourned on Thursday, August 5, 2021 at 2:30 p.m.)

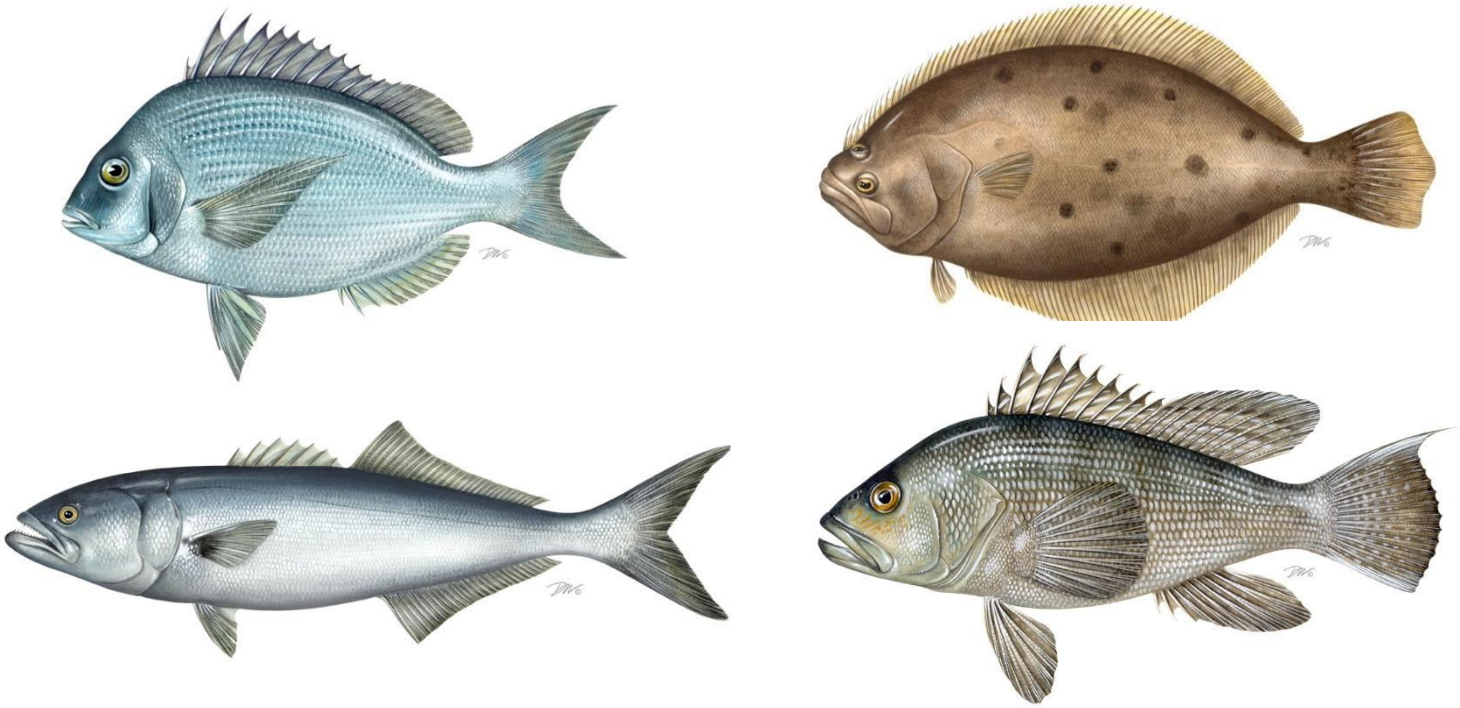
Draft Addendum for Public Comment

Atlantic States Marine Fisheries Commission

DRAFT OMNIBUS ADDENDUM TO THE FISHERY MANAGEMENT PLANS FOR SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS, AND BLUEFISH FOR PUBLIC COMMENT

Harvest Control Rule for Recreational Management

This action is being developed with the Mid-Atlantic Fishery Management Council.



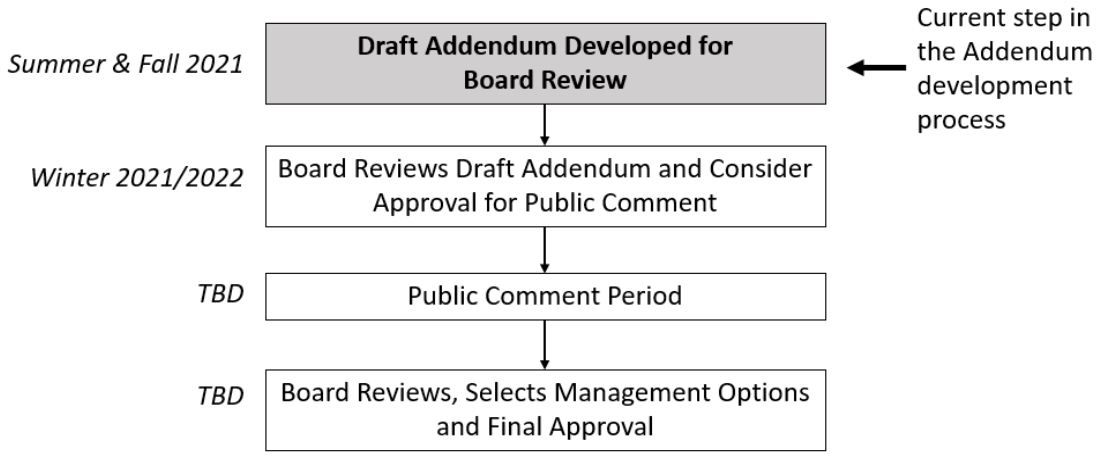
This draft document was developed for Policy Board review and discussion. This document is not intended to solicit public comments. Comments on this draft document may be given at the appropriate time on the agenda during the scheduled Policy Board and Council meeting. If approved, a public comment period will be established to solicit input on the issues contained in the document.

October 2021

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Public Comment Process and Proposed Timeline

In October 2020, the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) and the Mid-Atlantic Fishery Management Council (Council) initiated a draft addendum (for the Commission) and framework action (for the Council) to address management of the recreational summer flounder, scup, black sea bass, and bluefish fisheries. This Draft Addendum and the Council's framework considers modifications to the process for setting recreational bag, size, and season limits (i.e., "recreational measures") for all four species. The Draft Addendum and the Council's framework action will consider an identical set of options. This document presents background on recreational management for these species and a range of options to set recreational measures for public consideration and comment. The addendum process and expected timeline are below.



The public is encouraged to submit comments regarding this document at any time during the public comment period. The final date comments will be accepted is DATE TBD at 11:59 p.m. Comments may be submitted at state public hearings or by mail, email, or fax. If you have any questions or would like to submit a comment, please use the contact information below. **All comments will be made available to both the Commission and Council for consideration; duplicate comments do not need to be submitted to both bodies.**

Mail: Dustin Colson Leaning, FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200 A-N
Arlington, VA 22201

Email: comments@asmfc.org
(Subject: Draft Addendum XXXIV)
Phone: 703.842.0740
FAX: 703.842.0741

Tips for Providing Public Comment

We value your input, and to be most effective we request that your comment include specific details as to why you support or oppose a particular proposed management option. Specifically, address the following:

- Which proposed options/sub-options do you support, and which options/sub-options do you oppose?
- Why do you support or oppose the option(s)?
- Is there any additional information you think should be considered?

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1.0 Introduction

Summer flounder, scup, black sea bass, and bluefish fisheries are managed cooperatively by the Commission in state waters (0-3 miles), and by the Council and NOAA Fisheries in Federal waters (3-200 miles). The management unit for summer flounder in US waters is the western Atlantic Ocean from the southern border of North Carolina northward to the US-Canadian border. The management unit for scup and black sea bass in US waters is the western Atlantic Ocean from Cape Hatteras, North Carolina north to the Canadian border. Bluefish are managed in US waters along the entire eastern US coast, from Maine to Florida.

The Council and Commission jointly agree to recreational annual catch limits (ACLs) and recreational harvest limits (RHLs) for all four species. They also jointly agreed to the overall approach to setting recreational bag, size, and season limits (i.e., recreational measures). Recreational measures in state waters are determined through the Commission process. The current process for setting recreational measures in state waters for summer flounder and black sea bass was established in 2018 through Addendum XXXII to the Summer Flounder, Scup, and Black Sea Bass FMP. Amendment 1 to the Bluefish FMP established a process for setting recreational measures for bluefish.

In October 2020, the Commission's Policy Board and the Mid-Atlantic Fishery Management Council approved the following motion:

> *Move to initiate a joint framework/addendum to address the following topics for summer flounder, scup, black sea bass, and bluefish, as discussed today:*
>
> - *Better incorporate MRIP uncertainty into management*
> - *Develop guidelines for maintaining status quo measures*
> - *Develop a process for setting multi-year measures*
> - *Consider changes to the timing of federal waters measures recommendations*
> - *Harvest control rule*
>
> *and to also initiate an amendment to address recreational sector separation and recreational catch accounting such that scoping for the amendment would be conducted during the development of the framework/addendum.*

During their February 2021 meeting, the Council and Policy Board prioritized development of the harvest control Rule referenced in the motion above prior to further development of the other topics. This Draft Addendum and the Council's framework address only the harvest control Rule; however, as described in more detail in later sections of this document, considerations related to uncertainty in the MRIP data, guidelines for status quo measures, and multi-year measures are incorporated into many of the options.

The Draft Addendum and the Council's framework propose different options for setting recreational measures for summer flounder, scup, black sea bass, and bluefish.

> **The goal of this Draft Addendum and the Council's framework is to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black**

sea bass, and bluefish such that measures aim to prevent overfishing, are reflective of stock status, appropriately account for uncertainty in the recreational data, take into consideration angler preferences, and provide an appropriate level of stability and predictability in changes from year to year.

2.0 Overview

2.1 Statement of Problem

The Commission and Council face a number of challenges with regard to setting recreational management measures for summer flounder, scup, black sea bass, and bluefish. As described in more detail in section 2.2, recent challenges have included concerns related to uncertainty and variability in the recreational fishery data and the need to change measures, sometimes annually, based on those data, as well as the perception that measures are not reflective of current stock status. In addition, management measures have not always had their intended effect on overall harvest.

The purpose of this document is to consider a management approach called a harvest control rule to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black sea bass, and bluefish such that measures aim to prevent overfishing, are reflective of stock status, appropriately account for uncertainty in the recreational data, take into consideration angler preferences, and provide an appropriate level of stability and predictability in changes from year to year. A harvest control rule relies less on expected fishery performance and instead uses a more holistic approach with greater emphasis on traditional and non-traditional stock status indicators and trends.

Addendum XXXII established an interim management approach that addressed several key management objectives and served as a foundation for broad-based, long-term management reform. The Policy Board and Council are addressing ongoing management challenges and objectives via comprehensive, long-term management reforms over the next several years starting with this document. Those actions will draw upon improved recreational fishery data[1], new stock assessments, and innovative management tools.

2.2 Background

For all four species, recreational ACLs are set under the joint management program with the Council. The ACL accounts for landings and dead discards. An RHL for each species is set equal to the ACL minus expected dead discards. Recreational measures (i.e., bag, size, and season limits) are set with the goal of preventing RHL overages. In preventing RHL overages, these measures also aim to prevent ACL overages.

[1] MRIP is an evolving program with ongoing improvements to its methods. Several recent advancements including the transition from a telephone survey to a mail survey to estimate fishing effort have resulted in the need to calibrate estimates of recreational catch and effort for 1981–2017 for comparison to newer estimates. In addition, the MRIP harvest estimates for 2018 need to be "back-calibrated" for comparison to the 2018 and interim 2019 RHLs, because these RHLs were based on stock assessment using the pre-calibrated MRIP harvest estimates.

The ACLs and RHLs are revised each time new stock assessment information becomes available and are based on stock assessment projections, considerations related to scientific uncertainty, and commercial/recreational allocations. The RHLs also account for management uncertainty and assumptions about dead discards. Assumptions about discards also impact the ACLs for summer flounder and black sea bass due to the landings-based commercial/recreational allocations for those species, as opposed to the catch-based allocations for scup and bluefish.

The methods used to determine which measures will prevent RHL overages are not specified in the FMPs and can be modified based on annual recommendations from the Council's Monitoring Committees and the Commission's Technical Committees. Marine Recreational Information Program (MRIP) harvest data from one or more recent years are typically used to predict the impacts of changes in bag, size, or season limits on harvest. For summer flounder, scup, and black sea bass, this analysis has typically relied heavily on preliminary, incomplete current year data and assumptions based on trends in MRIP data from one or more previous years. For bluefish, this analysis typically considered multi-year averages of final, full-year MRIP data. The bluefish measures remained unchanged for many years and RHL overages through 2019 were rare. Measures for summer flounder, scup, and black sea bass changed much more frequently. In addition, summer flounder and black sea bass harvest approached or exceeded the RHL more frequently than for the other species. For these reasons, the Monitoring and Technical Committees felt it was appropriate to rely on the most recent MRIP data, including preliminary current-year data for summer flounder, scup, and black sea bass and to use a multi-year average of final, full-year data for bluefish.

The analysis for all four species typically relied on the assumption that if the recreational measures remained unchanged, then next year's harvest would be similar to harvest in the current year or a recent year average. If unchanged measures were expected to result in harvest notably above or below the RHL, then the measures were adjusted to achieve a desired percent liberalization or reduction in harvest based on an analysis of trends shown in previous years' MRIP data.

Because the bluefish specification process typically did not use preliminary current year data, and because measures remained unchanged for several years, decisions on bluefish recreational measures were typically made in August, when the Board and Council usually jointly approve the recreational ACL and RHL for the upcoming year. However, in recent years, the bluefish RHL has been more constraining and recreational measure setting has begun to follow the approach taken for summer flounder, scup, and black sea bass.

The summer flounder, scup, and black sea bass ACLs and RHLs for the upcoming year are also typically approved in August; however, the approach for setting recreational measures is usually not recommended until December to allow for consideration of preliminary current year data though August. In December, the Council and Board typically agree to the overall approach for recreational measures for summer flounder, scup, and black sea bass (e.g., status quo or an overall percentage liberalization or reduction), as well as the federal waters measures. State waters measures are typically approved by the Board in February of the following year.

This process has resulted in management challenges for several reasons. As previously stated, for all four species, the RHLs changed each time new stock assessment information became available. For recreational fisheries that tend to harvest close to, and sometimes more than, their RHL (primarily summer flounder and black sea bass), this resulted in a frequent need to change the recreational bag, size, and season limits to prevent future RHL overages. This was sometimes exacerbated by the reliance on a single year of MRIP data in the analysis of management measures as MRIP data can show variable harvest from one year to the next, even under the same management measures. The required changes in management measures sometimes felt more like a response to variability and uncertainty in the MRIP data than a clear conservation need. This challenge has been referred to as "chasing the RHL." In addition, many recreational stakeholders expressed frustration that the black sea bass measures did not seem reflective of stock status as they have generally been more restrictive in recent years than when the stock was under a rebuilding plan, despite the stock currently being more than double the target level and highly available to anglers.

Although the scup and bluefish recreational measures were able to remain largely unchanged for many years (prior to 2020 for bluefish), the Policy Board and Council agreed that solutions to these challenges should be developed in such a way that they could apply to all four jointly managed species to allow for consistency in management approaches.

The bluefish stock was declared overfished in 2019, triggering the development of a rebuilding plan and a need for more restrictive management measures than had previously been in place. The options in this document include special considerations for stocks in a rebuilding plan. The options in this document are not meant to replace the bluefish rebuilding measures. Any measures implemented for bluefish must comply with the rebuilding plan.

2.3 Status of the Stocks

2.3.1 Summer Flounder

The most recent summer flounder management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021a). The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the summer flounder stock was not overfished, but was 14% below the biomass target, and overfishing was not occurring, in 2019 (**Figure 1**). Fishing mortality was 20% below the threshold level defining overfishing. More detail on the assessment can be found in the draft report provided to the SSC.

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

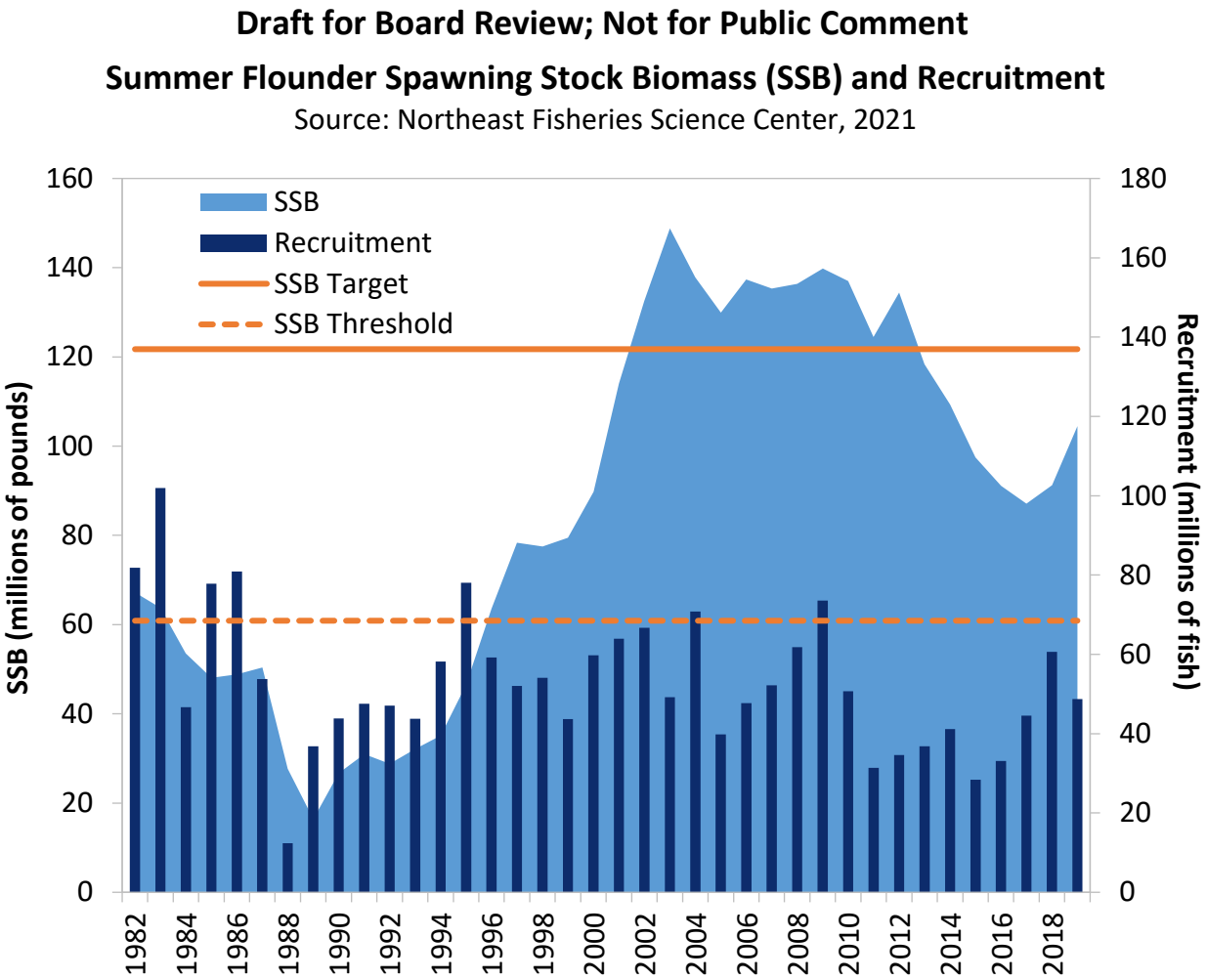

Figure 1. Summer flounder spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fishery Science Center.

2.3.2 Scup

The most recent scup management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021b). The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the scup stock was not overfished and was about two times the biomass target, and overfishing was not occurring, in 2019 (**Figure 2**). Fishing mortality was 32% below the threshold level defining overfishing. More detail on the assessment can be found in the draft report provided to the SCC.

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

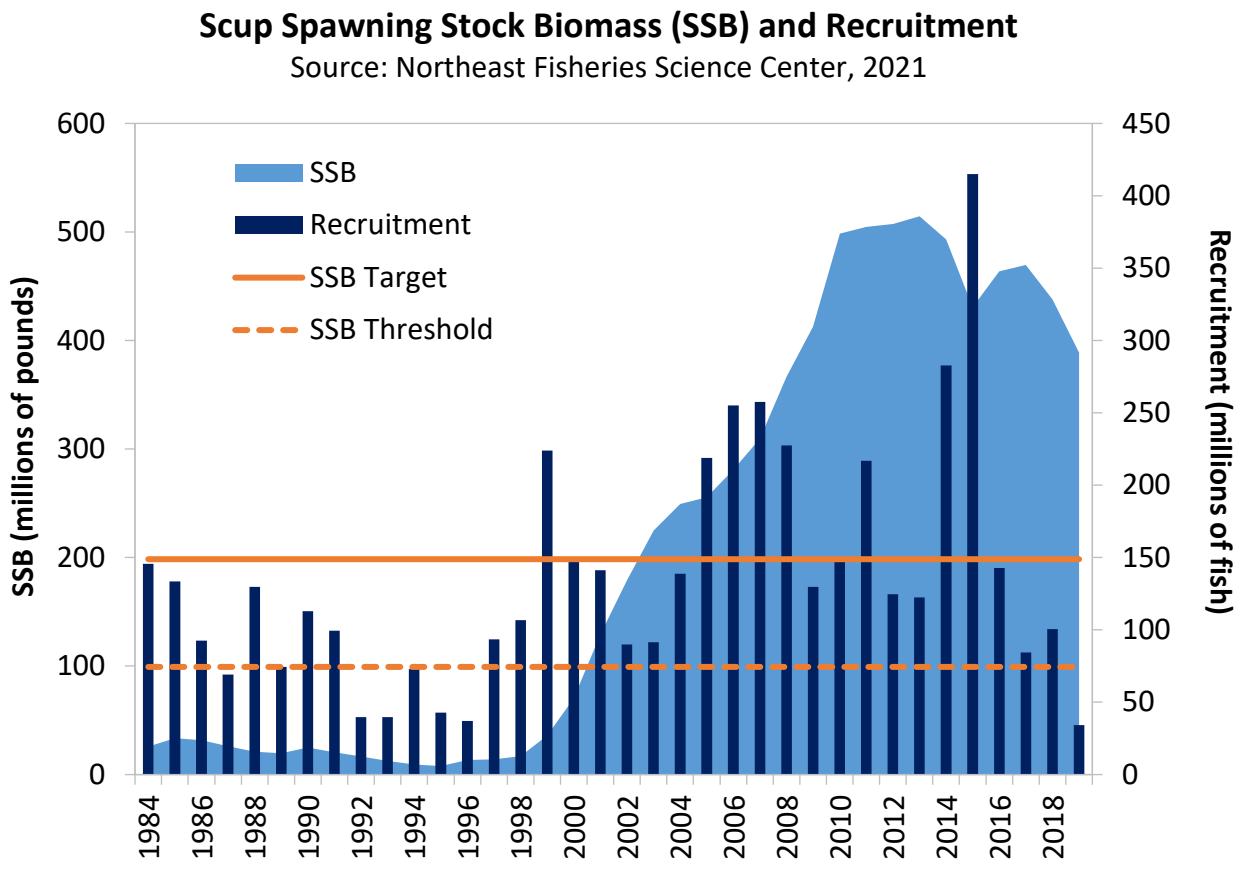

Figure 2. Scup spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fishery Science Center.

2.3.3 Black Sea Bass

The most recent black sea bass stock assessment update was completed in July 2021, using data through 2019 (NEFSC 2021c). The assessment used a combined-sex, age-structured assessment model. The assessment modeled black sea bass as two separate sub-units (North and South) divided approximately at Hudson Canyon, from which results were combined for the coastwide stock status determination. Results from the 2021 assessment indicate that the black sea bass stock was not overfished and was about 2.2 times the target level, nor was overfishing occurring, in 2019 (**Figure 3**). Fishing mortality was 15% below the threshold level defining overfishing. The assessment required an adjustment to account for the significant retrospective pattern. This adjustment was only applied to the terminal year of the assessment and the adjusted values are used for management. Of the four species considered in this action, only black sea bass required a retrospective adjustment in the assessment. More detail can be found in the draft report provided to the SSC.

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

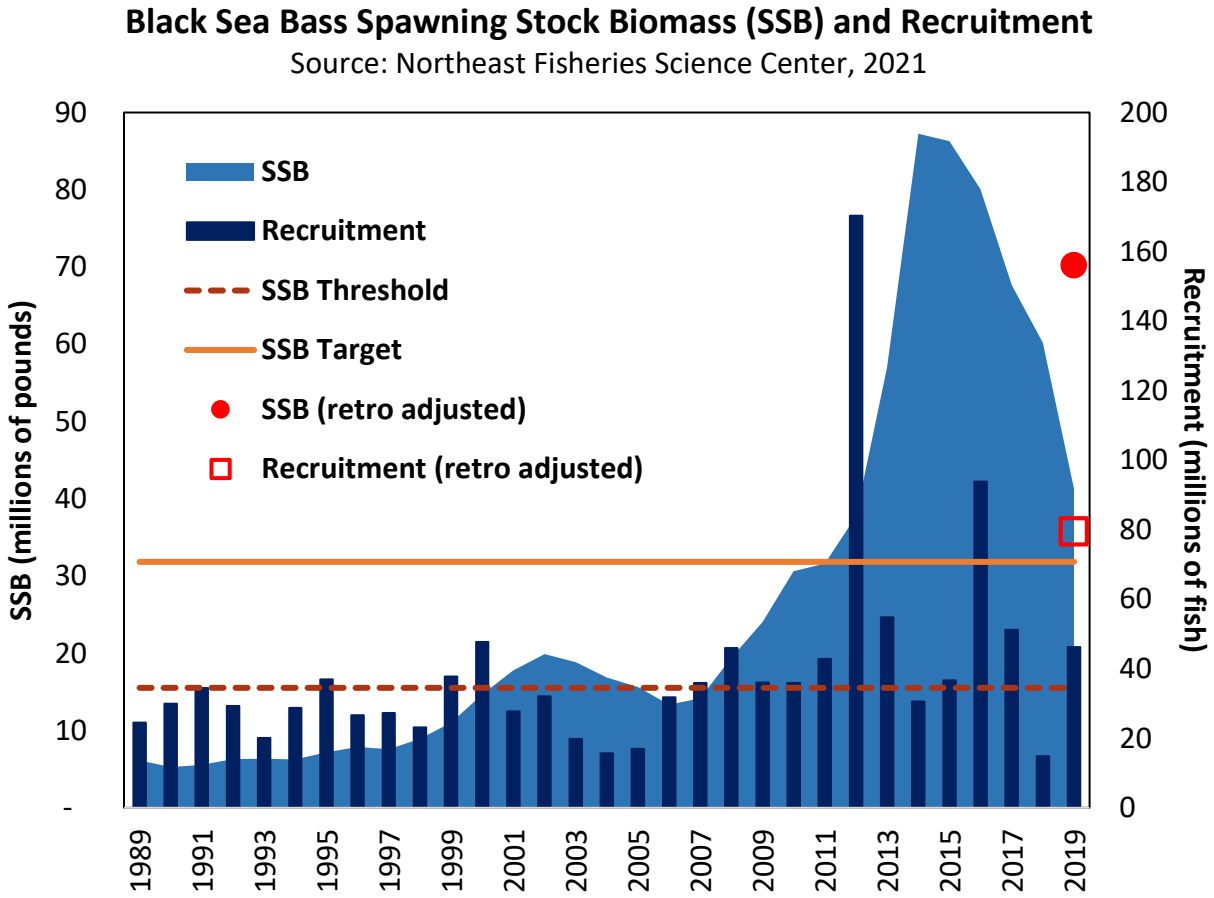

Figure 3. Black sea bass spawning stock biomass and recruitment with retrospective adjusted values to account for internal error. Source: 2021 Operational Assessment Prepublication Report, Northeast Fishery Science Center.

2.3.4 Bluefish

The most recent bluefish management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021d). The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the bluefish stock was overfished and was 5% below the overfished threshold, but overfishing was not occurring in 2019 (**Figure 4**). Fishing mortality was 5% below the threshold level defining overfishing. More detail on the assessment can be found in the draft report provided to the SCC.

The 2021 management track stock assessment along with the preferred rebuilding plan selected jointly by the Board and Council at their June meeting in 2021 provided the basis for setting fishery specifications for 2022–2023.

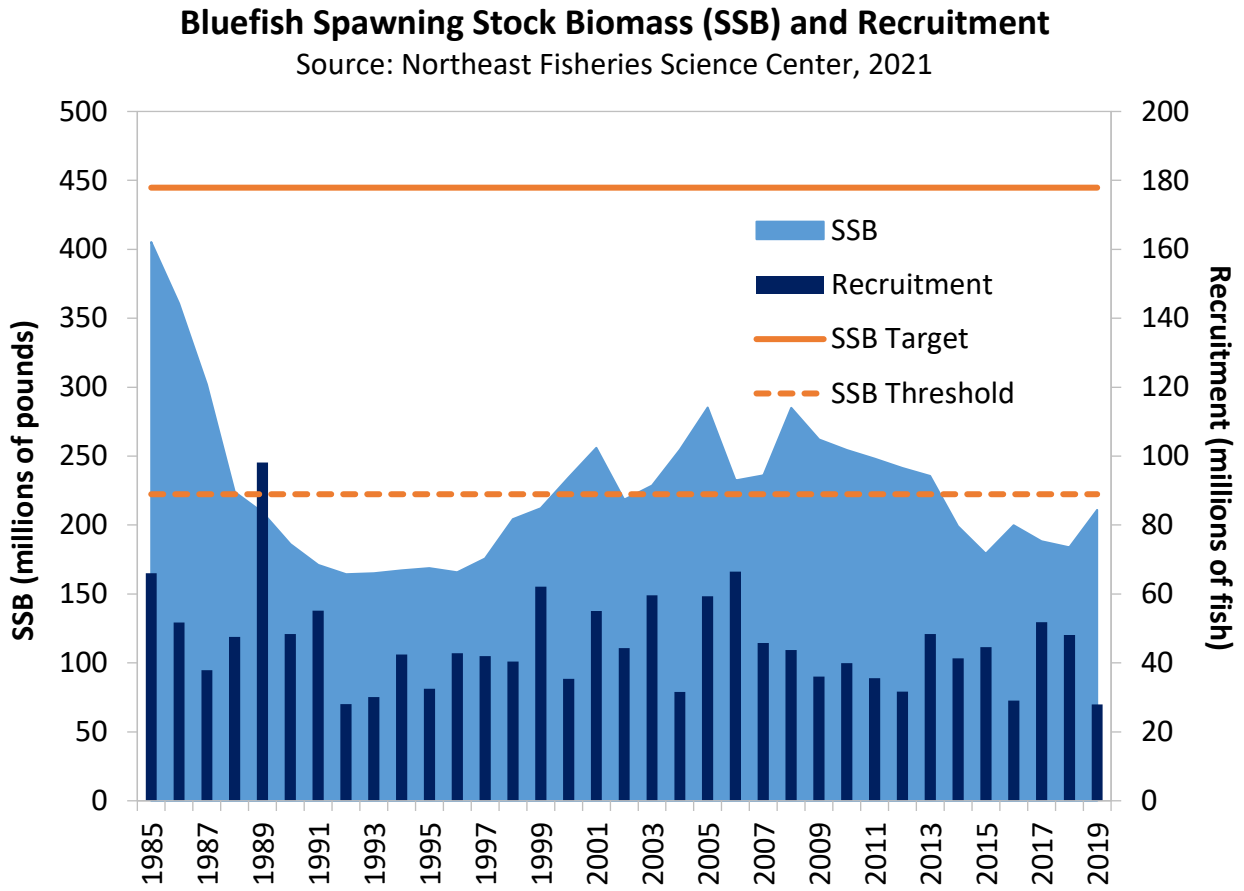

Figure 4. Bluefish spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fishery Science Center.

2.4 Status of the Fishery

2.4.1 Summer Flounder

Recreational harvest peaked in 1983 at 36.74 million pounds, and declined to a time series low of 5.66 million pounds in 1989. A more recent review of recreational fishery performance from 2011 to present reveals an average of 12.59 million pounds with a high of 19.41 million pounds in 2013 and a low of 7.60 million pounds in 2018. Recreational harvest in 2020 was 10.06 million pounds, a 29% increase from the prior year's harvest of 7.80 million pounds. The total recreational catch (harvest plus live and dead releases) of summer flounder in 2020 was 33.32 million fish, slightly lower than the time series average of 34.46 million fish. The assumed discard mortality rate in the recreational fishery is 10%. In 2020, an estimated 80% of the harvest (in numbers of fish) originated from private/rental boats, while shore-based anglers and party/charter boats accounted for an average of 18% and 2% of the harvest, respectively. In addition, 61% of summer flounder harvested by recreational fishermen (in numbers of fish) were caught in state waters and about 39% in federal waters.

2.4.2 Scup

Most recreational scup catches are taken in states of Massachusetts through New York. From 2011 to 2020, recreational harvest has ranged from 8.27 million pounds in 2012 to 14.12 million pounds in 2019. In 2020, recreational harvest was 12.91 million pounds. The total catch (harvest plus releases) of scup in 2020 were 27.27 million fish, slightly higher than the ten year average of 27.07 million fish. The assumed discard mortality rate in the recreational fishery is 15%. In 2020, an estimated 62% of the harvest (in numbers of fish) originated from private/rental boats, while shore-based anglers and party/charter boats accounted for an average of 28% and 10% of the harvest, respectively. In addition, 90% of scup harvested by recreational fishermen (in numbers of fish) were caught in state waters and about 10% in federal waters.

2.4.3 Black Sea Bass

After a drastic peak in 1986 at 11.19 million pounds, recreational harvest averaged 5.02 million pounds annually from 1987 to 1997. Recreational harvest limits were put in place in 1998 and harvest generally increased from 1.92 million pounds in 1998 to 9.06 million pounds in 2015. In 2016 and 2017 harvest jumped up to 12.05 and 11.48 million pounds, respectively; however the 2016 and 2017 estimates are regarded as implausibly high outliers by the Technical Committee. In 2020, recreational harvest was estimated at 9.12 million pounds with recreational live discards from Maine to Virginia estimated to be 29.79 million fish. Assuming 15% hook and release mortality, estimated recreational dead discards are 4.47 million fish, equal to 51% of the total recreational removals (harvest plus dead discards).

2.4.4 Bluefish

From 2011-2020, recreational catch (harvest plus fish caught and released) of bluefish in U.S. waters of the Atlantic coast averaged 44.46 million fish annually. In 2020, recreational catch was estimated at 30.68 million fish. In 2020, recreational anglers harvested an estimated 9.34 million fish weighing 13.58 million pounds (6,160 metric tons). Harvest during 2018-2020 was exceptionally low compared to the ten year average of 25.69 million lbs. The 2020 average weight of landed fish is 1.45 pounds, which is also lower than the ten year average of 1.65 pounds. This lower average weight is due to the regional distribution of state landings in 2020. The majority of the recreational harvest (pounds) came from Florida (42%), North Carolina (16%), New Jersey (13%), and New York (11%). Fish from southern states (NC-FL) made up 59% of the landings and are typically smaller on average than fish caught in northern states (ME-VA). In 2020, recreational dead releases (15% of released alive fish) were estimated at 3.20 million fish.

3.0 Proposed Management Program

As a step towards broad-based management reform, the Board and Council are considering changing the process of how recreational management measures are set. The Board and Council are seeking public comment on each of the options included in this Draft Addendum. As previously stated, the Council is considering the same options through a framework action.

These management changes are considered through the management programs of the Commission and the Council. The Council is bound by the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including requirements for ACLs, accountability measures, and prevention of overfishing. NOAA Fisheries will not approve measures that are inconsistent with the MSA. NOAA Fisheries provides guidance throughout development of Council actions to ensure that the preferred options selected for implementation are consistent with the MSA and other applicable laws.

As proposed, a single option would be selected for all four species. It is not intended that one harvest control rule option would be used for some species and a different option for others. All harvest control rule approaches involve various combinations of input metrics, flexibilities, and accountability measures with the goal of standardizing management measure setting and providing stability to these recreational fisheries. A table for comparison across all options can be found in Appendix 1 ***[to be included with supplemental briefing materials for Oct 21 Policy Board and Council meeting]***.

Stocks under an approved rebuilding plan are subject to the measures of that rebuilding plan, which may differ from the measures under the options below. None of the options in this document are meant to replace rebuilding plan measures. In some instances, measures implemented through the options below may be used as temporary measures until a rebuilding plan is implemented, which can take up to two years after the stock is declared overfished. Once a stock is no longer in a rebuilding plan, measures may be set using the options below.

3.1 Management Options to Set Recreational Management Measures

A. Status Quo (Current Recreational Measures Setting Process)

Section 2.2 describes the process used in recent years to set recreational measures. The details of this process are not defined in the FMPs and can be modified without an addendum or other change to the FMPs. For example, it is not required that preliminary current year MRIP data be used for summer flounder, scup, and black sea bass and that a multi-year average of final full-year data be used for bluefish. The Monitoring and Technical Committees have considerable flexibility in how they use the data to recommend measures aimed at preventing RHL and ACL overages. The following sections summarize the language currently in the Commission's FMPs regarding recreational measures for each species. Under the no action option, these sections of the FMPs could remain unchanged[2].

[2] Under the no action option, predicted harvest under any combination of measures could continue to rely on the methods described above, or option methods could be used if deemed appropriate. For example the Council and Commission are supporting the development of statistical models for predicting harvest based on management measures and other factors. These models could be used under the no action option.

1. **Summer Flounder**

As outlined in section 3.1 of Addendum XXXII, management measures are set annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will decide whether to specify coastwide measures to achieve the coastwide RHL or conservation equivalent management measures using guidelines agreed upon by both management authorities. If the latter, the Board will then be responsible for establishing recreational measures to constrain harvest to the RHL.
- The Technical Committee (TC) will continue to evaluate harvest estimates as they are released, and project how suites of possession limits, size limits and seasons might impact recreational landings in each region. In recommending adjustments to measures (reductions, liberalizations or no change), the TC will examine several factors and suggest a set of regional regulations, which when combined, would not exceed the RHL. These factors could include but are not limited to stock status, resource availability (based on survey and assessment data), and fishery performance (harvest, discards, effort, estimate uncertainty, inter-annual variability), as well as the standards and guiding principles set forth below. The Board will use information provided by the TC to approve a methodology for the states to use in developing regional proposals, typically at the Commission's Winter Meeting.
- The states will collaborate to develop regional proposals for the current year's recreational measures that include possession limits, size limits and season length pursuant to the Board-approved methodology. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound.
- **The Board will review proposals, TC recommendations, and establish final measures at the Commission's winter meeting.** Once the Board has approved the measures and the states have promulgated them, the Commission will send a letter to the Regional Administrator certifying the Board approved measures, in combination, will achieve but not exceed the RHL.

The Board also uses a set of standards and guiding principles to structure the development of measures during specification setting (Addendum XXXII Section 3.1.1).

2. **Scup**

Management measures are set annually through a specifications process. The process typically involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will determine whether to maintain status quo coastwide measures

or a liberalization or reduction in measures are needed to achieve the coastwide RHL.

- States will then proceed to develop proposals, typically the states MA-NY, but other states could have adjustments, for the upcoming year's recreational measures that include possession limits, size limits and season length. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound.
- The Board will review state proposals, TC recommendations, and establish final measures at the Commission's winter meeting.

3. Black Sea Bass

As outlined in section 3.2 of Addendum XXXII, management measures are set annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will decide whether to adopt coastwide measures or if the states will implement measures to constrain harvest to the RHL. If the latter, the Board will then be responsible for establishing recreational measures to be implemented in state waters to constrain harvest to the RHL.
- The TC will continue to evaluate harvest estimates as they are released, and project how suites of possession limits, size limits and seasons might impact recreational landings in each region. In recommending adjustments to measures (reductions, liberalizations or no change), the TC will examine several factors and suggest a set of regulations for regions, which when combined, would not exceed the RHL. These factors can include but are not limited to stock status, resource availability (based on survey and assessment data), and fishery performance (harvest, discards, effort, estimate uncertainty, inter-annual variability), as well as the standards and guiding principles set forth below. The Board will use information provided by the TC to approve a methodology for the states to use in developing regional proposals, typically at the Commission's Winter Meeting.
- The states will collaborate to develop regional proposals for the current year's recreational measures that include possession limits, size limits and season length pursuant to the Board-approved methodology. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound
- **The Board will review state proposals, TC recommendations, and establish final measures at the Commission's winter meeting.** Once the Board has approved the measures and the states have promulgated them, the Commission will send a letter to the Regional Administrator certifying the Board approved measures in combination will achieve but not exceed the RHL.

The Board also uses a set of standards and guiding principles to structure the development of measures during specification setting (Addendum XXXII Section 3.2.1).

4. Bluefish

As outlined in section 5.1.4.1.3 of Amendment 1, management measures are set annually through a specifications process. The process typically involves the following steps:

- At the joint meeting with the Council typically in December, the Board will determine whether to maintain status quo coastwide measures or a liberalization or reduction in measures are needed to achieve the coastwide RHL.
- In order to achieve the annual RHL, recreational fisheries will be constrained by a coastwide regime of coastwide size limits, bag limits, and seasons. Once a basic regime for these limits is established, typically at the joint meeting with the Council in December, states will be given the opportunity to vary these measures in accordance with the Commission's Conservation Equivalency process[3].
- A state may submit a proposal for a change to its regulatory program to the Commission. Such changes shall be submitted to the ASMFC staff, which will distribute the proposal to the Management Board, the Plan Review Team, the Technical Committee, the Stock Assessment Subcommittee, and the Advisory Panel.
- States must submit proposals at least two weeks prior to a planned meeting of the Technical Committee.
- The ASMFC staff is responsible for gathering the comments of the Technical Committee, the Stock Assessment Subcommittee, and the Advisory Panel and presenting these comments to the Management Board at the Commission's winter meeting.
- The Management Board will decide whether to approve the state proposal for an option management program if it determines that it is consistent with the harvest target and the goals and objectives of the FMP.

5. Current Accountability Measures for Summer Flounder, Scup, Black Sea Bass, and Bluefish

The Magnuson-Stevens Fishery Conservation and Management Act requires Council FMPs to contain provisions for ACLs and "measures to ensure accountability." The National Standards Guidelines state that accountability measures (AMs) "are management controls to prevent ACLs, including sector-ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur. AMs should address and minimize both the frequency and magnitude of overages

[3] http://www.asmfc.org/files/pub/ConservationEquivalencyGuidance_2016.pdf

and correct the problems that caused the overage in as short a time as possible." (50 CFR 600.310 (g)).

The current recreational AMs were established through an omnibus amendment in 2013 (Amendment 19 to the Summer Flounder, Scup, and Black Sea Bass FMP and Amendment 4 to the Bluefish FMP). The AMs are included in the Council's FMP. They are not included in the Commission's FMP; however, any changes to the AMs considered through this action will be considered by both the Council and Commission.

Proactive AMs include adjustments to the management measures for the upcoming fishing year (as described in previous sections), if necessary, to prevent the RHL and ACL from being exceeded. Measures to prevent the RHL from being exceeded are ultimately intended to also prevent ACL overages, which in turn prevents overfishing.

Given the timing of MRIP data availability, the regulations do not allow for in-season closure of the recreational fishery if the RHL or ACL is expected to be exceeded. Therefore, measures must be set in a manner that is reasonably expected to constrain harvest to the RHL.

Reactive recreational AMs include a set of possible responses to exceeding the recreational ACL, depending on stock status and which limits are exceeded. Paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the scale of the overage, as described below. ACL overages in the summer flounder, scup, and black sea bass recreational fisheries are evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), under a rebuilding plan, or the stock status is unknown:

    The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded will be deducted in the following fishing year, or as soon as possible once catch data are available.

2. If biomass is above the threshold, but below the target ($½ B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:

    a. If only the recreational ACL has been exceeded, then adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and conditions that precipitated the overage.

b. If the ABC is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock biomass. The calculation for the payback amount is: *(overage amount) * (B_{MSY}-B)/½ B_{MSY}*.

3. If biomass is above the target (B > B_{MSY}):

Adjustments to the recreational management measures (bag, size, and seasonal limits) would be considered for the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and conditions that precipitated the overage.

Reactive recreational AMs for the bluefish recreational fishery are very similar to the process described above with a few key differences. First, ACL overages are evaluated on a 1-year basis as opposed to a 3-year average. Second, if a transfer between the commercial and recreational sectors caused the transferring sector to register an ACL overage, then instead of applying an overage payback to the transferring sector, a transfer in a subsequent year would be reduced by the amount of the ACL overage.

B. Percent Change Approach

This option proposes a mechanism for providing more stability and predictability of measures while better incorporating stock status into the measures setting process. Recreational measures would be considered every other year to align with the anticipated schedule of stock assessment updates.

This option differs from the no action option (status quo) in that it includes an explicit consideration of biomass compared to the target level (B/B_{MSY}) derived from the latest stock assessment when determining if the recreational management measures should be liberalized, reduced, or remain unchanged. The amount of change varies based on the magnitude of the difference between the average MRIP estimate from the two preceding years, including a confidence interval (CI) around that estimate, and the average RHL for the upcoming two years, as well as considerations related to B/B_{MSY}.

Table 1 displays the resulting pre-defined management responses associated with each outcome. Starting with the first column, the RHL for the upcoming two-year specifications period is compared to the CI[4] of the most recent two years of MRIP estimates, or an alternative predictor of harvest based on a statistical methodology, with an associated CI. The MRIP estimates are intended as a proxy for expected harvest in the upcoming years under status quo measures. Depending on whether the average RHL is above the upper bound of the CI, within the CI, or below the lower bound of the CI, the management responses are narrowed down to rows A, B, and C, respectively. The second column narrows down the suite of management responses further by taking into consideration the B/B_{MSY} ratio. The third column displays the resulting

[4] When developing a CI from two years of MRIP data, the PDT/FMAT recommends the use of a joint distribution 80% confidence interval that takes into consideration the PSE of each individual years' MRIP estimate and the variability of the estimates between years. This recommendation is based on an analysis of several years of MRIP data for each species.

percent change in measures required for the upcoming two years. The percent change in measures is mirrored up and down to provide similar consideration of the need for reductions and opportunities for liberalization.

As shown in Table 1, when the RHL is within the CI under status quo measures, this approach allows for an incremental liberalization when stock status is greater than 150% of the target or an incremental reduction for stocks below the target. When the RHL is above the CI, this approach allows for liberalizations that scale in proportion to stock health. Conversely, when the RHL is below the CI, this approach requires reductions that scale with the health of the stock.

This option considers changes from a starting point. The current management measures may not be the appropriate starting point for a variety of reasons (e.g., widespread angler dissatisfaction with some measures and the potential for continued significant overages under the current allocations for some species). The FMAT/PDT is considering ways to define the appropriate starting point for each species by using statistical models and other methods. Additional time is needed to further develop these ideas, and updates will be provided at a future Council and Policy Board meeting.

Table 1. Approach to enacting changes in measures under the percent change approach. [1,5]

Future RHL vs MRIP Estimate		B/B_{MSY}	Change in Measures	
Row A	Future 2-YR avg. RHL greater than upper bound of 2-YR MRIP estimate CI	> 1.5	40% Liberalization[3]	
		1 - 1.5	20% Liberalization[3]	
		< 1	0% (Status Quo)	
Row B	Future 2-YR avg. RHL within CI of 2-YR MRIP estimate	> 1.5	10% Liberalization	
		1-1.5	0% (Status Quo)	
		< 1	10% Reduction	
Row C	Future 2-YR avg. RHL less than lower bound of 2-YR MRIP estimate CI	> 1.5	0% (Status Quo)[2]	10% Reduction[2]
		1-1.5	20% Reduction[3]	
		< 1	40% Reduction[3]	

[1] The proposed B/B_{MSY} inflection points are based on the Council's Risk Policy. Future changes to the Council risk policy may warrant reconsideration of this proposed process.
[2] The PDT/FMAT has not yet reached consensus on a recommendation for assigning the appropriate management response when the RHL is lower than the CI and biomass is higher than 150% of the target. Two options discussed by the FMAT/PDT are listed here.
[3] The PDT/FMAT is still in the process of determining whether the change in measures be capped such that the percentage change in measures does not exceed the percentage difference between the two-year average RHL and the two-year average MRIP point estimate.

[5] The two year average MRIP estimate with associated CI is intended as a predictor of future harvest under status quo measures. This may be replaced with statistical model based approaches for predicting harvest.

Accountability Measures under the Percent Change Approach

Under this option, measures will be more restrictive when stock status is poor and more liberal when stock status is good. This could be considered a proactive AM. In addition, when the upcoming RHL is below the lower bound of the CI of the expected harvest estimate (either a 2 year MRIP estimate or a model-based estimate), measures will be proactively reduced by a predetermined percent when the stock is less than 150% of the target level. Reductions will also be taken if the stock is below the target even when the RHL is within the CI, helping to rebuild the stock back to the target.

This option requires minimal changes from the current reactive AMs described in section 3.1-A-5. The current reactive AMs would be modified such that when paybacks are required, the payback could be spread evenly across two years to help facilitate the use of constant measures across two years. When a payback is applied, the percent change would be determined based on the reduced ACL.

Consideration could also be given to options 6 and 7 listed in section 3.2. These options consider modifications to the metrics considered when biomass is above the threshold but below the target and a scaled payback of a past overage may be needed.

C. Fishery Score Approach

The fishery score is a simple formulaic method that combines multiple metrics into one easy to interpret value. Based on the score, the stock would be placed into one of four bins with corresponding management measures. A new fishery score would be calculated every two years to align with the anticipated schedule of management track stock assessments for these species. The fishery score would be based on four metrics: Biomass (B) relative to the target (B_{MSY}), Recruitment (R), Fishing Mortality (F), and Fishery Performance, as described in more detail below. Each metric has a weight assigned to it, determined by the Monitoring Committee such that metrics with a stronger relationship to harvest would have more weight in the fishery score while still accounting for metrics that impact harvest but may not drive harvest. Additional metrics may be added and weighting schemes adjusted as more data become, based on the recommendations of the Monitoring/Technical Committees.

The fishery score is calculated using the following formula:

$$F/F_{MSY}(W_F) + B/B_{MSY}(W_B) + R\ Trend(W_R) + Fishery\ performance\ (W_{FP}) = Fishery\ Score$$

Where W refers to the weight of each factor. The fishery score value would correspond to a predetermined bin. For the purpose of explanation of the methodology, the fishery score will range from 1 to 5. The bins are defined as displayed in (**Error! Reference ource not found.**).

Bin	Fishery Score	Level of Concern	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Low Risk	Good	Most Liberal
2	3-3.99	Medium Risk	Moderate	Liberal
3	2-2.99	High Risk	Poor	Restrictive
4	1-1.99	Highest Risk	Very Poor	Most Restrictive

Table 2. Fishery score bins and the associated level of concern, stock status, and measures that are associated with each bin.

Weights will have a minimum and maximum range (e.g., a minimum of 0.1 and a maximum of 0.5) to prevent any one metric from being weighed too heavily in relation to the others. The intent is to allow the Monitoring and Technical Committees to recommend changes to the weights through the specifications process based on their expert judgement and empirical methods when possible. Changes should be limited to provide stability in comparisons over time.

A declining fishery score over time could indicate negative trends in stock status. An examination of the individual fishery score metrics can provide insight into why the overall score is declining. This can also serve as an early warning of the need to use more restrictive measures in the future if the trend continues.

Measures associated with each of the four bins would aim to achieve a range of harvest that is appropriate for the stock conditions associated with each bin. The measures in each bin would be anticipated to produce a range of possible harvest values, given uncertainty and variability in the harvest data. Considerations related to confidence intervals and other statistical metrics and models could be used to define the appropriate range of expected harvest and the measures associated with each bin. Although the fishery score is calculated based on multiple factors, the measures associated with each bin could be defined based on four categories of biomass and the associated level of harvest deemed appropriate for that biomass level. The most liberal bin (bin 1, fishery score of 4-5 in the example above) could be associated with biomass greater than 150% of the target level. The next most liberal bin (bin 2, fishery score of 3-3.99) could be associated with biomass above the target, but less than 150% of the target. The next lowest bin (bin 3, fishery score of 2-2.99) could be associated with biomass below the target and above the threshold. The most restrictive bin (bin 4, fishery score less than 2) could be associated with biomass below the threshold (however; if the stock is under a rebuilding plan, the most restrictive fishery score measures may be temporary until replaced by rebuilding plan measures). Although the measures associated with each bin would be based on biomass compared to the target,

placement of a year's measures within one of the four bins would be driven by multiple factors. For example, if the recruitment and fishery performance metrics have low scores, then the stock may be placed in a more restrictive bin with more restrictive measures than would occur based on biomass considerations alone. The opposite could occur if multiple metrics have high scores. In this way, the measures would be reflective of a combination of biomass relative to the target and assumed future conditions (e.g., high recruitment assumed to result in higher biomass in the future, allowing for more liberal measures).

Determining Metric Values

The following section provides an example of how the metrics listed above could be used to generate a fishery score value ranging from 1 to 5.

$$B/B_{MSY}(W_B)$$

Biomass from the most recent stock assessment would be given a value of 1-5 based on the following criteria, which are loosely based on other aspects of the management program (e.g., the Council's risk policy).

- 5: Biomass is equal to or greater than 150% of the target
- 4: Biomass is less than 150% of the target, and equal to or greater than the target
- 3: Biomass is below the target, and equal to or greater than 75% of the target
- 2: Biomass is below 75% of the target, and equal to or above the threshold (which is ½ the target and defines an overfished state)
- 1: Biomass is below the threshold

$$F/F_{MSY}(W_F)$$

The proposed categories for fishing mortality consider whether the most recent fishing mortality estimate is at, above, or below the threshold level. Only three increments were selected for fishing mortality as other aspects of the management program consider only whether F is at, above, or below the target.

- 5: F/F_{MSY} is at least 5% less than 1
- 3: F/F_{MSY} within 5% of 1
- 1: F/F_{MSY} is at least 5% greater than 1

$$Recruitment(W_R)$$

To determine the recruitment metric, the most recent estimate of recruitment will be compared to the 20th, 40th, 60th, 80th, and 100th percentiles of the distribution of the time series of recruitment used in stock projections. This percentile categorization of the relative strength of an incoming year class was deemed more informative than measuring trends in recruitment, especially given the highly variable nature of recruitment from year to year. Assessing where recruitment fell in the percentile

distribution was determined a more appropriate measure of recruitment's impact on future levels of biomass.

- 5: terminal year R in the 81-100 percentile
- 4: terminal year R in the 61-80 percentile
- 3: terminal year R in the 41-60 percentile
- 2: terminal year R in the 21-40 percentile
- 1: terminal year R is in the 0-20 percentile

Fishery performance (W_{FP})

Fishery performance is evaluated by comparing the confidence interval derived from the most recent two-years of MRIP harvest estimates to the two-year average RHL. The score is determined by where the average RHL appears in relation to the 2 year MRIP CI.[6] The following three categories are used for this metric:

- 5: 2-yr avg. RHL above upper bound of CI
- 3: 2-yr avg. RHL within CI
- 1: 2-yr avg. RHL below lower bound of CI

Accountability Measures under the Fishery Score Approach

Under this option, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. This is considered a proactive AM. In addition, as described above, this method can also provide an early warning of deteriorating stock conditions which can inform the setting of measures.

As under the no action option, ACL overages would be evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), under a rebuilding plan, or the stock status is unknown:

    a. The stock is placed in the most restrictive bin. These may be temporary measures until replaced by measures required by a rebuilding plan, which can take up to two years to implement.

    b. If the stock was already in the most restrictive bin or the measures in the most restrictive bin are otherwise expected to continue to result in overages,

[6] When developing a CI from two years of MRIP data, the PDT/FMAT recommends the use of a joint distribution 80% confidence interval that takes into consideration the PSE of each individual years' MRIP estimate and the variability of the estimates between years. This recommendation is based on an analysis of several years of MRIP data for each species. The use of MRIP data in this context is intended as a proxy for expected future harvest under status quo measures. This may be replaced with statistical modelling approaches for predicting harvest, with associated CIs, if such approaches are available in the future.

then those measures must be modified as soon as possible following the determination of the overage such that they are reasonably expected to prevent future overages.

2. If biomass is above the threshold, but below the target (½ B_{MSY} < B < B_{MSY}), and the stock is not under a rebuilding plan:

a. If only the recreational ACL has been exceeded, then the stock would remain in its current bin, but the measures associated with that bin and all other bins, will be re-evaluated with the goal of preventing future ACL overages.

b. If the ABC or F_{MSY} (as determined through section 3.2) is exceeded in addition to the recreational ACL, then the stock must drop down a bin and a re-evaluation of measures in all bins is triggered.

3. If biomass is above the target (B > B_{MSY}):

Consideration should be given to adjusting the management measures associated with each bin, taking into account the performance of the measures and the conditions that precipitated the overage.

D. Biological Reference Point Approach

Under this option, the primary metrics of terminal year B/B_{MSY} and F/F_{MSY} from the most recent stock assessment would be used to guide selection of management measures. Management measures would be grouped into seven bins, as illustrated in Table 3. Each bin would have a set of default measures which would be implemented the first time the stock is placed in that bin.

To define the bins under this option, fishing mortality (F) would be considered in two states (i.e., overfishing: above the threshold or not overfishing: equal to or below the threshold) while B/B_{MSY} would be further divided to provide managers and anglers with more responsive levels of access. The following categories of B/B_{MSY} are proposed.

- Biomass is greater than or equal to 150% of the target.
- Biomass is greater than or equal to the target but less than 150% of the target.
- Biomass is less than the target, but greater than or equal to the threshold (the threshold is ½ the target).
- Biomass is less than the threshold (the stock is overfished).

Recruitment and trends in biomass are secondary metrics under this option which are used to fine tune default measures only when stock conditions (F/F_{MSY} and B/B_{MSY}) relative to the categories above have not changed between the prior and most recent assessments. In this case, biomass and recruitment trends can be used to further relax, restrict, or re-evaluate measures. As such, trends in biomass and recruitment would impact the management measures, but to a lesser extent than F/F_{MSY} and B/B_{MSY}.

Changes to the measures would be considered based on the following process when updated stock assessment information is available (anticipated to be every other year). The first time a stock is in a new bin, the fishery would be subject to the default measures. If the bin remains unchanged after a subsequent stock assessment update, then trends in recruitment and biomass would be considered to determine if measures remain unchanged or if limited liberalizations or reductions can be permitted. As described below, liberalizations within a bin are only allowed in bins 1 and 2, which are associated with a healthy stock status. Restrictions and/or re-evaluation within a bin can be required based on secondary metrics for bin 3-6. This allows for relative stability if stock status is unchanged, but also room for tuning of measures if biomass and/or recruitment trends warrant it. It is intended that the changes within a bin would be based on predetermined guidelines.

Liberalizations within a bin are not permitted when biomass is below the target level or when F exceeds F_{MSY}. For example, if a stock in bin 2 (F below F_{MSY} and biomass above B_{MSY}, but below 150% of B_{MSY}) remains in bin 2 based on an updated stock assessment, then measures may be liberalized to preset measures if recruitment and/or biomass are trending upwards. If either of those trends are down, then measures would stay status quo. If the updated stock assessment information indicates biomass exceeds 150% of B_{MSY}, then the stock would move into bin 1, triggering a new set of default measures more relaxed than those from bin 2. Alternatively, if biomass is below the target, then the stock would move to a more restrictive bin (bins 3-6).

Stocks in bin 3 are not subject to overfishing and are not overfished, but are below their target biomass level. Stocks in bins 4-6 are experiencing overfishing. The goal of the management measures in bins 3-6 is to improve stock status by ending overfishing and/or increasing biomass. If the initial default measures do not accomplish this, but the primary metrics of F/F_{MSY} and B/B_{MSY} do not change, then secondary measures can inform how to better adjust regulations to reach the target through additional restrictions. This differs from stocks in bins 1-2, where measures would not be adjusted in this circumstance. Additionally, when a stock is in bins 4-6 (F exceeds F_{MSY}) and the current measures produce catch or harvest that exceed the ACL or RHL (e.g., based on a multi-year average), then the default measures should be re-evaluated.

Any overfished stock (biomass below ½ B/B_{MSY}) would automatically fall into bin 7 until an approved rebuilding plan is implemented. Stocks under a rebuilding plan must comply with the requirements of the rebuilding plan, and the rebuilding plan measures may differ from the pre-defined measures in this option.

Measures for bins 1-7 would aim to achieve a range of harvest that is appropriate for the stock conditions associated with each bin. The measures in each bin would be anticipated to produce a range of possible harvest values, given uncertainty and variability in the harvest data. Considerations related to confidence intervals and other statistical metrics and models could be used to define the appropriate range of expected harvest and the measures associated with each bin. Measures within each bin will take into consideration small changes to allow for liberalizations or reduction to allow for the flexibility to fine tune measures based on both recruitment and biomass trends in addition to the current biomass and fishing mortality levels[7].

	F ≤ Fmsy	F > Fmsy
150%Btarget ≤ B	R↑ R↓ B↑ liberal liberal B↓ default default 1	R↑ R↓ MRIP ≤ RHL/ACL B↑ default restrictive B↓ restrictive restrictive MRIP > RHL/ACL B↑ B↓ restrictive; re-evaluate measures 4
Btarget ≤ B < 150%Btarget	R↑ R↓ B↑ liberal liberal B↓ default default 2	R↑ R↓ MRIP ≤ RHL/ACL B↑ default restrictive B↓ restrictive restrictive MRIP > RHL/ACL B↑ B↓ restrictive; re-evaluate measures 5
Bthreshold ≤ B < Btarget	R↑ R↓ B↑ default restrictive B↓ restrictive restrictive 3	R↑ R↓ MRIP ≤ RHL/ACL B↑ default restrictive B↓ restrictive restrictive MRIP > RHL/ACL B↑ B↓ restrictive; re-evaluate measures 6
B < Bthreshold	MOST RESTRICTIVE/REBUILDING PLAN 7	

Table 3. Biological Reference Point table showing bins as a result of different combinations of stock conditions. The < refers to 'greater than' and the > refers to 'less than'. A line present underneath the symbol means 'equal to'.

[7] The PDT/FMAT has not yet reached consensus on a recommendation for assigning the appropriate management measures for each bin. Proposed options will be related to biomass levels, but the exact methodology that is appropriate is still under development.

Accountability Measures under the Biological Reference Point Approach

Under this option, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. Each bin has two sets of measures associated with it: a default set and either a more liberal or more restrictive set of measures. This is considered a proactive AM due to the auto-regulatory movement of a stock among bins based on stock status.

As under the no action option, ACL overages would be evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). When average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), under a rebuilding plan, or the stock status is unknown:

    a. The stock is placed in the most restrictive bin. These may be temporary measures until replaced by measures required by a rebuilding plan, which can take up to two years to implement. This is incorporated into the option as described above and will occur regardless of whether a reactive AM has been triggered.

    b. If the stock was already in the most restrictive bin or the measures in the most restrictive bin are otherwise expected to continue to result in overages, then those measures must be modified as soon as possible following the determination of the overage such that they are reasonably expected to prevent future overages.

2. If biomass is above the threshold, but below the target ($½ B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:

    a. If only the recreational ACL has been exceeded, then the stock would remain in its current bin, but the measures associated with that bin and all other bins, will be re-evaluated with the goal of preventing future ACL overages.

    b. If the ABC or F_{MSY} (as determined through section 3.2) is exceeded in addition to the recreational ACL, then the next most restrictive measures would be implemented (i.e., either the more restrictive measures in the current bin, or, if the stock is already at the most restrictive measures in a bin, then the more liberal measures in the next lower bin). A re-evaluation of measures in all bins is also triggered.

3. If biomass is above the target ($B > B_{MSY}$):

   Consideration should be given to adjusting the management measures associated with the current bin (either bin 1 or 2), taking into account the performance of the measures and the conditions that precipitated the overage.

E. Biomass Based Matrix

This option uses a matrix to set recreational measures based on two factors: B/B_{MSY} and the most recent trend in biomass (increasing, stable, or decreasing). Using these two factors and four parameters for each, as described below, provides a three-by-four matrix to determine the appropriate management measure bin. Bin A represents the optimal conditions, while Bin F represents the worst conditions. Certain pairs of conditions (e.g., a healthy stock that is increasing or an abundant stock with any biomass trend) are treated as equivalent to reduce the number of bins to six.

The specific combination of management measures that are appropriate for each bin will be species specific. However, the conditions that drive the bins can be the same across all species.

Definitions:

- Abundant = Stock is at least 150% of the target level (B_{MSY})
- Healthy = Stock is above the target, but less than 150% of the target
- Below Target = Stock is below the target, but above the threshold (the threshold is half of the target and defines an overfished condition)
- Overfished = The stock is below the threshold

When biomass exceeds 150% of the target level, regardless of the biomass trend, bin A measures are selected. This special condition is aimed at providing an opportunity to keep recreational management measures aligned with stock status, which in this case, is significantly above the target. When a stock is fished at F_{MSY} it is expected that stock size will decrease towards the biomass target unless above average recruitment events occur. Thus, it is not necessarily a negative sign if the stock at such high biomass levels experiences a declining trend.

Measures associated with each of the six bins (A-F) would aim to achieve a range of harvest that is appropriate for the stock conditions associated with each bin. Stock condition would be defined based on the biomass categories listed above and whether the biomass trend is stable, increasing, or decreasing. The measures in each bin would be anticipated to produce a range of possible harvest values, given uncertainty and variability in the harvest data. Considerations related to confidence intervals and other statistical metrics and models could be used to define the appropriate range of expected harvest and the measures associated with each bin.

Table 4. Recreational management measure matrix under the biomass based matrix approach.

		Biomass Trend		
		Increasing	**Stable**	**Decreasing**
Stock Status	**Abundant**	Bin A		
	Healthy	Bin A	Bin B	
	Below Target	Bin C	Bin D	
	Overfished	Bin E	Bin F	

Accountability Measures Under the Biomass Based Matrix

Under this option, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. This is considered a proactive AM.

As under the no action option, ACL overages would be evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), under a rebuilding plan, or the stock status is unknown:

   a. The most restrictive measures would be implemented. These may be temporary measures until replaced by measures required by a rebuilding plan, which can take up to two years to implement.

   b. If the most restrictive measures were already in place, or are otherwise expected to continue to result in overages, then those measures must be modified for the upcoming fishing year such that they are reasonably expected to prevent future overages.

2. If biomass is above the threshold, but below the target ($½ B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:

   a. If only the recreational ACL has been exceeded, then the stock would remain in its current bin, but the measures associated with that bin and all other bins, will be re-evaluated with the goal of preventing future ACL overages.

   b. If the ABC or F_{MSY} (as determined through section 3.2) is exceeded in addition to the recreational ACL, then the measures associated with the next

more restrictive bin would be implemented and a re-evaluation of measures in all bins would be triggered.

3. If biomass is above the target ($B > B_{MSY}$):

   Consideration should be given to adjusting the management measures associated with all bins, taking into account the performance of the measures and the conditions that precipitated the overage.

3.2 Accountability Measures Comparisons

The options in this section consider a change to one component of the reactive AMs. Specifically, they address situations when a reactive AM has been triggered and biomass is above the threshold but below the target level. All other components of the AMs are summarized along with options A-E above. The options described below could be used in combination with any of the other options listed above, including the no action option. These changes are only considered for the recreational AMs. No changes to the commercial AMs are considered through this action.

A. Catch compared to the ABC

Under this option, when a reactive AM has been triggered by a recreational ACL overage and the most recent biomass estimate is between the target and the threshold, catch relative to the ABC would also be considered. The response to the overage would be more restrictive if the ABC was also exceeded (e.g., a payback would be required or the stock would be placed in a more restrictive bin, depending on the option). If only the recreational ACL was exceeded, the response to the overage would be less strict (e.g., measures would be revised but a payback would not be required or the stock would remain in its current bin, depending on the option).

B. Fishing mortality compared to an F threshold

This option maintains ACL evaluations within the AMs, but rather than considering if the ABC was also exceeded, consideration would be given to if the fishing mortality threshold (F_{MSY}) was also exceeded. The intent behind this option is that it considers if total fishery removals negatively impacted the stock based on the most recent information. For example, catch in a past year may have exceeded the ACL, but a subsequent stock assessment update may indicate that the stock did not suffer notable negative impacts if the fishing mortality threshold was also not exceeded. The most recent fishing mortality estimate considers more recent information and relies on less assumptions than the information used to set a previous year's ACL. To set the ACL and ABC, projections must be made that make assumptions about how the fishery may perform. This approach using a fishing mortality comparison would look at data that represents what actually transpired in the fishery or stock during the time being evaluated, according to the most recent stock assessment. If regularly updated estimates of total fishing mortality compared to the threshold are not available, then this comparison would default to the ABC comparison described above.

The FMAT/PDT is still in the process of fully analyzing the potential benefits and challenges with this approach and can provide additional information to the Board and Council at a future meeting.

4.0 Compliance

TBD

5.0 Literature Cited

Northeast Fisheries Science Center (NEFSC). 2019. Operational Stock Assessment Report

NEFSC. 2021a. Summer Flounder Management Track Assessment Report.

NEFSC. 2021b. Scup Management Track Assessment Report.

NEFSC. 2021c. Black Sea Bass Management Track Assessment Report.

NEFSC. 2021d. Atlantic Bluefish Management Track Assessment Report.

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

Appendix 1. Comparison of Options

Will be included in supplemental materials.

Memorandum

Date: October 1, 2021

To: Mid-Atlantic Fishery Council and ASMFC Policy Board

From: Joint PDT/FMAT for Recreational Reform

Subject: Overview of work, major accomplishments, and timeline recommendations.

Since May 2021, a joint Plan Development Team (PDT) and Fishery Management Action Team (FMAT) has been working on the Recreational Harvest Control Rule Framework/Addendum as part of the Recreational Reform Initiative. A Draft Addendum document developed by the PDT/FMAT is included with the briefing materials for the Interstate Fisheries Management Program Policy Board's (Policy Board's) and Mid-Atlantic Fishery Management Council's (Council's) October 2021 meeting. The same options included in the Draft Addendum will be included in the Council's framework action and both the Council and Policy Board will approve the same final range of options and the same preferred alternative.

Through the Commission's addendum process, public comment will be collected via state hearings and a written comment period and will be presented to both the Policy Board and Council. Additional hearings will not be held though the Council process to avoid redundancy, and furthermore, hearings are not typically held for Council framework actions. For this reason, a draft framework document has not been presented. However, as previously stated, both the Council and the Policy Board will approve the same final range of options which will be included in both the Draft Addendum and the framework.

The PDT/FMAT recommendations for the management options have been incorporated into the Draft Addendum document. This memorandum summarizes additional PDT/FMAT recommendations not included in the Draft Addendum.

Postponing Approval of Final Range of Options for Draft Addendum/Framework and Approval of Draft Addendum for Public Comment to December 2021 or February 2022

The Policy Board and Council previously intended to approve a Draft Addendum for public comment and a final range of options for the framework/addendum in October 2021. The PDT/FMAT requests additional time to fully develop the options and to further develop two statistical models which can be used to inform the recreational measure setting process under the framework/addendum options.[1] These two statistical models will be critical for thorough analysis

[1] More information on the models is available here: https://www.mafmc.org/council-events/2021/ssc-peer-review-panel-sept20

of the options and will greatly improve the process for setting management measures under any of the options.

A sub-group of the Council's Science and Statistical Committee (SSC) recently reviewed both models. A final report is expected shortly. It will be provided to the Policy Board and Council and will be reviewed by the PDT/FMAT for consideration regarding further development of the options in the Draft Addendum/Framework. Comments made during the review indicated that additional work on both models will likely be recommended. Depending on further consideration of the SSC recommendations, and any additional work needed to improve these models, the PDT/FMAT may be in a position to present a more complete set of options for the framework/addendum and a Draft Addendum for approval for public comment in December 2021 or February 2022. A revised draft timeline for completion of the framework/addendum is presented below. This timeline is subject to change pending considerations such as the work needed to refine the statistical models, other priority actions, and constraints on staff time.

- October 2021
    - Policy Board and Council provide guidance on further development of the Draft Addendum/Framework during their October 21, 2021 meeting.
    - PDT/FMAT continues to refine the Draft Addendum/Framework options and consider next steps for using the two statistical models reviewed by the SSC.
- December 2021
    - Policy Board and Council consider approval of a final range of options for the framework/addendum and a Draft Addendum document for public hearings. *Pending further refinements of the options by the FMAT/PDT and considerations related to further refinement of the two statistical models, this may need to occur in February 2022 rather than December 2021.*
- Winter 2022
    - Public hearings on the Draft Addendum.
    - Continued development of models for use in measure setting.
    - PDT/FMAT and Advisory Panel meetings to consider input received during public hearings and develop recommendations for final action on the Draft Addendum/Framework.
- Spring 2022
    - Policy Board and Council review public comments, AP input, and PDT/FMAT recommendations, and consider final action on the Addendum/Framework.
    - Completion of Northeast Fisheries Science Center (NEFSC) socioeconomic survey (see section on workshops below).
    - Development of NEPA document for Council framework.
- Summer 2022
    - Data available from NEFSC survey to inform models to begin exploring measures for 2023 based on harvest control rule option selected.
    - Federal rulemaking on Council framework, likely to extend into the fall.
- Fall/Winter 2022
    - Consider recreational management measures for 2023 with the Monitoring Committee and Advisory Panel for final approval by the Council and Policy Board.

Use of Example Measures in Addendum/Framework

The options in the Draft Addendum/Framework do not set or consider specific management measures (bag, size, and season). The options instead focus on the methodology for setting those measures. The PDT/FMAT has determined it would not be appropriate to provide example measures associated with the options in the Draft Addendum/Framework for a number of reasons. One fundamental reason is that it is simply not possible to generate example measures for all options for all species with a robust and consistent methodology at this point in time. As noted above, two statistical models are currently in development which would greatly assist in the ability to generate measures for each of the harvest control rule options. However, these models are currently being refined and are not immediately available for use.

The options in the Draft Addendum/Framework do not require a specific method for setting management measures and instead define a conceptual process. The Monitoring/Technical Committees are then able to refine the methods for developing measures without a management document. This allows for timely incorporation of new data or model updates to develop the most appropriate measures for the recreational fishery.

In addition, if states retain the ability to implement conservationally equivalent measures, there is no guarantee that example measures taken out to public hearings would be the final implemented measures.

Lastly, example measures are misleading to the public as they give the impression that the example measures are expected to be implemented, which would not necessarily be the case.

The PDT/FMAT also noted that the selection of a preferred harvest control rule approach should be based on the merits of the conceptual process of the option, not the final resulting measures.

Stakeholder Workshops

In August 2021, the Policy Board and Council considered a PDT/FMAT recommendation to conduct stakeholder workshops to gather input on preferences regarding recreational management measures. Considering the revised draft timeline presented above, the PDT/FMAT now recommends against holding these workshops as they would not provide additional information of value beyond efforts already planned for 2022 by the NEFSC. The goal of the workshops was to gather input on angler preferences for measures, separate from the options considered in the Draft Addendum/Framework. Public hearings on the options in the Draft Addendum/Framework will still occur.

Based on the draft timeline presented above, recreational measures could be set based on this Draft Addendum/Framework starting in 2023. The NEFSC plans to conduct a survey of anglers' preferences for measures for summer flounder, scup, and black sea bass in early 2022. This survey is based on accepted and statistically robust surveying methodologies that have been peer reviewed and used in this and other regions. The survey will collect similar information as was planned for the stakeholder workshops. This information will be available by late 2022 and can help inform the setting of recreational measures for 2023 for summer flounder, scup, and black sea bass. The PDT/FMAT initially recommended holding workshops in late 2021 or early 2022 to collect this information with the goal of using it to inform 2022 recreational measures. Now that it is no longer recommended to use the harvest control rule for 2022, the PDT/FMAT recommends using the planned NEFSC survey rather than additional smaller-scale workshops to

gather this information. In addition, the considerable staff time to conduct the workshops can now be dedicated to completing the Addendum/Framework and other high priority actions for these species.

The planned NEFSC survey will not address bluefish. However, the bluefish rebuilding plan will be implemented in 2022 with a target rebuild date of 2028 and the harvest control rule options are not meant to replace the rebuilding plan. If there is a desire to hold stakeholder workshops on angler preferences for bluefish, it may be appropriate to do this at a later date after additional progress with rebuilding has been made.

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: October 1, 2021

To: Council and Policy Board

From: Brandon Muffley, Council staff

Subject: SSC Sub-Group Review of Recreational Models

On Monday, September 20, 2021, the Mid-Atlantic Fishery Management Council (Council) convened a panel consisting of members of the Council's Science and Statistical Committee (SSC) to review two recreational management models.

The two models, a recreational fleet dynamics model and an economic recreational demand model, are being considered for use in developing management measures under the alternatives considered through the Recreational Harvest Control Rule Framework/Addendum for summer flounder, scup, black sea bass, and bluefish. These models could also be used under the current process for setting recreational management measures. The peer review panel was tasked with identifying potential benefits, uncertainties, and appropriate approaches and considerations of each model for use in setting recreational management measures.

A final report from the peer review will be posted with the briefing materials for the Council and Policy Board's October 21, 2021 meeting once it is available.

Background materials on the peer review and the two models, including terms of reference for the review, presentations, and overviews of the two models are available here: https://www.mafmc.org/council-events/2021/ssc-peer-review-panel-sept20.