



October 5-8, 2020 Council Meeting Webinar Briefing Book Directory

Meeting Web Page: <http://www.mafmc.org/briefing/october-2020>

Webinar: <http://mafmc.adobeconnect.com/october2020/>

The table below summarizes the briefing documents included under each tab in the main briefing book (some items may reference documents located in other tabs). Click on the blue text in the left column to jump to the beginning of the tab. Additional briefing materials will be posted as supplemental documents on the meeting page linked above. For ease of reference, each document appears in the Bookmarks panel on the left side of the window, with an interactive link to each listed document. To show the Bookmarks panel while viewing the briefing book in Adobe Reader or Acrobat, click on the ribbon icon on the left side panel. Document bookmarks may have limited functionality if you are viewing the briefing book in a browser.

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<p>Tab 06: Update on EAFM Activities</p>	<ul style="list-style-type: none"> • Staff Memo: Update on EAFM Activities
<p>Tab 07: Joint Council-SSC Meeting</p>	<ul style="list-style-type: none"> • Agenda • Background Information for Joint Council-SSC Meeting
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<p>Tab 10: Committee Reports (SSC)</p>	<ul style="list-style-type: none"> • SSC September Meeting Report
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October 2020 Council Meeting Webinar

Monday, October 5 – Thursday, October 8, 2020

Due to public health concerns related to the spread of COVID-19 (coronavirus), the Mid-Atlantic Fishery Management Council's October meeting will be conducted by webinar only. This webinar-based meeting replaces the in-person meeting previously scheduled to be held in Riverhead, NY.

Briefing materials and webinar connection are available on the Council's website at <http://www.mafmc.org/briefing/october-2020>.

Agenda

Monday, October 5th

- 1:00 p.m. - 4:00 p.m. Executive Committee - 2021 Implementation Plan (Tab 1)**
- Review progress on 2020 Implementation Plan
 - Review staff recommendations for 2021 actions and deliverables
 - Public Comment Opportunity
 - Develop draft recommendations for 2021 actions and deliverables

Tuesday, October 6th

- 9:00 a.m. Council Convenes**
- 9:00 a.m. - 10:00 a.m. Spiny Dogfish Committee, Meeting as a Committee of the Whole - Spiny Dogfish Specifications (Tab 2)**
- Review SSC, Advisory Panel, Monitoring Committee, and staff recommendations
 - Adopt 2021-2022 specifications
- 10:00 a.m. - 11:00 a.m. Chub Mackerel Specifications (Tab 3)**
- Review SSC, Advisory Panel, Monitoring Committee, and staff recommendations for 2021 specifications
 - Review previously implemented 2021 specifications and recommend changes if necessary
- 11:00 a.m. - 12:00 p.m. Executive Order 13921 on Promoting American Seafood Competitiveness and Economic Growth (Tab 4)**
- Finalize prioritized list of recommendations for submission to NMFS
- 12:00 p.m. - 1:00 p.m. Lunch**
- 1:00 p.m. - 2:00 p.m. Research Priorities Update (Tab 5)**
- Review approach and timeline for 2021 research priorities evaluation

- 2:00 p.m. - 3:00 p.m. Ecosystem Approach to Fisheries Management Updates (EAFM) (Tab 6)**
- Summer flounder recreational discard management strategy evaluation
 - Other EAFM related activities
- 3:00 p.m. - 4:30 p.m. Joint Council/SSC Meeting (Tab 7)**
- Direction for SSC Socioeconomic workgroup
 - Science considerations due to missing 2020 data
 - Risk policy considerations for ocean quahog
- 4:30 p.m. Council Adjourns**

Wednesday, October 7th

- 9:00 a.m. Council Meeting with the Atlantic States Marine Fisheries Commission's Bluefish Management Board**
- 9:00 a.m. - 12:00 p.m. Bluefish Allocation and Rebuilding Amendment (Tab 8)**
- Approve a range of alternatives for inclusion into a public hearing document
- 12:00 p.m. - 1:00 p.m. Lunch**
- 1:00 p.m. Council Meeting with the Atlantic States Marine Fisheries Commission**
- 1:00 p.m. - 4:00 p.m. Recreational Reform Initiative (Tab 9)**
- Update on progress
 - Consider initiating a management action
- 4:00 p.m. Council/Commission Adjourn**

Thursday, October 8th

- 9:00 a.m. Council Convenes**
- 9:00 a.m. - 10:00 a.m. Update/Overview of the Proposed Rule for the Atlantic Large Whale Take Reduction Plan**
Colleen Coogan (Take Reduction Team Coordinator) – NMFS/GARFO
- 10:00 a.m. – 1:00 p.m. Business Session**
- Committee Reports (Tab 10)**
- Scientific and Statistical Committee Report
 - Executive Committee Report
- Executive Director's Report (Tab 11)**
Chris Moore
- Organization Reports**
- NMFS Greater Atlantic Regional Office
 - NMFS Northeast Fisheries Science Center
 - NOAA Office of General Counsel
 - NOAA Office of Law Enforcement
 - US Coast Guard

Liaison Reports (Tab 12)

- New England Council
- South Atlantic Council

Continuing and New Business

August 2020 Council motions
Webinar

MONDAY, AUGUST 10, 2020

Mackerel, Squid, Butterfish

Move to adopt 2021-2022 mackerel specifications as described in Table 1 of the MSB Monitoring Committee Summary.
Nolan/Heins (19/0/0) Motion carries Committee of the Whole
Motion carries Council by consent.

Move to adopt 2021-2023 longfin squid specifications as described in Table 2 of the MSB Monitoring Committee Summary.
Nolan/Heins (20/0/0) Motion carries Committee of the Whole
Motion carries Council by consent.

Move to adopt 2021-2022 butterfish specifications as described in Table 3 (Option A) of the MSB Monitoring Committee Summary.
Nolan/DiLernia (20/0/0) Motion carries Committee of the Whole
Motion carries Council by consent.

River Herring/Shad

Move to maintain the current 129 MT RH/S Cap for 2021-2022.
deFur/Elliott (19/0/0) Motion carries Committee of the Whole.
Motion carries Council by consent.

TUESDAY, AUGUST 11, 2020

Bluefish

Move that the bluefish 2021 ABC=ACL=16.28 M lbs. Using MRIP discards from 2019 (5.17 M lbs.) and including no transfer to the commercial fishery, the RHL=8.34 M lbs. With commercial discards set to 0, the commercial quota=2.77 M lbs.
Board: Meserve/Fote (12/0/0/1)
Council: Clark/DiLernia (20/0/0)
Motion carries

Summer Flounder

Move that, based on the SSC and MC recommendations, the summer flounder 2021 recreational ACL=ACT=12.48 mil lb. and the commercial ACL=ACT=14.63 mil lb. The RHL=8.32 mil lb. and the commercial quota = 12.49 mil lb.
Board: Hasbrouck/Clark (Motion carries by consent)
Council: DiLernia/Cimino (Motion carries by consent)
Motion carries

Scup

Move that, based on the SSC, staff, and MC recommendations, the scup 2021 recreational ACL=ACT=7.66 mil lbs. and the commercial ACL=ACT=27.15 mil lbs. The RHL=6.07 mil lbs. and the commercial quota=20.50 mil lbs.
Board: Hasbrouck/Davis (Motion carries by consent with one abstention)
Council: Davidson/Wilke (Motion carries by consent)
Motion carries

Black Sea Bass

Move that, based on the SSC, staff, and MC recommendations, the black sea bass 2021 recreational ACL=ACT=7.93 mil lb. and the commercial ACL=ACT=9.52 mil lb. The RHL=6.34 mil lb. and the commercial quota=6.09 mil lb.
Board: Batsavage/Clark (10/1/0/0)
Council: Batsavage/Clark (17/3/0)
Motion carries

Move to update the values for initial expected February recreational harvest by state based on the Monitoring Committee recommendation presented today.

Board: Meserve/Miller (10/1/0/0)

Council: Davidson/deFur (14/4/0)

Motion carries

WEDNESDAY, AUGUST 12, 2020

Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment

Move to remove recreational for-hire sector separation from further development in the summer flounder, scup, and black sea bass commercial/recreational allocation amendment. Further development of for-hire sector separations should be considered under comprehensive recreational reform initiatives.

Council: Cimino/DiLernia (18/2/0)

Board: Cimino/Clark (9/1/0/1)

Motion carries

Move to postpone indefinitely further development of this amendment.

Council: Townsend/Gwin (4/15/0)

Board: Reid/Davis

Motion fails for lack of Council majority

Move to task the FMAT to analyze an option for increasing the commercial allocation by 5% in all six categories for comm./rec. allocation.

Council: Farnham/Hughes (1/19/0)

Board: Reid/Hasbrouck

Motion fails for lack of Council majority

Move to remove option 3b-2 from the range of alternatives.

Board: Meserve/Pentony (Motion carries by consent)

Council: Bolen/DiLernia (20/0/0)

Motion carries

Move to amend to add "and limit the alternative set to the scup fishery."

Board: McNamee/Maniscalco (5/4/1/1)

Council: Batsavage/DiLernia (8/12/0)

Motion fails for lack of Council majority

Move to approve the range of alternatives for inclusion in a public hearing document, as modified today, with the exception of the trigger approach as recommended by the FMAT.

Board: Davis/Clark (10/0/0/1)

Council: Clark/deFur (Motion carries by consent)

Motion carries

Surfclam and Ocean Quahog

Move that the Atlantic surfclam 2021-2026 specifications be set as given below in the table. These are consistent with the SSC recommendations for OFL/ABC, and staff recommendations for ACL, ACT=29,363 mt, and commercial quota=26,218 mt.

DeFur/Hughes

Motion carries by consent

Year	OFL	ABC	ACL	ACT	Commercial Quota
2021	51,361 mt	47,919 mt	47,919 mt	29,363 mt	26,218 mt
2022	48,202 mt	44,522 mt	44,522 mt	29,363 mt	26,218 mt
2023	45,959 mt	42,237 mt	42,237 mt	29,363 mt	26,218 mt
2024	44,629 mt	40,946 mt	40,946 mt	29,363 mt	26,218 mt
2025	44,048 mt	40,345 mt	40,345 mt	29,363 mt	26,218 mt
2026	43,886 mt	40,264 mt	40,264 mt	29,363 mt	26,218 mt

Move that the ocean quahog 2021-2026 specifications be set as given here. These are consistent with the SSC recommendations for OFL/ABC, and staff recommendations for ACL, ACT, and commercial quota.

Hughes/Gwin

Motion carries by consent

Year	OFL	ABC	ACL	ACT*	Commercial Quota*
2021	44,960 mt	44,031 mt	44,031 mt	25,924 mt	24,689 mt
2022	45,001 mt	44,072 mt	44,072 mt	25,924 mt	24,689 mt
2023	45,012 mt	44,082 mt	44,082 mt	25,924 mt	24,689 mt
2024	44,994 mt	44,065 mt	44,065 mt	25,924 mt	24,689 mt
2025	44,948 mt	44,020 mt	44,020 mt	25,924 mt	24,689 mt
2026	44,875 mt	43,948 mt	43,948 mt	25,924 mt	24,689 mt

* For combined Maine and non-Maine quahog fishery.

Move to request the Regional Administrator suspend the minimum size requirements for surfclam in 2021.

Hughes/deFur

Motion carries with 1 abstention by NMFS

THURSDAY, AUGUST 13, 2020

Executive Director's Report

Move to send a letter to GARFO and NEFSC advising that observer coverage be resumed at the time normal operations at the regional office and science center are also resumed.

DiLernia/Hughes

Move to substitute to send a letter to GARFO and NEFSC recommending, in response to the COVID-19 pandemic, extending the waiver granted to vessels with Greater Atlantic Region fishing permits to carry human observers or at-sea monitors through December 31, 2020. Council staff should work with GARFO and NEFSC to begin analysis of the science and management impacts of this waiver extension.

Nowalsky/deFur (17/0/3)

Motion carries

Substitute motion becomes main motion:

Move to send a letter to GARFO and NEFSC recommending, in response to the COVID-19 pandemic, extending the waiver granted to vessels with Greater Atlantic Region fishing permits to carry human observers or at-sea monitors through December 31, 2020. Council staff should work with GARFO and NEFSC to begin analysis of the science and management impacts of this waiver extension.

(17/1/2)

Motion carries

Move to support sending a letter to NEFMC asking them to prioritize in 2021 an amendment to address leasing in the full-time limited access sea scallop fishery.









Hughes/Bolen (16/1/3)








Motion carries

The above agenda items may not be taken in the order in which they appear and are subject to change, as necessary. Other items may be added, but the Council cannot take action on such items even if the item requires emergency action without additional public notice. Non-emergency matters not contained in this agenda may come before the Council and / or its Committees for discussion, but these matters may not be the subject of formal Council or Committee action during this meeting. Council and Committee actions will be restricted to the issues specifically listed in this agenda. Any issues requiring emergency action under section 305(c) of the Magnuson-Stevens Act that arise after publication of the Federal Register Notice for this meeting may be acted upon provided that the public has been notified of the Council's intent to take final action to address the emergency. The meeting may be closed to discuss employment or other internal administrative matters.

Stock Status of MAFMC-Managed Species

(as of 9/21/20)

SPECIES	STATUS DETERMINATION CRITERIA		Stock Status	Most Recent Assessment
	Overfishing $F_{\text{threshold}}$	Overfished $\frac{1}{2} B_{\text{MSY}}$		
 Summer Flounder	$F_{35\%MSP}=0.448$	63 million lbs	No overfishing Not overfished	Most recent benchmark assessment was 2018.
 Scup	$F_{40\%MSP}=0.215$	103.64 million lbs	No overfishing Not overfished	Most recent operational assessment was 2019.
 Black Sea Bass	$F_{40\%MSP}=0.46$	15.53 million lbs	No overfishing Not overfished	Most recent operational assessment was 2019.
 Bluefish	$F_{35\%SPR}=0.183$	219.05 million lbs	No overfishing Overfished	Most recent operational assessment was 2019.
 Illex Squid (short finned)	Unknown	Unknown	Unknown Unknown	Most recent benchmark assessment was 2006; not able to determine current exploitation rates or stock biomass.
 Longfin Squid	Unknown	46.7 million lbs	Unknown Not overfished	Most recent assessment was 2020; not able to determine current exploitation rates.
 Atlantic Mackerel	$F_{40\%}=0.26$	217.0 million pounds	Overfishing Overfished	Most recent benchmark assessment was 2017
 Butterfish	$F_{\text{Proxy}}=2/3M=0.81$	50.3 million lbs	No overfishing Not overfished	Most recent assessment was 2020.

SPECIES	STATUS DETERMINATION CRITERIA		Stock Status	Most Recent Assessment
	Overfishing $F_{\text{threshold}}$	Overfished $\frac{1}{2} B_{\text{MSY}}$		
Surfclam 	$F/F_{\text{threshold}} = 1^a$	$SSB/SSB_{\text{threshold}} = 1^b$	No overfishing Not overfished	Most recent assessment was 2020
Ocean Quahog 	$F/F_{\text{threshold}} = 1^c$	$SSB/SSB_{\text{threshold}} = 1^d$	No overfishing Not overfished	Most recent assessment was 2020.
Golden Tilefish 	$F_{38\%MSP} = 0.310$	10.46 million lbs	No overfishing Not overfished	Most recent assessment update was 2017.
Blueline Tilefish 	Unknown	Unknown	South of Cape Hatteras: No overfishing Not overfished North of Cape Hatteras: Unknown Unknown	Most recent benchmark assessment was 2017.
Spiny Dogfish (Joint mgmt with NEFMC) 	$F_{\text{MSY}} = 0.2439$	175.6 million lbs Female SSB	No overfishing Not overfished	Most recent assessment update was 2018.
Monkfish (Joint mgmt with NEFMC) 	NFMA & SFMA $F_{\text{MAX}} = 0.2$	NFMA - 1.25 kg/tow SFMA - 0.93 kg/tow (autumn trawl survey)	Unknown Unknown	Recent benchmark failed peer review and invalidated previous 2010 benchmark assessment results. Operational assessment in 2019 used survey data to scale earlier ABC.
Chub Mackerel 	At least 3,026 MT of catch per year	At least 3,026 MT of catch three years in a row	No overfishing Not overfished	No stock assessment.

SOURCES: Office of Sustainable Fisheries - Status Report of U.S. Fisheries; SAW/SARC, SEDAR, and TRAC Assessment Reports.

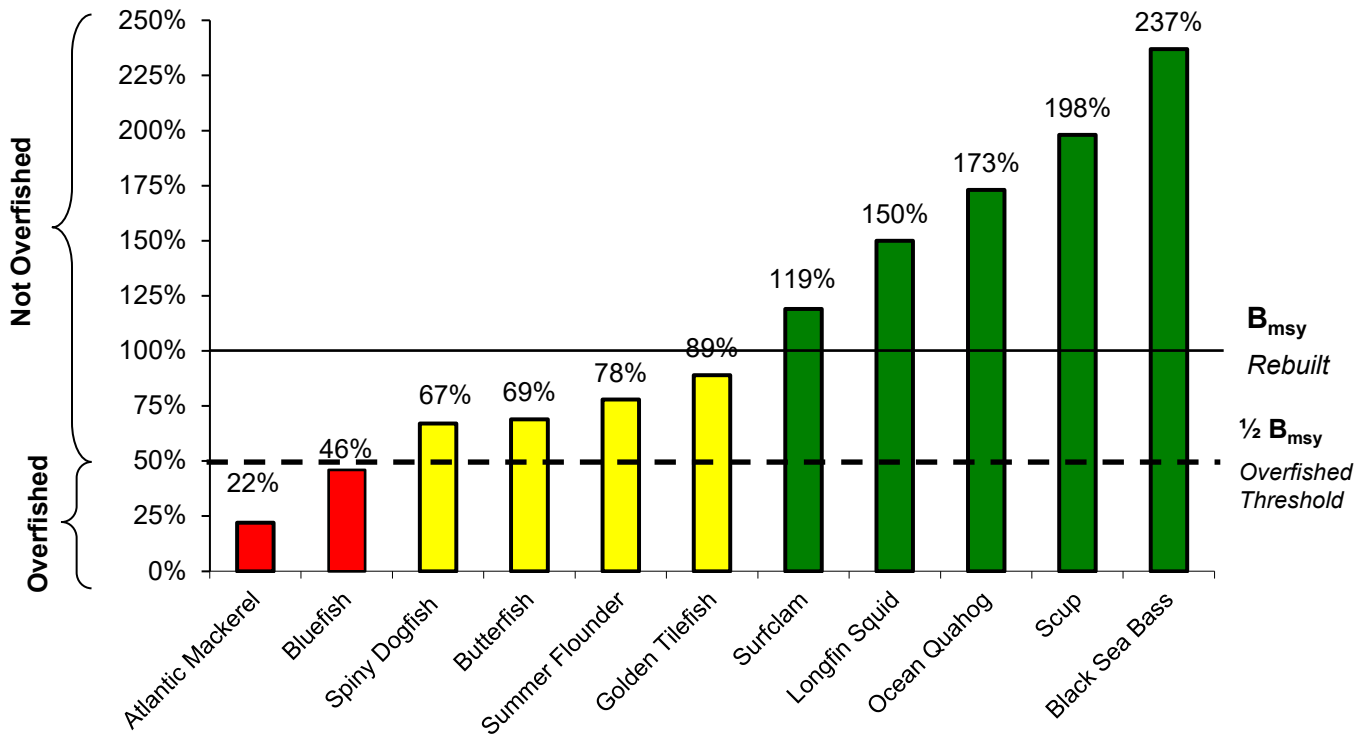
^a $F_{\text{threshold}}$ is calculated as 4.136 times the mean F during 1982 - 2015

^b $SSB_{\text{threshold}}$ is calculated as $SSB_0/4$

^c $F_{\text{threshold}}$ is 0.019

^d $SSB_{\text{threshold}}$ is calculated as $0.4 * SSB_0$

Stock Size Relative to Biological Reference Points (as of 9/21/20)



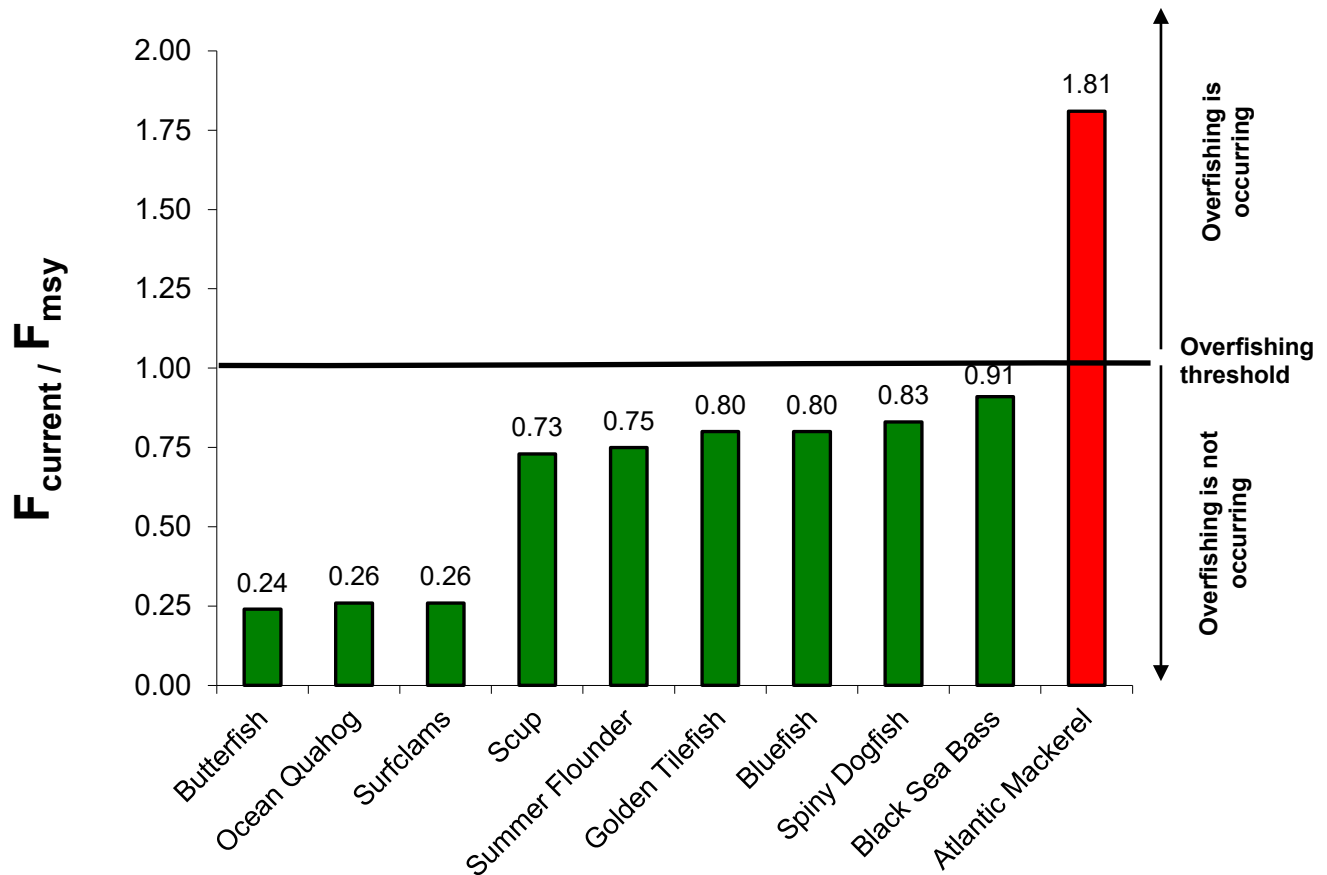
Notes:

- Unknown B_{msy} - *Illex* squid, monkfish (NFMA & SFMA), blueline tilefish (North of Cape Hatteras), and chub mackerel.
- Of the 15 species managed by the Council, 5 are above B_{msy} , 6 are below B_{msy} , and 4 are unknown.

Year of data used to determine stock size	
Atlantic Mackerel	2016
Black Sea Bass	2018
Bluefish	2018
Butterfish	2019
Golden Tilefish	2016
Longfin Squid	2018-2019 (average)
Ocean Quahog	2016
Spiny Dogfish	2018
Surfclam	2019
Scup	2018
Summer Flounder	2017

Fishing Mortality Ratios for MAFMC-Managed Species

(as of 9/21/20)



Notes:

- Unknown fishing mortality: *Illex* squid, Longfin squid, monkfish (NFMA and SFMA), blueline tilefish (North of Cape Hatteras), and chub mackerel.
- Of the 15 species managed by the Council, 9 are above F_{msy}, 1 is above, and 5 are unknown.

Year of data used to determine fishing mortality	
Atlantic Mackerel	2016
Black Sea Bass	2018
Bluefish	2018
Butterfish	2019
Golden Tilefish	2016
Ocean Quahog	2019
Spiny Dogfish	2017
Surfclam	2019
Scup	2018
Summer Flounder	2017



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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

M E M O R A N D U M

Date: September 24, 2020
To: Executive Committee
From: Chris Moore, Executive Director
Subject: 2021 Implementation Plan – Initial Discussion

The Executive Committee will meet on Monday, October 5 to receive an update on the 2020 Implementation Plan and discuss proposed actions and deliverables for the 2021 Implementation Plan. The Council will review and approve a complete 2021 Implementation Plan in December. The following items are enclosed for Committee review:

1. 2020 Proposed Actions and Deliverables – End-of-Year Updates
2. Draft 2021 Proposed Actions and Deliverables

Related to this discussion is the ongoing development of recommendations in response to the President’s Executive Order 13921 on Promoting American Seafood Competitiveness and Economic Growth. Each Council has been asked to submit a prioritized list of recommended actions to reduce burdens on domestic fishing and to increase production within sustainable fisheries. Each recommendation must include a proposal for initiating action by May 6, 2021. The Council is scheduled to finalize its recommendations on Tuesday, October 6. If approved, several of the proposed recommendations would need to be incorporated into the 2021 Implementation Plan. Because the Council’s list has not yet been finalized, these items are noted in a section titled “Possible Additions – E.O. 13921” at the bottom of page 2 in the 2021 Proposed Actions and Deliverables. This list does not include actions or projects that have already been initiated or recommendations that would be directed to other agencies. A complete list of draft recommendations is available in Tab 4 on the October 2020 Council Meeting page at <https://www.mafmc.org/briefing/october-2020>.

2020 Proposed Actions and Deliverables

End-of-Year Updates

The table below provides an update on the status of proposed actions and deliverables from the Council’s 2020 Implementation Plan. This document reflects the expected status of each item by the end of 2020 (tasks may be marked as “Completed” if they will be addressed at the October or December meetings).

- **Completed:** The task is expected to be completed by the end of 2020. Amendments, frameworks, and specifications are considered “Completed” once the Council has taken final action.
- **In Progress:** The task is on track, and work will carry over into the following year.
- **Ongoing:** The task is part of the Council’s routine activities and does not have an expected end point.
- **Delayed or Postponed:** The original timeline has shifted.

(A) before an item signifies that it is an addition to the deliverables originally approved for 2020

Deliverable	Expected status by end of 2020	Notes
Summer Flounder, Scup, Black Sea Bass		
Review 2021 specifications for summer flounder, scup, and black sea bass	Completed	
Develop and approve 2021 recreational management measures for summer flounder, scup, and black sea bass	Completed	Planned for December meeting.
Develop advisory panel fishery performance reports	Completed	
Initiate action to revise recreational management system for summer flounder, scup, and black sea bass to allow for greater stability and flexibility (“Recreational Reform Initiative”)	In Progress	The Council and Board are expected to initiate an action in October.
Evaluate commercial scup discards and gear restricted areas	Completed	
Continue development of Summer Flounder, Scup, Black Sea Bass Commercial/ Recreational Allocation Amendment	In Progress	Final action expected in 2021.
Continue development of Black Sea Bass Commercial State Allocation Amendment	Completed	Final action expected in December. Amendment submission to NMFS expected in 2021.
Initiate Ecosystem Approach to Fisheries Management (EAFM) management strategy evaluation (MSE) for summer flounder	In Progress	Initiation complete; project is in progress.
(A) Complete summer flounder commercial/recreational allocation study (contract)	Completed	

Deliverable	Expected status by end of 2020	Notes
(A) Complete summer flounder recreational F-based management study (contract)	Completed	
Bluefish		
Review 2021 bluefish specifications	Completed	
Develop and approve 2021 bluefish recreational management measures	Completed	Planned for December meeting.
Develop advisory panel fishery performance report	Completed	
Continue development of Bluefish Allocation and Rebuilding Amendment	In Progress	Final action expected in 2021.
Golden and Blueline Tilefish		
Develop and approve 2021-2022 golden tilefish specifications	Completed	
Review 2021 blueline tilefish specifications	Completed	
Develop advisory panel fishery performance reports	Completed	
Address private recreational permitting and reporting issues (NOAA Fisheries Greater Atlantic Fisheries Regional Office (GARFO) lead)	Completed	Outreach conducted throughout the year to support implementation of permitting and reporting requirements. Funding provided for eFin Logbook app development.
Tilefish survey	In Progress	Survey complete. Report expected in 2021.
Mackerel, Squid, Butterfish (MSB)		
Develop and approve 2021-2022 specifications for Atlantic mackerel and butterfish	Completed	
Develop and approve 2021-2023 specifications for longfin and <i>Illex</i> squids	Completed	
Develop advisory panel fishery performance reports	Completed	
Review butterfish cap performance report	Completed	
Take final action on <i>Illex</i> Permit and MSB Goals and Objectives Amendment	Completed	Amendment submission to NMFS expected in early 2021.
Review recommendations of <i>Illex</i> Working Group regarding real time <i>Illex</i> squid management and/or quota adjustments	Completed	Work extended in to 2021.
<i>Illex</i> growth and maturity data project	Completed	
Review 2020-2021 chub mackerel specifications	Completed	Planned for October meeting.
HMS/chub mackerel diet study (final report)	Delayed due to COVID-19	

Deliverable	Expected status by end of 2020	Notes
River Herring and Shad (RH/S)		
Develop and approve RH/S cap for Atlantic mackerel fishery for 2021-2022	Completed	
Develop RH/S discussion papers (e.g. biological caps, New England alignment, hotspots)	Completed	Council will review at February 2021 meeting.
Spiny Dogfish		
Revise 2021 and develop 2022 spiny dogfish specifications	Completed	Planned for October meeting.
Develop advisory panel fishery performance report	Completed	
Surfclam and Ocean Quahog		
Develop and approve 2021-2026 specifications for surfclam and ocean quahog	Completed	
Develop advisory panel fishery performance reports	Completed	
Initiate Commingling/Discarding Issues Action	In Progress	Initiation complete; project is in progress.
Surfclam genetic study (contract; ongoing)	In Progress	
Science and Research		
Initiate a workshop to review and consider redevelopment of the Research Set-Aside (RSA) program	Postponed	The RSC agreed to postpone the workshop due to COVID-19. Staff continues to work with the RSC chair on development.
Continue to support the Fishery Dependent Data Initiative (GARFO lead)	Ongoing	Monthly calls with GARFO on eVTR implementation.
Identify new Scientific and Statistical Committee (SSC) membership	Completed	
Convene joint Council-SSC meeting	Completed	Planned for October meeting.
Maryland Recreational Ocean Effort Video Estimation project (contract)	In Progress	Video capture in progress since Wave 4 (installation delayed by COVID-19).
Develop a process to track progress toward addressing the Council's research priorities.	Completed	Planned for October meeting.
(A) Complete additional analysis needed to complete Omnibus Risk Policy Framework	Completed	
(A) Establish SSC Economic Work Group	Completed	
Ecosystem and Ocean Planning/Habitat		
Coordinate Northeast Regional Habitat Assessment (NRHA)	Ongoing	
Continue work on Essential Fish Habitat (EFH) Redo	Ongoing	

Deliverable	Expected status by end of 2020	Notes
Update the EAFM risk assessment	Completed	
Develop habitat- and fishery-related comments on offshore energy development	Completed/ Ongoing	Several letters sent on habitat and wind issues.
Maintain joint MAFMC and New England Fishery Management Council (NEFMC) Offshore Wind web page and Offshore Wind Notices to Mariners web page	Ongoing	Additional page for “Offshore Wind Public Comment Opportunities” page created
Initiate climate change and distribution shift scenario planning	Ongoing	Update expected at October meeting.
General		
Complete the Commercial Fisheries Electronic Vessel Trip Report (eVTR) Framework	Completed	
Track relevant fisheries legislation, including Magnuson-Stevens Act reauthorization, and develop comments as requested	Ongoing	
(A) Review commercial landings of unmanaged species	Completed	
(A) Develop recommendations as required by EO 13921	Completed	Planned for October meeting.
Communication and Outreach		
Continue to implement the Council communication and outreach plan	Ongoing	
Develop and maintain Council action web pages	Ongoing	
Develop fact sheets and outreach materials as needed	Ongoing	
Complete the website update and improvement project	In Progress	
Establish a Communication/Outreach Advisory Panel	Postponed	Moved to 2021 to align with 3 year appointment cycle for all APs.
(A) Create Council YouTube channel and pre-recorded scoping/public hearing videos	Completed	
(A) Develop webinar participation guide and web page to support increased reliance on webinars	Completed	www.mafmc.org/webinar
(A) Develop new web page on MRIP/Recreational Data Collection	Completed	www.mafmc.org/mrip
(A) Develop eVTR webpages and outreach materials	Completed	www.mafmc.org/evtr

Deliverable	Expected status by end of 2020	Notes
Possible Additions <i>The following items were included in the 2020 Implementation Plan to be considered if time and resources allowed:</i>		
Expand summer flounder recreational management strategy evaluation to include scup and black sea bass (contract)		
Review red crab and lobster fishery exemptions for discrete deep sea coral protected zones		
Develop a white paper on fixed/variable costs and employment information (all Northeast fisheries)		
Initiate action to address right whale issues		
Modify list of ecosystem component species from Unmanaged Forage Amendment (e.g., addition of cancer crabs)		
Review RH/S annual progress update		
Convene a workshop to discuss the impacts of pollutants on Mid-Atlantic fisheries		
Review eVTR submission timeframe		
Aquaculture (address as needed)		

2021 Proposed Actions and Deliverables

DRAFT 9/18/20

Summer Flounder, Scup, Black Sea Bass

1. Develop 2022-2023 specifications for summer flounder, scup, and black sea bass
2. Develop 2022 recreational management measures for summer flounder, scup, and black sea bass
3. Review and potentially revise commercial minimum mesh size regulations and exemptions for summer flounder, scup, and black sea bass
4. Develop advisory panel fishery performance report
5. Continue development of the Recreational Reform Initiative
6. Evaluate commercial scup discards and gear restricted areas
7. Complete the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment
8. Continue development of the Ecosystem Approach to Fisheries Management (EAFM) management strategy evaluation (MSE) for summer flounder
9. Support management track assessments for summer flounder, scup, and black sea bass

Bluefish

10. Develop 2022-2023 bluefish specifications
11. Develop 2022 bluefish recreational management measures
12. Develop advisory panel fishery performance report
13. Complete the Bluefish Allocation and Rebuilding Amendment
14. Support management track assessment for bluefish

Golden and Blueline Tilefish

15. Review 2022 golden tilefish specifications
16. Develop 2022-2023 (or just 2022) blueline tilefish specifications
17. Develop advisory panel fishery performance reports
18. Review performance of private recreational tilefish permitting and reporting
19. Support management track assessment for golden tilefish

Mackerel, Squid, Butterfish (MSB)

20. Review 2022 Atlantic mackerel, chub mackerel, longfin, and butterfish specifications
21. Develop 2022 *Illex* specifications
22. Develop advisory panel fishery performance reports
23. Develop and review *Illex* Working Group report
24. Review HMS/chub mackerel diet study final report
25. Support management track assessment for Atlantic mackerel
26. Support research track assessments for butterfish and *Illex* squid

River Herring and Shad (RH/S)

27. Review RH/S cap performance and RH/S update

Spiny Dogfish

28. Review 2022 spiny dogfish specifications
29. Develop advisory panel fishery performance report

Surfclam and Ocean Quahog

30. Review 2022 specifications for surfclam and ocean quahog

31. Develop advisory panel fishery performance reports
32. Continue work on Commingling/Discarding Issues Action
33. Review surfclam genetic study final report

Science and Research

34. Convene a workshop to review and consider redevelopment of the research set-aside (RSA) program
35. Conduct a biennial review and update of the 2020-2024 research priorities document
36. Convene a joint Council/SSC meeting
37. Review outcomes and recommendations from SSC Economic Workgroup
38. Support the Fishery Dependent Data Initiative (GARFO lead)

Ecosystem and Ocean Planning/Habitat

39. Develop and review the 2021 EAFM risk assessment report
40. Coordinate the Northeast Regional Habitat Assessment (NRHA)
41. Continue work on the Essential Fish Habitat (EFH) Redo
42. Maintain joint MAFMC and New England Fishery Management Council (NEFMC) offshore wind web pages
43. Develop habitat- and fishery-related comments on offshore energy development
44. Continue development of East Coast climate change and distribution shift scenario planning initiative

General

45. Review commercial landings of unmanaged species
46. Complete advisory panel reappointment for all APs

Communication and Outreach

47. Continue to implement the Council communication and outreach plan
48. Develop and maintain Council action web pages
49. Develop fact sheets and outreach materials as needed
50. Establish a Communication/Outreach Advisory Panel
51. Conduct virtual or in-person workshops to support commercial eVTR implementation
52. Maintain general and issue-specific email distribution lists

Staff Wrap-Up on Completed Actions

The following actions have been, or are expected to be, approved by the Council by the end of 2020 but will require staff work in 2021 to finalize for submission to NMFS:

53. Black Sea Bass Commercial State Allocation Amendment
54. *Illex* Permit and MSB Goals and Objectives Amendment

Possible Additions – E.O. 13921

The following items from the Council's draft list of E.O. 13921 recommendations would need to be added to the 2021 deliverables if they are included in the Council's final recommendations submitted to NMFS. Note that this list excludes actions already contained in the sections above or recommendations that would be directed to other agencies. See tab 4 on the October 2020 meeting page for more details.

55. Consider increasing the *Illex* incidental possession limit for vessels possessing a certain amount of longfin squid after the *Illex* fishery closes (could be considered when setting 2022 *Illex* specifications)
56. Consider increasing the amount of butterfish that can be landed by vessels using smaller than 3-inch mesh (could be considered when reviewing 2022 butterfish specifications)
57. Develop a white paper on the potential economic impacts of changing the federal spiny dogfish trip limit
58. Initiate a framework to allow golden tilefish specifications to be set for more than 3 years
59. Develop comment letters to various agencies regarding E.O. 13921 recommendations

Possible Additions – Other

To be considered for addition to the 2021 implementation plan if time and resources allow:

60. Establish a working group to evaluate potential approaches for incorporating additional stakeholder knowledge and input in the stock assessment process
61. Initiate an action to consider recreational sector separation for summer flounder, scup, black sea bass, and bluefish
62. Review red crab and lobster fishery exemptions for discrete deep sea coral protected zones
63. Initiate action to address right whale issues
64. Develop a white paper on collecting fixed/variable costs and employment information (for all Northeast fisheries)
65. Modify list of ecosystem component species from Unmanaged Forage Amendment (e.g., addition of cancer crabs)
66. Initiate a framework action to implement a possession limit for frigate and bullet mackerel in the Mid-Atlantic



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

MEMORANDUM

Date: September 23, 2020
To: Council
From: Jason Didden, staff
Subject: Spiny Dogfish Monitoring Committee (SDMC) Summary and 2021-2022 Specifications Recommendations¹

The SDMC met on September 14, 2020. SDMC members present included Jason Didden, Chris Kellogg, Conor McManus, Cynthia Ferrio, Nichola Meserve, Angel Willey, Kathy Sosebee, David Behringer, and Scott MacDonald (ex officio). Other participants included Kirby Rootes-Murdy, June Lewis, Jim Fletcher, Allison Ferreira, Janice Plante, David Stormer, Sonny Gwin, Greg DiDomenico, Scott Curatolo-Wagemann, and John Whiteside.

Given the Scientific and Statistical Committee's Acceptable Biological Catch (ABC) recommendation, the SDMC recommends using the new ABC to formulate 2021/2022 fishing year quotas using updated information where applicable (see Table 1 below). This would increase the commercial quota by 27% from 2020 to 2021 (under the originally adopted 2021 specifications, the quota would have increased 18% from 2020).

Related to its task to recommend measures necessary to avoid exceeding the Annual Catch Limit, the SDMC concluded that changes to the current 6,000 pound trip limit do not appear necessary. The SDMC noted that as long as the states are adhering to their quotas based on the overall ABC/ACL, different trip limits should not affect stock size. Major changes, such as removing the federal trip limit or removing the complete closure once 100% of the quota is caught, are more appropriate for frameworks or amendments where more analysis and public comment can be evaluated. If there were no federal trip limits then vessels would be governed by state limits when in state waters. The interplay of trip limits and prices may make it difficult to predict fishery responses to modified trip limits. J. Didden noted that due to workload constraints (no spiny dogfish action was planned for 2020), MAFMC staff would likely not be able to complete an Environmental Assessment (EA) needed to consider substantial trip limit changes. An abbreviated NEPA document can be used however to change just the specifications/quota. NMFS staff noted that potentially New England Fishery Management Council (NEFMC) staff could develop such

¹ Other related materials included in the briefing book: SSC Report (see Committee Reports Tab); Staff ABC Memo; AP Fishery Performance Report; and Fishery Information Document.

an EA if the NEFMC deemed trip limits to be a high priority. The Councils could consider trip limit changes via a separate future action if desired/prioritized.

Follow-up by NMFS-GARFO staff indicated that it might be possible from a NEPA perspective to consider a trip-limit change up to 7,000-8,000 pounds via the abbreviated document **if** the case could be made that there have been no significant changes in the fishery/environment, and that the previous analyses addressed the likely impacts. However, given the previous document examining trip limits (the 2016-2018 Specifications EA) only included data through 2014 and acknowledged the uncertainty about price effects from additional trip limit changes, Council staff recommends that further trip limit changes be considered via a separate action that could more fully use recent data to consider socio-economic impacts. A separate action would also facilitate public awareness and participation – given the fishery is in the middle of multi-year specifications, fishery participants may not be expecting consideration of trip limit changes. Staff also notes that some advisors supported reconsidering trip limits and some advisors opposed any changes at this time.

Table 1. Spiny Dogfish Specifications

Specifications	Basis for Original 2019-2021 Specifications	2019 (pounds)	2019 (mt)	2020 (pounds)	2020 (mt)	2021 Original (pounds)	2021 Original (mt)	2021 Revised/2022 (pounds)	2021 Revised/2022 (mt)	Basis for Revised 2021 (and 2022) Specifications
OFL (from SSC)	Projected Catch at Fmsy	47,507,413	21,549	na	na	na	na	na	na	na
ABC (from SSC)	Council Risk Policy	28,470,497	12,914	31,142,499	14,126	35,368,761	16,043	38,576,487	17,498	SSC, Revised Council Risk Policy
Canadian Landings	= 2017 estimate	108,027	49	108,027	49	108,027	49	99,208	45	= 2018 estimate
Domestic ABC	= ABC – Canadian Landings	28,362,470	12,865	31,034,473	14,077	35,260,734	15,994	38,477,279	17,453	= ABC – Canadian Landings
ACL	= Domestic ABC	28,362,470	12,865	31,034,473	14,077	35,260,734	15,994	38,477,279	17,453	= Domestic ABC
Mgmt Uncert Buffer	Ave pct overage since 2011	0	0	0	0	0	0	0	0	Ave pct overage since 2011
ACT	= ACL - mgmt uncert buffer	28,362,470	12,865	31,034,473	14,077	35,260,734	15,994	38,477,279	17,453	= ACL - mgmt uncert buffer
U.S. Discards	= 3 year average 2015-16-17	7,661,064	3,475	7,661,064	3,475	7,661,064	3,475	8,800,854	3,992	= 3 year average 2016-17-18
TAL	ACT – Discards	20,701,406	9,390	23,373,409	10,602	27,599,671	12,519	29,676,425	13,461	ACT – Discards
U.S. Rec Landings	= 2017 estimate	178,574	81	178,574	81	178,574	81	116,845	53	= 2019 estimate
Comm Quota	TAL – Rec Landings	20,522,832	9,309	23,194,835	10,521	27,421,096	12,438	29,559,580	13,408	TAL – Rec Landings

The 2021/2022 Specifications recommended by the SDMC





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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: August 26, 2020
To: Chris Moore
From: Jason Didden
Subject: Spiny Dogfish Acceptable Biological Catch (ABC)

Spiny Dogfish is in multi-year specifications for 2019-2021. The Council's Scientific and Statistical Committee (SSC) is scheduled to review the 2021 dogfish ABC (year 3 of 3) during its September 2020 meeting. The Dogfish ABC is scheduled to increase from 14,126 MT (31.1 million (mil) pounds (lbs)) in 2020 to 16,043 MT (35.4 mil lbs) in 2021, per earlier recommendations.

Given the cancelation of the spring trawl survey, there is no separate document from NMFS with a data update. Updated landings data are available in the fishery information document, which has been posted to the SSC meeting page, along with the Advisory Panel's Fishery Performance Report. A total of 91% (18.6 mil lbs) of the 2019 quota (20.5 mil lbs) was landed.

Staff does not perceive any substantial change in this fishery since it was last reviewed by the SSC. The Council did pass an updated risk policy, which tolerates a slightly higher risk of overfishing and generates higher ABCs. Using the updated risk policy with the projections previously conducted would result in a revised 2021 ABC of 17,498 MT (38.6 mil lbs). The presumed 2021 overfishing level given previous projections and ABCs (assuming the ABCs were caught) would be 25,077 MT (55.3 million pounds). The original P*s for 2019-2021 were 0.269, 0.274, and 0.296. The revised P* for 2021 would be 0.333. Projections have not been fully redone since dead discard information is not available – the revised ABC is just a result of the new risk policy.

Staff recommends updating the 2021 ABC to 17,498 MT (38.6 mil lbs) per the Council's revised risk policy. Staff also recommends that the same ABC recommendation be considered for the 2022 fishing year. We are expecting a research track assessment in 2022, and there could be substantial administrative efficiencies by setting specifications now for both 2021 and 2022.



Spiny Dogfish AP Fishery Performance Report August 2020

The Mid-Atlantic Fishery Management Council's (Council) Spiny Dogfish Advisory Panel (AP) met via webinar on August 19, 2020 to review the Spiny Dogfish Fishery Information Document and develop the following Fishery Performance Report. The primary purpose of this report is to contextualize catch histories for the Scientific and Statistical Committee (SSC) by providing information about fishing effort, market trends, environmental changes, and other factors. Trigger questions (see below) were posed to the AP to generate discussion of observations in the spiny dogfish fishery. Advisor comments described below are not necessarily consensus or majority statements.

Advisory Panel members attending: Bonnie Brady, Scott Curatolo-Wagemann, Jim Fletcher, Sonja Fordham, Scott MacDonald, John Whiteside, Jr., and Douglas Zemeckis. **Others attending:** Jason Didden, Ron Larsen, Kirby Rootes-Murdy, Chris Batsavage, Stephanie Sykes, Nichola Meserve, Paul Rago, Allison Ferreira, Angel Willey, Yan Jiao, and Cynthia Ferrio.

Trigger questions:

The AP was presented with the following trigger questions:

1. What factors have influenced recent catch (markets/economy, environment, regulations, other factors)?
2. Are the current fishery regulations appropriate? How could they be improved?
3. What would you recommend as research priorities?
4. What else is important for the Council to know?

Market/Economic Conditions

COVID-19 has not had a large impact to date. Similar market issues persist as with previous years – demand has been low but stable recently.

Changing the name to Chip Fish would help with marketing/exports.

There are no Southern processors – they were “burnt” by previous management and won’t get back in without quota stability on a decadal timeframe. They would need to know that the quota won’t go down for 5-10 years.

Not having a processor also depresses NY landings. NY would like some opportunity for trawlers: a bi-monthly larger landing or something similar. Developing other markets, be it fertilizer or processed export, requires a higher trip limit for trawlers, for example a 30,000-pound trip limit 2-3 times per month.

Regarding the fin market – there are self-imposed bans by cargo lines than prohibit fin

transport even from sustainable sources (i.e. this is beyond our control).

Environmental Conditions

Environmental conditions are always a factor. Ongoing mild winter weather in VA has increased VA landings.

Further north in 2020, dogfish have been offshore and vessels have had trouble landing the trip limit, leading to less participation and less landings so far in 2020.

Management Issues

Regulations (especially the trip limit) do not allow a male fishery. State regulations do not allow new fishermen to participate. The current regulations are geared to keep price up and production limited and do not allow industrial production.

Other Issues

Given the lack of an off-shelf survey and vertical water column usage by dogfish, we don't really know the population size.

Allowing dogfish populations to increase has hurt all other fish populations. We need calculations regarding consumption by dogfish of other fish.

With the recent executive order, we need to look at opening way up beyond any recent proposals.

Research Priorities

To add fishery value, we should research the value and production of squalamine in spiny dogfish livers for medical use.

The assessment needs to account for the continual pup production observed in females, which is primarily affected by food availability/consumption.

We should conduct research into the purposes of the horn/spine – is it offensive (weakening potential prey), or defensive?



Spiny Dogfish Fishery Information Document

August 2020

This Fishery Information Document provides a brief overview of the biology, stock condition, management system, and fishery performance for spiny dogfish (*Squalus acanthias*) with an emphasis on recent data. Data sources for Fishery Information Documents are generally from unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and should be considered preliminary. For more resources, including previous Fishery Information Documents, please visit <http://www.mafmc.org/dogfish>.

Key Facts

- 2019 fishing year landings were about 18.6 million pounds; 2018 fishing year landings were about 17.6 million pounds.
- The current 2020 fishing year quota is 23.2 million pounds.
- The 2021 quota would increase to 27.4 million pounds under previously-adopted multi-year specifications if no changes are recommended by the Scientific and Statistical Committee (SSC) or the Council. If projections are amended and accepted by the SSC just based on the Council's new risk policy, the 2021 quota could approximately increase by another 3 million pounds to around 30 million pounds.
- Due to the cancellation of the Spring NMFS trawl survey, there is not much data to update so there is not a separate data update document from NMFS. 2019 calendar year landings (calendar year is used in the assessment but not management) were 17.4 million pounds. The previous data update is available at https://www.mafmc.org/s/3_2019-Data-Update-for-spiny-dogfish.pdf.

Basic Biology

Spiny dogfish is a coastal shark with populations on the continental shelves of northern and southern temperate zones throughout the world. It is the most abundant shark in the western north Atlantic and ranges from Labrador to Florida, but is most abundant from Nova Scotia to Cape Hatteras, North Carolina. Its major migrations on the northwest Atlantic shelf are north and south, but it also migrates inshore and offshore seasonally in response to changes in water temperature. Spiny dogfish have a long life, late maturation, a long gestation period, and relatively low fecundity, making them generally vulnerable to depletion. Fish, squid, and ctenophores dominate the stomach contents of spiny dogfish collected during the Northeast Fisheries Science Center (NEFSC) bottom trawl surveys, but spiny dogfish are opportunistic and

have been found to consume a wide variety of prey. More detailed life history information can be found in the essential fish habitat (EFH) source document for spiny dogfish at: <https://www.fisheries.noaa.gov/region/new-england-mid-atlantic#science>.¹

Status of the Stock

Based on the current biomass reference point and an assessment update considering data through spring of 2018 (available at <http://www.mafmc.org/ssc-meetings/2018/sept-11>), the spiny dogfish stock is not overfished or experiencing overfishing. The 2018 biomass was 67% of the target. Fishing mortality in 2017, the most recent year available, was 83% of the overfishing threshold. A benchmark assessment is scheduled for 2022. The spiny dogfish spawning stock biomass estimate timeseries is provided in Figure 1.²

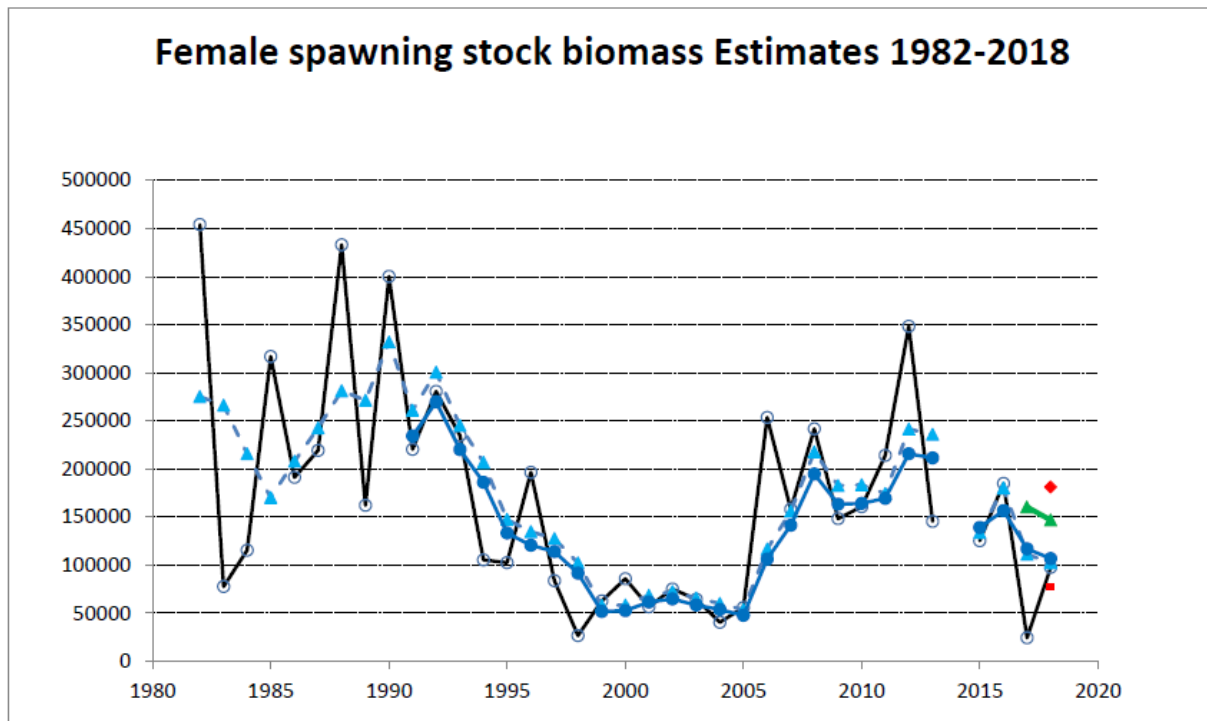


Figure 1. Stochastic SSB estimates for 1991 to 2018. Year refers to the terminal year in the three point moving average. The open circles are the yearly swept area SSB estimates, the blue triangles are the 3-year moving average of the swept area estimates, and the **closed blue circles are the stochastic SSB estimates**. The green triangles are the stochastic estimates not including 2017 and not adjusted with a Kalman filter, and the red diamond (no 2017) and square (with 2017) are the stochastic estimates adjusted with a Kalman filter (not used in last update).²

Management System and Fishery Performance

Management

The Council established management of spiny dogfish in 2000 and the management unit includes all federal East Coast waters.

Access to the fishery is not limited, but a federal permit must be obtained to fish in federal waters and there are various permit conditions (e.g. trip limit and reporting). There is a federal trip limit of 6,000 pounds. Some states mirror the federal trip limit, but states can set their own

trip limits. The annual quota has been allocated to state shares through the Atlantic States Marine Fisheries Commission (<http://www.asmfcr.org/species/spiny-dogfish>).

Spiny Dogfish three-year specifications were adopted by the Council in October 2018 for May 1, 2019 through April 30, 2022 (the 2019-2021 fishing years). Quotas for these fishing years are 20.5 million pounds (2019), 23.2 million pounds (2020), and 27.4 million pounds (2021). If projections are amended and accepted by the Scientific and Statistical Committee SSC just based on the Council's new risk policy, the 2021 quota could approximately increase by another 3 million pounds to around 30 million pounds.

Recreational landings are a minimal component of fishing mortality, and dead recreational discards comprise a relatively low portion of discard mortality.

Commercial Fishery

Figure 2 and Table 1 illustrate spiny dogfish landings for the 2000-2019 fishing years relative to the quotas in those years. Additional years' landings are available in the 2019 NMFS Science Center data update. The Advisory Panel has previously noted that the fishery is subject to strong market constraints given weak demand.

Figure 3 provides inflation-adjusted spiny dogfish ex-vessel prices in "real" 2019 dollars.

Figure 4 illustrates preliminary landings from the 2020 and 2019 fishing years relative to the current quota. The last 2020/blue data point is typically the most incomplete.

Tables 2-4 provide information on landings in the 2017-2019 fishing years by state, month, and gear type.

Table 5 provides information on the numbers of participating vessels that have at least one federal permit. State-only vessels are not included, but the table should still illustrate trends in participation.

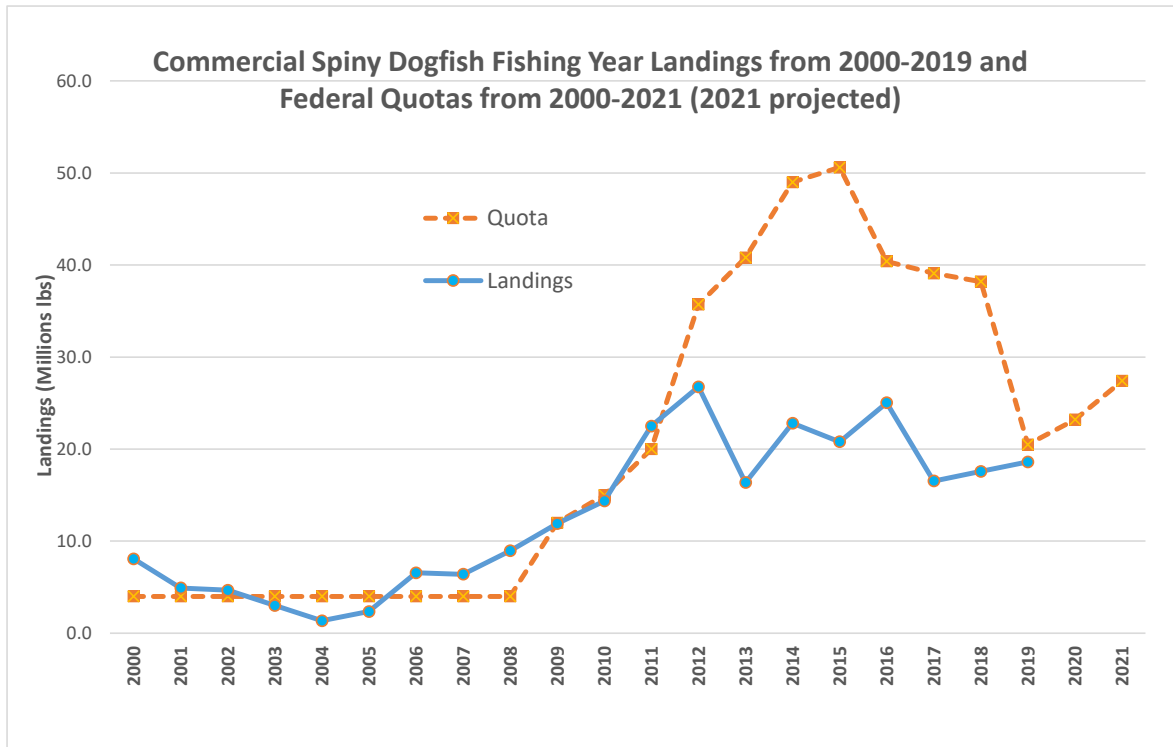


Figure 2. Annual spiny dogfish landings and federal quotas since 2000. ⁴

Table 1. Commercial spiny dogfish fishing year landings from 2000-2019 and federal quotas from 2000-2021 (2020-2021 Proposed)⁴

Fishing year	Fed Quota (M lb)	Landings (M lb)
2000	4.0	8.1
2001	4.0	4.9
2002	4.0	4.7
2003	4.0	3.0
2004	4.0	1.3
2005	4.0	2.3
2006	4.0	6.6
2007	4.0	6.4
2008	4.0	8.9
2009	12.0	11.9
2010	15.0	14.4
2011	20.0	22.5
2012	35.7	26.8
2013	40.8	16.4
2014	49.0	22.8
2015	50.6	20.8
2016	40.4	25.0
2017	39.1	16.5
2018	38.2	17.6
2019	20.5	18.6
2020	23.2	
2021	27.4	

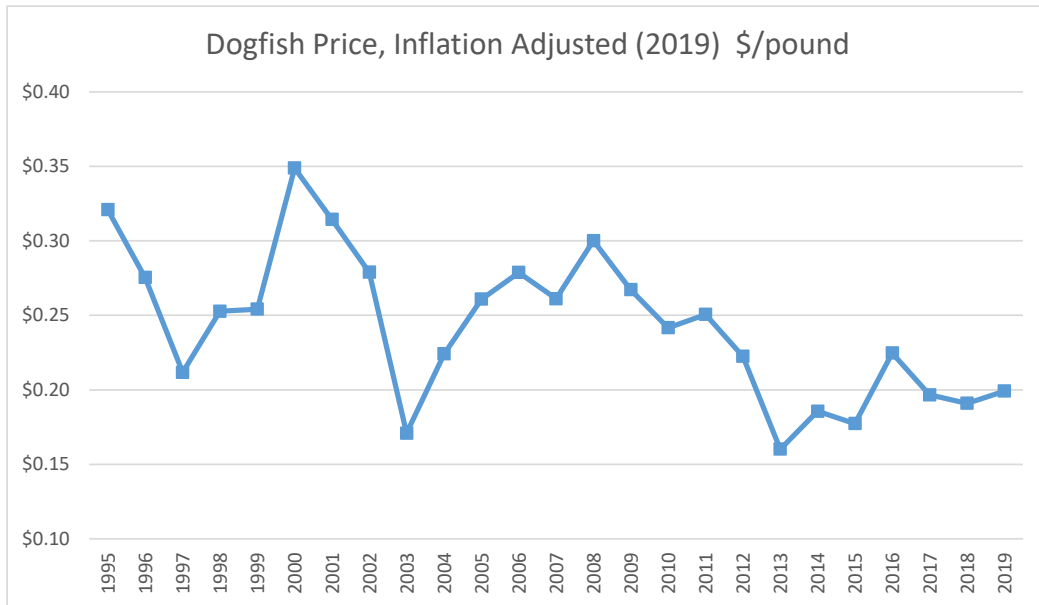


Figure 3. Price of spiny dogfish (\$/live pound) (adjusted to 2019 “real” dollars using the GDP deflator, 1995-2019 fishing years. Given the difference between fishing year and the calendar year used for inflation adjusting, adjusted prices are approximate. Source: NMFS unpublished dealer data.⁴

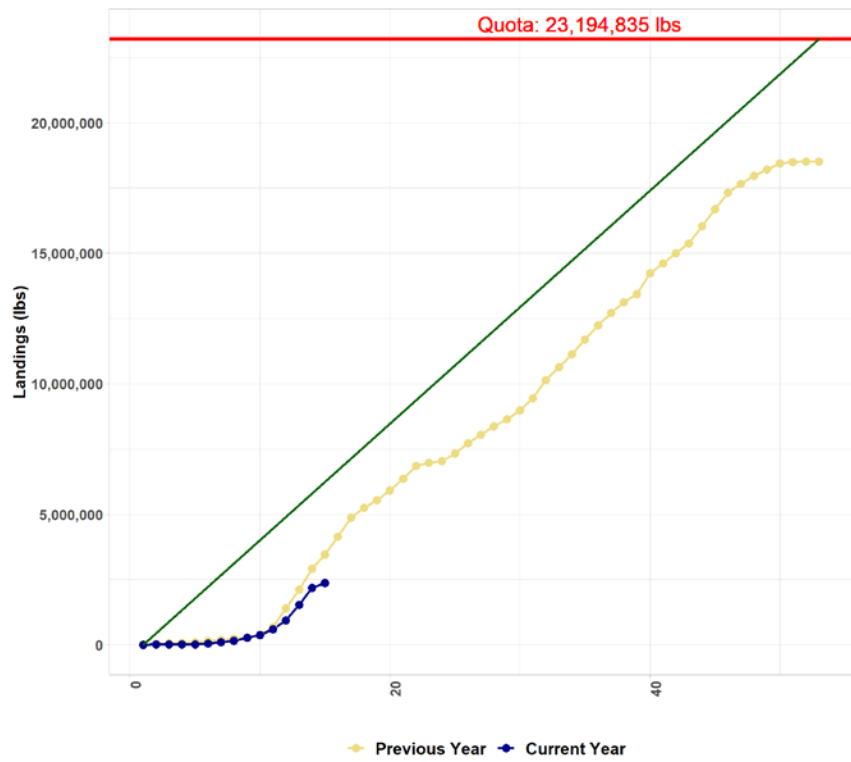


Figure 4. Preliminary Spiny dogfish landings; the 2020 fishing year is in blue through August 12, 2020, and the 2019 fishing year is in yellow-orange. Source: <https://www.fisheries.noaa.gov/new-england-mid-atlantic/commercial-fishing/quota-monitoring-greater-atlantic-region> .⁴

Table 2. Commercial Spiny Dogfish landings (live weight – millions of pounds) by state for 2017-2019 fishing years. Source: NMFS unpublished dealer data. ⁴

fishyear	MA	VA	NJ	NC	NH	MD	RI	Other	Total
2017	9.6	2.5	1.9	0.7	0.8	0.6	0.3	0.1	16.5
2018	7.7	5.5	1.3	1.4	0.5	0.9	0.2	0.1	17.6
2019	6.6	7.0	1.9	1.6	0.7	0.4	0.3	0.1	18.6

Table 3. Commercial Spiny Dogfish landings (live weight – millions of pounds) by month for 2017-2019 fishing years. Source: NMFS unpublished dealer data. ⁴

fishyear	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
2017	0.2	0.4	3.7	3.3	1.5	1.6	1.0	1.7	0.7	0.9	0.9	0.5	16.5
2018	0.0	0.1	2.3	2.7	1.8	1.5	1.3	2.5	1.6	1.8	1.2	0.8	17.6
2019	0.1	0.2	2.3	2.7	1.6	1.0	1.6	2.5	2.2	1.9	2.2	0.3	18.6

Table 4. Commercial Spiny Dogfish landings (live weight – millions of pounds) by gear for 2017-2019 fishing years. Source: NMFS unpublished dealer data. ⁴

fishyear	GILL_NET_SET T_SINK_ _OTHER	UNKNO WN	HAND_ LINE_ OTHER	GILL_NET_SET _STAKE_SEA _BASS	TRAWL_OTTER _BOTTOM_FIS H	LONGLINE_ BOTTOM	Other	Total
2017	8.7	4.1	1.9	0.7	0.8	0.0	0.3	16.5
2018	10.0	3.2	1.8	1.3	0.4	0.5	0.4	17.6
2019	11.8	2.7	0.5	1.5	0.5	1.3	0.3	18.6

Table 5. Participation by fishing year of federally-permitted vessels. State-only vessels are not included.⁴

YEAR	Vessels 200,000+	Vessels 100,000 - 199,999	Vessels 50,000 - 99,999	Vessels 10,000 - 49,999	Total with at least 10,000 pounds landings
2000	16	10	8	43	77
2001	4	12	10	33	59
2002	2	14	8	31	55
2003	4	5	3	17	29
2004	0	0	0	42	42
2005	0	0	1	67	68
2006	0	4	11	114	129
2007	1	2	21	72	96
2008	0	5	20	119	144
2009	0	11	42	166	219
2010	0	26	54	124	204
2011	1	48	73	135	257
2012	25	55	56	146	282
2013	10	27	45	87	169
2014	27	38	38	81	184
2015	31	33	36	59	159
2016	52	26	14	45	137
2017	28	27	24	32	111
2018	28	26	20	35	109
2019	29	25	21	29	104

Staff received a request about participation in May-July 2020 (i.e. most recent year to date) versus May-July 2019. GARFO staff was able to look at recent data, and noted the following. In 2020 so far through July, numbers of federal permits landing any spiny dogfish dropped from 90 to 64; numbers of federal permits landing at least 25,000 pounds dropped from 34 to 24; numbers of federal permits landing at least 50,000 pounds dropped from 24 to 18.

References

¹ Stehlik, Linda. 2007. Essential Fish Habitat source document: Spiny Dogfish, *Squalus acanthias*, Life History and Habitat Characteristics. NOAA Technical Memorandum NMFS-NE-203; 52 p.

² NEFSC 2018. Spiny Dogfish Assessment Update. Available at <http://www.mafmc.org/ssc-meetings/2018/sept-11>.

³ NEFSC 2019. Spiny Dogfish Data Update. Available at <http://www.mafmc.org/ssc-meetings/2019/september-9-11>.

⁴ Unpublished NMFS dealer and/or Vessel Trip Report data.



Mid-Atlantic Fishery Management Council

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Review of 2021 Atlantic chub mackerel specifications

On October 7, 2020, the Mid-Atlantic Fishery Management Council (Council) will review the previously implemented 2021 specifications for Atlantic chub mackerel and discuss if revisions are necessary.

The following materials are provided behind this tab (unless otherwise noted) for the Council's consideration.

- 1) Summary of the September 16, 2020 Monitoring Committee webinar
- 2) September 2020 Scientific and Statistical Committee report (*behind Tab 10*)
- 3) September 2020 Advisory Panel Fishery Performance Report
- 4) Additional Advisory Panel member comments
- 5) Staff memo on 2021 specifications for Atlantic chub mackerel, dated September 2, 2020
- 6) 2020 Chub Mackerel Fishery Information Document
- 7) Characterization of the Atlantic Chub Mackerel Fishery and Stock - Dr. Robert Leaf, University of Southern Mississippi



Mackerel, Squid, Butterfish Monitoring Committee
September 16, 2020
Webinar Meeting Summary

Monitoring Committee Attendees: Julia Beaty (MAFMC staff), Doug Christel (GARFO), Daniel Hocking (GARFO), Aly Pitts (GARFO)

Additional Attendees: Russell Brown (NEFSC), Greg DiDomenico (Lund’s Fisheries, AP member), Zoe Goozner (Pew Charitable Trusts), Peter Hughes (MAFMC member, MSB Committee Chair), Jeff Kaelin (Lund’s Fisheries, AP member), Eric Reid (NEFMC liaison to MAFMC), Alissa Wilson.

Note: This document summarizes the Monitoring Committee’s discussion during their September 16, 2020 webinar as well as additional follow up discussion on South Atlantic data which occurred over email after the meeting.

Meeting Objectives

- Review recent fishery information, Advisory Panel Fishery Performance Report, SSC recommendations, and staff recommendations.
- Review and if necessary, recommend revisions to the previously implemented catch and landings limit for 2021, as well as other management measures for 2021.

Summary of Monitoring Committee Discussion

The Monitoring Committee asked for clarification on why estimated chub mackerel harvest in South Carolina through Florida, as provided by the Atlantic Coastal Cooperative Statistics Program (ACCSP) in September 2020 and presented during this meeting, was so much higher than that considered through development of Amendment 21. For example, the Council previously agreed to remove 84,500 pounds of expected South Carolina through Florida catch from the ABC. This was calculated by increasing the highest annual commercial and recreational landings in South Carolina through Florida during 1998-2017 (i.e., 76,835 pounds in 2011, mostly from the recreational fishery) by about 10% to account for discards, which are poorly documented in this region. Updated data through 2019 presented during the Monitoring Committee meeting suggested that much higher commercial landings occurred in the South Atlantic than previously considered and that the peak year was 2001, not 2011. The Monitoring Committee expressed concern about this discrepancy and wanted to know more about why the data changed. Council staff explained that the ACCSP indicated that one or more states changed how the species was coded in the data they provided. One Monitoring Committee member said, at face value, it would appear that a change is necessary. However, without better understanding why the data changed, the Monitoring Committee did not feel that they could make an informed recommendation on if or how this part of the specifications should be revised for 2021.

After the Monitoring Committee meeting, it was determined that the data shown during the meeting included landings from all of Florida, rather than only the east coast of Florida. After

correcting for this error, the data were extremely similar to those considered during Amendment 21. ACCSP staff indicated that the minor changes that did occur were the result of landings which were previously assigned to the east coast of Florida being reassigned to the Gulf coast of Florida. The updated data show that 2011 remains the year with the highest commercial and recreational chub mackerel landings in the South Atlantic through 2019. The methodology used in Amendment 21 to estimate total catch based on assumptions about recreational harvest in weight and discards in both sectors results in 84,368 pounds of expected South Atlantic harvest based on the updated data. After reviewing this information over email after their meeting, the Monitoring Committee agreed that no change is warranted to the currently implemented value of 84,500 pounds of expected South Atlantic Catch in 2021.

One Monitoring Committee member said it seems appropriate to maintain the 10% discard assumption for South Atlantic catch which was justified through Amendment 21, given that no updated information on discards in the South Atlantic was provided.

The Monitoring Committee recommended no change to the currently implemented management uncertainty buffer between the annual catch limit (ACL) and annual catch target (ACT). They also recommended no change to the 6% buffer between the ACT and the total allowable landings limit (TAL) to account for expected discards. Although updated commercial discard data suggest discards as a percentage of total catch increased in recent years, this is likely because the fishery heavily targeted available *Illex* squid since 2017. Fishermen have indicated that they prefer not to retain both species due to reduction in product quality when stored together. Generally, the Monitoring Committee agreed that it is appropriate to maintain specifications which are largely based on the historic high for chub mackerel landings as the availability of *Illex* squid can change greatly from one year to the next. If *Illex* availability is low in 2021, chub mackerel fishing effort may return to 2013 levels. (See the Fishery Information Document and Fishery Performance Report for more information on the relationship between the chub mackerel and *Illex* squid fisheries.)

The Monitoring Committee recommended no changes to any of the other currently implemented specifications.

One Monitoring Committee member asked why recreational harvest from Maine through North Carolina increased in 2018 compared to previous years. The small scombrid identification guide developed by the Council and NOAA Fisheries was not distributed until 2019. Council staff indicated that the ACCSP added chub mackerel to their list of core species for trainings of MRIP intercept samplers from Maine through North Carolina; however, it was not known if this change impacted the 2018 data.

Summary of Input from Other Participants

One advisor noted that, although it was not summarized in the report provided to the Monitoring Committee,¹ additional age data beyond 2016-2017 has been collected through the ongoing collaboration between Lund's Fisheries, SeaFreeze, LLC., and Dr. Robert Leaf at the University of Southern Mississippi. He added that Lund's and SeaFreeze will continue providing samples for this effort in 2021.

¹Available at: https://www.mafmc.org/s/e_Characterization-of-the-Atlantic-Chub-Mackerel-fishery-1.pdf

Another advisor asked which commercial fisheries and gear types in the South Atlantic are catching chub mackerel. Council staff was unable to provide information on this during the meeting.

One Council member noted that fixed gear such as floating traps can also catch chub mackerel and said it could be informative to examine catches in those gear types in New England.

One advisor said fishermen have indicated that *Illex* squid were available slightly later in the season in 2020 compared to past years. Larger squid were becoming available around the time the *Illex* fishery closed. He suggested that the Council consider a start date for the *Illex* fishery to help maximize catches and efficiency. He added that the *Illex* fishery was strong enough this year that no one targeted chub mackerel.

**SSC Report is behind
Tab 10**



Chub Mackerel Fishery Performance Report

September 2020

The Mid-Atlantic Fishery Management Council's (Council's) Mackerel, Squid, and Butterfish Advisory Panel (AP) met via webinar on September 3, 2020 to review the Fishery Information Document and develop the following Fishery Performance Report. The primary purpose of this report is to contextualize catch histories for the Scientific and Statistical Committee (SSC) by providing information about fishing effort, market trends, environmental changes, and other factors. A series of discussion questions listed below were posed to the AP to generate discussion of observations in the chub mackerel fishery. Please note: Advisor comments described below are not necessarily consensus or majority statements.

Advisory Panel members present: Eleanor Bochenek, Gregory DiDomenico, Joseph Gordon, Jeff Kaelin, Meghan Lapp, Pam Lyons Gromen, Gerry O'Neill.

Others present: Julia Beaty (Council staff), Doug Christel (GARFO staff), Jason Didden (Council staff), Gavin Fay (SSC member), Zoe Goozner (Pew Charitable Trusts), Peter Hughes (Council member), Zack Greenberg (Pew Charitable Trusts), Paul Rago (SSC Chair), Eric Reid (NEFMC member and liaison to MAFMC), Jamie SB, Alissa Wilson

Discussion questions:

1. What factors have influenced recent catch (markets/economy, environment, regulations, other factors)?
2. Are the current fishery regulations appropriate? How could they be improved?
3. What would you recommend as research priorities?
4. What else is important for the Council to know?

Impact of *Illex* Squid Fishery

Two advisors familiar with the targeted commercial chub mackerel fishery said the vessels responsible for most chub mackerel landings have been focusing on *Illex* squid for the past three years. Any commercial chub mackerel landings from these vessels in recent years were incidental. The levels of targeted fishing effort seen in 2013, when commercial landings reached their peak, have not occurred since. However, if *Illex* are not available in 2021, chub mackerel landings could return to that level.

One advisor said notable amounts of chub mackerel are likely not caught in other commercial fisheries because high horsepower is needed to catch this fast-swimming species and, in this

region, most of the high horsepower vessels are those that participate in the *Illex* squid fishery and the winter Atlantic mackerel fishery.

One advisor said 2020 has been a good year for *Illex* squid, but not an extremely good year. Landings were starting to slow down before the *Illex* fishery closed. There may be some incidental catch of chub mackerel this year, but landings will likely not be very high.

Environmental Conditions

Two advisors called chub mackerel an “emerging stock” due to changing climate conditions. They also said increased recreational catches could indicate increased availability.

One advisor noted that chub mackerel can be found close to shore. For example, schools of chub mackerel could be seen chasing white bait in point Judith Harbor this year and they were also caught in floating fish traps in Narraganset Bay. Therefore, the statement in the Fishery Information Document which says they are found to depths of 250-300 meters should be modified to reflect that they are also found close inshore.

One advisor said that chub mackerel catches may be low in years with high *Illex* catches because *Illex* may push chub mackerel into other areas.

Management Issues

Three advisors expressed support for an increase in the chub mackerel catch limits as the current catch limits are based on one year of targeted fishing effort (2013) and the stock will likely continue to expand in this region due to changing climate conditions. Therefore, an incremental increase in the catch limits could allow for expanded fishing opportunities. For example, one advisor said the harvest in 2013 mostly came from two statistical areas in the Mid-Atlantic, but availability in other areas could increase in the future. Another advisor agreed and said availability could increase in New England, for example.

One advisor asked if the Council could evaluate the ecological value of the protections for other forage species implemented through the Unmanaged Forage Omnibus Amendment and if this could be weighed against the impacts of a potential increase in the chub mackerel total allowable landings limit beyond 4.50 million pounds. This advisor added that ecological considerations always seem to result in additional cuts to commercial harvest.

One advisor said, with other forage species such as Atlantic herring, Atlantic mackerel, and butterfish either overfished or trending down, chub mackerel could be especially important for some predators. This advisor added that the management measures for individual species often do not look at the bigger picture and consider ecological implications.

Research Priorities

One advisor asked what research would be needed for the Council to consider allowing an expansion of the chub mackerel fisheries.

Several advisors asked about an ongoing study funded by the Council to evaluate the importance of chub mackerel in the diets of highly migratory species (HMS) such as tunas and marlins. One advisor asked if information on spatial and temporal variations in diet would be provided in the final report, adding that there can be discrete pulses of chub mackerel availability. Both the commercial fishery and predators take advantage of these pulses and this is important to evaluate. For example, chub mackerel may be important prey for certain predators in discrete times of year and locations.

Another advisor agreed and said that if the fishery is allowed to expand, it should be done carefully in a way that considers the impacts to the structure and function of the ecosystem. This may be difficult to evaluate given that the fishery largely takes place in deep, offshore areas. He added that if the HMS diet study does not indicate that chub mackerel are eaten by the species examined, then it would be important to determine which other species are chub mackerel predators.

Another advisor said chub mackerel are both prey and a voracious predators of other forage species. If the Council considers the impacts of chub mackerel harvest on the stock status of HMS, then serious consideration should also be given to HMS management and how it has contributed to HMS stock status. Any conclusions about the impacts of chub mackerel harvest on HMS stock status should be supported by peer reviewed evidence.

One advisor called attention to the length frequency information provided by commercial dealers¹ and said it would be helpful to know if the SSC thinks industry should continue to collect these data. This is the most comprehensive length frequency data currently available for chub mackerel. The chair of the SSC responded and said this is an important data source which could be used to look for evidence of recruitment pulses and could possibly also be used to evaluate mortality rates on the population if enough data were available.

Other Issues

One advisor said chub mackerel are valuable as bait and as human food. Most markets for human consumption are in Europe and Africa.

It was noted that although a few AP members present on the call are associated with companies that have participated in the commercial chub mackerel fishery, other AP members who have more on the water experience harvesting chub mackerel were not present.

¹ Available at: https://www.mafmc.org/s/e_Characterization-of-the-Atlantic-Chub-Mackerel-fishery-1.pdf

From: [Joseph Gordon](#)
To: [Beaty, Julia](#)
Cc: [Lyons Gromen, Pam](#); [Zachary Greenberg](#); [Zoe Goozner](#)
Subject: RE: Draft fishery performance report for your review by noon tomorrow
Date: Friday, September 4, 2020 11:35:34 AM

Julia-

Thank you for your efforts and leading yesterday's discussion. I'm not replying all, but please consider including. For the FPR document, a few things—

Since we know that other forage species like Atlantic herring, Atlantic mackerel, and butterfish are either overfished or trending down, can that statement be moved into the 'management issues' section, instead of 'research priorities'.

It would be good to note that the current TAL of 4.5 million pounds is well above the 2000-2019 total landings average (522,390 pounds/year) for chub mackerel.

It's also worth mentioning that while chub mackerel are an extremely data poor forage species (requiring a precautionary approach to management per the Council's EAFM Guidance Document), there is price/pound, observer and VTR data from Amendment 21 detailing that while most chub mackerel catch is kept, that when discards do occur it's often due to a lack of market. Understandably, this data is several years old, but it could provide helpful context for future decision-making.

Lastly, I want to acknowledge that yesterday's AP call could have benefited from additional attendance from other AP members and others that have a more intimate knowledge of recreational fishing and the importance chub mackerel play in that activity. I look forward to next week's SSC discussion and thanks again for all your efforts!

Best,
Joseph

Best wishes,

Joseph

Joseph Gordon

Project Director, U.S. Oceans

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[Conserving Marine Life in the U.S.](#)

From: Beaty, Julia <jbeaty@mafmc.org>
Sent: Friday, September 4, 2020 10:14 AM



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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 2, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: 2021 specifications for Atlantic chub mackerel

Executive Summary

This memorandum includes information to assist the Mid-Atlantic Fishery Management Council's (Council's) Scientific and Statistical Committee (SSC) and Mackerel, Squid, and Butterfish (MSB) Monitoring Committee in reviewing and potentially revising the previously approved 2021 catch and landings limits for Atlantic chub mackerel (*Scomber colias*), as well as the other management measures which can be modified through the annual specifications process.

Additional information on fishery performance and past management measures can be found in the 2020 Chub Mackerel Fishery Information Document and the 2020 Chub Mackerel Fishery Performance Report developed by advisors.¹

The Council approved 2020-2022 catch and landings limits for Atlantic chub mackerel in March 2019 based on the acceptable biological catch (ABC) recommendations of the Council's SSC. These previously approved catch and landings limits are shown in Table 1. They were implemented through Amendment 21 to the MSB Fishery Management Plan (FMP) and will become effective on September 3, 2020 (85 Federal Register 47103).

During their September 2020 meeting, the SSC will review their previously recommended 2021 ABC and consider if revisions are necessary. The Monitoring Committee will then meet to review and, if appropriate, recommend changes to the previously approved 2021 annual catch limit (ACL), annual catch target (ACT), and total allowable landings limit (TAL), and other management measures which can be modified through the annual specifications process.

The Council will meet in October 2020 to review the recommendations of the SSC and Monitoring Committee, as well as input from advisors. They will then consider revising their previously approved catch and landings limits for 2021, and any other management measures which can be modified through the annual specifications process.

¹ The Fishery Information Document is available at: <https://www.mafmc.org/msb>. The Advisory Panel Fishery Performance Report will be posted to the same page once available.

Pending additional input provided by advisors during their meeting on September 3rd, staff recommend no revisions to the previously approved 2021 specifications for chub mackerel at this point in time.

Table 1. Previously approved 2020-2021 catch and landings limits for Atlantic chub mackerel.

Measure	mil lb	mt	Basis
ABC	5.07	2,300	SSC recommendation
Expected SC-FL catch	0.08	38	A conservative estimate based on the highest annual SC-FL landings shown in commercial dealer and MRIP data (i.e., 76,835 pounds in 2011, mostly from the recreational fishery), increased by about 10% to account for discards, which are not well quantified.
ACL	4.99	2,262	ABC minus expected SC-FL catch.
ACT	4.79	2,171	ACL minus a 4% management uncertainty buffer.
Expected total dead discards, ME-NC	0.29	130	6% of ACT based on based on the commercial discard rate during 2003-2017 according to northeast observer data.
TAL	4.50	2,041	ACT minus expected total dead discards.

Recent Catch and Landings

After remaining below 0.5 million pounds per year for many years, commercial chub mackerel landings spiked to 5.25 million pounds in 2013, but decreased to pre-2013 levels by 2016. Recreational chub mackerel landings are variable and averaged 13,788 pounds per year during 2000-2019 (Table 2). In 2019, a total of 522,390 pounds of chub mackerel were landed by commercial and recreational fishermen from Maine through North Carolina.

The Marine Recreational Information Program (MRIP) provides estimates of recreational chub mackerel discards in numbers of fish. MRIP data suggest that an average of 9,102 chub mackerel were discarded per year during 2000-2019. As with recreational landings, recreational discards were variable.

Commercial and recreational discards in weight are typically provided by the NEFSC. Chub mackerel was formally added as a stock in the MSB FMP in 2020; therefore, this will be the first year that the NEFSC calculates chub mackerel discards in weight. This information will be included in a data update provided by the NEFSC. The data update was not available at the time of writing this memo and will be provided separately to the SSC and Monitoring Committee.

Additional information on commercial and recreational chub mackerel fisheries is available in the 2020 Chub Mackerel Fishery Information Document (available at <https://www.mafmc.org/msb>).

Table 2. Commercial and recreational chub mackerel landings, 2000-2019, from Maine through North Carolina. Landings in some years are combined to protect confidential data associated with fewer than three vessels and/or dealers.

Year	Commercial landings (pounds)	Recreational landings (pounds)	Total landings (pounds)
2000	16,246	6,991	23,237
2001	4,384	0	4,384
2002	471	0	471
2003	488,316	0	488,316
2004	126	0	126
2005	0	0	0
2006	0	0	0
2007-2009	21,039	0	21,039
2010-2011	192,301	355	192,656
2012	164,867	0	164,867
2013	5,249,686	0	5,249,686
2014	1,230,411	48,087	1,278,498
2015	2,108,337	0	2,108,337
2016	610,783	2,093	612,876
2017	2,202	14,831	17,033
2018	22,356	128,949	151,305
2019	60,498	74,462	134,960
2000-2019 avg	508,601	13,788	522,390

Stock Status and Biological Reference Points

The stock status of chub mackerel in the western Atlantic Ocean is unknown as there have been no quantitative assessments of this species in this region. In July 2018, the SSC assumed that biomass is currently at or above biomass at maximum sustainable yield, as described in more detail in the following section.

The Council requested a data update from the NEFSC with information on chub mackerel catches in fisheries-independent surveys through 2019. Once this document is available, it will be provided to the SSC and Monitoring Committee and posted to <https://www.mafmc.org/ssc-meetings/2020/september-8-9>.

Review of Prior SSC Recommendations

The SSC recommended the current chub mackerel ABC during their July 2018 meeting. They concluded that insufficient information exists to assess the status and trends of chub mackerel in the northwest Atlantic. They concluded that an overfishing limit could not be specified and recommended an ABC of 2,300 mt (5.07 million pounds) based on expert judgement. Their ABC recommendation is based loosely on the historic high for commercial and recreational landings (i.e., around 5.25 million pounds in 2013) and assumptions about discards. This level of ABC will prevent the fishery from achieving its historic high, but will allow landings to exceed those

in every other year over at least the past 20 years (Table 2). The SSC agreed that this level of catch is unlikely to result in overfishing given the general productivity of this species in fisheries throughout the world combined with the relatively low fishery capacity in U.S. Atlantic waters. Based on their recommendations, the ABC applies to total dead catch (i.e., commercial and recreational landings and dead discards) from Maine through the east coast of Florida.

The SSC determined the following to be the most significant sources of scientific uncertainty associated with the ABC:

- Stock size and productivity cannot be determined, there is no information to determine reference points for stock biomass levels, and little information exists to determine reference points for fishing mortality rates.
- There is no information on the source of recruits; it is unknown whether chub mackerel are episodic in the Mid-Atlantic, whether this is a range expansion with localized spawning, or neither.
- There is no information on predation mortality, or on the role of chub mackerel in predator diets.
- There is very high uncertainty in recreational landings and discards. Observer coverage on fisheries likely to catch chub mackerel may be low (*Illex* fleet, Mid-Atlantic small mesh bottom trawl).

Annual Catch Limit

The ACL for chub mackerel is derived by subtracting expected South Carolina through Florida catch from the ABC (Figure 1). When the Council adopted 2020-2022 specifications in March 2019, they approved a value of 84,500 pounds of expected catch from South Carolina through Florida. This represents about 2% of the ABC and is a conservative estimate based on the highest annual South Atlantic landings shown in commercial dealer and MRIP data through 2017 (i.e., 76,835 pounds in 2011), increased by about 10% to account for discards. Discards in SC-FL are highly uncertain.

The value of expected South Carolina through Florida catch used in the currently implemented chub mackerel specifications was calculated based on an examination of data through 2017. The Atlantic Coastal Cooperative Statistics Program provided updated South Carolina through Florida commercial landings data through 2019. These data reflect recent revisions to the data in earlier years. These revised data, as well as MRIP data, suggest that highest commercial and recreational landings in South Carolina through Florida over the past 20 years occurred in 2001 at 268,110 pounds. Average annual South Carolina through Florida landings were 89,885 pounds.

At this time, staff recommend no changes to the 2021 chub mackerel ACL of 4.99 million pounds (2,262 mt).

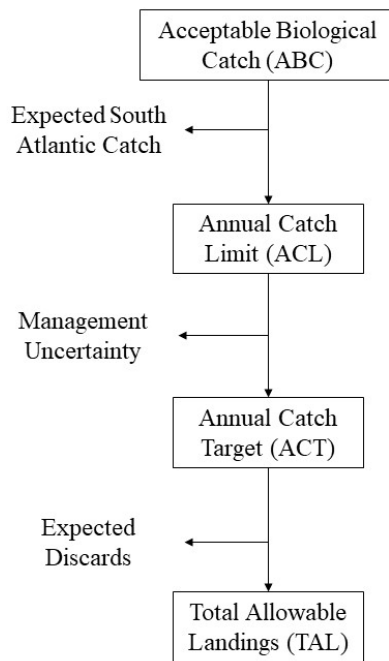


Figure 1. Flowchart summarizing chub mackerel catch and landings limits.

Annual Catch Target

As defined in the FMP, The ACT can be set less than or equal to the ACL to account for management uncertainty (Figure 1). Potentially relevant sources of management uncertainty for chub mackerel include misreporting due to challenges with species identification and under-reporting on VTRs due to misunderstanding of the requirement to report all catch on VTRs, including catch of unmanaged species and discarded catch. In addition, when setting the 2020-2022 specifications, the Council noted that there is some uncertainty regarding how the fishery will respond to the management measures implemented through Amendment 21. Several of the implemented management measures (e.g., ACL overage paybacks, recreational permit requirements) have never been used for chub mackerel off the U.S. east coast, though they have been used in many other fisheries.

The Council adopted a 4% management uncertainty buffer when they set the 2020-2022 specifications in March 2019. Considered in combination with the in-season commercial fishery closure regulations described on the next page, this was expected to be a reasonable buffer between the ACL and ACT to prevent ACL overages.

Council staff recommend no changes to the previously implemented ACT of 4.79 million pounds (2,171 mt) at this time.

Discards

Expected commercial and recreational discards in weight are subtracted from the ACT to derive the TAL (Figure 1). When setting 2020-2022 specifications in March 2019, the Council agreed to reduce the ACT by 6% to account for expected discards. This was based on the commercial discard rate during 2003-2017 according to northeast observer data (Table 3). The Council selected this as a preferred alternative because it is based on 15 years of data. It does not explicitly account for recreational data; however, based on information available at the time,

recreational chub mackerel discards were assumed to be generally very low compared to commercial discards, especially in years with targeted commercial fishing effort. The previously implemented catch and landings limits are based loosely on years with targeted commercial fishing effort. As previously stated, more information on commercial and recreational discards in weight will be provided in a forthcoming data update from the NEFSC. Pending additional information provided in that document, staff recommend no changes to the previously implemented 2021 TAL of 4.50 million pounds (2,041 mt) at this time.

Table 3. Percent of commercial chub mackerel catch that was discarded, based on northeast fisheries observer and northeast vessel trip report (VTR) data, 2003-2017. The associated number of trips is in parentheses.

Years	Observer Discard %	VTR Discard %
2003-2017 (15 years)	6% (217 trips)	3% (1,894 trips)
2008-2017 (10 years)	5% (199 trips)	3% (1,869 trips)
2013-2017 (5 years)	4% (156 trips)	3% (1,540 trips)
2013-2015 (top 3)	4% (95 trips)	3% (740 trips)
2013 (historic high)	3% (27 trips)	1% (120 trips)

Possession Limits

Under the currently implemented specifications, there is no commercial possession limit for chub mackerel until 90% of the TAL is projected to be landed. At that point, a 40,000 pound (18 mt) possession limit is in effect. Once 100% of the TAL is projected to be landed, commercially-permitted vessels are limited to a 10,000 pound (4.5 mt) possession limit. When setting 2020-2022 specifications, the Council agreed that the commercial fishery possession limits prior to in-season closure were unnecessary as the preferred in-season AMs were likely sufficient to constrain the fishery to prevent ACL overages.

According to stakeholder input provided during development of the Unmanaged Forage Omnibus Amendment, 40,000 pounds is approximately the amount of chub mackerel needed to fill a bait truck. Given the low value of chub mackerel (e.g., \$0.49 per pound on average during 2000-2019), fishermen may not target chub mackerel when restricted to a 40,000 pound possession limit; however, they would have an incentive to land chub mackerel caught incidentally. A 40,000 pound possession limit could, therefore, discourage discards. The number of trips which landed more than 40,000 pounds of chub mackerel over the past 20 years is confidential as it is associated with fewer than three vessels and/or dealers.

Ten thousand pounds is approximately the average trip-level landings of chub mackerel based on northeast commercial fishery data for 1998-2017. A small number of vessels are responsible for most chub mackerel landings. If those vessels are excluded from the calculation, about 99% of the trips which landed chub mackerel during 1998-2017 landed less than 10,000 pounds. This analysis has not been updated through 2019; however, given that only 22,356 pounds in total were landed in the commercial fishery in 2018 and 60,498 pounds in 2019, it is assumed that there were few, if any, large commercial chub mackerel trips during 2018 and 2019.

As previously stated, unless modified, the 2021 TAL will be 4.50 million pounds (2,041 mt). Therefore, a commercial possession limit will be triggered once 4.05 million pounds (1,837 mt) of chub mackerel are projected to be landed by commercial and recreational fishermen. This level of landings has been reached only once over the past 20 years (i.e., in 2013, Table 2).

As described in more detail in the next section, there are currently no recreational possession limits for chub mackerel.

Council staff recommend no changes to the commercial or recreational chub mackerel possession limits at this time.

Other Management Measures

The Council did not develop recreational management measures such as possession limits, minimum fish sizes, and closed seasons for chub mackerel through Amendment 21. Recreational catch of chub mackerel appears to be low; however, the data are limited, making it difficult to develop effective recreational management measures. There are also concerns about potential misidentification as chub mackerel are similar in appearance to Atlantic mackerel. Chub mackerel may be misidentified as Atlantic mackerel and misreported in charter/party logbooks and as part of data collections for MRIP. There are no federal possession limits, minimum fish sizes, or season restrictions for recreational Atlantic mackerel fisheries.

Minimum fish size limits are typically used to reduce fishing mortality on immature fish; however, a minimum size limit for chub mackerel may provide little additional biological benefits considering current fishery selectivity. According to an analysis of observer data done for Amendment 21, about 88% of the chub mackerel caught in bottom otter trawls are at least 20 cm in length. As suggested in Daley and Leaf (2019)² and supported by comments from fishermen, it is possible that chub mackerel's fast swimming speed reduces the potential for capture of larger individuals. Several scientific studies have documented the length at maturity for chub mackerel in various regions. The length at maturity varies by study. Daley (2018)³ examined chub mackerel caught in commercial fisheries in the Mid-Atlantic and Southern New England and found that 50% of females reached maturity at about 27 cm. According to observer data, about 73% of the chub mackerel caught in bottom trawls are at least 27 cm.

Given that chub mackerel are predominantly caught with bottom otter trawls off the U.S. east coast, it can be assumed that most discarded chub mackerel would not survive. Therefore, a minimum fish size likely would increase mortality on this species without notable benefits of protecting immature fish.

Most chub mackerel landed on the U.S. east coast over the past 20 years were caught on bottom trawl vessels which also participate in the *Illex* squid fishery. Regulations for that fishery specify gear requirements (see 50 CFR 648.23), including gear restrictions for specific regulated mesh areas (50 CFR 648.80). The Council did not see a need to develop additional gear restrictions for chub mackerel beyond what vessels are currently subject to in other fisheries.

At this point in time, Council staff do not recommend that the Council implement new chub mackerel management measures such as minimum fish sizes, closed seasons, or gear restrictions.

² Daley, T. T. and R. T. Leaf. 2019. Age and growth of Atlantic chub mackerel (*Scomber colias*) in the Northwest Atlantic. *Journal of Northwest Atlantic Fisheries Science*. 50: 1-12.

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Chub Mackerel Fishery Information Document

August 2020

This Fishery Information Document provides a brief overview of the biology, stock condition, management system, and fishery performance for Atlantic chub mackerel (*Scomber colias*) with an emphasis on 2019. Data Sources for Fishery Information Documents include unpublished National Marine Fisheries Service (NMFS) fisheries-independent surveys, commercial dealer reports, vessel trip reports (VTRs), permits, and Marine Recreational Information Program (MRIP) data and should be considered preliminary. For more resources, including previous Fishery Information Documents, please visit <https://www.mafmc.org/msb>.

Key Facts

- The Council developed the first management measures for Atlantic chub mackerel in U.S. waters. These measures became effective in 2017 and were modified in 2020.
- Stock status of chub mackerel in this region is unknown as there has been no quantitative stock assessment. The Council's Scientific and Statistical Committee assumes that stock biomass is currently at a sustainable level.
- After spiking at 5.25 million pounds in 2013, commercial chub mackerel landings returned to low levels. In 2019, commercial fishermen landed 60,498 pounds of chub mackerel from Maine through North Carolina.
- Data on recreational chub mackerel harvest are variable and likely imprecise. It is estimated that recreational fishermen from Maine through North Carolina harvested 13,788 pounds of chub mackerel in 2019.

Basic Biology

Atlantic chub mackerel are a schooling pelagic species. They migrate seasonally and can be found throughout U.S. Atlantic waters to depths of about 250-300 meters.¹ Adults prefer temperatures of 15-20°C (about 60-70°F).^{1,2} Some studies suggest that juveniles tend to be found closer inshore than adults.^{3,4}

Atlantic chub mackerel grow rapidly during the first year of life.^{2,3,5,6} They can reach at least age 13.⁷ Daley and Leaf (2019) found that most fish sampled from commercial fishery catches off the northeast U.S. were age 3.⁶

Atlantic chub mackerel spawn in several batches. Spawning areas likely occur from North Carolina through the Gulf of Mexico.^{8,9} Daley (2018) suggested that chub mackerel reach maturity around age two in the Northwest Atlantic, though other studies from various locations have published a range of ages at maturity.^{3,9}

Chub mackerel are opportunistic predators with a seasonally variable diet of small crustaceans (especially copepods), small fish, and squid.^{1,10} Adults tend to consume larger prey and more fish prey than juveniles.⁴

Very few quantitative estimates of the contribution of chub mackerel to the diets of predator species in the western North Atlantic are available. This is likely due in part to the difficulty of visually distinguishing partially-digested chub mackerel from related species such as Atlantic mackerel (*Scomber scomber*), bullet mackerel (*Auxis rochei*), and frigate mackerel (*Auxis thazard*).¹¹ The family Scombridae has been documented in the diets of some fish, marine mammals, sea birds, and sharks in the western North Atlantic.^{12,13} However, few studies identify chub mackerel to the species level in the diets of any predators. A thorough literature review conducted by Council and NMFS staff in 2018¹⁴ identified only one study with quantitative data on the role of chub mackerel in the diets of any predators off the U.S. east coast. Manooch et al. (1984) found that chub mackerel made up 0.2% (by frequency of occurrence) of the diets of dolphinfish sampled off North Carolina through Texas.¹⁵ Chub mackerel have been documented as prey for some predators in other parts of the world. For example, they are important prey for blue marlin at certain times of year off Portugal¹⁶ and Cabo San Lucas.¹⁷ They have also been documented as prey for Cory's shearwaters in the eastern North Atlantic, for long-beaked common dolphins off South Africa, and short-beaked common dolphins off the Iberian Peninsula.¹⁸ It should be emphasized that diet composition of a predator species may vary by geography and can be flexible. Therefore, the importance of chub mackerel in the diets of predators in other parts of the world does not necessarily indicate its importance off the U.S. east coast. More diet information would be required to better establish this relationship.

In 2018, the Council funded a study with the goal of better delineating the role of chub mackerel in the diets of tunas and marlins, which were identified by stakeholders as predators of key interest. Final results from this study are expected to be available in 2021.

Status of the Stock

The stock status of chub mackerel in the western Atlantic Ocean is unknown as there have been no quantitative assessments of this species in this region. The Council's Scientific and Statistical Committee (SSC) assumes that biomass is currently at or above biomass at maximum sustainable yield.¹⁹

Large fluctuations in abundance have been reported around the world, including in the mid-Atlantic and New England.^{3, 20} These fluctuations may be partly the result of environmental influences such as temperature and upwelling strength on recruitment.³ Given that chub mackerel are a fully pelagic species, ocean processes likely influence their availability in any given area, as well as their recruitment.

Management System and Fishery Performance

Management

The Mid-Atlantic Fishery Management Council manages Atlantic chub mackerel fisheries in federal waters from Maine through North Carolina.

An increase in commercial landings during 2013-2015, as well as concerns about the potential role of chub mackerel as prey for tunas and marlins, prompted the Council to adopt an annual commercial landings limit and a commercial possession limit for chub mackerel as part of the Unmanaged Forage Omnibus Amendment. These measures were implemented in September

2017 and were the first regulations for chub mackerel fisheries off the U.S. east coast.¹³ They were intended to be temporary measures and were replaced by longer-term measures developed through Amendment 21, which added chub mackerel as a stock in the Mackerel, Squid, and Butterfish (MSB) Fishery Management Plan (FMP). These new management measures will become effective September 3, 2020.²¹

The Council's SSC recommends annual acceptable biological catch (ABC) limits for chub mackerel. The Council must either approve the ABC recommended by the SSC or approve a lower ABC. Total catch (i.e., commercial and recreational landings and dead discards) from Maine through the east coast of Florida count against the ABC. Expected South Carolina through Florida catch is subtracted from the ABC to derive the annual catch limit (ACL). An annual catch target (ACT) is set less than or equal to the ACL to account for management uncertainty. Expected discards are subtracted from the ACT to derive a total allowable landings limit (TAL). The commercial and recreational fisheries do not have separate annual catch or landings limits (Figure 1).

Unless revised, the catch and landings limits for 2020-2022 include an ABC of 5.07 million pounds (2,300 mt), an ACL of 4.99 million pounds (2,262 mt), an ACT of 4.79 million pounds (2,171 mt), and a TAL of 4.50 million pounds (2,040 mt).

Although total catch from Maine through the east coast of Florida counts against the ABC, the ACL, ACT, and TAL apply to Maine through North Carolina. Based on past landings trends, the Council agreed that catch from South Carolina through Florida is immaterial to proper management. Therefore, commercial and recreational fisheries in South Carolina through Florida are not subject to the permit and possession limit requirements described on the next page.

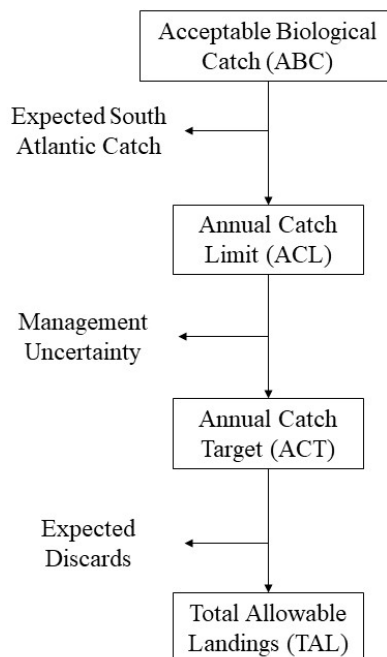


Figure 1. Flowchart summarizing chub mackerel catch and landings limits.

Commercial Fishery

In addition to the catch and landings limits described above, commercial chub mackerel management measures include a permit requirement and a possession limit after a certain level of landings is reached.

A commercial MSB fishing permit is required of vessels which retain chub mackerel for sale in federal waters from Maine through North Carolina. Ten permit types meet this requirement. There is no permit type specific to chub mackerel.

There is no commercial possession limit for chub mackerel until 90% of the TAL is projected to be landed. At that point, a 40,000 pound (18 mt) possession limit is in effect. Once 100% of the TAL is projected to be landed, commercially-permitted vessels are limited to a 10,000 pound (4.5 mt) possession limit.

After remaining below 0.5 million pounds per year for several years, commercial chub mackerel landings spiked to 5.25 million pounds in 2013, but decreased to pre-2013 levels by 2016 (Table 1). This temporary increase was the result of a small number of trawl vessels targeting chub mackerel.²² These vessels also participate in the *Illex* squid fishery. Some fishermen have described chub mackerel as a “bailout” species which they sometimes target when they are not able to harvest *Illex* squid. Chub mackerel tend to be harvested in the same areas and times of year when *Illex* squid are harvested; however, fishermen have said they typically will not harvest both species at the same time because the quality of both species suffers when they are stored together.

According to public comments, a small number of vessels on the east coast are capable of harvesting chub mackerel in profitable quantities because vessels need to be large, fast, and have refrigerated sea water or freezing capabilities in order to harvest this fast-swimming, low-value, warm water species. Landings data seem to support these statements.

Fewer than 5 vessels accounted for more than 95% of chub mackerel landings over the last 20 years (2000-2019). The chub mackerel landings from these vessels were sold to fewer than three dealers; therefore, much of the data associated with these vessels and dealers are confidential.

During 2000-2019, at least 32 dealers across 6 states purchased chub mackerel. The majority of these dealers purchased low amounts of chub mackerel (i.e., less than 20,000 pounds total over the 20-year period) and did not purchase chub mackerel every year. New York, New Jersey, and Rhode Island had the highest number of dealers which purchased any amount of chub mackerel during 2000-2019 (Table 2). On average, 14 vessels per year, with a maximum of 31 vessels per year, landed chub mackerel from Maine through North Carolina.²²

Like landings, the annual average ex-vessel price per pound varied during 2000-2019, averaging \$0.49 per pound (adjusted to 2019 dollars). There appears to be a relationship between price and volume landed, though this relationship is neither linear nor consistent across time. In general, years with higher landings had lower average annual prices per pound, and vice versa (Table 1).²²

About 96% of the chub mackerel landed by commercial fishermen from Maine through North Carolina from 2000 through 2019 were caught with bottom otter trawls.²³

Nearly all commercial chub mackerel landings (>97%) from Maine through North Carolina over the past 20 years occurred during June-October. The highest proportion of landings occurred in

September (38%). June, July, August, and October contributed about equally to commercial landings (13-16%).²²

Over 97% of commercial chub mackerel landings from 2000-2019 originated from statistical areas south of New York. Much of these landings came from statistical areas which overlap with the shelf break (Figure 2).²³

Public comments received during development of Amendment 21 suggest that most chub mackerel landed on the east coast are processed for use as human food, much of which is sent overseas, and lesser amounts are used as bait in other fisheries.

Table 1. Commercial chub mackerel landings (in pounds) from Maine through North Carolina, ex-vessel value, and average price per pound. Ex-vessel value and price are inflation-adjusted to 2019 dollars using the Gross Domestic Product Price Deflator. Landings in some years are combined to protect confidential data representing fewer than three vessels and/or dealers.²²

Year	Landings (pounds)	Ex-vessel value	Average price per pound
2000	16,246	\$7,508	\$0.46
2001	4,384	\$6,109	\$1.39
2002	471	\$284	\$0.60
2003	488,316	\$33,245	\$0.07
2004	126	\$86	\$0.68
2005	0	\$0	--
2006	0	\$0	--
2007-2009	21,039	\$7,413	\$0.65
2010-2011	192,301	\$38,432	\$0.43
2012	164,867	\$70,627	\$0.43
2013	5,249,686	\$1,101,190	\$0.21
2014	1,230,411	\$362,202	\$0.29
2015	2,108,337	\$520,829	\$0.25
2016	610,783	\$107,858	\$0.18
2017	2,202	\$2,765	\$1.26
2018	22,356	\$11,585	\$0.52
2019	60,498	\$39,853	\$0.66
2000-2019 avg	508,601	\$115,499	\$0.49

Table 2. Number of dealers by state which purchased any amount of chub mackerel, 2000-2019. "C" indicates confidential data.²²

State	Number of dealers
MA	C
RI	9
CT	C
NY	14
NJ	9
VA	4

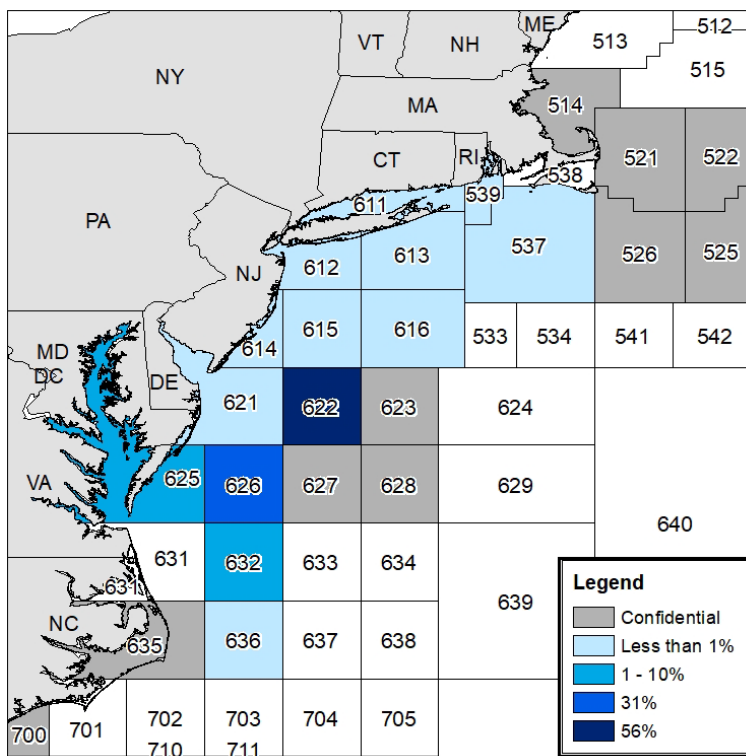


Figure 2. Percent of commercial chub mackerel landings by statistical area, 2000-2019 as shown in dealer and VTR data. Data associated with fewer than three vessels and/or dealers are confidential. Confidential landings collectively account for about 2% of the total.²³

Recreational Fishery

Recreational catch and harvest data are available from MRIP. MRIP data show an average of 20,402 chub mackerel caught and 11,300 chub mackerel harvested per year from 2000 - 2019 from Maine through North Carolina. An average of 13,788 pounds of annual recreational harvest was estimated. In about half of those years, no recreational catch or harvest was estimated (Table 3). About 57% of the harvest (in numbers of fish) was caught in state waters, with the remaining 43% caught in federal waters. The proportion of harvest by mode varied considerably over the past 20 years, but averaged 45% from private and rental boats, 40% from party and charter boats, and 15% from shore (Table 4). Most of the recreational catch and harvest occurred in New York and New Jersey (Table 5). Most catch and harvest occurred during July and August (Table 6).²⁴

Chub mackerel may be rarely encountered on recreational trips. There may also be instances of misreporting chub mackerel as Atlantic mackerel. This is an important consideration for MRIP and other data sets which incorporate self-reported data from fishermen (e.g., VTRs). To address this concern, the Council and partners at NMFS developed a species identification guide and distributed over 3,700 copies to commercial and recreational permit holders and other interested stakeholders.²⁵ In addition, in 2017 chub mackerel were added to the core list of species for trainings of MRIP field samplers from Maine through Virginia.

Through development of Amendment 21, the Council heard anecdotal descriptions of recreational chub mackerel harvest, including reports of catch on for-hire vessels out of New

York and New Jersey. There have also been reports of chub mackerel harvest for use as live bait on recreational trips out of Maryland and Virginia targeting white marlin, blue marlin, sailfish, spearfish, yellowfin tuna, bigeye tuna, and/or wahoo. According to public comments, this live bait fishery occurs on the edges of certain offshore canyons, especially Norfolk Canyon, where chub mackerel and their predators are concentrated in the late summer and early fall.²⁶

Table 3. MRIP-estimated recreational catch and harvest of chub mackerel from Maine through North Carolina, 2000-2019 based on MRIP data downloaded August 17, 2020.²⁴

Year	Recreational catch (# of fish)	Recreational harvest (# of fish)	Recreational harvest (pounds)	Avg. percent retained
2000	4,461	4,461	6,991	100%
2001	821	0	0	0%
2002	0	0	0	--
2003	0	0	0	--
2004	0	0	0	--
2005	0	0	0	--
2006	0	0	0	--
2007	0	0	0	--
2008	0	0	0	--
2009	0	0	0	--
2010	0	0	0	--
2011	1,613	1,613	355	100%
2012	15,569	0	0	0%
2013	0	0	0	--
2014	60,191	49,813	48,087	83%
2015	0	0	0	--
2016	2,575	2,087	2,093	81%
2017	26,061	13,310	14,831	51%
2018	157,471	104,830	128,949	67%
2019	139,282	49,892	74,462	36%
Avg.	20,402	11,300	13,788	57%

Table 4. Proportion of total chub mackerel harvest by recreational fishing mode in numbers of fish, 2000-2019, based on MRIP data downloaded August 17, 2020. “--” indicates a year with no data.²⁴

Year	Party/charter	Private/rental boat	Shore
2000	0%	100%	0%
2001	--	--	--
2002	--	--	--
2003	--	--	--
2004	--	--	--
2005	--	--	--
2006	--	--	--
2007	--	--	--
2008	--	--	--
2009	--	--	--
2010	--	--	--
2011	0%	0%	100%
2012	--	--	--
2013	--	--	--
2014	100%	0%	0%
2015	--	--	--
2016	91%	9%	0%
2017	18%	82%	0%
2018	41%	56%	2%
2019	34%	66%	0%
Avg.	41%	45%	15%

Table 5. Proportion of total chub mackerel catch and harvest in numbers of fish by state, 2000-2019 based on MRIP data downloaded August 17, 2020.²⁴

State	Recreational catch	Recreational harvest
ME	0%	0%
NH	3%	4%
MA	0%	0%
RI	4%	3%
CT	9%	10%
NY	46%	44%
NJ	39%	39%
DE	0%	0%
MD	0%	0%
VA	0%	0%
NC	0%	0%
Total	100%	100%

Table 6. Proportion of total chub mackerel catch and harvest in numbers of fish by wave, Maine through North Carolina, 2000-2019 based on MRIP data downloaded August 17, 2020. Note that only North Carolina conducts MRIP sampling during wave 1.²⁴

Wave	Catch (numbers of fish)	Harvest (numbers of fish)
1 (Jan-Feb)	0%	0%
2 (Mar-Apr)	0%	0%
3 (May-Jun)	4%	6%
4 (Jul-Aug)	69%	76%
5 (Sep-Oct)	27%	18%
6 (Nov-Dec)	0%	0%
Total	100%	100%

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Characterization of the Atlantic Chub Mackerel fishery and stock, 2020 update

Robert Leaf

April 8, 2020

Introduction

The objective of the project “Characterization of the Atlantic Chub Mackerel fishery and stock” is a continued effort to work with industry partners (J. Kaelin, Lund’s Fisheries and M. Lapp, SeaFreeze Ltd.) to characterize the age and length composition of Atlantic Chub Mackerel (ACM) in the commercial fishery. To our knowledge, the data collected here are the only available for understanding the fishery dynamics of Chub Mackerel in the United States. Our work focuses on collecting length-composition information from the two primary companies that target the stock. Both companies harvest ACM and Illex squid, and ACM is considered a secondary target and one of opportunity.

The collection of fishery-dependent data was initiated in 2016 using funding provided by the [Science Center for Marine Fisheries](#). SCeMFIS is a National Science Foundation Industry/University Cooperative Research Center (I/UCRC).

The intention of this work has been to understand inter-annual variations in age and length composition of ACM. In this report, we have integrated data collected this year with those collected by Leaf and from previous fishery-dependent sampling work (earlier than 2016) from the mid-Atlantic. SeaFreeze Ltd. has provided these data from random sampling of boxes of fish packed and frozen at sea. The intention of this effort is to contribute to a continued understanding of the length and age-composition of harvest and to expand the time series of annual length composition for inclusion into quantitative stock assessment.

Methods

In 2019 to 2020, working with industry partners, we have requested that both SeaFreeze and Lund’s Fisheries collect a random subset of the catch of ACM and keep them frozen at their facility, labeled with the date of collection. Depending on the volume of samples, we have made trips to Lund’s Fisheries in the late summer/early fall to collect and sample fish (determine length, weight, and collect otoliths and gonads) onsite. In other years, including in 2019, we have requested that frozen samples be shipped to the Gulf Coast Research Laboratory, Ocean Springs, MS. This year (2019) the fishery did not encounter ACM until late in the season (Table 1) and these samples were collected by SeaFreeze Ltd.

Table 1. Summary of sampling (month and year) performed by SeaFreeze Ltd. (2007 to 2015) and industry and academic cooperative partnership with Leaf's Laboratory at the Gulf Coast Research Laboratory and Lund's Fisheries and SeaFreeze Ltd. (2016 to 2019).

Year	Month Start	Month End	Number of Fish Examined
2007	7	7	107
2008	5	5	96
2010	9	9	122
2012	6	11	556
2013	7	10	1066
2014	6	11	1352
2015	6	12	906
2016	7	9	2841
2017	6	11	427
2018	6	8	66
2019	11	11	109

Table 2. Summary statistics of sampling performed by SeaFreeze Ltd. (2007 to 2015) and cooperative partnership with the Gulf Coast Research Laboratory at the University of Southern Mississippi and Lund’s Fisheries and SeaFreeze Ltd. (2016 to 2019). Note that 2016 does include some fish collected in the northern Gulf of Mexico (from fishery-dependent sampling) and included to show the scope of the sampling work in that year.

Year	Minimum FL (cm)	Maximum FL (cm)	# Fish Measured	# Age Determined
2007	18.9	29.7	157	0
2008	18.9	25.2	96	0
2010	21.6	27.9	122	0
2011	25.2	28.8	95	0
2012	19.8	34.2	580	0
2013	18.9	31.5	1096	0
2014	19.8	32.4	1352	0
2015	18.9	33.3	906	0
2016	18.9	39.2	2888	328
2017	22.8	39.5	427	108
2018	31.5	35.9	66	0
2019	20.9	34.8	109	0

In 2016 to 2017 we focused our efforts on describing the length-at-age, weight-at-length, and maturity dynamics of Atlantic Chub Mackerel. These analysis have been published (Daley and Leaf, *J. Northw. Atl. Fish. Sci.*, 50: 1-12). In our most recent effort, in 2019, we continued to collect and characterize the length composition of Atlantic Chub Mackerel from the fishery.

Based on aggregated length-composition information, of all years, the length composition exhibits a slight bimodal pattern with peaks at 25 cm TL and another at 32 cm TL. There is considerable variation in the patterns of annual length composition encountered in the commercial fishery and in general length composition data from a single year do not exhibit a bimodal pattern, instead, the mean of the annual length composition distributions are generally unimodal and either centered or skewed to smaller lengths (e.g. years 2007, 2008, 2012, 2018) or centered or skewed to larger lengths (e.g. years 2007, 2008, 2012, 2014).

However, the harvested fish in 2019, provided to us from SeaFreeze Ltd., exhibited a bimodal pattern. One trip in particular resulted in the harvest of small ACM, with a mean FL of approximately 22 cm. Large individuals, 30 to 35 cm, were also harvested as they have been nearly every year, since 2012 (Table 2).

Based on the historical analysis of length composition, there is no relationship between the month of harvest and the mean length of the fish encountered.

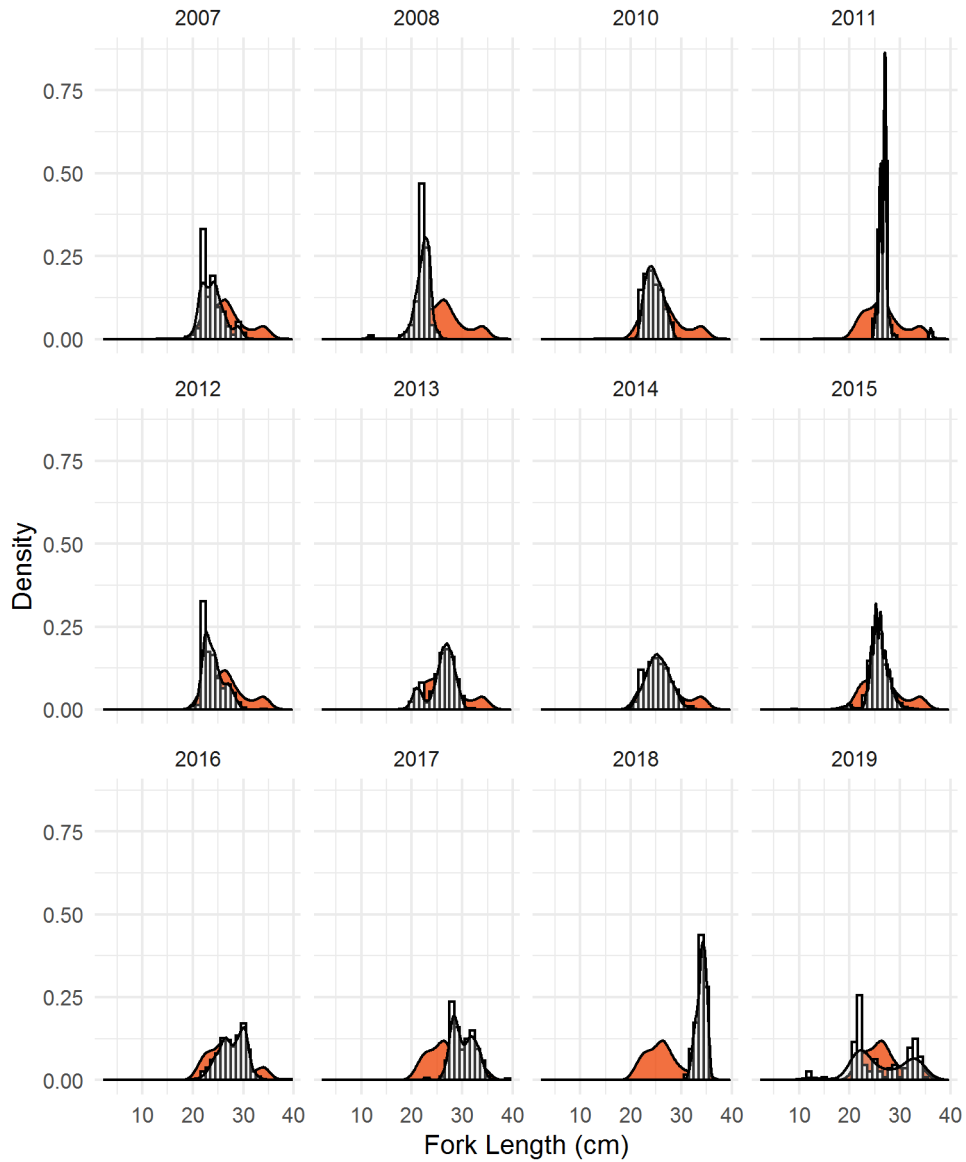


Figure 1: Length (Fork Length) composition collected from the commercial fishery. The orange polygons are the aggregated (all year) density polygons provided for comparison to the annual (panel specific) length compositions.

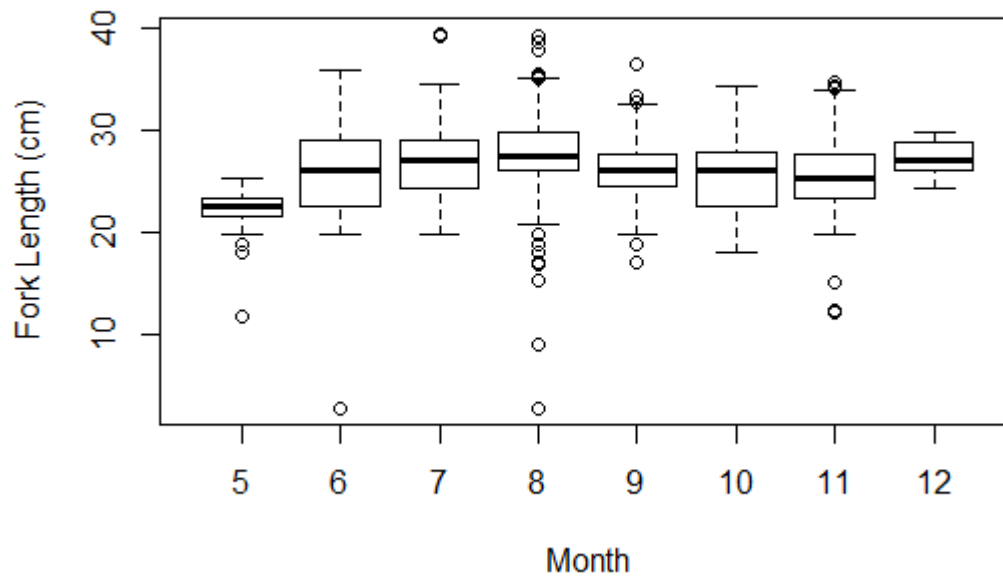


Figure 2: Boxplot of Fork length (cm) of collected Atlantic Chub Mackerel caught during the fishing season.



Mid-Atlantic Fishery Management Council

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 24, 2020
To: Council
From: Mary Sabo
Subject: Executive Order 13921 Recommendations

During the October Council Meeting the Council is scheduled to finalize its recommendations in response to the Executive Order on Promoting American Seafood Competitiveness and Economic Growth. The following items are enclosed for Council consideration:

- Memo: Background and Executive Committee Recommendations
- MAFMC Response to Executive Order 13921 - Revised Draft List of Topics
- Public Comments Received Since the August 2020 Meeting

In addition, several supplemental documents are available at the links below:

- [EO 13921 on Promoting American Seafood Competitiveness and Economic Growth](#)
- [Chris Oliver Letter to the Councils](#)
- [NMFS Guidance for Councils Response to E.O. 13921 Section 4](#)
- [NMFS Recommended Action Template](#)
- [Public Comments Considered at the August 2020 Meeting](#)

These supplemental documents are also available on the Executive Committee Meeting page at <https://www.mafmc.org/council-events/2020/executive-committee-sept21>



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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 24, 2020
To: Council
From: Mary Sabo, Council Staff
Subject: Executive Committee Recommendations on EO 13921

On May 7, 2020, the President of the United States signed an [Executive Order \(EO\) on Promoting American Seafood Competitiveness and Economic Growth](#). The purpose of this Executive Order is “to strengthen the American economy; improve the competitiveness of American industry; ensure food security; provide environmentally safe and sustainable seafood; support American workers; ensure coordinated, predictable, and transparent Federal actions; and remove unnecessary regulatory burdens.”

Section 4 of the Executive Order requires each Regional Fishery Management Council to submit, within 180 days of the date of this order, a prioritized list of recommended actions to reduce burdens on domestic fishing and to increase production within sustainable fisheries, including a proposal for initiating each recommended action within 1 year of the date of this order. Recommendations must be consistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act and other applicable laws. On May 19, 2020, National Marine Fisheries Service (NMFS) [sent a letter](#) requesting a Council response to the EO by November 2, 2020. NMFS has also provided [a guidance document](#) for the development of recommendations and [a template](#) that provided examples of the form and level of detail for responses.

At the August 2020 Council Meeting the Council reviewed [public input](#) and provided guidance to staff on a number of broad topics for further development. Based on this input, staff developed a more detailed list of possible actions that may address the objectives of the EO.

Executive Committee Recommendations and Staff Follow-Up

The Executive Committee met via webinar on Monday, September 21 to review the initial draft list of topics and develop recommendations for Council consideration at the October meeting. Briefing materials considered by the Committee are available at <http://mafmc.adobeconnect.com/exec-com-sept21/>.

The Executive Committee reviewed a draft list of fourteen recommendations that may address the objectives of the EO. Staff noted that the draft recommendations were categorized as either “Council Actions” which would involve primarily Council work, or “Non-Council Actions,” which are recommendations and requests that would be directed to other agencies.

These groupings are only intended to help the Council assess potential recommendations with respect to future workload. However, the final list will need to be prioritized within a combined list. Staff also noted that several items in the “Council Actions” section pertain to actions or initiatives that have already been initiated. The rationale for including these items is to highlight pre-existing efforts to address the objectives of the EO and to encourage continued support from NMFS and other relevant agencies.

The Committee agreed to maintain all fourteen items on the list forwarded to the Council for consideration in October. The Committee requested additional information on one draft recommendation (USFWS Squid Import Export Rules) and directed staff to develop three additional recommendations to add to the draft list.

Request for Additional Information on the USFWS Squid Import/Export Issue

The Committee discussed the letter submitted by Lund’s Fisheries, Seafreeze Ltd., and The Town Dock requesting that the Council include in its recommendations a request to NMFS and U.S. Fish and Wildlife Service (USFWS) for exemption of U.S. harvested squid species from the USFWS wildlife import/export rules. The Committee expressed general support for this recommendation but requested that staff provide additional background information regarding the USFWS rationale for including squid in its import/export fee system. The Committee also requested documentation of NMFS’ past opposition to the USFWS decision not to classify squid as fish or shellfish. This information will be posted by 9/30/20 as a supplemental document under Tab 4 on the October 2020 Meeting Page (<https://www.mafmc.org/briefing/october-2020>). In addition, a Committee member asked whether any squid species worldwide are listed under the Convention on International Trade in Endangered Species (CITES). Staff has checked the CITES database and determined that there are no squid species currently listed. Finally, staff notes that the Pacific Fishery Management Council has agreed to include a recommendation on this topic on their list of recommendations in response to the EO.

Recreational Issues

The Committee discussed whether it would be appropriate to include recreational-focused recommendations in the Council’s response and ultimately agreed that nothing in the EO precludes recreational issues. After some discussion about the South Atlantic Fishery Management Council’s approach to the EO, the Committee directed staff to develop two additional recommendations to address (1) the Council’s ongoing Recreational Reform Initiative and any resulting actions, and (2) a request for clarification regarding the application of the Modernizing Recreational Fisheries Act within the constraints of National Standard 1 guidelines. These recommendations have been added to the revised draft list as items #8 and #16, respectively.

Highly Migratory Species Import Issues

The Committee discussed concerns about imports of highly migratory species (HMS) unfairly disadvantaging U.S. fishermen. It was proposed that imported HMS seafood should be required to “meet or exceed the U.S. harvesting standards” in order to create a level playing field for U.S. fishermen. Given the complexity of existing HMS management and monitoring systems, the broad nature of this recommendation would be difficult to submit in the format requested by NMFS for this exercise. In follow up conversations after the meeting, staff worked with the HMS Committee chair to identify a specific area of focus for the Council’s recommendation on this topic. As a result, topic #17 focuses primarily on ensuring that the U.S. is only importing

HMS seafood from countries that have equivalent gear requirements for HMS fisheries, particularly with respect to the use of circle hooks.

Other Notes

Please Note: All references to topic numbers are based on the revised list of topics provided in the October 2020 Briefing Book.

- Regarding the *Illex* possession limit topic (#1), staff was asked whether the Council would be recommending a specific proposed amount of increase to the possession limit in its response to NMFS. Staff responded that the Council's submission to NMFS will only reflect an intent to evaluate possible increases during the normal specifications process. Additional analysis would be needed to determine what level of increase would be appropriate.
- Staff clarified that the dogfish trip limit topic (#3) would only involve an analysis of the economic impacts of potential changes to the trip limit. This recommendation would not reflect an intent to modify the trip limit. It was mentioned that the Council's new SSC Economic Workgroup may be able to contribute to such an analysis.
- On the golden tilefish multi-year specifications topic (#4), staff clarified that the proposed action would only increase the maximum timeframe the Council could set multi-year specifications for and would not impact any of the existing requirements to review specifications each year.
- Regarding the proposed commercial minimum mesh size review (#5), staff clarified that this work would build on the related Council-funded research that has been conducted in recent years. One Committee member expressed support for using a consistent mesh size and noted that the Council may need to consider changes to other recreational measures to account for the revised mesh sizes.
- On the topic of offshore wind fishery surveys (#10), one Committee member recommended that the NEFSC consider incorporating trap surveys similar to those utilized by the Southeast Fisheries Science Center.
- The Committee expressed general support for addressing the issues related to fishery dependent data reporting (#12). One member requested that the Council specifically highlight the need to address duplicative reporting requirements for fishermen holding permits from multiple regions.
- Staff requested Committee input on whether the three recommendations resulting from the For-Hire/Law Enforcement workshop (#13-15) are appropriate for including in the Council's EO response. One member commented that those issues contribute to the efficiency and profitability of the U.S. fishing industry and should be included in the Council's recommendations.

Next Steps

The Committee discussed prioritization but agreed not to prioritize the list until the Council has finalized its recommendations. Staff has incorporated Committee recommendations into the revised draft list which the Council will review at the October 2020 Council Meeting. Below is a summary of the topics addressed in this list.

1. *Illex* Squid Incidental Possession Limit During Closures
2. Butterfish Mesh Size
3. Dogfish Trip Limit White Paper

4. Golden Tilefish Multi-Year Specifications
5. Commercial Minimum Mesh Size Review for Summer Flounder, Scup, Black Sea Bass
6. Climate Change Scenario Planning
7. Commercial eVTR Implementation and Outreach
8. Recreational Reform Initiative
9. Offshore Wind – Additional Data Collection on Fishing Activity
10. Offshore Wind – Fishery Surveys
11. USFWS Squid Import/Export Rules
12. Fishery Dependent Data Reporting
13. Integration of VTR and HMS Reporting Systems
14. Reporting by Holders of HMS Permits with Commercial Sale Endorsement
15. Integration of the NOAA HMS Database and USCG Safety Inspection Databases
16. Modernizing Recreational Fisheries Act
17. HMS Import Gear Restrictions



MAFMC Response to Executive Order 13921

Draft List of Topics

October 2020 Council Meeting Discussion

COUNCIL ACTIONS

1. *Illex* Squid Incidental Possession Limit During Closures

- **Issue:** When the *Illex* squid fishery closes to directed fishing, vessels may not possess more than 10,000 lbs of *Illex* squid on board. This has been reported as resulting in *Illex* discards by vessels targeting longfin squid after *Illex* closures.
- **Action By:** Council
- **Action:** Consider increasing the *Illex* incidental possession limit for vessels possessing a certain amount of longfin squid (e.g. 10,000 lbs) after the *Illex* fishery closes.
- **Rationale:** This action could reduce regulatory discards by allowing vessels targeting longfin squid to land *Illex* bycatch instead of discarding it.
- **Initiation Plan:** The Council would consider this regulatory change in 2021 when setting specifications for 2022.

2. Butterfish Mesh Size

- **Issue:** Current regulations require vessels to use a minimum mesh size of 3 inches to possess or land more than 5,000 lbs of butterfish. The original intent was to avoid butterfish that might likely be discarded. However, butterfish and longfin squid co-occur, and the longfin squid fishery is subject to a minimum codend mesh size that is much smaller. Industry reports that for some participants these regulations result in excessive butterfish discards during squid trips.
- **Action By:** Council
- **Action:** Consider increasing the amount of butterfish that can be landed by vessels using smaller than 3-inch mesh (the current limit is 5,000 lbs).
- **Rationale:** This action could alleviate some regulatory discards and allow opportunistic landing of butterfish bycatch during squid trips. Recent data suggest directed butterfish fishing will predominantly occur on larger trips that will still need to use 3-inch mesh.
- **Initiation Plan:** The Council would consider this regulatory change during the review of 2022 butterfish specifications.

3. Dogfish Trip Limit White Paper

- **Issue:** The spiny dogfish fishery currently has a federal trip limit of 6,000 lbs. There are conflicting opinions among industry participants about whether the trip limit should be increased, eliminated, or remain at 6,000 lbs.
- **Action By:** Mid-Atlantic and New England Councils
- **Action:** Analyze the potential impacts of changing the federal trip limit for spiny dogfish.
- **Rationale:** Some fishery participants have advocated for the trip limit to be increased to allow for full utilization of the quota and development of a large-scale fishery. Other participants have claimed that increasing the federal trip limit would have adverse economic and social impacts and could lead to management issues if the quota is reduced in future years. Additional analysis could help the Council

better understand the potential social and economic impacts and management concerns associated with possible adjustments to the federal trip limit.

- **Initiation Plan:** Staff would develop a white paper on the potential impacts of changing the federal spiny dogfish trip limit.

4. Golden Tilefish Multi-Year Specifications

- **Issue:** Specifications for golden tilefish are typically set for three years at a time. Some fishery participants have advocated for increasing this timeframe, as was done recently for the surfclam and ocean quahog fisheries.
- **Action By:** Council
- **Action:** Council would consider initiating a framework to allow specifications to be set for more than 3 years (e.g. 5 years) when assessment data support the development of longer-term projections.
- **Rationale:** Setting specifications for longer timeframe would increase administrative efficiency and predictability from year to year.
- **Initiation Plan:** Staff would begin preparing background materials needed for the Council to consider initiating a framework.

5. Commercial Minimum Mesh Size Review for Summer Flounder, Scup, Black Sea Bass

- **Issue:** Current regulations require three different minimum mesh size regulations for summer flounder, scup, and black sea bass, which are targeted by a largely overlapping group of vessels fishing in similar areas. Industry members have requested analysis of a uniform mesh size for these three species.
- **Action By:** Council
- **Action:** Review and consider revisions to the commercial minimum mesh sizes for summer flounder, scup, and black sea bass. This work would build on the commercial mesh size research that has been funded by the Council in recent years.
- **Rationale:** A uniform mesh size for two or more of these species would simplify regulations and minimize fishermen having to purchase and store multiple nets and having to switch nets during fishing operations.
- **Initiation Plan:** Staff would work with the Summer Flounder, Scup, and Black Sea Bass Monitoring Committee in 2021 to evaluate biological and economic impacts of modified mesh size regulations, for Council consideration.

6. Climate Change Scenario Planning (adapted from SAFMC draft EO recommendations)

- **Issue:** The distribution of managed species is changing on the Atlantic Coast. This will increasingly create access and constituent involvement issues in the fisheries and pose challenges to the 3 Councils that manage resources from Maine through Florida. It may also lead to changes in stock carrying capacity and thus MSY.
- **Action By:** NMFS and MAFMC/SAFMC/NEFMC
- **Action:** Provide operational support to the MAFMC, SAFMC, and NEFMC to pursue the Scenario Planning process initiated through the Northeast Region Coordinating Council.
- **Initiation Plan:** The MAFMC, SAFMC, and NEFMC have initiated the Scenario Planning approach.

7. Commercial eVTR Implementation and Outreach

- **Issue:** In 2021 a new rule will be implemented requiring all commercial vessels with Northeast federal permits to submit vessel trip reports electronically.
- **Action By:** Council and GARFO
- **Action:** Provide training and outreach to facilitate compliance with new electronic reporting requirements.
- **Rationale:** In the long-term, electronic reporting is expected to reduce the burden on industry as reporting requirements are consolidated into the eVTR platforms. However, during the transition period training and outreach will be critical to ensure compliance and correct usage of eVTR platforms.

- **Initiation Plan:** Outreach planning is already underway. The Council and GARFO expect to hold a series of virtual and/or in-person training workshops in 2021.

8. Recreational Reform

- **Issue:** Uncertainty in recreational catch and effort data create unique challenges for managing recreational fisheries. Stakeholders have expressed dissatisfaction with frequent changes to recreational regulations and have requested that the Council and Atlantic States Marine Fisheries Commission (ASMFC) develop strategies to provide greater management flexibility and stability from year to year.
- **Action By:** Council (in coordination with ASMFC)
- **Action:** Continue to develop the Recreational Reform Initiative, which considers approaches to provide greater stability and flexibility in the recreational management programs for summer flounder, scup, black sea bass, and bluefish. Specifically, the objectives of this initiative are to achieve (1) stability in the recreational management measures (bag/size/season), (2) Flexibility in the management process, and (3) accessibility aligned with availability/stock status.
- **Rationale:** Recreational fishing generates income, supports jobs, contributes to the economy, and provides food to recreational anglers. This initiative will help ensure a supply of seafood by maintaining harvest at sustainable levels and promoting continued recreational access to fishery resources.
- **Initiation Plan:** The Council and ASMFC have been developing the Recreational Reform Initiative since March 2019 and will consider initiating an associated management action at the October meeting¹

NON-COUNCIL ACTIONS

9. Offshore Wind – Additional Data Collection on Fishing Activity

- **Issue:** A large area of the Outer Continental Shelf has been leased for offshore wind development. Many of the wind energy areas overlap with areas important for fishery transit or operations. Available datasets (e.g. VMS, AIS, and VTRs) do not cover all fisheries, and there is a need to address those data gaps in order to avoid and mitigate impacts of offshore development on fisheries.
- **Action By:** Bureau of Ocean Energy Management and U.S. Coast Guard
- **Action:** Collect additional information on fishing and transit locations, especially for fisheries that are not fully covered by existing datasets. Consider collaboration with RODA and other groups/stakeholders, potentially using the New York Bight Transit Lane Workshop as a model.
- **Rationale:** Additional information about patterns of fishing activity will help inform the development of navigation routes and wind farm layout guidance to allow for safe vessel transit, fishing activity, and search and rescue operations.
- **Initiation Plan:** The Council would submit a formal request to BOEM and the USCG.

10. Offshore Wind – Fishery Surveys

- **Issue:** Nearly all long-term fishery-independent surveys in the Northeast will be affected by offshore wind development.
- **Action By:** National Marine Fisheries Service
- **Action:** Provide additional funding to the Northeast Fisheries Science Center to support the design and evaluation of new supplemental surveys that can be integrated into stock assessments and existing time series.
- **Rationale:** Fishery-independent data is fundamental to the management process. If not adequately accounted for, disruptions to historical time series could create data gaps that increase scientific uncertainty and require the Council to set more conservative catch limits.
- **Initiation Plan:** n/a

¹ Final submission to NMFS will include relevant updates from the October meeting.

11. USFWS Squid Import/Export Rules

(See [comment letter from Lund's/Seafreeze/Town Dock](#) for additional details.)

- **Issue:** The U.S. Fish and Wildlife Service (USFWS) includes squid fishery products in its inspection and user fee system for monitoring the import/export of certain types of wildlife products (at 50 CFR 14), even though these fishery products are already inspected by the US Department of Commerce. Most other fishery products are exempt from USFWS inspection. The USFWS inspection and user fee system was established for monitoring the import and export of certain types of protected wildlife products. In the past, NMFS has taken a position in opposition to the USFWS' justification for including U.S.-produced squid species as part of this program. Despite objection from NMFS, the USFWS declines to classify squid as a fishery product or shellfish, defying best available science.
- **Action By:** USFWS
- **Action:** Recommend that the USFWS revise its wildlife import/export rules (See 73 FR 74615 and 50 CFR Parts 10-14) to exempt U.S. harvested squid species.
- **Rationale:** The added burden of USFWS oversight, in addition to USDOC inspection, costs U.S. squid harvesters and processors collectively multiple tens of thousands of dollars annually in additional fees, requires export from only designated ports, at times disrupts exporting schedules, and makes U.S. squid products less competitive in international markets. This undermines U.S. trade policy and increases the U.S. trade deficit, especially with China and Japan.
- **Initiation Plan:** The Council would submit to USFWS a formal request for regulatory change.

12. Fishery Dependent Data Reporting

- **Issue:** Redundant reporting requirements for fishermen with multiple permits and lack of integration between data collection systems creates an excessive reporting burden for the fishing industry. For example, on the Atlantic Coast, an individual fisherman may hold permits for species managed by the New England Council, the Mid-Atlantic Council, the South Atlantic Council, an individual state, and Highly Migratory Species. Reporting systems across these management bodies are not integrated and one fishing trip could require reporting to all entities.
- **Action By:** NMFS and ASMFC (or individual states)
- **Action:** Provide increased funding and resources to simplify reporting through electronic reporting, the integration of data streams and permit databases, implementation of a unique trip identification number, and other appropriate methods.
- **Rationale:** This action would reduce the reporting burdens for commercial harvesters by streamlining the reporting process and eliminating redundant reporting requirements.

* Note: Items 13-15 are based on recommendations from the [For-Hire Law Enforcement Workshop](#).

13. Integration of VTR and HMS Reporting Systems

- **Issue:** For-hire vessels holding dual permits for HMS and GARFO-managed species are required to submit HMS reports and Vessel Trip Reports (VTR) through separate reporting mechanisms.
- **Action By:** NMFS Greater Atlantic Regional Fisheries Office and HMS Division
- **Action:** Integrate VTR and HMS reporting systems
- **Rationale:** This action is needed to reduce duplicate reporting burdens for dual permit holders and to draw parity between the data (e.g., species and disposition) collected under each system.
- **Initiation Plan:** The Council has already submitted a request to GARFO and HMS in April 2019

14. Reporting by Holders of HMS Permits with Commercial Sale Endorsement

- **Issue:** The HMS reporting application does not require the same data as VTRs.
- **Action By:** NMFS HMS Division
- **Action:** Require holders of HMS permits with a commercial sale endorsement to report catch and harvest of all species, as well as discarded/undersize fish.

- **Rationale:** This action is needed to develop consistency with data reported on VTRs.
- **Initiation Plan:** The Council has already submitted a request to NMFS HMS in April 2019.

15. Integration of the NOAA HMS Database and USCG Safety Inspection Databases

- **Issue:** The NMFS HMS permitting database and the U.S. Coast Guard (USCG) safety inspection database are not currently linked. For-hire vessels applying for HMS permits with commercial sale endorsements are not required to submit their unique USCG safety inspection number at the time of application. There is no way to enforce the USCG safety requirements for permits with the commercial sale endorsement unless the vessel is boarded.
- **Action By:** USCG
- **Action:** Integrate the HMS and GARFO permitting database and USCG safety inspection database.
- **Rationale:** This action is needed to enforce uniform safety requirements for commercial and for-hire vessels landing fish for commercial sale.
- **Initiation Plan:** The Council has already submitted a request to the USCG in April 2019.

16. Modernizing Recreational Fisheries Act

- **Issue:** Section 102 of the Modernizing Recreational Fisheries Act of 2018 (Modern Fish Act), amends the MSA to explicitly authorize the use of certain management approaches intended to expand management flexibility for recreational fisheries. Specifically, the Modern Fish Act authorizes the use of extraction rates, fishing mortality targets, harvest control rules, and traditional or cultural practices of native communities for the management of recreational fisheries. The Act does not change the existing National Standard requirements to develop ACLs and accountability measures or other applicable provisions of the MSA. There is confusion regarding how the provisions of the Modern Fish Act can be applied to achieve greater management flexibility for recreational fisheries while following the National Standard 1 guidelines as currently written.
- **Action By:** NMFS
- **Action:** Evaluate the National Standard 1 guidelines relative to the Act and provide clarification on the flexibility the Councils have to implement alternative recreational management approaches.
- **Rationale:** This clarification would help the Council refine recreational management approaches and improve recreational efficiency, stability, and angler satisfaction while working within existing MSA constraints.
- **Initiation Plan:** The Council will identify this issue in its EO response and await action by NMFS.

17. HMS Import Gear Restrictions

- **Issue:** Highly migratory species range widely through the ocean and must be managed through international cooperation and collaboration. Efforts by U.S. managers and fishermen to implement science-based approaches to fisheries management cannot result in sustainable HMS fisheries if foreign fleets interacting with shared stocks are not managed under the same harvesting standards. Since 2004, all vessels with pelagic longline (PLL) gear and federal HMS limited access permits have been required to use circle hooks to avoid interaction with sea turtles and other protected species. According to the NOAA Fisheries [2019 Report to Congress](#) on Improving International Fisheries Management, “The United States has consistently promoted the mandatory use of circle hooks and other related mitigation measures in pelagic longline fisheries managed by the tuna regional fishery management organizations (RFMOs) to which it is a party, to reduce the bycatch of sea turtles and other protected species. To date, despite strong U.S. leadership, several members of the tuna RFMOs have opposed adoption of binding conservation and management measures mandating the use of circle hooks.” While these gear restrictions have successfully reduced bycatch in the U.S. PLL fishery, the U.S. continues to allow imports of HMS seafood from countries that do not require circle hooks.
- **Action By:** NMFS

- **Action:** The Council recommends several actions to address the disparity between U.S. and foreign HMS harvesting standards: (1) Adopt and expand the use of market-related measures, such as import prohibitions and landing restrictions, to ensure that HMS fish and fish products are only imported from countries that have equivalent gear requirements for PLL HMS fisheries, particularly with respect to the use of circle hooks. (2) Continue to work with regional fishery management organizations to pursue binding conservation and management measures mandating the use of circle hooks. (3) Consider the feasibility of establishing provisions similar to the “Fish and Fish Product Import Provisions of the Marine Mammal Protection Act” that would require nations exporting HMS seafood to the United States to be held to the same standards as U.S. commercial fishing operations.
- **Rationale:** U.S. fishermen are unfairly disadvantaged by imports of HMS seafood harvested by foreign fleets that are not subject to equivalent gear restrictions. The proposed import restrictions and other recommendations are necessary to level the playing field for the U.S. fishing industry and ensure the continued sustainability and productivity of U.S. stocks.
- **Initiation Plan:** The Council will identify this issue in its EO response and submit a formal request to NMFS.

The following pages contain public comments received since the August 2020 Council Meeting. Comments considered at the August meeting are available at

<https://www.mafmc.org/s/EO-Public-Comments-2020-08-10-ha25.pdf>



September 23, 2020

Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street
Suite 201
Dover, DE 19901

Re: Recent aquaculture proposals impacting Mid-Atlantic Fisheries

Dear Dr. Moore and Council Members:

Please accept the following comments on behalf of Friends of the Earth, and our members and activists located throughout the Mid-Atlantic region, to raise our alarm over recent proposals that would advance industrial aquaculture in the U.S.¹ As detailed below, we object to any agenda that furthers industrial aquaculture production based on the established history of negative environmental and socio-economic impacts, and we urge the Mid-Atlantic Fishery Management Council to assert its unique authority and expertise, and demand to be integrally involved as these policies develop along its stretch of the Atlantic coast.

I. We thoroughly object using industrial aquaculture as a means to increase domestic seafood production.

Industrial ocean fish farming – also known as marine finfish or offshore aquaculture – is the mass cultivation of fish in the ocean in net pens, pods or cages. Industrial fish farms are known to contaminate waters with pharmaceuticals, toxic chemicals, untreated waste and disease. Farmed fish spills can also threaten the wild fish populations and natural ecosystems. Coastal businesses could be negatively impacted by the increases in pollution and ecological damage. We have been tracking, and are entirely opposed to, the multitude of advances by the federal government to recklessly develop and expand this destructive, outdated, and unnecessary form of aquaculture in the United States.

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Other countries with marine finfish aquaculture have suffered extensive environmental, socio-economic and public health problems associated with the industry. These impacts are varied and widespread, and oftentimes do not come to light until years after the damage has been done. The U.S. should acknowledge and learn from these negative experiences. Several countries, like Canada, Argentina, and Denmark, are already moving away from offshore aquaculture due to these serious impacts.²

Marine finfish aquaculture routinely results in farmed fish escapes that adversely affect wild fish stocks. In August 2017, a Cooke Aquaculture facility in Washington State spilled more than 263,000 farmed Atlantic salmon into Puget Sound. Long after the escape, many of these non-native, farmed fish continued to thrive and swim free – some were even documented as far north as Vancouver Island, west of the Strait of Juan de Fuca, and south of Tacoma, traveling at least 100 miles from the farm.³ Escaped fish increase competition with wild stocks for food, habitat, spawning areas and mates. Moreover, reliance on the sterility of farmed fish to prevent interbreeding is *never* 100% guaranteed; therefore, the “long-term consequences of continued farmed [fish] escapes and subsequent interbreeding . . . include a loss of

¹ NOAA, [Recommendations for a Comprehensive Interagency Seafood Trade Strategy](#), 85 FR 41566 (July 10, 2020).

² Hallie Templeton (Feb. 10, 2020). *International examples offer US a blueprint for aquaculture regulation in 2020*. Friends of the Earth. <https://foe.org/international-examples-offer-us-blueprint-aquaculture-regulation-2020/>

³ Lynda V. Mapes, Seattle Times, *Despite agency assurances, tribes catch more escaped Atlantic salmon in Skagit River* (Dec. 1, 2017), available at <https://www.seattletimes.com/seattle-news/environment/despite-agency-assurances-tribes-catch-more-escaped-atlantic-salmon-in-skagit-river/>.

genetic diversity.”⁴ Finally, escaped farmed fish might spread a multitude of parasites and diseases to wild stocks, which could prove fatal when transmitted.⁵

Also on the topic of parasites and diseases, we have significant concerns over the pervasive use of pharmaceuticals and other chemicals for prevention and treatment of outbreaks in marine finfish aquaculture facilities. The use of these chemicals creates environmental and public health concerns. It is no secret that large concentrated populations of animals are more susceptible to pests and diseases due to confined spaces and increased stress. In response, the agriculture and aquaculture sectors administer a pharmacopeia of chemicals – and in the open ocean, residues of these drugs are discharged and absorbed into the marine ecosystem. For example, the marine finfish aquaculture industry treats sea lice with Emamectin benzoate (marketed as SLICE®), which has caused “widespread damage to wildlife,” including “substantial, wide-scale reductions” in crabs, lobsters and other crustaceans.⁶ For example, in Nova Scotia, an 11-year-long study found that lobster catches plummeted as harvesters got closer to marine finfish aquaculture facilities.⁷ These industrial operations also have a plan in the works to apply Imidacloprid – an extremely hazardous, bee-killing neonicotinoid – to help control sea lice.⁸ In addition, the industry has embraced the use of Formaldehyde – a toxic carcinogen posing risk to both public health and the marine ecosystem – as a form of disinfectant.⁹ Finally, the use of antibiotics in marine finfish aquaculture facilities is contributing to the public health crisis of antibiotic resistance. In farmed fish, there may still be antibiotic and other chemical residues by the time they reach consumers, and they can also leach into the ocean, contaminating nearby water and marine life. In fact, up to 75% of antibiotics used by the industrial ocean fish farming industry are directly absorbed into the surrounding environment.¹⁰

Another serious concern is the direct discharge of untreated pollutants, including excess food, waste, antibiotics, and antifoulants associated with industrial ocean fish farms. Releasing such excess nutrients can negatively impact water quality surrounding the farm and threaten surrounding plants and animals. These underwater factory farms can also physically impact the seafloor, create dead zones, and change marine ecology by attracting and harming predators and other species that congregate around fish cages. These predators – such as birds, seals, and sharks – can easily become entangled in net pens, stressed by acoustic deterrents, and hunted. In fact, an industrial ocean fish farm caused the death of an endangered monk seal in Hawaii, which was found entangled in the net.¹¹ In August 2018, Cooke

⁴ Fisheries and Oceans Canada, Newfoundland and Labrador Region, Stock Assessment of Newfoundland and Labrador Atlantic Salmon (2016), available at <http://waves-vagues.dfo-mpo.gc.ca/Library/40619655.pdf> (“Genetic analysis of juvenile Atlantic Salmon from southern Newfoundland revealed that hybridization between wild and farmed salmon was extensive throughout Fortune Bay and Bay d’Espoir (17 of 18 locations), with one-third of all juvenile salmon sampled being of hybrid ancestry.”); see also Mark Quinn, CBC News, *DFO study confirms ‘widespread’ mating of farmed, wild salmon in N.L.* (Sept. 21, 2016)

<https://www.cbc.ca/news/canada/newfoundland-labrador/farmed-salmon-mating-with-wild-in-nl-dfo-study-1.3770864>.

⁵ Jillian Fry, PhD MPH, David Love, PhD MSPH, & Gabriel Innes, VMD, Johns Hopkins University, Center for a Livable Future, “Ecosystem and Public Health Risks from Nearshore and Offshore Finfish Aquaculture” at 6-7 (2017)

https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/pdf/research/clf_reports/offshor-finfish-final.pdf

⁶ Rob Edwards, The Sunday Herald, *Scottish government accused of colluding with drug giant over pesticides scandal*, (June 2, 2017) http://www.heraldscotland.com/news/15326945.Scottish_government_accused_of_colluding_with_drug_giant_over_pesticides_scandal/.

⁷ Milewski, et al., (2018) *Sea Cage aquaculture impacts market and berried lobster catches*, Mar. Ecol. Prog. Ser. 598: 85-97, available at <https://www.int-res.com/articles/meps2018/598/m598p085.pdf>.

⁸ Rob Edwards, The Ferret Scotland, [Fish farm companies ‘bidding to use bee-harming pesticide](#) (March 17 2020).

⁹ Rob Edwards, The Ferret Scotland, [Toxic fish farm pesticide polluted ten lochs across Scotland](#) (May 24, 2020).

¹⁰ United Nations, “Frontiers 2017: Emerging Issues of Environmental Concern” at 15 (2017) <https://www.unenvironment.org/resources/frontiers>.

¹¹ Caleb Jones, USA Today, *Rare Monk Seal Dies in Fish Farm off Hawaii* (Mar. 17 2017), available at <https://www.usatoday.com/story/news/nation/2017/03/17/rare-monk-seal-dies-fish-farm-off-hawaii/99295396/>.

Aquaculture entangled an endangered Humpback whale in large gillnets that it cast to recapture escaped farmed fish from a Canada facility.¹² These examples are merely two of many unfortunate incidents.

Large populations of farmed fish will require an incredible amount of fish feed, which carries its own environmental, public health, and human rights risks.¹³ Most industrially farmed finfish, like salmon, are carnivorous and require protein in their feed. This often consists of lower-trophic level “forage fish,” many of which are already at risk of collapse. Lately, aquaculture facilities are relying more on ingredients such as corn, soy, and algae as substitute protein sources, many of them genetically engineered, and which do not naturally exist in a fish’s diet. Use of these ingredients can lead to heightened, widespread environmental degradation, a heightened demand on natural resources, and a less nutritious fish for consumers. Moreover, the fish feed industry is a global contributor to human trafficking and slavery.¹⁴ There are very few requirements for the industry to include traceability of ingredients or sourcing methods in fish feed, allowing these serious problems to pervade.

Finally, permitting commercial, marine finfish aquaculture in the United States could bring formidable economic harm to our coastal communities, food producers (on land and at sea), and other marine-reliant industries. Members of the wild-capture fishing industry have collectively voiced their trepidations over attempting to coexist with the marine finfish aquaculture industry, stating that “this emerging industrial practice is incompatible with the sustainable commercial fishing practices embraced by our nation for generations and contravenes our vision for environmentally sound management of our oceans.”¹⁵ These massive facilities could also close off and essentially privatize large swaths of the ocean that are currently available for numerous other commercial purposes, including fishing, tourism, shipping, and navigation. Given what we know about economies of scale and the business models of modern agriculture and terrestrial food production, we can only expect a similar trend at sea: that is, the marine finfish aquaculture industry could easily push out responsible, small-scale seafood producers and crop growers. This dynamic equates to an alarming imbalance of power, and allows corporations to dominate business structures, production methods, and management policies within the industry. Giving corporations disproportionate influence over food production also severely limits consumer choices.¹⁶ Most important is the fact that our existing seafood producers are acutely struggling from the sweeping impacts of the COVID-19 pandemic. The Administration should set aside its flawed mission to advance an industry with myriad documented harms, and instead prioritize protecting and assisting our preexisting – and deeply struggling – seafood production sectors.

¹² Terri Coles, CBC News, *Humpback whale freed from net meant for escaped farm salmon in Hermitage Bay* (Aug. 14, 2018), <https://www.cbc.ca/news/canada/newfoundland-labrador/whale-caught-gill-net-cooke-aquaculture-1.4784732>.

¹³ See generally, Changing Markets Foundation, *Until the Seas Run Dry* (2019), available at <http://changingmarkets.org/wp-content/uploads/2019/04/REPORT-WEB-UNTILL-THE-SEAS-DRY.pdf> (concluding that using wild fish to feed farmed fish “raises concerns of overfishing, poor animal welfare and disruption of aquatic food webs; it also undermines food security in developing countries, as less fish is available for direct human consumption”).

¹⁴ David Tickler, *et al.* (2018) *Modern slavery and the race to fish*, *Nature Communications* 9: 4643, available at <https://www.nature.com/articles/s41467-018-07118-9>.

¹⁵ Open letter to Members of the U.S. House of Representatives and Senate, Dec. 4, 2018, re: Opposition to marine finfish aquaculture in U.S. waters, available at <http://foe.org/DecFishFarmingSignOnLetter/>.

¹⁶ See generally, Undercurrent News, “World’s 100 Largest Seafood Companies” (Oct. 7, 2016) <https://www.undercurrentnews.com/report/undercurrent-news-worlds-100-largest-seafood-companies-2016/>; Tom Seaman, Undercurrent News, “World’s top 20 salmon farmers: Mitsubishi moves into second place behind Marine Harvest” (June 29, 2016) <https://www.undercurrentnews.com/2016/06/29/worlds-top-20-salmon-farmers-mitsubishi-moves-into-second-place-behind-marine-harvest/>; Aslak Berge, Undercurrent News, “These are the world’s 20 largest salmon producers” (July 30, 2017) <http://salmonbusiness.com/these-are-the-worlds-20-largest-salmon-producers/>.

The risks are not isolated to marine finfish operations. Other forms of aquaculture – such as intensive bivalve cultivation and large-scale warehouses on land – can also be destructive to essential habitat, water quality, and public health when poorly sited and scaled. While *wild* bivalves are known to clean water, the water quality impacts of intensive shellfish aquaculture may not always be beneficial; many aquaculture activities can negatively affect water quality through the removal of eelgrass, the increase of wastes from concentrated production, and the disruption of sediments. Other significant potential environmental impacts from dense shellfish aquaculture is a reduction in shoreline biodiversity,¹⁷ installation of plastic gear (e.g., PVC tubes, polyethylene anti-predator netting, and polyolefin ropes),¹⁸ and use of pesticides.¹⁹ These massive shellfish operations also pose risks to marine wildlife and public health and safety.²⁰

Massive land-based finfish aquaculture facilities also pose risks. One such facility is being proposed on Maryland's Eastern Shore by Norwegian company AquaCon. AquaCon intend to build the \$300 million operation on the outskirts of Federalsburg in Caroline County, and aims to harvest 3 million fish a year, weighing 14,000 metric tons. This "harvest" will be on par with Maryland's total annual commercial crab catch.²¹ The company hopes to follow suit with two additional operations on the Eastern Shore over the next six or seven years, ramping up production to 42,000 tons annually. This "harvest" would total more than the entire Baywide landings of *any* fish or shellfish – except for menhaden.²² Although these types of operations are referring to themselves as "Recirculating Aquaculture Systems," these are not actually what is commonly defined as a recirculating system (fully recirculating, reusing all waste and water within the system – not merely 99%) and have regular discharge. Co-opting the term recirculating aquaculture system to describe these facilities, is simply a form of greenwashing the operations, in the hopes of garnering support for it by confusing the public about their true nature. Given its scale, the AquaCon facilities are likely to routinely discharge *millions of gallons of effluent daily* off Maryland's coast.²³ Regardless of any dilution efforts, effluent from a facility of this size contains alarming amounts of fish waste, excess food, and pharmaceutical residues. Moreover, the facility will use a stunningly irresponsible amount of water and have an extreme carbon footprint. Finally, the colossal scale of the facility plan is cause for extreme concern for the wellbeing of Maryland's independent fishing community as well as small and mid-sized seafood businesses. Based on these reasons, we are opposed to the facility and strongly object to the issuance of any permits for its operation and further are very concerned about their usage of the term "recirculating aquaculture" in this manner.

¹⁷ See *id.*; Bouwman, L., A. Beusen P. M Glibert, C Overbeek, M Pawlowski, J. Herrera S. Mulsow, R. Yu, and M. Zhou, *Mariculture: significant and expanding cause of coastal nutrient enrichment*, Environ. Res. Lett. 8 (2013); DeFur, P. and D.N. Rader, *Aquaculture in estuaries: Feast or famine?* Estuaries Vol. 18, No. 1A (1995); Hastings, R.W. and D.R. Heinle, *The effects of aquaculture in estuarine environments: Introduction to the dedicated issue*, Estuaries Vol. 18, No. 1A (1995); Dethier, M., *Native shellfish in nearshore ecosystems of Puget Sound*, Puget Sound Nearshore Partnership Report No. 2006-04, Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington (2006); Diana, J.S., H. S. Eгна, T. Chopin, M.S. Peterson, L. Cao, R. Pomeroy, M. Verdegem, W.T. Slack, M.G. Bondad-Reantaso, and F. Cabello, *Responsible Aquaculture in 2050: Valuing Local Conditions and Human Innovations Will Be Key to Success*, Bioscience, Vol. 63(4) (2013); Bendell, L.I. and P.C.Y. Wan, *Application of aerial photography in combination with GIS for coastal management at small spatial scales; a case study of shellfish aquaculture* (2013).

¹⁸ Bendell, L.I., Favored use of anti-predator netting (APN) applied for the farming of clams leads to little benefits to industry while increasing nearshore impacts and plastics pollution, *Marine Pollution Bulletin* (2015).

¹⁹ Jennifer Wing, [Willapa Bay Oyster Farmers Ask State Again For Permission To Use Neurotoxin](#), KPLU, (Jan. 9, 2016); Wash. Dept. of Ecology, [Willapa Bay- Grays Harbor: Burrowing Shrimp Control – Imidacloprid](#) (last visited Aug. 1, 2016).

²⁰ Richard Langan, Kevin Heasman, [Shellfish Culture in the Open Ocean: Lessons Learned for Offshore Expansion](#), *Marine Technology Science Journal* (May 2010).

²¹ Timothy Wheeler & Jeremy Cox, Bay Journal News Service, [Salmon farm planned on Eastern Shore](#) (Sept. 5, 2020).

²² *Id.*.

²³ A similar operation proposed in Maine aims to produce 33,000 tons of fish annually, discharging 7.7 million gallons of effluent daily. See Abigail Curtis, Bangor Daily News, [State officials get an earful about proposed Belfast fish farm](#) (Feb. 13, 2020).

II. We oppose NOAA's plans for establishing Aquaculture Opportunity Areas.

On August 20, 2020, the National Oceanic and Atmospheric Administration (NOAA) announced the designation of federal waters in the Gulf of Mexico and Southern California regions as Aquaculture Opportunity Areas (AOA), with the intention of announcing eith more AOAs by 2025.²⁴ NOAA created the AOA designations despite a ruling from the Fifth Circuit Court of Appeals earlier in August that concluded that the Magnuson Stevens Act “unambiguously precludes the agency from creating an aquaculture regime, and affirmed the lower court’s decision to vacate the nation’s first commercial aquaculture permitting scheme.²⁵ Instead, NOAA made the AOA designations in response to a non-legislative mandate contained in the May 7, 2020 Executive Order on Promoting American Seafood Competitiveness and Economic Growth (“EO”).²⁶ NOAA is planning to designate a portion of each named region into a parcel that can host 3-5 offshore aquaculture operations for finfish, plants, bivalves, or a combination of species.

NOAA has stated that it chose the first two regions “based on the already available spatial analysis data and current industry interest in developing sustainable aquaculture operations in the region.” This statement in itself is troubling, as the agency has clearly failed to take into account whether the two regions consent to having aquaculture facilities sited in their adjacent federal waters. Before any AOA can legally be finalized, the Coastal Zone Management Act mandates a consistency review with the relevant state authorities to explore this important issue.²⁷ Moreover, it seems abundantly clear that NOAA chose these two regions – at least in part – based on the fact that there each region is the target site for at least one proposed finfish aquaculture facility for which permits are now pending. This does not bode well for the Mid-Atlantic. The Region would be home to a proposed finfish aquaculture facility that aims to cultivate Atlantic striped bass in the EEZ off the coast of Long Island, New York: Manna Fish Farms.²⁸

Based on the industry’s history of environmental and socio-economic harms, we urge the MAFMC to oppose the use of any future designation of an AOA for marine finfish aquaculture facilities. Because we are mindful that certain low-trophic marine aquaculture facilities do not pose the same risks, we would request the MAFMC urge NOAA to only permit plant and bivalve facilities in the Mid-Atlantic region that are moderately scaled, appropriately sited, and which do require feed or other inputs such as chemicals, herbicides, and pesticides.

Finally, marine conditions are highly localized and can vary greatly even within a small parcel of ocean space. Therefore, for any facilities that will be permitted, we are strongly opposed to any streamlined or programmatic environmental review process and recommend that each facility undergo rigorous review by pertinent agencies, including meaningful public participation and fulfillment of all mandated environmental reviews, consultations, and other conservation processes, including, but not limited to, those contained in the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.*, the Endangered Species Act (ESA) 16 U.S.C. § 1531, *et seq.*, the Marine Mammal Protection Act, 16 U.S.C. § 1361, *et seq.*, and the Migratory Bird Treaty Act, 16 U.S.C. § 703, *et seq.*

²⁴ NOAA, Press Release, [NOAA Announces Regions for First Two Aquaculture Opportunity Areas under Executive Order on Seafood](#) (Aug. 20, 2020).

²⁵ *Gulf Fishermens Ass’n v. NMFS*, 968 F.3d 454 (5th Cir. Aug. 2020).

²⁶ Executive Office of the White House, [Promoting American Seafood Competitiveness and Economic Growth](#), Executive Order 13921 (May 7, 2020).

²⁷ 16 U.S.C. § 1455(c).

²⁸ See Valerie Gordon, The Southampton Press, [Manna Fish Farm Stuck On Sandbar Near Entrance To Shinnecock Canal](#) (May 15, 2018).

III. We oppose the U.S. Army Corps draft nationwide permits streamlined approach to permitting industrial aquaculture.

Pursuant to the EO, the U.S. Army Corps of Engineers (USACE) has drafted a new set of nationwide permits for finfish, plant, and multi-trophic aquaculture facilities, as well as amended the pre-existing nationwide permit 48 for shellfish aquaculture. An unofficial draft of the permits has been provided for public inspection by the Federal Register, with formal publication of the official draft and a 60-day public comment period forthcoming.²⁹

We are still in the process of reviewing the finer details of the draft nationwide permits. However, we assert our opposition to any streamlined approach to permitting industrial aquaculture operations, and object to any permitting for marine finfish aquaculture facilities. Many of the risks inherent with industrial aquaculture operations cannot be mitigated or avoided. Moreover, as mentioned above, even localized ocean space can vary significantly within the same region, which requires a unique and targeted review for each proposed site. For these reasons, each individual permit and its potential environmental and socio-economic harms must be closely and thoroughly scrutinized by pertinent agencies, including a rigorous public participation process.

IV. We recommend the following actions by MAFMC with regard to emerging aquaculture proposals:

The Magnuson Stevens Act acknowledges the critical relationship between fishing and non-fishing uses of the ocean through its mandate to consider all ocean uses when creating or amending fisheries policy. By the same logic, the MAFMC has a vested interest in ensuring that emerging ocean policies and uses do not compromise wild-capture fishing activities by damaging the ocean ecosystem, disrupting ongoing spatial uses, or harming marine life. Indeed, the fish harvesters that MAFMC represents all deeply depend on a healthy, robust marine environment, which would be put at significant risk by industrial aquaculture. To help fulfill its responsibilities, we recommend that MAFMC exercise its unique influence and authority to undertake the following as related to emerging marine aquaculture proposals:

- Request the Secretary of Commerce to initiate Essential Fish Habitat consultations on all proposed aquaculture permits or siting proposals – including the draft nationwide permits and any future AOA designations in the region – at the earliest possible opportunity, not to be consolidated with other environmental review procedures.
- Coordinate and provide input into proposed aquaculture permits or siting proposals – including the draft nationwide permits and any future AOA designations in the region – to the extent allowed by the environmental review procedures in the National Environmental Policy Act (NEPA), the Clean Water Act (CWA), and the Coastal Zone Management Act (CZMA).
- Provide to the Secretary of Commerce, Secretary of Interior, and Secretary of Defense an assessment of the environmental and socio-economic risks of industrial aquaculture in the region and request that the assessment be incorporated into all agency strategies and decisions on aquaculture proposals and policies for the region. This assessment may be incorporated in a number of current MAFMC processes, including but not limited to, ecosystem-based management processes, including Fishery Ecosystem Plans; fishery management plan updates and amendments; and the Council's work with fishery agencies, tribes, and land and water management agencies to assess habitat conditions and develop comprehensive restoration plans. (MSA § 305(b))

²⁹ Dep't of Defense, [Proposal to Reissue and Modify Nationwide Permits](#), Dkt. No. 2020-0002 (Aug 3, 2020).

- Incorporate language into conservation and management measures that rejects marine finfish aquaculture facilities in the region based on the industry’s impacts on ocean health and wild fish productivity abundance, and distribution.

V. We recommend that the MAFMC request the following priorities for the Seafood Trade Task Force:

We are concerned with the overarching goal of the May 7 Executive Order to increase domestic seafood production – principally through offshore finfish aquaculture development – to address the overstated problem that we import too much seafood. At the same time, the EO ironically seeks to increase our seafood exports, and mandates the Task Force to explore recommendations and provide trade strategy to achieve this goal, which will only exacerbate the perceived “trade deficit” problem. Additionally, COVID-19 has shuttered communities, closing large swaths of the domestic market to our fishing industry and creating a glut of American seafood.³⁰

This situation has become especially vital in recent months as more and more people in the U.S. struggle to feed their families as the COVID-19 pandemic has caused many to lose income and disrupted supply chains in the seafood industry. Research has shown that 23% of us here in the U.S. are now affected by food insecurity, almost double since before the pandemic, with Black and minority communities being especially hard hit.³¹ With almost a quarter of all Americans being affected, this is an urgent, nationwide priority that must be addressed. Therefore, rather than prioritizing the export of U.S. seafood to increase profit and trade statistics, it behooves the Task Force to instead promote the domestic sale of U.S. seafood products.

Moreover, increasing exports of U.S.-produced seafood will deny U.S. consumers access to high-quality, sustainably harvested product, resulting in the continued import of cheaper, foreign seafood for domestic consumers. Research has shown that much of the seafood into the U.S. is produced in very problematic ways. Approximately half of our imported seafood is industrially farmed, which has a number of socio-economic and environmental problems noted in Section I above.³² And up to 32% of imported wild shrimp, crab, salmon and other catch is illegally poached.³³ Illegal fishing puts even more pressure on wild populations such that legal harvest is barely sustainable, and displaces those in the fishing industry who operate responsibly.³⁴ Documentation of imported fish is lax, making it difficult to trace the seafood from harvest to processing, which often occurs in multiple countries, each with their own set of regulations.

Instead of promoting exports of domestic seafood, the Task Force should focus its attention on the following objectives:

- Increase regulatory controls in the U.S. to prohibit seafood imports from countries that do not meet our high standard for ethical and sustainable production. Allowing imports from these countries creates an unfair

³⁰ Laura Reiley, Washington Post, [“Commercial fishing industry in free fall as restaurants close, consumers hunker down and vessels tie up”](#) (Apr. 8, 2020).

³¹ Alvin Powell, The Harvard Gazette, *Hunger on the rise amid pandemic* (July 1, 2020),

<https://news.harvard.edu/gazette/story/2020/07/covid-19-leaving-some-americans-sick-and-hungry/>

³² Darryl Fears, The Washington Post, *Seafood study: up to 32% imported to U.S. is caught illegally* (Apr. 20, 2014),

https://www.washingtonpost.com/national/health-science/seafood-study-up-to-32-percent-imported-to-us-is-caught-illegally/2014/04/20/3ceeabe0-c04d-11e3-bcec-b71ee10e9bc3_story.html

³³ NOAA, *Global Wild Fisheries*. <https://www.fishwatch.gov/sustainable-seafood/the-global-picture#:~:text=to%20United%20States%20NOAA%20Fisheries%20estimates%20that%20the%20United%20States%20imports%20more%20than,of%20more%20than%20%202410.4%20billion.>

³⁴ Ian Urbina, NBC News, [The deadly secret of China's invisible armada](#) (July 22, 2020) (“China is sending a previously invisible armada of industrial boats to illegally fish in North Korean waters, violently displacing smaller North Korean boats and spearheading a decline in once-abundant squid stocks of more than 70 percent.”).



advantage over American seafood and exacerbates harm to consumers and struggling domestic wild-capture fishing communities who are operating responsibly and abiding by government regulations.

- Focus on correcting our flawed tracking program for seafood trade, which relies on inaccurate tracking and reporting methods that double-counts seafood of domestic origin that is exported abroad for processing but re-imported for sale and consumption back here in the U.S. These erroneous figures are used as a primary reason to bring industrial aquaculture to the U.S. as a silver-bullet solution to the perceived seafood trade deficit.
- And, explore methods to end the export of seafood for cheap processing abroad by fostering and incentivizing domestic seafood processing here at home.

In conclusion, we are deeply concerned over recent proposals that seek to advance the growth of industrial aquaculture – many without proper oversight, environmental review and public participation processes, and other assurances to adequately protect water quality, wildlife habitat, and coastal economies. It is clear that industrial aquaculture has myriad, inherent environmental and socio-economic harms. Instead of treading carefully toward permitting an emerging industry with well-documented harms, we are alarmed that federal agencies have taken measures to rush the regulatory and environmental review processes to speed production while ignoring many risks and external costs.

Based on industrial aquaculture’s long-established history of environmental and socio-economic risks, we do not support these proposals, or any future policies that prioritize this risky method of seafood production. We urge the MAFMC to adopt the above recommendations and object to any efforts that would assist the hasty development of this dangerous industry.

Thank you for accepting these comments. I am available for any follow-up you may have in response to this communication.

Sincerely,

Hallie Templeton
Senior Oceans Campaigner
Friends of the Earth
htempleton@foe.org
1101 15th Street, NW
11th Floor
Washington, DC 20005

From: Bonnie Brady <greenfluke@optonline.net>
Sent: Thursday, August 13, 2020 8:59 AM
To: Mary Clark Sabo <msabo@mafmc.org>
Subject: EO 13921

On behalf of the Long Island Commercial Fishing Association, in the spirit of EO 13921, we hereby request a policy change whereby all legal sized fish species that are caught can be landed, instead of thrown over as regulatory by catch. This would reduce discard and bycatch in a multitude of fisheries, and produce huge benefits to ports throughout the nation as well as reduce bycatch to the extent practicable, in support of National Standards Five and Nine of the Magnuson Stevens Act.

Thank you
Bonnie Brady
LICFA

From: John depersenaire <jdepersenaire@joinrfa.org>
Sent: Tuesday, August 18, 2020 11:29 AM
To: Mary Clark Sabo <msabo@mafmc.org>
Subject: Fwd: RFI Reponse: Interagency Seafood Trade Task Force

Mary, I happened to be listening to the MAFMC meeting last Thursday when EO 13291 was discussed. I must have missed the announcement from the MAFMC soliciting public input on this matter. RFA did submit comments to the request for recommendations for the Comprehensive Seafood Trade Strategy which was posted in the federal register. We would have submitted the same comments to the MAFMC if we knew you were looking for comments. I understand the council's comment period may have closed but I still felt it was important to forward you our comments considering there were very few comments submitted from the recreational sector.

John

----- Forwarded message -----

From: John depersenaire <jdepersenaire@joinrfa.org>
Date: Thu, Jul 16, 2020 at 11:00 AM
Subject: RFI Reponse: Interagency Seafood Trade Task Force
To: <SeafoodTrade.strategy@noaa.gov>
Cc: <andrew.lawler@noaa.gov>

Please find attached comments from the Recreational Fishing Alliance in regards to the request for information for the development of the Comprehensive Interagency Seafood Trade Strategy.

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John DePersenaire
Recreational Fishing Alliance
PO Box 250
New Gretna, NJ 08224
888 JOIN-RFA



July 16, 2020

Interagency Seafood Trade Task Force
U.S. Department of Commerce

RE: RFI Response: Interagency Seafood Trade Task Force

Dear Members of the Interagency Seafood Trade Task Force:

Please accept the following comments on behalf of the Recreational Fishing Alliance (RFA) regarding the request for information issued by the Interagency Seafood Trade Task Force. RFA is a national organization with a mission statement to fight for the rights of saltwater anglers, protect marine and fishing tackle jobs and ensure the long-term sustainability of our Nation's marine resources. RFA recognizes the importance and traditional value of US commercial fishermen and what they provide to this council in terms of food production and jobs. RFA strives to maintain working relationships with individual commercial fishermen and commercial fishing organizations to work constructively through issues important to both our sectors.

RFA also recognizes the intent of Executive Order 13921 issued by President Trump on May 7, 2020. RFA is particularly supportive of the statement in section 1 to "get more Americans back to work and put healthy, safe food on our families table." The U.S. fisheries are the best managed in the world and RFA believes it is appropriate for the Administration to make investments for the benefit of U.S. fishermen.

Specific to key sections of Executive Order 13921, RFA supports Section 2 (a) that seeks to "identify and remove unnecessary regulatory barriers restricting American fishermen and aquaculture producers." While RFA agrees that U.S. fishermen are subjected to unnecessary regulatory barriers, RFA is cautious about advancing aquaculture producers too rapidly. Aquaculture development, particularly ocean-based facilities, hold potential negative impacts to important habitat and native fish stocks and these important issues should not be glossed over, but rather fully vetted. RFA supports NOAA remaining the lead federal agency and conducting the appropriate environmental impact statements under NEPA for all aquaculture facilities proposed in the marine area.

RFA supports Section 2 (b) to combat illegal, unreported, and unregulated fishing (IUU). RFA and the recreational fishing community have been at the forefront of requesting the U.S. government take a firm stance through international fishing treaties to curb IUU fisheries. The fairness aspect aside, which should be plainly apparent, there are serious conservation impacts

that result from IUU fishing that impact domestic commercial and recreational fishermen. The obvious impact is the reduction of available quota and fishing opportunities for U.S. fishermen.

RFA supports Section 2 (e) that seeks to safeguard our communities and maintain a healthy aquatic environment. Fishing communities are essential for both commercial and recreational fishermen to access our marine resources. Fishing communities include tackle shops; marinas that hold private, for-hire and head boats; piers; boat ramps; and water access points. All are essential in ensuring that the American public has adequate opportunities to access U.S. fisheries. It also goes without saying that a healthy aquatic environment is essential to many species of critical importance to both commercial and recreational fishermen. RFA is opposed to the roll back of any environmental laws, regulations, or review processes that would result in a net degradation of our nation's estuaries, rivers, bays, waterways, and oceans.

Where the RFA finds fault with Executive Order 13921 and recent notices to enact the mandates of EO 13921, is the conscious decision to exclude recreational fishing in achieving the goals of the order. In our review of multiple definitions of seafood, in no instance did it exclude fish harvested by recreational anglers. The most common definition of seafood includes some variant of the following definition, "any shellfish or finfish from the sea used for food." None of the definitions we have seen restrict the definition of seafood or shellfish to finfish caught by commercial fishermen or commercial fishing gear. Therefore, a summer flounder, blue crab, bluefin tuna, or Atlantic cod landed for consumption by a recreational angler is just as much seafood as those same species landed by commercial fishermen.

EO 13921 fails to define seafood for use in this executive order or for actions that will be taken to advance its objectives. Therefore, it can be assumed that any one of the myriad of definitions for seafood in popular use could be used with this executive order. RFA sees absolutely no reason that fish landed by recreational anglers for consumption should not be considered seafood. Based on every definition we have reviewed seafood is not a term that can be assigned exclusively to the commercial fishing industry. Furthermore, EO 13921 speaks about actions suggested to benefit U.S. fishermen. 'Fishermen' is a broad term that covers all individuals that catch or attempt to catch animals from the marine environment. The term fisherman is not sector specific, and the Administration should never suggest that the term 'fishermen' excludes anglers that fish for recreation or personal consumption. Thus, all benefits, goals and objectives outlined in EO 13921 aimed at benefiting fishermen must include both commercial and recreational fishermen.

RFA points this out because it is extremely disappointed that EO 13921 does not recognize the contributions that recreational fishing makes towards providing the U.S. public with fresh, domestic caught seafood. While not all recreational fisheries have a significant consumptive component such as marlin, sailfish and some other 'sport' fisheries, the primary motivation for

most anglers is to consume at least a portion of their catch. From an economic standpoint, recreational fishing generates income, supports jobs, and contributes to the gross domestic product in no less important a manner as commercial fishing. RFA can find no rationale to support why recreational fishing should be excluded from this effort by the Administration to “promote American seafood competitiveness and economic growth.” In fact, RFA feels it is insulting and disappointingly consistent with a long and unfortunate bias against the recreational fishing industry by NOAA Fisheries under previous Administrations. In the past, this modus operandi has been used to promote discord and divide recreational and commercial fishermen when we are natural allies in achieving conservation objectives and promoting the goal of achieving the greatest value from our shared public trust marine resources.

In terms of staff, research dollars, and management funding, the U.S. Department of Commerce and its subordinate agencies, particularly NOAA Fisheries, have historically prioritized commercial fishing interests over that of the recreational fishing industry. RFA and many in the recreational fishing industry had hoped this Administration would undo this institutional bias that has placed the interests of the commercial fishing industry over that of the recreational fishing industry. We were hopeful that the current Administration would put both sectors on equal standing and acknowledge the important role that each play in providing the United States public with domestic seafood. It is our expectation that these comments will spur the Administration to reflect on this oversight and provide equal interest and consideration.

Perhaps the White House and the newly created Interagency Seafood Trade Task Force are not aware of the magnitude of the benefits to the nation derives in terms of jobs, landings and economic output from the US recreational fishing industry. According to the National Oceanic and Atmospheric Administration, the most recent economic estimates of recreational saltwater fishing include 472,000 jobs, \$68 billion in sales and \$39 billion in total contributions to gross domestic product. When compared to similar categories attributed to the commercial fishing industry, the recreational values represent over one third of the combined US fishing output. This is no small contribution and should not be overlooked in the creation of something as important as the Interagency Seafood Task Force.

In terms of landings, recreational anglers are estimated to have harvested 334,907,475 pounds of seafood in 2019. In the same year, the recreational sector is estimated to have released over 609,000,000 pounds of fish. Released fish, the overwhelming number of which return unharmed to the biomass, can be classified in several ways including regulatory discards (below or above a minimum/maximum size limit, above a bag limit, out of season), or a personal decision made by the angler to release the fish. Based on the data alone, it would be frivolous for recreational fishing to be considered insignificant or even worse, excluded when crafting domestic seafood policy.

As to the RFI, RFA offers the following response to question 1. The remaining 6 questions are not relevant to the recreational sector and again demonstrates the inherent bias towards the commercial sector. These questions also demonstrate a very narrow focus put forward by the Administration to address this issue solely by increasing the export of more domestically caught seafood. RFA believes it is not the ideal solution for a whole host of reasons and in fact, this approach may exacerbate pressure on certain species and have broad ecological consequences. If the United States is already the largest importer of foreign-caught or farmed seafood, wouldn't a more prudent approach be to promote domestic-caught seafood to the domestic market and reduce our reliance on imports, thereby reducing our trade deficit in much the same way the Administration has promoted increased domestic energy production to reduce imported energy.

1) Recreational anglers do not export fish they land. Thus, every pound of fish harvested by recreational angler remains and is consumed by U.S. citizens. These landings estimates should be applied toward the total domestic seafood production on an annual basis. As explained above, recreationally landed fish fall under every definition of seafood and this acknowledgment alone will help in closing the seafood deficit.

Given that the questions put forward in the RFI are primarily focused at commercial fisheries, RFA would like to offer additional comments for the Task Force to consider as it works towards the development of a Comprehensive Interagency Seafood Trade Strategy.

1) The harvest attributed to recreational anglers on an annual basis is significant. What is unique about these landings is that they result from low impact hook and line gear. The magnitude of landings is only possible when the number of recreational participants is high. Appropriate regulatory frameworks for popular, healthy fisheries can help spur interest in these fisheries and drive more participation. This would help close the seafood gap and consequently increase the overall economic benefits to the nation derived from recreational fishing.

2) International management and compliance ~~has~~ imposes a significant impact on U.S. recreational fishermen and the businesses and jobs supported by recreational fishing. RFA suggests the U.S. State Department and Commerce Department take more aggressive action through international fisheries treaties where U.S. fishermen are regularly disadvantaged due to IUU, noncompliance, misreporting, while lacking enforcement by other contracting parties. These actions often result in lower overall quotas for the U.S., which in turn result in fewer opportunities for recreational anglers, lower recreational harvest and reduced economic output.

3) Explore ways to reduce regulatory discards in the recreational sector and convert mortality associated with discards to harvest. The idea is to find conservation neutral solutions that will increase the potential for recreational harvest without resulting in a net increase of overall mortality.

4) Review all federal laws that hold jurisdiction over the management of recreational saltwater fisheries and make suggestions for changes that would allow greater recreational access to U.S. marine resources while ensuring long term sustainability.

5) Explore ways to increase recreational participation. Increasing recreational participation, in concert with some of the above-mentioned suggestions, will allow for increased recreational harvest without the unwanted consequences of highly efficient or destructive fishing gear.

In closing, RFA believes it is paramount that the Administration acknowledges that fish and shellfish harvested by recreational anglers is indeed seafood. Perhaps this acknowledgement will help end the decades long institutional bias against the recreational fishing industry and help achieve the Administration's goal of closing the U.S. seafood gap which the RFA supports under certain scenarios. Now more than ever as our Nation deals with COVID 19, it has been demonstrated that recreational fishing in all forms of fresh and saltwater fishing and recreational shellfish harvesting helps provide food to the public. Grocery stores had either low inventory or were limiting the amount of protein a customer could purchase. The inventory at food banks and other food assistance programs remains low. Because of this, the public actively sort out recreational fishing opportunities to supplement their diet. Recreational gives the public an opportunity to put fresh food, seafood, on the plate.

RFA strongly encourages the Administration to include the interests of the recreational fishing industry and the important role it can play in the goals and objectives of the Interagency Seafood Trade Task Force and the forthcoming Comprehensive Interagency Seafood Trade Strategy.

Thank you for your consideration. Our industry looks forward to providing constructive input for this important work.

Sincerely,

A handwritten signature in black ink, appearing to read "James Donofrio". The signature is fluid and cursive, with a large initial "J" and "D".

James Donofrio
Executive Director

From: James Fletcher <bamboosavefish@gmail.com>
Sent: Friday, August 21, 2020 9:56 AM
To: Moore, Christopher <cmoore@mafmc.org>; Kellogg, Chris <ckellogg@nefmc.org>; Beal, Robert <rbeal@asmfc.org>; Batsavage, Chris <chris.batsavage@ncdenr.gov>; Didden, Jason <jdidden@mafmc.org>
Subject: Tuesday September meeting ***** Commerce & State Department Added

Dr Moore; IS THIS A SO CALLED HORSE & PONY SHOW BY NATIONAL MARINE FISHERIES IN ORDER TO DIVERT ATTENTION FROM EXECUTIVE ORDER?

NATIONAL SALTWATER REGISTRY COMPLIANCE ALL EEZ RECREATIONAL FISHERS & TRIP ELECTRONIC REPORTING.

KISS PROCESS: TOTAL RETENTION BY RECREATIONAL FISHING INDUSTRY **TOTAL RETENTION OF ALL CATCH. MANDATORY CELL / ELECTRONIC REPORTING PRIOR TO LEAVING DOCK & UPON RETURN TO SERVICE. COMPARABLE TO COMMERCIAL REPORTING!**

TWO TYPES RECREATIONAL LICENSES FOR EEZ AS NATIONAL SALTWATER ANGLER REGISTRY MANDATES. 1. LICENSE A. THOSE FISHING FOR FOOD ARE ALLOWED BARBED HOOKS ON VESSELS. LICENSE B. FISHING FOR SPORT; ONLY BARBLESS HOOKS ARE ALLOWED ON VESSEL, {NO EXCEPTIONS}

COMMERCIAL TOTAL RETENTION WITHIN 6 YEARS; ALL CATCH MUST BE RETAINED AFTER AND SOLD IF MARKET CAN BE CREATED. IMPLEMENT DEHYDRATION / EXTRUDED SYSTEMS FOR CATCH AT MAJOR PORTS FOR CATCH WITH NO MARKET. TACKLE FEDERAL FOOD & DRUG OVER NAME CHANGE [DOGFISH] OVER USE OF ENTIRE FISH **GUTS FINS SCALES EYES BONES FOR DRY FISH PROTEIN POWDER FOR HUMANS. ALSO A FISH MEAL PROTEIN FOR AQUACULTURE.**

A STATED EEZ AQUACULTURE POLICY FOR EEZ NO SIZE LIMIT FROM NMFS. LIMITED INPUT FROM COMMERCE THROUGH COAST GUARD NO INPUT FROM ARMY CORP OF ENGINEERS.

Hopefully you will include the suggestions for discussion September 22 meeting / **DO NOT NEED HORSE & PONY SHOW FOR EVASION OF EXECUTIVE ORDER FOR SEPTEMBER WEB.**

PLEASE USE A WEB SYSTEM THAT HAS HISTORY OF WORKING & ALLOWING ACCESS DO NOT ALLOW A SWITCH OF WEB ACCESS PLEASE!!!

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James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

----- Forwarded Message -----

Subject:Re: Fw: Council discussion Executive order discussion

Date:Thu, 10 Sep 2020 12:43:42 -0400

From:James Fletcher <unfa34@gmail.com>

Reply-To:unfa34@gmail.com

To:Andrew Petersen <andrew@bluefindata.com>

Call any time 757 435 8475 Bluefin has done a good job **BUT NATIONAL MARINE FISHERIES & MID**

ATLANTIC COUNCIL HAS AN AGENDA NOT TO SHOW NUMBER OF RECREATIONAL FISHERS IN EEZ. MAFMC & NMFS APPROVED A ALTERNATIVE DATA FIRM FOR REPORTING RECREATIONAL LANDINGS OF BLUE LINE TILE FISH.

REASON TO SAY DATA IS NOT COMPARATIVE WITH COMMERCIAL DATA FROM BLUE FIN. [muddy the data water not compare] NMFS DOES NOT WANT TOTAL RECREATIONAL NUMBERS IN EEZ. MY GROUP IS DISCUSSING IF ONLY 6% TO 10 % OF POPULATION FISH WHY ALLOW RECREATIONAL 30 TO 90% OF SOME FISH SPECIES. YOU NEED TO UNDERSTAND THAT THE u.s. DEPARTMENT'S OF COMMERCE & STATE WANT IMPORTS. my theory is Magnuson requires comparable recreational data. call when you have time usually up till 10 or 1030PM

BLUEFIN WAS SCREWED DID NOT GET CONTRACT, IN THE TILEFISH REPORTING [REASON] IN ORDER TO HAVE DIFFERENT DATA SO NMFS & COUNCIL COULD SAY NOT COMPARABLE DATA. CALL WHEN YOU WILL

James Fletcher

On 9/9/2020 9:29 PM, Andrew Petersen wrote:

Hey James,

I'm happy to hear you see the need for electronic reporting in the recreational sector. It's something I've been working towards - mostly behind the scenes. Were you able to make progress after this email you sent in August?

I'd love the opportunity to hear your thoughts on how to implement electronic reporting within the recreational sector. I'm happy to work around your schedule.



ANDREW PETERSEN

CEO, BLUEFIN DATA

+1 202 883 8375

www.bluefindata.com

From: Claude Petersen <claud@bluefindata.com>
Sent: Friday, August 7, 2020 10:56 AM
To: Andrew Petersen <andrew@bluefindata.com>
Subject: Fwd: Council discussion Executive order discussion

Andrew,

James Fletcher is the gentleman I mentioned to you previously.

I was cc'd on this email.

Get [Outlook for Android](#)

From: James Fletcher <bamboosavefish@gmail.com>

Sent: Friday, August 7, 2020 8:01:12 AM

To: Bob Beal <rbeal@asmfc.org>; Moore, Christopher <cmoore@mafmc.org>; Chris Kellogg <ckellogg@nefmc.org>; Claude Petersen <claudio@bluefindata.com>; Batsavage, Chris <chris.batsavage@ncdenr.gov>

Subject: Fwd: Council discussion Executive order discussion

DOES ANY AGENCY HAVE A VERIFIABLE RECREATIONAL NUMBER FOR SALT WATER FISHING? A VERIFIABLE NUMBER FOR FISHERS MOSTLY IN EEZ?

Mr. Beal

Would ASMFC discuss MANDATING Electronic reporting by recreational anglers in state waters by 2021. I believe Bluefin Data would store data: Will ASMFC contact Blue Fin Data for services to ASMFC. Mr. Batsavage will North Carolina lead the requirement to implement electronic reporting by recreational fishers by end of 2020 IN STATE WATERS?

Dr. Moore Would the electronic reporting be discussed as an agenda item by council DURING UPCOMMING COUNCIL MEETING ?

THANK ALL CONCERNED FOR ASSISTANCE TO OBTAIN BETTER DATA!

----- Forwarded Message -----

Subject:Council discussion Executive order discussion

Date:Thu, 6 Aug 2020 10:22:01 -0400

From:James Fletcher <unfa34@gmail.com>

Reply-To:unfa34@gmail.com

To:Moore, Christopher <cmoore@mafmc.org>, Batsavage, Chris <chris.batsavage@ncdenr.gov>, Chris Kellogg <ckellogg@nefmc.org>

Recreational Boating & Fishing Foundation 13.1 million fish in salt water, in light of **EXECUTIVE ORDER** council discuss & justify recreational allocation of around 50% of most species when much of recreational allocation result in dead discard. Justify not utilizing total length / retention of all catch. JUSTIFY 13.1 MILLION VS. 325 MILLION RESULTING IN 92% TO 93% IMPORTED SEAFOOD DISCUSS mandatory electronic / cell phone reporting by all recreational fishing in EEZ USING BLUE FINA DATA APP {INVITE BLUE FIN DATA TO PARTICIPATE PLEASE!}

--

James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

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James Fletcher
United National Fisherman's Association
123 Apple Rd.
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252-473-3287



Mid-Atlantic Fishery Management Council

800 North State Street, Suite 201, Dover, DE 19901

Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org

Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 21, 2020
To: Council
From: Brandon Muffley, staff
Subject: Update on Council Research Priorities

Background:

In December 2019, the Mid-Atlantic Fishery Management Council (Council) approved the Five-Year (2020-2024) Research Priorities document that aligns science needs with the management objectives and resources identified in the Council's 2020-2024 Strategic Plan and Five-Year Cooperative Agreement. Required by the reauthorization of Magnuson-Stevens Act in 2006, this document provides a comprehensive review and identification of the Council's science and data needs across all its fishery management plans (FMPs). The 2020-2024 document was re-organized and prioritized to develop a more useful, tactical, and strategic document to effectively advance scientific and management information by the Council and NOAA Northeast Fisheries Science Center (NEFSC).

This memo provides an overview on a number of updates and upcoming activities intended to track, monitor, and improve the Council's research priorities document to ensure its successful implementation. The 2020 update and the planned 2021 comprehensive review (each discussed later on the memo) address Objective 8 "*Identify and prioritize the Council's research needs*" and Strategy 8.3 "*Develop a process to better track progress toward addressing the Council's research priorities and to identify what research has been completed*" identified in the Strategic Plan. At the October 2020 meeting, the Council will receive an update on these activities and provide any feedback and direction for continued development and improvement to the research priorities.

Updated Five-Year (2020-2024) Research Priorities Document:

Prior to the Council taking final action on the research priorities document last year, the Research Steering Committee (Committee) met to review and provide feedback on the draft document. One of the recommendations made by the Committee, and supported by the Council, was to provide additional information on the species-specific priorities and indicate which of the seven broad research priority theme(s) is being addressed by each individual priority. Linking the broad themes to the species-specific priorities would help ensure the identified research addresses the Council's larger priority themes and needs.

This task could not be completed prior to the Council taking final action, so the 2020-2024 Research Priorities document specified this update should be completed during the

comprehensive biennial review of the research priorities, scheduled for 2021. However, Council staff were able to complete this task in 2020 as part of the process developed to update and track progress in addressing the Council's research priorities.

An updated 2020-2024 Research Priorities document is included in the October briefing book behind Tab 4. The updated document now links each species-specific research priority with an associated broad research priority theme(s). Each of the seven broad priority themes were assigned a letter (A through G) and the species-specific priority tables (starting on page 11 of the research priorities document) now include a column on the right-hand side that lists the research theme(s) addressed by each individual priority. All species-specific priorities address at least one research theme and many address multiple themes, some as many as five.

Review of 2019 – 2020 Council Supported Projects:

During the development of the current research priorities document, the SSC questioned how the document was used by the Council and NEFSC to allocate resources and inform priorities for funding. To address this question and evaluate the utility and application of the document by the Council, a review of Council-funded science and management projects was conducted and was included for the first time in the current document. The review looked at Council-funded projects from 2015-2018 and considered if a project was identified in the previous five-year (2016-2020) research priorities document and whether it was used to help inform a stock assessment or management action. The review found relatively high overlap with 67% of the Council-funded projects during that time period aligning with either the broad research themes or specific projects identified in the document. In addition, nearly 90% of the Council-funded projects have been, or likely will be in the future, used to support or inform a stock assessment or management action.

As one part of the process to track the progress and implementation of the 2020-2024 Research Priorities document, a review of Council-funded projects was updated here. Projects supported by the Council in 2019-2020 were reviewed in relation to addressing the broad research priority themes and/or species-specific priorities (Table 1). Council staff evaluated the projects by identifying the broad research priority theme(s) addressed by the project and, if applicable, identify the species-specific priority. A total of 14 total projects were supported during this time-period covering six species and all FMPs. All of the projects address at least one broad priority theme, with many addressing multiple themes. "Stock assessment improvements" (theme A in Table 1) is the most commonly addressed research theme with nearly 66% of all projects expected to help improve and inform Council assessments. In addition, half of the projects address 10 species-specific priorities, nearly 10% of all priorities identified in the current research priorities document. Many of the projects covered during this time-period have either recently finished or are currently on-going, so it is difficult to evaluate their application to management or stock assessments at this time.

Table 1. Summary of Mid-Atlantic Fishery Management Council supported projects from 2019-2020 used to support science and management needs as identified in the Five-Year (2020-2024) Research Priorities document. Abbreviated research priority themes are: A) Stock assessments, B) Discards, C) Social and economic data, D) Allocation, E) Recreational data, F) Ecosystem tools and EAFM, G) Climate change impacts.

Project Title	Primary Species/FMP	Research Priority Theme	General or Species-Specific Priority
Evaluation of F-based Management for Recreational Summer Flounder	Summer Flounder	B, D, E	NA
Surfclam Species Diagnostics and Population Connectivity Estimates to Inform Management	Surfclam	A, F, G	#1
<i>Illex</i> Age and Growth Sampling	<i>Illex</i>	A, G	#62
Development and Analysis in Support of the <i>Illex</i> Work Group	<i>Illex</i>	A	#63, #65
Assessing Current and Changing Marine Fish Habitat and the Spatial Distribution of Key Marine Fish Species along the Northeast Region	Omnibus	F, G	NA
Investigation of Electronic Trip Reporting in the Tilefish Private Recreational Fishery	Golden and Blueline Tilefish	A, B, E	#39
Implementation of Electronic Vessel Trip Reporting for Commercial Vessel Operators	Omnibus	A, B, D	NA
Updating of Summer Flounder Commercial/Recreational Allocation Study	Summer Flounder	C, D	NA
Evaluating the Importance of Atlantic Chub Mackerel in the Diet of Highly Migratory Species in the Northwest Atlantic	Chub Mackerel	A, F	#10
Risk Policy Management Strategy Evaluation	Omnibus	C	NA
Mid-Atlantic Council Management Strategy Evaluation: Summer Founder Recreational Discards Management Strategy Evaluation Project Facilitator	Summer Flounder	B, C, E, F	NA
Development of an App for Reporting Recreational Tilefish VTRs	Golden and Blueline Tilefish	A, B, E	#39
Fishery-Independent Golden Tilefish Bottom Long-Line Survey	Golden Tilefish	A, B, G	#14, #55, #57
Maryland Recreational Ocean Effort Video Estimation	Omnibus	A, E	NA

Comprehensive Priorities Review in 2021:

As specified in the Five Year (2020-2024) Research Priorities document, a biennial review of all research priorities is to be conducted and the first review set for 2021. The goal is to provide for a broad and comprehensive review to ensure the document is reflective of the Council’s current science and management needs and to evaluate and track the documents implementation. Input on current, and potentially new, priorities for each Council-managed species will be provided throughout 2021. The Advisory Panel will review research priorities as part of their development of the annual Fishery Performance Reports. The Monitoring Committee and SSC will provide

input on science needs when they review or set new catch specifications. Staff will then work with the NEFSC assessment leads to review all input received, as well as peer review recommendations and outcomes from the 2021 management and research track assessments.

Staff will then develop a revised list of species-specific research priorities – deleting priorities that were completed, retaining projects that were not completed but remain a priority, and adding any new priorities. An updated draft research priorities list and a report on the progress made on addressing research needs will then be provided to the Research Steering Committee for feedback in late 2021. The revised document and any Committee recommendations will then be presented to the Council for review and approval.

Continued Future Development

One of the long-term goals identified in the 2020-2024 Research Priorities document was to conduct a more holistic review with greater consideration of research priorities from across the region. The Mid-Atlantic Council, New England Council, and Atlantic States Marine Fisheries Commission (ASMFC) each develop their own research priority documents with hundreds of research projects highlighted. All three entities compete for limited fiscal and NEFSC resources. A more comprehensive review, and possible regional plan, would help identify research similarities, highlight differences, and ensure continued communication and coordination to maximize and leverage available resources.

Over the last few years, all three management partners have made substantial changes and improvements to their respective research priority documents to address feedback received to increase their utility and achieve the science objectives outlined in the documents. Later this year, staff plan to hold an initial conference call to discuss lessons learned in developing the current documents and to look across all research priorities to find areas of similarity and commonality. The group will also discuss an approach to conduct a review and identify possible benefits and drawbacks in the potential development of a comprehensive document for the region. Depending on the outcomes of those initial discussions, any ideas and potential concepts will be presented and discussed at a future NRCC meeting to gauge interest and possible direction for future development.



Mid-Atlantic Fishery Management Council Comprehensive Five Year (2020–2024) Research Priorities

Approved December 2019

Updated October 2020

Introduction

The 2006 reauthorization of the Magnuson-Stevens Act (MSA) required that each federal Council develop a five-year research priorities document. The research priorities developed by the Council should address “fisheries, fisheries interactions, habitat and other areas of research that are necessary for management purposes.” NOAA Fisheries and the regional science centers are to consider these research priorities when developing their own research priorities and budgets within the region of the associated Council(s).

The Mid-Atlantic Fishery Management Council (Council), in coordination with the Scientific and Statistical Committee (SSC), completed its first research priorities plan in 2008. That plan was primarily informed by reviewing research recommendations within the various stock assessment documents and the Council’s Research Set-Aside Program. The current version of the research plan (2016–2020) was approved in 2015 and the Council’s Visioning Project and Strategic Plan played a critical role in developing and identifying key themes and elements contained in the document. The current five-year research priorities document runs through 2020; however, the Council agreed to update the research plan early in order to align with and be informed by the development of the Council’s next Strategic Plan (2020–2024), the new 5-Year Cooperative Agreement and other Council priorities and guidance documents.

Throughout 2019, Council staff solicited input on existing research priorities and potential new priorities from the Advisory Panel, Monitoring Committee and SSC for each species/FMP as part of the fishery specification review process. The staff lead and NEFSC assessment lead then reviewed all of the species-specific input received and provide recommendations for Council consideration. The SSC also provided extensive feedback and input regarding existing and potentially new research priority themes.

The 2020-2024 comprehensive research priorities document begins with a review of the current priorities document to evaluate the use and utility of the document to the Council and its regional partners. Updated research themes are then included that incorporate SSC input and stakeholder feedback received during the current Strategic Plan development. Revised and re-prioritized species-specific research lists for Council-managed species are then provided. Lastly, short- and long-term strategies and approaches to improve the document's effectiveness are provided, including a review process to track research priority progress and the future direction of a comprehensive research and implementation plan.

Review of Current Five-Year Research Priorities

As mentioned above, the MSA specifies the Council develop a list of research priorities and those lists be provided to NOAA Fisheries and the NMFS Northeast Fisheries Science Center (NEFSC) to help inform science and budgeting needs and priorities for the region. However, there is little information or understanding as to how these research priority documents have been utilized by the Council and the NEFSC in allocating resources to address the identified science and management priorities. Understanding the utility and applicability of this document may be particularly important to understand given potential differences in overall science goals, objectives, and time/funding scales between the Council and NEFSC. These differences were noted by the SSC at their March 2019 meeting and they questioned how the plan is used by the Council and the NEFSC to inform priorities for funding and requested information on what research priorities in the current plan were addressed and if any of the research was used within the management process.

A review of Mid-Atlantic Council supported scientific and management projects from 2015–2018, not including any Research Set-Aside projects, was conducted to evaluate the use and utility of the current research plan (Table 1). During this time period, the Council supported 21 different projects covering all six

fishery management plans (FMPs) and nine different species. These projects covered a wide range of topics including biological information, survey data, stock assessments, social and economic trade-offs and management strategies. Council staff reviewed each project to determine if the project was identified in the current five-year research plan and whether or not it was used to help inform a stock assessment or management. Based on the staff review, the results indicate relatively high overlap of the research priorities plan to inform Council supported projects. Of the 21 total projects, 14 projects (67%) addressed specific research priorities (10) or addressed aspects of the priority themes (4) that are identified in the current research plan. When considering the applicability of the projects, the results are even greater. Over 90% of the projects (19 of the 21) have been, or likely will be in the future, used to support or inform a stock assessment or management action. While the results show high applicability of Council supported projects to inform stock assessments and management, how the current research priorities document was utilized by the Council and staff to inform priority projects and resource allocation is unclear. In 2016-2017, the Council's Collaborative Fisheries Research Program utilized the current five-year research priorities document to identify general specific research priority categories in the RFP and ultimately funded four projects specifically listed under the different species/FMP research needs. How the current five-year plan was used to inform and identify other Council supported projects (10 projects) is not as straightforward. Identifying and prioritizing these projects was largely driven by emerging issues and needs to inform a specific stock assessment or management question, but the research priorities document was not specifically considered.

A comprehensive evaluation of the utility and use of the research plan by the NEFSC is difficult to conduct and is not included here. However, the NEFSC 2016-2021 Strategic Plan¹, the FY2020 Annual Guidance Memo², and the 2020-2023 Greater Atlantic Region Strategic Plan³ include a number of research and science priorities that align with the broad research themes and needs identified in the Council's current five-year priorities document. Common priorities between the Council, NEFSC, and NEFSC/GARFO plans include: improving fishery data collection through increased use of electronic technologies, incorporation of ecosystem level information into stock assessments, improving stock assessment information, modelling approaches and capacity, and increased utilization and incorporation of social and economic information into the management process.

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¹The 2016–2021 Northeast Fisheries Science Center Strategic Plan can be found at: <https://nefsc.noaa.gov/rcb/stratplan/>

² The FY2020 Annual Guidance memo can be found at: <https://nefsc.noaa.gov/rcb/stratplan/agm-fy20-final.pdf>

³ A presentation outlining the strategic goals of the 2020–2023 Northeast Regional Plan can be found at: https://s3.amazonaws.com/nefmc.org/14a.-190531_Strat-Plan-Presentation.pdf

Table 1. Summary of Mid-Atlantic Fishery Management Council supported projects from 2015-2018 used to support science and management needs.

Project Title (Year Started)	Primary Species/FMP	From 5-year research plan (Y/N)	Used in Assessment and/or Management (Y/N)
Acceptable Biological Catch (ABC) Control Rule and Risk Policy Management Strategy Evaluation (2017-2018)	Omnibus	Y	Y - Management
Surf clam species diagnostics and population connectivity estimates to inform management (2018)	SCOQ	N	Possibly Yes in future
Summer Flounder Recreational Management Strategy Evaluation (2018)	Summer Flounder	Not specific research item but related to issues addressed in introduction	Likely Yes in future
Summer Flounder Commercial/Recreational Allocation Model (2016)	Summer Flounder	Y	Y - Management
Summer Flounder Commercial/Recreational Allocation Model Update (2018)	Summer Flounder	Y	Likely Yes in future
Summer Flounder Recreational Measures Model (2015)	Summer Flounder	N	N
Estimating and mitigating the discard mortality rate of black sea bass in offshore recreational rod-and-reel fisheries (2016)	Black Sea Bass	Not specific research item but related to issues addressed in introduction	Not yet
Determining Selectivity and Optimum Mesh Size to Harvest Three Commercially Important Mid-Atlantic Species (2016)	SF/S/BSB	Not specific research item but related to issues addressed in introduction	Y - Management
Collaborative development of a winter habitat model for Atlantic Mackerel, version 2.0, for the identification of "cryptic" habitats and estimation of population availability to assessment surveys and the fishery (2016)	Atlantic Mackerel	Y	Y - Management
Changes in availability of Mid-Atlantic fish stocks to fisheries-independent surveys (2016)	SF/BSB/Spiny Dogfish	N	Not yet
Fisheries-independent pilot survey for golden (<i>Lopholatilus chamaelonticeps</i>) and blueline (<i>Caulolatilus microps</i>) tilefish throughout the range from Georges Bank to Cape Hatteras (2017)	Golden Tilefish and Blueline Tilefish	Y	Y - Management

Developing and Testing Stock Assessment Models for Black Sea Bass Using Stock Synthesis (2016)	Black Sea Bass	Y	Not directly, support for primary assessment model
Black Sea Bass Habitat Research Needs in the Mid-Atlantic (2017)	Black Sea Bass/Habitat	N	N?
Evaluating the Importance of Chub Mackerel in HMS Diets (2018)	Chub Mackerel	N	Not yet
A Genetic-based Investigation of Blueline Tilefish: Development of molecular markers and an assessment of stock structure and connectivity (2015)	Blueline Tilefish	Y	Y - Both
Blueline tilefish biological sample collection (2016)	Blueline Tilefish	Y	Y - Assessment
Atlantic mackerel stable isotope analyses (2017)	Atlantic Mackerel	Y	Y - Assessment
Blueline Tilefish DLM Toolkit - ABC Recommendations (2017-2018)	Blueline Tilefish	N	Y
Delphi Process - Blueline Recreational Catch (2016)	Blueline Tilefish	N	Y
Mackerel Quota DLM/MSE (2017)	Atlantic Mackerel	Y	Y
Implementing Electronic Logbook Reporting for Mid-Atlantic For-Hire Fisheries (2016 - 2017)	Omnibus / Recreational Fisheries	Not specific research item but one of major themes	Y - Management

Research Priority Themes

Similar to the approach taken with the 2016–2020 Research Priorities document, key research themes are included to address broad concepts that cut across a number of Council-managed species. These themes are also responsive to input received during the Council’s development of the updated (2020–2024) Strategic Plan regarding the data and science used in the management process. For example, the updated Strategic Plan revises the Council’s Science goal to address public input on data accuracy and credibility and the use of collaborative research in the science and management process. The Science goal, *ensure that the Council's management decisions are based on timely and accurate scientific information and methods*, focuses on the core of the Council’s mandated science-based decision-making process. In addition, the updated Strategic Plan now includes an Ecosystem goal that specifies the Council *support the ecologically sustainable utilization of living marine resources in a manner that maintains ecosystem productivity, structure, and function*. This goal seeks to address a wide range of Council issues related to climate change, forage, habitat, species interactions, and other factors that impact the health of the marine ecosystem. These research priority themes are directly related to and support a number of the Science and Ecosystem objectives and strategies identified in the updated Strategic Plan. Aligning the Council’s research priorities with the Strategic Plan will help ensure consistency, appropriately prioritize Council resources, and improve coordination of science and management efforts throughout the region.

A. Stock assessment improvement

Improvements to the data and analysis supporting the stock assessment process was identified as the Council’s top priority in the 2016–2020 research priorities document and the SSC strongly recommended the continued focus on stock assessment improvements in this edition as well. Significant stock assessment

improvements have been made for a number of Council managed species including black sea bass, ocean quahog, Atlantic surfclam, and summer flounder. A major focus of the current document was for all Council-managed species to have a quantitative assessment. While not all species have a quantitative framework, Atlantic mackerel now has an approved benchmark assessment with fishing and biomass proxy reference points, and *Illex* squid is scheduled for a research track assessment in the fall of 2021. However, since the implementation of the current research document, the Council has added two more species (blueline tilefish and chub mackerel) to its list of managed species responsibilities, neither of which has acceptable quantitative stock assessments. The Northeast Region Coordinating Council (NRCC) recently approved a new stock assessment process that makes assessments more flexible, increases research opportunities and establishes a long-term assessment schedule. This process will provide for applied stock assessment research, more timely stock assessment information, and should provide for significant advancements in the regions stock assessment capabilities and capacity.

While advancements have been made and new information obtained (see Table 1 for examples), continued focus and advancement of data collection programs that improve size/age composition of the catch, discard estimates and associated mortality rates, and fishery independent abundance information remains a priority. Feedback obtained during the development of the new Strategic Plan also highlight the need for continued science-based industry collaboration and increased utilization of fishing fleet information and on-water observations. In addition, building off the efforts in the recent summer flounder benchmark that included the development of the Ecosystem Context for Stock Assessment report, continued development and inclusion of ecosystem factors and environmental covariates in stock assessments remain a priority.

B. Research to support measures which reduce/eliminate discards

Obtaining accurate discard information and the management challenges to reduce regulatory discards remain, particularly within the recreational sector. Stakeholder feedback during the development of both strategic plans and during many Advisor Panel meetings focus on the need significantly reduce discards and develop new management strategies to convert regulatory discards into harvest to provide both economic and biological benefits. Reducing regulatory discards through improved gear performance, and the development of management procedures and approaches to allow for greater retention of catch or the avoidance of unmarketable, sub-legal or otherwise prohibited species should continue to be explored.

The Council has supported a variety of discard related projects (see Table 1), primarily in the summer flounder, scup and black sea bass fisheries. However, findings from those projects have yet to directly change management approaches and additional research, data collection and management strategies are needed. In addition, there is a need for continued focus on collaborative research opportunities with both commercial and recreational vessels to evaluate gear selectivity, discard mortality estimates, and innovative management strategies to avoid and minimize discards.

C. Collect and incorporate social and economic data into fishery management decision process and stabilize yields

The continued collection, analysis, and increased utilization of social and economic information in the Council's decision process remains a high priority for the Council and stakeholders. While the Council has been successful in meeting the biological mandates of the MSA, the resulting social and economic consequences have been viewed as unnecessarily severe by both commercial and recreational stakeholders. Unfortunately, basic information on the number of fishermen and their permits, the associated costs to determine profitability of vessels in a port, and how profits change with regulatory changes, is often limited.

Over the last several years, the Council initiated or implemented a number of socioeconomic related policy and management actions. One policy within the Council's EAFM guidance document is to evaluate ecosystem-level trade-offs, including social and economic considerations. The Council has made significant EAFM advancements including the completion of an EAFM risk assessment which identified 12 different social and economic risk elements that may threaten achieving the social and economic objectives the Council may have for its fisheries. Building off the results of the risk assessment, the Council is currently piloting the development a summer flounder conceptual model that will consider the biological, socioeconomic, and management high priority risk elements affecting summer flounder and its fisheries. Once complete, the Council will consider conducting a comprehensive management strategy evaluation (MSE) to answer management questions and objectives identified from the conceptual model which may focus on social and economic targets, thresholds, and trade-offs. Development of MSE approaches for its managed species, with particular focus and inclusion of socioeconomic considerations, remains a high priority.

Beyond EAFM related activities, the Council is considering potential changes to its risk policy to more fully account for economic objectives. Utilizing the results of two different MSE projects, the Council evaluated nine different risk policy alternatives that consider both biological and economic impacts and trade-offs. For the future, the Council has expressed interest in explicitly including both biological and economic factors in the risk policy and the potential development of a forage-based specific risk policy. Additional data collection programs and quantitative modeling approaches need to be conducted to more comprehensively evaluate the biological and socioeconomic implications of these risk policy modifications.

In addition, the Council recently approved changes to the acceptable biological catch (ABC) control rule to allow for constant, multi-year ABCs using the average ABCs (or average risk of overfishing) to provide for management and fishery stability (a goal identified in the 2016–2020 research priorities document). However, the social and economic implications and trade-offs of this approach have not been conducted.

A recent joint Council-SSC meeting primarily focused on increased capacity and utilization of the SSC to provide needed social and economic science information to the Council, highlighting the continued importance and prioritization of this theme. The SSC recommended the Council, working with GARFO, begin to incrementally implement reporting and recordkeeping requirements throughout its FMPs to collect basic social and economic data.

The majority of the social and economic information available is collected through voluntary surveys with permitted vessels, dealers, and processors. Participation in these voluntary surveys has declined for many Mid-Atlantic fisheries, resulting in less socioeconomic information available to understand and evaluate changes in fleet dynamics and profitability. New or additional data collection programs need to be developed in collaboration with the fishing industry to help ensure buy-in and trust in providing this type of information. Highlighting the need, utility, and benefits of providing this information can help alleviate some industry concerns and promote support for these types of data collection efforts.

D. Evaluation of existing allocations to fishery sectors

A number of Council managed species allocate the ABC by fishery sector and, in some cases, by state. The fairness, equity and overall management structure of many of the current allocation scenarios have been questioned by stakeholders and fishery managers. In addition, stakeholders have noted the general inflexibility of the fixed quota allocation system currently in place and recommended that the Council consider alternative methods to allocate annual quotas. Changing species distributions, stock productivity

and the recently updated Marine Recreational Information Program (MRIP) catch timeseries have only added to the desire to reconsider current allocation scenarios. The EAFM risk assessment results indicated “allocation” was a high-risk element for 12 of the Council’s fisheries and/or sectors, the most of any risk element considered. Recent Council actions (e.g., Summer Flounder Commercial Issues Amendment) have tried to address allocation issues, but not all stakeholders have been supportive of the efforts to date and many more allocation decisions remain. Therefore, there remains a strong need to identify methods and analyses (e.g., management strategy evaluation and scenario planning) that help identify alternative management strategies and determine optional allocation options that incorporate biological, social and economic considerations.

E. Recreational data collection and utilization

The SSC recommended the Council include recreational data collection as a priority research theme in the updated research priorities document. The incorporation of the new MRIP recreational catch timeseries into stock assessments and the implications within the management system are just beginning to be considered and addressed by the Council. The SSC noted the inclusion of the new MRIP catch timeseries and the differential catch trends among Council managed species introduces an important new source of scientific uncertainty. The recent passing of the Modernizing Recreational Fisheries Management Act of 2018 adds to the uncertainty of recreational fisheries management but may also provide for opportunities to collect new/additional information and dedicate resources to improving management approaches for recreational fisheries. For example, Sections 201 and 202 of the Act require increased incorporation of various recreational data sources and an evaluation of alternative data collection methods (e.g., smart phone apps and other electronic reporting options). In addition, the NOAA Fisheries recently announced the formation of a recreational electronic reporting task force to help in the development and advancement of electronic data collections programs. Outcomes from this task force could compliment any Council recreational data collection initiatives.

This theme also looks to not only advance new and additional recreational data collection programs to support Council activities, but to also develop new and alternative methods to evaluate and incorporate recreational data into the management process. Approaches such as the use of management strategy evaluations for example, to improve management approaches for the use of recreational data should be perused.

F. Collect ecosystem data and development of ecosystem tools and management strategies to support EAFM initiatives

The Council’s 2020–2024 Strategic Plan, the 2016–2021 NEFSC Strategic Plan and the 2020–2023 Greater Atlantic Region Strategic Plan all include a focus on ecosystem science as a major goal, theme or strategy. There is broad support for the continued collection of ecosystem-level climate, habitat, fleet dynamics, and species interaction information to help improve our understanding on the current and anticipated impacts of climate change on the region’s fisheries and the broader marine ecosystem. Advances in scientific information and understanding will lead to the continued improvement, development, and utilization of ecosystem tools, products, and processes such as the Integrated Ecosystem Assessment, State of the Ecosystem reports, and the Climate-Ready Fisheries Management, respectively. The future success of the Council’s EAFM process relies on the continued support of these activities and requires the investment in ecosystem science and data collection, analytical tools, and management strategies.

G. Climate change impacts on stock productivity and distribution shifts

Climate-related changes in the Mid-Atlantic have already been widely observed and documented by fishermen, managers, and scientists. These changes in the environment have led to shifts in stock distributions, possible changes in stock productivity and have the potential to impact the Council’s ability to effectively manage these resources. Climate induced changes to ocean acidification, food web dynamics, and habitat can also affect growth, natural mortality, and fecundity which can also have implications for stock productivity. While this research theme is embedded in a number of the other included themes (e.g., stock assessment, socioeconomic considerations, allocation and EAFM initiatives), the SSC recommended it be a stand-alone theme given the importance of this issue and its linkages to other research and management priorities. Incremental scientific advances under this theme can inform efforts and activities under other priority themes. NOAA Fisheries recently released a technical memo⁴ outlining a six-step science-management process to incorporate, account for and respond to changing climate conditions and the impacts to fisheries. Enhanced data collection programs to detect change and the development of short/mid-range distribution forecast models to understand the drivers and magnitude of change and the associated biological and management risks are critical research needs. Developing management strategies and governance structure options through MSE simulation, scenario planning and/or structured decision making are necessary to create adaptive approaches to respond to continually changing conditions and risks.

Species Specific Priorities List

The 2016–2020 species-specific research priorities were primarily derived from the research needs identified by the SSC and the stock assessment workgroup following the most recent benchmark stock assessment for a specific species. A broader and more comprehensive process to solicit input on research priorities was undertaken for this document. Input on current and new priorities was provided by the Advisory Panel, Monitoring Committee, and the SSC as part of the specification review/setting process for each Council-managed species. Staff then worked with the Council species lead and the NEFSC assessment lead to review all input received, as well as the research priorities identified in the benchmark stock assessment reports and SSC meeting reports, to develop a revised list of species-specific research priorities. It is important to note that these lists are not meant to be exhaustive and cover every issue, science need, or management topic that has been raised for a particular species. These lists are meant to focus on some of the more critical and important areas of consideration to advance science, stock assessment approaches and results, and improve management outcomes.

In addition, a different organizational and prioritization approach for the species-specific priorities list was developed for this document. Draft research priorities are now separated into two different categories, short-term/smaller scale and long-term/larger scale projects. Within each category, the different research topics are then listed in priority order. This type of approach was suggested by the SSC and is meant to reflect the different end users of this document – the Council, the NEFSC, and other science partners – and to devise a document that is both tactical and strategic in addressing the most important research and science needs for effective management by the Council. The short-term/smaller scale priorities provide a tactical approach to answer specific scientific and management questions, particularly when limited resources (i.e., funding, expertise and staff) are available. It should be noted that the use of the term “scale” to describe and categorize priorities does not refer to spatial or geographic scale, but references the size and scope of a

⁴ Karp, M.A. et. al. 2018. Accounting for Shifting Distributions and Changing Productivity in the Fishery Management Process: From Detection to Management Action. U.S. Dept. of Comm, NOAA. NOAA Technical Memorandum NMFS-F/SPO-188, 37 p. <http://spo.nmfs.noaa.gov/tech-memos>

particular priority. A short-term/smaller scale priority could be large in spatial/geographic scale but focus on a specific question in which data collection and research could be completed in a short period of time with less resources needed to complete. These priorities are where the Council would likely focus its attention and are the types of projects the Council has typically supported in the past when opportunities are available. Addressing these short-term/small scale projects can lead to incremental advances in support of long-term/larger scale priorities. These priorities are more strategic and seek to address larger concepts and issues that likely require significant resources over an extended period of time. This approach allows the Council, NEFSC, and other partners to leverage resources, for example matching funds and technical expertise, to identify funding opportunities to address these larger projects. The SSC also indicated they could provide this type of information (i.e., short/smaller versus long/larger) when developing research priorities during the ABC setting process.

Below is the updated comprehensive list of research priorities for each Council-managed species, in alphabetical order. In addition to the species-specific lists, there is also a list of research priorities that are more general and/or have applicability across several or all Council-managed species. For example, priorities related to habitat, socioeconomic information, allocation strategies, and stock structure dynamics are topics that are covered in this section. As mentioned above, these lists are organized by short-term/smaller scale and long-term/larger scale projects and are in priority order under each grouping. Lastly, in order to ensure individual research priorities address the broader priority themes identified by the Council, the corresponding theme(s) associated with each research priority are identified in column on the right.

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Comprehensive list of research needs for Mid-Atlantic Council managed species

GENERAL OR CROSS-SPECIES	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
1. Investigate stock structure utilizing otolith microchemistry and other genetic analyses for different Mid-Atlantic stocks (e.g., golden and blueline tilefish, black sea bass, Atlantic mackerel, and surfclam).	A, F, G
2. Understand the objectives and performance measures for the fishery from a biological and socioeconomic perspective, to evaluate the balance of costs and benefits of ABC specifications (e.g., variable vs. average ABC).	B, C
3. Explore the utilization of local ecological knowledge to help characterize and understand fisheries habitat change over time to help identify areas of greatest need of protection.	C, F, G
4. Create a framework to improve social science information regarding crew employment, remuneration and job satisfaction for all Mid-Atlantic fisheries.	C
5. Evaluate the potential impacts of offshore wind development on habitats and productivity of Council-managed stocks.	A, F, G
6. Evaluate the relationship between changes in landings limits and the rates and magnitude of discarding in the commercial and recreational fisheries.	B, C, D, E
7. Evaluate the use of samples collected by the industry study fleet for all Mid-Atlantic stocks.	A, B, F, G
LONG-TERM/LARGER SCALE	
8. Monitor changes in distribution for all Mid-Atlantic species and evaluate implications for stock productivity.	A, B, D, F, G
9. Collect accurate size and age composition of commercial and recreational catch (including the discarded component of the catch) to develop or improve catch at age matrices for all managed stocks.	A, B, E
10. Incorporate ecosystem level data (predator/prey interactions, trophic dynamics, etc.) into single and multi-species assessment and management models.	A, F, G
11. Investigate potential sector and region allocation changes and adaptive management strategies to respond to changing environmental conditions.	C, D, F, G
12. Develop tools to collect representative economic information on fixed and variable trip costs to understand fleet profitability for all Mid-Atlantic fisheries.	C, E, F
13. Evaluate potential socioeconomic impacts of offshore wind development on Council-managed fisheries, including changes in fishing behavior, changes in the distribution of fishing effort, changes in revenues, and differential impacts on commercial and recreational fisheries.	C, E, F
14. Implement novel supplemental surveys to derive fishery independent indices of abundance (black sea bass, golden and blueline tilefish, Atlantic mackerel).	A
ATLANTIC MACKEREL	
SHORT-TERM/SMALLER SCALE	
15. Investigate stock structure and spawning components through additional otolith microchemistry and/or genetic projects.	A, F, G
16. Continue to collect and evaluate mackerel egg data (ECOMON survey).	A
LONG-TERM/LARGER SCALE	
17. Develop methods for using acoustics to determine Atlantic mackerel abundance and/or catchability.	A

18. Initiate a reproductive study in the U.S. to obtain fecundity estimates and spawning seasonality. Update Canadian fecundity estimates (which are currently based on a 1986 publication) and compare estimates between countries.	A
19. Obtain biological samples from all components of the fishery and covering both spawning contingents.	A
20. Investigate possible growth and maturity differences between spawning contingents.	A
21. Continue to pursue modeling approaches that explicitly account for the spatial structure of the stock (i.e. two spawning contingents).	A
22. Explore potential changes in environmental conditions (habitat changes, larval diets, cannibalism, etc.) that impact larval survival and recruitment.	A, F, G

BLACK SEA BASS	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
23. Increase sea sampling in both stated and federal waters to verify information from commercial logbooks to provide better estimates of discards (with emphasis on pot trap and hook and line gear).	A, B
24. Evaluate the implications of continued ABC overages on stock projections.	A
25. Utilize a management strategy evaluation to consider alternative allocation schemes.	C, D
26. Continued evaluation of the appropriateness of the current model structure with two spatial sub-units.	A
LONG-TERM/LARGER SCALE	
27. Investigate movement rates and cues within the population, and spatial patterns in growth, recruitment, and mortality.	A, G
28. Investigate the impact of a changing environment due to climate change on the life history and spatial dynamics of the stock and fisheries.	A, F, G
29. Develop a reliable fishery independent index for black sea bass for habitats not effectively sampled with existing methodologies.	A

BLUEFISH	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
30. Enhance the data collection of recreational discard lengths and weights to develop a more reliable recreational discard estimate in weight.	A, B, E
31. Evaluate species associations with recreational angler trips targeting bluefish to potentially modify the bluefish recreational CPUE index used in the assessment.	A
32. Evaluate methods for integrating disparate indices produced at multiple spatial and temporal scales into a stock-wide assessment model.	A
33. Evaluate changes in selectivity of age-0 bluefish in fishery independent surveys due to shifting environmental conditions. Investigate trends in recruitment.	A, G
34. Conduct a post-release mortality study to determine if the recreational discard mortality rate has changed over time.	A, B, E
35. Investigate the assumption of zero discards in the commercial fishery.	A, B
LONG-TERM/LARGER SCALE	
36. Develop a fishery independent index and/or fishery dependent sampling program of offshore populations of bluefish to capture larger, older fish.	A, G

37. Investigate how environmental variability may affect timing of migration patterns of juvenile bluefish and the distribution of adults, which in turn, may affect availability.	A, G
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BLUELINE TILEFISH	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
38. Identify data sources and sampling methods to improve the biological length samples of commercial and recreational landings to better characterize the size distribution of removals.	A, E
39. Incorporate mandatory logbook reporting for all recreational anglers and collect fishery-dependent information such as effort, total catch and length information on harvested and discarded fish.	A, B, E
40. Collect additional biological samples to enhance understanding of life history dynamics and biological characteristics of the stock (e.g., age and size of maturity, maximum age, fecundity, spawning periods).	A
LONG-TERM/LARGER SCALE	
41. Research the reliability of aging methods and determination of growth parameters (e.g. intensive tagging survey). Collect additional age information from the commercial and recreational sectors.	A
42. Investigate new stock assessment approaches, including non-equilibrium methods, should be explored.	A
43. Conduct habitat studies of deep-water sites in the mid-Atlantic (Norfolk Canyon, Baltimore Canyon, and Hudson Canyon).	A, G

BUTTERFISH	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
44. Examine the efficiency (including day vs. night) of survey gear and potential changes in butterfish catchability including a parallel catchability estimate for NEFSC Spring surveys so that both Spring and Fall surveys can be included in the model.	A
45. Evaluate approaches to include additional surveys (e.g., states) in the assessment model.	A
46. Evaluate the uncertainty in the ad hoc F_{MSY} proxy and effects on catch advice.	A
47. Consider development of reference points that are internal to the stock assessment model.	A
LONG-TERM/LARGER SCALE	
48. Further investigate the role of butterfish in the ecosystem and refine predation estimates.	A, F
49. Reconsider stock structure and degree of exchange with south Atlantic stock component (i.e., stock ID).	A, G

CHUB MACKEREL	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
50. Collect age, growth, maturity information from fishery independent and dependent data sources throughout U.S. Atlantic water.	A
51. Evaluate catch per unit effort including the influence of environmental and socioeconomic factors.	A, C, G
52. Investigate existing egg and larval surveys throughout the U.S. Atlantic coast to better understand chub mackerel recruitment dynamics.	A

LONG-TERM/LARGER SCALE	
53. Investigate stock mixing throughout Atlantic waters, as applicable.	A
54. Investigate habitat use at different life stages.	A, F

GOLDEN TILEFISH	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
55. Utilize fishery-independent information to assess whether the dome-shaped selectivity curve used in the assessment reflects fishery selectivity or availability, or both.	A
56. Evaluate data collection methods to increase information on gear conflicts, species interactions (i.e., spiny dogfish), and bait type to understand their effects on the commercial CPUE index.	A, B, F
57. Collect and analyze biological samples to improve life history, maturity and distribution information.	A
58. Develop sampling programs to increase information of recreational landings at size and age.	A, E
59. Assess the accuracy and reliability of aging techniques.	A
LONG-TERM/LARGER SCALE	
60. Evaluate the role of the golden tilefish gear restricted areas on the stock and its fisheries.	A, F
61. Evaluate the effects of climate and environmental indices on stock dynamics.	A, F, G

ILLEX SQUID	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
62. Collect demographic information on growth, mortality, reproduction by sex, season, and cohort.	A
63. Investigate feasibility of real-time management, including undertaking cooperative research with the fishing industry.	A, C
64. Analyze the change in availability of <i>Illex</i> to the survey and fishery, resulting from long-term changes in climate or other oceanographic factors.	A, F
65. Expand investigations into oceanographic correlates with trends in recruitment and abundance.	A, F
LONG-TERM/LARGER SCALE	
66. Investigate beyond-shelf availability.	A

LONGFIN SQUID	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
67. Further develop practicable ways to reduce bycatch.	B
68. Refine understanding of availability and catchability in surveys (especially NEAMAP-Bigelow comparisons).	A
69. Collect more age, sex and maturity data for each seasonal cohort.	A
70. Evaluate effectiveness of current mesh regulations.	B
71. Determine what portion of stock is outside current research trawl surveys.	A
LONG-TERM/LARGER SCALE	
72. Until real-time assessment is feasible, expand cohort analysis to refine stock assessments and their incorporation of seasonal indices (currently spring and fall are just averaged).	A

73. Evaluate approaches to real time management including expanding age and growth studies to better estimate average growth patterns and to discern seasonal productivity/catchability patterns.	A
74. Evaluate methods of incorporating ecological relationships, predation, and oceanic events that influence abundance and availability.	A, F
75. Refine understanding of stock range and structure.	A, G

OCEAN QUAHOG	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
76. Conduct research to better understand life history for an extremely long-lived species at appropriate temporal and spatial scales (growth, size-at-age, recruitment, natural mortality, maturity-at-length, and fecundity – in order of priority).	A
77. Evaluate the cost and benefit of HABCAM or other optical surveys for measuring ocean quahog abundance and habitat.	A, F
LONG-TERM/LARGER SCALE	
78. Conduct work to support spatially explicit stock assessments that account for source and sink differences in productivity (i.e., are some areas more important to productivity than others).	A
79. Development of techniques to age ocean quahogs in a cost-effective manner.	A

SCUP	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
80. Evaluate the spatial and temporal overlap of scup and squid to better understand and characterize scup discard patterns.	A, B, F
81. Characterize the pattern of selectivity for older ages of scup in both surveys and fisheries.	A
82. Explore the relationship between scup market trends, regulatory changes, and commercial landings and discards.	B, C, F
LONG-TERM/LARGER SCALE	
83. Evaluate the role and relative importance of implemented management strategies (i.e., gear restricted areas, increased minimum mesh size, and minimizing scup and squid fishery interactions) versus the long-term climate variability to the increases in stock abundance and high recruitment events since 2000.	A, B, D, F, G
84. Characterize the current scup market and explore the development of new markets.	C
85. Explore the applicability of the pattern of fishery selectivity in the model to the most recent catch data to determine whether a new selectivity block in the model is warranted.	A

SPINY DOGFISH	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
86. Integrate recent information on the efficiency of the NEFSC survey gear as it relates to: distribution of spiny dogfish beyond the current NEFSC trawl survey geographic footprint (including inter annual differences); gear efficiency; depth utilization within the footprint; distribution within the survey footprint under different environmental conditions.	A, G
87. Explore model-based methods to derive survey indices for spiny dogfish.	A

88. Investigate alternative stock assessment modeling frameworks that evaluate: the effects of stock structure; distribution; updated biological information such as sex ratio and spiny dogfish productivity; state-space models; and sex-specific models.	A
89. Evaluate the utility of the study fleet information as it relates to issues identified under priority #86 above.	A
LONG-TERM/LARGER SCALE	
90. Research opportunities to increase domestic and/or international market demand.	C
91. Expand information on the efficiency of the NEFSC survey gear as it relates to: distribution of spiny dogfish beyond the current NEFSC trawl survey geographic footprint (including inter annual differences); gear efficiency; depth utilization within the footprint; distribution within the survey footprint under different environmental conditions.	A, G
92. Continue aging studies for spiny dogfish age structures (e.g., fins, spines) obtained from all sampling programs (include additional age validation and age structure exchanges), and conduct an aging workshop for spiny dogfish, encouraging participation by NEFSC, Canada DFO, other interested state agencies, academia, and other international investigators with an interest in dogfish aging (US and Canada Pacific Coast, ICES).	A
93. Evaluate ecosystem effects on spiny dogfish acting through changes in dogfish vital rates.	A, F, G

SUMMER FLOUNDER	Corresponding Theme(s)
SHORT-TERM/SMALLER SCALE	
94. Collect length, weight, and age data by sex to fully evaluate the sex and size distributions of landed and discarded fish in the summer flounder fisheries.	A, B, E
95. Evaluate summer flounder discard survival under different environmental variables and gear configurations with survey design considerations that account for to feeding and predation.	A, B, E
LONG-TERM/LARGER SCALE	
96. Continue to evaluate the causes for decreased recruitment, changes in recruitment distribution, and changes in the recruit-per-spawner relationship in recent years. Develop studies, sampling programs, or analyses to better understand how and why these changes are occurring, and the implications to stock productivity.	A, F, G
97. Evaluate range expansion and/or changes in distribution and their implications for stock assessment and management.	A, F, G
98. Explore the potential mechanisms for recent slower growth that is observed in both sexes.	A, F, G
99. Incorporate sex-specific differences in size-at-age into the stock assessment through model structures as well as data streams.	A

SURFCLAM	Corresponding Theme(s)
SHORT-TERM/SHORTER SCALE	
100. Conduct research to better understand life history at appropriate temporal and spatial scales (fecundity, maturity at-length, age and growth, recruitment, and natural mortality information).	A
101. Evaluate the cost and benefits of HABCAM or other optical surveys for measuring surfclam abundance and habitat, including patch size.	A, F
LONG-TERM/LARGER SCALE	

102. Examine the effects of climate change on the spatial distribution of clams, on the operation of the fishery, and patterns of discarding/incidental mortality, and on the overall productivity of the stock.	A, B, F, G
103. Evaluate small-scale surfclam patch density and the implications on stock dynamics, particularly reproductive success.	A

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Future Direction

The MSA requires each Council to develop a list of research priorities to help inform the research and budget priorities for the regional science center. However, there is little information or understanding as to how these research priority documents have been utilized by the Council and the NEFSC in allocating resources and address the identified science and management priorities. A review of the current 2016–2020 research priorities document was conducted in order to evaluate its utility and applicability. Based on this review and input from the SSC, modifications to the organization and prioritization of the document have been made in an effort to develop a more tactical and strategic document to more effectively advance scientific and management information that is aligned with the resources and priorities of the Council and NEFSC.

In an effort to move beyond the current process of creating a long list of priorities that get reviewed every five years which may or may not be used to inform science and budget priorities, a new approach and process to evaluate the utility and implementation of the research priorities document will be implemented. A biennial review of the current priorities list (i.e., two reviews that occur in years two and four, during the five-year period) by the Advisory Panel, Monitoring Committee and SSC will help ensure the document is reflective of the current state of scientific knowledge and the Council's science and management priorities. Input on current or new priorities will occur as part of the Advisory Panel development of the Fishery Performance Report and when the SSC and Monitoring Committees review or develop new catch specifications. As part of the initial biennial review, identifying which research priority theme(s) are being addressed will be provided for each species-specific research priority. Providing this information helps link the broad themes to the species-specific priorities to help ensure the identified research addresses the Council's larger priority themes.

The biennial review would not apply to the broader research priority themes which would remain the same for the entire five-year document period. In addition, staff plan to develop a review process to track the progress toward addressing research priorities and to identify what research has been completed and why other areas may not have been addressed. Revised research priorities and a report on the progress made on addressing research needs will then be provided to the Council's Research Steering Committee for feedback and then presented to the Council for approval.

Lastly, a more comprehensive review and evaluation of the various (Mid-Atlantic, New England, NEFSC) research plans and priorities will be conducted in the future. Since the NEFSC serves both the Mid-Atlantic Council and the New England Fishery Management Council, which has its own research priorities list, it must consider both research priority documents to inform research and budget priorities for the entire region. A more comprehensive and holistic review can help identify research similarities, highlight differences, and ensure continued communication and coordination to maximize and leverage limited staff and fiscal resources. This evaluation could lead to the development of a comprehensive research priorities plan for the Council to provide a process and approach to effectively and efficiently carry out and address the identified research needs identified in this document.

These enhancements, planned reviews, and comprehensive research plan development are included as strategies in the Council's updated 2020–2024 Strategic Plan. Aligning the Strategic Plan and Five-Year Research Priorities will help ensure the Council achieves its science goal and associated objectives.

MEMORANDUM

Date: September 24, 2020
To: Council
From: Brandon Muffley, staff
Subject: Update on EAFM Activities

Summer Flounder Management Strategy Evaluation:

The Mid-Atlantic Fishery Management Council’s (Council) Ecosystem Approach to Fisheries Management (EAFM) Guidance Document established a structured framework process to incorporate ecosystem considerations into the evaluation of policy choices and trade-offs as they affect Council-managed species and the broader ecosystem (Figure 1). The Council has taken significant advances in implementing the EAFM structured framework process and has already completed a risk assessment (Step 1: Prioritize) and conceptual model development (Step 2: Refine). In December 2019, the Council selected the following question for further development and analysis through a management strategy evaluation (MSE), the third step (Analyze) in the EAFM structured process:

Evaluate the biological and economic benefits of minimizing discards and converting discards into landings in the recreational sector. Identify management strategies to effectively realize these benefits.

In selecting this question, the Council noted the potential to align the EAFM process and the Council’s typical recreational review and management process. The Council felt this question provided the most tangible benefits to addressing a Council and stakeholder priority and was best fit for an MSE by evaluating the performance of different management options. This question can also be evaluated and considered within an ecosystem context given the various risk elements (e.g., management, stock dynamics, science and data, fishing fleets, and economic benefits) identified by the summer flounder conceptual model.

Building off the information developed during the conceptual model process, the Council will conduct an MSE to address the recreational summer flounder discards question and management objectives. An MSE will use a simulation model(s) to evaluate different management approaches within an ecosystem context to determine if the outcomes associated



Figure 1. The Mid-Atlantic Fishery Management Council’s EAFM structured decision framework to incorporate ecosystem considerations into management (from Gaichas et al. 2016).

with the different approaches achieve management goals and objectives. Clearly identified and defined objectives, performance metrics, and management strategies will be specified by the Council with input and guidance from an extensive stakeholder process. Since summer flounder is jointly managed with the Atlantic States Marine Fisheries Commission (ASMFC), any management outcomes and alternatives developed as a result of this project will require a joint decision. Therefore, the MSE process will also require extensive involvement and engagement of the ASMFC Summer Flounder, Scup, and Black Sea Bass Board, staff, and stakeholders (see sub-topics below for information on how/where the ASMFC is engaged).

Technical Work Group

In May, the membership to the MSE technical work group was finalized (Table 1). The general make-up of the work group was modeled after the summer flounder conceptual model technical work group and many of those members are part of MSE work group. This interdisciplinary and inter-agency group represents science and management expertise in economics, population dynamics, ecosystem dynamics, MSE development, and ecology with representation across state, federal, and academic institutions. In addition to the technical work group members, the chair of the Council’s Ecosystem and Ocean Planning (EOP) Committee and Summer Flounder, Scup and Black Sea Bass Committee and the chair of the ASMFC’s Summer Flounder, Scup, and Black Sea Bass Board are copied on all work group correspondence and invited to attend and participate in all work group calls to ensure management is informed and engaged in the work group products and decisions.

Table 1. Members of the Mid-Atlantic Council’s EAFM management strategy evaluation technical work group.

Name	Affiliation	Name	Affiliation
Lou Carr-Harris	NEFSC	Emily Keiley	GARFO
Kiley Dancy	MAFMC staff	Jeff Kipp	ASMFC
Geret DePiper	SSC/NEFSC	Doug Lipton	NOAA Fisheries
Jon Deroba	NEFSC	Brandon Muffley	MAFMC staff
Gavin Fay	SSC/UMass Dartmouth	Mark Terceiro	NEFSC
Sarah Gaichas	SSC/NEFSC	Mike Wilberg	SSC/Univ. of Maryland
Jorge Holzer	SSC/Univ. of Maryland	Greg Wojcik	CT DEEP/ASMFC TC chair

This work group will: 1) develop MSE materials and products, including simulation model(s), 2) identify stakeholders and conduct outreach opportunities, 3) work closely with and support the contract analyst and independent facilitator, and 4) work with the Council and stakeholders in communicating the goals and outcomes of the MSE.

The technical work group met on two occasions since finalizing membership, on Friday, May 29, 2020 and on Tuesday, September 1, 2020. A number of smaller sub-group meetings took place in between the full work group meetings to address topics discussed by the full work group and develop products for full work group consideration. The focus of the first meeting was on lessons learned from other regions and past experiences, setting clear goals and expectations for the MSE, and identifying opportunities and approaches for meaningful stakeholder engagement. During the call, the work group discussed a strategy to help ensure success, outlined a process for engaging the appropriate stakeholders throughout the MSE project, and developed the initial

concepts for an introductory stakeholder webinar and mock workshop (more details on the introductory webinar provided later).

During the second call, the work group finalized the agenda and details of the kick-off webinar with Council and ASMFC advisors. The group focused on ensuring there were clear goals and objectives for the webinar and that participants would be well informed prior to the meeting about their role and expectations.

The next work group meeting will be in mid-October to discuss feedback from the kick-off webinar and mock workshop, stakeholder and management participants, upcoming workshop(s), and next steps.

Stakeholder Engagement Facilitator

In preparation for this project, staff solicited input from other Council's and from various MSE experts throughout the country regarding their MSE experiences and insights. One common recommendation, and supported by the technical work group, was the need to bring on a facilitator with experience and expertise in MSE to help with the stakeholder workshops. In addition, it was recommended the facilitator be independent and from outside the mid-Atlantic region to help minimize any real or perceived conflicts or biases. The contracted facilitator would help engage on the stakeholder initiatives to make sure the project maximizes those efforts and ensure the appropriate input and feedback from stakeholders and managers is achieved.

In early September, the Council contracted with Dr. Jonathan Cummings from the UMass Dartmouth to serve as facilitator for stakeholder engagement and workshop development. Dr. Cummings has over 10 years of experience in facilitation, structured decision making analysis, and management strategy evaluation covering a variety of species and issues, including a current MSE project on New England groundfish. Dr. Cummings will work with the technical work group and help develop stakeholder workshop agendas and materials, facilitate the workshops to ensure objectives are achieved, and collaborate on the simulation model(s) development and trade-off analysis.

Stakeholder Outreach and Workshops

On Tuesday, September 22, a kick-off webinar was held jointly with the Council's EOP and Summer Flounder, Scup, and Black Sea Bass Advisory Panels (AP) and the ASMFC's Summer Flounder, Scup, and Black Sea Bass Advisory Panel¹. The kick-off webinar introduced AP members to the MSE process and simulated a condensed mock MSE workshop using an example fishery. The goal of the workshop was to give participants a greater understanding of MSE use and utility, see how the MSE approach is integrated in the EAFM process, and provide expectations for the Council's summer flounder MSE. While MSE's are a widely used and have been conducted by other councils, the MSE process is relatively new to the Mid-Atlantic Council, its managers, and stakeholders. This webinar provided an opportunity for participants to be better informed about the benefits and use of MSE and will help provide for more productive stakeholder workshops in the future. There were 55 participants on the webinar with representation from a diverse group of stakeholders, management, and science partners.

After the webinar, all AP members and webinar participants were sent a follow-up survey (found at: [Follow-up survey link](#)) regarding their experiences and value of the webinar and mock

¹ The agenda, all meeting materials, and presentations for the September 22nd AP meeting can be found at: <https://www.mafmc.org/council-events/2020/eop-sfsbsb-ap-meeting-sept22>

workshop. Results from the survey will be used by the technical work group and facilitator to understand what worked well, identify areas for improvement, and help plan future stakeholder workshops. A number of participants have already completed the survey and the response has been very positive and informative. In addition, the survey includes a solicitation of interest to serve on a core stakeholder work group that would participate in future workshops specific to the summer flounder recreational discards MSE project. The technical workgroup will review all interested stakeholders and for diversity (sector, affiliation, geographic range, management entity etc.) and identify any missing areas and needs for additional solicitation.

The technical work group and facilitator are currently proposing three stakeholder workshops will be needed for the project. These workshops would be spread out over the next 12-15 months. The first workshop would solicit input and feedback on management objectives, performance metrics, and identifying uncertainties and unknowns.

The second workshop would review initial model development and any preliminary results. The final workshop would review updated model development and preliminary “final” results. After each stakeholder workshop, the Council’s EOP and Summer Flounder, Scup, and Black Sea Bass Committees, along with a sub-set of members from the ASMFC Summer Flounder, Scup, and Black Sea Bass Board will meet to review the feedback and input provided during the stakeholder meetings. This group of managers will also provide further direction and refinement for the technical workgroup to consider. Regular check-ins with the full Council and ASMFC Summer Flounder, Scup, and Black Sea Bass Board will also take place. This iterative process and regular check-ins will ensure the technical work group is receiving input from stakeholders and managers to make sure project goals, objectives, and expectations are being met (Figure 2).

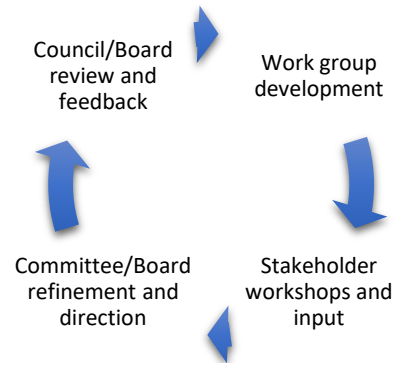


Figure 2. Proposed process for stakeholder and management input for EAFM summer flounder MSE project.

Anticipated Timeline

It is anticipated the MSE process will take approximately 1.5-2 years to complete and provide final results and management alternatives to the Council for consideration. Table 2 below provides a general overview of MSE tasks/activities and the associated draft timelines.

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Table 2. Timeline of anticipated activities associated with completion of the EAFM summer flounder management strategy evaluation project.

Task/Activity	Timeframe (subject to change)
Finalize technical work group membership and initial meeting	May 2020
Kick-off webinar and mock workshop with Council and ASMFC advisory panels	September 2020
Initial stakeholder meeting(s) and surveys to elicit objectives/performance metrics/uncertainties; data synthesis, initial model development and linking existing models; interim stakeholder and Committee meetings	November 2020 – May 2021
Simulation testing of management strategies; model refinement as necessary; deliver interim results at stakeholder and Committee meetings	June 2021 – December 2021
Continue with MSE analysis and stakeholder meetings, as needed	January 2022 – March 2022
Review final results; Council and ASMFC Board considers potential management alternatives and action to address recreational summer flounder discards	April 2022

Short-Term Projections Project:

Council staff continue to collaborate with Dr. Malin Pinsky and Dr. Alexa Fredston from Rutgers University on a research project funded by the Lenfest Ocean Program that will test new methods and models to predict short-term (the next one to ten years) climate-induced movements of diverse species that better align with management timescales².

There have been a number of advancements and activities associated with this project since the last update to the Council back in April. The four focal species for the project have been finalized – spiny dogfish, *Illex* squid, gray triggerfish, and summer flounder. The EOP Committee and AP, and South Atlantic Council staff provided input on other potential candidate species (e.g., Spanish mackerel, cobia, HMS, menhaden). However, after an extensive review of available data and the desire to consider different life history characteristics and a species potential for distribution shifts, the research team felt the four focal species identified were the best candidates for the project. An inventory of data availability and life history information for these species by collating records from major Atlantic ecosystem survey datasets and stock assessments has been completed.

The model has been fitted to spiny dogfish data from the Northeast Fisheries Science Center trawl survey. The spiny dogfish model is now being fine-tuned, which includes checking that the spatial scale is appropriate, quantifying forecasting skill, and considering additional data sources. Once the group is satisfied with the spiny dogfish model, they will proceed to forecasting another of the focal species, likely in the next month or two. A manuscript describing the methods,

² Additional background information on this project can be found at: <https://www.lenfestocean.org/en/research-projects/predicting-near-term-fisheries-shifts-under-climate-change>

model structure, testing on simulated data, and application to a small test case will be submitted to a peer-reviewed publication for consideration by the end of 2020.

The research team and Council staff presented this project to an audience of several hundred scientists, managers, and stakeholders on July 1, 2020 via a Lenfest Ocean Program webinar. The project received a great deal of positive feedback and interest, including many people interested in applying this model to their own regions and fisheries. If interested, the webinar can be viewed at: [Webinar on Predicting Near-Term Fisheries Shifts Under Climate Change](#).

It is anticipated that model development will continue through the rest of 2020. In 2021, the research team will evaluate the forecast skills of the model for the different focal species. Then in 2022, the team plans to incorporate fishing pressure into the model structure to evaluate if forecasts of species distribution improve. The project is scheduled to be completed sometime in 2022.



Joint Meeting of the Mid-Atlantic Fishery Management Council & Scientific and Statistical Committee

Tuesday, October 6, 2020

3:00 P.M. – 4:30 P.M.

via Webinar

AGENDA

- 3:00 Welcome/Introductions
- 3:05 Review and direction to SSC Economic Work Group
 - Presentation on Work Group recommendations (G. DePiper, Economic Work Group Chair)
- 3:45 Discuss science considerations due to missing 2020 data
 - Overview of SSC deliberations and input (P. Rago, SSC Chair)
- 4:15 Discussion and provide feedback on possible risk policy considerations for Ocean Quahog (P. Rago)
- 4:30 Adjourn



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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020

To: Council
Scientific and Statistical Committee

From: Brandon Muffley, staff

Subject: Background Information for Joint Council-SSC Meeting

Introduction:

In August 2019, the Mid-Atlantic Fishery Management Council (Council) and its Scientific and Statistical Committee (SSC) met jointly for the first time to discuss and number of topics and issues¹. Outside of leadership, there is typically limited interaction between the Council and SSC and the joint meeting not only provided an opportunity to address pertinent issues, it also presented an opportunity to foster increased dialogue and build relationships. A number of outcomes and results were achieved in 2020 as a result of the first joint meeting, including: new SSC membership with a focus on socioeconomic expertise, formation of an SSC economic work group, and increased focus and discussion by the SSC on Council activities and priorities (e.g., MRIP, offshore wind, ecosystem/habitat, and management actions).

Given the overall success of the first meeting, it was decided to convene a second joint meeting to allow for continued communication and development of SSC activities in support of Council priorities. Below is additional background material for each agenda item for the joint Council-SSC meeting developed by the SSC Economic Work Group and Paul Rago.

Review and Direction to SSC Economic Work Group:

Work Group Members:

Lee Anderson, John Boreman, Geret DePiper (Work Group Chair), Sarah Gaichas, Mark Holliday, Jorge Holzer, Yan Jiao, Paul Rago (SSC Chair)

Overview:

The SSC recommended the formation of the Economic Work Group² at its July SSC meeting during their deliberations regarding acceptable biological catch (ABC) recommendations for

¹ More information on the 2019 joint Council-SSC meeting, including agenda and meeting materials, can be found at: <https://www.mafmc.org/briefing/august-2019>.

² The work group was originally named the Socioeconomic Work Group, but changed its name due to the fact that the only social scientists on the SSC are economists, and the work group's focus will be limited to that discipline.

Council-managed fisheries. The SSC noted a variety of topics and issues on which this workgroup could provide helpful advice and information to the Council.

The concept of the Work Group and potential areas of development were presented to the Council at their August 2020 meeting. The Council was supportive of forming the Work Group but requested additional details on the types of topics and potential products the Work Group would work on and develop. The Work Group has since met twice via video conference to work on these details, on Monday, August 31 and Friday, September 19, 2020. The Work Group also consulted with the full SSC during their September 8-9 meeting³.

Over the course of its two meetings, the Economic Work Group has developed the following proposal for consideration by the Council.

Work Group Proposal:

The Economic Workgroup is proposing the development of a case study as an example of the added value it can provide the Council. The Work Group proposes to focus on programmatic issues versus *ad hoc* issues. Here, "programmatic" is defined as a process that can be applied broadly to inform Council actions, rather than to a single decision point in the process such as a Term of Reference during ABC deliberations, or to unique analyses such as the Commercial/Recreational Allocation Model for Summer Flounder recently developed for the Council. While the Work Group recognizes the utility of *ad hoc* analyses such as the Economic Trade-Offs of ABC Control Rules for Summer Flounder and Implications for Scup and Butterfish⁴, it believes a programmatic approach is likely to generate the greatest value to the Council, as it allows for a consistency in the application of information and advice delivered to the Council across actions and deliberations. Nevertheless, the Work Group expects *ad hoc* analyses may play an important role in generating actionable information to the Council on an as-needed basis and the SSC will serve in whatever role the Council determines is best.

The envisioned timeline of the proposed programmatic work is outlined in Figure 1. If agreeable, the Work Group will outline 2-3 case study alternatives between the October and December Council meetings, focusing on 2021 Council-identified priorities considered in the draft 2021 Implementation Plan. These outlines will include details of the expected benefits derived from SSC engagement in each of the 2-3 priority actions, and metrics by which to gauge success. The Council would then decide during their December 2020 meeting which one, if any, of the case studies to move forward.

³ The Economic Work Group report to the SSC can be found at:

https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5f5279d50218c80cf9697331/1599240661463/a_SSC+Socioeconomic+WG+Meeting+Summary_08_31_20_final.pdf

⁴ This analysis was used as part of the risk policy framework action and the report can be found at:

https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5de522ae7b2acb00e7f08106/1575297715160/T_ab04_Risk-Policy-FW_2019-12.pdf

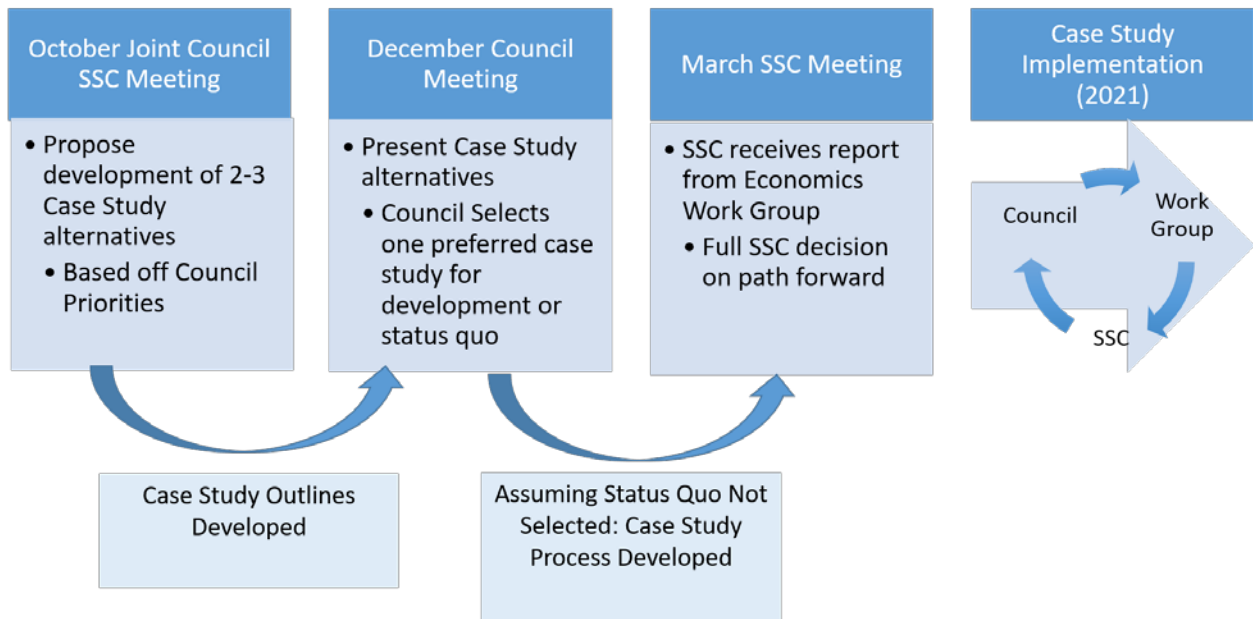


Figure 1. Proposed Timeline for the Economic Work Group to develop a case study

The Work Group envisions this exploratory process to be iterative and collaborative between the SSC and the Council, similar to the process employed with the Ecosystem and Ocean Planning Committee to develop the Ecosystem Approach to Fishery Management Risk Assessment and Summer Flounder Conceptual Model. This iteration of work between the SSC and the Council will ensure that the Work Group develops actionable information with the greatest value in supporting Council decision-making. The iteration also allows the selection of the case study, input on alternatives, and resulting analyses to be made in a fully transparent fashion. Consistent with the broader role of the SSC, the Work Group envisions its role as advisory: helping to guide and review products developed through existing Council processes, such as through Fishery Management Action Teams.

The Work Group is also cognizant of time and resource limitations that constrain the types of analyses that might realistically be developed in support of management actions. We will address these constraints in the proposed case study by working with Council Staff to:

- Identify and prioritize the information and analyses that could realistically be developed to inform the management action case study, given existing constraints on time and resources.
- Identify the added costs and benefits of increased resources that could be brought to bear on the issue in the near term.
- Identify issues that cannot be addressed given existing information gaps, but could be addressed in future Council actions given a systematic data development investment, including consideration of Council research programs, NOAA Fisheries recordkeeping and reporting requirements, and cooperative industry initiatives, including the relative costs of the additional investment (e.g., a gap analysis).

Focusing the case studies on 2021 Council priority actions will allow the Work Group to engage throughout the entire action, from initial scoping through final action, depending upon the type of action or priority being developed. This will improve the sometimes infrequent channels of communication among the SSC, technical teams, and Council, and facilitate input of SSC scientific expertise at key decision points throughout the process, including scoping and alternative development. Engagement throughout the entire action will also allow the SSC to develop a process that minimizes additional administrative burdens and allows the SSC to gauge its capacity to engage more broadly in supporting economic analyses for Council decision-making.

The exact benefits derived from engaging the Work Group expertise will depend on the case study selected. However, by applying the scientific principles of economics it is likely that behavioral responses to management alternatives will be revealed. It would be important for the Council to know if these responses either reinforce or risk undermining the successful attainment of Council management objectives. In particular, the following are likely to be important considerations:

- What aspects of single-species management either spill over or are affected by the broader economic environment in which these decisions are made?
- What are the distributional implications of management alternatives, including differential impacts across fleet segments and communities (e.g., gear; vessel size; sectors/user groups; ports)?
- How do you develop static decisions that are robust to fishing behavior changes within a dynamic environment (e.g., over time, changes in: operating costs; local and international supply and demand; environmental/ climate/pandemic impacts on effort)?
- What economic information is most valuable to managers, and how is that information attained in the most efficient manner possible?

Below are two examples for the economic value of information to managers, which are provided to better illustrate the types of benefits that could be derived within a case study. Broadly, fishermen often have information on the state of the environment that can help inform management decision-making. Economics can play a role in integrating this information into the management process to attain outcomes that objectively outperform those that can be attained without this information.

1. The value of recreational fishing

With over 60 million recreational fishing trips (14 million in the Mid-Atlantic region) taken annually by 10 million marine anglers, the recreational sector is an important player in the management of fisheries resources (NOAA, 2016). In these circumstances, understanding the impact of regulatory actions on the value of anglers' fishing experience is critical to the efficient use of the resource. Assessing the economic value anglers attach to fishing trips requires not only information on the characteristics of the trip, but also on information about the anglers themselves (whether this is done using so-called revealed or stated preference approaches; McConnell and Haab 2003). This information, combined with an analysis of the trade-offs involved in a trip, allow economists to assess changes in benefits derived from alternate fisheries policies (e.g., bag limits vs. size limits; when in the year to close the fishery, etc.). Anglers' incentives to provide this information hinge on the fact that representation in the management

process is partly driven by the economic importance of each sector, and this information is valuable to both managers and anglers.

It is essential for policy makers to utilize scientifically appropriate analytical tools and methods when evaluating policy options to ensure their decisions will meet National Standards and pass judicial review. This requires specifying the collection of appropriate economic data from each affected sector to ensure comparable and defensible analyses. The Work Group case study, for example, could help identify and potentially close any data vulnerabilities for any upcoming Council recreational priority it identifies.

2. Collaborative data-collection efforts

There are plenty of examples of the fishing industry voluntarily provisioning information to support fishery management. For instance, in 2012 the National Marine Fisheries Service was able to develop a combined survey method for Pacific hake and sardine thanks to the industry's proposal to piggyback a hake survey onto the regularly scheduled sardine survey, and its willingness to provide a private ship to participate in the acoustic-trawl survey. This new procedure could allow for more frequent abundance estimates for both species and may lead to better managed hake and sardine fisheries. In the past, due to the high costs of administering each survey, NMFS had alternated between hake and sardine surveys. In the Northeast and Mid-Atlantic, the Northeast Cooperative Research Study Fleet Program, voluntary biological sampling for squid and chub mackerel, as well as the collaborative management efforts within the shortfin squid and butterfish fisheries are all examples of proactive provisioning of valuable information to fisheries scientists and managers.

The information industry volunteers may improve stock assessment models and provide more precise estimates of overfishing limits and biomass. This improved precision, in turn, translates into a reduction in scientific uncertainty (i.e., the Overfishing Limit coefficient of variation) and may lead the SSC to recommend lower precautionary buffers and higher ABCs, ultimately increasing industry profits. Similarly, real-time electronic reporting may allow managers to implement in-season policy adjustments that increase compliance, reduce management uncertainty, and lead to higher Annual Catch Targets. For example, in the Maryland Blue Crab fishery, daily electronic reporting had been identified as a possible solution for improving harvest data records, a prerequisite set by Maryland DNR (MDNR) before agreeing to discuss regulatory flexibility with the industry (e.g., flexible day off, flexible start time, etc.). In 2012 MDNR conducted the Blue Crab Accountability Pilot Program, an industry-led initiative that tested the feasibility of adopting e-logbooks in the fishery, which relies on paper reports (<http://blogs.edf.org/edfish/2012/07/16/maryland-crab-pilot-aims-to-modernize-reporting/>). Similarly, the squid industry has expressed interest in the potential for real-time data acquisition as a basis to improve management of this valuable resource, and economics can play a role in assessing both the benefits and costs of such a program.

In each of these instances, additional information may translate into benefits to the industry in the form of additional harvest. However, the benefits from providing this type of information is not always clear to industry. By clearly illustrating the manner in which industry-provisioned information can translate into more flexibility in fishing and/or higher catches, economics can play a role in facilitating the flow of information from industry to managers. Economics can help identify conditions under which industry's investment in voluntary data collection efforts will generate a positive return to fishermen and create incentives for collaboration with management.

There are other ancillary benefits to collaborative data-collection efforts. They may create a sense of shared ownership of information, as well as a greater understanding of scientific data.

More generally, cost information, detailed effort information, and other economic data can greatly increase the ability to assess the impacts of management alternatives on industry prior to implementation. This information allows for more informed management decision-making, but is often an afterthought in the gathering of fishery-related information. The Economic Work Group can play an important role in highlighting the value of industry-provided information in the management process.

In closing, we are requesting the Council agree to the Economic Work Group outlining 2-3 alternatives in support of the Council's 2021 priorities for development into a case study. These outlines would be presented to the Council at their December 2020 meeting for their consideration and approval with the goal of more directly engaging the economic expertise of the SSC.

References

Johnson, T.R., and W.L.T. van Densen. 2007. Benefits and Organization of Cooperative Research for Fisheries Management. *ICES Journal of Marine Science* 64 (4): 834–40.

McConnell, K., and Haab, T. 2003. Valuing Environmental and Natural Resources. Edward Elgar Pub.

NOAA, Fisheries economics of the United States 2016 (available at: <https://www.fisheries.noaa.gov/resource/document/fisheries-economics-united-states-report-2016>)

Science Considerations Due to Missing 2020 Data:

The Issue:

Health concerns related to the COVID pandemic have resulted in the cancellation of most fishery independent surveys in 2020 and compromised data collection activities for fishery dependent programs including MRIP. Collectively, these data gaps are likely to increase uncertainty about the efficacy of current harvest limits and create problems for future assessments. The SSC will need to address these concerns in 2021 with upcoming management and research track assessments.

Background:

A national response to the COVID pandemic began in earnest in mid-March 2020. The NEFSC bottom trawl survey was completing the first of four legs. All subsequent legs were canceled and the fall survey was also canceled. Most state surveys and NEAMAP were also canceled resulting in the almost complete omission of fishery-independent survey data in 2020. Similarly, observer coverage on commercial vessels ceased and has only recently resumed but at greatly reduce levels. Such coverage is essential for estimation of discard rates. Commercial fishing operations were initially impeded but has returned to somewhat normal levels depending on their reliance on restaurant markets. Recreational fishing, monitored through MRIP, has been affected but the scope of this is unknown. Major gaps in data collection via the angler intercept program have occurred. Monitoring of commercial fisheries, through the collection of VTR and Dealer records has continued with relatively little impact. Collection of VMS data is also unaffected.

The consequences of these data gaps for stock assessments are largely unknown at the present time. The potential consequences for uncertainty of the OFL and subsequent ABC are also unknown. Conventional wisdom would suggest that uncertainty will increase across all species. Species with longer term ABC specifications, such as Ocean Quahog, may not be affected at all. Other species, for which 2020 data will be the terminal year data in the assessment may be affected strongly. Atlantic Mackerel, Black Sea Bass, Bluefish, Golden Tilefish, Scup, and Summer Flounder management track updates in 2021 will have missing data for 2020.

Staff from the NEFSC, GARFO, and MRIP are all addressing the potential consequences of missing data on future stock assessments. NEFSC and GARFO are coordinating efforts to identify all of the gaps and the potential effects on a stock by stock basis. Various technical responses to data gaps are underway although this cannot be completed until the full scope of data gaps are known. Similarly, MRIP staff are engaging their consultants to develop robust methods for incomplete data in 2020. The findings of these efforts will be critically important for future work of the SSC.

Options and Considerations:

Recent SSC discussions focused on the potential negative effects of creating “borrowing” or imputation methods for missing data, whether such procedures are ad hoc or more formal model-based methods. The reliability of such methods would generally need intensive testing, both with existing and simulated data.

Ancillary information, such as commercial CPUE monitoring or predictive environmental relationships may be useful adjuncts to the stock assessment process. However, derivation of predictive relationships are usually the products of longer-term research efforts and would not likely be available for 2021 deliberations. Methods for gap filling, whether based on formal or informal imputation approaches were viewed with some skepticism by the SSC. Creating a cure that’s worse than the disease is something to be avoided.

Missing data effects are often most acute when the last year of assessment data are missing. In these cases, modern modeling approaches can handle the missing data but often at the expense of increased variance and potential bias. Stocks with well performing models are likely to be less affected than index-based assessments or models with convergence issues. Unfortunately, some of these impacts will only be knowable in the rearview mirror.

There was a general consensus among the SSC that use of the assessment model itself would be the most appropriate way of integrating the various factors. The SSC further concluded that stocks that rely heavily on MRIP data, such as Bluefish, could have problems with determination of scale (i.e., population size overall and fishing mortality in the terminal year) if effort and catch patterns in 2020 are significantly different from historical patterns.

In summary, the SSC’s response to this dilemma must be objective, but it will be important to relay concerns to managers. For stocks in the middle of multiyear specifications, the consequences will be less acute. Insufficient information might simply lead to *status quo* recommendations. There will likely be a greater reliance on updated projections wherein actual catches will be incorporated into earlier projections that previously assumed the ABC was taken in the forecast period. In instances where the catches have been below the ABC this updating may provide some assurance that continuation of existing quotas is prudent and less likely to induce overfishing. The converse, where actual catches exceeded ABCs, could result in a decrease in the projected OFLs and ABCs.

The SSC is hopeful that the NRCC will address this topic at its fall meeting and looks forward to the results of the joint NESC and GARFO team. Staff from MRIP will also be contacted regarding measures that might be used for their estimates. Depending on the findings, it may be useful to have an intersessional meeting of the SSC before its next scheduled meeting in March 2021 to plan for the management track assessment outcomes and discuss the potential application of missing data and the resulting implications.

Risk Policy Considerations for Ocean Quahog:

The Issue:

The new Council risk policy may not be appropriate for a long-lived species like Ocean Quahog.

Background:

In July, the SSC developed ABC specifications for Ocean Quahog using the new Council's risk policy and the recently approved nine-step process for estimating the level of scientific uncertainty associated with the OFL. The SSC accepted the OFL from the most recently updated assessment and determined that a CV of 100% was appropriate for Ocean Quahog. The resulting ABC has a 49% probability of exceeding the overfishing level.

The SSC expresses concern that the removal of the "atypical life history" category from the Council's risk policy may have resulted in a recommended ABC associated with a higher level of risk of overfishing than intended for this species. Ocean Quahog is believed to live an extraordinarily long time, with maximum age in excess of 500 years – perhaps 10 times longer than most species with which the Council works. As a result, if we do exceed the true overfishing level, it would take a long time for us to recognize declines in the stock, and the stock may take an extraordinarily long time to recover.

The previous Council risk policy had provisions for "atypical" life histories in recognition that the risk of overfishing should be tempered by the degree of scientific understanding of the resource. Atypical life histories can include complex migrations, large difference in growth, maturation and survival between sexes, and longevity. Longevity is of course, the greatest concern for Ocean Quahog. Parenthetically, the SSC notes that scientific investigations to date span about 5% of the maximum age and understanding of recruitment dynamics is limited.

Options and Considerations:

The biological concerns of the SSC were raised at the August meeting of the Council. In July the SSC was reluctant to revise the determination of its CV level for the OFL to accommodate the concerns about the fishing mortality rate allowed under the risk policy. To do so would compromise the integrity of the scientific process used in the OFL CV methodology and undermine the decisions made for other species. An arbitrary adjustment would also conflate determinations that should remain separate: 1) the uncertainty of the estimated OFL and 2) the acceptable level of risk for harvest.

The SSC recommended flexibility in the risk policy to account for the unusual characteristics of this species. In the ensuing discussions with the Council, it was noted that the risk policy was just recently improved and that it would be difficult to revise to include consideration of an atypical life history. Accordingly, the Council recommended that the SSC attempt to accommodate these concerns within its existing capabilities.

One way to address this concern would be to increase the estimated uncertainty of the OFL for the atypical life history. This would, in effect, represent the addition of an “override” option in which this factor would trump all other considerations. However, Ocean Quahog currently has a B/B_{MSY} ratio greater than 1.5 which allows for a probability of overfishing of 0.49. Under these circumstances, even an increase in the OFL CV to 500% would decrease the ABC by only 3%.

Another option would be to reject the OFL determination provided in the stock assessment. As such determinations are the end products of many individuals and an extensive review process, this option oversteps the responsibilities of the SSC to derive an ABC from a given OFL. Such an approach would undermine the relationships among agencies and create divisions within the scientific community.

Thankfully, the current biomass status of Ocean Quahog does allow for some time to address this concern. The six-year projections used by the SSC for its specifications suggested almost no chance of overfishing during this period. The SSC will continue to address this issue by working with the Council and assessment scientists at the NEFSC to determine other options consistent with Council policy and NOAA Fisheries regulations. The SSC will update and seek direction from the Council in the future as it develops potential options.



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Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 18, 2020
To: Council and Board
From: Matthew Seeley, Council staff
Subject: Bluefish Allocation and Rebuilding Amendment

The Council and Board are developing an amendment to address several issues in the bluefish fishery. The Council and Board reviewed scoping comments at the joint May meeting and advised the Fishery Management Action Team (FMAT) to begin drafting alternatives. The FMAT then continued to develop and refine (with Council and Board input) an initial range of alternatives in September. At the joint October meeting, the Council/Board will review the final FMAT recommendations on a draft range of alternatives and will approve a reasonable range of alternatives for inclusion into a public hearing document (Council) and draft amendment (Commission). The public hearing document and draft amendment will be reviewed by the Council and Board at the February meeting to be approved for public hearings.

Please see the table below for a summary of the FMAT recommendations. Alternatives recommended for removal from an alternative set are denoted in **red** text. *Italics used in the same alternative set indicate one of two alternatives is recommended for removal, but not both.*

The following briefing materials are enclosed on this topic:

- 1) FMAT Meeting Summary
- 2) Action Plan

Issue	Alternative	Detail	Basis/Description
1: FMP Goals and Objectives	1.1	Status quo	
	1.1.1	Proposed	
2: Commercial/Recreational Sector Allocations	2.1	83% Rec, 17% Comm (Status quo)	1981-1989: Catch-Based
	2.1.1	89% Rec, 11% Comm	2014-2018, 2009-2018: Catch-Based
	2.1.2	87% Rec, 13% Comm	1999-2018: Catch-Based
	2.1.3	86% Rec, 14% Comm	1981-2018: Catch-Based
	2.2.1	86% Rec, 14% Comm	2014-2018, 2009-2018: Landings-Based
	2.2.2	84% Rec, 16% Comm	1999-2018, 1981-2018: Landings-Based
	2.3	No Phase-in	
	2.3.1	Phase-in	
3: Commercial Allocations to the States	3.1	Status quo	Old MRIP 1981-1989 (Amend 1)
	3.1.1	5 year	2014-2018: Landings-Based
	3.1.2	10 year	2009-2018: Landings-Based
	3.1.3	20 year	1999-2018: Landings-Based
	3.1.4	1981-present	1981-2018: Landings-Based
	3.1.5	1981-1989 and 2019-2018	81-89 (50%) and last ten years (50%): Landings-Based
	3.2	No Phase-in	
	3.2.1	Phase-in	Phase in over preferred rebuilding plan duration
	3.3	No Trigger	
	3.3.1	Pre-Transfer Trigger	Trigger time series should match the preferred alternative under section 3.1-3.1.5
	3.3.2	Post Transfer Trigger	
	3.4	No Minimum Default Allocation	
	3.4.1	0.10% - Minimum Default Allocation	
	3.4.2	0.25% - Minimum Default Allocation	
3.5.3	0.50% - Minimum Default Allocation		
4: Regional Commercial Allocations	4.1	Status quo/No action	
	4.1.1	5 year	2014-2018: Landings-Based
	4.1.2	10 year	2009-2018: Landings-Based
	4.1.3	20 year	1999-2018: Landings-Based
	4.1.4	1981-present	1981-2018: Landings-Based
	4.1.5	1981-1989 and 2019-2018	81-89 (50%) and last ten years (50%): Landings-Based
5: Rebuilding Plan	5.1	Status quo/No action	
	5.1.1	Constant harvest	4 years
	5.1.2	Constant F - 10 years	10 years
	5.1.3	Constant F - 7 years	7 years
	5.1.4	Constant harvest (highest catch)	10 years
	5.1.5	P* approach	5 years

6: Transfers - Sector	6.1	No Action/Status quo	Sector transfer cap
	6.1.1	Sector transfer cap: 5%	Sector transfer cap: 5%
	6.1.2	Sector transfer cap: 10%	Sector transfer cap: 10%
	6.1.3	Sector transfer cap: 15%	Sector transfer cap: 15%
	6.2	No Action/Status quo	Bidirectional transfer
	6.2.1	Allow transfer both ways	Bidirectional transfer
7: Management Uncertainty	7.1	No Action/Status quo	
	7.1.1	Post Sector-Split	
8: <i>De minimis</i>	8.1	No Action/Status quo	
	8.1.1	Proposed	



Bluefish Allocations and Rebuilding Amendment

FMAT Meeting: September 8, 2020 from 9:00 a.m. - 12:00 p.m.

Meeting Summary (Dated: September 16, 2020)

The objective of this meeting is for the Fishery Management Action Team (FMAT) to provide recommendations for a final range of draft alternatives to be presented to the Council/Board at the joint October meeting. The Council/Board are scheduled to approve a public hearing document and draft amendment for public comment in December or February.

In this document, **alternatives recommended for removal from an alternative set are denoted in red text**. They were not simply removed from the document to allow for comparison and justification to be presented as to why they were recommended for removal. All changes for each alternative set are summarized under each respective section.

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1. Fishery Management Plan Goals and Objectives

The no action/status quo option keeps the existing Fishery Management Plan (FMP) goals and objectives that were developed in 1991. The proposed FMP goals and objectives include revisions based on input provided by the public, bluefish advisory panel members, and Council/Board members.

1.1 No Action/Status Quo

Goal: Conserve the bluefish resource along the Atlantic coast.

1. Objective: Increase understanding of the stock and of the fishery.
2. Objective: Provide the highest availability of bluefish to U.S. fishermen while maintaining, within limits, traditional uses of bluefish.
3. Objective: Provide for cooperation among the coastal states, the various regional marine fishery management councils, and federal agencies involved along the coast to enhance the management of bluefish throughout its range.
4. Objective: Prevent recruitment overfishing.
5. Objective: Reduce the waste in both the commercial and recreational fisheries.

1.1.1 Proposed

Goal 1. Conserve the bluefish resource through stakeholder engagement to maintain sustainable recreational fishing and commercial harvest.

Objective 1.1. Achieve and maintain a sustainable spawning stock biomass and rate of fishing mortality.

Objective 1.2. Promote practices that reduce discard mortality within the recreational and commercial fishery.

Objective 1.3. Maintain effective coordination between the National Marine Fisheries Service, Council, Commission, and member states by promoting compliance and to support the development and implementation of management measures.

Objective 1.4. Promote compliance and effective enforcement of regulations.

Objective 1.5. Promote science, monitoring, and data collection that support and enhance effective ecosystem-based management of the bluefish resource.

Goal 2. Provide fair and equitable access to the fishery across all user groups throughout the management unit.

Objective 2.1. Ensure the implementation of management measures provides fair and equitable access to the resource across to all groups along the coast.

Objective 2.2. Consider the economic and social needs and priorities of all groups that access the bluefish resource in the development of new management measures.

Objective 2.3. Maintain effective coordination with stakeholder groups to ensure optimization of economic and social benefits.

FMAT Comments/Recommendations on Issue 1

The FMAT discussed the FMP goals and objectives and noted that the “Strategies”, which were presented under Objective 1.3, should be listed as objectives. This change (adding Objectives 1.4 and 1.5) was made because the two statements supplement the first goal in the same way as the other objectives. The revised proposed FMP Goals and objectives are reflected above.

2. Commercial and Recreational Sector Allocations

Under the current FMP for bluefish, the Acceptable Biological Catch (ABC) equals the fishery level Annual Catch Limit (ACL), which is then divided into a commercial and recreational Annual Catch Target (ACT) based on the allocation percentages defined in the FMP. Sector-specific expected discards are subtracted from the sector-specific ACTs to derive a commercial quota and a Recreational Harvest Limit (RHL). Aside from the status quo option, the following approaches revise the allocation percentages based on modified base years or different data sets.

2.1 No Action/Status Quo

The no action/status quo alternative keeps the existing sector allocation percentages, which were based on old General Canvass and MRFSS landings data from 1981-1989 (**Table 1**). The recreational and commercial allocations are 83% and 17%, respectively.

Table 1. Bluefish landings (000's lbs) along the U.S. Atlantic coast from 1981-1989 (see Table 23 in Amendment 1). Source: Unpublished NMFS General Canvass and MRFSS data.

Year	Rec	Comm	Total	%Rec	%Comm
1981	95,288	16,454	111,742	85%	15%
1982	83,006	15,430	98,436	84%	16%
1983	89,122	15,799	104,921	85%	15%
1984	67,453	11,863	79,316	85%	15%
1985	52,515	13,501	66,016	80%	20%
1986	92,887	14,677	107,564	86%	14%
1987	76,653	14,504	91,157	84%	16%
1988	48,222	15,790	64,012	75%	25%
1989	39,260	10,341	49,601	79%	21%
1990	30,557	13,771	44,328	69%	31%
1991	32,997	13,581	46,578	71%	29%
1992	24,275	11,478	35,753	68%	32%
1993	20,292	10,122	30,414	67%	33%
1994	15,541	9,453	24,994	62%	38%
1995	14,174	7,847	22,021	64%	36%
1996	14,735	9,288	24,023	61%	39%
Avg. 81-89	71,601	14,262	85,863	83%	17%
Avg. 81-96	49,811	12,744	62,555	75%	25%

2.1.1-2.1.4 Sector Allocations Alternatives Based on Catch Data

These alternatives use catch data and a specified time series (see **Table 2**) to develop allocations between the commercial and recreational sectors. The recreational landings and catch data were pulled from the Marine Recreational Information Program (MRIP) query website. Landings (A+B1) includes the estimate of all harvested fish in pounds. MRIP provides estimates of live releases in numbers of fish and not in pounds. The approach used by the Greater Atlantic Regional Fisheries Office (GARFO) to monitor the recreational fishery was used to generate estimates of dead discards.

Discards in pounds were calculated by multiplying the live releases (B2s) estimate by the mean weight of landed fish specified at the wave and state level. For specific state and wave entries lacking data on harvested fish, an average weight of harvested fish from a similar wave/state were calculated. In this way, live releases in numbers of fish were converted to an estimate in weight. This value was then multiplied by the 15% discard mortality rate that is assumed in Bluefish stock assessments to produce the dead discard estimates in pounds.

The commercial data was pulled from the ACCSP data warehouse in the form of a data request on May 12, 2020 from the ACCSP bluefish data lead Joseph Myers. Landings data were validated by staff from each state. One potential shortcoming of developing sector allocations based on catch data is that no estimates of commercial discards are available. According to the 2019 Operational Stock Assessment and the 2015 Benchmark Stock Assessment for Bluefish, commercial discards are considered negligible and thus were assumed to be zero for the purposes of developing the sector allocations. **Table 2** includes the allocation percentages associated with each time series (basis). If more than one time series generated the same allocations, the resulting alternatives were combined (see Alternative 2.1.1).

Table 2. Recreational and commercial sector allocation alternatives based on catch data.

Alternative	Basis	Recreational Allocation	Commercial Allocation
2.1 (Status quo)	1981-1989 (Landings-based)	83%	17%
2.1.1	5 year (2014-2018) and 10 year (2009-2018)	89%	11%
2.1.2	20 year (1999-2018)	87%	13%
2.1.3	Full Time Series (1981-2018)	86%	14%

2.2.1-2.2.4 Sector Allocations Based on Landings Data

These alternatives use landings data and a specified time series (see **Table 3**) to develop the allocations between sectors. The recreational data was pulled from MRIP with landings in weight equal to A+B1. The commercial data is from the ACCSP data warehouse (data request).

Table 3 includes the allocation percentages associated with each time series (basis). If more than one time series generated the same allocations, the resulting alternatives were combined (see Alternatives 2.2.1 and 2.2.2).

Table 3. Recreational and commercial sector allocation alternatives based on landings data.

Alternative	Basis	Recreational Allocation	Commercial Allocation
2.1 (Status quo)	1981-1989 (Landings-based)	83%	17%
2.2.1	5 year (2014-2018) and 10 year (2009-2018)	86%	14%
2.2.2	20 year (1999-2018) and Full Time Series (1981-2018)	84%	16%

2.3-2.3.1 Phase-In Approaches

Phasing in allocation changes would allow for the commercial/recreational allocation percentages to adjust slowly over time. Considering the current recreational allocation is at 83% and an increase to 89% (the largest proposed increase) represents less than a 10% increase in allocation, a phase-in approach may not be necessary from at least the recreational fishery perspective. The FMAT previously indicated that phasing in allocation changes could be challenging to coordinate during a rebuilding period that has the potential to already be complex and destabilizing.

2.3 No Phase-In

This alternative would result in no phase-in approach being implemented (i.e. no action).

2.3.1 Phase-In

This alternative would result in a phase-in approach being implemented to allow for gradual change in the allocation percentages. The FMAT has previously recommended that the phase-in timing of allocation changes be consistent with the duration associated with the preferred rebuilding alternative. For example, if alternative 2.1.3 and 5.1.1 (constant harvest) are both selected, the allocation change is 4% and the rebuilding timeline is 4 years. Thus, the phase-in approach would result in a 1% allocation change each year.

FMAT Comments/Recommendations on Issue 2

Allocations

The FMAT recommended the public have an opportunity to comment on allocation alternatives that use catch and landings data. The FMAT noted that the allocation percentages already allocate catch between the two sectors and not landings. From this perspective, it makes sense to align the data used to calculate the allocation percentages with GARFO's catch accounting and accountability methodology. However, the FMAT also noted that the commercial fishery has been assumed to have negligible discards for some time. This assumption will be reevaluated during the next research track stock assessment. If in fact there are discards in the commercial fishery that are not being included in the catch data used to develop allocations, this could skew the allocation shares.

Phase-In

The FMAT discussed the degree to which allocations vary across time series. Since a phase-in allocation approach could mitigate negative socioeconomic consequences of a sector losing a significant portion of its quota by allowing for gradual change, the FMAT recommends retaining the phase-in alternatives for consideration in a public hearing document.

3. Commercial Allocations to the States

3.1 No Action/Status Quo

The no action/status quo alternative keeps the existing landings-based commercial allocations to the states which were set through Amendment 1 using General Canvass Data and includes no phase-in, trigger, or minimum default allocation (**Table 4**).

Table 4. State-by-state commercial bluefish allocations along the U.S. Atlantic coast set using data from 1981-1989 (see Table 60 in Amendment 1). Source: NMFS General Canvass Data.

State	Pounds	%	Quota Without Increase in Landings	Quota Allowing for Increase in Landings
ME	858,177	0.67%	39,740	70,093
NH	532,032	41.38%	24,637	43,454
MA	8,621,803	6.71%	399,255	704,198
RI	8,739,090	6.80%	404,686	713,777
CT	1,625,500	1.26%	75,273	132,765
NY	13,330,736	10.37%	617,314	1,088,806
NJ	19,018,645	14.79%	880,707	1,553,374
DE	2,410,900	1.88%	111,643	196,914
MD	3,853,253	3.00%	178,435	314,720
VA	15,248,930	11.86%	706,141	1,245,477
NC	41,154,504	32.01%	1,905,766	3,361,351
SC	45,161	0.10%	5,953	10,501
GA	12,205	0.10%	5,953	10,501
FL	12,912,995	10.04%	597,970	1,054,687
Total	128,363,931	100	5,953,473	10,500,618

3.1.1-3.1.5 Commercial Allocations to the States Alternatives Based on Landings Data

The Council and Board agreed to move forward with developing six alternatives using only landings data for the commercial state-to-state allocations (**Table 5**) because commercial discards are considered negligible in both the benchmark and operational stock assessments. The commercial data is from the ACCSP data warehouse (data request).

Table 5. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series.

Landings-Based Allocation Alternatives						
	3.1	3.1.1	3.1.2	3.1.3	3.1.4	3.1.5
State	Status quo (1981-1989)	5 year (2014-2018)	10 year (2009-2018)	20 year (1999-2018)	Time Series (1981-2018)	1/2 '81-'89 1/2 '09-'18
ME	0.67%	0.00%	0.01%	0.01%	0.43%	0.49%
NH	0.41%	0.03%	0.12%	0.17%	0.65%	0.33%
MA	6.71%	10.64%	10.16%	7.53%	7.18%	7.66%
RI	6.80%	11.81%	9.64%	8.00%	7.96%	7.59%
CT	1.26%	1.18%	1.00%	0.73%	1.12%	1.19%
NY	10.37%	20.31%	19.94%	19.44%	14.76%	13.01%
NJ	14.79%	11.23%	13.94%	15.23%	15.57%	14.57%
DE	1.88%	0.58%	0.40%	0.39%	1.09%	1.47%
MD	3.00%	1.50%	1.84%	1.54%	2.10%	2.68%
VA	11.86%	4.62%	5.85%	6.92%	8.79%	10.26%
NC	32.01%	32.06%	32.38%	36.94%	33.52%	32.13%
SC	0.10%	0.00%	0.00%	0.00%	0.02%	0.03%
GA	0.10%	0.00%	0.00%	0.01%	0.01%	0.01%
FL	10.04%	6.07%	4.75%	3.10%	6.91%	8.59%
Total	100.00%	100.01%	100.03%	100.02%	100.10%	100.00%

3.2-3.2.1 Phase-In Approaches

The degree to which commercial state allocations differ from status quo allocations vary by proposed time series. The differences in an individual state’s allocation is typically more substantial if the state has been either landing all its quota and requesting transfers, not achieving its quota for many years, or has been transferring away its quota for many years. A phase-in allocation approach could mitigate the negative socioeconomic consequences of a state losing a significant portion of its quota by allowing for gradual change.

The FMAT previously said that phasing in allocation changes could be challenging to coordinate during a rebuilding period that has the potential to already be complex and destabilizing. The FMAT noted that they want to ensure altering the commercial allocations to the states does not make management unduly complicated for the respective states. In addition, a re-allocation of state quotas that accurately represents the current needs of the fishery reduces the need for a phase-in approach because states will have a more appropriate quota given their recent landings. Lastly, a phase-in approach would not be applicable if the Council/Board replace state by state commercial allocations with regional commercial allocations.

3.2 No Phase-In

This alternative would result in no phase-in approach being implemented (i.e. status quo).

3.2.1 Phase-In

This alternative would result in a phase-in approach being implemented to allow for gradual change in the allocation percentages. The FMAT has previously recommended that the phase-in timing of allocation changes be consistent with the duration associated with the preferred rebuilding alternative (see explanation in 2.3.1).

3.3-3.3.2 Trigger Approaches

A trigger approach allows for additional quota (anything above a set trigger threshold) to be allocated in a different way than what is specified in section 3.2.1-3.2.5 of this document. The proposed quota triggers were developed by averaging the commercial quotas for each time series associated with alternatives 3.2.1-3.2.5. Following the Council/Board’s direction, trigger threshold options were also developed by averaging the initial commercial quota that do not include transfers from the recreational to commercial fishery (**Table 6**). **Figure 1** displays the proposed trigger thresholds in relation to the commercial quotas from 1999-2018. **Table 7** displays the ranges of baseline quota and their associated allocation percentages once a trigger threshold is surpassed. The FMAT previously discussed the minimum baseline allocation for states with currently less than 1% of the overall quota and proposed 0.10% or 0.25%. Ultimately, the FMAT recommended moving forward with 0.10% because it is more consistent with state shares with the smallest allocations.

Table 6. Trigger threshold levels for additional quota allocations. *No formal commercial quota before Amendment 1, so the average represents the quota for available years only.

Commercial Quota Time Series	Pre-Transfer	Post Transfer
No Action/Status quo	N/A	N/A
5-year (2014-2018)	3.67 M lbs	6.67 M lbs
10-year (2009-2018)	4.31 M lbs	8.21 M lbs
20-year (1999-2018)	4.88 M lbs	8.84 M lbs
Time series (1981-2018)	4.88 M lbs*	8.84 M lbs*
½ 1981-1989 and ½ 2009-2018	4.31 M lbs*	8.21 M lbs*

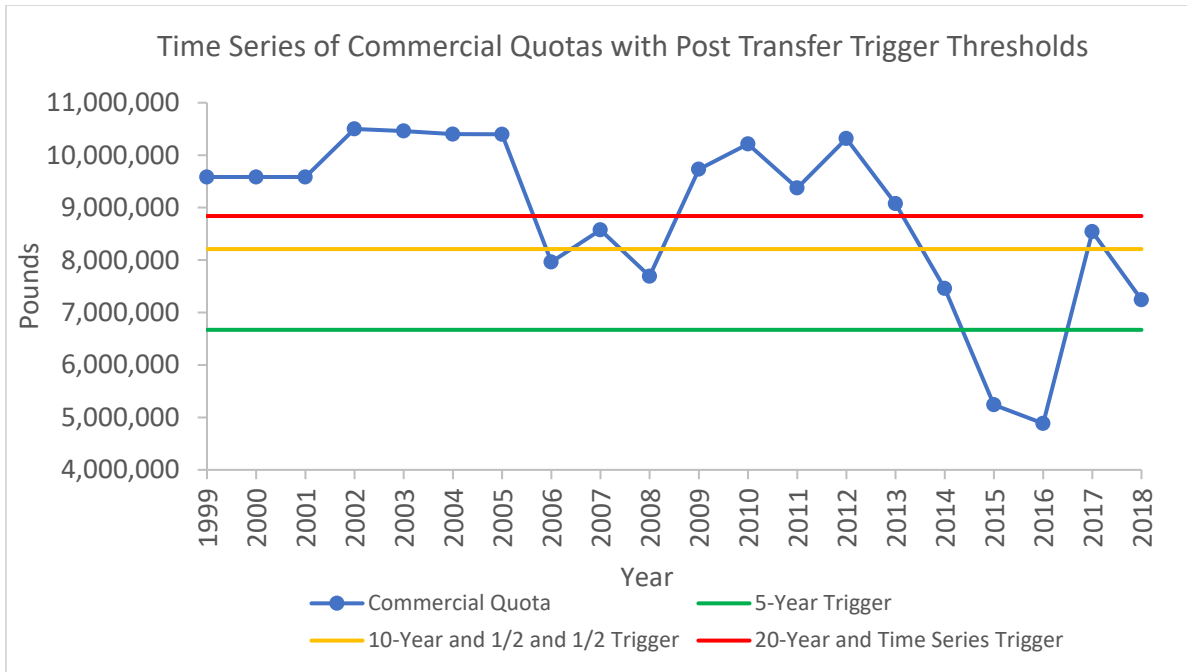


Figure 1. Trigger thresholds for additional quota compared to commercial quotas.

Table 7. Range of baseline quotas and the associated additional quota allocation set once a trigger threshold is surpassed.

Range of Baseline Quota	Associated Additional Quota Allocations
<=1%	0.10%
>1-5%	3.00%
>5-10%	7.50%
>10%	Remainder

Using the range provided in **Table 7**, **Table 8** provides alternatives (i.e. the time series detailed in section 3.2.1-3.2.5) of how additional quota beyond a set trigger would be allocated to each state.

3.3 No Trigger

This alternative would result in no trigger approach being implemented (i.e. no action/status quo).

3.3.1 Trigger Pre-Transfer Threshold

Under this alternative, the pre-transfer trigger threshold (**Table 6**) and each state's allocation (**Table 8**) above the threshold will be determined by the whichever option is selected as the preferred alternative in section 3.1-3.1.5.

3.3.2 Trigger Post Transfer Threshold

Under this alternative, the post transfer trigger threshold (**Table 6**) and each state's allocation (**Table 8**) above the threshold will be determined by whichever option is selected as the preferred alternative in section 3.1-3.1.5.

Table 8. Bluefish state allocations under a trigger threshold for all commercial allocation time series.

Allocation of <u>additional</u> quota beyond the trigger threshold.						
State	Status quo (1981-1989)	5 year (2014-2018)	10 year (2009-2018)	20 year (1999-2018)	Time Series (1981-2018)	1/2 '81-'89 1/2 '09-'18
ME	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
NH	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
MA	7.50%	16.60%	19.60%	7.50%	7.50%	7.50%
RI	7.50%	16.60%	7.50%	7.50%	7.50%	7.50%
CT	3.00%	3.00%	0.10%	0.10%	3.00%	3.00%
NY	15.12%	16.60%	19.60%	23.63%	20.20%	17.03%
NJ	15.12%	16.60%	19.60%	23.63%	20.20%	17.03%
DE	3.00%	0.10%	0.10%	0.10%	3.00%	3.00%
MD	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
VA	15.12%	3.00%	7.50%	7.50%	7.50%	17.03%
NC	15.12%	16.60%	19.60%	23.63%	20.20%	17.03%
SC	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
GA	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
FL	15.12%	7.50%	3.00%	3.00%	7.50%	7.50%
Total	100%	100%	100%	100%	100%	100%

3.4-3.4.3 Minimum Default Allocations

Table 9, **Table 10**, and **Table 11** present allocations including a minimum default allocation of 0.10-0.50%. Minimum default allocations were applied to each state by allocating a baseline quota of 0.10-0.50% to each state following the same approach detailed in Amendment 3 to Atlantic menhaden. Then, the rest of the annual commercial quota is allocated based on historic landings under different time series.

3.4 No Minimum Default Allocation

This alternative would result in no minimum default allocation being implemented (i.e. no action/status quo).

3.4.1 Minimum Default Allocation – 0.10%

Under this alternative, a 0.10% minimum allocation is applied to each state prior to allocating with a new time series (**Table 9**). Whichever option is selected as the preferred alternative in section 3.1-3.1.5 will be paired with the appropriate minimum default allocation option (3.4.1-3.4.3), should the Council/Board decide to use this management tool.

3.4.2 Minimum Default Allocation – 0.25%

Under this alternative, a 0.25% minimum allocation is applied to each state prior to allocating with a new time series (**Table 10**). Whichever option is selected as the preferred alternative in section 3.1-3.1.5 will be paired with the appropriate minimum default allocation option (3.4.1-3.4.3), should the Council/Board decide to use this management tool.

3.4.3 Minimum Default Allocation – 0.50%

Under this alternative, a 0.50% minimum allocation is applied to each state prior to allocating with a new time series (**Table 11**). Whichever option is selected as the preferred alternative in section 3.1-3.1.5 will be paired with the appropriate minimum default allocation option (3.4.1-3.4.3), should the Council/Board decide to use this management tool.

Table 9. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series and a minimum default allocation of 0.10%.

		0.10% Minimum Default Allocation					
State	No Action 1981-1989	Status quo 1981-1989	5-year 2014-2018	10-year 2009-2018	20-year 1999-2018	Time Series 1981-2018	½ '81-'89 -½ '09-'18
ME	0.67%	0.76%	0.10%	0.11%	0.11%	0.52%	0.58%
NH	0.41%	0.51%	0.13%	0.22%	0.27%	0.74%	0.42%
MA	6.71%	6.72%	10.59%	10.12%	7.53%	7.18%	7.65%
RI	6.81%	6.81%	11.74%	9.61%	7.98%	7.95%	7.58%
CT	1.27%	1.35%	1.26%	1.09%	0.82%	1.20%	1.28%
NY	10.38%	10.33%	20.12%	19.76%	19.27%	14.65%	12.93%
NJ	14.81%	14.70%	11.17%	13.85%	15.11%	15.45%	14.46%
DE	1.88%	1.95%	0.67%	0.49%	0.48%	1.17%	1.55%
MD	3.00%	3.06%	1.57%	1.92%	1.62%	2.17%	2.75%
VA	11.94%	11.88%	4.65%	5.87%	6.93%	8.77%	10.22%
NC	32.03%	31.68%	31.71%	32.03%	36.52%	33.15%	31.78%
SC	0.04%	0.13%	0.10%	0.10%	0.10%	0.12%	0.13%
GA	0.01%	0.11%	0.10%	0.10%	0.11%	0.11%	0.11%
FL	10.06%	10.02%	6.08%	4.78%	3.16%	6.91%	8.57%

Table 10. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series and a minimum default allocation of 0.25%.

		0.25% Minimum Default Allocation					
State	No Action/ Status quo 1981-1989	Status quo 1981-1989	5-year 2014-2018	10-year 2009-2018	20-year 1999-2018	Time Series 1981-2018	½ '81-'89 -½ '09-'18
ME	0.67%	0.89%	0.25%	0.26%	0.26%	0.66%	0.72%
NH	0.41%	0.65%	0.28%	0.36%	0.41%	0.88%	0.56%
MA	6.71%	6.73%	10.52%	10.05%	7.52%	7.18%	7.64%
RI	6.81%	6.82%	11.65%	9.56%	7.97%	7.94%	7.57%
CT	1.27%	1.47%	1.39%	1.22%	0.96%	1.33%	1.40%
NY	10.38%	10.26%	19.85%	19.49%	19.01%	14.49%	12.80%
NJ	14.81%	14.54%	11.09%	13.70%	14.94%	15.27%	14.31%
DE	1.88%	2.06%	0.81%	0.64%	0.62%	1.30%	1.67%
MD	3.00%	3.15%	1.69%	2.03%	1.74%	2.28%	2.84%
VA	11.94%	11.78%	4.71%	5.89%	6.93%	8.73%	10.16%
NC	32.03%	31.16%	31.19%	31.50%	35.89%	32.59%	31.25%
SC	0.04%	0.28%	0.25%	0.25%	0.25%	0.27%	0.28%
GA	0.01%	0.26%	0.25%	0.25%	0.26%	0.26%	0.26%
FL	10.06%	9.95%	6.10%	4.83%	3.24%	6.92%	8.54%

Table 11. State-by-state commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series and a minimum default allocation of 0.50%.

		0.50% Minimum Default Allocation					
State	No Action/ Status quo 1981-1989	Status quo 1981-1989	5-year 2014-2018	10-year 2009-2018	20-year 1999-2018	Time Series 1981-2018	½ '81-'89 -½ '09-'18
ME	0.67%	1.12%	0.50%	0.51%	0.51%	0.90%	0.95%
NH	0.41%	0.89%	0.53%	0.61%	0.66%	1.11%	0.80%
MA	6.71%	6.74%	10.39%	9.95%	7.51%	7.18%	7.62%
RI	6.81%	6.83%	11.48%	9.47%	7.94%	7.91%	7.56%
CT	1.27%	1.68%	1.59%	1.43%	1.18%	1.54%	1.61%
NY	10.38%	10.15%	19.39%	19.04%	18.58%	14.22%	12.60%
NJ	14.81%	14.27%	10.94%	13.46%	14.66%	14.98%	14.05%
DE	1.88%	2.25%	1.03%	0.87%	0.86%	1.51%	1.87%
MD	3.00%	3.29%	1.89%	2.21%	1.94%	2.45%	2.99%
VA	11.94%	11.61%	4.79%	5.94%	6.94%	8.68%	10.05%
NC	32.03%	30.29%	30.32%	30.61%	34.85%	31.67%	30.38%
SC	0.04%	0.53%	0.50%	0.50%	0.50%	0.52%	0.52%
GA	0.01%	0.51%	0.50%	0.50%	0.51%	0.51%	0.51%
FL	10.06%	9.85%	6.14%	4.91%	3.38%	6.93%	8.49%

FMAT Comments/Recommendations on Issue 3

Allocations

The FMAT had extensive discussion on whether any alternatives should be removed from the proposed alternative set. Given the similarities in allocations between time series and overlapping years, the FMAT recommended removing alternative 3.1.3 (20-year time series). The FMAT noted that reallocation is being considered largely in part to reflect the more recent performance of the fishery. However, the FMAT also recognizes that it is important to consider the historical performance of each state's commercial fisheries and recommended removing either alternative 3.1.4 (1981-2018) or 3.1.5 (½ 1981-2018 and ½ 2009-2018), but not both. Both alternatives 3.1.4 and 3.1.5 share the upper and lower bounds of the time series and the allocation percentages are quite similar for most states. These recommendations for removal represent a reasonable range of alternatives while still accounting for historical performance.

Phase-In

The FMAT discussed the degree to which commercial allocations to the states vary across time series. This variation is more substantial for states that have been landing all their quota and requesting transfers, not achieving their quota for many years, or have been transferring away their quota for many years. Since a phase-in allocation approach could mitigate the negative socioeconomic consequences of a state losing a significant portion of its quota by allowing for gradual change, the FMAT recommends retaining the phase-in alternatives for consideration in a public hearing document.

Trigger

The FMAT discussed the proposed trigger threshold levels and recommended that the post transfer commercial quota time series average be used. The FMAT recommended the post transfer approach over the pre-transfer approach because the allocations are based on post transfer values. The FMAT recognizes that the trigger threshold levels are higher under the post transfer approach and are unlikely to be met in the near future, however, the FMAT noted that reallocation should address most state specific needs. Then, once the stock recovers through the rebuilding plan, future higher quotas may exceed the trigger threshold and redistribute "additional" quota when it is available. Finally, the FMAT also recommended that the time series associated with setting the post-transfer threshold should be the same as what is selected as the preferred allocation alternative in section 3.1.1-3.1.5.

Upon further review, commercial quotas are only available for time series utilizing data since 1999. Prior to 1999, the fishery existed as a set of "management measures include a permit to catch and sell bluefish and limits on the amount of bluefish an angler or vessel can possess; allocates no more than 20% of total catch to commercial fishery." So, there is no formal "commercial quota" before Amendment 1 in 2000. Thus, trigger thresholds were developed using only the available years in a given time series (as indicated in **Table 6**) when a time series begins prior to 1999.

Minimum Default Allocations

The FMAT noted the reason minimum default allocations were proposed was to ensure that states currently with a small allocation percentage do not lose their allocation entirely through this action. Upon reviewing the minimum default allocation alternative set, the FMAT agreed that a 0.25% and 0.50% is larger than necessary, given the Council/Board's stated goal. Additionally, ME, NH, SC, and GA typically land less than 0.1% of the coastwide quota. Thus, the FMAT recommends retaining only the 0.10% minimum default allocation alternative.

General

Given the many moving parts (phase-in, trigger, minimum default allocations) considered under the commercial allocations to the states and that bluefish is entering a rebuilding plan, the FMAT recommends that either a trigger approach or minimum default allocation be selected, but not both. Using too many management tools at once can overcomplicate the process and reduce the benefits associated with just using one approach.

4. Regional Commercial Allocations

4.1 No Action/Status Quo

Selecting this alternative would result in no regional commercial allocations, and commercial quota would remain allocated to the states. Thus, the Council/Board would need to select an alternative detailed in sections 3.1-3.1.5 of this document.

Regulation CFR § 648.162 (e) in the existing FMP provides a mechanism that would allow states to combine quotas: *Quota transfers and combinations. Any state implementing a state commercial quota for bluefish may request approval from the Regional Administrator to transfer part or all of its annual quota to one or more states. Two or more states implementing a state commercial quota for bluefish may request approval from the Regional Administrator to combine their quotas, or part of their quotas, into an overall regional quota. Requests for transfer or combination of commercial quotas for bluefish must be made by individual or joint letter(s) signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for each state involved. The letter(s) must certify that all pertinent state requirements have been met and identify the states involved and the amount of quota to be transferred or combined.*

4.1.1-4.1.5 Regional Commercial Allocation Alternatives

At the joint August meeting, the Council/Board reviewed the revisions made to the regional commercial allocations alternative set. **Table 12** presents draft allocation alternatives by region (New England, Mid-Atlantic, South Atlantic) for the same time series used to develop the sector and commercial state-to-state allocations.

Table 12. Regional commercial bluefish allocations along the U.S. Atlantic coast using different proposed time series. The values in parentheses are examples of what regional allocations would be if the 1981-1989 (status quo) time series was used.

Alternative	Time Series	New England (ME-CT)	Mid-Atlantic (NY-VA)	South Atlantic (NC-FL)
4.1	No Action/Status quo 1981-1989	N/A	N/A	N/A
4.1.1	2014-2018	23.66%	38.23%	38.13%
4.1.2	2009-2018	20.93%	41.97%	37.13%
4.1.3	1999-2018	16.44%	43.53%	40.05%
4.1.4	1981-2018	17.34%	42.31%	40.45%
4.1.5	½ '81-'89 -½ '09-'18	17.25%	41.99%	40.75%

Table 13 and **Table 14** use data received from an ACCSP data request. *Since the necessary analysis required trip-level information, it made sense to query from the fishermen reported data. However, the fisherman trips are an incomplete representation of the landings totals, which are primarily comprised of the dealer reported data. The fishermen reports underestimate the true landings totals. However, the trip-level data is useful for getting the relative sense of the overall trends in catch per trips by state.* Following the FMAT recommendation, **Table 14** was included to display each trip limit bin's percent contribution to the total landings for that year. This helps identify if most bluefish landings are coming from a small number of trips with very high landings or many trips with a low number of landings.

Table 13. Percentage of bluefish trips for 2017-2019 with landings summarized in pound bins. (Data provided by ACCSP).

Pound Bin	New England Trips			Mid-Atlantic Trips			South Atlantic Trips		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
5000+	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
4000-4999	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
3000-3999	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
2000-2999	<1%	<1%	<1%	0%	<1%	0%	<1%	<1%	<1%
1000-1999	<1%	<1%	1.25%	<1%	2.45%	1.45%	1.58%	1.13%	1.26%
500-999	2.34%	1.42%	3.42%	2.29%	3.12%	3.31%	3.69%	3.08%	2.99%
<500	95.84%	96.69%	94.10%	97.20%	94.40%	95.20%	94.31%	95.33%	94.76%

Table 14. Percentage of total bluefish landings by trip for 2017-2019 with landings summarized in pound bins. (Data provided by ACCSP).

Pound Bin	New England Trips			Mid-Atlantic Trips			South Atlantic Trips		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
5000+	3.95%	4.49%	4.39%	0%	0%	1.29%	5.80%	12.93%	25.82%
4000-4999	7.12%	1.86%	11.30%	0%	0%	0.64%	1.30%	1.83%	2.17%
3000-3999	5.36%	5.29%	8.45%	0%	0%	0.46%	1.72%	2.01%	2.26%
2000-2999	11.79%	19.80%	6.91%	0%	1.13%	0%	5.40%	4.23%	8.19%
1000-1999	13.21%	9.54%	11.56%	7.04%	25.26%	16.21%	18.64%	13.84%	11.86%
500-999	15.42%	8.59%	16.00%	20.48%	23.36%	25.78%	22.54%	18.99%	14.07%
<500	43.15%	50.43%	41.39%	72.49%	50.25%	55.62%	44.60%	46.18%	35.64%

For bluefish, trip limits can be set coastwide or specific to each region, however, trip limits may be difficult to develop considering state trip limits range from “no restrictions” to 500 pounds/week to 7,500 pounds/day (**Table 15**). As always, state trip limits can be more restrictive than the federal limits. However, states may not be inclined to restrict themselves since the new quotas are regionalized and neighboring states may not adhere to the same self-designated lower limits.

Table 15. Current commercial bluefish trip and size limits for all Atlantic coast states.

State	Trip and Size Limits
ME	No Restrictions
NH	No Restrictions
MA	5,000 lbs/day or trip (whichever is longer)
RI	18" min size;
	1,000 lbs/bi-wk (1.1-4.30)
	6,000 lbs/wk (5.1-11.15)
	500 lbs/wk (11.16-12.31)
CT	9" min size; 1,200 lbs/trip
NY	9" min size; 5,000 lbs (Jan-April); 750 lbs (May-Aug); 500 lbs (Sept-Oct); 1,000 lbs (Nov-Dec)
NJ	9" min size
DE	No Restrictions
MD	8" min size
PRFC	Trip limits after 80% of VA-MD quota is landed
VA	No Restrictions
NC	No Restrictions
SC	No directed fishery
GA	12" min size; 15 fish
FL	12" min size; 7,500 lbs/day

The proposed trip limits presented in **Table 16** reflect the trip and landings data presented in **Table 13** and **Table 14**.

Table 16. Proposed bluefish harvest triggers and associated trip limits for the Atlantic coast.

New England (ME-CT)		Mid-Atlantic (NY-VA)		South Atlantic (NC-FL)	
Harvest Trigger	Trip Limit (lbs)	Harvest Trigger	Trip Limit (lbs)	Harvest Trigger	Trip Limit (lbs)
0%	3,500	0%	2,000	0%	10,000
75%	1,500	75%	1,500	50%	3,500
90%	500	90%	500	75%	1,500
-	-	-	-	90%	500

Regional commercial transfer provisions can be the same as the current state-to-state transfers but set for region-to-region. Ideally, transfers will be limited with the additional flexibility provided by regional quotas and increased access to a larger quota share. Furthermore, new allocations based on updated data should reduce the need for transfers for the foreseeable future.

Grouping commercial allocations by region is both a policy and scientific decision. A Spearman correlation analysis was conducted to determine whether states have similar trends in total abundance over time. Recreational catch per unit effort (CPUE) was used as a proxy for total abundance. Commercial landings were also considered, but were thought to be influenced by market factors and restricted by state quotas. **Figure 2** displays correlations among state recreational CPUEs (total catch divided by total effort) from 2000 to 2019. Light green indicates a weak correlation (Spearman correlation between 0.5 and 0.6) and dark green indicates a strong correlation (Spearman correlation >0.6). We would expect to see green groupings closely surrounding the diagonal gray plots moving from the upper left corner to the bottom right corner if there were correlations in total abundance across neighboring states. However, the analysis indicates little correlation amongst states within the New England, Mid-Atlantic and South Atlantic groupings. Aside from the pairing of Maine and New Hampshire or Rhode Island and Connecticut, there appears to be little to no biological basis for combing state allocations into regional quotas.

Figure 3 was derived using the same methods as **Figure 2**. While **Figure 2** displays total recreational CPUE, **Figure 3** displays recreational CPUE for bluefish directed trips and replicates the findings of little to no biological basis for combing state commercial allocations into regional quotas.

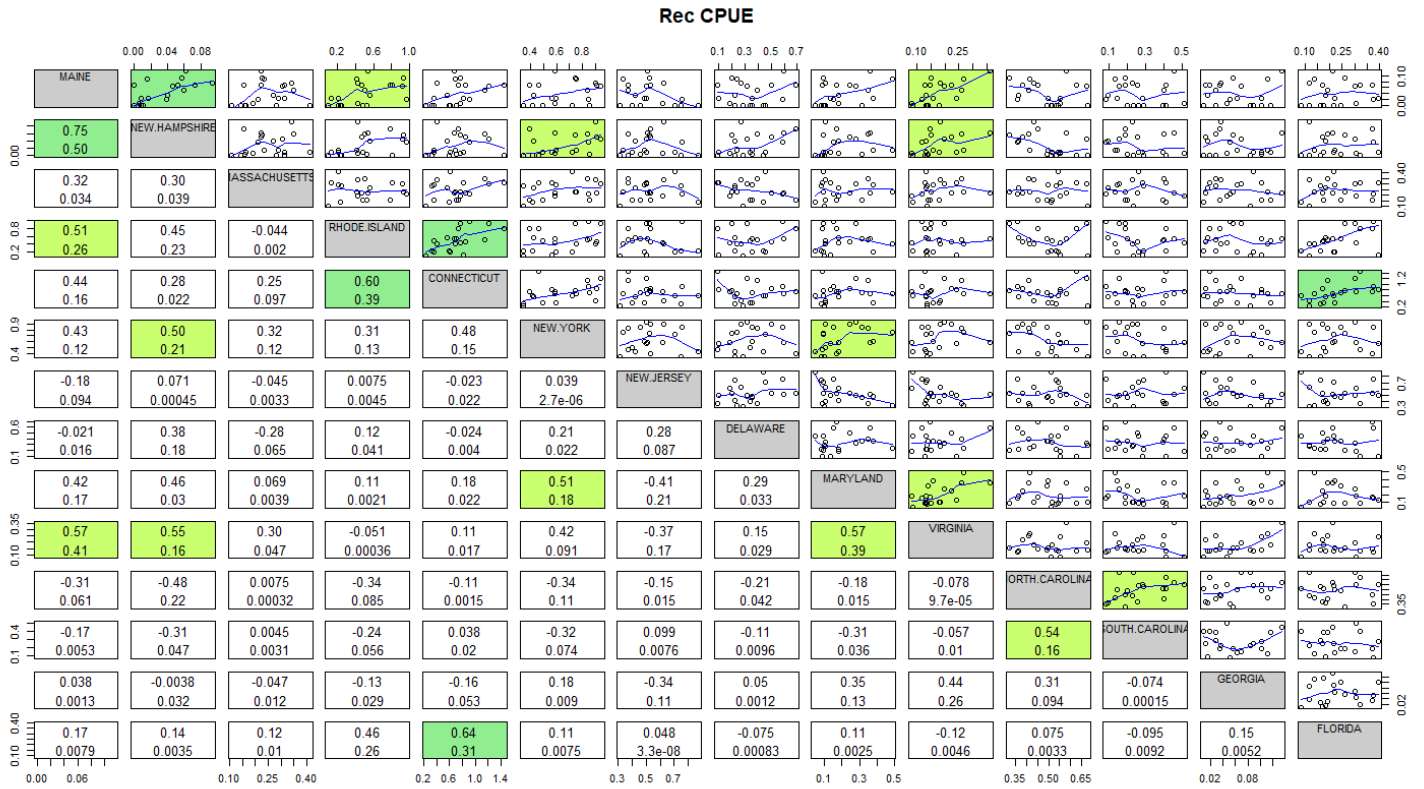


Figure 2. Correlations among recreational CPUE (total catch divided by total recreational effort; by state, all modes combined) 2000-2019. Source: MRIP query website.

- *Light green or light pink = Spearman correlation between 0.5 and 0.6 (green) or between -0.50 and -0.60 (pink)
- *Dark green or dark red = Spearman correlation >0.6 (green) or <-0.6 (red)
- *Bottom diagonal: top number = Rank order Spearman correlation; bottom number = Linear Pearson correlation
- *Top diagonal: scatterplot with lowest smoother



Figure 3. Correlations among recreational CPUE for directed trips (recreational total catch divided by total recreational directed effort; primary, secondary, and caught; by state, all modes combined) 2000-2018. Source: MRIP query website.

*Light green or light pink = Spearman correlation between 0.5 and 0.6 (green) or between -0.50 and -0.60 (pink)

*Dark green or dark red = Spearman correlation >0.6 (green) or <-0.6 (red)

*Bottom diagonal: top number = Rank order Spearman correlation; bottom number = Linear Pearson correlation

*Top diagonal: scatterplot with lowess smoother

FMAT Comments/Recommendations on Issue 4

The FMAT again recommends removal of this issue from the amendment for several reasons. First, the Bluefish FMP already contains regulations that allows for states to combine quotas on a voluntary basis. Second, combining states into regions results in a loss of state autonomy and flexibility in setting commercial measures that best suit their constituents’ needs. Third, the proposal to group states among geographic regions lacks a biological basis. The FMAT acknowledged that there may be a socioeconomic basis for grouping states into commercial regions, but the FMAT did not have the time or the resources to conduct a socioeconomic analysis for this management approach. The purpose behind the Spearman correlation analysis was to determine if groups of states show similar trends in bluefish abundance over time. Lacking this evidence, there is not a clear justification for grouping states and managing commercial effort with uniform trip limits.

5. Rebuilding Plan

Under a rebuilding plan, the stock will be considered rebuilt once spawning stock biomass (SSB) reaches the SSB_{MSY} proxy equal to 198,717 mt (**Figure 4**). Total fishing mortality is also available for reference (**Figure 5**). The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires the overfished stock to be rebuilt within ten years once the regional office notifies the Council of the overfished state. Under the current amendment timeline, the rebuilding plan would be implemented at the beginning of 2022.

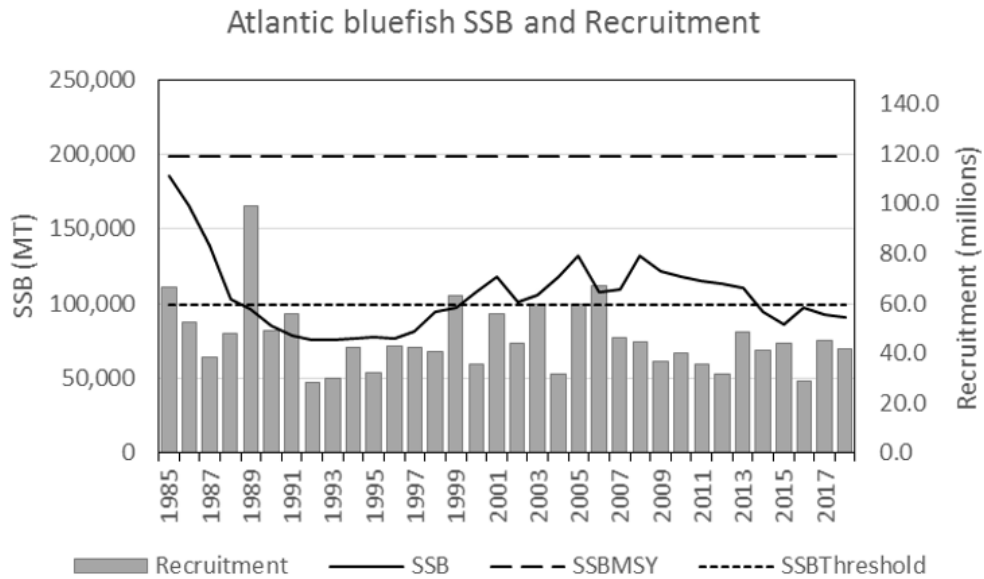


Figure 4. Atlantic bluefish spawning stock biomass (SSB; solid black line) and recruitment at age 0 (R; gray vertical bars) by calendar year. The horizontal dashed line is the updated SSB_{MSY} proxy = $SSB_{40\%}$ = 198,717 mt. The dotted black line is the $SSB_{Threshold}$.

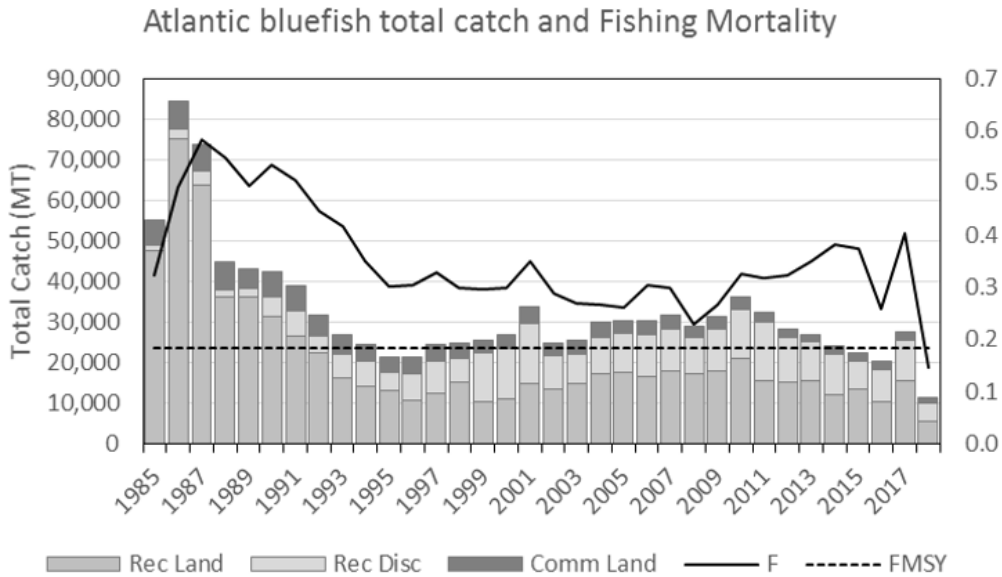


Figure 5. Total fishery catch (metric tons; mt; solid line) and fishing mortality (F, peak at age 3; squares) for Atlantic bluefish. The horizontal dashed line is the updated FMSY proxy = $F_{35\%} = 0.183$.

5.1 No Action/Status Quo

The no action/status quo alternative would not initiate a rebuilding plan and thus, would keep the bluefish stock in an overfished state. The Council is legally bound to develop a rebuilding plan and this alternative is included as a formality.

5.1.1-5.1.5 Rebuilding Plan Alternatives

The rebuilding plan will begin in 2021 with the 7,385 mt ABC that was already approved by the Council/Board regardless of which alternative is selected. The proposed rebuilding plans assume that the full ABC will be caught. Regardless of which alternative is selected, the assessment scientist will perform assessment updates and rerun projections every two years. The Scientific and Statistical Committee (SSC) will then use the projections to develop recommendations for the specification packages that remain in line with the goals of the rebuilding plan. Rebuilding alternatives under consideration are presented below (**Table 17**).

Table 17. Rebuilding projection alternatives and the duration until rebuilt.

Alternative	Rebuilding Plan	Duration	Adjustment to Council Risk Policy
5.1	Status Quo	N/A	N/A
5.1.1	Constant Harvest	4 years	No
5.1.2	Constant Fishing Mortality	10 years	Yes
5.1.3	Constant Fishing Mortality	7 years	Yes
5.1.4	Constant Harvest (Highest Catch)	10 years	Yes
5.1.5	P* (Council Risk Policy)	5 years	N/A

5.1.1 Constant Harvest: 4-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant harvest approach (current ABC) be utilized until the stock is rebuilt (**Table 18** and **Figure 6**). This projection rebuilds the stock by end of year 2025 (4-year rebuilding plan). *This alternative does not require an adjustment to the Council risk policy because the catches are less than those described under the P* approach.*

Table 18. Constant harvest rebuilding projection.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,779	43,282	0.279	22,614	198,717	99,359
2020	102,165	43,455	0.087	7,385	198,717	99,359
2021	115,085	43,428	0.075	7,385	198,717	99,359
2022	137,450	43,460	0.064	7,385	198,717	99,359
2023	162,495	43,353	0.052	7,385	198,717	99,359
2024	197,141	43,239	0.045	7,385	198,717	99,359
2025	229,121	43,379	0.039	7,385	198,717	99,359
2026	269,777	43,362	0.034	7,385	198,717	99,359

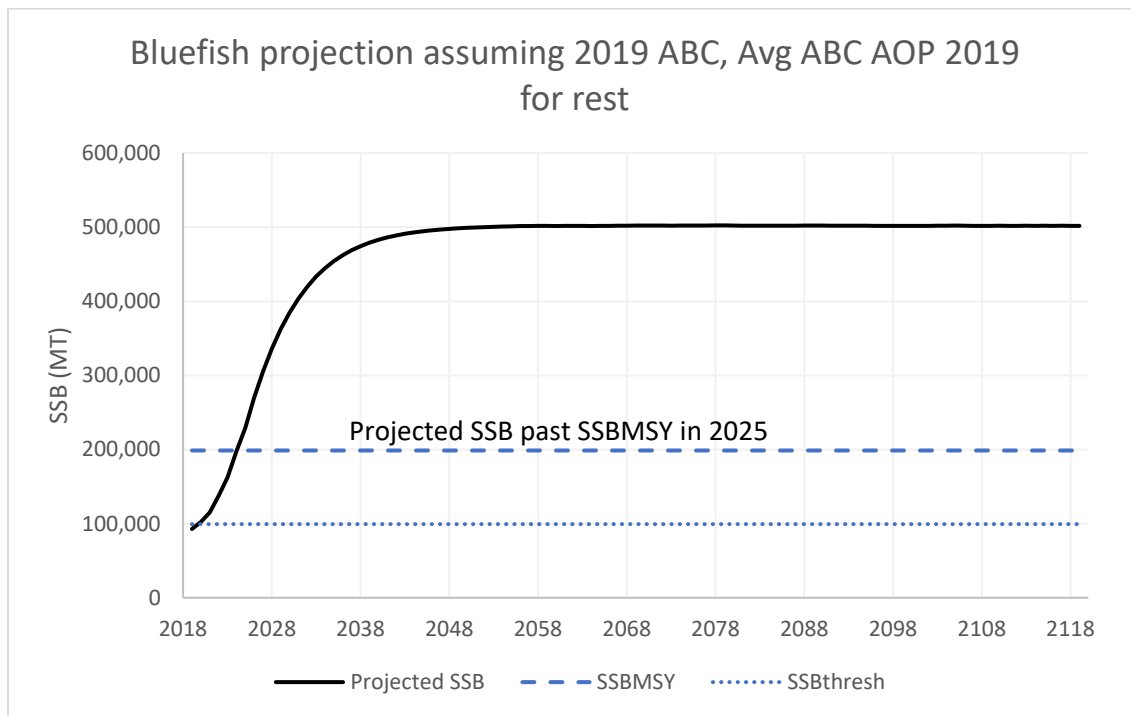


Figure 6. Constant harvest rebuilding projection.

5.1.2 Constant Fishing Mortality (10 years): 10-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant fishing mortality approach (F) be utilized until the stock is rebuilt (Table 19 and Figure 7). This projection rebuilds the stock by end of year 2031 (10-year rebuilding plan). *This alternative requires an adjustment to the Council risk policy for this rebuilding plan only because the catches are higher than those described under the P* approach.*

Table 19. Constant 10-year F rebuilding projection.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,732	43,262	0.281	22,614	198,717	99,359
2020	102,174	43,402	0.088	7,385	198,717	99,359
2021	115,012	43,304	0.076	7,385	198,717	99,359
2022	131,624	43,389	0.177	19,616	198,717	99,359
2023	141,297	43,274	0.177	21,894	198,717	99,359
2024	154,661	43,462	0.177	22,990	198,717	99,359
2025	162,976	43,235	0.177	24,398	198,717	99,359
2026	175,734	43,367	0.177	25,907	198,717	99,359
2027	184,062	43,488	0.177	26,904	198,717	99,359
2028	189,900	43,425	0.177	27,595	198,717	99,359
2029	193,952	43,561	0.177	28,100	198,717	99,359
2030	197,035	43,300	0.177	28,463	198,717	99,359
2031	199,167	43,326	0.177	28,723	198,717	99,359

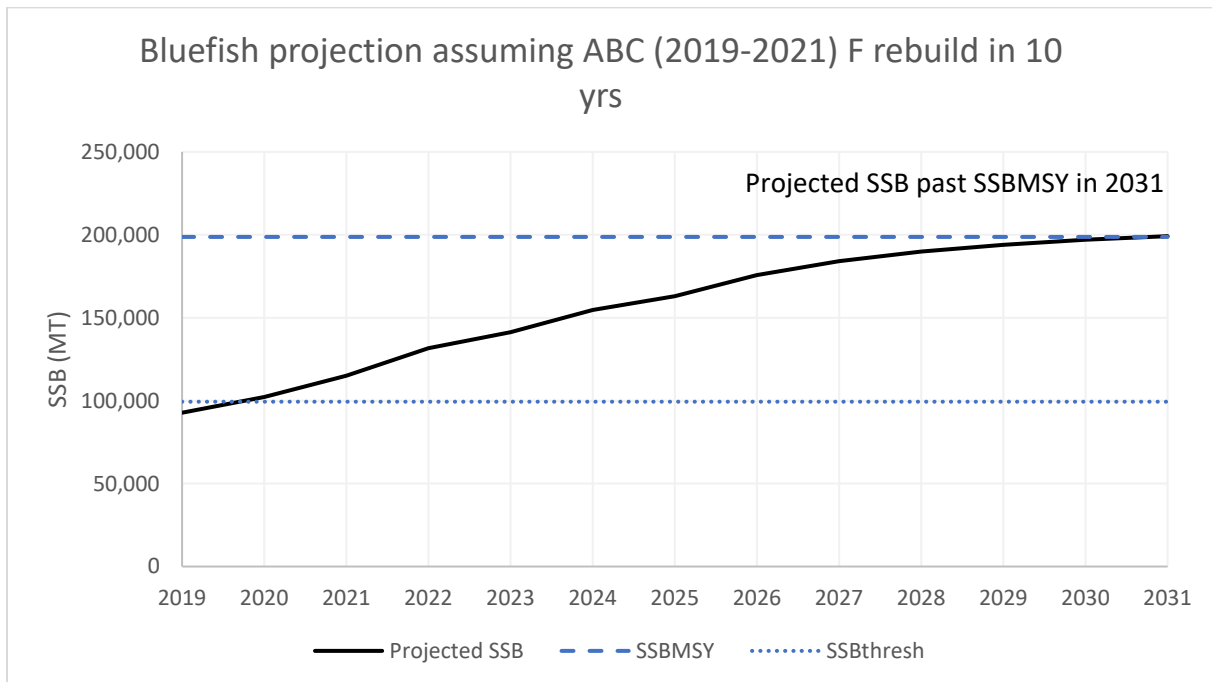


Figure 7. Constant 10-year F rebuilding projection.

5.1.3 Constant Fishing Mortality (7 years): 7-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant fishing mortality approach (F) be utilized until the stock is rebuilt (**Table 20** and **Figure 8**). This projection rebuilds the stock by end of year 2028 (7-year rebuilding plan). *This alternative requires an adjustment to the Council risk policy for this rebuilding plan only because the catches are higher than those described under the P* approach.*

Table 20. Constant 7-year F rebuilding projection.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,755	43,320	0.279	22,614	198,717	99,359
2020	102,186	43,531	0.087	7,385	198,717	99,359
2021	115,073	43,310	0.075	7,385	198,717	99,359
2022	132,150	43,390	0.166	18,477	198,717	99,359
2023	143,271	43,292	0.166	20,813	198,717	99,359
2024	158,152	43,272	0.166	22,033	198,717	99,359
2025	168,006	43,395	0.166	23,532	198,717	99,359
2026	182,311	43,336	0.166	25,121	198,717	99,359
2027	191,855	43,578	0.166	26,191	198,717	99,359
2028	198,520	43,411	0.166	26,939	198,717	99,359

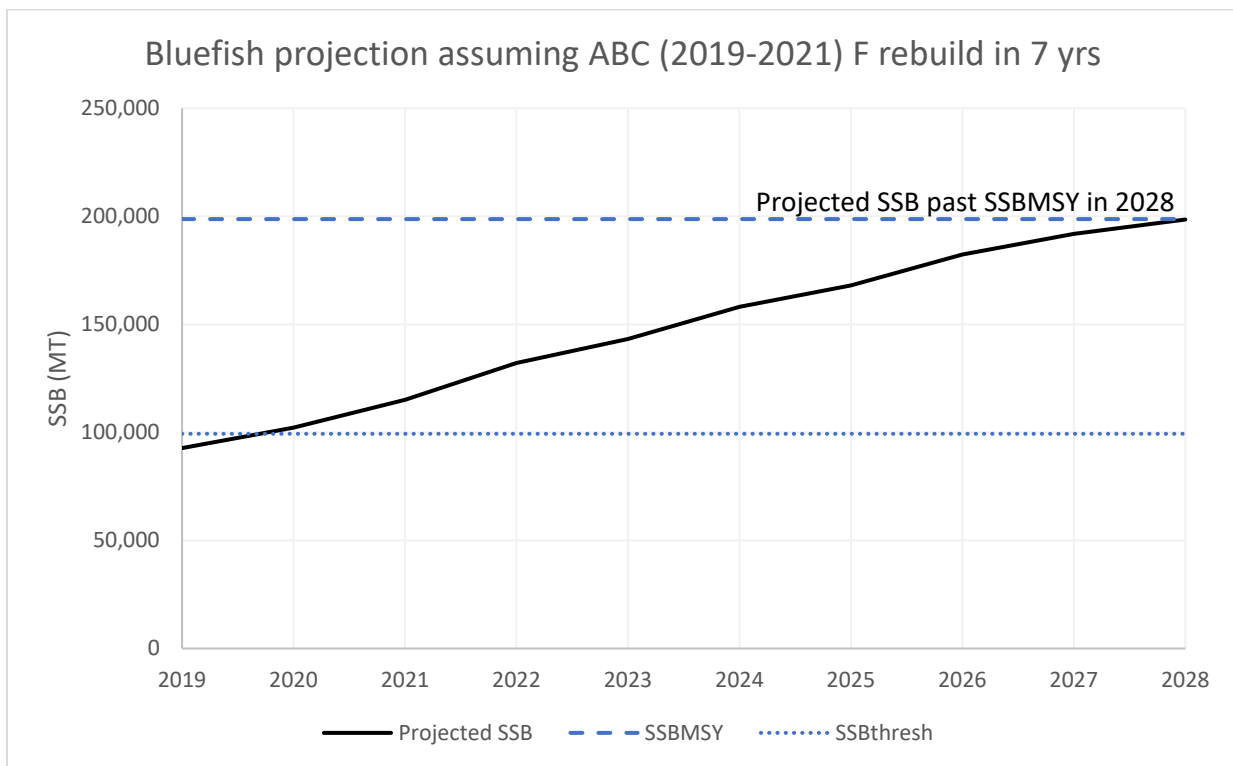


Figure 8. Constant 7-year F rebuilding projection.

5.1.4 Constant Harvest (Highest Catch): 10-year Rebuilding Plan

For this projection alternative, the FMAT requested a constant harvest approach with the highest possible catch to rebuild the stock in 10 years (**Table 21** and **Figure 9**). This projection rebuilds the stock by end of year 2031 (10-year rebuilding plan). *This alternative requires an adjustment to the Council risk policy for this rebuilding plan only because the catches are higher than those described under the P* approach.*

Table 21. Constant harvest rebuilding projection using the highest catch to rebuild over 10-years.

Year	SSB (MT)	Recruits (000s)	F	Catch (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	92,732	43,262	0.280	22,614	198,717	99,359
2020	102,174	43,402	0.087	7,385	198,717	99,359
2021	115,012	43,304	0.075	7,385	198,717	99,359
2022	128,975	43,389	0.231	25,094	198,717	99,359
2023	133,420	43,274	0.215	25,094	198,717	99,359
2024	142,065	43,462	0.209	25,094	198,717	99,359
2025	147,216	43,235	0.200	25,094	198,717	99,359
2026	158,145	43,367	0.188	25,094	198,717	99,359
2027	166,971	43,488	0.180	25,094	198,717	99,359
2028	175,055	43,425	0.173	25,094	198,717	99,359
2029	183,301	43,561	0.166	25,094	198,717	99,359
2030	191,143	43,300	0.160	25,094	198,717	99,359
2031	198,717	43,326	0.154	25,094	198,717	99,359

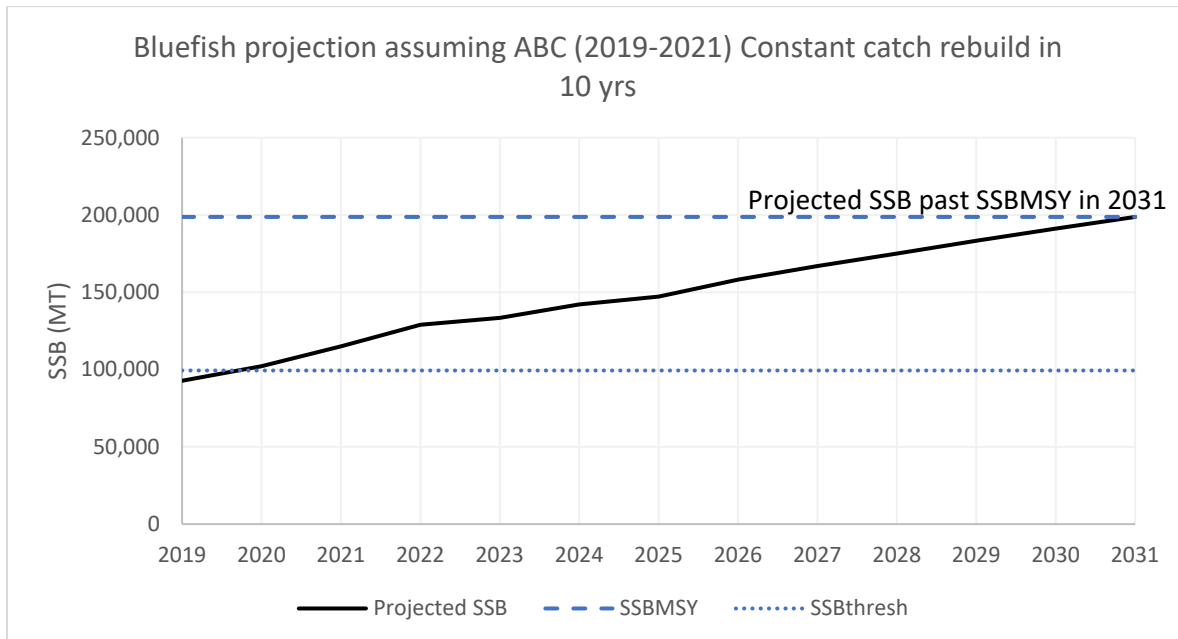


Figure 9. Constant harvest rebuilding projection using the highest catch to over 10-years.

5.1.5 P* Approach (Council Risk Policy): 5-year Rebuilding Plan

For this projection alternative, the FMAT requested using the Council’s risk policy to rebuild the stock (Table 22 and Figure 10). This projection rebuilds the stock by end of year 2026 (5-year rebuilding plan).

Table 22. Rebuilding projection based on P* using the Council’s risk policy to rebuild over 5-years.

Year	OFL Total Catch (MT)	ABC Total Catch (MT)	ABC F	ABC Pstar	ABC SSB (MT)	SSBMSY (MT)	SSBthresh (MT)
2019	15,368	22,614	0.280	0.183	92,732	198,717	99,359
2020	16,212	7,385	0.087	0.207	102,174	198,717	99,359
2021	17,205	7,385	0.075	0.239	115,012	198,717	99,359
2022	20,237	11,222	0.098	0.291	135,586	198,717	99,359
2023	23,998	15,181	0.113	0.338	154,257	198,717	99,359
2024	26,408	18,653	0.127	0.394	176,619	198,717	99,359
2025	28,807	23,048	0.144	0.431	191,063	198,717	99,359
2026	30,848	26,677	0.157	0.450	207,619	198,717	99,359

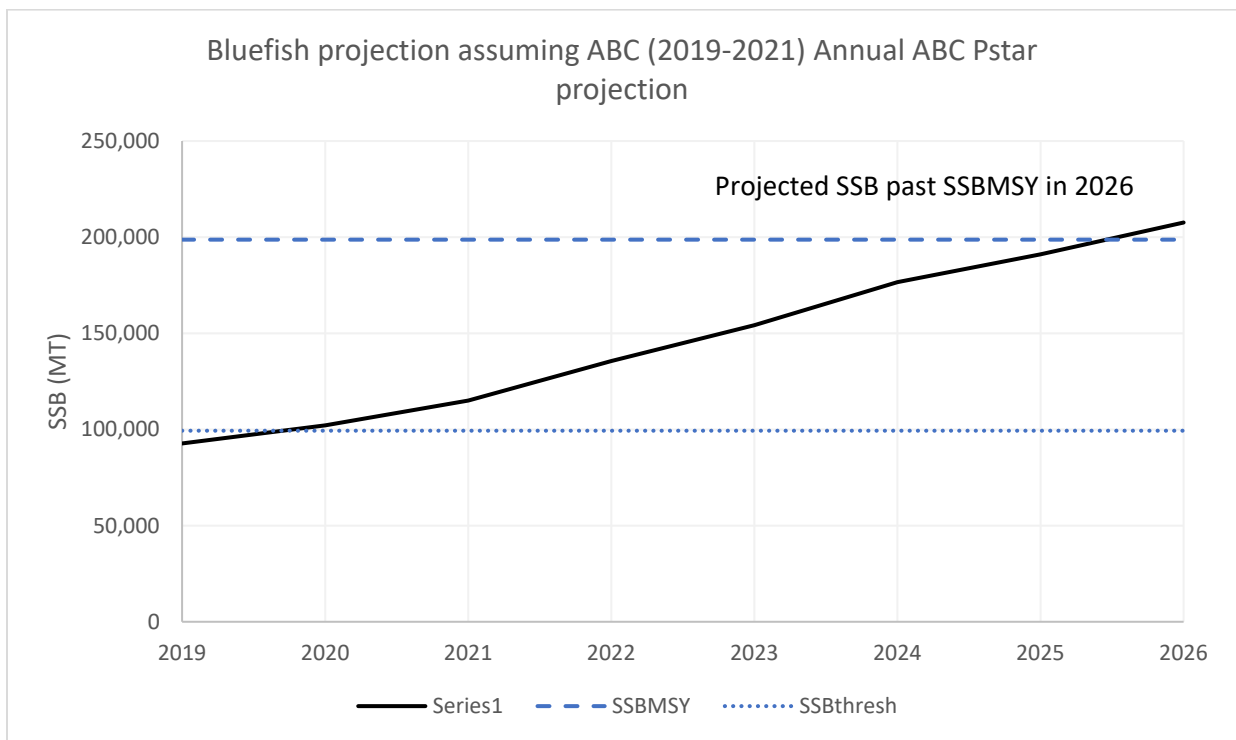


Figure 10. Rebuilding projection based on P* using the Council’s risk policy to rebuild over 5-years.

FMAT Comments/Recommendations on Issue 5

The FMAT reviewed all rebuilding alternatives and recommended removing alternatives 5.1.2 and 5.1.4 (Constant F – 10-years and Constant Harvest [Highest Catch] – 10-years), respectively. The FMAT recommended removal of these alternatives for several reasons. The Magnuson-Stevens Act (16 USC 1854) specifies that a rebuilding period selected for an overfished stock should be "as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities." Therefore, if multiple proposed rebuilding plans are relatively equivalent except for their duration, the National Marine Fisheries Service is mandated to select the shorter of the plans. Furthermore, the assessment scientist indicated that the projections are likely to change over time as data and assessment updates become available. Additionally, COVID-19 adds a lot of uncertainty to the projections (especially the longer ones) since future sampling may be rushed, performed to less than normal standards, and may lead to imputations that can harm projections 10 years out. Due to these changes, longer projections are not as reliable as shorter ones when considering more than 5 to 10 years out. Thus, the FMAT cautions the use of longer projections based on the last assessment and noted that the further you project, uncertainty propagates and can become very large. The FMAT believes that the remaining options represent a reasonable range of alternatives spanning constant harvest, fishing mortality, and p^* from 4 to 7 years.

6. Sector Transfers

6.1 No Action/Status Quo Sector Transfer Cap

The no action/status quo alternative keeps the existing sector transfer provisions in place as described in Amendment 1. In summary, recreational landings are projected each year through the specifications process and compared to the proposed RHL. If, based on this comparison, the recreational fishery was not anticipated to land their limit, the commercial quota could be set above the 17% sector allocation up to 10.5 million lb (4,763 mt); with the RHL adjusted down accordingly. The 10.5 million lb cap is the average commercial landings for the period 1990-1997. However, if the recreational landings were projected to reach the harvest limit for that year, then the commercial quota would be implemented without the sector transfer. NOAA Fisheries then has the ability to adjust the transfer total in March/April once the prior year of recreational landings is finalized.

6.1.1-6.1.3 Sector Transfer Cap Alternatives

Under this alternative, a transfer cap is defined as a fixed percentage of the ABC (**Table 23**). This approach allows quota transfers to scale with biomass. Unlike the provisions described in the status quo option, transfers could still occur even when the commercial quota is above 10.5 million pounds. See **Table 24** for a list of recreational to commercial sector transfers from 2000 to 2019.

Through the supplemental scoping process, it became clear many recreational stakeholders are not supportive of transfers from the recreational to commercial sector. Many comments indicated concern about the effect of transfers on the abundance of fish available to the recreational sector. As such, it may be useful to develop criteria tied to stock status for when sector transfers are

prohibited. For example, it may be beneficial to prohibit transfers until the stock has been rebuilt. A less stringent option could be the prohibition of transfers while the stock is below the threshold.

Table 23. Proposed transfer caps for sector-based transfers.

Alternatives	Transfer Cap
6.1	No Action/Status Quo
6.1.1	5% of the ABC
6.1.2	10% of the ABC
6.1.3	15% of the ABC

Table 24. Sector transfer amounts in million lbs.

Year	Sector Transfer Amount
2000	0
2001	3.150 million lbs
2002	5.933 million lbs
2003	4.161 million lbs
2004	5.085 million lbs
2005	5.254 million lbs
2006	5.367 million lbs
2007	4.780 million lbs
2008	4.088 million lbs
2009	4.838 million lbs
2010	5.387 million lbs
2011	4.772 million lbs
2012	5.052 million lbs
2013	4.686 million lbs
2014	3.340 million lbs
2015	1.579 million lbs
2016	1.577 million lbs
2017	5.033 million lbs
2018	3.535 million lbs
2019	4.000 million lbs

6.2 No Action/Status Quo Bi-Directional Sector Transfer

This alternative would maintain the unidirectional sector transfer where landings can only be transferred from the recreational sector to the commercial sector.

6.2.1 Bi-Directional Sector Transfers

Under this proposed transfer alternative, the Council/Board would have the ability to recommend that landings be transferred between the recreational and commercial sectors. The need for a sector transfer would be assessed annually through the specifications process at the annual August meeting. Prior to the meeting, the Monitoring Committee would develop a projection of next

year’s landings for both the recreational and the commercial sectors using key considerations such as landings in prior years, changes in management measures (recreational sector: bag limit, season, min size; commercial sector: trip limit, season, quota), trends in fishery effort, and changes in abundance and biomass levels. These projected commercial and recreational landings would be compared to the initial proposed sector landings limits for the upcoming fishing year. If, based on this comparison, the recreational fishery is not anticipated to land its limit, the Council/Board can recommend that a portion of the RHL be transferred to the commercial fishery up to a maximum of (5, 10, or 15% – TBD)% of the ABC. Conversely, if the commercial fishery is not anticipated to land its limit, the Council/Board can recommend that a portion of the commercial quota be transferred to the recreational fishery up to a maximum of (5, 10, or 15% – TBD)% of the ABC. If both sectors are projected to achieve or underachieve their respective catch limits for that year, then no transfer is recommended.

Under the current plan, NOAA Fisheries implements specifications in January for the new fishing year following the August meeting. Once preliminary prior year MRIP estimates are available in February, NOAA Fisheries compares the estimate of recreational landings for the previous year to the RHL to make any necessary adjustments before finalizing the amount of quota transferred. The adjustment notice with final specifications is usually published in March/April. This process could be continued, except instead of only projecting recreational landings, both commercial and recreational landings from the previous year would be projected to inform any adjustments to the transfer between the commercial and recreational sectors, should the Council/Board approve bi-directional transfers. **Table 25** below outlines when a transfer could occur as well in which direction quota would be transferred.

Table 25. Proposed guidelines for bi-directional transfers across sectors.

Scenario	Commercial Sector	Recreational Sector	Outcome
1	Projected to achieve quota	Projected to achieve RHL	No transfer
2	Projected to achieve quota	Projected to not achieve RHL	Transfer to comm
3	Projected to not achieve quota	Projected to achieve RHL	Transfer to rec
4	Projected to not achieve quota	Projected to not achieve RHL	No transfer

FMAT Comments/Recommendations on Issue 6

Transfer Cap

The FMAT recommends removing alternatives 6.1.1 (5% of the ABC) and 6.1.3 (15% of the ABC) from further consideration. Under the 5-year council risk policy p* approach, the ABC is projected to equal approximately 59 million lbs (26,677 metric tons) in 2026, the terminal year when the stock is considered rebuilt. Assuming that the SSB and ABC is sustained at this level, a transfer cap of 10% of the ABC would equal approximately 5.9 million lbs. **Table 24** demonstrates that transfers from the recreational sector to the commercial sector never exceeded 5.93 million lbs from 2000 to 2019. The FMAT noted this provides justification for removing alternative 6.1.3, which would allow much larger transfers to occur in a rebuilt fishery. Similarly, the FMAT noted that a transfer cap of 5% of the ABC, resulting in approximately a 3 million lbs cap when the

fishery is rebuilt, would unnecessarily restrict the transfer process when comparing historical values.

Bi-Directional Sector Transfers

The FMAT agreed that the option for bi-directional transfers should remain in the amendment for public comment. However, the FMAT cautioned that transfers from the commercial to recreational fishery could be problematic for individual states. For example, even when coastwide commercial landings are not projected to achieve the quota, it is likely that several states would still harvest their state's share. In this example, states that typically utilize their full quotas would be harmed by a sector transfer. This would be an important consideration during the specifications process.

7. Management Uncertainty

This alternative set is available to potentially alter the bluefish flowchart. Specifically, the proposed flowchart created sector specific ACLs that allow for management uncertainty to be accounted for within each sector.

7.1 No Action/Status Quo

The no action/status quo alternative keeps the existing management uncertainty provisions in place as described in Amendment 1 (**Figure 11**).

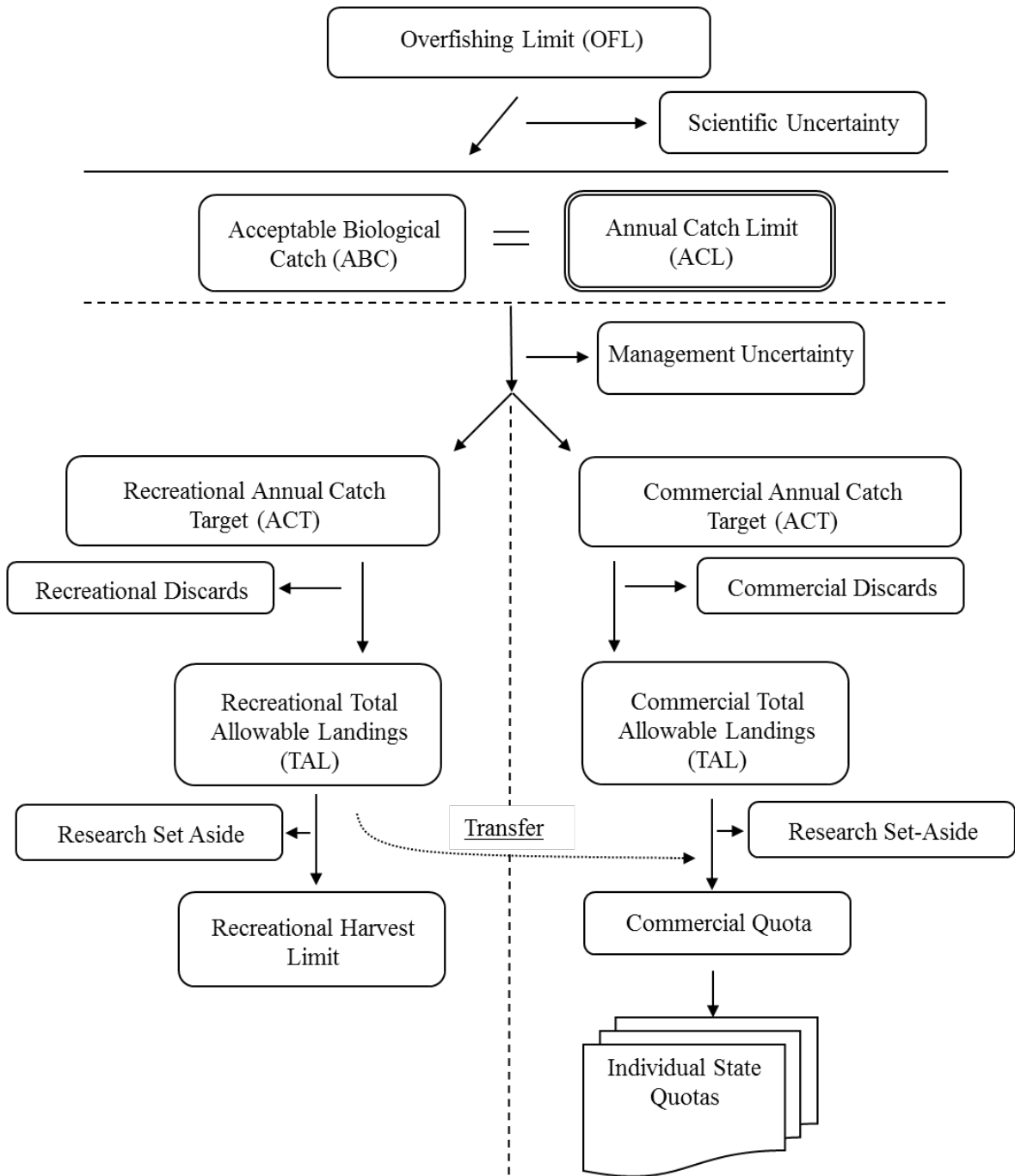


Figure 11. Current bluefish flow chart representing a reduction for management uncertainty prior to the sector split.

7.1.1 Post Sector-Split Alternative

Under this alternative, the ABC is allocated between two sector-specific ACLs and management uncertainty is accounted for within each sector (**Figure 12**).

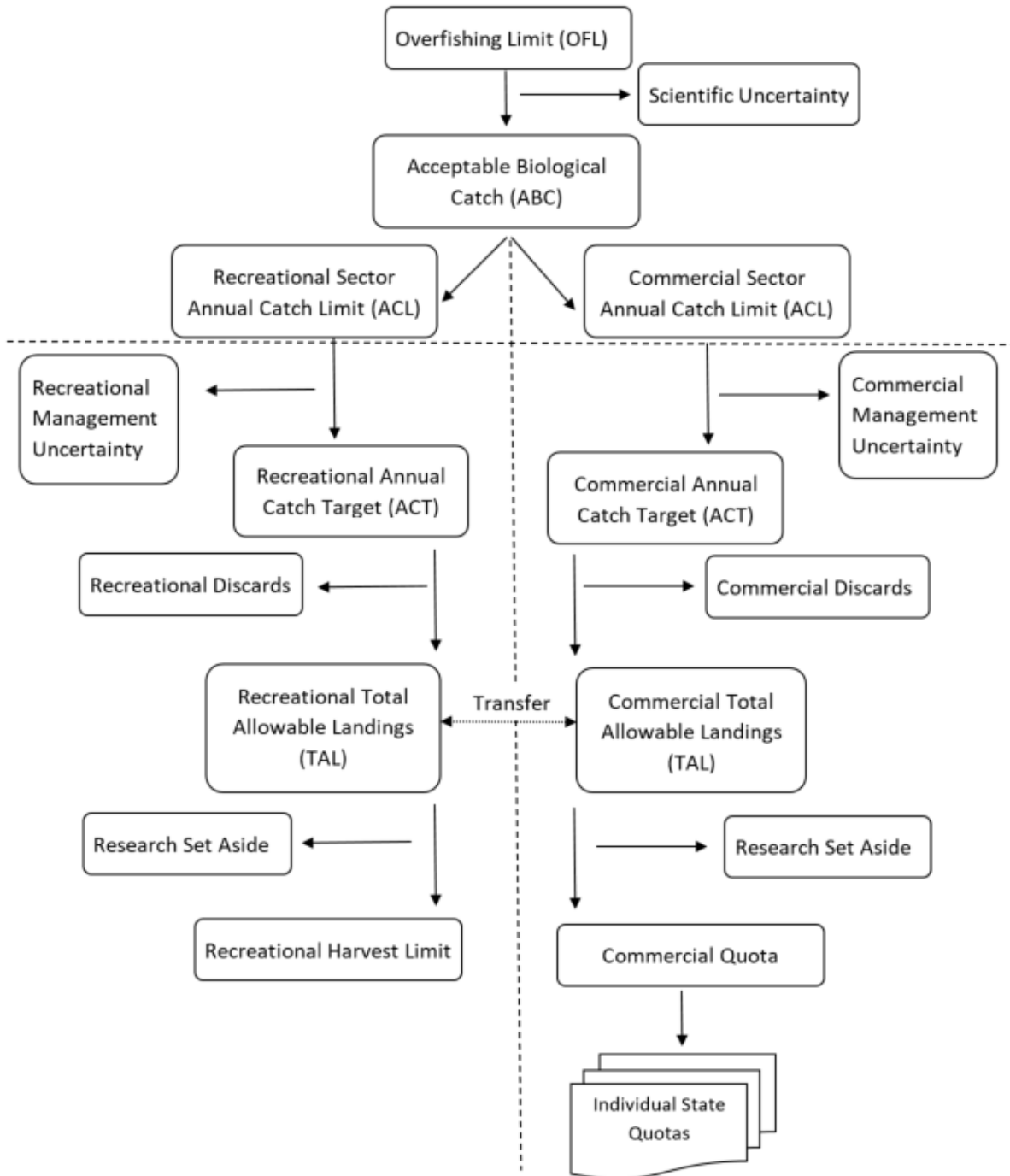


Figure 12. Proposed bluefish flow chart including sector specific management uncertainty.

FMAT Comments/Recommendations on Issue 7

The FMAT reviewed the management uncertainty alternative set that would revise the bluefish flowchart and recommended this be included in the public hearing document.

8. De minimis Status

Under the Commission's Fishery Management Plan, states which land less than 0.1% of the coastwide commercial landings in the year prior are exempt from fishery independent monitoring requirements for the following year. However, the federal plan does not require states to submit fishery independent monitoring reports, and as such has no *de minimis* provision.

8.1 No Action/Status Quo

Under this alternative, *de minimis* status would remain excluded from the Bluefish Amendment maintaining status quo for both the Commission and Federal plan.

8.1.1 De minimis (ASMFC only) Alternative

This alternative expands upon the Commission's *de minimis* provision. During scoping, Georgia DNR proposed that a state's three-year average of combined recreational and commercial landings compared against coastwide landings for the same period with a 1% threshold would be used to determine status. A *de minimis* determination would relieve a state from having to adopt commercial and recreational fishery regulations in addition to the existing exemption of the requirement to conduct fishery independent monitoring.

This alternative does complicate coastwide management of bluefish in that it poses additional challenges from an enforcement perspective and potential unforeseen challenges from a catch-accounting perspective. From an enforcement perspective, anglers will need to be cognizant of the differing regulations between state and federal waters, as well as differing regulations when crossing state lines. However, these concerns are already at play when states implement recreational measures within state lines under the Commission's conservation equivalency policy that differ from the coastwide measures. From a catch accounting perspective, the proposed *de minimis* provision would reduce a state's accountability for its recreational harvest. Currently, the plan ensures that all states are held accountable by adjusting recreational measures to ensure coastwide recreational catch does not exceed the RHL. A state that meets the *de minimis* criteria would not be held accountable in the same way, which raises questions about fairness and equity across state user groups.

FMAT Comments/Recommendations on Issue 8

The FMAT reviewed the *de minimis* alternative set and recommended this be included in the public hearing document.



Bluefish Allocation and Rebuilding Amendment - Action Plan

(Updated as of September 2020)

Amendment Goal

The goal of this amendment is to review and possibly revise the allocation between the commercial and recreational fisheries and the commercial allocations to the states. This action is needed to rebuild the bluefish stock, avoid overages, achieve optimum yield, prevent overfishing, and reduce the need for quota transfers off the U.S. east coast.

Fishery Management Action Team

The Council will form a team of technical experts, known as a Fishery Management Action Team (FMAT) to develop and analyze management alternatives for this amendment. The FMAT is led by Council staff and includes management partners from the National Marine Fisheries Service (NMFS) Greater Atlantic Regional Fisheries Office (GARFO), the Northeast Fisheries Science Center (NEFSC), the Southeast Fishery Management Council (SAFMC), and the Atlantic States Marine Fisheries Commission (ASMFC). The FMAT will work with other experts to address specific issues, as needed.

FMAT Membership

Name	Role/Expertise	Agency
Matthew Seeley	FMAT Chair	MAFMC
Danielle Palmer	Protected Resources	NMFS GARFO
David Stevenson	Habitat Conservation	NMFS GARFO
Cynthia Ferrio	Sustainable Fisheries	NMFS GARFO
Ashleigh McCord	NEPA	NMFS GARFO
Tony Wood	Population Dynamics	NEFSC
Matthew Cutler	Social Sciences	NEFSC
Samantha Werner	Economist	NEFSC
Dustin Colson Leaning	Plan Coordinator	ASMFC
Mike Celestino	Bluefish Technical Committee	NJDFW

Applicable Laws

Magnuson-Stevens Act	Yes
National Environmental Policy Act	Yes – will require an Environmental Assessment or Environmental Impact Statement
Administrative Procedure Act	Yes
Regulatory Flexibility Act	Yes
Paperwork Reduction Act	Possibly; depends on data collection needs
Coastal Zone Management Act	Possibly; depends on effects of the action on the resources of the coastal states in the management unit
Endangered Species Act	Possibly; level of consultation will depend on the actions taken
E.O. 12866 (Regulatory Planning and Review)	Yes
E.O. 12630 (Takings)	Possibly; legal review will confirm
E.O. 13123 (Federalism)	Possibly; legal review will confirm
E.O. 13771 (Reducing Regulation and Controlling)	Possibly; legal review will confirm
Essential Fish Habitat	Possibly
Social Impact Analysis	Possibly
Information Quality Act	Yes

Expected Document

Acronym	NEPA Analysis	Requirements
EA	Environmental Assessment	NEPA applies, no scoping required, public hearings required under MSA
EIS	Environmental Impact Statement	NEPA applies, scoping required, public hearings required

Draft Timeline for Amendment Development and Implementation

Task Description	Date (subject to change)
Initiation and request of FMAT participants	December 2017
Formation of FMAT	January 2018
Initial FMAT discussion	March 2018
ASMFC meeting - review scoping plan and document	May 2018
Scoping hearings / scoping comment period	June-July 2018
Council Meeting - review scoping comments and FMAT, Advisory Panel (AP), and Monitoring Committee recommendations; discuss next steps	August 2018
AP Meeting - review amendment goals and objectives, FMAT recommendations, develop recommendations for alternatives; any amendment issues?	July 2019
FMAT Meeting – review comments and develop draft alternatives	August 2019
Joint Council and Board Meeting – discuss incorporating rebuilding and review the issues to be covered in the Amendment	October 2019
Joint Council and Board Meeting – approve supplemental scoping document for additional scoping hearings	December 2019
Supplemental scoping hearings / scoping comment period	February-March 2020
FMAT Meeting – review comments and provide recommendations for the scope of the action	April 2020
Joint Council & Board Meeting - review scoping comments and FMAT recommendations; identify potential alternatives to consider	May 2020
FMAT Meeting – develop draft alternatives	May 2020
AP Meeting – provide recommendations on draft alternatives	June 2020
Joint Bluefish Committee and Board Meeting - review and refine draft alternatives	June 2020
FMAT Meeting – refine draft alternatives for the August Joint Council Board Meeting	July 2020
Joint Council & Board Meeting – review and refine draft alternatives	August 2020
FMAT Meeting – finalize draft alternatives for the October Joint Council Board Meeting	September 2020
Joint Council & Board Meeting – review and approve alternatives for public hearing document	October 2020

Development of public hearing document and hearing schedule	October 2020-January 2021
Joint Council & Board Meeting – approve public hearing document	February 2021
Public hearings	March/April 2021
AP Meeting - recommendations for final action	March/April 2021
Bluefish Committee Meeting - recommendations for final action	Spring 2021
Joint Council & Board Meeting - final action	May/June 2021
Submission of draft EA/EIS to GARFO	Summer 2021
Draft EA/EIS revisions and resubmission	Summer/Fall 2021
Rulemaking (proposed rule)	Fall 2021
Rulemaking (final rule)	Winter 2021



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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Recreational Management Reform Initiative

During their October 2020 joint meeting, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission’s Policy Board (Board) will discuss next steps for the Recreational Reform Initiative. This initiative addresses all four jointly managed recreational species (i.e., summer flounder, scup, black sea bass, and bluefish).

The following topics have been considered for potential inclusion in this initiative. These topics are described in more detail in the briefing materials behind this tab. The Council and Board should discuss which topics are the highest priority for further development and should consider initiating a framework/addendum or amendment to address the highest priority topics.

Council staff recommend prioritization of topics 1, 2, 3, and 5 below for development through a joint framework/addendum. Other topics may require more extensive consideration and analysis and could be pursued through a longer-term management action.

Potential Topics for the Recreational Reform Initiative

- 1) Better incorporate MRIP uncertainty into management (see document 1 below)
- 2) Develop guidelines for maintaining status quo measures (see document 1 below)
- 3) Develop a process for setting multi-year measures (see document 1 below)
- 4) Consider improvements to process used to make changes to state and federal waters management measures (see document 1 below)
- 5) Consider changes to the timing of federal waters measures recommendations (see document 1 below)
- 6) Recreational sector separation (see document 2 below)
- 7) Recreational catch accounting (see document 2 below)
- 8) Recreational accountability (see document 2 below)
- 9) Harvest control rule proposed by 6 recreational organizations (see document 2 below)

Items Behind This Tab

- 1) Draft outline of the Recreational Reform Initiative developed by the Recreational Reform Steering Committee

- 2) Staff memo dated September 25, 2020 on topics removed from other amendments which may be considered through the Recreational Reform Initiative
- 3) Staff memo dated July 27, 2020 on which potential options currently under consideration could likely be pursued through an FMP framework/addendum and which would likely require an FMP amendment
- 4) Summary of July 14, 2020 Recreational Reform Steering Committee call
- 5) Summary of May 28, 2020 Monitoring Committee discussion of the Recreational Reform Initiative
- 6) Additional comments on Harvest Control Rule from Adam Nowalsky

Recreational Management Reform

Joint initiative of the Mid-Atlantic Fishery Management Council (MAFMC), Atlantic States Marine Fisheries Commission (ASMFC), and the NOAA Fisheries Greater Atlantic Regional Fisheries Office (GARFO) addressing recreational management of black sea bass, summer flounder, scup, and bluefish

Draft initiative outline developed by the Recreational Management Reform Steering Committee
This document is intended for discussion purposes by the Monitoring and Technical Committees.
It has not been approved by the MAFMC and ASMFC for other purposes.

4/27/2020

Goal/Vision

- **Stability** in recreational management measures (bag/size/season)
- **Flexibility** in the management process
- **Accessibility** aligned with availability/stock status*

* This component of the goal/vision is meant to address the perception from some stakeholders that management measures are not aligned with stock status (e.g., restrictive black sea bass measures when spawning stock biomass is more than double the target level). The intent is not to circumvent the requirement to constrain recreational catch to the annual catch limit, nor is the intent to change the current method for deriving catch and landings limits as defined in the fishery management plans (FMPs).

Objective 1: Better incorporate uncertainty in the MRIP data into the management process

- This is not a standalone objective. Everything listed below could be used in conjunction with all other objectives.
- Adopt a process for **identifying and smoothing outlier estimates**, to be applied to both high and low outlier estimates as appropriate. Develop a standard, repeatable process to be used each year. The Monitoring and Technical Committees would maintain the discretion to deviate from this process if they provide justification for doing so. The process currently used by the Monitoring and Technical Committees is not codified in the FMPs; therefore, it is not anticipated that a change to this method would require an FMP framework/addendum or amendment. However, it would be beneficial to include an approved process in a technical statement of organization, practices, and procedures (SOPPs) document for the development of recreational measures.
 - *Status*: Starting in 2018, the Summer Flounder, Scup, Black Sea Bass Technical Committee recommended using the Modified Thompson's Tau approach to identify outlier MRIP estimates. They used two different approaches to smooth two black sea bass outlier estimates (i.e., New York 2016 wave 6 for all modes and New Jersey 2017 wave 3 private/rental mode only). They agreed that the appropriate smoothing method may vary on a case by case basis.
 - *Potential next steps*: Establish a process to be used for all four species to identify and smooth outlier MRIP estimates, as appropriate. The process described above

for black sea bass could be used for this purpose. Discuss whether smoothed estimates should be used in other parts of the process, in addition to determining if changes to recreational management measures are needed (e.g., ACL evaluation and discards, should low estimates also be smoothed). Guidelines for how these smoothed estimates will be used should also be established. Monitoring/Technical Committee input would be beneficial.

- *Suggested immediate next step*: Task the Monitoring/Technical Committees with developing a draft process for identifying and smoothing outlier MRIP estimates for all four species.
- Use an **envelope of uncertainty approach** when determining if changes in recreational management measures are needed. Under this approach, a certain range above and below the projected harvest estimate (e.g., based on percent standard error) would be defined to be compared against the upcoming year's RHL. If the RHL falls within the pre-defined range above and below the projected harvest estimate, then no changes would be made to management measures. The intent is to develop a standard, repeatable, and transparent process to be used each year. The Monitoring and Technical Committees would maintain the discretion to deviate from this process if they saw sufficient justification to do so. The process currently used by the Monitoring and Technical Committees to determine if changes are needed to recreational management measures is not codified in the FMPs; therefore, a change to this method may not require an FMP framework/addendum or amendment. However, it would be beneficial to include an approved process in a technical SOPPs document for the development of recreational measures.
- *Status*: The 2013 Omnibus Recreational Accountability Measures Amendment considered a similar approach using confidence intervals around catch estimates to determine if the recreational ACL had been exceeded; however, that amendment proposed using only the lower bound of the confidence interval, rather than the upper and lower bounds. For this reason, that portion of the amendment was disapproved by NOAA Fisheries. In some recent years, the Monitoring and Technical Committees have made arguments for maintaining *status quo* measures for black sea bass and summer flounder based on percent standard error (PSE) values associated with MRIP estimates.
 - *Potential next steps*: Work with the Monitoring/Technical Committee to define the most appropriate confidence interval around the projected harvest estimate for comparison against the upcoming year's RHL (e.g., +/- 1 PSE). Technical analysis (e.g., simulations) may also be needed to evaluate the impacts of maintaining *status quo* recreational management measures when small to moderate restrictions or liberalizations would otherwise be required or allowed.
 - *Suggested immediate next step*: Task the Monitoring/Technical Committee with developing recommendations for this approach.
- **Evaluate the pros and cons of using preliminary current year data** combined with data from a single previous year, or multiple previous years, to project harvest for comparison against the upcoming year's RHL. The FMPs do not currently prescribe which data should be used to develop recreational management measures, beyond requiring use of the best scientific information available. If the Council and Board wish to provide guidance to the Monitoring and Technical Committees on which data to use, or if they wish to place restrictions on the use of certain types of data (e.g., preliminary

current year data), then a technical SOPPS document or an FMP framework/addendum or amendment may be necessary

- *Status:* Each year MAFMC staff develop initial projections of recreational harvest of summer flounder, scup, and black sea bass in the current year to compare against the upcoming year's RHL. These projections combine preliminary current year harvest estimates through wave 4 with the proportion of harvest by wave in one or more past years. The Monitoring Committee provides recommendations on the appropriate methodology in any given year and the data used (e.g., one or multiple previous years) varies on a case by case basis. A different process is used for bluefish. Historically, expected bluefish recreational harvest has been evaluated when considering a recreational to commercial transfer. Expected bluefish harvest was typically based on the previous year or a multiple year average and did not account for preliminary current year data. These different methodologies were developed based on Monitoring Committee guidance and are not prescribed in the FMP. The Recreational Reform Steering Committee has suggested that consideration should be given to the appropriateness of using preliminary current year data and data from one or multiple previous years. No progress has been made on this topic beyond preliminary discussions at the steering committee level.
- *Potential next steps:* Evaluate the various methodologies that have been used to project recreational harvest of the four species in the past and how this intersects with other changes under consideration (e.g., setting measures for two years at a time, objective 3). Discuss if changes should be considered and if analysis is needed.
- *Suggested immediate next step:* Seek Monitoring/Technical Committee input on whether changes to the current process for calculating expected recreational harvest are needed.

Objective 2: Develop guidelines for maintaining *status quo* measures

- This is not a standalone objective. It could be used in conjunction with objectives 1, 3 (with the exception of the interim year, as described under objective 3), and 5.
- Develop a process for considering both recreational harvest data (all considerations under objective 1 could apply) and multiple stock status metrics (biomass, fishing mortality, recruitment) when deciding if measures should remain unchanged. For example, poor or declining stock status indicators could require changes when *status quo* would otherwise be preferred. Depending on the specific changes under consideration, an FMP framework/addendum or amendment may be necessary, or a technical SOPPS document could be developed.
 - *Status:* The steering committee drafted a preliminary example which was discussed at the [October 2019 joint Council/Board meeting](#).
 - *Potential next steps:* Recommend draft guidelines for maintaining *status quo* measures and consider which, if any, types of technical analysis are needed to consider the potential impacts. Consider if socioeconomic factors (e.g., trends in fishing effort) should also be included in these guidelines.
 - *Suggested immediate next step:* Seek Monitoring/Technical Committee input on the initial draft guidelines developed by the steering committee.

Objective 3: Develop process for setting multi-year recreational management measures

- This is not a standalone objective. It could be used in conjunction with objectives 1, 2, and 5.
- Develop a process for setting recreational management measures for two years at a time with a commitment to making no changes in the interim year. This would include not reacting to new data that would otherwise allow for liberalizations or require restrictions. Objective 2 (control rules for maintaining *status quo* measures) would not apply in the interim year. Everything under objective 1 (incorporate uncertainty in the MRIP data) could also apply here. An FMP framework/addendum may be needed to make this change. For example, changes to the current accountability measure regulations may be needed. Additional discussions with GARFO are needed regarding Magnuson-Stevens Act requirements.
 - *Status:* The steering committee drafted a preliminary example process which was discussed at the [October 2019 joint Council/Board meeting](#). Previous steering committee discussions indicated that this is a high priority topic and it is central to the draft mission statement previously proposed by the steering committee (i.e., allow for more regulatory stability and flexibility in the recreational management programs for summer flounder, scup, black sea bass, and bluefish by revising the current annual timeframe for evaluating fishery performance and setting recreational specifications to a new multi-year process.)
 - *Potential next steps:* Consider if changes are needed to the draft timeline included in the [October 2019 joint meeting briefing materials](#). Further evaluate how the Magnuson-Stevens Act requirement for annual evaluation of annual catch limit overages and accountability would factor into this approach.
 - *Suggested immediate next step:* Work with GARFO to determine if there are major impediments to this potential change based on Magnuson-Stevens Act requirements.

Objective 4: Consider improvements to the process used to make changes to state and federal recreational management measures

- This is not a standalone objective. It could be used in conjunction with objectives 1, 3 (with the exception of the interim year, as described under objective 3), and 5.
- The steering committee has discussed various considerations related to maintaining *status quo* management measures; however, they have not discussed the process that should be used when changes are needed. In recent years, federal waters measures have been adjusted at the coastwide level and state waters measures have been adjusted at the state/region and wave level. Improvements to various aspects of the current process for changing measures may warrant consideration. Topics which could be addressed could include state by state versus regional management measures, the federal conservation equivalency process, guidelines for using MRIP data at coastwide/regional/state/wave/mode levels, using data sources other than MRIP, and other topics. Depending on the specific changes desired, this may require an FMP framework/addendum or amendment.
 - *Status:* Not currently identified as a priority by the steering committee.

- *Suggested immediate next step*: Clarify if this is a priority for the Council and Board and which specific topics should be addressed.

Objective 5: Consider making recommendations for federal waters recreational management measures earlier in the year

- This is not a standalone objective. Everything listed below could be used in conjunction with all other objectives.
- The steering committee has discussed the idea of recommending federal waters recreational management measures in August or October rather than December of each year (or every other year, see objective 3). The current process of recommending federal waters measures for the upcoming year in December can pose challenges for implementing needed changes in both federal and state waters in a timely and coordinated manner. It also limits how far in advance for-hire businesses can plan their trips for the upcoming year. In recent years, changes to the federal recreational measures for summer flounder, scup, and/or black sea bass have not been implemented until May-July of the year in which the changes are needed. Adopting recommendations for federal waters measures in August or October could allow for changes to be implemented earlier in the year; however, fewer data on current year fishery performance would be available for consideration. If there is a significant change in the process to establish measures, an FMP framework/addendum or amendment may be necessary.
 - *Status*: Has been identified by steering committee as a potential priority, but the pros and cons have not yet been given thorough consideration.
 - *Potential next steps*: Evaluate the pros and cons of this change and how it would intersect with other changes under consideration (e.g., setting measures for two years at a time, objective 3). Discuss if analysis is needed. Monitoring/Technical Committee input could be beneficial, especially regarding implications related to the timing of data availability.
 - *Suggested immediate next step*: Seek Monitoring/Technical Committee input on the pros and cons of recommending federal waters recreational management measures for the following year in August, October, or December of the current year.

Steering Committee membership (in alphabetical order):

Julia Beaty (MAFMC staff)
 Joe Cimino (MAFMC Summer Flounder, Scup, Black Sea Bass Committee Vice Chair)
 Justin Davis (ASMFC Summer Flounder, Scup, Black Sea Bass Management Board Vice Chair)
 Tony DiLernia (MAFMC Summer Flounder, Scup, Black Sea Bass Committee Chair)
 Emily Keiley (GARFO staff)
 Toni Kerns (ASMFC staff)
 Mike Luisi (MAFMC chair)
 Adam Nowalsky (ASMFC Summer Flounder, Scup, Black Sea Bass Management Board Chair)
 Mike Ruccio (GARFO staff)
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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Topics Removed from Other Amendments Which May Be Considered Through the Recreational Reform Initiative

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission's) Summer, Flounder, Scup, and Black Sea Bass Management Board and Bluefish Management Board (Boards) are developing two Fishery Management Plan (FMP) amendments to consider revising the allocations of total allowable catch or landings between the commercial and recreational sectors for summer flounder, scup, black sea bass, and bluefish. The Council and Boards agreed to remove four topics from further development through these amendments but expressed a desire to potentially further develop them through the Recreational Reform Initiative. These topics include recreational sector separation, a harvest control rule proposed by six recreational organizations, recreational accountability, and recreational catch accounting. This document briefly summarizes those four topics and relevant input from the Fishery Management Action Teams (FMAT) and Recreational management Reform Steering Committee.

1. Recreational Sector Separation

Recreational sector separation would entail managing the for-hire components of the recreational fisheries separately from anglers fishing on private or rental boats and from shore. The Council and Boards agreed that this topic should not be further considered through the ongoing amendments for summer flounder, scup, black sea bass, and bluefish and instead should be considered separately in a comprehensive manner for all four species.

Recreational sector separation could be considered through either separate allocations to the for-hire sector and private anglers (including anglers fishing from private or rental boats and from shore), or as separate management measures for the two recreational sectors without a fully separate allocation, as summarized below.

1.1 Separate sub-allocation of the recreational annual catch limit or recreational harvest limit to for-hire sector and private anglers

This option would specify within the FMP a separate percentage allocation to the for-hire recreational sector of either the ABC, the recreational ACL, or the RHL. There are several potential ways in which a separate allocation could be created for the for-hire sector as described

below and illustrated in **Figure 1**. The differences between some options are nuanced, and the pros and cons of each approach should be further explored.

- A. Current FMPs:** The ABC is divided into the recreational ACL and the commercial ACL for summer flounder, scup, and black sea bass and the recreational ACT and commercial ACT for bluefish. Projected recreational discards are removed from the recreational ACL/ACT to derive the RHL. Both the private and for-hire recreational sectors are held to a single combined ACL/ACT and RHL, and performance evaluation and AMs are applied to both fisheries together.
- B. Separate ACLs:** The ABC would be allocated three ways: into a private recreational ACL, a for-hire recreational ACL, and a commercial ACL. This method would require development of these three allocations, as well as separate AMs for the private recreational and for-hire sectors.
- C. Recreational Sub-ACLs:** The ABC would remain divided into the recreational ACL and commercial ACL based on the allocation approach defined in the FMPs. The recreational ACL would be further allocated into private and for-hire sub-ACLs. This method would also require development of separate AMs for the private recreational and for-hire sectors.
- D. Separate RHLs:** The private recreational and for-hire sectors would remain managed under a single recreational ACL. Separate RHLs could be developed for each sector for the purposes of determining management measures. Accountability under this option would likely be partially at the RHL level (in the sense that performance to the RHL would likely be evaluated for each recreational sector for the purposes of adjusting future management measures to constrain harvest to the RHL) and partially at the ACL level (in the sense that AMs must be established at the ACL level to trigger a response if the entire recreational ACL is exceeded). This approach includes separate management of harvest only; dead discards are not included in RHLs and would be accounted for at the ACL level.

Note that any approach creating separate ACLs or sub-ACLs would require the development of corresponding separate AMs.

In addition to determining where sector separation occurs, consideration should be given to which data sources and methods to use for sector allocation, including:

- How to use MRIP and/or VTR data in the allocations;
- Whether to allocate using catch (landings and dead discards) or harvest (related to the question of whether to allocate at the ACL or RHL level);
- Whether to allocate in numbers of fish or pounds;
- The base years or other method of evaluating this recreational sector data.

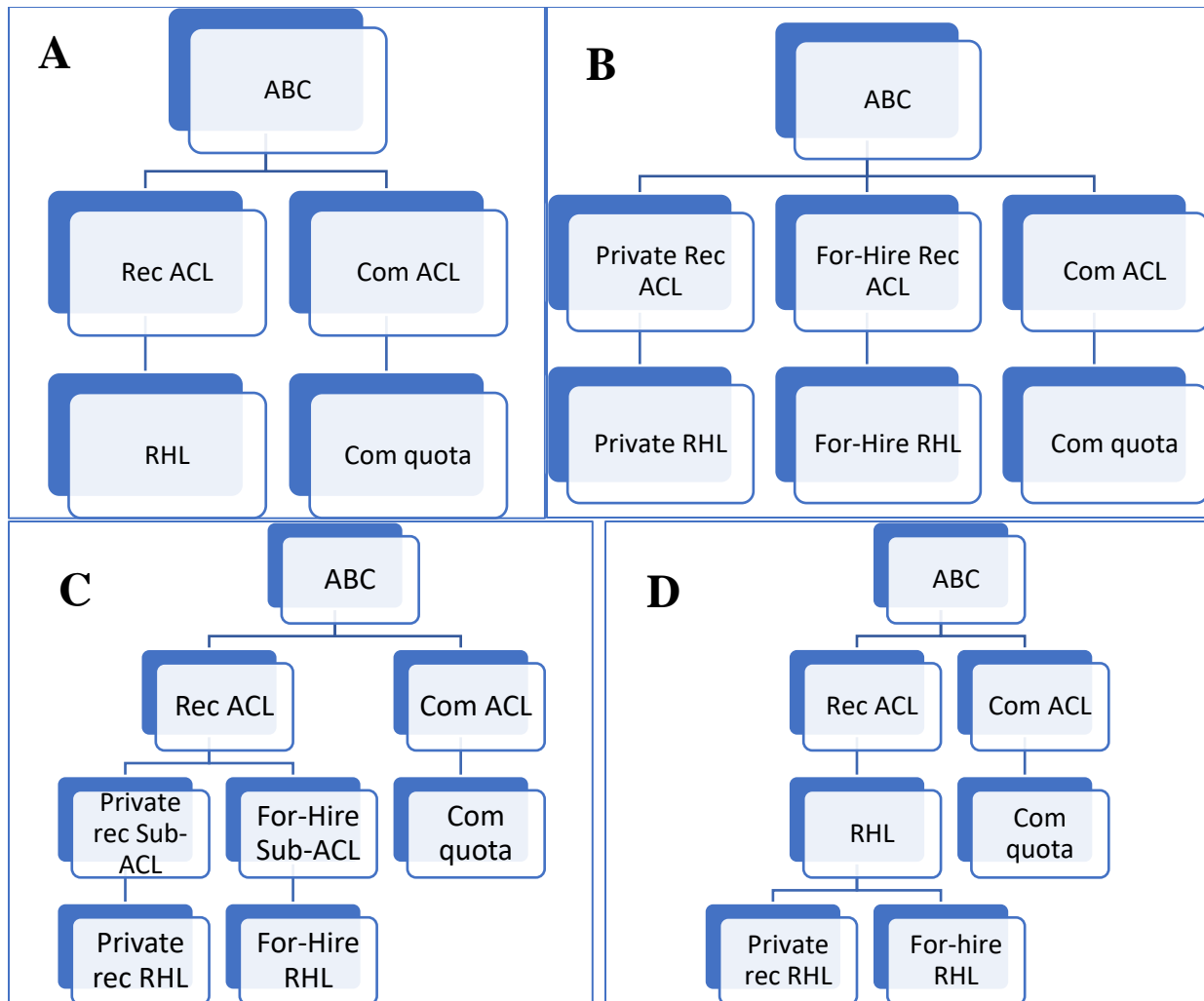


Figure 1: Conceptual flowcharts of potential recreational sector separation configurations including A) status quo, B) separate ACL allocations, C) Sub-ACL allocations, and D) separate RHLs. Note that this figure is based on the current management program for summer flounder, scup, and black sea bass. As noted above, the commercial/recreational allocation for bluefish currently occurs at the ACT level.

Many scoping comments expressed an interest in sector separation to better make use of for-hire VTR data, which some stakeholders perceive as being more accurate due to for-hire reporting requirements. However, there are also some concerns about the accuracy of self-reported VTR data. VTR data also include only estimates of numbers of fish, not weight, so incorporating VTR data into allocations would require either establishing allocations based on numbers of fish, developing a method to estimate weights of harvested and discarded fish from the numbers reported on VTRs, or adding a required data field for weight to VTRs. It is important to note that most states do not require that state-only permitted vessels are not required to submit VTRs and data from these groups would be missing if VTRs were used to determine for-hire allocations.

On average, for-hire VTR harvest is lower than the MRIP for-hire estimates since 1995 (**Figure 2**).

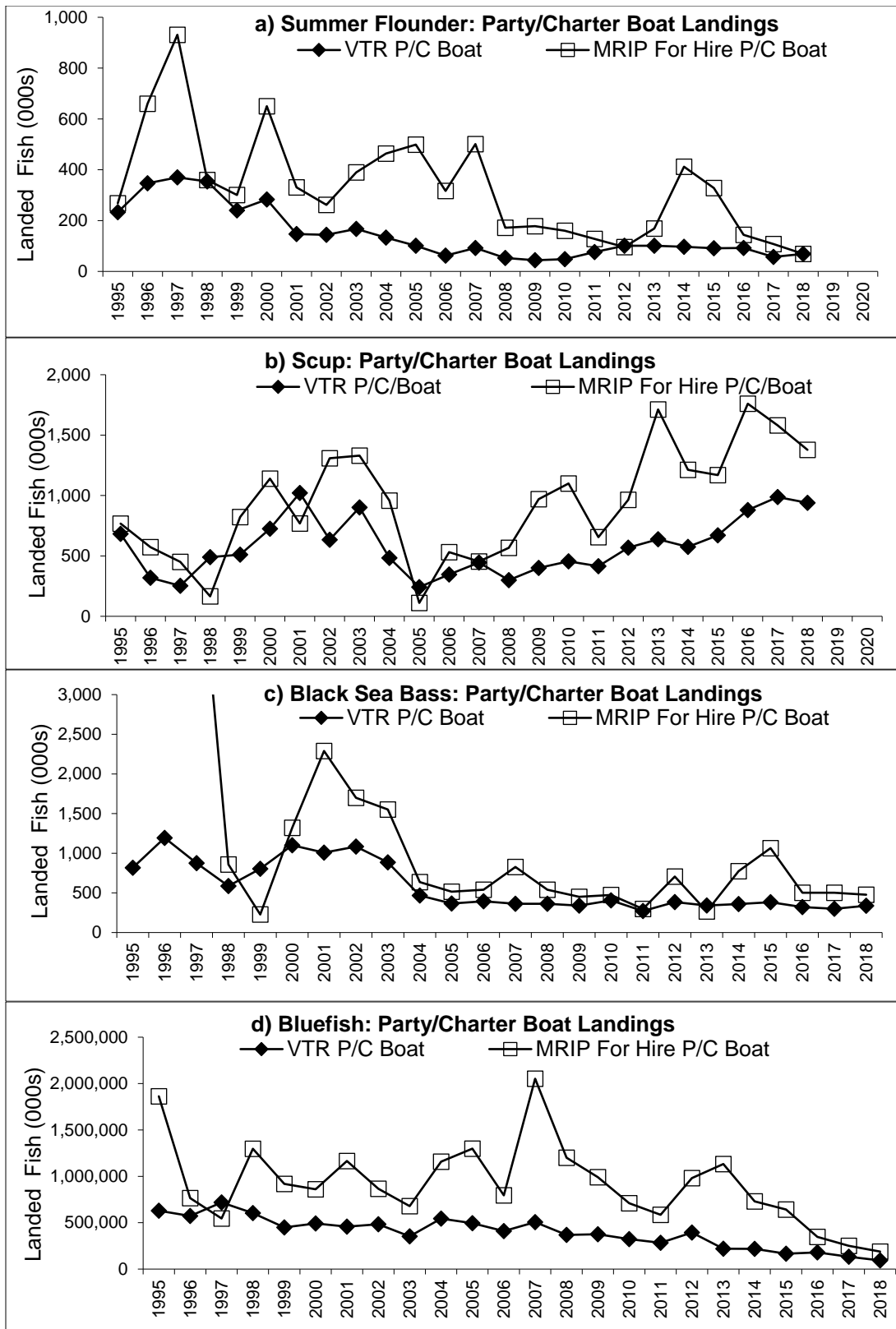


Figure 2: Comparison of federal party/charter vessel VTR estimates of landed fish vs. MRIP estimated for-hire landed fish, 1995-2018, for a) summer flounder, b) scup, c) black sea bass, and d) bluefish.

The FMAT for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment noted that there is currently some "borrowing" of data between the private angler and for-hire fisheries in the estimation process. There are two separate effort surveys for each recreational sector that go into MRIP. For-hire estimation by MRIP incorporates some information from VTRs. While separate estimates for each recreational sector could serve as a basis for managing them separately, if the sectors were split completely, improvements would likely be needed in the sampling efforts for both sectors. Currently, much of the for-hire sampling for summer flounder, scup, and black sea bass is focused on discards, which provides information on the length frequency distribution of discarded fish that contributes to the discard estimates for the entire recreational fishery. For landings, many of the measurements come from private anglers, which influences the mean weight of landed fish used to generate recreational harvest estimates. Private angler and for-hire data streams may both need additional biological sampling under sector separation.

Separate dead discard estimates in weight are not currently available by recreational sector. Technically it would be possible to generate these estimates, but it may not be entirely defensible. Calculation of sub-allocation options at this stage could use total dead catch in numbers of fish (for catch-based allocations for separate ACLs or sub-ACLs), or total harvest in numbers of fish or pounds (for harvest-based allocations for separate RHLs). Example allocations based on harvest in numbers of fish are shown in **Table 1**.

The existing commercial/recreational allocation base years from the 1980s and 1990s may not be appropriate given the changes in for-hire and private recreational effort and catch since that time. Since sector-separation has never been in place for these species, recent data is likely more appropriate to determine the allocations between these fisheries.

Table 1: Example approaches for calculating separate sub-allocations to private and for-hire sectors, based on harvest in numbers of fish.

Species	Approach	Years	Private	For-Hire
Summer Flounder	5 most recent years through 2018	2014-2018	94%	6%
	10 most recent years through 2018	2009-2018	95%	5%
	15 most recent years through 2018	2004-2018	95%	5%
Scup	5 most recent years through 2018	2014-2018	89%	11%
	10 most recent years through 2018	2009-2018	88%	12%
	15 most recent years through 2018	2004-2018	88%	12%
Black Sea Bass	5 most recent years through 2018	2014-2018	86%	14%
	10 most recent years through 2018	2009-2018	87%	13%
	15 most recent years through 2018	2004-2018	82%	18%
Bluefish	5 most recent years through 2018	2014-2018	97%	3%
	10 most recent years through 2018	2009-2018	96%	4%
	15 most recent years through 2018	2004-2018	95%	5%

The Summer Flounder, Scup, Black Sea Bass Commercial/Recreational Allocation FMAT recommends consideration of the sub-ACL approach to recreational sector separation. Sector separation at the catch limit level (vs. landings limit level) is consistent with the FMAT's support for moving toward catch-based allocations. The FMAT noted that separation at the RHL level allows for separate management measures but does not represent full separation and would need to include joint accountability to a combined recreational ACL, which could be problematic if one sector contributes more to an overage than the other. Separation at the catch limit level allows for consideration of different discard trends by sector and for the full separation of accountability for overages.

The FMAT recommended the sub-ACL approach over ACL separation, first because it would allow the commercial/recreational allocation to be determined separately from the for-hire/private allocation, rather than creating a three-way allocation that would complicate the other decisions in this document. In addition, it maintains a structure which acknowledges that both the for-hire and private/shore modes are recreational fisheries and still may require shared management strategies at some level, as reflected in many scoping comments. It also maintains a greater separation between the commercial and recreational fisheries than separation at the ACL level.

The FMAT noted that the uncertainty in the recreational data by mode is an important consideration when determining if separate management by recreational sector is appropriate. Because the uncertainty in the MRIP data increases as it is broken down by wave, state, and mode, the Council and Board will need to consider whether the benefits of sector separation outweigh the drawback of increased uncertainty when using mode-specific data to set and evaluate catch limits and recreational measures.

MRIP percent standard errors (PSEs) were queried for the North and Mid-Atlantic regions (Maine through Virginia) for all for-hire modes combined and private/rental/shore modes combined. Table 2 demonstrates that the PSEs do increase for the for-hire mode when separated from the combined mode data. PSEs for the private/shore modes combined are slightly higher than those for all modes combined, but there is less of a difference from the combined modes PSEs given that private and shore estimates account for most of the harvest for these three species. PSEs also vary by species, with summer flounder having the lowest PSEs, followed by black sea bass and scup.

The FMAT considered the possible use of VTR data in these options (see the allocation options discussion below), but ultimately recommended against incorporating VTR data into these alternatives. The FMAT notes that there are not comparable estimates of uncertainty for VTR data because these data are not an expanded estimate associated with sampling uncertainty.

Table 2: MRIP PSEs for total catch in numbers of fish, North and Mid-Atlantic (Maine through Virginia) for summer flounder, scup, and black sea bass by mode, 2004-2019.

Year	Summer Flounder			Scup			Black Sea Bass		
	All For-Hire	Private/Shore	All modes	All For-Hire	Private/Shore	All modes	All For-Hire	Private/Shore	All modes
2004	13.8	5.9	5.7	28.4	15.4	14.4	19.7	16.3	14.2
2005	11.3	7.4	7.1	27.1	19.6	19.1	16.9	12.4	11
2006	16.8	8	7.7	18.1	16.1	15.4	15.3	11.1	9.8
2007	10.9	6.7	6.4	16.5	15.3	14.3	10.4	10.9	9.2
2008	10.1	6.5	6.3	16.8	11.6	10.5	9.5	15.7	14.4
2009	10.1	5.8	5.7	15.1	11.5	10.6	10.3	10.2	9.3
2010	12.6	6.8	6.7	24.8	10.4	9.8	12.0	23.2	21.8
2011	9.3	6.6	6.5	18.8	15.2	14.5	12.4	10.5	9.7
2012	9.9	11.3	11.1	16.4	12.3	11.3	10.1	9.7	9.1
2013	12.9	8.2	8.0	7.9	11.7	10.6	6.8	9	8.5
2014	18.2	8.6	8.2	17.8	10.5	9.7	13.5	8.4	7.6
2015	12.2	8	7.7	14.0	15.6	14.8	12.0	10.2	9.1
2016	8.5	8	7.8	10.6	10.5	10.0	7.1	8.5	7.9
2017	13.5	10.7	10.4	8.0	13.5	12.7	6.6	11.8	11.1
2018	8.7	6.6	6.4	9.2	8.6	8.1	9.6	6.3	5.7
2019	12.6	8.8	8.6	10.7	6.7	6.1	8.7	6.5	5.9
AVG	11.9	7.7	7.4	16.6	13.2	12.4	11.5	11.6	10.6

1.2 Create policy for development of separate management measures for for-hire vs. private rental (without separate allocation of ACL or RHL)

Rather than creating a separate allocation for the for-hire sector, a degree of sector separation could be achieved by setting different management measures to account for the differing priorities of and data sets for-hire vs. private anglers.

Separate management measures by recreational sector are currently used in the bluefish fishery in federal and state waters and in a limited manner in state waters for scup and black sea bass. In the states of New York and north, there are different scup possession limits to the for-hire sector at certain times of year. For black sea bass, Connecticut has a different possession limit for for-hire vessels during a certain time of the year.

It would be beneficial to develop a policy on how sector-specific measures should be developed, how accountability should be evaluated, and how adjustments are applied to both recreational sectors. Creating a framework for future sector-specific adjustments would reduce confusion when future adjustments are necessary for one or both recreational sectors, and would clarify the process for stakeholders and managers, reducing process uncertainty and increasing transparency when setting recreational measures each year.

Creating a policy for separate measures for for-hire vs private anglers does not require an amendment. This could possibly be done through specifications, or if not, through a framework/addendum process. If separate allocations were created as described under section 1.1, describing the process for setting separate recreational measures would be an inherent part of that option.

2. Harvest Control Rule

Six recreational organizations submitted a proposal called a Harvest Control Rule through the scoping period for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment.¹ This was originally put forward as an allocation proposal; however, after considering the advice of the FMAT and the Recreational Reform Steering Committee, the Council and Board agreed that the allocation aspects of this proposal are not feasible under the current requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). They expressed an interest in further considering the aspects of the proposal which address the setting of recreational management measures, considered independently from the commercial/recreational allocation aspects of the proposal. Specifically, the Recreational Reform Steering Committee agreed that the proposal's recommendation for pre-determined recreational management measure "steps" associated with different biomass levels warrants further consideration and could be feasible under current MSA and FMP requirements.

The conceptual idea behind this part of the proposal is to determine a range of pre-defined management measures which would be used at different biomass levels. The upper and lower bounds of these management measure "steps" would be informed by input from recreational stakeholders. The proposal states that the most liberal step would include the most liberal set of measures preferred by anglers when biomass is high. The proposal suggests that beyond a certain level, anglers do not "need" a smaller minimum fish size, higher bag limit, or longer open season. The most conservative step would include the most restrictive measures which could be tolerated without major loss of businesses such as bait and tackle shops and party/charter businesses. The proposal also suggests that there is a point at which making measures more restrictive no longer has a conservation benefit. These ideas are largely conceptual at this stage and have not been fully developed or analyzed. Fully developing these concepts would require extensive stakeholder input to meet the intent of the proposal.

The FMAT discussed that the MSA requires that ACLs be set each year in pounds or numbers of fish, and that each ACL have associated AMs to prevent exceeding the ACL and to trigger a management response if an ACL is exceeded. The FMP must define a way to measure total removals (total dead catch) and to evaluate performance relative to an ACL set in numbers of fish or pounds. This does not mean it's impossible to start with preferred measures and translate those into catch, but managers are still required to demonstrate that catch associated with the measures is not expected to exceed the ACL. Ultimately, managers must demonstrate that measures are expected to prevent overfishing.

To comply with these MSA requirements, each set of recreational measures should be clearly associated with projected catch levels. One concern with this approach is the feasibility of accurately predicting catch levels at each of the management measure steps. Even when recreational measures have remained similar across years, the resulting MRIP estimates can vary significantly. Total dead catch can vary substantially with external factors such as changing total and regional availability, recruitment events, or changing effort based on factors other than management measures. For these reasons, the Recreational Reform Steering Committee emphasized that the pre-determined management measure steps, especially the upper and lower bounds, would be a starting point for consideration and would need to be regularly re-evaluated.

¹ The full proposal can be found on pages 147-152 of this document: https://www.mafmc.org/s/Tab02_SFSBSB-ComRec-Allocation-Amd_2020-05.pdf.

The Council and Board could not commit to maintaining recreational management measures within a pre-determined range; however, the range could be put forward as a target.

The proposal suggests that higher levels of biomass correspond to higher levels of access, which could allow for liberalization of recreational measures. However, under current recreational fishery capacity, effort and catch can scale with biomass and availability, in some cases even under highly restrictive recreational measures. This complicates the assumption that recreational measures can liberalize when biomass increases. In addition, changes in the recreational fishery over time (e.g., general effort increases, species-specific effort changes, legal/policy constraints, and improved technology for targeting fish) further complicate the assumption that past recreational measures can be used to estimate expected future catch.

The FMAT for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment and the Recreational Management Reform Steering Committee agreed that there are benefits to the transparency provided by a tiered management approach with clearly defined measures at each level. Additional exploration of the relationship between the effectiveness of recreational management measures and estimated biomass would also be worthwhile.

While some suggestions have been made for how to analyze and determine optimal recreational access levels and associated management measures at each biomass threshold, expertise outside of the FMAT and Council/Board would likely be required.

3. Recreational Accountability

The theme of increased recreational accountability was prominent in many scoping comments for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. For example, some comments suggested more frequent recreational overage paybacks and bringing back recreational in-season closures.

At their June joint meeting, the Council and Board discussed this issue and agreed to remove it from the Commercial/Recreational Allocation Amendment. However, they also passed a motion to “consider initiating an action by the end of 2020 to develop a recreational accountability and accounting joint action.”

Current Recreational Accountability Measures

The following section summarizes the current recreational AMs for summer flounder, scup, and black sea bass. The bluefish AMs are similar but contain additional provisions for when the ACL was exceeded and a recreational to commercial transfer occurred.

Federal regulations include proactive AMs to prevent the recreational ACL from being exceeded and reactive AMs to respond when an ACL is exceeded. Proactive recreational accountability measures include **adjusting management measures (bag limits, size limits, and season) for the upcoming fishing year** that are designed to prevent the RHL and ACL from being exceeded. The NMFS Regional Administrator no longer has in-season closure authority for the recreational fishery if the RHL or ACL is expected to be exceeded. For reactive AMs, **paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the magnitude of the overage**, as described below. ACL overages in the recreational fishery are evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational dead 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 ($B < \frac{1}{2} B_{MSY}$), 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 ($\frac{1}{2} B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:
 - 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 the conditions that precipitated the overage.
 - If the Acceptable Biological Catch ($ABC = \text{recreational ACL} + \text{commercial ACL}$) 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 in this case is: $(\text{overage amount}) * (B_{msy} - B) / \frac{1}{2} B_{msy}$.
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 the conditions that precipitated the overage.

The current AMs were established through the Omnibus Recreational Accountability Amendment (adopted in 2013). This amendment removed the in-season closure authority held by the NMFS regional administrator, which allowed for coastwide closures of the recreational fisheries if they were projected to exceed the RHL based on preliminary data. This amendment also increased the flexibility in evaluation and response to recreational overages given the uncertainty associated with the MRIP data and tied overage responses to stock status as described above. Much of the rationale for the changes made through this amendment remains valid. For example, the timing of recreational data availability and the potential for revisions between preliminary and final estimates still pose challenges for in-season closures.

4. Recreational catch accounting alternatives

The theme of improved recreational catch accounting was prominent in many scoping comments for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. Examples of changes to recreational catch accounting recommended through scoping are listed below. The intent behind these recommendations is to reduce uncertainty in the recreational data. It is worth noting that MRIP is currently considered the best scientific information available for the recreational fisheries and will continue to be used for stock assessments and catch limit evaluations for the foreseeable future. MRIP is a national-level program and the Council and Commission have a very limited ability to influence changes to the MRIP estimates.

At their June joint meeting, the Council and Board discussed this issue and agreed to remove it from the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. However, they also passed a motion to “consider initiating an action by the end of 2020 to develop a recreational accountability and accounting joint action.”

- **Mandatory private angler reporting:** Private angler reporting through smart phone apps has been explored in specific fisheries in other regions, and as of August 2020 is now required in this region for blueline tilefish. Consideration could be given to the feasibility of private angler reporting for summer flounder, scup, black sea bass, and bluefish given that these fisheries take place in state and federal waters, from shore and from private and for-hire vessels, and that there are millions of directed trips per year for each species (e.g., an estimated 8.7 angler trips for which summer flounder was the primary target, 2.7 million for which scup was the primary target, 1.4 million for which black sea bass was the primary target, and 5.3 million for which bluefish was the primary target in 2019). Given the scale of these recreational fisheries, mandatory private angler reporting may be a challenge to implement. Thorough consideration should be given to the potential levels of non-compliance and how this may impact the resulting data.
- **Tagging programs:** A few scoping comments suggested that anglers be issued tags for a specific number of fish each year. Tagging programs are used in some recreational fisheries, but they may be more appropriate for species with much lower harvest levels than summer flounder, scup, black sea bass, and bluefish. Consideration should be given to the pros and cons of moving forward with this approach compared to a traditional possession limit, especially considering the millions of participating anglers in the fisheries for these species. Ensuring that the program is fair and equitable is a challenge. For example, consideration would need to be given to who receives tags, how they are distributed, and how the program is administered.
- **Mandatory tournament reporting:** A few scoping comments recommended mandatory catch reporting for recreational fishing tournaments. During the May 2020 joint meeting, one Council/Board member questioned the value of mandatory reporting for tournaments given that tournament catch likely constitutes a very small percentage of total catch. An evaluation of summer flounder, scup, black sea bass, and bluefish catch in tournaments has not been performed and may not be possible given that there does not seem to be a central list of non-HMS tournaments. Recreational catch from tournaments for summer flounder, scup, black sea bass, and bluefish should be included in MRIP estimates but is not specifically designated as tournament catch.
- **Enhanced VTR requirements:** A few scoping comments recommended additional VTR requirements, such as requiring VTRs for for-hire vessels that do not have federal permits and reinstating “did not fish” reports for federal permit holders to better understand fishing effort.



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Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: July 27, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Recreational Reform Initiative - Topics Requiring an FMP Amendment vs. Framework/Addendum

During their June 2020 joint meeting, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) asked for clarification on which topics currently under consideration through the Recreational Reform Initiative, as well as topics removed from the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment could be pursued through an FMP framework/addendum and which would require a full FMP amendment.

The federal regulations describe the framework process and list the types of management changes which may be pursued through a framework action. The associated regulations for summer flounder are found at 50 CFR § 648.110 and are also included in the briefing materials for the August 6, 2020 joint meeting of the Council and the Board. The corresponding regulations for scup, black sea bass, and bluefish are very similar. These regulations list the types of management changes which may be considered through a framework as opposed to a full FMP amendment. Of note for the Recreational Reform Initiative and related discussions, the list of frameworkable items includes introduction of new accountability measures, permitting restrictions, recreational possession limits, recreational seasons, recreational harvest limits (RHLs), specifications quota setting process, any other recreational management measures, and any other measures currently included in the FMP.

It is important to emphasize that a framework may not always be appropriate even if the type of change falls within a category listed in the framework regulations. If the specific proposed action represents a significant departure from previously contemplated measures or otherwise introduces new concepts, an amendment may be more appropriate than a framework. This is expressly stated in the framework regulations for summer flounder, black sea bass, and bluefish.

The federal regulations and discussions with the NOAA Fisheries Greater Atlantic Regional Fisheries Office (GARFO) staff suggest that the following topics discussed through the Recreational Reform Initiative and/or the Commercial/Recreational Allocation Amendment

could potentially be considered through a joint FMP framework/addendum, depending on the details of the specific change considered:

- Everything listed in the Recreational Reform Initiative outline developed by the Steering Committee, including:¹
 - Adopting a standardized process for identifying and smoothing outlier MRIP estimates.
 - Using an “envelope of uncertainty” approach when determining if changes in recreational management measures are needed (i.e., if next year’s RHL falls within a pre-defined range above and below the projected harvest estimate, then no changes would be made to management measures).
 - Evaluating the pros and cons of using preliminary current year MRIP data.
 - Developing guidelines for maintaining status quo measures.
 - Setting recreational management measures for two years at a time with a commitment to making no changes in the interim year unless required due to poor stock status.
 - Considering improvements to the process used to make changes to state and federal recreational management measures.
 - Changing the timing of the recommendation for federal waters recreational management measures from December of the previous year to October or August.
- Changes to recreational accountability measures, such as changes to requirements for payback of overages and in-season closures (a topic removed from the Commercial/Recreational Allocation Amendment).
- The pre-determined management measure step approach described in the Harvest Control Rule proposal put forward by 6 recreational fishing organizations through scoping for the Commercial/Recreational Allocation Amendment.²
- Changes to the data reported through VTRs (depending on the specifics of the change), assuming no changes are made to who is required to submit VTRs.

The following topics discussed through the Recreational Reform Initiative and/or the Commercial/Recreational Allocation Amendment would likely require an FMP Amendment:

- Private angler reporting - This has not been previously contemplated through the FMPs for summer flounder, scup, black sea bass, and bluefish. In addition, if private angler reporting for these species were to be managed at the federal level, it would require private anglers to obtain federal permits.
- Tagging programs for the recreational fisheries - This would likely require an amendment for similar reasons to those described above for private angler reporting.
- Mandatory tournament reporting - This would likely require an amendment for similar reasons to those described above for private angler reporting.

¹ Some items in the Steering Committee outline may not require an FMP change, but could be pursued through an FMP framework/addendum if desired by the Council and Board. See the Steering Committee outline for more details (https://www.mafmc.org/s/2Rec_reform_outline_v6.pdf).

² See the summary of July 14, 2020 Steering Committee meeting for more information (available in the [briefing materials](#) for the August 6, 2020 joint meeting of the Council and Board).

- Requiring additional entities to submit federal VTRs. For example, requiring private anglers and/or for-hire vessels which only operate in state waters to submit VTRs under the joint FMP would likely require an amendment as this has not been previously contemplated through the FMP and it would represent a notable change from current reporting requirements.



Recreational Management Reform Initiative Steering Committee Meeting Summary

July 14, 2020

Steering Committee Attendees (in alphabetical order): Julia Beaty (MAFMC staff), Joe Cimino (MAFMC Summer Flounder, Scup, and Black Sea Bass Committee Vice Chair), Tony DiLernia (MAFMC Summer Flounder, Scup, and Black Sea Bass Committee Chair), Toni Kerns (ASMFC staff), Mike Luisi (MAFMC Chair), Adam Nowalsky (ASMFC Summer Flounder, Scup, and Black Sea Bass Board Chair), Mike Ruccio (GARFO staff), Caitlin Starks (ASMFC staff)

Background

The Recreational Management Reform Steering Committee met via teleconference to discuss next steps for the Recreational Management Reform Initiative. More information on this initiative is available at: <https://www.mafmc.org/actions/recreational-reform-initiative>.

Identifying and Smoothing Outlier MRIP Estimates

The Steering Committee briefly discussed their previous recommendation to develop a standardized process to identify and, if necessary, adjust (or “smooth”) outlier estimates from the Marine Recreational Information Program (MRIP).¹ They agreed that it would be appropriate for the Monitoring and Technical Committees to build off their past work and move forward with further developing this approach.

Harvest Control Rule Proposal

The Steering Committee discussed a proposal put forward by six recreational organizations through scoping for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment (see pages 147-152 of [this document](#) for the full proposal). This proposal, referred to as a “harvest control rule,” recommended defining recreational “allocation” not as a set percentage of a total catch limit, but as a specific combination of bag/size/season limits preferred by recreational fishermen in each state, which would become more restrictive when estimated biomass declines below the target level. The restrictions would occur in a pre-determined, stepwise manner. The commercial “allocation” would be the commercial quota preferred by the commercial industry when biomass is high and it would be reduced as biomass declines below the target level in proportion with the restrictions on the recreational fishery. This approach is largely conceptual at this stage and is not yet associated with specific proposed measures.

Based on the recommendations of the Fishery Management Action Team (FMAT), the Council and Board agreed not to further consider this proposal through the Commercial/Recreational

¹ See the draft initiative outline developed by the Steering Committee in April 2020 for more information: https://www.mafmc.org/s/2Rec_reform_outline_v6.pdf

Allocation Amendment; however, they expressed a desire to further evaluate certain aspects of it through other avenues. They agreed that the allocation aspects of the proposal are not feasible given current Magnuson-Stevens Act requirements. For example, the Magnuson-Stevens Act requires the use of annual catch limits set in pounds or numbers of fish. Management measures must be expected to prevent those limits from being exceeded. In addition, it is not clear how this approach would ensure that overfishing does not occur or how it would function if a specific fishing mortality target had to be achieved in a rebuilding scenario. For these reasons, it is not possible to define a recreational allocation as a preferred set of management measures independent from an annual catch limit.

The Recreational Reform Steering Committee agreed that the proposal's recommendation for pre-determined recreational management measure "steps" associated with different biomass levels warrants further consideration and could be feasible under current Magnuson-Stevens Act and FMP requirements. A few Steering Committee members asked if the management measure step approach would be desired by stakeholders if separated from the allocation aspects of the original proposal. The group generally agreed that pre-defined management measures at different biomass levels would provide an additional level of predictability to the management process, which would be beneficial to recreational fishery stakeholders.

One Steering Committee member suggested comparing past management measures to harvest as a starting point for determining which measures might be appropriate at each biomass level "step." Other Steering Committee members cautioned that harvest is impacted by many factors in addition to management measures, such as availability and fishing effort. As past experience managing these recreational fisheries has shown, it can be very difficult to predict future harvest under a given set of management measures even when focused only on the upcoming year. The intent of this approach is to provide stability and predictability by pre-determining management measures which could be used beyond just the upcoming year. One Steering Committee member also noted that, in addition to changes in biomass levels, the distribution of the stocks has changed over time, which would pose additional challenges for predicting future harvest based on the past performance of management measures, depending on the time frame of past measures examined. For these reasons, the Steering Committee agreed that any pre-determined measures would be a starting point for consideration and must be regularly re-evaluated.

The Steering Committee agreed that the proposal's suggestion of pre-defined upper and lower bounds for the most liberal and most restrictive measures could be retained; however, like the management measure steps, they would be a starting point for consideration and the Council and Board may have to use measures outside of those bounds in any given year. They agreed that extensive input from the recreational fishing community is needed to help define the preferred upper and lower bounds of management measures. As described by one Steering Committee member, the upper bound would represent the highest desired level of access and any liberalizations beyond that would not be beneficial to or "needed" by the recreational community. On the other hand, as described by this Steering Committee member, the most restrictive set of potential measures would be so restrictive that there may not be a conservation benefit to making them even more restrictive. They would also represent the most extreme restriction which could be tolerated without causing severe negative economic impacts such as widespread loss of businesses (e.g., for-hire vessels and bait and tackle shops). It is important to note that the desired

potential upper and lower bounds have not yet been determined or evaluated. It has not been determined if this concept will be feasible in practice.

All Steering Committee members agreed that further analysis should be done to evaluate the potential management measures which could be used at different biomass levels. This analysis may suggest that it is not appropriate to associate a predicted harvest level in years beyond the upcoming year with a given set of management measures. However, even if this is the case, it would still be beneficial to do the analysis to evaluate our ability (or inability) to predict future harvest.

Other Topics Removed from Commercial/Recreational Allocation Amendment

During their June 2020 joint meeting, the Council and Board passed a motion to “consider initiating an action by the end of 2020 to develop a recreational accountability and accounting joint action.”

The Steering Committee briefly discussed recreational accountability and accounting in relation to the Recreational Reform Initiative. They did not discuss these topics in detail as they felt that they are outside the formal mission and charge of this group.

Multiple Steering Committee members recommended that the Council and Board gain a better understanding of private angler reporting efforts in other regions before initiating an action to consider improvements to recreational catch accounting in this region. They agreed that it would be important to understand what has worked well in these other efforts, as well as the challenges and levels of compliance. In addition, the Council and Board have discussed if this topic may be more appropriately considered for all Council and Commission managed recreational species, rather than just a few species.

A few Steering Committee members said past discussions of recreational catch accounting and recreational accountability have sometimes confused the two subjects. A better understanding of the intent of the recommendations for considering changes to accountability measures (e.g., in-season closures, more frequent repayments of RHL overages) would be beneficial.

Role of Steering Committee

The Steering Committee agreed that they have fulfilled their mission and should disband. Further discussions of this action should occur at the level of the Board and the full Council or the Council’s committees. They recommended that the Council and Board initiate a management action such as a framework/addendum to further develop priority approaches considered through the Recreational Reform Initiative. Further development would follow the standard process with involvement by a technical group (e.g., an FMAT, the Monitoring and Technical Committees, or a different group), Council committees or the full Council and Board, as appropriate.

Next Steps

In summary, the Steering Committee recommended that the Council and Board initiate a management action to pursue priority topics and that a technical group (e.g., the Monitoring/Technical Committee or a separate group) move forward with further developing and

analyzing topics such as identifying and smoothing outlier MRIP estimates and the stepped approach to recreational management measures proposed through the Harvest Control Rule.



**Summer Flounder, Scup, and Black Sea Bass Monitoring Committee
Webinar Meeting
May 28, 2020
Partial Meeting Summary (Recreational Reform Initiative Only)**

Monitoring Committee Attendees: Julia Beaty (MAFMC staff), Peter Clarke (NJ DEP), Dustin Colson Leaning (ASMFC staff), Karson Coutré (MAFMC staff), Kiley Dancy (MAFMC staff), Steve Doctor (MD DNR), Emily Keiley (GARFO), Alexa Kretsch (VMRC), John Maniscalco (NY DEC), Lee Paramore (NC DMF), Caitlin Starks (ASFMC staff), Rachel Sysak (NY DEC), Mark Terceiro (NEFSC), Corinne Truesdale (RI DEM), Sam Truesdell (MA DMF), Greg Wojcik (CT DEP), Rich Wong (DNREC), Tony Wood (NEFSC)

Additional Attendees: Annie, Steve Cannizzo (NY RFFA), Mike Celestino (NJ DEP, Bluefish MC), Nicole Lengyel Costa (RI DEM, Bluefish MC), Maureen Davidson (NY DEC, Council/Board member), Greg DiDomenico (Lund's Fisheries), Tony DiLernia (Council member), Cynthia Ferrio (GARFO, Bluefish MC), James Fletcher (United National Fishermen's Association), Jeff Kaelin (Lund's Fisheries), Joseph Munyandorero (FL FWC, Bluefish MC), Adam Nowalsky (Council/Board member), Eric Reid (Council member), SRW, Mike Waine (ASA), Kate Wilke (Council member), Amy Zimney (SC DNR, Bluefish MC)

Meeting Summary

The Summer Flounder, Scup, and Black Sea Bass Monitoring Committee met via webinar on Thursday May 28, 2020 to discuss several topics. The Bluefish Monitoring Committee was invited to participate in the discussion of the Recreational Reform Initiative as this initiative also addresses bluefish.

Briefing materials considered by the Monitoring Committee are available at:
<https://www.mafmc.org/council-events/2020/sfsbsb-mc-may28>.

Note: This document summarizes only the Monitoring Committee's discussion of the Recreational Reform Initiative. A more complete summary addressing all topics discussed by the Monitoring Committee will be compiled at a later date.

Recreational Reform Initiative

Council staff summarized a draft outline of the Recreational Reform Initiative developed by the Recreational Reform Steering Committee. The Monitoring Committee was generally supportive of continued development of all approaches in the Steering Committee outline. Comments on each objective in the outline are summarized below.

Objective 1: Better incorporate uncertainty in the MRIP data into the management process

Objective 1 in the Steering Committee outline contains three specific suggestions for better considering uncertainty in the MRIP data. The first suggestion is to adopt a standardized process for identifying and smoothing outlier MRIP estimates to be applied to both high and low outliers. The Monitoring Committee agreed that it would be very beneficial to adopt such a process.

The group agreed that outliers could be identified using the Modified Thompson Tau approach used in the past for some black sea bass outliers, or other methods. One Monitoring Committee member said there are multiple potentially appropriate methods for identifying outliers and consideration should be given to which methods are most appropriate for different circumstances. For example, a multi-faceted approach could be considered. Another Monitoring Committee member said consideration should be given to the appropriate level at which the estimates are examined for outliers, for example, at the state/wave/mode/year level or the coastwide annual level.

MRIP estimates are used in many parts of the management process, including in the stock assessment, development of annual catch and landings limits, comparison of catch to the annual catch limit (ACL) to determine if accountability measures are triggered, and development of recreational management measures. To date, smoothed outliers have only been used in a few instances to develop recreational management measures for black sea bass. They have not been used for other purposes for summer flounder, scup, and black sea bass. For example, the smoothed black sea bass estimates for 2016 and 2017 were not used in the 2019 operational stock assessment due to concerns about the appropriateness of smoothing only two high estimates in recent years without examining the entire time series for both high and low outliers. Several Monitoring Committee members noted that this creates a potentially problematic disconnect with other parts of the management process. The group agreed that adoption of a standardized method for identifying and smoothing both high and low outliers would increase the likelihood of being able to use smoothed estimates in all parts of the management process. The group agreed that it would be very important to identify and smooth both high and low outliers and to have a standardized process.

One Monitoring Committee member noted that even if smoothed estimates are used in management, no change would be made to the official MRIP estimates. The group agreed that it could be beneficial to have MRIP staff provide feedback on the process to identify and smooth outliers to help increase buy-in for using smoothed estimates in multiple parts of the management process. The intent would not be to have MRIP staff approve the smoothed estimates, but rather to provide feedback on the appropriateness of any methods developed.

The second specific suggestion under objective 1 is to use an “envelope of uncertainty” approach to determine if changes to recreational management measures are needed. Under this approach, a certain range above and below the projected harvest estimate (e.g., based on percent standard error) would be defined for comparison against the upcoming year’s recreational harvest limit (RHL). If the RHL falls within the pre-defined range above and below the projected harvest estimate, then no changes would be made to management measures. The Monitoring Committee agreed that this is worth pursuing and that further discussion is needed on defining the appropriate envelope. One Monitoring Committee member noted that the group has struggled to define similar metrics in the past and asked if the Council and Board would determine how to define the envelope or if it would be a Monitoring Committee decision. One Monitoring

Committee member said that, given their technical expertise, it may be more appropriate for the Monitoring Committee to recommend the appropriate envelope, rather than the Council and Board.

The third specific suggestion under objective 1 is to consider the appropriateness of using preliminary current year MRIP data in the management process. The Monitoring Committee agreed that this may warrant further consideration. One member noted that MRIP has changed the timing of when they incorporate for-hire data into their estimates. In the past, preliminary estimates were sometimes released without the incorporation of for-hire vessel trip report (VTR) data. VTR data were incorporated into the final estimates. Under the current process, VTRs are incorporated into the preliminary estimates, so the differences between the preliminary and final estimates may not be as great as they were in the past. He recommended an evaluation of the scale of the change from preliminary to final estimates under the current MRIP estimation methodology. He also noted that final data may be appropriate for longer-term decisions including development of management measures that are intended to be in place for multiple years. However, he cautioned that if only final data are used for annual adjustments to measures, there will be a greater disconnect between the data used and current operating conditions than if preliminary current year data were also considered. A few Monitoring Committee members agreed that there are certain situations in which it is beneficial to use preliminary current year data, including making annual adjustments to measures and considering how variation in harvest might be influenced by factors such as year class strength.

One Steering Committee member said the Steering Committee's intent for all three suggestions under objective 1 was not to ask the Monitoring Committee to second-guess and revise the MRIP estimates, but rather to think about the impact outliers can have on recreational management. For example, outlier estimates can lead to significant changes in management measures from year to year which may not be reflective of a true conservation need.

Objective 2: Develop guidelines for maintaining status quo measures

The second objective in the Steering Committee outline is to develop a process for considering both recreational harvest data (all considerations under objective 1 could apply) and multiple stock status metrics (biomass, fishing mortality, recruitment) when deciding if measures should remain unchanged. The Monitoring Committee was generally supportive of this approach.

One Monitoring Committee member said it would be helpful to give greater consideration to how expected catch (i.e., landings and dead discards) compares to the ACL, rather than focusing on the RHL as the primary management target when setting management measures for the following year. She questioned whether the Fishery Management Plan would need to be modified to provide more flexibility in this regard.

Another Monitoring Committee member said the group tends to be most comfortable with estimates of expected landings and dead discards when they are based on assessment data. He thought it could be helpful to give stock status metrics from the assessments greater consideration in the process of determining how to change management measures. For example, he feels more confident in the need for more restrictive measures in response to a stock assessment rather than in response to recreational harvest estimates alone, which can be quite variable.

Objective 3: Develop process for setting multi-year recreational management measures

The third objective in the Steering Committee outline is to develop a process for setting recreational management measures for two years at a time with a commitment to making no changes in the interim year. This would include not reacting to new data that would otherwise allow for liberalizations or require restrictions. The Monitoring Committee was very supportive of this approach.

The Monitoring Committee agreed that this approach could lead to compounding overages or underages of catch and harvest limits. However, this could represent just as much of a conservation benefit as a conservation risk.

Multiple Monitoring Committee members said maintaining the same measures for at least two years can allow for better evaluation of the effectiveness of the measures at constraining harvest. The group discussed how harvest can fluctuate widely under constant management measures. Having more years of constant measures would allow for a better understanding of the variations in harvest.

One member clarified that the proposal was for two years and not a longer time period because it is anticipated that updated stock assessment information will be available every two years. This would allow management to react to updated stock assessment information.

One Monitoring Committee member said this approach could pull together many aspects of the other approaches in the Steering Committee outline and it could be a good way to move forward with the goal of stability in management measures. For example, it could allow for use of final MRIP estimates (see objective 1), would allow for consideration of the timing of the management measures recommendation (see objective 5), would allow for changes to be considered in response to updated stock assessment information, and would allow for year-to-year stability in recreational management measures.

Another Monitoring Committee member said this approach would work best if the RHL is the same across the two years.

The group discussed how state conservation equivalency could work under this approach. There was a general consensus that the approach would work best with a strong commitment to no changes at the federal or state level during the two years, including no changes made through conservation equivalency.

One Monitoring Committee member noted that it could be difficult to explain to stakeholders why they may have to forego potential liberalizations in the interim year under this approach. She recommended that this approach be evaluated from a socioeconomic perspective. Another Monitoring Committee member recommended consideration of the benefits of this approach in terms of compliance with and enforcement of the management measures.

Objective 4: Consider improvements to the process used to make changes to state and federal recreational management measures

The fourth objective in the Steering Committee outline relates to improvements to the process used to make changes to state and federal waters recreational management measures. The Steering Committee has not discussed this objective in great detail.

A few Monitoring Committee members said it would be beneficial to have guidelines on how to best use MRIP data at the state/mode/wave levels. The group agreed that additional analysis is

needed to better understand the limitations of the MRIP data for any given species before recommendations can be made for how to best use the MRIP data. For example, one Monitoring Committee member said it may be challenging to develop robust guidelines that could be applied uniformly across all states as MRIP sampling is not consistent across states and states with more frequent intercepts of the species in question may be put at an advantage. Other Monitoring Committee members agreed.

One bluefish Monitoring Committee member said regional measures, especially for shared water bodies, are worth considering and can help address concerns about using MRIP data at too fine of a scale.

Objective 5: Consider making recommendations for federal waters recreational management measures earlier in the year

The Steering Committee has discussed the idea of recommending federal waters recreational management measures in August or October rather than December of each year. The Monitoring Committee supported further consideration of this approach. Many members noted that it has been challenging for states to develop measures and for the Technical Committee to review proposals under the tight deadlines that are needed under the current process. Moving some of the decision making to earlier in the year could allow more time for robust review of proposals. However, the group also noted that earlier decision making would not allow for consideration of preliminary current year data when developing recreational management measures for the following year. This may be acceptable when measures are intended to be in place for multiple years (e.g., see objective 3).

General comments on the Recreational Reform outline

The group noted that the Council and Board may wish to include additional topics in the Recreational Reform Initiative after discussing the ongoing commercial/recreational allocation amendment during their next meeting.

Several Monitoring Committee members supported consideration of an additional approach that would more explicitly tie changes in management measures to the stock assessment, for example by considering changes only when new stock assessment information is available. This may be feasible under the anticipated every other year timeline for stock assessment updates in the future.

One member of the public asked how the Recreational Reform Initiative complies with the recent executive order to produce seafood. One Steering Committee member emphasized that the initiative relates to recreational fishing only and not commercial fishing. Another Steering Committee member said the initiative would help ensure a supply of seafood by maintaining harvest at sustainable levels.

Additional comments from Adam Nowalsky on the Harvest Control Rule Proposal
Emailed 7/24/2020

1) Regarding the question about how to establish what the measures would be at each step in the HCR, here are two ways to attempt this -

- Pull the management history and look at the state specific measures under various stock conditions as explained in the HCR write up.
- Reach out to the states to ask for assistance. State directors could request input from their TC/MC members with whom the HCR concept has been shared so that they understand the context of trying to recommend measures across the spectrum (i.e., least restrictive to most restrictive based on stock condition).

2) Translate measures from step 1 into predicted coastwide harvest based on past performance and other analysis. Input from the Regional Office/Science Center staff on how best to approach this is welcome, but the idea at a high level is to develop a set of measures that has a predictive amount of catch (the state TC/MC members may even be able to provide estimates especially considering their experience with the CE process). That catch does not have to be a point estimate, it can be a range. Steps 3, 4, and 5 are intended to be used to help satisfy MSA requirements.

3) A multi-year average with static measures to generate a "rolling" annual catch estimate could be used. If this rolling estimate is outside of the range of catch associated with step 2 then perhaps there is a management response (just as an example).

4) Use F as a sign post to guide performance. For example, if the rolling annual catch estimates from step 3 is outside of the range of catch in step 2, and F is above its target then management action must be considered. If F is below its target, no management action is necessary.

5) Moving forward on a fixed timeframe (every 5 years?) the performance of measures would be reviewed relative to expected harvest and consider modification to measures if needed.



Mid-Atlantic Fishery Management Council

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020

To: Michael P. Luisi, Chairman, MAFMC

From:  Paul J. Rago, Ph.D., Chair, MAFMC Scientific and Statistical Committee

Subject: Report of the September 8-9, 2020 SSC meeting

The SSC met via webinar on September 8th and 9th 2020 to address the following topics: (1) update previously recommended ABC for Spiny Dogfish for 2021 and recommend ABC for 2022 and adjust for revised Council Risk Policy, (2) review previously recommended ABC for Chub Mackerel for 2021, (3) discuss potential effects of missing data for 2020 on SSC deliberations in 2021 and beyond, (4) discuss the scope of work of the socio-economic workgroup, (5) discuss a variety of topics related to wind energy development, and (6) review and comment on the Mid-Atlantic State of the Ecosystem report (Attachment 1). The SSC benefited from the opportunity to discuss several topics in detail including the wind energy presentations from BOEM, RODA, ROSA and the NEFSC.

Nineteen of the 20 of the SSC members participated in the meeting (Attachment 2). All participation was via webinar owing to travel and health concerns. Members of the public also attended the sessions, but only those who spoke are listed in Attachment 2. Technical support of Council staff, as in previous meetings was outstanding. SSC members appreciated the new web feature to obtain all of the meeting materials in a single downloadable file. <https://www.mafmc.org/ssc-meetings/2020/september-8-9>

The meeting proceeded under the usual format of an initial presentation, followed by questions from the SSC, and then members of the public. Subsequent discussions followed a similar pattern and deliberate efforts were made to ensure all attendees had an opportunity to contribute. For Spiny Dogfish and Chub Mackerel, the discussions were guided by the SSC's species leads, Yan Jiao and Gavin Fay, respectively. To ensure accurate and transparent decision making, a rapporteur (Gavin Fay) summarized the Spiny Dogfish decisions. Neither Spiny Dogfish nor Chub Mackerel required the SSC to evaluate an updated coefficient of variation for the Overfishing Limit.

I acknowledge and appreciate the contributions of all the SSC members and in particular those who contributed text to this report directly: Yan Jiao and Gavin Fay for spiny dogfish, Dave Secor for wind energy, Sarah Gaichas for providing her meeting notes, and Brandon Muffley for overall support and preparation of the Attachments. Tom Miller, Ed Houde, and John Boreman provided useful comments on an earlier draft. I also thank all of the representatives from BOEM (Brian

Hooker), RODA (Annie Hawkins), ROSA (Lyndie Hice-Dunton) and NEFSC (Wendy Gabriel, also MAFMC SSC) for their excellent presentations on wind energy development.

Spiny Dogfish

Jason Didden began with an overview of the current specifications, a review of the previous year's data update from the NEFSC, and a summary of the Fishery Performance Report from the Advisory Panel. No data update from the Northeast Fisheries Science Center (NEFSC) was available for this meeting. The NEFSC Spring Bottom Trawl survey, a pivotal component in the assessment, was not conducted in 2020 due to COVID concerns. Spiny Dogfish specifications for 2021 will be the last year of a 3-year package. A Research Track assessment will be conducted in 2022 but those results may not be available for consideration by the SSC when it meets that year. To compensate for that time lag, staff recommended continuation of the ABC for 2021 into 2022. Application of the Council's updated risk policy increased the 2021 ABC by about 1,500 mt to 17,498 mt because the P* (the acceptable probability of overfishing) increased from 0.296 to 0.333.

The seasonal pattern of dogfish catches in 2020 have been similar to 2019 despite initial lags due to COVID concerns. Prices have been below \$0.20/lb for the past 3 years. Weak demand, availability of processors and low trip limits (6,000 lb) constrain landings. Some AP member expressed concerns about underestimation of Spiny Dogfish abundance while others noted that stability is needed to maintain prices rather than expand markets.

Follow-up discussions by the SSC focused on utility of the partial year of data for the 2020 spring survey (first leg only), and the potential benefits of updating earlier projections with the actual catch estimates from 2019. Kathy Sosebee, Spiny Dogfish assessment lead, reported that the earlier projections for 2022, under the previous risk policy, was 20,660 mt, or roughly 3,000 mt greater than the staff recommendation for 2022. This reassured the SSC that the continuation of the 2021 quota into 2022 would not, in and of itself, pose a significant risk to the population. SSC discussions noted the importance of Spiny Dogfish as predators and potentially as prey, although relatively little is known about these predator-prey relationships. The influence of temperature and salinity on the distribution of Spiny Dogfish has been summarized in the literature but its utility for adjusting abundance estimates for availability has not been evaluated.

The SSC's responses to the terms of reference provided by the MAFMC (in italics) are as follows:

- 1. Specify a revised ABC for the 2021 fishing season based on the Council's recently approved changes to the risk policy. If revising the 2021 ABC with the new risk policy is inappropriate, specify an alternative ABC for 2021 (e.g., previous recommendation) and provide any supporting information used to make this determination;*

The SSC recommends a revision of the 2021 ABC upwards to **17,498 mt** for the 2021 fishing season, based on the Council's revised risk policy (P* = 0.333). This recommendation agrees with the Council Staff recommendation.

The SSC notes that the estimated 2019 female biomass was above the biomass threshold, the 2019 data update indicated little evidence to suggest that stock condition has changed substantially from what was indicated in the 2018 benchmark assessment, and there are no biomass or trend updates for 2020 because the NEFSC spring trawl survey was not conducted in 2020.

- 2. Specify an ABC for the 2022 fishing season the SSC deems most appropriate with the information given;*

The SSC recommends a 2021 ABC of **17,498 mt** extend to the 2022 fishing year.

A research track assessment for Spiny Dogfish is planned for March 2022, that will reveal new scientific information about the status of the stock.

The SSC is concerned about the uncertainty caused by the lack of the 2020 NEFSC spring trawl survey and reliance on the longer-term projection from the 2018 assessment. However, based on the stock projection from the 2018 benchmark assessment the SSB is expected to continue to increase given the estimated MSY proxy level. Slow growth, late age of maturity, low fecundity, and high age of recruitment create inertia in the stock dynamics and therefore reduce interannual fluctuations in forecasts. Coupled with the way the index information is used in the assessment, reliance on a projection may then be less sensitive for Spiny Dogfish than for some other stocks. If index data from the 2021 NEFSC spring trawl survey becomes available these could provide an opportunity for revision if needed.

- 3. Provide any relevant data and/or assessment considerations for the 2022 research track assessment.*

The SSC agrees with the recommendations from the 2018 assessment, with some revision to recommendations 4 and 7.

1. Revise the assessment model to investigate the effects of stock structure, distribution, sex ratio, and size of pups on birth rate and first year survival of pups.
2. Explore model-based methods to derive survey indices for Spiny Dogfish.
3. Consider development of a state-space assessment model.
4. Compile and examine the available data from large scale (international) tagging programs, including conventional external tags, data storage tags, and satellite pop-up tags, and evaluate their use for clarifying movement patterns and migration rates.
5. Investigate the distribution of Spiny Dogfish beyond the depth range of current NEFSC trawl surveys, possibly by using experimental research or supplemental surveys.
6. Continue aging studies for Spiny Dogfish age structures (e.g., fins, spines) obtained from all sampling programs (include additional age validation and age structure exchanges), and conduct an aging workshop for Spiny Dogfish, encouraging participation by NEFSC, Canada DFO, other interested state agencies, academia, and other international investigators with an interest in dogfish aging (US and Canada Pacific Coast, ICES).
7. Evaluate the ecosystem context of Spiny Dogfish including quantifying their role as predator and prey, and effects of climatic factors such as changes in temperature and salinity on the distribution, growth and survival, as they impact both population dynamics and reference points.

Chub Mackerel

Information on Chub Mackerel was summarized by Julia Beaty (Council Staff). The status of Chub Mackerel is unknown. Both the commercial and recreational fisheries have been characterized by generally low levels of catch (<250 mt/yr) with intermittent spikes up to ~2,400 mt as in 2013; causes of such spikes are unknown. Chub Mackerel is a fast swimming fish that usually is caught by more powerful vessels such as those used to harvest *Illex* squid. Fishermen reported that Chub Mackerel may serve as an alternative species for these vessels when *Illex* are unavailable. Fewer than 5 vessels and 3 dealers accounted for 95% of the landings in 2019. It was noted that misidentification of Chub Mackerel with other species may be a problem in recreational fisheries. Just about every aspect of this resource is characterized by high uncertainty. Recent aging research, supported via industry, and the collection of length samples are valuable starting points for development of a future stock assessment

Discussions by the SSC highlighted many of the sources of uncertainty including forage fish considerations, the influence of availability to the fishing area, and opportunistic fishing activity. Chub Mackerel has a very large range from New England to the Gulf of Mexico. Reliance on information from other areas may help fill knowledge gaps.

The SSC provides the following summary of its deliberations on Chub Mackerel:

The SSC recommends continuing the ABC recommendation of 2,300 mt for Chub Mackerel. Given the paucity of data it is impossible to refine this estimate further or to distinguish whether the high catches were the result of opportunistic fishing, increased availability or presence of a strong year class in the stock area. The SSC noted the high concentration of catch by statistical area and the limited numbers of vessels and processors in the reported landings.

The ongoing initiatives by industry and the Council to collect biological information were commended. Members noted that these data are the primary sources of information, and although sparse should allow for improved understanding of this resource. Changes in the size composition over the past 12 years will be valuable inputs to any future stock assessments. The SSC suggested coordinating data with fishing companies and throughout the South Atlantic and Gulf of Mexico where possible.

Potential Effects of Missing Data on Scientific Uncertainty

I opened this discussion with an overview of the types of data that may be missing in 2020, the many different ways in which the omissions could be handled, and most importantly the potential responses of the SSC to the expected increase in uncertainty of the OFL. No NEFSC bottom trawl surveys will be conducted in 2020 and most of the state surveys have been canceled as well. Commercial landings data are being recorded but observer coverage used to estimate discards is likely to be very low for the year as a whole. MRIP sampling has been intermittent and their staff have been proactive in developing ways to handle the omissions. Importantly, the NEFSC and GARFO are coordinating to identify the expected data gaps and consequences for individual stocks. Missing data have both short and longer-term impacts on assessments. Often these effects are most acute when the last year of assessment data are missing. In these cases, modern modeling approaches can handle the missing data but often at the expense of increased variance and potential

bias. Stocks with well-performing models are likely to be affected less than index-based assessments or models with convergence issues. Unfortunately, some of these impacts will only be knowable in the rearview mirror.

The SSC's response to this dilemma must be objective, but concerns will be relayed to managers. For stocks in the middle of multiyear specifications, the consequences will be less acute. There will likely be a greater reliance on updated projections wherein actual catches will be incorporated into earlier projections that previously assumed the ABC was taken in the forecast period. In instances where the catches have been below the ABC this updating may provide some assurance that continuation of existing quotas is prudent and less likely to induce overfishing. The converse, where catches exceeded ABCs, could lead to a need to revise the projected OFLs accordingly.

Discussions by the SSC focused on the potential negative effects of creating "borrowing" or imputation methods for missing data, whether such procedures are *ad hoc* or more formal model-based methods. The reliability of such methods would generally need intensive testing, both with existing and simulated data. There was a general consensus among the SSC members that use of the assessment model itself would be the most appropriate way of integrating the various factors. The SSC further concluded that stocks that rely heavily on MRIP data, such as Bluefish, could have problems with determination of scale (i.e., population size overall and fishing mortality in the terminal year) if effort and catch patterns in 2020 are significantly different from historical patterns.

Ancillary information, such as commercial CPUE monitoring or predictive environmental relationships may be useful adjuncts to the stock assessment process. It was noted that the Atlantic Mackerel, Black Sea Bass, Bluefish, Golden Tilefish, Scup, and Summer Flounder management track updates in 2021 will have missing data for 2020. As a final cautionary note, it was noted that COVID-related health concerns may not be restricted to 2020 if ways to conduct surveys cannot be found by 2021.

Members of the public expressed similar concerns, and encouraged a broad overview of potential impacts by species. The magnitude of catch shortfalls (i.e., catches below ABCs) should also be considered as this reduces the uncertainties about future catch levels. It was noted that the conservative approaches taken by the MAFMC and ASMFC over the past decade should provide some buffer against the negative impacts of the missing data.

The SSC is hopeful that the NRCC will address this topic as well as provide results of the synthesis of missing data items by NEFSC and GARFO.

Socio-Economic Working Group

Geret DePiper, chair of the SSC's Socio-Economic Working Group, led the discussion on the future role of the SSC's economists. Some key points included discussion of a strategy for engaging the Council and to build programmatic support for Council decisions. As with the SSC role in stock assessments, the socio-economic function would have a long-term focus and act in an advisory role rather than in the creation of new analyses. It is envisioned that the group would engage with the Council and its Committees iteratively, and ideally, from project conception to completion (i.e., end to end). Key points of connection would include pre-scoping, management alternative development and management alternative assessment. One way of demonstrating how

this might work is to select one or more Council priorities for 2021 and develop a case study for each.

Discussions following the presentation focused on the logistics of preparing for the upcoming Council meetings in October and December. Several webinar meetings of the Working Group were proposed to refine the message and coordinate the work. The Working Group is envisioned to be conceptually similar to the OFL CV Working Group, which had a long-term commitment to iteratively refining a product and policy advice aligned with Council goals and objectives. Some overarching concerns included the need to be specific, to avoid creating bottlenecks in decision making, and to emphasize unanticipated behavioral responses that could undermine efficacy of management decisions. The South Atlantic Fishery Management Council has an economics subgroup that operates similarly to the broad outline described above.

Additional resources for virtual meetings may be required over its duration. The magnitude of these resources is unknown but will be contingent on decisions made by the Council in December.

Review of 2021-2025 Assessment Schedule

The 2021 Management Track assessments will include Atlantic Mackerel, Black Sea Bass, Bluefish, Golden Tilefish, Scup, and Summer Flounder. Research Track assessments will be conducted for Butterfish and *Illex*. Since many of these assessments will arrive simultaneously at the July 2021 meeting, consideration of an increased duration of the SSC meeting may be necessary.

Management Track and Research Track Assessments are planned through 2025. Research Track assessments are considered fixed over the next three years but flexibility in later years is possible if conditions warrant. For example, the SSC noted that Longfin Squid might require an earlier benchmark if changes recommended by the most recent Management Track review were to be implemented. A candidate trade-off might be to swap Golden Tilefish with Longfin Squid in 2024, should conditions warrant.

Members of the public requested additional clarification on the future role of the Council's *Illex* Working Group for the 2021 Research Track assessment. The *Illex* Working Group will be meeting at 11:00 AM October 5, 2020 prior to the Council meeting.

Joint Meetings of the SSC and Council

Brandon Muffley reminded the SSC to participate in the upcoming joint meeting of the SSC with the full Council from 3:00 to 4:30 PM on Tuesday, October 6. Topics to be addressed include the Socio-Economic Working Group, missing data for 2020, and the relationship between the Council Risk Policy and Ocean Quahog.

MAFMC Research Priorities

Brandon Muffley updated the SSC on the Council's 2020-2024 research priorities and noted the value of SSC inputs for refinements of this document. The SSC commended Brandon for ensuring that the document remained active and responsive to evolving needs, especially upcoming Research Track assessments. The Research Plan provides valuable guidance to the Council for funding critical studies for decision making.

Public comments included interest in the upcoming Illex benchmark and the value of continued industry involvement.

Offshore Wind

David Secor coordinated a series of presentations on offshore wind energy development by Council staff (Julia Beaty), Bureau of Ocean Energy Management (BOEM) by Brian Hooker, Responsible Offshore Development of Alliance (RODA) by Annie Hawkins, Responsible Offshore Science Alliance (ROSA) by Lyndie Hice-Dunton, and the NEFSC by Wendy Gabriel. The presentations were informative, well received by the SSC, and generated considerable discussions.

The SSC was introduced to current efforts by regulators, fishery stakeholders, and scientists to adapt and coexist with the rapidly growing offshore wind energy industry within the GARFO region. The Council has been engaged in briefings, comment letters, and outreach. The SSC is embarking on a supportive role in the review of key issues such as altered surveys and associated data, changes in distribution of fishing effort and practices, and socioeconomic and ecosystem impacts. Presentations focused on, (1) current and future offshore wind development in the GARFO region by Mr. Brian Hooker (Biology Team Lead, Office of Renewable Energy Programs); (2) key issues for fisheries stakeholders and introduction to RODA by Ms. Annie Hawkins (Executive Director of Responsible Offshore Development of Alliance); (3) efforts to advance regional research and monitoring needs through the work of ROSA by Dr. Lyndie Hice-Dunton (Executive Director of Responsible Offshore Science Alliance); and (4) implications for NEFSC surveys and plans to adapt survey designs by Dr. Wendy Gabriel (Chief, Population and Ecosystems Monitoring and Analysis Division, NEFSC; and SSC member). Several issues and themes that emerged from discussion that included: the challenge of regulating such a rapidly expanding industry while also soliciting input from key stakeholders; the considerable overlap between key fishing grounds, NEFSC survey regions, and leased/planned offshore wind energy lease areas; and the need for coordinated and regional scale science and monitoring to understand impacts to the fishing industry, stock productivity, and survey data. Possible roles that the SSC can provide to assist the Council and fishing industry include input and review of current NEFSC efforts to simulate future options for survey designs, better engagement of fishery stakeholders through the Advisory Panel process, review of some of the socioeconomic aspects of offshore wind development, and review and endorsement of new metrics of wind energy-fisheries interactions in NEFSC's annual State of the Ecosystem Report.

Given the scope of proposed developments and the potential impacts wind energy development on resource utilization and monitoring, future consultations with BOEM, RODA, ROSA and NEFSC are anticipated. Wind energy development will have major consequences of the work of the SSC in the coming years.

Utility and Future Development of Mid-Atlantic State of the Ecosystem Report

Sarah Gaichas and Geret DePiper led the discussion of the 2020 State of the Ecosystem (SOE) Report prepared by the NEFSC. The SOE continues to evolve and its utility as an information source increases annually as comments from the SSC and other groups are incorporated. As an example, the preceding discussion on wind energy development led to proposals for various indices to track develop and potential impacts of such projects. One of the challenges is the need

to present generalized or “big picture” information to the general public and the need for detailed methodology and data details for research scientists. The SOE meets this objective by preparing a general document and live links to the underlying data. The SSC was especially appreciative of the responsiveness of the SOE team to suggestions for improvements.

With respect to wind energy some members of the SSC noted the utility of overlap metrics between fishing and sampling activity with planned developments. Given the differences in catchability among species, it was suggested that aggregating species groups would be less useful.

The cumulative effects of multiple developments will likely be hard to predict and often harder to detect in a timely manner. Tipping points may be more likely than continuous rates of change. Such changes might occur when nutrient cycling and secondary production changes cascade through a food web. For example, no estimates of overall productivity caps have been developed for fisheries in the Mid-Atlantic region. Such indices could be valuable for evaluating the effects of individual harvest quotas, especially if aggregate removals approach upper bounds. Risk scores, such as those related to marine heat waves, may prove valuable for consideration in the OFL CV matrix. Ideally, various metrics—biological, physical, and economic could be combined to create quantitative indicators for prediction.

Economic considerations, such as market prices could amplify changes. In the absence of an overall ecosystem model it is anticipated that evaluations of quantum changes in system state will be based on various measures of association among indices rather than premature identification of causal mechanisms.

A specific example of interrelations between economics and biology was the topic of fish condition factor and market price. Geret noted that fat content of fish is an important determinant of market price for some species, especially tuna. Multiple biological and ecological factors can give rise to changes in condition factor. For market prices this concept is addressed through hedonic price analysis, a method that examines the effects of multiple factors simultaneously to estimate intrinsic value. Ultimately it is hoped that analyses of factors such as copepod production, condition factor, and so forth could lead to development of leading indicators for market price in the following year.

The session concluded with a general acknowledgement of the commendable work of the ecosystem team and enthusiasm for future development.

Attachment 1



**Mid-Atlantic Fishery Management Council
Scientific and Statistical Committee Meeting**

September 8 – 9, 2020 via Webinar

Webinar Information

(Note: same information for both days)

Link: <http://mafmc.adobeconnect.com/sept2020ssc/>

Call-in Number: 1-800-832-0736

Access Code: 5939710#

AGENDA

Tuesday, September 8, 2020

- 12:30 Welcome/Overview of meeting agenda (P. Rago)
- 12:35 Spiny Dogfish data and fishery update; review of previously recommended 2021 fishing year ABC and new 2022 ABC recommendation (J. Didden)
- Review of staff memo and 2021 and 2022 ABC recommendations
 - 2021 and new 2022 SSC ABC recommendation with new Council risk policy (Y. Jiao)
- 2:00 Chub Mackerel data and fishery update; review of previously recommended 2021 ABC (J. Beaty)
- 3:30 Discussion and possible recommendations regarding scientific uncertainty due to missing 2020 catch and survey data due to COVID-19 (P. Rago)
- 4:30 Miscellaneous SSC topic updates:
- Socioeconomic workgroup
 - 2021 and future stock assessment schedule
 - Possible joint Council/SSC meeting topics and priorities
 - Research priorities
- 5:30 Adjourn

Wednesday, September 9, 2020

8:30 Offshore wind discussion (D. Secor)

- Background/status of BOEM leases and activities (B. Hooker)
- Fisheries and wind coexistence (A. Hawkins, L. Hice-Dunton)
- Science implications and impacts to surveys (W. Gabriel)

10:30 Discussion on utility and future development of Mid-Atlantic State of the Ecosystem report (S. Gaichas, G. DePiper)

- Feedback on future synthetic products
- SSC application of report information

12:30 Other business

1:00 Adjourn

Note: agenda topic times are approximate and subject to change

Attachment 2

MAFMC Scientific and Statistical Committee September 8 – 9, 2020

Meeting Attendance via Webinar

Name

Affiliation

SSC Members in Attendance:

Paul Rago (SSC Chairman)	NOAA Fisheries (retired)
Tom Miller	University of Maryland – CBL
Ed Houde	University of Maryland – CBL (emeritus)
Dave Secor	University of Maryland – CBL
John Boreman	NOAA Fisheries (retired)
Geret DePiper	NOAA Fisheries NEFSC
Lee Anderson	University of Delaware (emeritus)
Jorge Holzer	University of Maryland
Yan Jiao	Virginia Tech University
Brian Rothschild	Univ. of Massachusetts – Dartmouth (emeritus)
Olaf Jensen	Rutgers University
Sarah Gaichas	NOAA Fisheries NEFSC
Wendy Gabriel	NOAA Fisheries NEFSC
Mike Wilberg (Vice-Chairman)	University of Maryland – CBL
Alexei Sharov	Maryland Dept. of Natural Resources
Mike Frisk	Stony Brook University
Mark Holliday	NOAA Fisheries (retired)
Cynthia Jones	Old Dominion University
Gavin Fay	U. Massachusetts—Dartmouth

Others in attendance (includes presenters and members of public who spoke):

Mike Luisi	MAFMC Chair
Tony DiLernia (Sept 9 th only)	MAFMC/NYSERDA
Jason Didden	MAFMC staff
Julia Beaty	MAFMC staff
Brandon Muffley	MAFMC staff
Kathy Sosebee (Sept 8 th only)	NOAA Fisheries NEFSC
Doug Christel	GARFO
Greg DiDomenico	Lunds Fisheries
Jeff Kaelin	Lunds Fisheries
Brian Hooker (Sept 9 th only)	Bureau of Ocean Energy Management
Annie Hawkins (Sept 9 th only)	Responsible Offshore Development Alliance
Lyndie Hice-Dunton (Sept 9 th only)	Responsible Offshore Science Alliance
Jeremy Firestone (Sept 9 th only)	University of Delaware



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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020
To: Council
From: Chris Moore
Subject: Executive Director's Report

The following materials are enclosed for Council review at the October 2020 Council Meeting during the Executive Director's Report:

1. 2020 Planned Meeting Topics
2. 2021 Council Meeting Schedule
3. 2022 Council Meeting Schedule
4. Status of Council Actions Under Development
5. Status of Completed Council Actions and Specifications
6. Staff Memo: Update on East Coast Climate Change Scenario Planning Initiative
7. Agenda: Data and Management Strategies for Recreational Fisheries with Annual Catch Limits
8. Memo: Pre-application meeting for Manna Fish Farms proposal
Note: Additional related materials are available on the October meeting page (<https://www.mafmc.org/briefing/october-2020>) as supplemental materials under Tab 11
9. Memo: South Atlantic Council Action on Bullet and Frigate Mackerel and Potential Next Steps for the Mid-Atlantic Council
10. September 23-24 CCC Meeting Agenda



2020 Planned Council Meeting Topics

Updated 9/24/20

October 2020 Council Meeting: October 5-8, 2020

- 2021 Implementation Plan: Discuss Draft Deliverables
- Research Priorities Update: Tracking Progress to Address Priorities
- Spiny Dogfish 2021 and 2022 Specifications
- Joint Council-SSC meeting
- Chub Mackerel 2021 Specifications: Review
- EAFM Updates: Summer Flounder Management Strategy Evaluation and other EAFM activities
- Climate Change Scenario Planning Initiative: Update
- Executive Order 13921: Develop and Prioritize Council Recommendations
- Bluefish Allocation and Rebuilding Amendment: Approve a Range of Alternatives
- [Recreational Reform Initiative: Update](#)
- [Atlantic Large Whale Take Reduction Plan Update](#)

December 2020 Council Meeting: December 14-17, 2020

- 2021 Implementation Plan: Approve
- Summer Flounder, Scup, and Black Sea Bass 2021 Recreational Management Measures: Develop and Approve
- Summer Flounder, Scup, And Black Sea Bass Commercial/Recreational Allocation Amendment: Approve Public Hearing Document
- Black Sea Bass Commercial State Allocation Amendment: Final Action
- ~~Bluefish Allocation and Rebuilding Amendment: Approve Public Hearing Document (moved to February)~~
- Recreational Reform Initiative: Update
- Update on Habitat Activities
- ~~Review RH/S White Papers (moved to February)~~

MAFMC 2021 COUNCIL MEETINGS

February 9-11, 2021	Durham Marriot 201 Foster St. Durham, NC 27701 919-768-6000	Durham Convention Center 301 W. Morgan St. Durham, NC 27701 919-956-9404
April 6-8, 2021	Seaview, a Dolce Hotel 401 South New York Rd. Galloway, NJ 08205 609-652-1800	
June 8-10, 2021	Hilton Virginia Beach Oceanfront 3001 Atlantic Ave Virginia Beach, VA 757-213-3000	
August 9-12, 2021	The Notary Hotel 21 N. Juniper St. Philadelphia, PA 215-496-3200	
October 5-7, 2021	Yotel Hotel 570 10th Ave. New York, NY 10036 646-449-7700	
December 13-16, 2021	Westin Annapolis 100 Westgate Circle Annapolis, MD 21401 410-972-4300	

MAFMC 2022 Council Meeting Dates:

February 8-10, 2022

April 12-14, 2022

June 7-9, 2022

August 8-11, 2022

October 4-6, 2022

December 12-15, 2022



Status of Council Actions Under Development

AS OF 9/24/20

FMP	Action	Description	Status	Staff Lead
Summer Flounder, Scup, Black Sea Bass	Commercial/Recreational Allocation Amendment	This joint MAFMC/ASMFC amendment will reevaluate and potentially revise the commercial and recreational sector allocations for summer flounder, scup, and black sea bass. This action was initiated in part to address the allocation-related impacts of the revised recreational data from MRIP. http://www.mafmc.org/actions/sfsbsb-allocation-amendment	The Council and Board approved a range of alternatives at the joint August 2020 Council Meeting and are scheduled to approve a public hearing document at the joint December 2020 meeting.	Dancy/Coutre/Beaty
	Black Sea Bass Commercial State Allocation Amendment	This joint MAFMC/ASMFC action will consider adjusting the allocations of the black sea bass commercial quota among states and whether the allocations should be managed jointly by the Council and Commission. http://www.mafmc.org/actions/bsb-commercial-allocation	Public hearing webinars will be held October 8-29, 2020. The Council and Board expect to take final action at the December 2020 meeting.	Beaty
Bluefish	Bluefish Allocation and Rebuilding Amendment	This joint MAFMC/ASMFC amendment considers potential revisions to the allocation of Atlantic bluefish between the commercial and recreational fisheries and the commercial allocations to the states. This action will also review the goals and objectives of the bluefish FMP and the quota transfer processes and establish a rebuilding plan for bluefish. http://www.mafmc.org/actions/bluefish-allocation-amendment	The Council and Board expect to approve a final range of alternatives at the joint October meeting.	Seeley
Surfclam and Ocean Quahog	Surfclam and Ocean Quahog Commingling/Discarding Issues	As surfclams have shifted toward deeper water in recent years, catches including both surfclams and ocean quahogs ("commingling") have become more common, resulting in increased discards of surfclams on quahog trips and vice versa. Current regulations do not allow surfclams and ocean quahogs to be landed on the same trip. The Council is exploring options to address this issue.	An FMAT has been established.	Coakley/Montañez

FMP	Action	Description	Status	Staff Lead
Omnibus	Omnibus Amendment for Data Modernization	This amendment will address the regulatory changes needed to fully implement the Agency's Fishery-Dependent Data Initiative.	The Council last received an update at the October 2018 meeting.	GARFO/NEFSC
Non-FMP	Recreational Reform Initiative	This is a joint initiative with the ASMFC to develop strategies to increase management flexibility and stability for jointly managed recreational fisheries (i.e., black sea bass, summer flounder, scup, and bluefish).	The Council and Board will receive an update and will consider initiating a management action during the joint October 2020 meeting.	Beaty

Timeline and Status of Current and Upcoming Specifications for MAFMC Fisheries

As of 9/24/20

Current Specifications	Year(s)	Council Approval	Initial Submission	Final Submission	Proposed Rule	Final Rule	Regs Effective	Notes
Golden Tilefish	2018-2020	4/11/17	6/5/17	8/16/17	9/7/17	11/7/17	11/2/17	2019 specs were reviewed in April 2018. No changes were recommended.
Golden Tilefish	2021-2022	4/8/20	5/11/20	7/21/20				
Blueline Tilefish	2019-2021	4/11/18	8/17/18	10/24/18	11/19/18	2/12/19	2/12/19	
Surfclam and Ocean Quahog	2021-2026	8/12/20	9/2/20					
Surfclam and Ocean Quahog	2018-2020	6/6/17	8/14/17	9/22/17	12/8/17	2/6/18	3/8/18	2020 specs were reviewed in June 2019. No changes were recommended.
Longfin Squid	2021-2023	8/10/20						
Butterfish	2021-2022	8/10/20						
Illex Squid	2020-2021	6/17/20						NMFS already implemented 2020 via inseason action and SIR completed by staff - 2021 in same EA as MSB approved in Aug
Atlantic Mackerel (including RH/S cap)	2021-2022	8/10/20						
Chub mackerel	2020-2022	3/7/19	5/31/19	10/25/19	3/9/20	8/4/20	9/3/20	
Scup	2020-2021	10/8/19	1/15/20	3/5/20		5/14/20	5/15/20	Revised specifications based on the 2019 operational stock assessment
Scup	2021 (revised)	8/11/20						
Bluefish	2020	3/7/19	6/11/19	7/24/19	7/26/19	10/9/19	1/1/20	Interim specs to be replaced as soon as possible after results of 2019 operational assessment are available.
Bluefish	2020-2021	12/10/19	1/23/20	3/19/20	5/25/20	6/29/20	6/29/20	
Bluefish	2021 (revised)	8/11/20						
Summer Flounder	2020-2021	3/6/19	6/25/19	7/18/19	7/26/19	10/9/19	1/1/20	
Summer Flounder	2021 (revised)	8/11/20						
Black Sea Bass	2020-2021	10/9/19	1/15/20	3/5/20		5/14/20	5/15/20	Revised specifications based on the 2019 operational stock assessment
Black Sea Bass	2021 (revised)	8/11/20						
Spiny Dogfish	2021-2022	10/6/2020 (expected)						

Recreational Management Measures

Current Management Measures	Year(s)	Council Approval	Initial Submission	Final Submission	Proposed Rule	Final Rule	Regs Effective	Notes
Summer flounder recreational measures	2020	12/10/19	1/22/20	1/22/20	4/6/20	6/18/20	6/18/20	Rulemaking required each year to continue use of conservation equivalency
Black sea bass recreational measures	2020	2/14/18	3/5/18	4/10/18	4/11/18	5/31/18	5/31/18	Reviewed in 2019. No changes from previous year's measures.
Scup recreational measures	2020	12/10/14	3/20/15		5/5/15	6/19/15	6/19/15	Reviewed in 2019. No changes from previous year's measures.
Bluefish recreational measures	2020	12/10/19	1/23/20	3/19/20	5/25/20	6/29/20	6/29/20	Recreational management measures were set through the 2020-2021 specifications process.



Mid-Atlantic Fishery Management Council

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020
To: Council
From: Kiley Dancy, Staff
Subject: Update on East Coast Climate Change Scenario Planning Initiative

Previous Council Discussion

At the [April 2020 Council meeting](#), the MAFMC discussed a plan for a climate change scenario planning process. Scenario planning is a structured process that can be used to strategize in the context of uncontrollable and uncertain environmental and sociopolitical factors. The Council received a presentation on the basics of scenario planning from Diane Borggaard of GARFO's Protected Resources Division, including examples of its marine resource management applications. The Council then discussed a planned coordinated East Coast climate change scenario planning initiative as a way to explore jurisdictional and governance issues related to shifting stock distributions and changes in productivity. The Council was made aware that the Northeast Regional Coordinating Council (NRCC) had formed a working group to plan for this initiative. No specific recommendations or decisions were made at this meeting, pending further NRCC and NRCC working group discussions.

NRCC Working Group

In the Spring of 2020, the NRCC formed a Scenario Planning Working Group (SPWG) to further explore the feasibility, logistics, and costs of an East Coast climate change scenario planning initiative. SPWG membership included staff from the Mid-Atlantic, New England, and South Atlantic Councils, Greater Atlantic Regional Fisheries Office, Northeast Fisheries Science Center, Atlantic States Marine Fisheries Commission, and NMFS Headquarters.

The SPWG met several times to develop recommendations to the NRCC ahead of their intercessional meeting on July 30, 2020. The working group recommendations are available in the briefing materials for this meeting at:

<https://s3.amazonaws.com/nefmc.org/2020-Summer-NRCC-Intercessional-Briefing-Book.pdf>.

In summary, the SPWG recommended:

- Moving forward with an East Coast scenario planning initiative.
- Appointing a core team of NRCC membership technical staff; appoint chair or chairs; determine if additional participants are desired in core team and, if so, identify process for selection.
- Contracting a facilitator for full facilitation and process support.

- Creating and ad hoc committee of Council/Commission members, technical staff, and scientific and industry advisors (as needed); discuss and agree on governance structure for committee.
- Conducting scoping or outreach effort to increase potential public engagement.
- Use a "two workshop model" over an 18-36 month time frame, with the first workshop consisting of scenario building and the second focused on implications and management applications.

NRCC Updates

The NRCC held an intercessional meeting on July 30, 2020 to review SPWG recommendations. In general, many NRCC members were supportive of the scenario planning process and noted that it could help with climate change related governance discussions. Some members were supportive of moving ahead right away, and others needed to discuss more fully with their membership organization as part of priority setting before committing resources to this initiative. It was noted that states are going to realize funding impacts from COVID, and some organizations were concerned about staff and time commitments in relation to ongoing or emerging priorities.

The NRCC ultimately agreed to postpone additional discussion until their Fall 2020 meeting, to allow NRCC member organizations to discuss scenario planning in fall priority setting discussions, and for additional discussions of available resources to support the process.

Recent Discussions and Next Steps

Recently, the Nature Conservancy (TNC) applied for a grant from the Gordon and Betty Moore Foundation to support East Coast scenario planning efforts in partnership with the Council and other participating organizations. If the grant is awarded, it is possible that the Atlantic States Marine Fisheries Commission could administer these funds, which could cover some of the costs of this initiative such as process facilitation, meeting facilities and/or technology contracts for remote meeting platforms, potentially public invitational travel, and other miscellaneous expenditures such as printing, outreach, or scoping surveys. It is expected that the Councils, Commission, and agency personnel would have their respective participation costs paid by their organization.

The South Atlantic Fishery Management Council briefly discussed scenario planning at their September Council meeting. The SAFMC was supportive of the initiative and interested in participating, but also noted that they had not yet received much of an introduction to the concept of scenario planning and requested a more detailed overview at a future meeting.

The New England Fishery Management Council discussed scenario planning with their Executive Committee the week of September 14, and will discuss it again in the context of 2021 priorities during their meeting on October 1.

The NRCC will meet in November to revisit a plan for moving forward with a scenario planning process.

A general stepwise approach to a scenario planning process is outlined in the SPWG recommendation summary linked above. A more detailed plan and timeline can be developed once it is clear which organizations are participating, and once the NRCC has formed the core team for the process. At this stage, a very tentative timeline could be considered as follows:

- **Late 2020/Early 2021:** Core team formed, facilitator secured. Scenario planning process designed by core team and participating organizations.

- **Winter/Spring 2021:** Structured public input or "scoping" process to gather stakeholder input on driving forces in the fisheries and to introduce stakeholders to scenario planning.
- **Summer 2021:** Identification and description of major "driving forces" in the fisheries and preparation of materials and logistics for scenario building workshop.
- **Fall 2021:** Scenario building workshop.
- **Late 2021/Early 2022:** Refinement and ground-truthing of draft scenarios; preparation for second workshop.
- **Spring 2022:** Second workshop to identify implications and identify potential management response recommendations.
- **Fall 2022:** Reports and products from scenario planning process finalized and distributed.

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Data and Management Strategies for Recreational Fisheries with Annual Catch Limits

Committee Meeting 4

September 22-23, 2020

VIRTUAL MEETING

Meeting objectives:

- Focus the meeting on recreational fisheries data and management strategies in the Mid-Atlantic Region.
- Hear from a variety of perspectives on what management techniques are employed in the Mid-Atlantic region (if not in-season) and the extent to which data (types, quality, availability) have influenced the selection of those techniques.
- Learn about what supplemental or substitute surveys, if any, are employed in the region and why.
- Learn about any alternative management approaches that have been tried or considered in the region, including potential approaches considered by the Recreational Reform Initiative.

September 22, 2020

OPEN SESSION

11:00 AM	Introductions	Luiz Barbieri, Committee Chair
11:15 AM	Fisheries Management Council Perspective and Recreational Reform Initiative	Kiley Dancy, Mid-Atlantic Fisheries Management Council (MAFMC) Staff Julia Beaty, MAFCM Staff Mike Luisi, MAFMC Chair
12:15 PM	Scientific and Statistical Committee Perspective	Paul Rago, MAFMC Science and Statistical Committee Chair
12:45 PM	<i>Lunch</i>	
1:15 PM	State Representatives Panel	Angela Giuliano, Maryland Department of Nature Resources Jeffrey Brust, New Jersey Division of Fish and Wildlife Garry Glanden, Delaware Division of Fish and Wildlife Shanna Madsen and Lewis Gillingham, Virginia Marine Resources Commission (<i>tentative</i>)
3:00 PM	<i>Break</i>	
3:15 PM	American Sportfishing Association Perspective	Mike Waine, American Sportfishing Association
3:45 PM	Private Angler Perspective	Charles Witek, Private Angler (New Jersey)
4:00 PM	Open Discussion / Additional Q & A	
4:30 PM	<i>Adjourn Open Session</i>	

September 23, 2020

CLOSED SESSION FOR COMMITTEE ONLY



Mid-Atlantic Fishery Management Council

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 23, 2020
To: Chris Moore, Executive Director
From: José Montañez, Staff
Subject: Pre-application meeting for Manna Fish Farms proposal

On September 21, 2020, Manna Fish Farms Inc (Manna).¹ held a pre-application meeting via webinar with staff from various agencies (e.g., NOAA Fisheries, Coast Guard, U.S. Army Corps of Engineers, BOEM, NY Port Authority, MAFMC, NEFMC, ASMFC) to update interested parties on the pre-application status of a commercial finfish farm for commercial sale and research in the U.S. EEZ about 9 miles off the shore of Long Island, NY (port of Shinnecock). This aquaculture project intends to raise steelhead trout and possibly black sea bass in submerged net pens secured at 40-50 feet below the ocean's surface in water depths of approximately 145 feet. The project proposes a phased approach with approximately 100,000 pounds of steelhead in two pens in phase 1 (proof-of-concept) to a total of 18 pens in phase 5. The offshore marine aquaculture farm will occupy a total area of approximately 4 km² (1.5 mi²).

The first pre-application meeting for this project was held 5 years ago on November 16, 2015 and Manna has reported much progress since to address stakeholder's concerns. In addition, Manna has also been working with regulators to implement similar activities off Pensacola Florida, in the Gulf of Mexico. The main purpose of this webinar was to update agencies on the status of the pre-application proposal and solicit any objections to the preferred alternative site, and other issues that are under consideration.

In addition, at this meeting, NOAA's National Centers for Coastal Ocean Science (NCCOS) provided background information and results for a Site Suitability Analysis (Siting Analysis) conducted for this proposed aquaculture operation in New York (see NCCOS' July 2020 report). Taking into account Manna's technical production requirements, NCCOS identified four potential sites suitable for this operation (see Figure 1 below).² These potential sites were identified taking into consideration national security concerns, transportation infrastructure, fishing industry activity, recreation and cultural considerations, energy infrastructure, protected species, and EFH amongst others. One specific site with consistent depth and low slope and relatively low vessel traffic was determined to be the overall preferred site choice (Site A).

¹ <https://mannafishfarms.com/>

² Detailed background information (presentations, reports) distributed for the September 21 meeting can be found at the Council's website page for the October 5-8, 2020 Council Meeting (under Executive Committee Report; <https://www.mafmc.org/briefing/october-2020>).

The next step for this project is to conduct a Baseline Environmental Survey of the preferred site choice (Site A) in the spring of next year. The primary purpose of the survey is to collect unbiased baseline environmental data prior to implementation of the offshore marine aquaculture project (see document Baseline Environmental Survey Plan for Manna Fish Farm dated September 2020). This will allow for robust comparison of before, during, and after fish farm establishment. Once the survey is concluded, the Baseline Environmental Survey will be used to support the permitting application³ for offshore marine aquaculture permits that will be submitted to the U.S. Army Corps of Engineers and the Environmental Protection Agency. Manna also indicated that they would continue to engage stakeholders on the development of this project. Public input can also be provided during the permit application rulemaking process.

During the webinar, Manna staff asked for initial input from webinar participants regarding the feasibility of the preferred site choice (Site A). Manna's staff indicated that getting early input on the preferred site would be beneficial as the pre-application process moves forward. This input solicitation was an important emphasis for this meeting. Any red flag type, "No not that location" objections would be valuable early rather than after the survey work has occurred. Input gathering on the preferred site did not fully materialize at this meeting and further effort will be placed on seeking additional input in the near future. Manna did not provide a specific timeline for receiving this input, but they are looking to begin baseline surveys soon. However, attendees were encouraged to reach out directly to Donna Lanzetta of Manna to indicate whether they planned to provide pre-application input, and the timeframe they required.

³ Manna has removed striped bass from the proposal and only plans to include sterile steelhead trout and black sea bass as culture species in the applications.

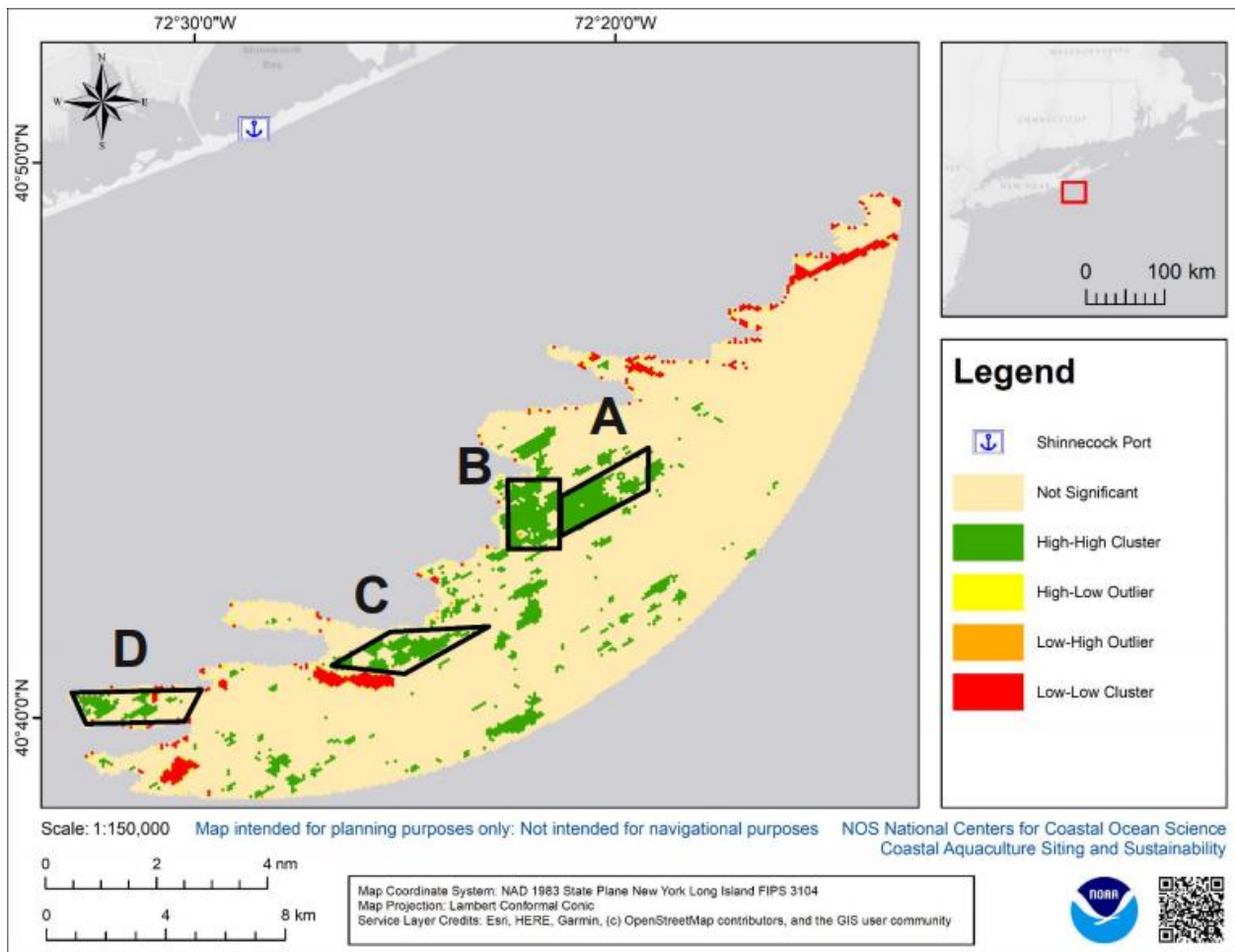


Figure 1. Map of final suitability cluster analysis of the four site locations for the proposed Manna fish farm. Source: See footnote #2.



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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: September 25, 2020
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: South Atlantic Council Action on Bullet and Frigate Mackerel and Potential Next Steps for the Mid-Atlantic Council

Through the [Unmanaged Forage Omnibus Amendment](#), the Mid-Atlantic Council adopted a 1,700 pound commercial possession limit which applies to aggregate harvest of over 50 previously unmanaged forage species. These species are now designated as “ecosystem components” in all the Council’s Fishery Management Plans (FMPs). The Council sought to include bullet mackerel (*Auxis rochei*) and frigate mackerel (*Auxis thazard*) on this list of ecosystem components in recognition of their role as prey for a variety of predators. However, NMFS disapproved inclusion of these two species in the amendment, citing an insufficient connection to the Mid-Atlantic Council’s FMPs.

In March 2018, the Mid-Atlantic Council sent a letter to the South Atlantic Council requesting that they consider managing bullet and frigate mackerel as ecosystem components in their Dolphin Wahoo FMP in recognition of their role as forage for wahoo and other predators.

In September 2020, the South Atlantic Council took final action on Amendment 12 to the Dolphin Wahoo FMP. If approved by the Secretary of Commerce, this amendment would add bullet and frigate mackerel to the Dolphin Wahoo FMP as ecosystem components with no associated management measures. The South Atlantic Council initially considered implementing management measures such as a commercial possession limit but did not further pursue this option based on guidance from NMFS and consideration of the potential implications of such measures. The ecosystem component designation emphasizes the importance of these species as prey for a variety of predators in the South Atlantic and provides an avenue to address future management issues which may arise. The South Atlantic Council agreed to send a follow-up letter to the Mid-Atlantic Council upon submission of Amendment 12 for Secretarial review. More information on Amendment 12 is available here: <https://safmc.net/amendments-under-development/dolphin-wahoo-amendment-10/>.

During their October 2020 meeting, the Mid-Atlantic Council will consider including “initiation of a framework action to implement a possession limit for frigate and bullet mackerel in the Mid-Atlantic” on their list of deliverables for 2021. This action could build off the Unmanaged Forage Amendment; however, the justification for the action would need to differ from the justification provided in the Unmanaged Forage Amendment to avoid the potential for disapproval on the same grounds as the previous disapproval.

WEB AGENDA
INTERIM COUNCIL COORDINATION COMMITTEE MEETING
VIDEO CONFERENCE CALL
September 23 - 24, 2020

Wednesday, September 23, 2020 1:30 PM to 5:30 PM EST

Event address for attendees: <https://noaanmfs-meets.webex.com/noaanmfs-meets/onstage/g.php?MTID=e2ef28629e30449a50c4e60b30c1d544f>

Event number: 199 864 3418

Event password: thunnus

1:15 pm to 1:30 pm	Meeting Setup
1:30 pm to 1:35 pm	Overview of WebEx functions
1:35 pm to 1:40 pm	Opening of Meeting
	Welcome and Introduction
	Approval of Agenda and Minutes
1:40 pm to 2:00 pm	1. NOAA Fisheries Update and FY20/21 Priorities <ol style="list-style-type: none">a. MAFAC report on Establishing a National Seafood Councilb. National Standard 1 Working Groupsc. Other
2:00 pm to 3:20 pm	2. Recent Issues with Council Operations and Agency Operational, Science, and Regulatory Issues <ol style="list-style-type: none">a. NMFS provides overview of COVID-19 related issues<ol style="list-style-type: none">i. Report on NMFS Reintegration Plans, Status of CARES Act Fundingii. Observer Waiversiii. Update on MRIP Status of Data and Monitoring Outlook for 2021, Report on Funding for Basic Surveys
3:20 pm to 3:35 pm	Break
3:35 pm to 4:15 pm	3. Rule on Council Member Financial Disclosure and Recusal
4:15 pm to 5:00 pm	4. CEQ Final NEPA Regulation
5:00 pm to 5:20 pm	5. Legislative Outlook
5:20 pm to 5:30 pm	6. Public Comment
	Adjourn Day 1

Thursday, September 24, 2020: 1:30 PM to 5:30 PM EST

Event address for attendees: <https://noaanmfs-meets.webex.com/noaanmfs-meets/onstage/g.php?MTID=e242833cd2cb4f853327513ca6441462b>

Event number: 199 309 6293

Event password: thunnus

1:15 pm to 1:30 pm	Meeting Setup
1:30 pm to 1:35 pm	Overview of WebEx functions
1:35 pm to 3:45 pm	7. Aquaculture and the Executive Order on Promoting American Seafood Competitiveness and Economic Growth <ol style="list-style-type: none">Seafood Trade Task ForceOther EO issues, Aquaculture Opportunity AreasAquaculture regulatory/statutory issuesEO Section 4 Prioritized List of Recommended Actions
3:45 pm to 4:00 pm	Break
4:00 pm to 4:30 pm	8. CCC Committees <ol style="list-style-type: none">Electronic MonitoringCommunications
4:30 pm to 4:45 pm	9. Public Comment
4:45 pm to 5:00 pm	10. CCC Convenes for Recommendations (closed session, NMFS break)
5:00 pm to 5:30 pm	11. Wrap-up and Other Business <ol style="list-style-type: none">CCC Outcomes and RecommendationsDiscussion of Next Chair and Meeting Dates for 2021, Frequency and Schedule of future CCC calls
	Adjourn Day 2

New England Fishery Management Council Meeting Agenda
Tuesday – Thursday, September 29-October 1, 2020
[By Webinar](#)

Sending comments? Written comments must be received at the NEFMC office no later than 8:00 a.m., Thursday, September 24, 2020 to be considered at this meeting. Please address comments to Council Chairman Dr. John Quinn or Executive Director Tom Nies at: NEFMC, 50 Water St., Mill 2, Newburyport, MA 01950. Email submissions should be sent to comments@nefmc.org.

IMPORTANT: Due to ongoing federal and state travel restrictions and public safety guidelines related to [COVID-19](#), this meeting will be conducted by webinar. Please continue to monitor the Council's [September 2020 meeting webpage](#).

PUBLIC COMMENTS: The Council's "Guidelines for Providing Public Comments" can be found [here](#).

Tuesday, September 29, 2020

- 9:00 a.m. Introductions and Announcements** (Chairman Dr. John Quinn)
- 9:10 Swearing-in of New and Reappointed Council Members** (GARFO Regional Administrator Mike Pentony)
- 9:20 Election of 2020-2021 Officers**
- 9:40 Reports on Recent Activities**
Council Chairman, Council Executive Director, Greater Atlantic Regional Fisheries Office (GARFO) Regional Administrator, National Oceanic and Atmospheric Administration (NOAA) General Counsel, Northeast Fisheries Science Center (NEFSC), Mid-Atlantic Fishery Management Council (MAFMC), Atlantic States Marine Fisheries Commission, U.S. Coast Guard, NOAA Enforcement, Northeast Trawl Advisory Panel (NTAP), Northwest Atlantic Fisheries Organization (NAFO), SAFMC Dolphin/Wahoo, Highly Migratory Species Advisory Panel
- 11:30 Skate Committee Report** (Dr. Matt McKenzie)
Annual Monitoring Report: overview of fishing year 2019; Northeast Skate Complex Amendment 5: progress report on development of problem statement, goals, and objectives for development of a limited access program through this amendment
- 12:30 p.m. Open Period for Public Comment**
Opportunity for the public to provide brief comments on issues relevant to Council business but not listed on this agenda (please limit remarks to 3-5 minutes)
- 12:45 Lunch Break**
- 1:45 Spring 2020 Management Track Assessments** (Northeast Fisheries Science Center)
Report on peer reviewed Spring 2020 Management Track Assessments for Atlantic herring, longfin squid, butterfish, and surfclams and ocean quahogs
- 2:30 Scientific and Statistical Committee (SSC) Report – Part 1** (SSC Chair Dr. Jason McNamee)
Receive SSC recommendations on Atlantic herring overfishing limits (OFLs) and acceptable biological catches (ABCs) for fishing years 2021-2023
- 2:50 Atlantic Herring Report** (Rick Bellavance)
Framework Adjustment 8: final action for 2021-2023 specifications and adjustments to measures in the herring plan that may inhibit the Atlantic mackerel fishery from achieving optimum yield; Framework Adjustment 7: update on action to protect spawning herring on Georges Bank; Council/ASMFC Herring Management Coordination: working group and leadership team update
- 5:00 North Atlantic Right Whales** (GARFO)
Update on status of North Atlantic Right Whale Draft Biological Opinion and upcoming rulemaking

At 6:00 p.m. or shortly following the close of Council business, the U.S. International Trade Commission (USITC) will host a virtual roundtable to gather input from New England fishermen and other industry stakeholders on two topics: (1) the impacts of illegal, unreported, and unregulated (IUU) fishing on the U.S. fishing industry; and (2) the impacts of seafood imports on U.S. products and markets. All stakeholders are encouraged to join the discussion. No preregistration is needed. A link to the webinar will be forthcoming.

Wednesday, September 30, 2020

8:30 a.m. Groundfish Committee Report – Part 1 (Terry Alexander)

Groundfish Monitoring Amendment 23: review public hearing comments; take final action on measures to improve the accuracy and accountability of catch reporting in the commercial groundfish fishery, including the level of at-sea monitoring coverage to be required on groundfish sector trips, among other actions

12:30 p.m. Lunch Break

1:30 Groundfish Committee Report – Part 1 Continued (Terry Alexander)

3:00 Groundfish Committee Report – Part 2 (Terry Alexander)

Petition on Rulemaking for Atlantic Cod: receive Committee, GAP, and RAP input; Council discussion

4:00 Transboundary Resources Assessment Committee (TRAC) (Tara Trinko Lake)

Receive TRAC summary of 2020 assessment results for Eastern Georges Bank cod, Eastern Georges Bank haddock, and Georges Bank yellowtail flounder

4:20 Transboundary Management Guidance Committee (TMGC) Report (Chairman Dr. John Quinn)

Review and approve TMGC recommendations for 2021 total allowable catches for shared U.S./Canada stocks on Georges Bank

4:35 Scientific and Statistical Committee (SSC) Report – Part 2 (SSC Chair Dr. Jason McNamee)

Receive SSC recommendations for OFLs and ABCs for Georges Bank yellowtail flounder for fishing years 2021 and 2022; receive SSC input on possible rebuilding approaches for white hake

4:55 Groundfish Committee Report – Part 3 (Terry Alexander)

Framework Adjustment 61: progress report on action to include (1) 2021 total allowable catches for U.S./Canada stocks of Eastern Georges Bank (GB) cod, Eastern GB haddock, and GB yellowtail flounder, (2) 2021-2023 specifications for roughly half of the groundfish stocks, (3) white hake rebuilding, and (4) other measures; Council action on Georges Bank yellowtail OFLs and ABCs for Framework 61

Thursday, October 1, 2020

8:30 a.m. Habitat Committee Report (Eric Reid)

Brief update on offshore wind development activities

8:45 Scallop Committee Report (Vincent Balzano)

Amendment 21: review public hearing comments, take final action on measures to address (1) Northern Gulf of Maine Management Area issues, (2) the Limited Access General Category (LAGC) possession limit, and (3) individual fishing quota (IFQ) transfers; Framework 33: preliminary overview of 2020 surveys; progress report on 2021 fishery specifications, 2022 default specifications, and other measures

12:30 p.m. Lunch Break

1:15 Ecosystem-Based Fishery Management (EBFM) Committee Report (John Pappalardo; Dave and Paula Jasinski, Green Fin Studio)

Georges Bank example Fishery Ecosystem Plan (eFEP): (1) approval of EBFM public outreach materials, including stakeholder profiles, brochures, two completed infographics, presentations, an introductory video, and other tools for public outreach; (2) committee recommendations and Council approval of an EBFM workshop format using the eFEP and public outreach materials; and (3) presentation of tangible worked examples developed by the Plan Development Team to demonstrate the eFEP catch framework for Georges Bank

- 3:15** **Stellwagen Bank National Marine Sanctuary (SBNMS)** (Superintendent Pete DeCola; Chief Economist Danielle Schwarzmann, SBNMS)
Presentation on two pre-COVID-19 economic reports supporting the SBNMS Management Plan Review: (1) a fisheries report analyzing commercial fishing and recreational for-hire fishing activity within SBNMS and the economic contributions of these activities; and (2) a whale watching report summing up data/economic contributions
- 3:45** **2021 Council Priorities – Initial Discussion** (Executive Director Tom Nies)
Initial discussion on 2021 Council Priorities, including identification of potential actions that respond to the May 7, 2020 Executive Order on Promoting American Seafood Competitiveness and Economic Growth
- 5:00** **Other Business**

Times listed next to the agenda items are estimates and are subject to change.

This meeting is being held entirely by webinar. Council member financial disclosure forms are available for examination on the Council website.

Although other non-emergency issues not contained on this agenda may come before this Council for discussion, those issues may not be the subject of formal action during this meeting. Council action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305 (c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Documents pertaining to Council actions are available for review prior to a final vote by the Council.

Please check the Council's website, www.nefmc.org, or call (978) 465-0492 for copies.

This meeting will be recorded. Consistent with 16 USC 1852, a copy of the recording is available upon request.



SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

4055 Faber Place Drive, Suite 201, North Charleston SC 29405
Call: (843) 571-4366 | Toll-Free: (866) SAFMC-10 | Fax: (843) 769-4520 | Connect: www.safmc.net

Jessica McCawley, Chair | Mel Bell, Vice Chair
John Carmichael, Executive Director

SAFMC Meeting Agenda

September 14-17, 2020

Webinar

(SAFMC website webinar registration: <https://register.gotowebinar.com/register/8246680664509373452>)

Except for advertised (scheduled) public hearings and public comment sessions, the times indicated on the agenda may be adjusted as necessary to accommodate the completion of agenda items. Interested parties should be aware that meetings may start earlier or later than indicated.

Written comments received by 5 pm the Monday before the meeting (9/7) will be compiled, posted to the website as part of the meeting materials, and included in the administrative record. Please use the online comment form at: <https://safmc.wufoo.com/forms/m279ih41b0ukyq/> to ensure your comments are posted immediately to the Council's website and available for Council consideration.

Individuals that wish to submit comments after 9/7 must use the Council's online form at: <https://safmc.wufoo.com/forms/m279ih41b0ukyq/>. Comments will automatically be posted to the website and available for Council consideration. Comments received prior to 9 am on Wednesday of the Council meeting (9/16) will be a part of the meeting administrative record. To view comments, <https://safmc.wufoo.com/reports/2020-sept-council-meeting-public-comment-report/>.

Monday, September 14, 2020

Webinar startup and troubleshooting 8:30 am – 9:00 am

1. Webinar Startup and Connection Testing

COUNCIL SESSION I (CLOSED)/Jessica McCawley 9:00 am – 12 noon

1. Introduction and Meeting Process Overview
2. AP Appointments
3. SEDAR Appointments
4. Legal Briefing on Litigation, if needed

12:00 noon to 1:30 pm Lunch

COUNCIL SESSION II/Jessica McCawley 1:30 pm – 5:00 pm

1. Swearing in Ceremony for new Council Members
2. Executive Order Response
3. Emergency Action Requests Status Update
 - a. Vermilion Snapper commercial trip limit increase
 - b. King Mackerel recreational bag limit increase
4. Additional Emergency Action Considerations
5. SBRM Report on Topics for Amendment Development

Tuesday, September 15, 2020

COMMITTEE MEETINGS

COUNCIL SESSION II (cont.)/Jessica McCawley 9:00 am – 11:00 am

6. Allocations Options, Data, and Analyses

Snapper Grouper Committee/Jessica McCawley 11:00 am – 12 noon

1. Status of Amendments under Formal Review
 - a. Abbreviated Framework 3 (Blueline Tilefish)
 - b. Regulatory Amendment 33 (Red Snapper Season)
 - c. Regulatory Amendment 34 (SMZs off NC and SC)
2. Review of 2020 Red Snapper Season

12:00 noon to 1:30 pm Lunch

Snapper Grouper Committee/Jessica McCawley 1:30 pm – 4:30 pm

3. Wreckfish ITQ Modernization Options Paper
 - a. Action: Recommend for scoping
4. Red Porgy Options Paper to End Overfishing and Revise Rebuilding
5. Topics for November AP meeting

SEDAR Committee/Jessica McCawley 4:30 pm – 5:00 pm

1. SEDAR Process Presentation
2. Statement of Work Approvals
3. Steering Committee Guidance

Wednesday, September 16, 2020

COMMITTEE MEETINGS

Dolphin Wahoo Committee/Anna Beckwith 9:00 am – 12 noon

1. Revise Dolphin and Wahoo Management Measures: Amendment 10

12:00 noon to 1:30 pm Lunch

Dolphin Wahoo Committee/Anna Beckwith 1:30 pm – 3:45 pm

2. Adding Bullet Mackerel and Frigate Mackerel to the FMP as Ecosystem Component Species: Amendment 12
 - a. Overview
 - b. Action: Recommend for final approval
3. Dolphin Tagging Program Presentation
4. Topics for October AP meeting

Wednesday, September 16, 2020

PUBLIC COMMENTS

4:00 pm If you would like to provide comment during the live public comment session, please sign up at the following link:

<https://safmc.wufoo.com/forms/m1gq9x6r1sn1zee/>

Public comment will be accepted regarding any of the items on the Council agenda. The Council Chair, based on the number of individuals wishing to comment, will determine the amount of time provided to each commenter.

Approval for Formal Review:

- (1) Dolphin Wahoo Amendment 12 (Bullet & Frigate Mackerel as Ecosystem Component Species)

Approval for Scoping:

- (1) Snapper Grouper Amendment 48 (Wreckfish ITQ Modernization)

Thursday, September 17, 2020 9:00 am – 12 noon COUNCIL SESSION

Executive Committee (PARTIALLY CLOSED)/Jessica McCawley 9:00 am – 12 noon

Closed Session

1. SSC Composition
2. OC Composition
3. Sexual Harassment Prevention

Open Session

4. New Travel Forms
5. Council Priorities Work Schedule

12:00 noon to 1:30 pm Lunch

COUNCIL SESSION III/Jessica McCawley 1:30 pm – 5:00 pm

Call to Order and Introductions/Jessica McCawley, Chair

Adopt Agenda/Jessica McCawley

Approve Minutes/Jessica McCawley

Council Elections

1. Council Staff Reports
 - a. Executive Director
 - b. Outreach and Communications Update
 - c. Citizen Science Update
 - d. Climate Change Scenario Planning
2. NMFS SEFSC Reports
 - a. Commercial Electronic Logbooks Status
 - b. COVID Impacts on Surveys and Fishery Monitoring
3. NMFS SERO Reports
 - a. For-hire amendment status
4. Protected Resources Report
5. Committee Reports
 - a. Snapper Grouper/Jessica McCawley
 - b. SEDAR/Jessica McCawley

- c. Dolphin Wahoo/Anna Beckwith
- d. Executive/Jessica McCawley
- 6. Advisory Panel & SEDAR Appointments
- 7. Agency and Liaison Reports
- 8. Other Business
- 9. Upcoming Meetings

Adjourn