

**MID-ATLANTIC FISHERY MANAGEMENT COUNCIL  
MEETING AGENDA**

**August 16 - 19, 2010**

**Holiday Inn, Historic District, 400 Arch Street, Philadelphia, PA 19106**

**Telephone: (215) 923-8660**

**Monday, August 16**

- 12:30 - 2:00 p.m. Research Set-Aside Committee (Tab 1)**  
*Pate, deFur, Berg, Cole, Gilmore, Himchak, King, Kray, Luisi, Miko, O'Shea [Collins]*
- Review 2012 Research Priorities List
  - Review draft mission statement
- 2:00 - 3:30 p.m. Ecosystems and Ocean Planning Committee (Tab 2)**  
*Kray, McMurray, Anderson, Augustine, deFur, Luisi, Miko, Munden, Schafer, Travelstead, Zeman [Hoff]*
- Presentation on activities of the NEFSC Ecosystems Branch by Dr. Michael Fogarty
- 3:30 - 5:00 p.m. Squid, Mackerel, and Butterfish Committee (Tab 3)**  
*Berg, King, Anderson, deFur, Gilmore, Himchak, McMurray, Pate, Wheatly, O'Shea [Seagraves/Didden] NE Reps: Dave Pierce, Mary Beth Tooley*
- Review Amendment 14 scoping comments and refine its goals
  - Receive update on butterfish cap control mechanism affecting *Loligo* fishery from NERO officials

**Tuesday, August 17**

- 8:00 a.m. Council Convenes**
- 8:00 - 8:15 a.m. Swearing in of New / Reappointed Council Members and Election of Council Officers (Tab 4)**
- 8:15 - 12:00 p.m. Omnibus Amendment on ACL / AM (Tab 5)**
- Review and discuss management alternatives to address ABCs, ACLs and AMs for all FMP species
- 12:00 - 1:00 p.m. Lunch**
- 1:00 - 4:30 p.m. Omnibus Amendment on ACL / AM (Tab 5) - [Continued]**
- Review and discuss management alternatives to address ABCs, ACLs and AMs for all FMP species
  - Approve and adopt Omnibus Amendment for Secretarial Submission
- 4:30 - 5:30 p.m. Executive Committee (Tab 6)**  
*Robins, Anderson, Augustine, Berg, King, Kray, Kurkul, McMurray, Munden, Pate, Travelstead [Moore]*
- Review Ricks E Savage Award criteria and nomination process
  - Excessive share project update
  - SSC membership
  - Visioning Project update

## Wednesday, August 18

- 8:00 a.m. Council Convenes**
- 8:00 - 10:00 a.m. Finalize Scup Management Measures for 2011 in conjunction with the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Board (Tab 7)**
- Review SSC and Scup Monitoring Committee's recommendations for 2011
  - Adopt recommendations for 2011 commercial and recreational harvest levels and commercial management measures
- 10:00 - 12:00 p.m. Finalize Black Sea Bass Management Measures for 2011 in conjunction with the Atlantic States Marine Fisheries Commission's Summer Flounder, scup, and Black Sea Bass Board (Tab 8)**
- Review SSC and Black Sea Bass Monitoring Committee's recommendations for 2011
  - Adopt recommendations for 2011 commercial and recreational harvest levels and commercial management measures
- 12:00 - 1:00 p.m. Lunch**
- 1:00 - 4:00 p.m. Finalize Summer Flounder Management Measures for 2011 in conjunction with the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Board (Tab 9)**
- Review SSC and Summer Flounder Monitoring Committee's recommendations for 2011
  - Adopt recommendations for 2011 commercial and recreational harvest levels and commercial management measures
- 4:00 - 5:00 p.m. Finalize Bluefish Management Measures for 2011 in conjunction with the Atlantic States Marine Fisheries Commission's Bluefish Board (Tab 10)**
- Review SSC and Bluefish Monitoring Committee's recommendations regarding 2011 harvest levels and associated management measures
  - Adopt recommendations for harvest levels and associated management measures
- 5:00 - 5:30 p.m. Presentation by Russell Dunn, National Policy Advisor for Recreational Fisheries, Office of the Assistant Administrator NOAA Fisheries**

## Thursday, August 19

- 8:00 a.m. Council Convenes**
- 8:00 - 8:30 a.m. Report by Dr. Weinberg (NMFS NEFSC) on the 50<sup>th</sup> Stock Assessment Review Committee (Tab 11)**
- 8:30 - 9:00 a.m. Marine Recreational Information Program (MRIP) Update by Gordon Colvin of the NOAA Fisheries Service (Tab 12)**
- 9:00 - 10:00 a.m. Presentation by Mitch MacDonald on Office of General Counsel's Enforcement and Litigation Group - Purposes, Practices, and Policies (Tab 12 cont'd)**

**10:00 - 10:45 a.m. Presentation by Samuel Rauch on Final Recommendations of the Interagency Ocean Policy Task Force (Tab 13)**

**10:45 - 1:30 p.m. Business Session**

- Approve June 2010 Minutes
- Address any outstanding actions from June 2010 meeting

**Business Session**

Move to approve April 2010 minutes with corrections.  
Augustine/Kray. Moved by consent

**Surfclam/Ocean Quahog**

- Move that the following management measures be maintained for 2011-2013 as follows:  
Surfclams - 3.400 million bushels  
Suspend surfclam minimum size limit  
Ocean quahogs - 5.333 million bushels  
Maine ocean quahogs - 100,000 Maine bushels
- For 2012 through 2013 quotas, request the Council consider impacts of any reopening on Georges Bank for reassessing quotas for 2012 and 2013. Anderson for the Committee (12/1/1). Motion carries

**Squid, Mackerel, Butterfish**

Move that the following be specified for the 2010 Loligo specifications:

1. Max OY = 32,000 mt; ABC = 24,000; IOY = DAH = DAP = 20,000 mt; AND
2. The annual quota (20,000 mt) be allocated as follows: Trimester 1 - 43% (8,600 mt) Trimester 2 - 17% (3,400 mt), and Trimester 3 - 40% (8,000 mt); AND
3. For Trimesters 1 and 2, the directed fishery will be closed when 90% of each Trimester allocation is taken; vessels will be restricted to a 2,500 pound trip limit for the remainder of the period. Vessels which possess Loligo incidental catch permits may land up to 2,500 pounds per trip at all times; AND
4. When 95% of the total annual quota has been taken (i.e., 19,000 mt), a 2,500 pound trip limit will be implemented for the rest of the fishing year. Vessels which possess Loligo incidental catch permits may land up to 2,500 pounds per trip at all times; AND
5. Up to 330 mt of the DAH/DAP for Loligo may be set aside for scientific research; AND
6. ½ of Trimester 1 underages would be transferred to Trimester 2 and ½ would be transferred to Trimester 3. Overages in Trimester 1 would continue to be deducted from Trimester 3. Underages or overages in Trimester 2 would be applied to Trimester 3. Only triggered if Trimester 1 underage is greater than 25%. The Trimester 2 quota can be increased by a maximum of 50%. AND
7. The butterflyfish cap will close the Loligo fishery as described in Amendment 10 with the extrapolation method to be developed by January 1, 2011 and the Council will be briefed by NERO on the methodology before January 1, 2011.
8. 2 1/8" codends required in Trimesters 1 and 3. 1 7/8" codends required in Trimester 2. Strengtheners can be used subject to minimum 5 inch mesh opening.
9. Move that the Council include notice of September 13, 2010 2 1/8 inch mesh requirement in a press release.
10. Move that up to 3% of butterflyfish DAH would be set aside for either butterflyfish RSA or to cover Loligo RSA as appropriate based on RSA awards.  
Berg for Committee (15/0/1). Motion Carries

Move that the following be specified for the 2010 Atlantic mackerel fishery:

1. ABC = 80,000 mt; U.S. ABC = 47,395; IOY, DAH = 46,779mt; DAP = 22,984; JVP and TALFF = 0; AND
2. Directed mackerel fishery to be closed at 90% of OY. If 90% of OY is reached prior to June 1 a 20,000 pound trip limit results. If 90% of OY is reached on or after June 1 a 50,000 trip limit results; AND
3. Up to 3% of the IOY and DAH for Atlantic mackerel may be set aside for scientific research.
4. Plan a conference call with the AP (open to public) to discuss resource sharing issues and/or bilateral research agenda.  
Berg for Committee

Move to substitute in #1 that the U.S. DAH = 44,175 MT, which represents the subtraction of the mean 2007-2008 Canadian Landings. Himchak/Augustine. Substitute Motion Withdrawn

Move to substitute for the DAH 2011 specs 46,779 mt that has been generated from an analysis of the correlations between Canadian catch in one year and the US catch in the previous year, which has been considered a conservative estimate of Canadian landings based on the observation that this correlation approach resulted in predictions that exceeded actual Canadian landings in one of the 15 years included in the analysis. US ABC would be changed to 47,395  
Pate/Augustine (13/2/1). Substitute Motion Carries

Substitute Motion Becomes Main Motion in terms of DAH for 2011 fishing season.  
15/0/1. Motion carries

The Council agrees to the Council staff adjusting the DAH/ABC for 2011 based on analysis of US landings available at time of submission of specifications.  
Pate/Augustine (16/0/0). Motion carries

Council agrees to Council staff adjusting DAP for 2011 fishing season based on analysis of US Landings available at time of submission of specifications.  
Pate/Kray (15/0/0). Motion carries

Move that the following be specified for the 2011 Butterfish specifications:

1. ABC = 1,500 mt; IOY, DAH, DAP = 500 mt; AND
2. If mackerel TALFF is not specified then bycatch TALFF equals zero, otherwise a bycatch TALFF equal to 0.08% of the mackerel TALFF is to be specified based on the current FMP; AND
3. Maintain the trip limit of 5,000 pounds for moratorium butterfish permits. Maintain the threshold for butterfish minimum mesh requirement (3.0 inches) at 1,000 pounds; AND
4. Maintain the threshold level for directed butterfish fishery closure at 80% of DAH. If 80% of DAH is reached prior to Oct 1, a 250 pound daily trip limit results. If 80% of DAH is reached on/after Oct 1, a 600 pound daily trip limit results; AND
5. Incidental limits: 600 pounds, reduced to 250 pounds if directed fishery closes before Oct 1;

Berg for Committee (12/0/1). Motion Carries

Move that the following be specified for the 2011 Illex specifications:

1. ABC = 24,000; IOY = DAH = DAP = 23,328 mt; AND
2. The directed fishery for Illex closes when 95% of DAH is taken and a 10,000 pound trip limit implemented for the remainder of the fishing year. Vessels which possess Illex incidental catch permits may land up to 10,000 pounds per trip at all times; AND
3. Up to 3% of the DAH or DAP for Illex may be set aside for scientific research.

Berg for Committee (14/0/1). Motion Carries

Move that the Council ask NMFS pursue a Transboundary resource haring agreement with Canada for Atlantic mackerel.  
Pate/Zeman (15/0/1). Motion Passes

### **SMB Amendment 11**

Move to include 1000 lb T3 limit with existing T2 year's ranges.

Berg for Committee

Move that cap for Tier 3 landing be established based on analysis of periods 94-07 and 97-07 based on maximum, minimum, median, and averages.

Berg for Committee

Motion to include a range of trip limits for open access fishery between a range of 1,000 pounds and 20,000 pounds.

Berg for Committee

Move to substitute the following "package" alternative for the current alternative 1C:

T1: 1,000,000 1997-2007, 3/21/2007 permit

T2: 100,000 1997-2007, 3/21/2007 permit

T3: 3/21/2007 permit

Zero or 1,000 qualification for T3 1997-2007

No allocations for Tiers but range of T3 Caps: 1% to 6% set annually during specs. Final implementation would be "up to"

Open access would be all vessels that do not qualify for a Tier and would be subject to a trip limit 1,000 pounds to 20,000 pounds, adjustable during specifications.

Tier 2 trip limit: 135,000 pounds initially, adjustable during specifications

Tier 3 Trip limit: 100,000 pounds initially, adjustable during specifications

Task FMAT to add a range of reporting changes for monitoring needs (e.g. weekly VTR for Tier 3)

Berg/Himchak. Approved by consent

Move to substitute the following "package" alternative for the current alternative 1D (PREFERRED): T1: 400,000 pounds 1997-2005, 3/21/2007 permit

T2: 100,000 pounds 3/1/94-2005, 3/21/07 permit

T3: 3/21/2007 permit



Zero or 1,000 qualification for T3 1994-2005

No allocations for Tiers but range of T3 Caps: 2% to 7% set annually during specs. Final implementation would be "Up To."  
Open access would be all vessels that do not qualify for a Tier and would be subject to a trip limit 1,000 pounds to 20,000, adjustable during specifications.

Tier 2 Trip limit: 135,000 pounds initially, adjustable during specifications

Tier 3 Trip limit: 100,000 pounds initially, adjustable during specifications.

Task FMAT to add a range of reporting changes for monitoring needs (e.g. weekly VTR for Tier 3)

Berg/Kray. Approved by consent

Move to concur with Committee and AP that the fleet size/capacities resulting from current alternatives are the desired range of fleet sizes/capacities. The summary and rationale behind the second scenario described in the May 26 meeting summary accurately reflects the Council's intent in terms of the resulting mackerel fleets resulting from Amendment 11.

Anderson/Kray. Motion by consent with one abstention

Move to finalize updated DEIS, submit to NMFS for review, and publish with written comment period.

Berg/Kray. Approved by consent

Move that the current Canadian catch prediction method is an interim method and the Monitoring Committee is requested of investigate the issue in a holistic fashion before then next specs cycle.

Berg/Kray. Approved by consent

Move that the current Canadian catch prediction method is an interim method and the Monitoring Committee is requested to investigate the issue in a holistic fashion before the next specs cycle.

Berg/Kray. Approved by consent

#### **ACL/AM Omnibus Amendment**

Move to eliminate Option 1m, AM option for Tilefish in the ACL/AM Omnibus Amendment.

Anderson/Pate (11/3/1). Motion carries

Move to incorporate 75% of Fmsy into the control rule as a default for Tier 3 determination in the ACL/AM Omnibus Amendment.

deFur/Augustine. Passed by consent

Move that risk policy reside in the CL/AM Omnibus FMP.

Anderson/deFur. Passed by consent

Move to add modified option of 2B in the ACL/AM Omnibus Amendment to include a-typical and have a definition of what a-typical means.

Anderson/deFur. Passed by consent

Move to remove the prescriptive in-season trigger from the considered but rejected option in the ACL/AM Omnibus Amendment for in-season recreational measures for Summer Flounder, Scup, and Black Sea Bass.

McMurray/Heins 13/1/1. Motion carries

Move to leave option 1 (Bluefish RHL adjust - rec pays) and option 2 (both pay) to considered buy rejected in the ACL/AM Omnibus Amendment.

Himchak/Berg (12/0/1). Motion carries

#### **Executive Committee**

Move that the Council consider outside sources of funding in the next 30 days for excessive shares. If unsuccessful the Council should consider using its own funds not to exceed \$100,000.

Robins for Committee. Moved by consent

Move that staff develop a process to work with the Advisory Panels to develop annual fishing performance reports for consideration by the SSC and Monitoring Committees during the specification process beginning in 2011.

Robins for Committee. Moved by consent

#### **Liaison Reports (Tab 14)**

- New England Council
- South Atlantic Council

**Organizational Reports (Tab 15)**

- NMFS Regional Administrator
- NMFS NEFSC Director
- NOAA Office of General Counsel
- Federal Enforcement (NMFS and U.S. Coast Guard)
- ASMFC Director

**Executive Director's Report - Dr. Christopher M. Moore**

**Status of Council's Fishery Management Plans (FMP) - Rich Seagraves (Tab 16)**

**Committee Reports (Tab 17)**

- Highly Migratory Species
- Scientific and Statistical (AP Annual Report)
- Research Set-Aside [2012 Research Priorities List and Mission Statement]
- Ecosystem and Ocean Planning
- Squid, Mackerel, Butterfish Committee [Amendment 14 Status]
- Executive Committee [Awards]

**Continuing and New Business (Tab 18)**

- Address Request for Initiation of an Anadromous FMP

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.

## MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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### M E M O R A N D U M

**DATE:** August 5, 2010

**TO:** Research Set-Aside (RSA) Committee and all Mid-Atlantic Council Members

**FROM:** Kathy Collins, Research Set-Aside Program Staff Support

**SUBJECT:** August 16, 2010 RSA Committee Meeting Materials (behind Tab 1)

The RSA Committee will meet on Monday, August 16, 2010 at the Holiday Inn, 400 Arch Street, Philadelphia, PA in the main meeting room from 12:30 p.m. until 2:00 p.m. There are two agenda items for Committee discussion and adoption for Council approval.

#### **Agenda Item 1: Finalize Council's research priorities for 2012 RSA program**

➤ Finalize the RSA Program research priority list for 2012.

A request for recommended changes to the 2011 list was distributed to all Council members and also forwarded to ASMFC staff and NMFS staff on July 19, 2010. A **draft** 2012 priority list was then created by taking the 2011 list and inserting all recommended changes below the original items *in italics* (list is attached). The full text of each submission message then follows at the end of the document.

#### **Agenda Item 2: Finalize RSA Program Mission Statement**

➤ Finalize Draft RSA Program Mission Statement.

# DRAFT Mid-Atlantic Council RSA Program 2012 Research Priority List - Multi-Year Specification

As of: **08-05-2010** (Update of 2011 Priorities List)

*Recommended changes from the 2011 list are indicated in bold and italics.*

## **Spanning Multiple Species**

- Fishery independent surveys for all Mid-Atlantic species, especially in the near shore zone (as provided by the Northeast Area Monitoring and Assessment Program-NEAMAP).

## **Interactions Between *Loligo* Squid, Butterfish, Atlantic Mackerel & River Herring**

- Evaluate potential improvements to observer sampling procedures on catches of butterfish and River Herring in the *Loligo* fishery, and River Herring in the mackerel fishery.
- Mesh selectivity studies involving *Loligo* squid retention and butterfish escapement (both summer and winter).
- Test gear modifications (in addition to mesh size) in the *Loligo* squid fishery to reduce bycatch of butterfish and other species. One example would be the use of 'Fishing Circle Mesh.'
- Study mortality rates of *Loligo* squid that pass through trawl mesh.
- Use of videography in documenting *Loligo* catches without any or minimal butterfish bycatch.

*Jason Didden recommended adding to above: - Evaluate potential improvements to monitoring (at-sea and/or port) catches of butterfish, river herrings, and shads in the Atlantic mackerel and squid fisheries.*

## **Summer Flounder**

- Evaluate the size distribution of landed and discarded fish in the summer flounder recreational fishery by sex. This could be considered for all catch components, which would include the commercial fishery.

## **Bluefish**

- Evaluate amount and length frequency of discards from the commercial and recreational fisheries.
- Collect size and age composition of the fisheries by gear type and statistical area.
- Initiate fishery-dependent and independent sampling of offshore populations of bluefish during the winter months (consider migration, seasonal fisheries and unique selectivity patterns resulting in a bimodal partial recruitment pattern; consider if the migratory pattern results in several recruitment events).
- Develop bluefish index surveys (proof of concept), including abundance/biomass trend estimates for the offshore populations in winter.

## **Black Sea Bass**

- Validate methods used to age black sea bass (scales vs. otoliths).
- Studies focused on life history and reproductive behaviors such as changes in sex ratio as a function of age and size or the evaluation of the sizes of territories in relation to mating or reproduction.
- Increase age sampling across all components of the commercial and recreational fisheries.
- Increase sea sampling to verify information from commercial logbooks toward providing better estimates of discards.
- Develop a fixed gear survey of black sea bass similar to the one developed for scup.

### **Scup**

- Develop indices for scup ages 2+.
- Estimate the fishery components used to calculate scup mortality (commercial and recreational landings, and discards).
- Expand age sampling of scup from commercial and recreational catches, with special emphasis on the aging of large specimens.

### **Illex squid**

- Determine size and age-at-maturity and growth parameters for *Illex* squid.

### **Tilefish**

- *Jose Montanez recommended adding: Effect of hook size on tilefish size selectivity in the longline fishery.*

## Details of Individual Responses to the Request for Updates

From: Montanez, Jose L.  
Sent: Monday, July 19, 2010 1:19 PM  
To: Collins, Kathy  
Cc: Seagraves, Richard J.; Heaton, Clayton E.; Hoff, Thomas B.  
Subject: RE: MAFMC RSA Research Priority List

Perhaps we should add back the tilefish research priorities.

JL Montañez

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From: Didden, Jason T.  
Sent: Monday, July 26, 2010 1:14 PM  
To: Collins, Kathy  
Subject: RE: MAFMC RSA Research Priority List

- Evaluate potential improvements to monitoring (at-sea and/or port) catches of butterfish, river herrings, and shads in the Atlantic mackerel and squid fisheries.

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From: voshea@asmfc.org [mailto:voshea@asmfc.org]  
Sent: Wednesday, July 28, 2010 5:18 PM  
To: Collins, Kathy  
Cc: Beal, Robert; pcampfield@asmfc.org  
Subject: Re: 2011 RSA Priorities List

Kathy,  
We are fine with the priorities as listed. Thank you for giving me the chance to review them and weigh in. Regards, Vince

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From: Coakley, Jessica  
Sent: Monday, August 02, 2010 10:30 AM  
To: Collins, Kathy  
Subject: SFSCBSB Research Items

Hi Kathy,

The research priorities identified in this list reflect input from the research items identified at the last summer flounder benchmark (SAW 47) and the Data Poor Stock Workgroup (December 2008); therefore, I have no additional priorities to recommend at this time.

Jessica

Mid-Atlantic Fishery Management Council  
Research Set-Aside Program  
DRAFT Mission Statement

GOAL: The goal of the Research Set Aside (RSA) Program is to fund scientific research that provides information to improve the conservation and management of fishery resources under the purview of the Mid-Atlantic Fishery Management Council and those managed jointly with the Atlantic States Marine Fisheries Commission (ASMFC).

CORE PRINCIPLES: Recognizing the capabilities that both the scientific community and fishing industry can bring to the program, fisheries research funded under the RSA Program shall:

1. Directly address deficiencies in the information necessary for improved management of commercial and recreational fisheries through topic specific projects and the development and testing of prototype data collection/monitoring programs;
2. When possible and appropriate, be conducted cooperatively between the scientific community and the fishing industry;
3. Be of sufficient scientific/technical merit to meet the requirements set forth in the guidelines for National Standard 2 of the Magnuson-Stevens Act. Availability and distribution of research data shall be in accordance with existing applicable National Marine Fisheries Service (NMFS) and other federal regulations and procedures;
4. Be completed in a cost effective and timely manner;
5. Where appropriate, be conducted in cooperation with other management partners (e.g., Northeast Cooperative Research Program, Councils, NMFS, and ASMFC).

\*\*NOTE: Additions, changes, and corrections from June Committee Meeting are underlined\*\*

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Executive Director

**Lee G. Anderson**  
Vice Chairman

**DATE:** August 5, 2010

**TO:** SMB Committee/Council



**FROM:** Jason Didden

**SUBJECT:** Amendment 14 (Am14) Scoping and next steps

The scoping period for Am14 closed July 9. Scoping hearings were held in: Providence, RI; Riverhead, NY; Cape May, NJ; and Newport News, VA. Following this cover page please find the following items:

<u>Page</u>	<u>Description</u>
2	Potential next steps for Amendment 14
4	Preliminary Amendment Timeline
5	Am14 Scoping Comments Summary
7	Scoping Comments for Am14



## **Amendment 14 (Am14) Potential Next Steps for August Council Meeting**

1. Delay consideration of catch shares in the MSB FMP until the Visioning Project is completed.
2. Clarify the monitoring/bycatch goals of Am14. The Council could select some or all of the following goals or develop others:
  - A. Improve monitoring of the mackerel and *Loligo* fisheries (directed and/or incidental catch).
  - B. Evaluate the bycatch and incidental catch of river herrings and shads in the mackerel and *Loligo* fisheries.
  - C. Evaluate if bycatch of river herrings and shads in the mackerel and *Loligo* fisheries has been minimized to the extent practicable (NS 9).
  - D. Consider alternatives to reduce bycatch of river herrings and shads in the mackerel and *Loligo* fisheries as appropriate per NS 9.
  - E. Consider alternatives to limit/reduce total catch of river herrings and shads in the mackerel and *Loligo* fisheries given river herrings' and shads' apparent depleted status and roles in the ecosystem.
  - F. Consider alternatives to align sea herring and mackerel reporting requirements where appropriate and consider other ways to integrate river herring/shad management

In consideration of these goals it is important to note that MSA NS 9 requires that: "(9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch..." Bycatch is defined as "fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards." Given that preliminary analysis suggests that most river herrings are retained, they may not technically be "bycatch" per MSA. However, MSA also states that the Councils may "include management measures in the plan to conserve...non-target species...considering the variety of ecological factors affecting fishery populations." The new NS1 guidelines also contain significant discussion of "non-target stocks" (retained or discarded) and forage species, which may warrant consideration of alternatives under goal "E" above.

3. Task the Am 14 FMAT to generate a range of effective and feasible alternatives to address the Council's goals. Such alternatives could involve the following (list generally compiled from NEFMC sea herring Am5 and public scoping comments):

### Monitoring

- Weekly VTRs
- Weekly/Trip-by-trip IVR
- VMS
- At-sea processor reporting
- Pre-trip notification (for observers)
- Pre-landing notifications
- Vessel hold certification
- 3<sup>rd</sup> party landings verification

- No discarding requirements
- Video-based monitoring
- Observer facilitation measures (slippage affidavits, haul notifications, bringing cod-ends aboard, etc)
- Slippage consequences (trip termination, caps, etc.)
- Portside sampling % requirements (and funding mechanisms)
- At sea sampling % requirements (and funding mechanisms)

#### Discard reduction measures

- Incidental Mortality Caps (like butterfly)
- Static/Dynamic Time/Area/Gear/Permit closures & Move-Along Rules
- Adding river herrings/shads as "Stocks in the Fishery" (ACLs/AMs) for the MSB FMP.

#### Management Integration

- Alignment of sea herring and MSB FMP requirements
- Management Integration (e.g. Anadromous FMP, merge sea herring and mackerel, joint committee meetings, etc.)
- Consider provisions related to NS1 guidance on forage fish

**Note on C.V.s:** Discard and bycatch estimates often include C.V.s as a measure of precision and many Am14 comments address precision requirements in terms of C.V. C.V.s are useful for comparing the relative precision of two estimates but beyond that other statistics may be more informative. The statistics that go into calculating C.V.s can be used to construct confidence intervals, which illustrate the uncertainty regarding a particular estimate. Without getting too deep into the underlying statistics, if you approximately double a C.V. you can calculate the 95% confidence interval (assuming a normal distribution).

For example, if an estimate was 10,000 pounds with a C.V. of 0.3 (30%), then you can say that the estimate was 10,000 pounds with a 95% confidence interval of +/- 60%. In other words, if you re-ran the sampling approach, you would expect that 95% of the time you would get an answer between 4,000 pounds (minus 60%) and 16,000 pounds (plus 60%), and 5% of the time the estimate would be outside this range. It is also important to note that many sources of uncertainty are not included in the C.V. calculation (e.g. observer measurement error, basket sampling error, data entry errors). As a result, the real uncertainty for an estimate may in fact be greater than what is suggested by its C.V., and caution may be warranted when using C.V.s as goals for a given policy.

## Preliminary AM 14 Timeline - Catch Shares (?), River Herrings/Shads

- Late 2009 – Staff created scoping document.
- Mar 2010 – Council held Catch Share Workshop
- April 2010 – Committee approved Scoping Document
- May 2010 – FR the Scoping document
- June 2010 – Scoping Hearings
- Aug 2010 – Committee receives scoping comments, defines goals/objectives, supp. NOI if necessary, task FMAT to develop alternatives
- Sept 2010 – Non-decisional committee meeting to review science of river herring/shad issue.
- Nov 2010 – Preliminary FMAT recommendations re: alternatives.
- Dec 2010 – Committee (w/AP) approves preliminary set of alternatives for detailed analysis...
- Feb 2011 – Committee reviews work on analysis, redirects staff/FMAT as necessary
- Mid 2011 – Staff Writes DEIS, Committee meeting to clarify outstanding issues
- Aug 2011 – Council approves DEIS for Submission to NMFS, selects preferred alternatives
- Sept 2011 – Document perfection, FR the DEIS
- Oct 2011 – Public hearings for Am 14 with DEIS
- Dec 2011 – Council receives comments, makes changes re: public comments, chooses alternatives
- Jan 2012 – Document perfection, replies to comments
- Feb 2012 – Council approves FEIS for Submission
- Mar 2012 – Document Perfection w/ NMFS
- May 2012 – Proposed Rule
- July 2012 – Comment Period Closes
- Sept 2012 – Final Rule
- Oct 2012 – Final Rule Effective

Amendment 14 Scoping Comment Summary							
Notes: "For self" means on behalf of one person or one company. "For a group" means the person indicated they were acting on behalf of a group of people or group of companies. If it was clear that the same person/group made identical oral and written comments, the comments are only recorded in the written comment column below. This summary focuses on measures requested to be in the scope of measures considered and/or implemented by Amendment 14, and all comments have been forwarded to the Council for purposes of determining the scope of Amendment 14. Petitions organized by an organization are recorded as one group idea and however many individuals signed are recorded as well. Because a few people may have submitted duplicate comments and because a few organizations were included in multiple comments, all numbers are approximate.							
				Number of individuals expressing given idea			
				Oral (Public Hearings)		Written	
Ref #	Comment on measures to include, or not include if so noted.	Number of persons for self	Number of persons for a group	Number of persons for self	Number of persons for a group		
1	Measures to improve/increase at-sea and/or dockside monitoring so that accurate catch estimates (30% C.V. or better) can be calculated.			4108	65		
2	Measures to implement bycatch limits/caps			4105	59		
3	Measures to implement mandated time/area/gear closures where shad or river herring bycatch is likely (including move-along rules)			4106	61		
4	Measures to implement/utilize industry or other funding mechanisms for increased observer coverage.	1			54		
5	Measures to minimize bycatch/incidental catch. [General, no specifics provided]			7	6		
6	Measures to include river herrings/shads as MSB FMP "Stocks in the Fishery" (and therefore implement ACLs/AMs) and/or address National Standard 1 guidelines for forage species			1	50		
7	Measures to engage/lead other management partners to more broadly monitor and reduce impacts on river herrings/shads (e.g. integrated federal plan, joint committees, etc.)			1917	61		
8	Measures for mandatory river herring monitoring and bycatch reduction should be delayed pending additional analysis of river herring/shad populations, bycatch/bycatch impacts, and/or a voluntary bycatch approach currently being pursued by industry.	1	1	8	4		
9	Measures to implement a moratorium on these fish for at least two or three spawning cycles to see if the numbers increase.			1			
10	Measures to implement 100% observer coverage for mid-water trawl and/or directed mackerel fishery vessels (comments often specified one observer on each pair-trawl vessel)	1		1914	53		
11	Measures to ensure all catch is made available for sampling (issues of slipping, dumping, etc. before observers sample)			1914	54		

Ref #	Comment on measures to include, or not include if so noted.	Oral (Public Hearings)		Written	
		Number of persons for self	Number of persons for a group	Number of persons for self	Number of persons for a group
12	Measures to provide real-time reporting and rapid distributing of bycatch information (comments often specified that such information should be made available to the public)				49
13	Measures to facilitate additional research to determine bycatch impacts in terms of spawning in particular river systems.			1	2
14	Measures to exclude mid-water trawling with small mesh gear from groundfish closed areas.				3
15	Measures to make sure mid-water trawls do not fish near the bottom				1
16	Measures to stop all trawling and/or small mesh trawling	1		1	
17	Measures to reduce small mesh quotas by 1/3 for a 5-year period			1	
18	Measures to temporarily suspend commercial Shad and River Herring sales.			1	
19	Measures to require all Eastern U.S. states and Canadian provinces to monitor Shad and River Herring spawning populations and report their findings to MAFMC.			1	
20	Measures to implement catch shares should be delayed pending the outcome of the Visioning Project	2		7	4
21	Measures to implement catch shares in the squid fisheries.	2			
22	Measures to implement catch shares should not be included (often mentioned fact that quotas generally have not been harvested recently).	5	1	6	
23	Impending butterfish cap will increase monitoring on the Loligo fishery sufficiently.	1			
24	Measures that use control dates to re-qualify vessels for squid limited access to remove latent capacity	2			
25	Measures to use a 2/3 referendum if attempting to implement catch shares		1		
26	A control date of 2003 is stale	1			

# Atlantic States Marine Fisheries Commission

1444 Eye Street, N.W., Sixth Floor  
Washington, D.C. 20005  
(202) 289-6400  
(202) 289-6051 (fax)  
www.asmf.org

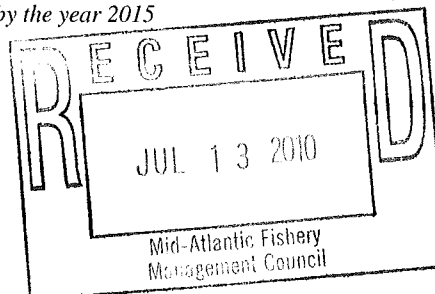
Robert H. Boyles, Jr. (SC), Chair  
Paul Diodati, (MA), Vice-Chair

John V. O'Shea  
Executive Director

*Working towards healthy, self-sustaining populations for all Atlantic coast fish species, or successful restoration well in progress, by the year 2015*

July 8, 2010

Mr. Daniel T. Furlong  
Executive Director  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, Delaware 19901



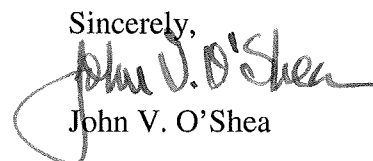
Dear Mr. Furlong,

The Atlantic States Marine Fisheries Commission Shad & River Herring Management Board (Board) supports the Councils' development of a shad and river herring bycatch monitoring and management program in Amendment 14 to the Mackerel, Squid, and Butterfish (MSB) FMP. Current levels of observer coverage in these fisheries do not provide accurate estimates shad and river herring bycatch. However, preliminary estimates indicate that in some years, the extent of bycatch could be impacting the recovery of these populations. Identifying the magnitude and timing of shad and river herring bycatch events is necessary to determine if mitigation measures such as time-area closures, bycatch quotas, or gear restrictions are warranted.

The Board recommends that bycatch monitoring consist of a combination of at-sea and dockside monitoring. Monitoring should be increased to adequately cover gear types, range, and seasonality of the MSB fisheries so that accurate bycatch estimates (30% C.V.) can be calculated. Additionally, the Board is concerned these fisheries are encountering shad and river herring prior to their first spawning event. This would significantly reduce the stocks' ability to rebuild. Also, near shore bycatch events may have a significant impact on shad or river herring stocks from adjacent river systems. To address these concerns, additional biological and genetic research will need to be conducted.

Board member states and jurisdictions have made a considerable commitment to American shad and river herring conservation through the approval of Amendments 2 and 3 within the past year. As a result, all shad and river herring fisheries will be closed unless states provide evidence that removals can occur at sustainable levels. The Board is also working to mitigate in-river bycatch, as well as working with our partner agencies to improve habitat accessibility and quality. The Board has also supported the New England Council development of a complementary bycatch monitoring program in the Atlantic herring fishery. We look forward to working cooperatively with the Council to address this difficult and important issue.

Sincerely,



John V. O'Shea

cc: Malcolm Rhodes, Chair, ASMFC Shad and River Herring Management Board  
ASMFC Shad and River Herring Management Board

CONNECTICUT, DELAWARE, FLORIDA, GEORGIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE,  
NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, RHODE ISLAND, SOUTH CAROLINA, VIRGINIA

To whomever it may concern:

HERRING AND SHAD ARE IMPORTANT FISH THAT MUST BE PROTECTED FOR OBVIOUS REASONS WHICH WE ALL KNOW.

SO MY VOTE IS FOR THESE FISH.

WHERE DO YOU STAND?

REGARDS,

N. SZYMANSKI

# Susquehanna River Anadromous Fish Restoration Cooperative

Susquehanna River Coordinator Office  
1601 Elmerton Avenue, P.O. Box 67000  
Harrisburg, PA 17106  
Voice: (717) 705-7838

July 9, 2010

filed electronically

Daniel T. Furlong, Executive Director  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901  
Fax: (302) 674-5399  
Email: [info1@mafmc.org](mailto:info1@mafmc.org)

RE: Scoping Comments on MSB 14

Dear Mr. Furlong,

Pursuant to Federal Register/Vol. 75, No. 110/Wednesday, June 9, 2010/Notice published by the Department of Commerce, National Oceanic and Administration (RIN 0648-AY26), regarding the "Fisheries of the Northeastern United States; Atlantic Mackerel, Squid, and Butterfish Fisheries; Scoping Process" the Susquehanna River Anadromous Fish Restoration Cooperative (SRAFRC) provides the following comments.

## SRAFRC

The SRAFRC is a cooperative organization comprised of fishery agencies from the three basin states (New York State Department of Environmental Conservation (NYSDEC), Pennsylvania Fish and Boat Commission (PFBC), and Maryland Department of Natural Resources (MD DNR)), the Susquehanna River Basin Commission (SRBC), the U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS). The SRAFRC members recognize the need for a unified approach to planning, management, stock restoration and enhancement, and evaluation of inter-jurisdictional fishery resources.

## Amendment 14

The Mid-Atlantic Fishery Management Council (Council) announced its intent to prepare an amendment (Amendment 14) to the Fishery Management Plan (FMP) for Atlantic Mackerel, Squid, and Butterfish (MSB) and to prepare an EIS to analyze the impacts of any proposed management measures. Amendment 14 may address one or more of the following issues: 1) the implementation of catch share systems for the squid fisheries; 2) the need for additional fishery monitoring to determine the



significance of river herring and shad incidental catch in the MSB fisheries; and 3) the effectiveness and impacts of management measures to minimize bycatch and/or incidental catch of river herrings and shads.

#### SRAFRC Comments

Of the above three issues the SRAFRC will restrict its comments to issues 2 and 3 (alewife bycatch) as they potentially impact the SRAFRC goal of restoring self-sustaining, robust, and productive stocks of migratory fish capable of producing sustainable fisheries, to the Susquehanna River Basin throughout their historic ranges in Maryland, Pennsylvania, and New York. We stress the importance of monitoring and minimizing the ocean landing and discarding (bycatch) of river herring (blueback herring and alewife) and shads (American and hickory) in the MSB fisheries, especially given the currently low levels of monitoring in the MSB fisheries and the observed poor status of many shad and river herring stocks.

SRAFRC has undoubtedly taken the lead in its attempt to restore American shad in the Susquehanna River. Initially, restoration stocking and eliminating directed harvest resulted in the Susquehanna River American shad stock increasing to a peak of 200,000 fish in the 2001 counts at the Conowingo Dam fish lifts near the mouth of the Susquehanna River, however the counts decreased precipitously in recent years by an order of magnitude and currently remain at very low levels. River herring are also following this same abundance trend in the Susquehanna River and other Maryland waters where they are monitored.

Poor stock status of shad and river herring has been observed coast-wide, and in an effort to restore this important coastal resource the Atlantic States Marine Fisheries Commission (ASMFC) mandated that all Atlantic states must close their recreational and commercial river herring fisheries by 2012, and their American shad fisheries by 2013 unless they can prove their fisheries would be sustainable. The impacts of depleted river herring and shad runs extend well beyond the severe social and economic costs to coastal and Susquehanna River basin communities. River herring and shad are essential to the coastal forage base that supports a wealth of predators like striped bass, bluefish, ospreys and dolphins.

The Susquehanna River presents clear evidence of unquantifiable American shad losses that are likely driven by ocean bycatch. Both Maryland and Pennsylvania closed their directed commercial and recreational American shad fisheries in 1980 to protect spawning runs, and available spawning and rearing habitat in the Susquehanna River Basin has been documented to produce some strong juvenile year class recruitment in years past, but these year classes have not returned the expected numbers of adult spawning fish back to the Susquehanna River. Based on a long time-series of monitoring it has been observed that the number of stocked larval fry needed to return an adult American shad to the Susquehanna River has steadily increased over recent years indicating a potential for higher levels of at-sea mortality in recent years.

Bycatch in ocean fisheries is believed to be a major source of fishing mortality, yet ocean bycatch continues to be loosely monitored and poorly regulated. Not only is there a need to adequately quantify American shad and river herring losses from the bycatch fisheries, but there is a need to identify essential (preferred) ocean habitat for alosines and eliminate or reduce bycatch in these areas to manageable levels that do not hinder recovery, restoration, and management plans for these coastal migratory alosines.

With respect to alosine bycatch issues, the Council's scoping document proposed three questions for consideration by potential commenters:

**Question 1:** Should at-sea and/or dockside monitoring be increased?

SRAFRC Answer: YES, for the reasons stated above.

**Question 2:** How can monitoring be improved?

SRAFRC Answer: Annual at-sea MSB observer coverage should be at least 30%. All alosine bycatch should be individually identified and quantified to species. The size and age of all alosine bycatch should be assessed and reported. All bycatch needs to be monitored including both incidental (landed) and discards.

**Question 3:** Should the Council consider additional fishing restrictions to minimize incidental catches? If so, what kinds of restrictions?

SRAFRC Answer: YES, the Council should consider additional fishing restrictions to minimize all bycatch (not just incidental catch). The amount and kinds of restrictions would depend on the information derived from an adequate at-sea monitoring program. However, as stated above, there is a need to identify essential (preferred) alosine ocean habitat and protect it through bycatch limits, mandated area closures where American shad or river herring bycatch is highly probable, and/or restricting seasonal access to essential ocean habitat areas when used intensively by alosines.

#### Cooperation with the New England Fisheries Management Council

In addition to our above comments on Amendment 14, we would like to take this opportunity to encourage the Council to engage in a cooperative effort with the New England Fishery Management Council to adequately monitor alosine bycatch, identify potential problems, and explore cooperative solutions to address the impacts of alosine bycatch in all MSB fisheries.

Thank you for the opportunity to comment during the Amendment 14 scoping process. If you have any questions please contact me or the SRAFRC Fishery Program Coordinator (Larry Miller, 717-705-7838, email: [larry\\_m\\_miller@fws.gov](mailto:larry_m_miller@fws.gov)).

Sincerely,

*s/ Jaime Geiger*

Chair, SRAFRC Policy Committee

James G. Geiger, Ph.D.  
Assistant Regional Director-Fisheries  
U. S. Fish and Wildlife Service, Northeast Region  
300 Westgate Center Drive  
Hadley, MA 01035-9589, U.S.A.  
Tel: 413-253-8304  
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E-mail: [jaime\\_geiger@fws.gov](mailto:jaime_geiger@fws.gov)

cc:

Chair ASMFC Shad and River Herring Board  
Department of Commerce - National Oceanic and Administration  
SRAFRC Policy Committee  
SRAFRC Technical Committee

**From:** Bob.Slobodian@L-3com.com [mailto:Bob.Slobodian@L-3com.com]  
**Sent:** Monday, June 14, 2010 3:29 PM  
**To:** Info1  
**Subject:** MSB 14

**To whom it may concern**

**I would like to make the following comments concerning MSB 14. I would like to see more at sea monitoring and dockside monitoring of catches and or by-catch implemented.**

**I think the small mesh fisheries are greatly effecting the Herring and American Shad stocks on the entire Eastern Sea Board. The decimation of the Herring and American Shad stocks adversely effect the entire ecological system from top to bottom.**

**The MAFMC must also enforce the existing rules and regulations that are in place. We can pass all the Laws and Regulations we want to but if they are not enforced they are worthless.**

The MAFMC must control the commercial catch.

ROBERT A. SLOBODIAN

**Didden, Jason T.**

---

**From:** simizu@konan-wu.ac.jp  
**Sent:** Friday, July 09, 2010 1:38 AM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
Michele Shimizu  
32 Grove Street  
Boston, MA 02114



## **SUSTAINABLE FISHERIES COALITION**

**[www.fisheriescoalition.org](http://www.fisheriescoalition.org)**

**PO Box 440 Winterport, Maine 04496-0440**

*The Sustainable Fisheries Coalition is an organization of the Atlantic herring and Atlantic mackerel mid-water trawl and purse seine industry, operating from Maine through New Jersey. The Coalition was established in 2007 to improve public outreach and education and increase awareness of the economic importance and environmental sustainability of the Atlantic herring and Atlantic mackerel fisheries.*

July 9, 2010

Mr. Daniel T. Furlong  
Mid-Atlantic Fishery Management Council (MAFMC)  
800 North State Street, Suite 201  
Dover, DE 19901

Email to: [info@mafmc.org](mailto:info@mafmc.org)  
Re: Scoping Comments on MSB 14

Dear Dan:

On behalf of the fishermen and plant employees of the Atlantic mackerel companies organized as the Sustainable Fisheries Coalition; Cape Seafoods, Inc. of Gloucester, Massachusetts; Irish Venture, Inc. of New Bedford, Massachusetts; Lund's Fisheries, Inc. of Cape May, New Jersey; and NORPEL (Northern Pelagic Group) of New Bedford, Massachusetts, I am writing to provide you with our comments concerning the proposal to develop Amendment 14 for the Atlantic mackerel, squid and butterfish (MSB) fishery management plan.

These companies directly employ about 350 people and have collectively invested approximately \$80 million in plants and vessels, in addition to providing markets for many independent vessels, and are nearly 100 % dependent upon the Atlantic mackerel and Atlantic herring fisheries.

Our comments generally follow the structure of the Council's scoping document.

*With a catch share Visioning Process likely to be undertaken by the Council, and a voluntary, small mesh fishery river herring bycatch proposal being funded through the National Fish and Wildlife Foundation, we do not see a need for Amendment 14 to move ahead at this time.*

### Implementation of Catch Shares for the Squid Fisheries

*We support the decision of the Council's Executive Committee, agreed to at its June 9 meeting in New York, to engage in a catch-share "Visioning Process" before catch shares are implemented in the squid fisheries or any other fishery under the jurisdiction of the MAFMC.*

Particular emphasis should be given to programs that include adaptive management components designed to benefit fishing communities, including residents who conduct commercial and recreational fishing and fish processing, with the goal of providing community stability, processor stability and facilitating new entrants. Investments in infrastructure and participation in the fishery by fishermen, processors and communities should be important in developing these plans, as should historic dependence upon the resource for all of these entities.

### Implementation of River Herring Actions

*Before implementing a plan amendment to address the incidental take of shad or river herring in the MSB fisheries, the MAFMC should work with the New England Fishery Management Council (NEFMC), the Atlantic States Marine Fisheries Commission (ASMFC) and National Marine Fisheries Service (NMFS) to review incidental catch data in a variety of small mesh fisheries in the region to determine if fishing restrictions to minimize incidental catches are warranted or necessary.*

*We believe that it is important for the MAFMC to determine what the fishing mortality effect on shad and river herring species may be, relative to mortality from other sources (including habitat loss and degradation, and predation), before considering additional fishing restrictions to minimize incidental catches in the MSB fisheries.*

In recent months, the MAFMC, and other petitioners, have requested that the Secretary of Commerce consider taking emergency action to implement monitoring measures to assess bycatch of blueback herring and alewife ("river herring") in small-mesh fisheries.

On December 15, 2009, the MAFMC received a letter from Dr. James Balsiger, then Assistant Administrator for the NMFS, stating that the agency had determined "*that emergency rulemaking...to increase monitoring or observer coverage of river herring bycatch in small-mesh fisheries in New England and the Mid-Atlantic is not warranted or justified at this time.*"

In his letter, Dr. Balsiger stated that "(r)iver herring populations...have been declining since colonial times due to fishing (commercial and recreational) and both habitat loss and degradation (e.g. dam construction, siltation, pollution)." He goes on to state that "(t)he decline of river herring is not a recent, unforeseen event, thus NMFS does not believe emergency action is warranted."

Dr. Balsiger's letter expresses concern with the use of preliminary and uncertain estimates of the incidental catches of river herring in the Atlantic herring fishery, stating that "70% of the observed trips had no river herring bycatch." *We suspect that this is also true of the MSB fisheries. In fact, there is some anecdotal evidence that suggests that river herring are infrequently found with mackerel catches, likely due to mackerel's faster swimming speed.*

In response to concerns raised by the MAFMC and others, Dr. Balsiger details the fact that the agency has increased observer coverage in the herring fishery and indicates that it is the intention of the agency to redirect observer seadays, through the Northeast Standardized Bycatch Reporting Methodology, with small mesh fisheries receiving priority. In addition, he tells us that "NMFS has also formally expanded sampling protocols to systematically characterize the unique fishing practices of high-volume fisheries (e.g. the Atlantic herring fishery, mackerel fishery, and Loligo squid fishery)."

*While we support the use of additional observer seadays in the MSB fisheries, in order to better quantify the extent of river herring and shad incidental catches and discards, we believe it is premature for the Council to proceed with a plan amendment to address these issues since the current data is insufficient to be used to develop additional fishing restrictions.*

Dr. Balsiger also describes the agency's close cooperation with the ongoing dockside sampling program managed by the States of Maine and Massachusetts, which has sampled small mesh catches from Maine through New Jersey over the last three or four years.

The Sustainable Fisheries Coalition continues to support this dockside monitoring program and has worked to secure federal funding for it. During Fiscal Year 2010, \$350,000 of NMFS funding was directed to the State of Maine primarily for this purpose and we are optimistic that an additional \$350,000 of NMFS funding may also be earmarked to support the regional small mesh shoreside monitoring program in Fiscal Year 2011.

In his December letter to the Council, Dr. Balsiger stated that petitioners for emergency action have "recommended that NMFS develop real-time river herring bycatch reporting and establish temporal and spatial gear restrictions and closures of river herring hot spots if and when bycatch levels exceed acceptable limits." He goes on to say that he has found "that these requests, particularly in light of ongoing efforts by the Councils and ASMFC, do not present sufficiently serious conservation concerns to justify Secretarial emergency action. Moreover, increased discard monitoring must be coupled with a monitoring program of adult returns to individual river systems. Otherwise the relationship between discard losses and stock size cannot be ascertained."

*We agree that the relationship between the incidental catch of shad and river herring species, and the health of individual river systems, needs to be better understood before additional fishing restrictions to minimize incidental catches are proposed by the MAFMC.*



At this time, the NEFMC's herring PDT is reviewing incidental catch data from small mesh fisheries and is struggling to identify seasonal hot spots, since it is difficult to predict when and where shad or river herring may occur from year to year. Area closures, for example, may actually work to direct fishing effort into areas where bycatch may increase, rather than be reduced.

The Sustainable Fisheries Coalition, in an attempt to be proactive and alert small mesh fishing captains to the public's concerns for river herring restoration, along with the need to minimize the incidental catch of these resources to the extent practicable, has submitted a proposal to the National Fish and Wildlife Foundation (NFWF), with the School of Marine Science and Technology (UMASS Dartmouth), and the Massachusetts Department of Marine Fisheries, to implement a voluntary, small mesh bycatch avoidance program in the MSB and other fisheries, including the herring fishery. The proposal, entitled "River Herring Bycatch Avoidance in Small Mesh Fisheries" has been funded pending final budget modifications. We have earlier provided a copy of this proposal to MAFMC and NEFMC staff.

The project will investigate the use of a real-time, intra-fleet communication program, utilizing existing vessel monitoring system (VMS) capabilities, to identify times and areas where shad or river herring bycatch may be high and may be avoided by the fleets. The project builds on a Code of Conduct for the herring and mackerel fisheries, which we have been involved in drafting (appended to the NFWF proposal). The program calls for vessels operating in areas and at times when significant levels of non-target fish may occur to use a test tow or test set to determine the level of incidental catch of these species.

If significant levels of non-target species are in the area, vessels would be alerted by an email through the VMS system and would move a minimum distance from the fishing area for a minimum period of time. If the Captain determines that bycatch levels are within acceptable limits to remain in the area to fish, the time of the first tow in the area would also be limited to ensure that reasonable bycatch rates can be sustained in the fishing area of concern.

This project is designed as a research project that would inform managers about the need for additional regulation of the small-mesh fishing industry in the future. Details on the length of test tows, what incidental catch targets are appropriate and how far and for how long vessels should move from an area, if significant amount of shad or river herring are found in catches, would be informed by the project.

*Since the effects of incidental catches on shad and river herring populations have yet to be determined, we believe that any future management measures that may be proposed should balance the anticipated benefits from a reduction in mortality of these species with the cost of additional regulation to a number of regional fisheries.*

Other Issues That Could be Addressed in Amendment 14

In our comments to the Council on A11, concerning a limited entry program for the mackerel fishery, we supported coordinating the reporting requirements in the NEFMC herring plan, and any potential monitoring measures that may emerge from A5 to the Atlantic herring FMP, with the MSB plan's regulation of the mackerel fishery, including volumetric measurement of vessels, daily reporting and observer and enforcement call-in requirements.

*We request that the MAFMC establish a joint committee with the NEFMC with the goal of simplifying and coordinating the monitoring and reporting requirements in both the mackerel and herring fisheries since many participants, including Lund's Fisheries, fish in both fisheries and since mixed trips are often landed, particularly during the winter fishery that takes place in herring Management Area 2.*

Thank you for your attention to, and consideration of our comments. Please do not hesitate to contact us if we can provide you with additional information.

With best regards,

*Jeff Kaelin*

SFC Clerk; Lund's Fisheries Inc.

*Dave Ellenton*

Cape Seafoods, Inc., President

*Peter Mullen*

Irish Venture, Inc.

*Jeffrey Reichle*

Lund's Fisheries, Inc., Treasurer

*Peter Moore*

NORPEL

*Brady Schofield*

NORPEL

*Jerry O'Neill*

Western Sea Fishing Co., Inc.

Hello my name is John and I would like to coment by saying we should be doing all possible actions to leave the forage fish alone to spawn in our rivers. In the past years we've had unusual high water run off through the rivers in the northeast. These events lowered water quality and damaged spawning bed in the river. We should have a moratorium on these fish for at least two or three spawning cycles to see if the numbers increase.



July 9, 2010

**SENT VIA ELECTRONIC MAIL**

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

**RE: Scoping Comments on MSB Amendment 14**

Dear Mr. Furlong,

Please accept the following as Riverkeeper, Inc.'s ("Riverkeeper") comments on the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (MSB FMP) as published in the June 9, 2010 Federal Register. These comments supplement and reiterate the comments submitted by Riverkeeper and 42 other signatories on July 9, 2010.

Riverkeeper was founded in 1966 as the Hudson River Fishermen's Association, by a group of concerned commercial and recreational fishermen who came together and fought to reclaim the Hudson from the polluters who threatened the fish, the fishing, and the river itself. It was these very fishermen who spawned the environmental movement in the Hudson Valley. More than forty years later, Riverkeeper continues to advocate for protection of the Hudson River's fish populations and has been working to protect both American shad and river herring in the Hudson and along the east coast.

American shad and river herring populations are at historic lows throughout much of the east coast and have shown little sign of recovery despite considerable efforts by states to improve river habitat and protect remaining populations. In New York the historic commercial shad fishery which had operated continuously since colonial times was recently closed (in addition to the recreational fishery). The status of river herring in the Hudson is also one of long term decline which will likely result in severe restrictions or a closure of the fishery.

In regulatory comments submitted to the Atlantic States Marine Fisheries Commission (ASMFC) on Amendments to the Interstate Management Plan for Shad and River Herring and to the New York State Department of Environmental Conservation (DEC) on changes to fisheries regulations for shad and river herring Riverkeeper has repeatedly pointed to offshore bycatch as likely being a substantial contributing factor in the decline of these species in the Hudson and coast-wide. Lack of data and consistent observer coverage for ocean fisheries where shad and herring are likely taken as bycatch has made it difficult if not impossible for this source of population mortality to be understood and eliminated.

Riverkeeper believes that the incidental capture of American shad and river herring in federal waters is impeding population rebuilding efforts for these species and urge the MAFMC to adopt measures to monitor and reduce incidental catch of these species in the small-mesh fisheries under its purview.

The Council should take the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

#### **Improved Monitoring and Data collection:**

- The current levels of bycatch monitoring and data collection within the Mid-Atlantic's small-mesh fisheries are inadequate. To ensure accurate and statistically reliable accounting of bycatch **increased observer coverage** is necessary. At a minimum 1 NMFS certified observer (i.e, 100% observer coverage) should be required for mid-water trawl vessels (including one observer assigned to each vessel in a pair trawl operation). Observers must be trained, certified, and capable of identifying river herring and shad to species. Additionally, the Council should require that 100% of catch in federal waters be systematically sampled by NMFS certified observers. No catch can be allowed to be discarded to the sea (i.e., slipped) or transferred to a receiving vessel without sampling, otherwise the total catch (incidental or target) cannot be estimated properly.
- Amendment 14 should include an alternative for an industry funded observer program, to ensure that an adequate observer program is implemented in the event of federal budgetary constraints.

#### **Reduce Incidental Catch of River Herring and Shad:**

- Establish a cap on the amount of incidental catch for river herring and shad that can be taken each year. Initially, caps should be based on recent catch from VTR reports, and then replaced with caps based on the population biology of the alosine species as soon as possible;
- Develop near real-time river herring and/or shad bycatch reports similar to those provided by NMFS for the current groundfish quota tracking in Special Access Programs and U.S. Canada Resource Sharing Areas and make these reports readily accessible to the public;
- For areas identified as having a high probability of incidental catch of river herring or shad, establish temporal and spatial gear exclusions based upon the best available scientific data;
- Coordinate with the NEFMC to create a unified approach for bycatch reduction amongst the Atlantic Herring fishing fleet and those under the Mid-Atlantic council's jurisdiction. Because many of the highest capacity vessels involved in these fisheries are the same, any bycatch reduction strategies by either Council cannot succeed unless there are unified measures.

#### **Address the Role of Forage Fish:**

- The Mackerel, Squid, Butterfish FMP needs to better account for River Herring and Shad's role as a forage fish. National Standard 1 (NS1), and the implementing guidelines, offer clear guidance on forage species and the special considerations warranted in managing these species.
- River herring and shad are clearly landed in the Atlantic mackerel fishery and should be classified as non-target stocks in the fishery according to the National Standard One guidelines<sup>1</sup>. As non-target stocks in the fishery, the MAFMC should develop status determination criteria and

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<sup>1</sup> 50 CFR § 600.310(d)(3-4)

reference points, and develop necessary Annual Catch Limits (ACLs) with suitable Accountability Measures (AMs).

**Coordinated Management Measures:**

- In order to be successful in the long-term, management efforts will need to be coordinated among the multiple management bodies (ASMFC, NEFMC, MAFMC) with overlapping jurisdictions over river herring and shad. We urge that the MAFMC lead the efforts to bridge these management gaps by developing, in consultation with the NEFMC, an integrated federal management plan, to work in cooperation with the ASMFC Interstate Fishery Management Plan (IFMP), to manage river herring and shad throughout their range.
- The MAFMC should begin efforts to consolidate management of the Atlantic Herring and the Atlantic Mackerel fisheries under a single FMP. Due to the overlap between these two fisheries, we believe that it will be necessary to create a single management plan for management measures for both stocks to succeed, and ultimately, for the best stewarding of the resources.

Thank you for this opportunity to comment on the he Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (MSB FMP). If I may provide any clarification regarding the above comments, or additional information, please contact me at 914-478-4501 x247 [jverleun@riverkeeper.org](mailto:jverleun@riverkeeper.org)

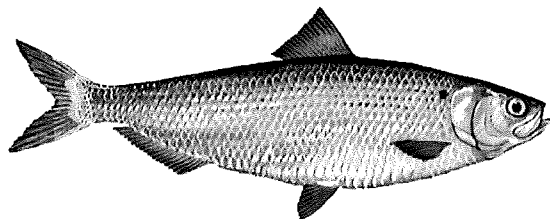
Best regards,

/Joshua Verleun/

Joshua Verleun, Esq  
Staff Attorney & Chief Investigator

Jason Rice


# RIVER HERRING RESCUE

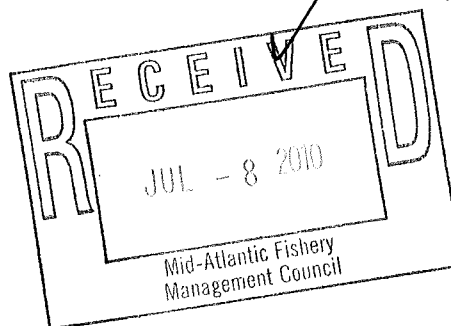


savetheriverherring.org

June 30, 2010

**RE: Scoping Comments on MSB 14**

  
Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901



Dear Mr. Furlong,

River Herring Rescue is a grassroots, volunteer effort based in New Jersey that aims to address the short-term need to help river herring get over the obstacles they face, while working simultaneously to remove those obstacles over the medium to long term. River Herring Rescue intends to accomplish several key objectives:

- Preserve the existing biomass while the other issues are resolved.
- Raise public awareness about local waters and the failing marine food web.
- Gather scientific data for fishery managers to decide upon conservation measures needed.
- Raise funds for habitat protection, fish ladder projects, etc.
- Restore and improve ecosystem and game fish health.
- Improve recreational fishing and boost economy for related fishing businesses.

We believe ocean bycatch of river herring and shad presents a serious obstacle to their recovery, and we strongly support the development of a bycatch monitoring and reduction program for these species through Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Enclosed you will find a petition signed by recreational fishermen from New York, New Jersey and Pennsylvania advocating for:

1. High levels of at-sea catch monitoring in the mackerel and squid fisheries;
2. Enforceable bycatch limits for alewife, blueback herring, and American shad; and
3. Fishing closures that protect offshore habitat where river herring and shad are known to congregate.

With a return of strong herring runs, entire stocks of important game fish will be healthier. The health of many species depends directly upon a healthy marine food web, and river herring and shad are vital sources of nourishment for other fish, marine and river mammals such as river otters and seals, and fish-eating birds like herons and egrets, amphibians, and reptiles. Recreational fishing for striped bass alone would greatly benefit, as would local shorefront business and fishing charter operations.

Thank you for the opportunity to comment.

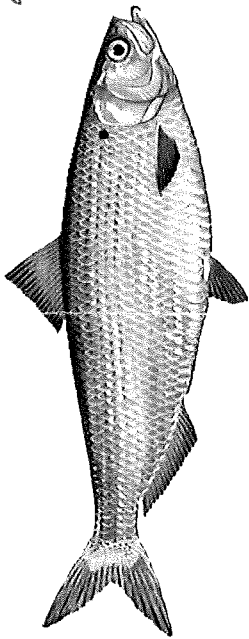
Sincerely,

A handwritten signature in black ink that reads "Paul Eidman". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Capt. Paul Eidman

Enclosure (1)





**River Herring Rescue**  
**Savetheriverherring.org**

**THANK YOU FOR YOUR HELP!**

MAFMC staff

note: 34

individuals signed

this petition.

*[Handwritten initials]*

## Petition to Protect River Herring and American Shad from Ocean Bycatch

<p>Petition summary and background</p>	<p>The Atlantic States Marine Fisheries Commission ordered all river herring fisheries to close by 2012 and all American shad fisheries to close by 2013 unless states can prove the fisheries would be sustainable. Despite inland habitat restoration work and severe restrictions on directed fishing, American shad and river herring populations remain at historic lows. Bycatch in ocean fisheries is believed to be a major source of river herring and shad mortality, yet ocean bycatch continues to be loosely monitored and poorly regulated.</p>
<p>Action petitioned for</p>	<p>We, the undersigned, urge the Mid-Atlantic Fishery Management Council to afford adequate protection to river herring and American shad at sea through Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. We believe ocean bycatch is impeding state and local community efforts to restore our shad and river herring runs and to sustain our fisheries. Amendment 14 should include the following actions: 1) high levels of at-sea catch monitoring in the mackerel and squid fisheries; 2) enforceable bycatch limits; and, 3) fishing closures that protect offshore habitat where river herring and shad are known to congregate.</p>

Printed Name	Signature	Address	Date
LINDA MARY	<i>[Handwritten Signature]</i>	607 DEVONSHIRE RD, HAUPPAUGE NY	5/4/10
DOE OTTEWAY	<i>[Handwritten Signature]</i>	14 CAMPBELL DR SAITHEAVEN	5/4/10



established 1866

# Pennsylvania Fish & Boat Commission

**EXECUTIVE DIRECTOR**  
**P.O. Box 67000**  
**HARRISBURG, PA 17106-7000**  
717-705-7801 – 717-705-7802 (FAX)  
E-MAIL: [JARWAY@STATE.PA.US](mailto:JARWAY@STATE.PA.US)

July 9, 2010

Rich Seagraves, Acting Executive Director  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901.

RE: Scoping Comments on MSB 14

Dear Mr. Seagraves:

The Pennsylvania Fish and Boat Commission (PFBC) is responsible for the management of shad and river herring in Pennsylvania's jurisdictional waters of the Delaware and Susquehanna river basins. Our agency was founded in 1866 for the purpose of restoring American shad runs to the Susquehanna River which were lost as a result of the damming of the river for hydropower production. Furthermore, the PFBC Van Dyke fish culture station has been at the forefront of modern American shad restoration efforts through the development of successful culture and marking techniques that continue to be used today. The PFBC has followed with concern the range-wide decline in shad and river herring populations and has documented population declines in Pennsylvania's waters through our biological monitoring programs. When considering Amendment 14 to the Fisheries Management Plan (FMP) for Atlantic Mackerel, Squid, and Butterfish (MSB), we strongly encourage you to address the need for increased observer coverage to document and determine the significance of river herring and shad incidental catch in the MSB fisheries. We further encourage you to consider a range of management measures designed to minimize bycatch of river herrings and shads in the MSB fisheries.

For our part, the PFBC has taken appropriate actions to reduce or eliminate shad and river herring harvest through recreational angling. Recreational harvest of shad and river herring is prohibited in the Susquehanna River and tributaries. On the Delaware River, the daily creel limit for American shad was reduced from 6 to 3 beginning in 2010 with plans to probably close the fishery to harvest beginning in 2013.

Thank you for taking time to review our comments.

Sincerely,

John A. Arway  
Executive Director

**Our Mission:**

[www.fishandboat.com](http://www.fishandboat.com)

*To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.*



Natural Resources Defense Council  
40 West 20<sup>th</sup> Street  
New York, NY 10011  
Tel: (212) 727-2700  
Fax: (212) 727-1773

By Electronic Mail

July 9, 2010

Daniel T. Furlong  
Executive Director  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

Re: Scoping Comments on MSB 14

Dear Mr. Furlong:

On behalf of the Natural Resources Defense Council (“NRDC”) and our more than 1.2 million members, I write in response to the Mid-Atlantic Management Council’s (“MAFMC”) request for public comments on the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (“MSB FMP”).

Over the past three decades, river herring and shad populations have drastically declined from their historic population sizes throughout much of their ranges. Alewife and blueback herring (collectively referred to as “river herring”) populations have drastically declined from historic levels,<sup>1</sup> to the extent that these species, and/or portions thereof, may meet the criteria for listing pursuant to the federal Endangered Species Act. American shad stocks are also currently at historic low levels.<sup>2</sup> The dramatic decline of river herring and shad populations in recent years and their disappearance from traditional fishing grounds in river, estuaries, and coastal areas is of particular concern in light of their importance to the health of the coastal ecosystem and to the fishermen and local communities that depend on them. NRDC believes that bycatch in federal waters has played and continues to play a significant role in the decline of river herring and shad and strongly urge the MAFMC to develop an effective,

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<sup>1</sup> See, e.g., National Oceanic and Atmospheric Administration, Species of Concern, River Herring (Alewife and Blueback herring), *Alosa pseudoharengus* and *Alosa aestivalis* (May 19, 2009), at 3.

<sup>2</sup> See, e.g., Atlantic States Marine Fisheries Commission, Review of the Atlantic States Marine Fisheries Commission Fishery Management Plan for Shad and River Herring (2009), at 2.

comprehensive strategy to monitor and reduce incidental catch of these species in the small-mesh trawl fisheries under its jurisdiction.

Based on available data, incidental catch of alewife and blueback herring specifically in federal waters appears to be significant. For example, in 2002, four sampled trips from the Atlantic mackerel fishery recorded over 18.2 million pounds of alewife and blueback herring as bycatch.<sup>1</sup> In the same year, thirty-five sampled trips from the Loligo squid fishery recorded an estimated 2.8 million pounds of blueback herring as bycatch.<sup>2</sup> The increased use of mid-water trawlers targeting Atlantic mackerel in recent years has likely resulted in an increase in the incidental catch of alewife and blueback herring. Alewife and blueback herring populations congregate in large schools, making these species particularly vulnerable to mid-water trawlers in ocean fisheries. Observer data records indicate that individual hauls in the Atlantic mackerel fishery can take over 70 thousand individual alewife and blueback herring (these numbers are based on the estimated average weight of sampled river herring). These numbers are significant, given that the available data shows that the majority of recent alewife and blueback herring run sizes average less than 100 thousand individual fish per year.<sup>3</sup> It is possible that one misplaced haul in a MAFMC-managed fishery could remove an entire subpopulation of alewife and/or blueback herring.

Current levels of monitoring and data collection in the small-mesh trawl fisheries managed by MAFMC are inadequate to determine the full scope of the problem of incidental catch of river herring and shad in the Atlantic mackerel, squid, and butterfish fisheries. Greatly increased observer coverage is necessary for data to be used by fisheries management authorities with a high degree of confidence to inform management actions, and observer coverage levels should allow for accurate fleet-wide extrapolation of incidental catch data (*i.e.*, bycatch including discarded and kept catch) of alewife, blueback herring, and American shad.

In addition, the recovery of alewife, blueback herring, and American shad stocks will require, among other things, the control of all controllable sources of fishing mortality. Amendment 14 to the MSB FMP should establish incidental catch caps for alewife, blueback herring, and American shad and gear and/or area fishery closures around bycatch “hotspots” (*i.e.*, areas of high probability of incidental catch based upon the best available scientific data). On a provisional basis, incidental catch caps can be based on recent catch recorded in VTR reports. Because of the high-volume nature of the Atlantic mackerel, squid, and herring fisheries, bycatch limits based on the percent of landed weight should be avoided.

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<sup>1</sup> Atlantic States Marine Fisheries Commission, 2008 River Herring Stock Status Report (December 2008), at 62 (Table 1.5.3.1 Summary of river herring discards from Harrington et al. (2005) and Cieri et al. (2008)) [hereinafter “ASMFC 2008”].

<sup>2</sup> *Id.*

<sup>3</sup> See generally ASMFC (2008) (providing available data on run sizes for alewife and blueback herring in state status reports from the Atlantic coastal states).

July 9, 2010

NRDC appreciates the opportunity to comment on this important amendment at this juncture. Although additional expeditious actions will be needed to save river herring and to recover shad stocks, we support the MAFMC's efforts to control river herring and shad bycatch in certain small mesh federal fisheries through its development of Amendment 14 to the MSB FMP.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad H. Sewell". The signature is fluid and cursive, with a large initial "B" and a long horizontal stroke extending to the right.

Bradford H. Sewell  
Senior Attorney

## NEPONSET RIVER WATERSHED ASSOCIATION

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2173 Washington Street • Canton, MA 02021  
Phone 781-575-0354 • Fax 781-575-9971 • [www.neponset.org](http://www.neponset.org)

July 1, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

RE: Scoping Comments on MSB 14

Dear Mr. Furlong,

The Neponset River Watershed Association (NepRWA) is submitting these comments in response to your recent Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (MSB FMP). The Neponset River runs from Foxborough, MA to Dorchester Bay in Boston. NepRWA, in conjunction with the Massachusetts Department of Fish & Game (DFG) has been working for over a decade to get river herring and shad past two dams on the lower Neponset River, which would open up 17 miles of what DFG has concluded to be prime spawning habitat (their historic spawning habitat in the Neponset watershed is currently blocked entirely by these dams). We expect to have achieved this goal within the next 5 to 10 years, but are extremely concerned that bycatch in federal waters by both the Atlantic Herring and the Mackerel fisheries will grossly reduce the number of shad and river herring that will be able to take advantage of this new spawning habitat. We therefore urge the Mid-Atlantic Council to require comprehensive, industry-financed monitoring of bycatch in the mackerel fishery and to develop an strategy to minimize incidental catch of these species.

The current levels of monitoring and data collection on bycatch are insufficient to determine the full extent of the problem. The level of monitoring for blueback herring, alewife and American shad needs to be statistically sufficient to extrapolate findings to the entire mackerel fleet. We believe that 100% observer coverage should be required for mid-water trawl vessels. Observers should be NMFS trained and certified. No catch should be allowed to be discarded at sea (i.e., slipped) or transferred to another vessel without sampling. In light of current federal budget problems, the observer program must be industry financed.

The purpose of the monitoring program should be to minimize river herring and shad mortality by establishing incidental catch limits that trigger closure of certain areas and/or restrictions on gear. Where current scientific data is sufficient to identify areas where there is a high probability of incidental catch of river herring or shad, these restrictions should apply immediately.

---

*Boston, Canton, Dedham, Dover, Foxborough, Medfield, Milton, Norwood, Quincy, Randolph,  
Sharon, Stoughton,  
Walpole, Westwood*

The ultimate resolution of the river herring and shad bycatch problem will require a cooperative effort by all the Fisheries Management Councils with jurisdiction over those fisheries that are causing the problem. We urge you to take the lead in establishing an integrated federal plan to manage river herring and shad throughout their range.

Sincerely yours,

Steve Pearlman  
Advocacy Director



*Conserving Ocean Fish and Their Environment  
Since 1973*

July 8, 2010

Daniel T. Furlong, Executive Director  
Mid-Atlantic Fishery Management Council  
Suite 201  
800 N. State St  
Dover, DE 19901

**Re: Scoping Comments on MSB 14**

Dear Mr. Furlong,

The National Coalition for Marine Conservation (NCMC) strongly supports the Mid-Atlantic Fishery Management Council's decision to construct a bycatch monitoring and reduction strategy for river herring and shads through Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (MSB FMP). NCMC advocates for conservative management of forage fish as a first step toward ecosystem-based fisheries management. Anadromous herrings (river herring and shads) are a significant food source for a wealth of predatory fish, birds and mammals, and are essential to the health of the Atlantic's coastal ecosystems and to the productivity of our fisheries. During their migrations to and from river systems, they draw other important target stocks (e.g., striped bass, weakfish, and bluefish) inshore to fishing grounds.

American shad populations are at record lows with no sign of recovery.<sup>1</sup> River herring (alewife and blueback herring) are considered Species of Concern by the National Marine Fisheries Service (NMFS), a designation that is intended to focus conservation efforts in order to avoid an Endangered Species Act listing.<sup>2</sup> The Atlantic States Marine Fisheries Commission (ASMFC) directed states to close their river herring fisheries by 2012 and their American shad fisheries by 2013, unless states can demonstrate that fisheries are sustainable.

The ASMFC's decision to close state fisheries, while necessary to halt the decline of river herring and shad populations, will come at great cost to the coastal communities that have worked hard to restore their runs for recreational and commercial fishing and tourism. ASMFC defines sustainable fisheries as "those that demonstrate their ... stock could support a commercial and/or recreational fishery that will not diminish potential future stock reproduction and recruitment."<sup>3</sup> Sustainability depends on adequately constraining total

<sup>1</sup> ASMFC American Shad Stock Assessment Peer Review Panel. Stock Assessment Report No. 07-01 of the Atlantic States Marine Fisheries Commission, Terms of Reference & Advisory Report to the American Shad Stock Assessment Peer Review. Conducted on July 16-20, 2007, Alexandria, Virginia.

<sup>2</sup> NOAA Fisheries Service. Species of Concern Proactive Conservation Program. [http://www.nmfs.noaa.gov/pr/pdfs/species/concern\\_brochure.pdf](http://www.nmfs.noaa.gov/pr/pdfs/species/concern_brochure.pdf)

<sup>3</sup> ASMFC. Amendment 2 to the Interstate Fishery Management Plan for Shad and River Herring. May 2009.



mortality to meet reproduction and recruitment goals, yet bycatch mortality in the ocean, where river herring and American shad spend most of their lives, remains a large, controllable source of mortality that is essentially unregulated because of inadequate catch monitoring.

### ***Ocean Mortality Significant; Bycatch Flagged as Management Priority***

Investigation and quantification of American shad bycatch was an important recommendation of the 2007 American Shad Stock Assessment Subcommittee and was flagged in the stock assessment peer review as “high priority.”<sup>4</sup> The assessment found a coast-wide pattern of increase followed by a decrease in American shad populations in the late 1990s to early 2000s.<sup>5</sup> This synchronous decline suggests a significant increase in mortality at sea where shad stocks mix.

Likewise, a 2008 river herring stock status report describes coast-wide patterns of age and size truncation in both blueback and alewife populations indicating excessive mortality at sea. Adult mortality is nearly twice as high as it should be.<sup>6</sup> The ASMFC, the New England and Mid-Atlantic Fishery Management Councils, and over a hundred non-governmental fishing, conservation, sport and wildlife organizations petitioned for action by the Secretary of Commerce to immediately improve monitoring of ocean bycatch and to take other actions necessary to ensure adequate protection of river herring at sea.<sup>7</sup> The Secretary denied the petitions in part because of the New England and Mid-Atlantic Councils’ efforts to address river herring bycatch through amendments to their small-mesh fishery management plans (Amendment 5 to the Atlantic Herring FMP and Amendment 14 to the MSB FMP).<sup>8</sup>

### ***Mackerel and Squid Fisheries Contribute Significantly to Bycatch***

Bycatch of river herring was an important issue for MSB fisheries just a few years ago when foreign fleets were permitted to target mackerel in the United States EEZ. In 2001, when setting specifications for Atlantic mackerel, the Mid-Atlantic Council recommended conditions and restrictions for joint venture processing and TALFF (total allowable level of foreign fishing) allocations because of concern over river herring bycatch. Those recommendations included areas closed to foreign fishing and caps on incidentally-caught river herring.<sup>9</sup>

Recent observer records show that MSB fisheries, especially vessels targeting Atlantic mackerel and *Loligo* squid, encounter shad and river herring. NCMC conducted an analysis of observer data and found that from 2004-2008, the MSB fisheries were responsible for 10%, 24%,

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<sup>4</sup> ASMFC. August 2007. Stock Assessment Report No. 07-01 (Supplement) of the Atlantic States Marine Fisheries Commission: American Shad Stock Assessment for Peer Review, Volume 1, p. 18.

<sup>5</sup> See note 4, p. 153

<sup>6</sup> ASMFC. 2008. River Herring Stock Status Report, p. 48-49.

<sup>7</sup> ASMFC. Letter to the Secretary of Commerce. 27 May 2009.

MAFMC. Letter to the Secretary of Commerce. 24 June 2009.

NEFMC. Letter to the Secretary of Commerce. 26 June 2009.

Sign-On Letter to Secretary of Commerce. *Please Support Atlantic States Marine Fisheries Commission Actions to Restore River Herring Populations!* 23 June 2009.

<sup>8</sup> Dr. James Balsiger, Assistant Administrator for the National Marine Fisheries Service. Letter to the author. 15 Dec 2009.

<sup>9</sup> Regulations included restricting river herring incidental catch to no more than 0.25 percent of the over-the-side transfers of Atlantic mackerel, prohibiting directed foreign fishing for Atlantic mackerel south of 37 deg. 30' N. lat., prohibiting directed foreign fishing for Atlantic mackerel landward of a line 20 nautical miles from shore north of 37 deg. 30' N. lat., and specifying no TALFF for river herring. [“Fisheries of the Northeastern United States; Atlantic Mackerel, Squid, and Butterfish Fisheries; 2001 Specifications and Foreign Fishing Restrictions,” 66 Federal Register 42 (02 March 2001), pp. 13024-13028.]

and 19% of observed alewife, blueback herring, and American shad bycatch, respectively. (Please see attached memo from NCMC to the MAFMC dated July 31, 2009). These percentages are significant considering the low overall levels of observer coverage in MSB fisheries. Observer coverage for *Loligo* and mackerel fisheries was much lower than coverage in the Atlantic herring fishery over the five-year period (*Loligo*: 2.4%, Mackerel: 4.8%, Atlantic Herring: 9%, based on percentage of trips observed). While river herring and shad bycatch appears predominant in the Atlantic herring fishery, higher observer coverage means that there was more opportunity for observers to document bycatch in this fishery.

In addition, the Mid-Atlantic Council's own bycatch analysis provided in Draft Environmental Impact Statement (EIS) for Amendment 11 estimates over 360,000 lbs or around 1-1.4 million river herring caught annually in the directed Atlantic mackerel fishery alone.<sup>10</sup> We are not provided with an estimate for the squid fishery in this most recent EIS, yet the Draft Supplemental EIS for Amendment 10 to the MSB FMP indicates that from 2001-2006, the *Loligo* fishery was responsible for 23% of the total observer program discards of blueback herring. The mackerel fishery was responsible for 16%, bringing the total discard contribution of MSB fisheries to 39%.

#### ***Amendment 14 Alternatives Must Advance Ecosystem-based Management, Contribute to a Coordinated, Regional Bycatch Strategy***

Amendment 14 will be most effective if the Mid-Atlantic Council tackles the issue with a regional, ecosystem perspective versus a narrow fishery-specific view. In October 2008, the New England Council voted unanimously to "collaborate as much as possible with ASMFC and the Mid-Atlantic Council regarding the management of the river herring resource."<sup>11</sup> We urge the Mid-Atlantic Council to foster this cooperation by establishing a process for the MSB Fishery Management Action Team (FMAT) and the Atlantic Herring Plan Development Team (PDT) to regularly communicate as they review information related to river herring and shad bycatch alternatives. Because fishing grounds and vessels overlap between New England and Mid-Atlantic Council-managed fisheries, we also urge cooperation between the Squid, Mackerel, and Butterfish Committee and the Herring Oversight Committee in order to create a comprehensive river herring and shad bycatch strategy for the Northeast Region. **Below we provide recommendations to help construct such a strategy.**

#### **Amendment 14 Goals -Recognizing the Importance of Forage**

Beyond the urgent need to manage bycatch in response to declines in American shad and river herring populations, Amendment 14 goals should recognize the ecological importance of these non-target species in "maintaining adequate forage for all components of the ecosystem," as the revised National Standard 1 (NS1) Guidelines require.<sup>12</sup> **This goal of maintaining adequate forage for predators and the ecosystem at-large should be expanded as an objective in the MSB FMP, which currently does not include any objective relative to protecting the ecological role of target species (i.e., squid, mackerel and butterfish) and non-target species (i.e., river herring and shads) as forage.** The Council can work to meet this plan objective by encouraging the use of multi-species, ecosystem, and explicit predation models in

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<sup>10</sup> Numbers of river herring calculated from and average weight of .25-.33 lbs each.

<sup>11</sup> NEFMC Meeting Motions from October 7-9, 2008 full council meeting in Mystic, CT.

<sup>12</sup> 600.310(e)(3)(iii)(c)

stock assessments. To the extent that stock assessments cannot fully account for predator needs, the Council should explicitly address these ecosystem considerations in its catch specification process, including setting fishery targets and thresholds to maintain stocks above a  $B_{MSY}$  level.<sup>13</sup>

#### **Amendment 14 Catch Monitoring Alternatives**

Catch monitoring and sampling must be greatly improved and expanded in the Mid-Atlantic's MSB fisheries to allow for accurate fleet-wide extrapolation of river herring and American shad bycatch data. Monitoring requirements must be appropriate for the vessels engaged in the fishery and should ensure thorough sampling of all catch. The monitoring program must:

- **Recognize the serious limitations of the Northeast Standardized Bycatch Reporting Methodology (SBRM) for addressing bycatch of river herring and shad.** SBRM methods are inappropriate for assessing river herring and shad bycatch because most of the bycatch is *kept*. Observer records show that most river herring and shad caught by federally permitted vessels is in fact retained;<sup>14</sup> SBRM analyses are based on discards. For example, a recent analysis of sea days needed to achieve a 30% coefficient of variation (CV) for river herring bycatch focused solely on discards and so ignored fleets with substantial landings of incidentally-caught river herring when determining and allocating the required number of sea days.<sup>15</sup> Fisheries and fleets that land river herring and shad - **most notably the mid-water trawl fleet which catches most of the observed river herring and shad bycatch and keeps over 99.9% of it**<sup>16</sup> - must be factored into sampling protocols. It is also important to note that American shad, alewife and blueback herring were not included in the original species groups used in the SBRM amendment analyses.
- **Establish an acceptable level of precision (we recommend a coefficient of variation of 20% or less) for estimating incidental catch (kept and discarded) of alewives, blueback herring, and American shad in MSB fisheries.**
- **Explore combinations of portside, electronic, and at-sea catch monitoring to create a cost-effective program that achieves precision goals (see above).**
- **Assist the Northeast Fisheries Observer Program (NEFOP) to eliminate or minimize to the extent possible, the use of "Herring, NK (not known)" and "Fish, NK" when classifying catch and discards.** In the 2010 SBRM report, "not known fish" increased from the prior data year a startling 900%, from 2100 lbs. to 1.9 million lbs; 76% of this was documented in the mid-water trawl fleet.<sup>17</sup> NEFOP representatives have indicated that this classification is used when hauls are dumped (i.e., slipped) without sampling, shoveled too rapidly for sampling, or when catch is pumped from a pair trawl net to the

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<sup>13</sup> "Species interactions that have not been explicitly taken into account when calculating MSY should be considered as relevant factors for setting OY below MSY. In addition, consideration should be given to managing forage stocks for higher biomass than  $B_{MSY}$  to enhance and protect the marine ecosystem." [600.310(e)(3)(iv)(C)]

<sup>14</sup> Database query provided by the Northeast Fisheries Observer Program, NOAA FOIA No. 2009-00371. 3 June 2009.

<sup>15</sup> Wigley SE, Blaylock J, Rago PJ. 2009. River Herring Discard Estimation, Precision and Sample Size Analysis. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 09-20; 15 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/nefsc/publications/>

<sup>16</sup> Northeast Fisheries Observer Program 2010. Standardized Bycatch Reporting Methodology: Annual Discard Report.

<sup>17</sup> *ibid*

vessel not carrying the observer.<sup>18</sup> **Amendment 14 must include measures to require that 100% of catch be made available for sampling when an observer is onboard.**

“Not known herring” is more often used when herring species are misidentified and the error is detected during species verification after the trip has concluded.<sup>19</sup> Fish classified by observers as “not known herring” totaled over 244,000 lbs. from July 2008-June 2009, a decrease from the prior year’s figure of over 890,000 lbs. but still a significant impediment to determining the extent of river herring and shad bycatch. And bycatch events of not known herring are some of the largest on record: a single bycatch event of 408,000 lbs was recorded in 2006; a 350,000 lb bycatch event was recorded in 2008. **The Council should ascertain the reasons for the use of “not known herring” and work with NEFOP to ensure species identification training and sampling protocols are adequate.**

- **Include options for industry-funded observers in order to achieve the sea days needed to accurately monitor bycatch.** Projected 2010 coverage levels for Mid-Atlantic and New England small-mesh bottom trawls is just 39% and 43% of SBRM required levels, respectively.<sup>20</sup> The Mid-Atlantic region continues to suffer a deficit in assigned sea days because of funding constraints imposed by Congress and NOAA Headquarters, over which neither the Council nor the NMFS Northeast Regional Office has any control.<sup>21</sup>

#### **Amendment 14 Bycatch Reduction Alternatives**

NCMC urges the Mid-Atlantic Council to affirm that an American shad and river herring **bycatch reduction** strategy is a goal of Amendment 14. Locations of river herring bycatch hotspots in Mid-Atlantic and New England waters have been corroborated by three separate analyses, and these areas warrant protection.<sup>22</sup> In addition, a recent analysis revealed overlap between American shad and river herring bycatch areas, indicating American shad would likely benefit if the river herring hotspots are protected.<sup>23</sup> The Atlantic Herring PDT is continuing to refine river herring and shad ocean catch data in order to inform management alternatives for Amendment 5.

As mentioned in the Amendment 14 Scoping Document, mackerel and herring are pursued by many of the same vessels and can even be targeted together on the same trip. In the long term, the Mid-Atlantic should explore options with NMFS and the New England Council for combining herring and mackerel fisheries into a single management plan to better manage catch and bycatch in these fisheries. For Amendment 14 purposes, it will be imperative for the

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<sup>18</sup> Meeting notes from the May 17, 2010 meeting of the NEFMC Herring Oversight Committee. [http://www.nefmc.org/herring/meetsum/herring\\_may10.pdf](http://www.nefmc.org/herring/meetsum/herring_may10.pdf)

<sup>19</sup> *ibid*

<sup>20</sup> Northeast Regional Coordinating Committee. (11 May 2010). Standardized Bycatch Reporting Methodology Proposed 2010 Observer Sea Day Allocation: Consultation and Prioritization Process, Response to Comments.

<sup>21</sup> *ibid*

<sup>22</sup> Cieri, Matthew, Gary Nelson, and Michael Armstrong. 2008. Estimates of River Herring Bycatch in the Directed Atlantic Herring Fishery.

Van Atten, Amy S., Debra Duarte, Sara Wetmore and Tyler Staples. A Detailed Look at the Observed Herring Trips from 2005–2007 - Version II. Presentation to the Atlantic Herring Plan Development Team. 14 January 2009.

Cournane, Jamie Marie. May 2010. Developing Alternatives to Mitigate River Herring Bycatch At Sea. [http://www.nefmc.org/herring/cte%20mtg%20docs/100517/PaperCournane\\_Jamie\\_RH\\_bycatch\\_summary\\_HC\\_May\\_17\\_2010.pdf](http://www.nefmc.org/herring/cte%20mtg%20docs/100517/PaperCournane_Jamie_RH_bycatch_summary_HC_May_17_2010.pdf)

<sup>23</sup> Cieri, Matthew. 2010. Estimates of River Herring and American Shad Removals in the Directed Atlantic Herring Fishery: an Update with Preliminary Data. Presentation to the Atlantic Herring Oversight Committee. 17 May 2010. [http://www.nefmc.org/herring/cte%20mtg%20docs/100517/RH\\_Shad\\_update\\_by\\_2\\_10.pdf](http://www.nefmc.org/herring/cte%20mtg%20docs/100517/RH_Shad_update_by_2_10.pdf)

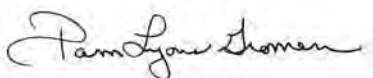
Councils to work together to ensure that fishery overlap does not result in unintended loopholes that allow vessels to skirt regulations. For example, existing regulations permit a vessel to “declare out” of the Atlantic herring fishery if it plans to target another species like mackerel. It will be important to ensure that bycatch reduction measures, especially those aimed at specific time/area/gear restrictions would apply to all relevant vessels regardless of target species. Bycatch monitoring alternatives should:

- **Establish a framework for coast-wide incidental catch limits for alewife, blueback herring and American shad.** The limits should be appropriately allocated as bycatch caps to the Atlantic herring and MSB fisheries. The framework should call for the caps to be reviewed and adjusted annually based on new scientific information during MSB specifications.
- **Protect river herring and shad in identified “bycatch hotspots” by implementing a system of time/area/gear closures.** These closures could be triggered by an established bycatch limit *if* this limit can be effectively enforced through timely catch reporting and adequate monitoring levels.
- **Create a “move-along” system that requires vessels to move away from an area (to a specified distance for a specified time) when river herring or shad are encountered in significant numbers.** Reaching an established incidental catch threshold should initiate “move-along” rules.

In closing, we commend the Mid-Atlantic Council for initiating Amendment 14 in response to the ASMFC’s urgent request to investigate and address ocean bycatch of shad and river herring. While Amendment 14 is an important response to shad and river herring population declines, it is but one piece of a larger puzzle that needs to be assembled in order to adequately protect these fish throughout their life cycles and throughout all parts of their range, especially in federal waters where they spend most of their lives. **We urge the Mid-Atlantic Council to lead efforts to craft a federal management plan that would work in concert with the ASMFC Interstate Fishery Management Plan (IFMP) for Shad and River Herring.** Formalized federal management would bring these fish into the fold of the Magnuson-Stevens Fishery Conservation and Management Act, allowing the Council to identify and mitigate threats to essential fish habitat and employ other actions necessary for conservation and management of these species. The plan would also facilitate implementation of ASMFC-recommended actions for federal waters, which are currently communicated through the IFMP to the Secretary of Commerce, and which have largely gone unheeded since the IFMP’s implementation in 1985.

Thank you for the opportunity to provide comments. We look forward to working with the Council as it begins development of Amendment 14 alternatives.

Sincerely,



Pam Lyons Gromen  
Executive Director



**NATIONAL COALITION FOR MARINE CONSERVATION**  
**4 Royal Street, S.E., Leesburg, VA 20175**

**MEMORANDUM**

**To:** Members & Staff,  
Squid, Mackerel, Butterfish Committee  
Mid-Atlantic Fishery Management Council  
**From:** Pam Lyons Gromen, Executive Director  
**Date:** July 31, 2009

**RE: River Herring Bycatch Strategy Discussion**

We commend the Mid-Atlantic Council for its decision to develop a strategy for addressing river herring bycatch in small-mesh fisheries and for supporting the Atlantic States Marine Fisheries Commission request to the Secretary of Commerce for emergency action to monitor river herring bycatch.

In May 2009, the National Coalition for Marine Conservation submitted a Freedom of Information Act (FOIA) request for observer, vessel trip report, and dealer data in order to conduct a comprehensive analysis of existing river herring (i.e., alewife, blueback herring) and American shad bycatch data in federal fisheries. Because their life cycles extend from river systems to ocean waters, these alosines face many threats throughout their range. Of these, bycatch in ocean fisheries is believed to be a significant contributor to adult mortality, yet as you know, bycatch mortality has yet to be accurately quantified due to inadequate sampling.

While the analysis of the data we received is ongoing, we present the following preliminary results of our observer data analysis for the Squid, Mackerel, Butterfish Committee to consider as it begins its initial investigation into river herring bycatch. Because observer coverage has been far below levels required for accurate data extrapolation, we emphasize that these findings must not be viewed as fully definitive. Nevertheless, these data from NEFOP are the best objective, scientific, data available for assessing bycatch. We hope they will be used to inform the Committee's discussion on the potential for Mid-Atlantic small-mesh fisheries to contribute significantly to river herring bycatch and on the elements required of an effective monitoring program. Of our chief findings to date, we feel the following should be priorities for consideration by the Committee:

- **Unknown herring bycatch (Herring, N.K.) is substantial.** From 2004-2008, this category is twice as high as the recorded alewife and blueback bycatch combined, and is a serious obstacle to accurately quantifying river herring bycatch. The Committee should investigate reasons why this category is heavily used by observers and develop recommendations for how its use could be eliminated. A portside monitoring program

should be considered as a compliment to at-sea sampling to ensure proper species identification.

- **Bycatch of river herring and unknown herring is regularly documented in observed *Loligo* and mackerel trips over the time series.** Bycatch in *Illex* and butterfish fisheries appears to be negligible.
- **Large bycatch events of river herring have been documented in the mackerel mid-water trawl fishery.** (See Table 1 below) **Measures should be taken to minimize the potential for these events to occur.** Because individual river herring runs mix together and with other small pelagic species while at sea, it is currently difficult for fishermen or scientists to detect in what specific areas in the EEZ the most endangered subpopulations occur and at what specific times. In effect, it is possible that a single large bycatch event in a federal fishery could devastate an already depleted river herring run.<sup>1</sup>
- **Observer coverage must be increased for mackerel and *Loligo* fisheries in order to evaluate their contribution to river herring bycatch.** Observer coverage for *Loligo* and mackerel fisheries was much lower than coverage in the Atlantic herring fishery over the data time series (*Loligo*: 2.4%, Mackerel: 4.8%, Atlantic Herring: 9%, based on % of trips observed), which likely results in underestimating the contribution of these fisheries to river herring bycatch. (See Table 2) While river herring bycatch appears predominant in the Atlantic herring fishery, higher observer coverage means that there was more opportunity for observers to document bycatch in this fishery. The percentage contribution of Mid-Atlantic small mesh fisheries to the total observed bycatch of river herring (provided in Tables 4 & 6 attached) should be viewed as a conservative estimate.
- **Because squid and mackerel fisheries are generally high volume in nature, it is important to review bycatch impacts on river herring in terms of weight or numbers of individuals instead of percent of total catch.** From 2004-2008, observers documented 124,608 pounds of river herring bycatch in Mid-Atlantic Council-managed fisheries. Assuming an average river herring weight of 1/3 pound, this equates to 377,600 individuals over the 5-year period. (see Figure 1) When the data is extrapolated (Figure 2) to account for unobserved catch (conservatively assuming observer coverage of 15%), the number of individual river herring caught rises to 2.51 million fish over the time series or about 500,000 fish annually. Including herring unknown in the analysis adds 230,000 fish to the annual mortality estimate. These numbers are significant when viewed in the context of run counts and commercial river herring landings.

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<sup>1</sup> ASMFC recognizes that that a fishery on a mixed stock is inherently unmanageable because of the different status of the different mixed stocks. "It is harvest on a mixed stock which could, theoretically speaking, in any haul of net remove the remnants of any given collapsed run." [Goldsborough, Bill, Fisheries Biologist and Maryland Commissioner for the ASMFC. Comment during "Discussion of Update on River Herring Stock Assessment," Meeting Notes of the ASMFC Shad and River Herring Management Board, 04 Feb. 2009.]

- **Future river herring bycatch analyses for mackerel and squid fisheries should focus on gear type, season, and area.** Because the observer program is severely constrained by resources, it may be more feasible and effective to target monitoring by gear type, area, and season. In a presentation to a working group of the ASMFC Shad and River Herring Board, Matt Cieri, fisheries scientist for the Maine Department of Marine Resources, exposed seasonal river herring bycatch hotspots that were consistent for many small-mesh fisheries including Atlantic herring, Atlantic mackerel, squid, whiting, and northern shrimp. Maximizing observer coverage in these hotspots should be strongly considered. In addition, the Committee should commission a river herring bycatch analysis specific to Mid-Atlantic fisheries, as Mr. Cieri's work was conducted primarily to assist the New England Fishery Management Council in its development of a monitoring program for the Atlantic herring fishery, and so focused trips defined by Atlantic herring landings.

**Table 1**

Observed river herring bycatch events > 8,000 lbs per trip in the Atlantic mackerel mid-water trawl fishery from 2004-2008

Year	Quarter	Region	Gear	Species	lbs.	Est. # individuals (.33 lbs each)
2004	1	Mid-Atlantic	pair	alewife	9,600	29,090
2004	1	Mid-Atlantic	pair	alewife	8,820	26,727
2006	1	Southern New England	single	blueback	9,136	27,684
2006	1	Southern New England	single	blueback	19,835	60,106

**Table 2**

*Northeast Fisheries Observer Program*

year	2004	2005	2006	2007	2008
<b><i>Loligo</i> Directed Trips, from 2004 to 2008 - From OBDBS and Dealer Database</b>					
# trips obs (OBDBS)	80	71	78	39	43
# total trips (Dealer)	2395	2111	3259	2233	2718
% trips obs	3%	3%	2%	2%	2%
<b>Mackerel Directed Trips, from 2004 to Sep 2008 - From OBDBS and VTR</b>					
# trips obs (OBDBS)	14	8	12	5	9
# total trips (VTR)	296	229	271	164	105
% trips obs	5%	3%	4%	3%	9%



The below tables were generated from 2004-2008 observer data. No trip definitions or thresholds were used in the query. Observed weight of alosine bycatch was compared to primary species landed, then by declared target species across all Atlantic federal fisheries. As a result, any fishery that had documented alosine bycatch was included. Only Mid-Atlantic Council-managed fisheries are included in the table below. (Atlantic herring is provided for comparison.)

TABLE 3

2004-2008 NEFOP		MAFMC - as weight of observed bycatch of species of interest, by fishery												
PRIMARY SPECIES LANDED (HAUL)	Totals		SMB											
	Total all fisheries (lbs)	MAFMC fisheries (lbs)	Mackerel, Atlantic	Long-Finned Squid (Loligo)	Short-Finned Squid (Ilex)	Bluefish	Butterfish	Dogfish, spiny	Flounder, summer (fluke)	Monkfish (angler, goosefish)	Scup	Sea bass, black	Squid, Not Known	Herring, Atlantic
<b>Species of Interest</b>														
ALEWIFE	393,150.4	39,840.6	26,422.5	8,133.1	268.2	18.6	1,601.7	1,495.0	603.3	167.0	857.7	8.0	265.5	324,595.1
HERRING, BLUEBACK	353,075.9	84,767.4	70,816.0	10,928.3	8.3	10.5	80.0	407.2	866.3	1,069.9	441.5	49.0	90.4	232,050.2
HERRING, NK	1,428,014.2	57,130.8	13,426.5	42,485.9	1.0	7.2	109.0	718.0	225.1	149.8	3.8	4.5	0.0	12,492.1
SHAD	49,586.0	10,971.6	4,931.0	4,232.1	50.9	468.0	10.0	473.8	152.5	407.9	210.9	13.5	21.0	22,593.6

TABLE 4

2004-2008 NEFOP		MAFMC - as % of total observed bycatch of species of interest, by fishery												
PRIMARY SPECIES LANDED (HAUL)	Totals		SMB											
	Total all fisheries (lbs)	MAFMC fisheries %	Mackerel, Atlantic	Long-Finned Squid (Loligo)	Short-Finned Squid (Ilex)	Bluefish	Butterfish	Dogfish, spiny	Flounder, summer (fluke)	Monkfish (angler, goosefish)	Scup	Sea bass, black	Squid, Not Known	Herring, Atlantic
<b>Species of Interest</b>														
ALEWIFE	393,150.4	10.1	6.7	2.1	0.1	0.0	0.4	0.4	0.2	0.0	0.2	0.0	0.1	82.6
HERRING, BLUEBACK	353,075.9	24.0	20.1	3.1	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.0	0.0	65.7
HERRING, NK	1,428,014.2	4.0	0.9	3.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9
SHAD	49,586.0	22.1	9.9	8.5	0.1	0.9	0.0	1.0	0.3	0.8	0.4	0.0	0.0	45.6

TABLE 5

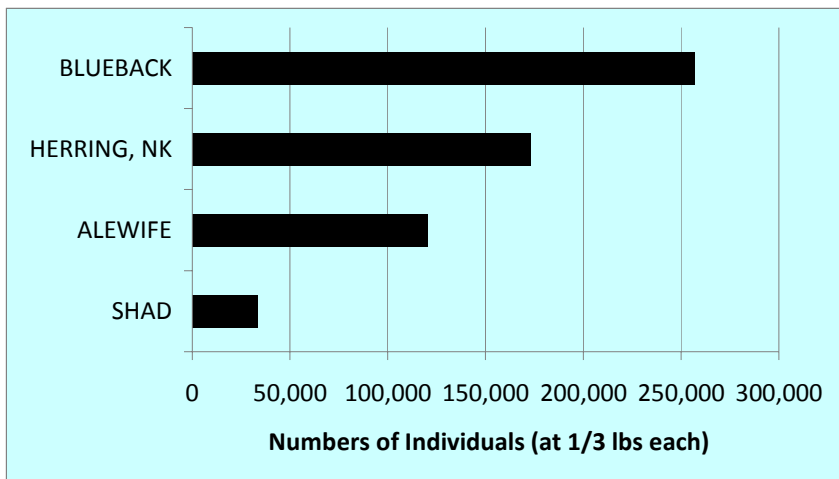
2004-2008 NEFOP		MAFMC - as weight of observed bycatch of species of interest, by fishery												
HAUL TARGET SPECIES (Captain reported)	Totals		SMB											
	Total all fisheries (lbs)	MAFMC fisheries (lbs)	Mackerel, Atlantic	Long-Finned Squid (Loligo)	Short-Finned Squid (Ilex)	Bluefish	Butterfish	Dogfish, spiny	Flounder, summer (fluke)	Monkfish (angler, goosefish)	Scup	Sea bass, black	Squid, Not Known	Herring, Atlantic
<b>Species of Interest</b>														
ALEWIFE	393,150.4	38,704.1	22,458.5	14,584.9	19.0	15.5	40.0	133.0	723.5	120.0	156.0	0.0	453.7	333,825.0
HERRING, BLUEBACK	353,075.9	84,200.9	65,155.2	15,345.0	27.3	0.0	50.0	70.0	1,037.1	998.1	203.3	57.9	1,257.0	238,468.2
HERRING, NK	1,428,014.2	57,275.8	11,340.5	42,144.9	1.0	0.0	81.0	12.0	30.1	82.0	2,602.8	5.5	976.0	949,759.1
SHAD	49,586.0	9,156.1	2,830.6	5,039.6	40.9	47.0	11.0	396.0	75.9	342.8	321.3	5.5	45.5	24,591.4

TABLE 6

2004-2008 NEFOP		MAFMC - as % of total observed bycatch of species of interest, by fishery												
HAUL TARGET SPECIES (Captain reported)	Totals		SMB											
	Total all fisheries (lbs)	MAFMC fisheries %	Mackerel, Atlantic	Long-Finned Squid (Loligo)	Short-Finned Squid (Ilex)	Bluefish	Butterfish	Dogfish, spiny	Flounder, summer (fluke)	Monkfish (angler, goosefish)	Scup	Sea bass, black	Squid, Not Known	Herring, Atlantic
<b>Species of Interest</b>														
ALEWIFE	393,150.4	9.8	5.7	3.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	84.9
HERRING, BLUEBACK	353,075.9	23.8	18.5	4.3	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.0	0.4	67.5
HERRING, NK	1,428,014.2	4.0	0.8	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	66.5
SHAD	49,586.0	18.5	5.7	10.2	0.1	0.1	0.0	0.8	0.2	0.7	0.6	0.0	0.1	49.6

**DRAFT AND PRELIMINARY**  
Alosine Bycatch Analysis Based on Observer Data 2004-2008  
Provided by the National Coalition for Marine Conservation

**Figure 1**



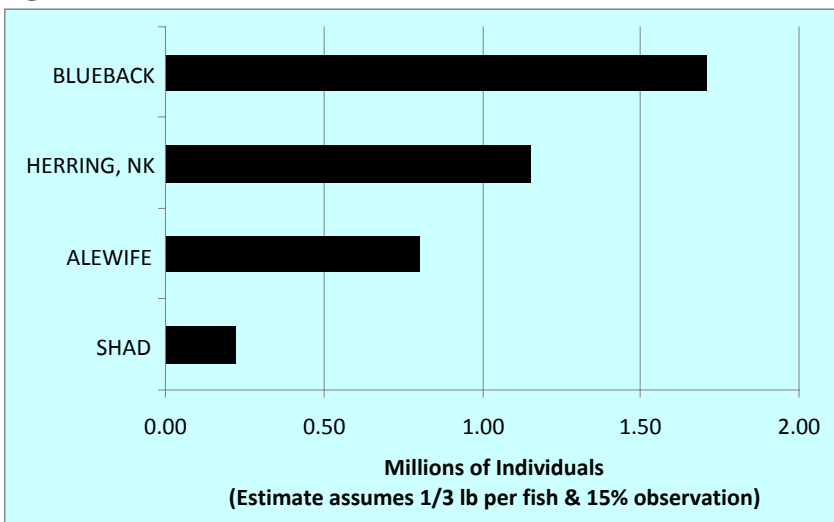
2004-2008 Observed Bycatch  
LANDED (HAUL)

MAFMC Fisheries  
weight (pounds)

individuals (0.33  
lbs)

SHAD	33,247	10,971.6
ALEWIFE	120,729	39,840.6
HERRING, NK	173,124	57,130.8
BLUEBACK	256,871	84,767.4

**Figure 2**



2004-2008 Observed Bycatch

MAFMC Fisheries

n individuals  
(0.33 lbs; 15%  
Observer  
coverage)

Species	n individuals (0.33 lbs; 15% Observer coverage)	weight (pounds)
SHAD	0.22	10,971.6
ALEWIFE	0.80	39,840.6
HERRING, NK	1.15	57,130.8
BLUEBACK	1.71	84,767.4

**DRAFT AND PRELIMINARY**

Alosine Bycatch Analysis Based on Observer Data 2004-2008  
Provided by the National Coalition for Marine Conservation



North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue, Governor  
Dee Freeman, Secretary

Division of Marine Fisheries

Dr. Louis B. Daniel III, Director

July 7, 2010

Mr. Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

**RE: Scoping for Amendment 14 to the Squid, Mackerel and Butterfish Fishery Management Plan**

Dear Mr. Furlong,

Please accept the following comments from the NC Division of Marine Fisheries (NCDMF) regarding the Mid-Atlantic Fishery Management Council's scoping document for Amendment 14 to the Squid, Mackerel and Butterfish Fishery Management Plan.

NCDMF is very supportive of including management measures in Amendment 14 to address monitoring and management of shad and river herring bycatch in the squid, mackerel and butterfish fisheries. Based on information presented to the Atlantic States Marine Fisheries Commission (ASMFC) Shad and River Herring Management Board over the past year, NCDMF supports increased resources for both at-sea and dockside monitoring for these fisheries as part of a comprehensive restoration strategy. We also offer the suggestion that targeting monitoring efforts with regard to gear types and geographic areas that have shown large, repeated instances of incidental take would maximize use of limited resources.

North Carolina has actively contributed to alosine restoration both within the state and at the ASMFC level. We support and encourage additional efforts in federal waters that will assist in rebuilding shad and river herring stocks and complement statewide efforts to do so. As always, we very much appreciate the opportunity to provide input on such an important issue.

Sincerely,

Louis B. Daniel, III

Cc: Red Munden, NCDMF  
Michelle Duval, NCDMF  
Gordon Myers, NCWRC  
Bennett Wynne, NCWRC  
Vince O'Shea, ASMFC  
Bob Beal, ASMFC  
Kate Taylor, ASMFC



☒ North Carolina Wildlife Resources Commission ☒

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Gordon S. Myers, Executive Director  
July 8, 2010

Mr. Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

**RE: Scoping for Amendment 14 to the Squid, Mackerel, and Butterfish Fishery Management Plan**

Dear Mr. Furlong,

The NC Wildlife Resources Commission (NCWRC) respectfully submits the following comments on the Mid-Atlantic Fishery Management Council's scoping document for Amendment 14 to the Squid, Mackerel and Butterfish Fishery Management Plan.

North Carolina has taken decisive action in its waters to restore river herring and American shad populations, including a harvest moratorium on river herring. For restoration of these populations to be realized, all potentially significant sources of mortality need to be examined. The NCWRC fully supports an evaluation of the incidental catch (bycatch) of river herring (alewife and blueback) and American shad in the squid, Atlantic mackerel, and butterfish fisheries. The NCWRC supports increased dockside and at-sea monitoring of bycatch of American shad, alewife, and blueback herring to determine the extent and magnitude of bycatch and should it prove significant, consider restrictions to gear type, geographic area, or season to minimize incidental catches.

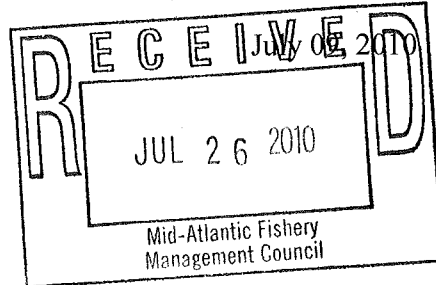
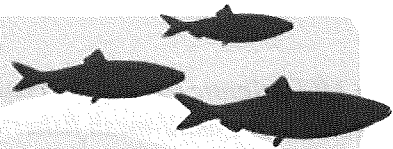
We greatly appreciate the leadership the Mid-Atlantic Fishery Management Council has extended to its state partners on this issue. Thank you very much for the opportunity to comment.

Sincerely,

A handwritten signature in blue ink that reads "Robert L. Curry". The signature is fluid and cursive.

Robert L. Curry, Chief  
Division of Inland Fisheries

cc: Louis Daniel and Michelle Duval,, NCDMF  
Kate Taylor, ASMFC  
Gordon Myers, Mallory Martin, Shannon Deaton and Kent Nelson NCWRC



MAFMC  
Staff notes  
Elec. Version  
Received  
before  
comment  
deadline

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

RE: Scoping Comments on MSB 14

Dear Mr. Furlong:

On behalf of the Herring Alliance, I am writing in response to the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (MSB FMP).

The Herring Alliance consists of 17 regional, national and international organizations. We are concerned about the status of the Atlantic coast's forage fish (e.g., American shad, Atlantic herring, Atlantic mackerel, butterfish, river herring, and squid), which provide a critical role in the food web by serving as prey to a large number of predators, many of which support valuable recreational and commercial fisheries.

River herring and American shad populations are at historic lows.<sup>1</sup> Their disappearance from traditional fishing grounds in rivers and estuaries is alarming, not only for the communities and fishermen that depend on them, but for the coastal ecosystem as a whole. Restoration of these anadromous species depends on comprehensive and coordinated fisheries management planning that protects them throughout their lifecycle.

The Herring Alliance believes that incidental catch (i.e., bycatch including landed and discarded catch) in federal waters is impeding shad and river herring rebuilding efforts. In a letter to the US Secretary of Commerce, the Executive Director of the Atlantic States Marine Fisheries Commission (ASMFC) wrote:

*...in some years, the total bycatch of river herring by the Atlantic herring fleet alone could be equal to the total landings from the entire in river directed fishery on the East Coast and urges*

<sup>1</sup> Hall CJ (2009) Damming of Maine Watersheds and the Consequences for Coastal Ecosystems with a Focus on the Anadromous River Herring (*Alosa pseudoharengus* and *Alosa aestivalis*): A Four Century Analysis. Masters Thesis, Marine and Atmospheric Science, Stony Brook University; Limburg KE, Waldman JR (2009) Dramatic Declines in North Atlantic Diadromous Fishes. *BioScience* 59(11): 955-965; ASMFC (2008) Atlantic States Marine Fisheries Commission 2008 River Herring Stock Status Report, prepared by the ASMFC Stock Assessment Subcommittee.

*the Mid-Atlantic Council to craft a strategy to monitor and reduce incidental catch of these species in its small-mesh fisheries.*<sup>2</sup>

The incidental catch of river herring by midwater trawlers targeting Atlantic mackerel can be substantial when individual hauls are examined and when one looks at this catch relative to river herring populations. NMFS Observer records reveal at-sea fishing vessels taking as much as 20,000 lbs of blueback herring in single net hauls. To put this in perspective, consider that 2008 commercial blueback herring landings from the states of New York, Delaware, and Virginia combined totaled just 26,000 pounds.<sup>3</sup> If aggregated while at sea, a single misplaced haul could obliterate an entire river's herring population. Though more sampling and analysis are needed, the available data indicate that the mortality of river herring and shad in the sea fisheries managed by the MAFMC is a significant factor impeding stock recovery.

Amendment 14 and its Environmental Impact Statement (EIS) must carefully analyze the impacts of this fishery on river herring populations, along with other species caught in the fishery, and develop a full suite of robust management alternatives from which the following objectives can be attained:

- Be consistent with the National Standard 1 (NS1) Guidelines on forage fish;
- Minimize incidental catch (as opposed to bycatch defined by National Standard 9 as “discards”) with the recognition that most river herring and shad caught in federal waters are landed;
- Prohibit discharging (i.e., dumping) of catch that has not been systematically sampled by NMFS certified observers;
- Provide an effective mechanism for seamless coordination of management across jurisdictions concerned with small pelagic fishes (i.e., forage fish) – including catch monitoring and adherence to annual catch caps for alosines (shads and river herring);
- Establish appropriate incidental catch caps for river herring and American shad. Caps should be science-based set in accordance with the population biology of these alosine species. If necessary, an alternative for provisional caps should also be analyzed that could be based on recent catch from VTR reports with a clear plan to replace these with science-based caps (discussed below). Because of the high-volume nature of the Atlantic herring, mackerel and squid fisheries, limits based on a percentage of landed weight pose a high risk for the weak alosine populations and must not be used;
- Provide for enhanced at-sea monitoring of all catch (discarded and landed) by NMFS certified observers deployed at levels determined through an appropriate methodology for monitoring incidental catch of river herring and shad. A minimum of one observer should be required for Tier 1 and 2 vessels,<sup>4</sup> as well as any vessel receiving catch directly from one of these vessels;

<sup>2</sup> Letter from ASMFC Executive Director John V. O’Shea to U.S. Secretary of Commerce Secretary Locke, 27 May 2009.

<sup>3</sup> Haul data from North East Fisheries Observer Program, NMFS; Landings data from NOAA’s *Annual Commercial Landing Statistics*: [www.st.nmfs.noaa.gov/st1/commercial/landings/annual\\_landings.html](http://www.st.nmfs.noaa.gov/st1/commercial/landings/annual_landings.html)

<sup>4</sup> See Table 25, Amendment 11 To The Atlantic Mackerel, Squid, And Butterfish (MSB) Fishery Management Plan (FMP), draft dated January 2010.

- Include provisions for industry-support for the observer coverage needed to attain the key catch monitoring objectives of Amendment 14;
- Identify and establish protection for incidental catch “hotspots” for river herring and shad (i.e., seasonal time/area closures);
- Protect river herring and shad through a near real-time data collection system that triggers move along rules – temporarily excluding vessels from trouble spots;
- Utilize currently available electronic monitoring (e.g., video, net sensors) to augment observer data, to discourage unreported discarding or transfers at sea, and to reduce observer costs.

Despite heroic efforts to improve riverine ecosystems including bans on directed fishing in a number of states, river herring and shad continue to struggle along the Eastern seaboard. These fish have been an integral part of coastal community life for centuries, supporting commercial and recreational fishing and tourism.<sup>5</sup> As runs of river herring and shad are lost, so too are the businesses, jobs, and culture that have been a way of life for these communities. In previous decades, when abundance was substantially higher, these fish also played a key role as forage for a great number of predators including larger commercially important fish such as Atlantic cod and striped bass; alosines were once a vital link between the sea and coastal estuaries, streams and lakes.<sup>6</sup> The ecological role of these forage species and the rich, cultural heritage surrounding healthy river herring and shad runs, must be restored and protected for future generations.

Widespread concerns about declines in river herring landings and scarce data on what is being landed and discarded at sea prompted the ASMFC to call on the Secretary of Commerce to take *Emergency Action* to address at-sea impacts to river herring through better monitoring of the small mesh fisheries.<sup>7</sup> The Mid-Atlantic Fishery Management Council (June 24, 2009) and the New England Fishery Management Council (June 26, 2009) submitted letters to the Secretary in support of the ASMFC’s request.

There was widespread public support for the emergency action requested by ASMFC, including a separate petition for rulemaking from a group of environmental and commercial and recreational fishing organizations, along with a letter of support signed by over 100 additional environmental and fishing groups.<sup>8</sup> To date, decisive action on this issue has not taken place. The New England Council has, however, identified incidental catch of river herring and shad as a priority for Amendment 5 to the Atlantic Herring Fishery Management Plan, and we are encouraged that the Mid-Atlantic Council has identified the creation of a river herring/shad incidental catch monitoring and reduction strategy as a priority for Amendment 14.

<sup>5</sup> Limburg KE, Waldman JR (2009) Dramatic Declines in North Atlantic Diadromous Fishes. *BioScience* 59(11): 955-965

<sup>6</sup> Ibid at note 5

<sup>7</sup> Letter from ASMFC Executive Director John V. O’Shea to U.S, Secretary of Commerce Secretary Locke, 27 May 2009.

<sup>8</sup> Letters to US Secretary of Commerce dated 17 and 23 June 2009 from a variety of fishing, watershed and conservation organizations, 104 cosigners in total.



### **Improved Monitoring and Data collection:**

It is imperative that the MAFMC take steps as quickly as possible to address the inadequate levels of monitoring and data collection within the Mid-Atlantic's small-mesh fisheries. **It is important to note that the approach to estimating bycatch and adequate levels of observer coverage, described in the Standardized Bycatch Reporting Methodology (SBRM) Amendment and used by NMFS,<sup>9</sup> is not adequate for river herring and shad because it is based on discards. NMFS data makes it clear that much of the incidental catch of river herring and shads is landed.**

The Herring Alliance is particularly concerned about incidental catch monitoring in the Northeast's mid-water trawl fleet, which targets Atlantic mackerel (MAFMC) and Atlantic herring (New England Fisheries Management Council - NEFMC). Catch sampling and monitoring in these large, high volume fisheries is inherently problematic. The number of river herring captured and retained from individual net hauls in the Atlantic mackerel mid-water trawl fishery can surpass fish passage counts in many major river systems.<sup>10</sup> In addition, at-sea observers record a large number of fish as "unknown herring" or "unknown fish" each year in the small-mesh trawl fisheries. The use of these catch-all categories prevents an accurate accounting of incidental catch, and the alternatives developed for Amendment 14 should include steps to curtail this under-specification of catch by observers. Additionally, observer records also show that a substantial quantity of catch has been released to the sea without systematic sampling – thus escaping classification as species-specific incidental catch. Amendment 14 should strive to minimize incidents of dumping un-sampled catch (i.e., net *slipping*).

To be successful in its objective to address river herring and shad incidental catch, the Council must fully evaluate and improve its monitoring program to ensure that catch data are reliable and can be confidently used in incidental catch analyses and reduction strategies.

We recommend that the Amendment 14 EIS include the following alternatives for analysis, which comprise the elements of an improved monitoring program necessary to ensure that the required data on incidental catch are obtained for small-mesh fisheries:

- Enhanced observer coverage in all small-mesh fisheries to allow for accurate fleet-wide extrapolation of incidental data (i.e., bycatch including discarded and kept catch), so the data can be used with a high degree of confidence to inform management actions. Observers must be NMFS trained and certified, and capable of identifying river herring and shad to species. To accomplish this, two measures are required -
  - An alternative methodology to the SBRM for determining an appropriate level of observer coverage across all of the fishery in order to reliably estimate the incidental catch of river herring and shad;
  - At a minimum, 100% observer coverage for Tier 1 and 2 vessels, including single and paired mid-water trawl vessels. For paired trawls, an observer must be present on both vessels;

<sup>9</sup> Wigley SE Blaylock J, Rago PJ (2009). River Herring Discard Estimation, Precision, and Sample Size Analysis. NEFSC Ref Doc 09-20; 15 p. [www.nefsc.noaa.gov/nefsc/publications/](http://www.nefsc.noaa.gov/nefsc/publications/)

<sup>10</sup> Haul data from North East Fisheries Observer Program, NMFS.



- On observed trips, all catch must be systematically sampled by NMFS certified observers. No catch can be allowed to be discarded to the sea (e.g., slipped or released) or transferred to a receiving vessel without sampling, otherwise the total catch (incidental or target) cannot be estimated properly. This requires that all catch be brought on board observed vessels, including the catch presorted and left in the net after pumping operations by pump filters (“seal guard”). In addition, pre-sorting and discarding of unobserved catch by crew “upstream” of observers must be prohibited. Exceptions for vessel safety or mechanical failure may be applied with appropriate accountability measures in place. The rule designed by NMFS for groundfish Closed Area 1, with improvements consistent with this paragraph, may serve as a model;<sup>11</sup>
- Augment at-sea observer data with electronic monitoring. On observed trips, electronic monitoring can be used to document and verify sampling of discarded catch and to collect data on tow statistics including estimated total haul weight before and after unloading of nets (e.g., pumping).

### **Measures to Reduce Incidental Catch of River Herring and Shad**

While Amendment 14 will specifically update the MSB FMP it is essential that incidental catch reduction measures be integrated with the Atlantic Herring FMP. As has been made clear by industry representatives and others, many of the highest capacity vessels involved in these two fisheries are the same, and the distinction between Atlantic mackerel and herring trips is often unclear or even arbitrary. Incidental catch reduction strategies cannot succeed unless there is a unified approach for this pelagic fishing fleet – coordinated across Councils.

Amendment 14 and Atlantic Herring Amendment 5 must result in a cohesive incidental catch reduction strategy that will culminate in measurable results. The MAFMC should coordinate with the NEFMC to ensure this is accomplished. The Amendment 14 EIS must include the following alternatives for analysis:

- Annual incidental catch caps for river herring and shad.<sup>12</sup> Long-term caps should be based on the population biology of these alosine species. Although it may be expedient to define incidental catch caps relative to the amounts of directed catch (e.g., as a percentage of Atlantic mackerel), this approach is not acceptable because it does not ensure protection of river herring or shad. To define a cap in this manner amounts to saying that the acceptable incidental catch can go up as long as the catch of Atlantic mackerel increases, even if the status of the river herring or shad remains constant or is declining. In terms of stewardship of these imperiled alosine fishes, this is illogical. It implies a biological relationship between the status and/or catch of Atlantic mackerel and alosines that does not exist. Acceptable incidental catch levels must be based upon an analysis of the best available scientific data on the status of river herring and shad

<sup>11</sup> Federal Register / Vol. 74, No. 171 / Friday, September 4, 2009 / Proposed Rules pp 45798-801.

<sup>12</sup> See butterflyfish mortality cap program for the *Loligo* fishery. Federal Register / Vol. 75, No. 47 / Thursday, March 11, 2010 / Rules and Regulations 11443-44

species. Such data include assessments and status reports,<sup>13</sup> data from state and federal government sources,<sup>14</sup> and information available from academic reports.<sup>15</sup> Science-based cap analysis should include consideration of the status of river populations within discrete geographic regions and any available information on the migration routes used by each of the alosine species. The available scientific information should be used to determine catch caps that are appropriate for geographic segments of the coastal shelf region, while taking into account any directed or incidental harvest within state waters. This analysis should also identify priorities for new research that will improve the quality of population biology-based incidental catch caps in the future.

- Because it is not clear today that the caps can be set with the appropriate methods described above in time for completion of this Amendment, an alternative should be developed to set these caps provisionally based upon recent catch data from VTR reports. However, any such provisional caps must be replaced with caps based on biology within one year of implementation of the Amendment;
- Provide for near real-time river herring and/or shad incidental catch reports similar to those provided by NMFS for the current groundfish quota tracking in Special Access Programs and U.S. Canada Resource Sharing Areas and make these reports readily accessible to the public;
- Temporal and spatial exclusions for areas identified as having a high probability of incidental catch of river herring or shad (“hotspots”) based up the best available scientific data (i.e., observer data and seasonal research survey trawl data collected by NMFS). Over the past two years, the NEFMC has analyzed river herring and shad bycatch, with several presentations including maps showing hotspots,<sup>16</sup> and several motions have been passed focusing on this issue in the context of Amendment 5 to the Atlantic herring FMP.<sup>17</sup> New England is currently working out methods for defining hotspots and measures to monitor and protect these areas. The MAFMC should analyze an alternative for incidental catch hotspots using New England’s Amendment 5 approach as a starting point for analysis. Midwater trawling, and other high impact gear, should be prohibited from such areas, with consideration of future access under appropriate criteria only occurring after analysis of data collected under a rigorously designed Exempted Fishing Permit (EFP). Such EFP should provide, at minimum, that all participating vessels carry

<sup>13</sup> 2008 River Herring Stock Status Report, ASMFC Stock Assessment Subcommittee, Gary Nelson, Massachusetts Division of Marine Fisheries, Chair; ASMFC River Herring and Shad Stock Assessment in progress, expected in 2011.

<sup>14</sup> NMFS Seasonal Trawl Surveys, State surveys including landings records and annual river return counts.

<sup>15</sup> For example: Hall CJ (2009) Damming of Maine Watersheds and the Consequences for Coastal Ecosystems with a Focus on the Anadromous River Herring (*Alosa pseudoharengus* and *Alosa aestivalis*): A Four Century Analysis. Masters Thesis, Marine and Atmospheric Science, Stony Brook University; Limburg KE, Waldman JR (2009) Dramatic Declines in North Atlantic Diadromous Fishes. *BioScience* 59(11): 955-965.

<sup>16</sup> For example: Cieri et al 2008. Estimates of River Herring Bycatch in the Directed Atlantic Herring Fishery. White paper presented to NEFMC. Presentation to NEFMC Herring PDT, 14 January 2009, by A. van Atten et al.; Presentation to NEFMC Herring Oversight Committee, 17 May 2010, by M. Cieri; Presentations by J. Cournane to Herring PDT (8 April 2010) and Herring Oversight Committee (17 May 2010).

<sup>17</sup> Herring Oversight Committee motions May 17, 2010 and October 1, 2008; Council motion October 8, 2008

observers, meet tight standards for monitoring and catch sampling, and operate within incidental catch caps;

- Mandatory “move-along” rules administered by NMFS that trigger protection for any area where an established incidental catch threshold has been exceeded. Vessels would be required to leave such area for a specified period of time in order to minimize the incidental catch of river herring. This incidental catch reduction alternative has the benefit that it is dynamic, leading to a rapid catch avoidance response based on near-real analysis of current catch data. In contrast to the hotspot approach, this system does not depend on predicting where / when incidental catch will occur based on data from prior years. Move-along rules do, however, depend upon high quality monitoring data so that catch of the species of interest (i.e., river herring and shad) is detected with high probability and speed. Move along rules are used successfully for reducing salmon bycatch in the Bering Sea,<sup>18</sup> have been discussed by the NEFMC Herring PDT and Oversight Committee, and are being considered for Amendment 5 to the Atlantic herring FMP;<sup>19</sup>
- Exclude mid-water trawling with small-mesh gear from groundfish closed areas;<sup>20</sup>
- Institute standards for bottom clearance for “mid-water” trawls to prohibit mid-water trawls from fishing near the bottom (e.g., mid-water pertains to the water column, 100 feet or more off the sea floor).<sup>21</sup>

### **Forage fish, the MSA and National Standards:**

National Standard 1 (NS1), and the implementing guidelines, offer clear guidance on forage species and the special considerations warranted in managing these species. **It should be a primary objective of the MSB FMP to protect the ecological role of targeted (i.e., Atlantic mackerel, squid, and butterfish) and incidentally-caught (e.g., river herring and shad) forage species.** The objective should be fulfilled through a better accounting of ecosystem needs in the determination of Optimum Yield (OY). The addition of this objective to the MSB FMP should be analyzed as an alternative in Amendment 14. This will require monitoring systems appropriate for high volume fisheries for small pelagic species and stock assessment approaches that incorporate multi-species interactions. River herring and shad are clearly key ecosystem components and, since they are landed in the Atlantic mackerel fishery, should be classified as non-target stocks in the fishery according to the NS1 guidelines.<sup>22</sup> As non-target stocks in the fishery, the MAFMC should develop status determination criteria and reference points, and develop Annual Catch Limits (ACLs) with suitable Accountability Measures (AMs).

<sup>18</sup> See description of *voluntary rolling hotspot system* (VRHS) Federal Register / Vol. 75, No. 55 / Tuesday, March 23, 2010 / Proposed Rules pp 14018-20. This system includes 100% observer coverage and a fishery closure when the incidental catch cap for Chinook Salmon is reached.

<sup>19</sup> Herring PDT 8 April 8, 2010; Oversight Committee May 17, 2010.

<sup>20</sup> See NEFMC Amendment 5 to the Herring Fishery Management Plan (FMP) - DRAFT Discussion Document, dated 31 July 2009, part 4.0 *Measures To Address Herring Vessel Access To Groundfish Closed Areas*.

<sup>21</sup> Id.

<sup>22</sup> Federal Register / Vol. 74, No. 11 / Friday, January 16, 2009 / Rules and Regulations

## Long-Term Solutions to Shad & River Herring Management

Efforts to address shad and river herring incidental catch are currently directed to three separate fishery management bodies (ASMFC, NEFMC, MAFMC) as well as the National Marine Fisheries Service. Amendments to two separate FMPs are underway with the shared objectives of improved monitoring and reducing the incidental catch of river herring and shad (NEFMC Amendment 5, and MAFMC Amendment 14). The effectiveness of these amendments hinges on the ability to develop a single comprehensive and coordinated incidental catch monitoring and reduction strategy for the Northeast's small-mesh fisheries for herring and mackerel. Shad and river herring populations, which spend most of their lives at sea, are falling through the management cracks in this fragmented management system. Long-term sustainable management must include a federal joint management plan that compliments the ASMFC Shad and River Herring plan to ensure that management recommendations for federal waters are implemented as expeditiously as possible. The MAFMC should lead efforts to bridge these management gaps by considering the following as council priorities:

- Develop a Federal Shad and River Herring Fishery Management Plan (FMP)  
River herring and Shad are not currently part of any federal fishery management plan, and as such they are not governed by any specific measures while in federal waters even though most of their lives are spent at sea. With a significant amount of river herring being caught in federal waters, this lack of management has allowed incidental catch to become a significant yet unregulated source of fishing mortality. We recommend that the MAFMC and NEFMC develop an integrated federal management plan, to work in cooperation with the ASMFC Interstate Fishery Management Plan, to manage river herring and shad throughout their range, in accordance with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and guidance of the National Standard Guidelines.<sup>23</sup> The new FMP should be used to implement ASMFC-recommended actions in federal waters as well as other actions deemed appropriate by the Council for the conservation and management of these species;
- Consolidate Management of the Atlantic Herring and Atlantic Mackerel Fisheries Under a Single FMP  
Overlap between the Atlantic mackerel fishery, managed by the MAFMC, and the Atlantic herring fishery, managed by the NEFMC, is recognized by both councils. Amendments to the Atlantic herring FMP often require special consideration and analyses of the mackerel fishery and vice-versa. For example, most major participants in the mackerel fishery also carry a "Category A" Atlantic herring permit.<sup>24</sup> In addition, the recent Atlantic mackerel stock assessment found that the mackerel resource has moved northward, increasing the overlap between herring and mackerel fishing grounds.<sup>25</sup> In order to improve management of these fisheries (especially in accordance with requirements to minimize bycatch as required by National Standard 9) and to move toward ecosystem-based approaches, it will be necessary

<sup>23</sup> See 50 CFR § 600.310(d)(3-4)

<sup>24</sup> See New England Fishery Management Council Herring Committee and Advisory Panel memo, July 22, 2008, regarding "Background Information re. Herring/Mackerel Fishery Interactions"

<sup>25</sup> TRAC. 2010. Atlantic Mackerel in the Northwest Atlantic. TRAC Status Report 2010/01.

for management of Atlantic herring and mackerel to be consolidated under one FMP. We urge the Council to begin discussions with NMFS and the NEFMC to create a single management plan that will best steward these important pelagic resources;

- Plan for ecosystem-based management of forage species

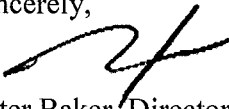
The significance of accounting for the interactions among species in fisheries management is particularly clear where the mosaic of forage species is concerned. The status of these stocks interacts strongly with that of others that are higher in the food web, as well as among one another. By formally addressing these interactions, ecosystem-based fisheries management promises to solve problems that can not be solved through traditional approaches.<sup>26</sup>

Amendment 14 should seek to facilitate a transition to ecosystem-based fisheries management by establishing effective mechanisms for coordination across management bodies attempting to steward components of the same ecosystems.

In conclusion, the Herring Alliance strongly supports the MAFMC in its effort to control river herring and shad incidental catch by developing a strong amendment to the MSB FMP that will foster coordination among fisheries management authorities, moving management of the Atlantic's forage species toward ecosystem-based approaches. The Herring Alliance and its many members welcome the opportunity to work with the MAFMC in the development of this important amendment and thank you for the opportunity to comment at this juncture.

Moving forward, we recommend that the MAFMC provide additional opportunities for the public and other stakeholders to participate in the shaping of Amendment 14. We think this is especially important to the further development of the range alternatives to be analyzed in the Amendment 14 EIS. The scoping document for Amendment 14 is brief and general, and as a result, it is difficult for interested parties at this period to effectively anticipate the full scope of actions under consideration and the related impacts that need to be analyzed. In turn, it is difficult to identify the full range of reasonable alternatives that should be considered, especially at a level of detail that might be most helpful to the Council in its deliberations. We recommend that the Council create a process by which stakeholders may participate further in the development of the alternatives to be considered in the document, similar to that used by the NEFMC in the development of Amendment 5 to the Atlantic Herring FMP.<sup>27</sup>

Sincerely,



Peter Baker, Director  
Herring Alliance

<sup>26</sup> For example, see: Workshop on Ecosystem – based Fisheries Management New England Fishery Council Scientific and Statistical Committee, August 26-27, 2009, Marriott Hotel, Newport, Rhode Island. Materials available at: [http://www.nefmc.org/tech/ebfm%20workshop/ebfm\\_workshop.html](http://www.nefmc.org/tech/ebfm%20workshop/ebfm_workshop.html)

<sup>27</sup> NEFMC Notice October 16, 2008: *CALL FOR STAKEHOLDER RECOMMENDATIONS for an Atlantic Herring Fishery Catch Monitoring Program*

## Diden, Jason T.

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**From:** Site Administrator [info@Riverkeeper.org] on behalf of Zdenek Kriz [zkriz75@aol.com]  
**Sent:** Thursday, July 08, 2010 2:07 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB Amendment 14

Approximately (some emails were from the same person) 1,914 individuals expressed comments very similar to the comment below. 12 of those that included additional thoughts are included. 263 were received late (minutes to a few days).

Jul 8, 2010

Mr. Daniel T. Furlong  
800 North State Street. Suite 201  
Dover, DE 19901

Dear Mr. Furlong,

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing. Here in New York, the historic American shad fishery which dates back to colonial times was recently closed, a tragic loss for the people of New York. Herring populations in New York are also in significant peril.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries

Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,

Mr. Zdenek Kriz  
44 Douglass St  
Brooklyn, NY 11231-4714

**Didden, Jason T.**

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**From:** dougstephens@dougstephens.net  
**Sent:** Wednesday, July 07, 2010 2:41 AM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14  
**Categories:** SMB 14 DAN

*Note: exp-  
expletive  
deleted*

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council,

The letter below represents a calm perspective. What I really want to say is:

~~Expletives Deleted~~ and stop all ~~exp~~ trawling before you bleed our oceans dry.

Thanks, I knew you would understand.

Doug Stephens

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

- \*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation
- \*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling
- \*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures
- \*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
Douglas Stephens  
14 Marstons Alley  
Turners Falls, MA 01376

## Diden, Jason T.

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**From:** yolandasantana15@yahoo.com  
**Sent:** Thursday, July 08, 2010 2:42 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

It is sad to know that nothing has been done for this problem already. In the end if measures are not taken, everyone loses.

Take care of your home, your community, your environment. Without these measures, we are all greedy animals with no regard for what we do.

Sincerely,  
Yolanda Santana  
1734 Holland Ave. Apt. 2-A  
Bronx, NY 10462



## Diden, Jason T.

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**From:** marilyn\_pettinga@yahoo.com  
**Sent:** Thursday, July 08, 2010 2:55 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

As the niece and grandniece of in-shore fishermen I know only too well of what happens to the in-shore fishing areas after trawlers have been through. Trawlers haul EVERYTHING up from the bottom -- small fish, small and large lobsters -- you name it. What fish are too small or too large gets tossed back into the ocean -- usually dead. The areas where trawlers have fished need several years to come back from being fished. I know this for a fact, based on my family's fishing heritage.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Please don't let the trawlers take all our fish. The time to stop them is now, BEFORE the damage is irreversible.

Thank you for your attention.

Sincerely,  
Marilyn Pettinga  
303 Wood Street  
Ithaca, NY 14850-5309

**Diden, Jason T.**

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**From:** dori@capital.net  
**Sent:** Thursday, July 08, 2010 3:04 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring AND OTHER SPECIES in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
DoRi Miles  
2561 NYS RTE 9N  
Crown Point, NY 12928

## Didden, Jason T.

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**From:** t\_wood65@yahoo.com  
**Sent:** Thursday, July 08, 2010 3:48 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

WHY DOESNT ANYONE CARE ANYMORE ABOUT THE OCEAN/WILDERNESS/ANIMALS IN GENERAL????  
ARE THEY JUST "ANIMALS" OH ITS JUST A DOG OR OH ITS JUST A FISH".... THEY HAVE FEELINGS AND A HEART TOO!!!!!!!!!!!!!!

Sincerely,  
TINA WOOD  
589 CHATSWORTH RD  
TABERNACLE, NJ 08088

**Diden, Jason T.**

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**From:** tophers49@hvc.rr.com  
**Sent:** Thursday, July 08, 2010 4:56 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range. Hey, the future of fishing is at stake and if we don't start recognizing the perils of poor or no regulations added onto the insane over fishing problem there be no future! It is already too late for many species but still some can be saved if we act now. Let's get real here as the problem is immense and it is only getting worse.

Sincerely,  
chris vilandry  
sepasco center st  
rhinebeck, NY 12572-2239

**Diden, Jason T.**

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**From:** ddow420@comcast.net  
**Sent:** Thursday, July 08, 2010 5:24 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

As a former member of the NEFMC's Habitat Plan Development Team I feel that forage fish are an important component of Essential Fish Habitat (EFH). This biological component of EFH should be covered by bycatch regulations, especially in the paired trawl/purse seine herring fisheries which scoop up target species/bycatch indiscriminately. The forage fish are important components of grazing food chain which supports epibenthic invertebrates; pelagic/demersal finfish; some marine mammals and sea birds. NOAA Fisheries provides inadequate protection not only for these forage fish, but also other components of the ocean food chain. The biological components of EFH are under valued in EFH regulations, especially the shifting baseline that will accompany climate change. Forage fish link the planktonic food web to the living marine, protected and natural trust resources that NOAA Fisheries manages.

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
David Dow  
18 Treetop Lane  
East Falmouth, MA 02536-4814

## Diden, Jason T.

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**From:** paulmsanderson@aol.com  
**Sent:** Thursday, July 08, 2010 8:01 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

Having observers on every ship fishing in the Bering Sea, primarily for pollock, has resulted in a greatly reduced by-catch and a very strong fishery. We need observers on every ship of reasonable size, rotated periodically so they do not become too close to the crew, who will impartially report on by-catch results. Cod in New England/Canada were fished into oblivion because of the attitude of "take everything you can before someone else gets it", regardless of the damage done to the fishery or the larger ocean environment. Observers are a good first step!

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
Paul Sanderson  
214 Connecticut Street  
Westfield, NJ 07090

**Didden, Jason T.**

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**From:** dweber@exeter.edu  
**Sent:** Friday, July 09, 2010 1:48 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council,

Industrial scale trawling is another technology that begs for repudiation. I would support far more aggressive restrictions than are outlined in the following letter. However I accept that change on the scale we need has to occur in stages. So for the moment I do strongly support the following proposals.

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
David Weber  
2 Folsom Street  
Exeter, NH 03833

**Diden, Jason T.**

---

**From:** sherryazure@yahoo.com  
**Sent:** Friday, July 09, 2010 3:59 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

As a person with a background in Biology and over 45 years of aquarium/fish keeping I am deeply concerned with the declining populations of fish both in our river systems and oceans.

Once gone they are gone forever - as so many are in even the last ten years!

What a shameful wasteful species we humans are! To destroy our very planet that has granted us all that we have is stunning in it's stupidity.

.....

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
Sherry Mickelson  
135 East 50th  
New York, NY 10022



## Diden, Jason T.

---

**From:** vidiva@comcast.net  
**Sent:** Friday, July 09, 2010 4:05 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

The MAFMC is grossly negligent and does not manage adequately.

In fact, it doesn't manage at all and allows for the most outrageous activities in the ocean! It's high time this antiquated US government arm is replaced by effective and efficient people who know what they're doing!

Sincerely,  
Marliese Bonk  
1335 Commercial Street  
Pittsburgh, PA 15218

**Didden, Jason T.**

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**From:** zoeella@hotmail.com  
**Sent:** Thursday, July 08, 2010 4:53 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am concerned about the incidental capture of American shad and river herring in federally managed ocean trawl fisheries. At present, these fish populations are at historic lows and have shown little sign of recovery despite considerable in-river habitat restoration and increasingly restrictive regulations on fishing.

At-sea bycatch of shad and river herring is believed to be a significant threat to the survival and recovery of these imperiled species yet this problem remains largely unmonitored and unregulated by federal managers. Please ensure the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

\*\*\* Require 100% observer coverage on all mid-water trawl vessels, including one observer assigned to each vessel in a pair trawl operation

\*\*\* Prohibit dumping or discarding of unsampled catch; 100% of catch must be made available to fishery observers for systematic sampling

\*\*\* Establish annual bycatch caps for river herring and shad that will trigger gear/area fishery closures

\*\*\* Establish gear closures around river herring and shad "hotspots" - areas of high probability of incidental catch of river herring or shad based upon the best available scientific data

The long-term success of these measures necessitates the commitment, cooperation and coordination of all authorities (MAFMC, New England Fishery Management Council, Atlantic States Marine Fisheries Commission) responsible for the sustainable management of river herring and American shad populations. I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
Laura Buckingham  
269 Buckingham Rd  
Honesdale, PA 18431



**Petition RE: Scoping Comments on MSB 14**

The Mid-Atlantic Fishery Management Council (Council) has announced its intent to prepare an amendment (Amendment 14) to the Fishery Management Plan (FMP) for Atlantic Mackerel, Squid, and Butterfish and to prepare an EIS to analyze the impacts of any proposed management measures. The Council should take this opportunity to address at-sea bycatch in the squid and mackerel trawl fisheries through Amendment 14, and to address river herring and shad bycatch specifically.

At-sea bycatch in trawl ocean fisheries is believed to be a major source of river herring and shad mortality. Minimizing at-sea bycatch of shad and river herring is urgently needed in conjunction with in-river habitat restoration. In 2009, the Atlantic States Marine Fisheries Commission (ASMFC) called on the federal government and the regional fishery management councils to monitor and minimize the impacts of trawl bycatch on river herring in U.S. waters beyond three nautical miles from shore. This amendment provides an ideal opportunity to address at-sea bycatch of river herring and American shad.

**We, the undersigned, urge the Council to afford much-needed protection to river herring and American shad through Amendment 14. The plan amendment should consider and include a plan of action to:**

- 1) achieve high levels of at-sea catch monitoring in the mackerel and squid fisheries;
- 2) set enforceable bycatch limits for river herring and shad; and
- 3) establish bycatch-triggered trawl fishing area closures that protect offshore habitat where river herring and shad are known to congregate.

	First	Last	Street	City	State	Zip
1	Rosemary	Caolo	1512 E. Gibson St.	Scranton	PA	18510
2	carol	adams	2902 village road	langhorne	PA	19047
3	Eric	Christenson	800 Lancaster Ave	Villanova	PA	19085
4	Cheryl	Fala	1157 Bloomfield Circle	Lansdale	PA	19446
5	Troy	Schreiber	232 Market Street Apt. C	Millersburg	PA	17061
6	Zoe	Warner	5 Lantern Lane	Wayne	PA	19087
7	Ronda	O'Bryant	302 Green Acres Ct.	Butler	PA	16002
8	WALTER	MARGIE	936 LAUREL DRIVE	BETHLEHEM	PA	18017
9	Deanne	O'Donnell	1177 Spruce Street	Greensburg	PA	15601
10	Jacki	Hoover	PO Box 247	Blue Ridge Summit	PA	17214
11	Dianne	Darr	18 Oakhurst Homes Apt. E	Johnstown	PA	15906
12	Michael	Leeling	829 Route 113	Souderton	PA	18964
13	samantha	ginsburg	10 orchard st	pittsburgh	PA	15221

*\* MAFWC Staff notes  
2,156 individuals  
signed this petition. 88*

7/7/2010



JOHN ELIAS BALDACCI  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF  
MARINE RESOURCES  
21 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0021

GEORGE D. LAPOINTE  
COMMISSIONER

July 29, 2010

Daniel T. Furlong  
Mid-Atlantic Fisheries Management Council  
800 North State St, Suite 201  
Dover, DE. 19901

Dear Mr. Furlong,

I am writing to provide some general comments on the Mid-Atlantic Fisheries Management Council's (MAFMC) Amendment 14 to the Atlantic Mackerel, Squid and Butterfish Fishery Management Plan.

The Maine Department of Marine Resources (DMR) strongly supports any efforts to improve monitoring and reduce the incidental catch of shad and river herring in all fisheries, and therefore supports the inclusion of river herring actions in Amendment 14.

Across the range shad and river herring stocks are currently at very low levels, and there is much uncertainty concerning the incidental catch of these stocks in all fisheries. Improving at sea observer coverage and dockside monitoring will compliment ongoing New England Fishery Management Council (NEFMC) efforts to improve monitoring and reduce river herring bycatch in the Atlantic herring fishery and support the Atlantic States Marine Fisheries Commission's efforts to develop a sustainable management plan. DMR recommends that the MAFMC closely collaborate with the NEFMC in the development of monitoring measures that provide accurate and timely data on the fisheries and are operationally viable for the fishing industry.

I appreciate the opportunity to comment and would be pleased to follow up with you as needed. Please contact me if you have any questions.

Sincerely,

Terry Stockwell  
Director of External Affairs

To Whom It May Concern,

It is my belief that the MSB small mesh fisheries are drastically impacting river herring and shad. I believe that they are caught by the millions as bycatch and killed.

I further believe that the rivers of the east coast are being inundated by striped bass because their forage foods mackerel, herring squid and butterfish are being decimated by midwater trawlers.

I believe that the stripers have moved into the rivers in masse, because they are starving in the ocean and because of that starvation, have now set up residency in the rivers.

I believe that all small net fisheries should be stopped or drastically curtailed so that these forage stocks can rebound.

**A personal story:**

**Recently I was loading a truck bound for the Fulton Fish Market. This something I do on a regular basis. I pick up the load of fish in New Bedford as it comes off the boat. In talking with the Captain, as his squid was being iced and boxed, he told that he has not been able to fill the boat in the last two years. Filling the boat was apparently normal a few years ago, not so anymore. They usually unload on Wednesday or Thursday for Friday morning at Fulton. Or Saturday and Sunday for Monday morning at the Fulton Fish Market.**

**As an American Taxpayer I have paid to clean up my rivers with millions of dollars only to be rewarded with dwindling fish returns.**

**PLEASE MAKE IT STOP IN MY LIFETIME !!!!!**

**Bill McWha  
799 Bridge St.  
Suffield,CT 06078-2328  
860-748-5312 Cell**

**To whom it may concern**

**I would like to make the following comments concerning MSB 14.**

**I would like to see more at sea monitoring and dockside monitoring of catches and or by-catch implemented.**

**I think the small mesh fisheries are greatly effecting the Herring and American Shad stocks on the entire Eastern Sea Board. The decimation of the Herring and American Shad stocks adversely effect the entire ecological system from top to bottom.**

**The MAFMC must also enforce the existing rules and regulations that are in place. We can pass all the Laws and Regulations we want to but if they are not enforced they are worthless.**

**Ron Marks, President**

**Delaware River Shad Fishermen's Assoc.**

**Ron Marks**

**4622 West Hopewell Rd.**

**Center Valley, Pa. 18034**

Massachusetts Striped Bass Association  
Massachusetts Beach Buggy Association  
Northeast Charter Captains Association  
Recreational Fishing Alliance

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

July 8, 2010

To Whom It May Concern:

***The Massachusetts Striped Bass Association, the Massachusetts Beach Buggy Association, the Northeast Charter Captains Association and the Recreational Fishing Alliance*** supports the Mid Atlantic Fishery Management Council's proposal to develop Amendment 14 to the Mackerel Squid Butterfish FMP. Together, we represent the interests of recreational anglers throughout New England that are concerned with the effect of the Mid Atlantic Fishery Management Plan for Squid Mackerel and Butterfish on our local waters and offer the following response to the call for scoping comments.

***Background*** In New England, the recreational fishing community is losing a culture and way of life surrounding river herring because we are in the fifth year of a prohibition on harvest. This prohibition was put in place because of an over 90% collapse in river herring stocks over twenty years. During the past decade, tens of millions of dollars and countless thousands of man hour days have been invested into habitat improvement however stocks have not made a significant turnaround. It is our belief that in order to complete the effort to return river herring stocks to sustainable numbers, fisheries managers must enact regulations that reduce at sea interactions with commercial fishing operations.

Two other species that are at historic low numbers and are commonly reported as both incidental and by catch in vessels operating under this FMP are American and hickory shad. Just like river herring, these species are important forage that hold predator fish such as striped bass and bluefish to inshore waters where they can be available to generate millions of dollars of economic benefit to our area. When these key inshore local forage species are scarce, predator species transfer predation to more offshore forage species and not only is the ecosystem redistributed but also the economic and cultural activity of our communities.

We feel this proposed amendment has the unique opportunity of capturing in one regulation a majority of the vessels that encounter the majority of both incidental and by catch of both river herring and shad. Amendment 14 has the ability to regulate all gear types involved without prejudice.

The following is a summary of issues we feel Amendment 14 should cover:

***Interaction with NEFMC Atlantic Herring FMP AM 5***

- Am 14 should coexist and not conflict with NEFMC Atlantic Herring AM 5. Many vessels go to sea and have not declared whether they are on an Atlantic Herring or Mackerel Trip, these vessels must live under a reasonable and understandable set of regulations but be firm enough that manipulation of the regulation is not possible
- AM 14 should close loopholes that allow data collection of both incidental and by catch of both River Herring and Shad to fall out of cumulative data collection reports

***Improve By Catch Data Collection*** A priority of AM 14 should be to increase the amount and quality of data for this fishery through an increase in monitoring.

- AM 14 should require enough coverage that fleet wide extrapolation can be done without raising a concern about statistical uncertainty
- AM 14 should ensure that every fish encountered by any vessel in this fishery is accounted for.
- AM 14 should address the current federal observer program categories of "Fish NK" and "Herring NK" and establish new observer protocols that eliminate these categories because the numbers of "NK" fish are significant enough to trigger further management actions

***Reduce By Catch*** Although there is clearly a lack of data and great uncertainty when it comes to both size and makeup of the fish encountered by this fishery, based on data released by the MAFMC under SBRM, the numbers of both river herring and shad are already excessive from the perspective of a community under a prohibition on the same species and we suggest that AM 14 keep separate and up front the priority of reducing the amount of both river herring and shad by catch.

- AM 14 should develop a system that sets annual by catch caps for river herring, shad and any other species regularly encountered as either incidental catch or by catch and not included as a stock in the fishery
- AM 14 should establish regulations to adapt to and avoid hot spots or concentrated areas where by catch interaction is likely or predictable.

***Reduce Dumping (aka) Slippage*** Within the fisheries under this FMP, there is a practice of dumping over the side dead and dying fish, often referred to as "operational discards". The council needs to understand that that the recreational fishing community and the public in general is outraged by this needless waste of many thousands and even millions of fish dumped over the side of any vessel for any reason other than safety. Modern management measures must end the days of this kind of waste and any loophole that allows this operational behavior must be closed immediately.

- AM 14 should clearly define terms such as dumping, slippage and operational discard.
- AM 14 should develop measures that account for all fish that enter the gear and set clear limits and consequences when dumping can not be avoided.
- AM 14 should consider the Atlantic Herring FMP Closed Area 1 dumping rule.
- AM 14 should establish clear regulations to send back to port any vessel that is able to catch fish but needs to dump catch for safety reasons



**Forage Considerations** Mackerel, Squid & Butterfish are each important forage fish for species important to recreational anglers such as Striped Bass, Bluefish and Tuna.

- AM 14 should include or set aside some of the biomass of each of these stocks to account for their role as forage in the overall ecosystem. As we say in the recreational community, it's all about the bait.

**Funding** In order to develop effective measures that can be implemented, AM 14 must answer the very important question of who will pay for at least the monitoring that will clearly be a critical part of this amendment. Other FMP's have recently faced the same difficult question and in at least the scallop, ground fish and recreational fisheries, the answer has been that when there is no other source of funding, the user of the resource (ie: industry or recreational anglers) pays for their own monitoring or ceases to fish. User or industry based funding must be included in any range of options. A review of the development of Am 5 to the NEFMC managed Atlantic Herring FMP clearly reveals that industry representatives are attempting to link catch shares to industry based funding. We feel these are clearly two separate subjects and must be addressed independent of each other.

I thank you for the opportunity to make comment and look forward to participating in the further development of Amendment 14.

Sincerely,

Capt. Patrick Paquette  
Gov't Affairs Officer & Past President  
Massachusetts Striped Bass Association.

Capt. Barry Gibson  
NE Regional Director  
Recreational Fishing Alliance

Tom Gagnon; President  
Massachusetts Beach Buggy Association

Capt. Mike Sosik; President  
Northeast Charter Captains Assn.



Email to: [info@lundsfish.com](mailto:info@lundsfish.com)

July 9, 2010

Mr. Daniel T. Furlong  
Executive Director  
Mid-Atlantic Fishery Management Council (MAFMC)  
800 North State Street, Suite 201  
Dover, DE 19901

By email: [info1@mafmc.org](mailto:info1@mafmc.org)

Re: Scoping Comments on MSB 14

Dear Dan:

On behalf of the 150 employees of Lund's Fisheries, Inc., and the independent fishermen who supply fish to our processing facility in Cape May, NJ, I am writing to provide comments concerning the proposal to develop Amendment 14 for the Atlantic mackerel, squid and butterfish (MSB) fishery management plan. We were able to participate in the Warwick, Rhode Island hearing on June 14 and the Cape May, New Jersey hearing on June 17 and we appreciate the Council holding hearings over a broad geographic region in order to maximize the opportunity for public comment on the proposed actions.

*Briefly, with a catch share Visioning Process likely to be undertaken by the Council, the Loligo-butterfish cap being implemented in 2011 and a voluntary, small mesh fishery river herring bycatch proposal being funded through the National Fish and Wildlife Foundation, we do not see a need for Amendment 14 to move ahead at this time.*

Our comments follow the issues identified by the Council in the scoping document and include an additional item we would like the Council to consider, which also would not require a plan amendment in our view.

Re-affirmation of the 5/20/03 Control Date for the *Loligo* and *Illex* Fisheries

*We support the re-affirmation of the May 20, 2003 control date for the squid fisheries, to avoid speculative activation of latent effort in these fisheries, but question whether this action is sufficient to warrant a plan amendment at this time.*

### Implementation of Catch Shares for the Squid Fisheries

*We support the decision of the Council's Executive Committee, agreed to at its June 9 meeting in New York, to engage in a catch-share "Visioning Process" before catch shares are implemented in the squid fisheries or any other fishery under the jurisdiction of the MAFMC.*

This visioning process was identified as one of the "next steps" following the Council's March 16-18, 2010 Catch Share Workshop. Three recommendations from the workshop, which we support, focus on the importance of using a visioning process to determine the direction that the Council should take before implementing any catch share program:

1. Create a sub-committee to look at FMP's and to determine which stocks appear suitable for catch share programs;
2. Engage in a visioning process that surveys fishery participants about the problems they see in their fisheries and possible solutions; and
3. Address latent effort and inactive permits before designing any catch share programs.

*In addition, we believe that the Visioning Process should include consideration of a broad range of limited access privilege programs, not only catch share programs, for certain Mid-Atlantic fisheries.*

*Particular emphasis should be given to programs that include adaptive management components designed to benefit fishing communities, including residents who conduct commercial and recreational fishing and fish processing, with the goal of providing community stability, processor stability and facilitating new entrants. Investments in infrastructure and participation in the fishery by fishermen, processors and communities should be important in developing these plans, as should historic dependence upon the resource for all of these entities*

*Finally, we believe that another reason to consider a delay in the implementation of catch share management in the squid fisheries is that the Loligo-butterfish cap is to be implemented in 2011, with unforeseen affects on the fishery and participants in the fishery.*

### Implementation of River Herring Actions

*Before implementing a plan amendment to address the incidental take of shad or river herring in the MSB fisheries, the MAFMC should work with the New England Fishery Management Council (NEFMC), the Atlantic States Marine Fisheries Commission (ASMFC) and National Marine Fisheries Service (NMFS) to review incidental catch data in a variety of small mesh fisheries in the region to determine if fishing restrictions to minimize incidental catches are warranted or necessary.*

Lund's Fisheries participates in the Atlantic herring fishery, in addition to the squid and Atlantic mackerel fisheries. During the past two or three years, the NEFMC's Atlantic herring plan development team (PDT) has been reviewing data from on-board observers and shoreside monitors to identify the incidental catches of river herring in a variety of small mesh fisheries.

Also, the ASMFC, with primary management authority over the river herrings and shad species, has been focusing on the incidental catches of blueback herring and alewife and American and hickory shad in a variety of small mesh fisheries from Cape Hatteras to the Canadian border. A river herring assessment is not anticipated until 2012.

*We believe that it is important for the MAFMC to determine what the fishing mortality effect on shad and river herring species may be, relative to mortality from other sources (including habitat loss and degradation, and predation) before considering additional fishing restrictions to minimize incidental catches in the MSB fisheries.*

Lund's Fisheries continues to support the ongoing dockside sampling program, managed by the States of Maine and Massachusetts, which has sampled small mesh catches from Maine through New Jersey in recent years. In addition, we have worked as a member of the Sustainable Fisheries Coalition to secure federal funding for it. During Fiscal Year 2010, \$350,000 of NMFS funding was directed to the State of Maine primarily for this purpose and we are optimistic that an additional \$350,000 of NMFS funding may also be earmarked to support the small mesh shoreside monitoring program in Fiscal Year 2011.

Also, as a member of the Sustainable Fisheries Coalition, in an attempt to be proactive and alert small mesh fishing captains to the public's concerns for river herring restoration, along with the need to minimize the incidental catch of these resources to the extent practicable, Lund's Fisheries is a signatory to a proposal made to the National Fish and Wildlife Foundation (NFWF), along with the other mackerel and herring fishing companies, the School of Marine Science and Technology (UMASS Dartmouth), and the Massachusetts Department of Marine Fisheries to implement a voluntary, small mesh bycatch avoidance program in the MSB and other fisheries, including the herring fishery. The proposal, entitled "River Herring Bycatch Avoidance in Small Mesh Fisheries" has been funded pending final budget modifications. We have provided a copy of this proposal to MAFMC and NEFMC staff.

*We encourage the MAFMC to support this industry-initiated research project and delay a MSB amendment to "implement river herring actions" until additional information about the interactions between the MSB fisheries and their mortality effects on shad and river herring species are better understood.*

#### Other Issues That May be Addressed in Amendment 14

In our comments to the Council on A11, concerning a limited entry program for the mackerel fishery, we supported coordinating the reporting requirements in the NEFMC herring plan, and any potential monitoring measures that may emerge from A5 to the Atlantic herring FMP, with the MSB plan's regulation of the mackerel fishery, including volumetric measurement of vessels, daily reporting and observer and enforcement call-in requirements.

*We request that the MAFMC establish a joint committee with the NEFMC with the goal of simplifying and coordinating the monitoring and reporting requirements in both the mackerel and herring fisheries since many participants, including Lund's Fisheries, fish in both fisheries and since mixed trips are often landed, particularly during the winter fishery that takes place in herring Management Area 2.*

*In conclusion, since a Visioning Process would improve the long term development and success or a catch share or LAPP program for the squid fisheries, and since shad and river herring incidental catch information in the MSB fisheries is too preliminary to support the establishment of additional fishing restrictions, it is unclear to us that there is a basis for the MAFMC to move ahead with A14 to the MSB FMP.*

Thank you for your attention to and your consideration of our views and recommendations. Please do not hesitate to contact me if I can provide you with any additional information.

With best regards,

*Jeffrey Reichle*

President  
Lund's Fisheries, Inc.

June 30, 2010

To: Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
From: Arnold Leo, Consultant  
Town of East Hampton Fisheries Consultancy  
Re: MSB Am14 Scoping Comments

Regarding the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish FMP, we offer no comments at this time on the measure to implement catch shares in the squid fisheries, since at the Catch Share Workshop of March 16-18, 2010, a decision was made to postpone consideration of specific catch share programs until after a "Visioning" process has determined what commercial and recreational fishermen actually want.

Regarding the measure to institute monitoring for river herring and shad bycatches, we offer the following comments:

1. It is difficult even for some experienced commercial fishermen to distinguish between Atlantic herrings and blueback herrings, especially under stressful conditions at sea. Therefore, it seems desirable to provide onboard observers with special training in how to identify bluebacks so that Atlantic herring are not counted in a tally of blueback bycatch. Since Atlantic herring far outnumber bluebacks, misidentification of the former for the less common bluebacks could result in a extremely unreliable bycatch assessment.
2. Since the status of butterfish stocks is now declared to be "unknown," it is far from clear how it will be possible to determine what is an acceptable bycatch of butterfish in the *Loligo* squid fishery. Since the status of river herring stocks is similarly unknown, and may not be known until later in 2011, MAFMC cannot consider imposing restrictions on fisheries known to make incidental catches of alewives or bluebacks. The widespread distribution of the river herring stocks makes it likely that stock assessment will be plagued with uncertainties similar to the butterfish assessment.
3. Therefore, it is regrettable and discouraging that in the 2010 budget of the National Oceanic and Atmospheric Administration more than \$36 million of new funding has been allocated to "accelerate and enhance the implementation of a National Catch Share Program," while \$4.56 million has been deducted from the budget for "cooperative research." Since it is becoming increasingly apparent that most commercial and recreational fishermen are rejecting the catch share concept, and since it is obvious to everyone that the greatest single need in fisheries management is good, sound, accurate assessment of stocks, we would like to add our voice to protest what appears to us a serious misappropriation of public funds in the fisheries sector of NOAA's responsibilities.

## Didden, Jason T.

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**From:** sapereaude@yahoo.com  
**Sent:** Thursday, July 08, 2010 7:17 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I have studied the environmental history of the NW Atlantic for 21 years, and worked on the water for 14 years before that, as a professional sailor, fisherman, and oil patch 2nd captain. At the time of the Civil War, more fish were caught on hooks within 20 miles of the New England shore than can be caught with otter trawls within 100 miles of that shore today. Part of the reason is pair trawlers, which take all of the baitfish in a located school before they can reach their historic spawning grounds.

Trawling for fish is like bombing for deer. If you want to see the numbers, let me know. We have been accumulating them from 19th century observers and fishermen's records for ten years, and have data going back to 1804. Stop trawling and pair seining now. We're down to less than 5% of what was in the Gulf of Maine in 1860, and eventually our fishery resources will go the way of the passenger pigeon.

Dr. William Burgess Leavenworth c/o OPAL, 112 Morse Hall UNH, Durham, NH & Searsmont, Maine

Sincerely,  
William Leavenworth  
198 Pond Rd. South,  
PO Box 69,  
Searsmont, ME 04973

Two of the issues on which scoping comments have been solicited by ASMFC are the improved documentation of bycatch of shad and river herring in the fishery and the effectiveness of measures intended to limit that bycatch. Unfortunately, without specific information on the magnitude and composition of the bycatch, the question of the effectiveness of mitigation measures cannot really be determined. The most critical need in addition to quantifying the bycatch is to ensure that the species composition is established concretely. My understanding is that currently the majority of alosines documented in observer reports are placed in the category of *Alosa* sp., so we don't know whether they are blueback herring, alewife or American shad. Thus, whether the bycatch is a significant factor in the catastrophic decline in blueback herring, for example, cannot be established based on current bycatch records. Thus, my suggestion would be to improve the quantitative estimation of bycatch (which may require expansion of observer reporting in the fishery), ensure that nearly all *Alosa* taken in the bycatch are identified to species, and accomplish both of these objectives before spending any significant amount of time assessing what measures are needed to reduce the bycatch. In this way, the measures can target the species which are suffering the greatest current declines.

KUSWIL



**From:** jean public [mailto:usacitizen1@live.com]  
**Sent:** Thursday, May 27, 2010 10:50 AM  
**To:** Info1; americanvoices@mail.house.gov; bluewater@bluewaternet.org;  
info@theteaparty.org  
**Cc:** info@taxpayer.net; media@cagw.org  
**Subject:** public comment on federal register overspending by mafmc FW: why isnt there one meeting on computer - the spending of this agency is enormous

the law should be made for all of america and not just focusing on "stakeholder" profiteers. these same stakeholder profiteers are decimating and exterminating species after species after species. your agency is just like mms and bp - you are pimps for the profiteers and forget constantly that you have any obligation to the taxpayer/citizens of this country. those 200 million are completely forgotten in your rulings. those fish belong to the 200 million, not to the "stakeholders" who only own a few. yet you work only for the "stakeholders". it is time to stop being a pimp for the "stakeholders".

haven't you read the UN report on the status of fish in the sea. they will all be gone by 2050 at the rate you are letting the "stakeholder" profiteers catch them? it is time you all enlarge your reading to understand honest science instead of the crap you get from your biased insiders at this agency.

also why 3 meetings in 3 cities with the hotel, meals, travel when you can do this once on the computer software? what is going on with this unnecessary spending that this council does. you can cut your costs by 75% by having one webinar on this. why are you overspending.

jean public 8 winterberry court whitehouse station nj 08889

## Saving global fish stocks would cost 20 million jobs, says UN

Report says 13 million fishing boats must be retired to replenish stocks, with money redirected to retrain millions of workers

- [How to eat fish sustainably](#)
- [Fishermen work ever harder as stocks dwindle](#)



- [Ed Pilkington](#), New York
- [guardian.co.uk](http://guardian.co.uk), Monday 17 May 2010 17.55 BST
- [Article history](#)



Fishing boats moored on the beach at Hastings, east Sussex. Photograph: Eamonn McCabe/Guardian

More than 20 million people employed in the [fishing](#) industry may need to be taken out of service and retrained for other work over the next 40 years if the final collapse of fish stocks in oceans around the globe is to be avoided, the UN warned today.

The [UN's environment branch, UNEP](#), gave a sneak preview of its green economy report that will be published in October. It said that if the world remained on its current path of over-fishing, [by 2050 all fish stocks could have become uneconomic to exploit or actually extinct](#).

Pavan Sukhdev, who heads UNEP's green economy initiative, said: "That is not as absurd as it sounds, as already 30% of the ocean fisheries have collapsed and are producing less than 10% of their original ability."

At the heart of the UN's analysis is the \$27bn of subsidies it estimates is being injected into fishing every year, mainly by developing countries. The UN says the subsidies are huge in terms of the scale of the industry – amounting to almost a third of the \$85bn total value of fish caught.

Among those subsidies, the UN defines just \$8bn-worth as "good" in the sense of encouraging sustainable fishing of healthy stocks. Most of the subsidies are "bad", meaning they lead to overcapacity and exploitation, and about \$3bn of the subsidies are "ugly", actively leading to the depletion of fish populations.

the eis accepted by this agency will have little relevance to accuracy. it will be like what mms accepted from bp, full of lies. all america is aware there is too much catch being allowed. this agency only listens to commercial fish profiteers and their political allies, it does not protect america one bit. this agency completely ignores science and makes decisions based on money and political favors. money always talks the loudest at govt agencies. the fish stocks belong to all americans. this agency should not rob all americans to make the commercial fish profiteers rich since they dont own all the fish. jeanpublic 8 winterberry court whitehouse station nj 088898

I am very concerned about the effects of trolling fishing on the shad population. The Shad population is decreasing on the east coast and the Hudson River, a historic fishery, was closed due to low populations this year.

The bycatch resulting from vessels trawling for fish at sea is contributing to this problem. Please take the lead on a joint, unified strategy that will address herring and shad bycatch so these critical species can be placed on the road to recovery.

Thank you,

Irene Jones  
Beach Lake, PA

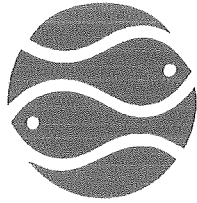
i think anytime millions of pounds of fish are "mistakenly caught" by the scooping process that in itself should be a crime.why are these large companies not being punished for taking the lifes and welfare of so many of our planets fishes? we must STOP the scooping ASAP!!!

.in river herrings alone almost a million pounds are taken by mistake and this should STOP NOW.

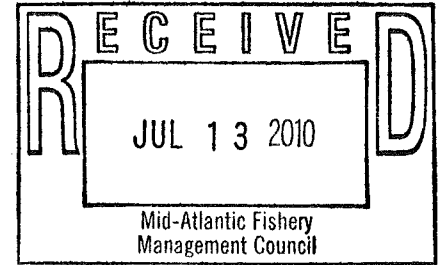
shad numbers too are fighting hard to stay up,if we as the public dont stand up for the fish and fishes one day we will have nothing but photos of fish to show our grandkids because all the fish will be gone.if we act now and make better regulations to protect the species in danger-we will be saving them before its too late.

please do something to stop the scooping of innocent creatures in our oceans before its too late.these big companies dont give a damn about destroying a species or destroying our oceans.-JUST LOOK AT BP.all these big companies care about is profit,at the cost of our oceans and its inhabitants.ITS JUST NOT FAIR TO THE RIVER HERRING,THE AMERICAN SHAD THE HICKORY SHAD.-PLEASE STOP THE SCOOPING NOW!!!!!!!!!!

thank you,david jones[ DRSFA member]



IPSWICH RIVER  
WATERSHED  
ASSOCIATION  
*The Voice of the River*



July 6, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

RE: Scoping Comments on MSB 14

Dear Mr. Furlong,

On behalf of the Ipswich River Watershed Association (IRWA), I am writing in response to the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (MSB FMP). River herring and American shad populations are at historic lows. We believe that bycatch in federal waters is impeding shad and river herring rebuilding efforts and urge the Mid-Atlantic Council to craft a strategy to monitor *and reduce* incidental catch of these species in its small-mesh fisheries.

Historical reports indicate that the Ipswich River once supported a prolific herring and shad fishery. However, since the 1820s, dams with inadequate passage almost completely eliminated the herring and shad population. In the past twenty years, a public-private partnership came together to restore herring to the Ipswich River. These efforts included building a new fishway at the first dam (1996), doing habitat suitability surveys, restocking the river with river herring, conducting an annual herring count (since 1999) and doing additional research on the migrating population and its movements within the freshwater parts of the river. The preliminary results were promising, with a modest population returning to the river each spring for the past 12 years. However, the numbers in the past two years have fallen off sharply. We are increasingly concerned that all the efforts to restore this fishery will be for naught due to the impacts of midcoast trawling.

#### **Improved Monitoring and Data collection:**

The current levels of monitoring and data collection within the Mid-Atlantic's small-mesh fisheries are grossly inadequate. In order for data to be used with a high degree of confidence to inform management actions, **greatly increased observer coverage is necessary.**

- Coverage levels must allow for accurate fleet-wide extrapolation of incidental catch data (i.e., bycatch including discarded and kept catch) of blueback herring, alewife and American shad.
- 100% observer coverage should be required for mid-water trawl vessels (including one observer assigned to each vessel in a pair trawl operation).

- All observers, whether employed by or contracted through NMFS, must be NMFS trained and certified and capable of identifying all age classes of river herring and shad to species.
- 100% of catch must be made available to NMFS certified observers for systematic sampling. In other words, no catch should be allowed to be discarded to the sea (i.e., slipped) or transferred to a receiving vessel without sampling when an observer is on board, otherwise the total catch (incidental or target) cannot be estimated properly.
- Because inadequate government funding of the Northeast Fisheries Observer Program remains a serious obstacle to managing small-mesh fisheries bycatch, Amendment 14 must include alternatives for an industry-funded observer program.

**Reduce Incidental Catch of River Herring and Shad:**

All controllable sources of mortality must be controlled in order for shad and river herring runs to recover from their historic lows. Amendment 14 must minimize incidental catch by:

- Establishing annual incidental catch caps for river herring and shad that will trigger gear/area fishery closures;
- Developing near real-time river herring and/or shad bycatch reports and make these reports readily accessible to the public;
- Establishing gear closures around river herring and shad "hotspots" –areas of high probability of incidental catch of river herring or American shad based upon the best available scientific data;
- Coordinating with the NEFMC to create a unified bycatch reduction strategy for the Atlantic herring and Atlantic mackerel fleets because many of the highest capacity vessels involved in these fisheries are the same.

**Long-Term Management Measures:**

- In order to be successful in the long-term, management efforts need to be coordinated among the multiple management bodies (ASMFC, NEFMC, MAFMC) with overlapping jurisdictions over river herring and shad. We urge that the MAFMC lead the efforts to bridge these management gaps by developing, in consultation with the NEFMC, an integrated federal management plan, to work in cooperation with the ASMFC IFMP, to manage river herring and shad throughout their range.

Sincerely,

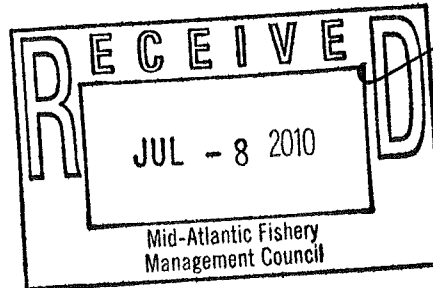


Kerry Mackin  
Executive Director

Jason Rich

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

July 1, 2010



RE: Scoping Comments on MSB 14

Dear Mr. Furlong,

On behalf of the **Friends of the Hunt River Watershed**, I am writing in response to the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (SB FMP). River herring and American shad populations are at historic lows. We believe that bycatch in federal waters is impeding shad and river herring rebuilding efforts and urge the Mid-Atlantic Council to craft a strategy to monitor and reduce incidental catch of these species in its small-mesh fisheries.

The mission of the Friends of the Hunt River Watershed “ is to protect and preserve the Hunt River Watershed, aquifer, and ecosystem by implementing a monitoring program and by educating the community on the importance of water quality and quantity issues”. This year working with the Rhode Island Department of Environmental Management we conducted our first annual river herring count on the Hunt River. The Hunt River flows into the Potowomut River which flows into upper Narragansett Bay in Warwick/North Kingstown, Rhode Island.

Long time locals in the area can remember when river herring populations in the Hunt River were so great that sections of the river would be, “black” with fish. This is no longer the case. This year after the calculations were done, only 3,005 fish made their way to the Hunt River. Other groups in the state who have been counting fish on a yearly basis have reported their numbers of fish down from last year. More needs to be done to protect our native fish.

### **Improve Monitoring and Data collection**

The current levels of monitoring and data collection with the Mid-Atlantic's small-mesh fisheries are grossly inadequate, **greatly increased observer coverage** is necessary.

- Coverage levels must allow for accurate fleet-wide extrapolation of incidental catch data. (i.e., bycatch including discarded and kept catch) of blueback herring, alewife and American shad.
- 100% observer coverage should be required for mid-water trawl vessels (including one observer assigned to each vessel in a pair trawl operation)
- All observers, whether employed by or contracted through NMFS, must be NMFS trained and certified and capable of identifying all age classes of river herring and shad to species.
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- Because inadequate government funding of the Northeast Fisheries Observer Program remains a serious obstacle to managing small-mesh fisheries bycatch, Amendment 14 must include alternatives for an industry-funded observer program.



**Reduce Incidental Catch of River Herring and Shad:**

All controllable sources of mortality must be controlled in order for shad and river herring runs to recover from their historic lows. Amendment 14 must minimize incidental catch by:

- Establishing annual incidental catch caps for river herring and shad that will trigger gear/area fishery closures:
- Developing near real-time river herring and /or shad bycatch reports and make these reports readily accessible to the public:
- Establishing gear closures around river herring and shad “hotspots”-areas of high probability of incidental catch of river herring or American shad based upon the best available scientific data:
- Coordinating with the NEFMC to create a unified bycatch reduction strategy for the Atlantic herring and Atlantic mackerel fleets because many of the highest capacity vessel involved in these fisheries are the same.

**Long-Term Management Measures:**

- In order to be successful in the long-term, management efforts need to be coordinated among the multiple management bodies (ASMFC, NEFMC, MAFMC) with overlapping jurisdictions over river herring and shad. We urge that the MAFMC lead the efforts to bridge these management gaps by developing, in consultation with the NEFMC, an integrated federal management plan, to work in cooperation with the ASMFC IFMP, to manage river herring and shad throughout their range.

Sincerely,



Barry Martasian  
President,  
Friends of the Hunt River Watershed  
5300 Post Rd. #146  
East Greenwich, Rhode Island 02818

Phone: 401 338-4072  
email: bmar1865@verizon.net



212 West State Street  
Trenton, New Jersey 08608  
Office (609) 898-1100  
Email: [gregdi@voicenet.com](mailto:gregdi@voicenet.com)

July 9, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901  
**Sent Via Fax: (302) 674-5399**

Dear Mr. Furlong:

Please accept these comments on behalf of the Garden State Seafood Association (GSSA). GSSA is comprised of commercial fishermen, shore-based processors, commercial dock facilities, seafood markets, restaurants, and various industry support businesses from New Jersey.

We are writing to request that Amendment 14 be delayed until the Visioning project is complete, the impacts of Amendment 10 are realized and a proposal to study river herring bycatch, being funded through the National Fish and Wildlife Foundation, is conducted and its results analyzed.

#### **Catch Shares in Loligo and Illex Fisheries**

We do not support catch shares in the Illex and Loligo fisheries and feel that the characteristics of these fisheries are contrary to elements in the Draft Catch Share Policy, which identifies characteristics in fisheries where catch shares may be beneficial. Illex and Loligo fisheries are not overfished and overfishing is not occurring. In fact, these species fall under the short lived exemption and are not subject to the new Magnuson requirements of Accountability Measures.

In the case of the Illex fishery, landings are heavily influenced by year-to-year availability and price depends upon world market activity. The universe of vessels is limited to a relatively small number of specialized vessels that operate in the directed fishery for only 3 – 4 months of the year. This fishery is unique in that it is inextricably linked to the shoreside facilities that handle and distribute this product.

The performance and dynamics of the Loligo fishery will be completely altered after the implementation of Amendment 10. The impacts of the bycatch cap are difficult to analyze for NMFS and nearly impossible for the industry to anticipate. Any discussion of catch shares in this fishery is completely premature. Until these impacts and changes to the fishery are realized no discussion of catch share can take place.

### **The MAFMC “Visioning” Project**

We are not opposed to exploring problems or enhancing management of certain fisheries and believe the Visioning project being considered is the correct approach. Extensive research on the economic impacts and practicality of such a management system needs to be conducted.

The Visioning project should create a sub-committee to review FMP’s and do more than determine which stocks appear suitable for catch share programs. The Visioning project should consider addressing latent effort and inactive permits. In addition the MAFMC needs to explore and consider fisheries management designed to benefit fishing communities, shore-side processing and fishery-dependent support businesses with the goal of providing community stability. Investments in infrastructure and participation in the fishery by fishermen, processors and communities should be important in developing these plans, as should historic dependence upon the resource for all of these entities.

### **River Herring Bycatch**

Before the MAFMC can develop and implement rules to address the incidental catch of shad or river herring in the SMB fisheries a thorough review of the incidental catch data in small mesh fisheries in the region are an absolute necessity. Furthermore, The Atlantic States Marine Fisheries Commission will be conducting a river herring stock assessment in 2012. At the conclusion of the assessment the incidental catches of blueback herring, alewife and American and hickory shad will be assessed throughout the entire range of these species, as well as the impact of habitat loss, degradation, and natural mortality.

GSSA is a member of the Sustainable Fisheries Coalition (SFC). The SFC has made a serious effort to communicate with fishing captains and alert them to the public’s concerns for river herring restoration. A particular focus to minimize the incidental catch of these species has been the main goal. In fact, a proposal entitled “River Herring Bycatch Avoidance in Small Mesh Fisheries” has been funded and will provide the type of information needed to understand and address these complex issues. We request the MAFMC to delay Amendment 14 until additional information about the interactions between the MSB fisheries and their mortality effects on shad and river herring species are better understood.

### **Additional Issues for Amendment 14**

We supported coordinating the reporting requirements in the NEFMC herring plan, and any potential monitoring measures that may emerge from A5 to the Atlantic herring FMP, with the MSB plan’s regulation of the mackerel fishery, including volumetric measurement of vessels, daily reporting and observer and enforcement call-in requirements. As herring and mackerel trips are often mixed together. We request that the MAFMC establish a joint committee with the NEFMC with the goal of simplifying and coordinating the monitoring and reporting requirements.

The Visioning project should focus on some traditional approaches and not just catch shares to improve the economic and biological performance of certain fisheries. To complete this approach will take a considerable amount of time and will require input from many stakeholders. In addition, shad and river herring incidental catch information in the MSB fisheries is too preliminary to support the establishment of additional fishing restrictions and needs to be thoroughly assessed to comprehend properly. We respectfully request that the MAFMC complete these tasks before moving ahead with the development on Amendment 14.

Sincerely,

Gregory P. DiDomenico  
Executive Director  
Garden State Seafood Association

July 9, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

RE: Scoping Comments on MSB Amendment 14

Dear Mr. Furlong,

We, the undersigned 43 organizations, are writing in response to the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (MSB FMP).

River herring and American shad populations are at historic lows and have shown little sign of recovery despite considerable efforts by states to improve river habitat and protect remaining populations. We believe that the incidental capture in federal waters is impeding river herring and shad rebuilding efforts and urge the MAFMC to adopt measures to monitor and reduce incidental catch of these species in the small-mesh fisheries under its purview.

At-sea bycatch represents a significant threat to the survival and recovery of river herring and shad, yet this problem has yet to be monitored or regulated by federal managers. The Council should take the necessary steps to support the protection and recovery of shad and river herring by undertaking the following management actions in Amendment 14:

**Improved Monitoring and Data collection:**

- The current levels of monitoring and data collection within the Mid-Atlantic's small-mesh fisheries are inadequate. To ensure accurate and statistically reliable accounting of bycatch **increased observer coverage** is necessary (i.e., to allow for extrapolated estimates of total fleetwide bycatch) A minimum of 1 NMFS certified observer (i.e., 100% observer coverage) should be required for mid-water trawl vessels (including one observer assigned to each vessel in a pair trawl operation). Observers must be trained, certified, and capable of identifying river herring and shad to species. Additionally, the Council should require that 100% of catch in federal waters be systematically sampled by NMFS certified observers. No catch can be allowed to be discarded to the sea (i.e., slipped) or transferred to a receiving vessel without sampling, otherwise the total catch (incidental or target) cannot be estimated properly.
- Amendment 14 should include an alternative for an industry funded observer program, to ensure that an adequate observer program is implemented in the event of federal budgetary constraints.

**Reduce Incidental Catch of River Herring and Shad:**

- Establish a cap on the amount of incidental catch for river herring and shad that can be taken each year. Initially, caps should be based on recent catch from VTR reports, and then replaced with caps based on the population biology of the alosine species as soon as possible;
- Develop near real-time river herring and/or shad bycatch reports similar to those provided by NMFS for the current groundfish quota tracking in Special Access Programs and U.S. Canada Resource Sharing Areas and make these reports readily accessible to the public;
- For areas identified as having a high probability of incidental catch of river herring or shad, establish temporal and spatial gear exclusions based upon the best available scientific data;
- Coordinate with the NEFMC to create a unified approach for bycatch reduction amongst the Atlantic Herring fishing fleet and those under the Mid-Atlantic council's jurisdiction. Because many of the highest capacity vessels involved in these fisheries are the same, any bycatch reduction strategies by either Council cannot succeed unless there are unified measures.

#### **Address the Role of Forage Fish:**

- The Mackerel, Squid, Butterfish FMP needs to better account for River Herring and Shad's role as a forage fish. National Standard 1 (NS1), and the implementing guidelines, offer clear guidance on forage species and the special considerations warranted in managing these species.
- River herring and shad are clearly landed in the Atlantic mackerel fishery and should be classified as non-target stocks in the fishery according to the National Standard One guidelines<sup>1</sup>. As non-target stocks in the fishery, the MAFMC should develop status determination criteria and reference points, and develop necessary Annual Catch Limits (ACLs) with suitable Accountability Measures (AMs).

#### **Coordinated Management Measures:**

- In order to be successful in the long-term, management efforts need to be coordinated among the multiple management bodies (ASMFC, NEFMC, MAFMC) with overlapping jurisdictions over river herring and shad. We urge that the MAFMC lead the efforts to bridge these management gaps by developing, in consultation with the NEFMC, an integrated federal management plan, to work in cooperation with the ASMFC Interstate Fishery Management Plan (IFMP), to manage river herring and shad throughout their range.

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<sup>1</sup> 50 CFR § 600.310(d)(3-4)

- The MAFMC should begin efforts to consolidate management of the Atlantic Herring and the Atlantic Mackerel fisheries under a single FMP. Due to the overlap between these two fisheries, we believe that it will be necessary to create a single management plan for management measures for both stocks to succeed, and ultimately, for the best stewarding of the resources.

Sincerely,

**New York:**

Carl Safina, PhD,  
President  
Blue Ocean Institute  
New York

Kevin McAllister,  
the Peconic Baykeeper  
Peconic Baykeeper, Inc.  
New York

Sacha Spector, Ph.D,  
Director of Conservation Science

Scenic Hudson, Inc.  
New York

Michael Skoletsky,  
Executive Director  
Shark Savers  
New York

Joshua S. Verleun, Esq.,  
Staff Attorney & Chief Investigator  
Riverkeeper, Inc.  
New York

**New Jersey:**

Fred Akers,  
River Administrator  
Great Egg Harbor Watershed Association  
New Jersey

Captain Bill Sheehan,  
the Hackensack Riverkeeper  
Hackensack Riverkeeper  
New Jersey

Michael L. Pisauro, Jr,  
Legislative Affairs Director

New Jersey Environmental Lobby  
New Jersey

Deborah A. Mans,  
Baykeeper & Executive Director  
NY/NJ Baykeeper  
New Jersey

Mary M. Hamilton,  
Executive Director  
SandyHook SeaLife Foundation  
New Jersey

**Pennsylvania and Delaware:**

Jan Jarrett,  
President and CEO  
Citizens for Pennsylvania's Future  
(PennFuture)  
Pennsylvania

Michael Riska,  
Executive Director  
Delaware Nature Society  
Delaware

Maya K. van Rossum,  
the Delaware Riverkeeper

Delaware Riverkeeper Network  
Pennsylvania

Stan Kotala, M.D.,  
Conservation Chair  
Juniata Valley Audubon  
Pennsylvania

**Maryland & Washington DC:**

Brent C. Bolin,  
Director of Advocacy  
Anacostia Watershed Society  
Maryland

Gary Allen,  
Executive Director  
Center for Chesapeake Communities  
Maryland

Bill Goldsborough,  
Fisheries Director  
Chesapeake Bay Foundation  
Maryland

Drew J. Koslow,  
Choptank Riverkeeper  
Choptank River Eastern Bay Conservancy  
Maryland

**Virginia:**

Don Sims,  
President  
Float Fishermen of Virginia  
Virginia

Glenda Booth,  
President  
Friends of Dyke Marsh  
Virginia

John P. Tippet,  
Executive Director  
Friends of the Rappahannock

David Masur,  
Director  
PennEnvironment  
Pennsylvania

Mark D. Berg,  
President  
Watershed Alliance of Adams County  
Pennsylvania

Brad Heavner,  
State Director  
EnvironmentMaryland  
Maryland

James Cummins,  
Associate Director  
Interstate Commission on the Potomac River  
Basin  
Maryland

Ed Merrifield,  
President and Riverkeeper  
Potomac Riverkeeper, Inc.  
Washington, DC

Joe Anderson,  
President  
St. Mary's River Watershed Association  
Maryland

Virginia

Bill Tanger,  
Chair  
Friends of the Rivers of Virginia  
Virginia

Jeff Kelble,  
the Shenandoah Riverkeeper  
Shenandoah Riverkeeper  
Virginia

Terra Pascarosa,  
Chair

Sierra Club, Chesapeake Bay Group  
Virginia

**North Carolina:**

Larry Baldwin,  
Lower Neuse Riverkeeper  
Neuse Riverkeeper Foundation  
North Carolina

New River Foundation  
North Carolina

David A. Emmerling, EdD,  
Executive Director  
Pamlico-Tar River Foundation  
North Carolina

Betty Sanders-Seavey,  
Executive Director

**New England:**

Patrick Comins,  
Director of Bird Conservation  
Audubon Connecticut  
Connecticut

Steve Pearlman,  
Advocacy Director  
Neponset River Watershed Association  
Massachusetts

Paul Earnshaw,  
President  
Buckeye Brook Coalition  
Rhode Island

Rob Moir, PhD,  
Executive Director  
Ocean River Institute  
Massachusetts

Robert L. Zimmerman, Jr.,  
Executive Director  
Charles River Watershed Association  
Massachusetts

Margaret Miner,  
Executive Director  
Rivers Alliance of Connecticut  
Connecticut

Susan Beede,  
Policy Director  
Massachusetts Rivers Alliance  
Massachusetts

Curt Johnson,  
Program Director  
Save the Sound, a program of Connecticut  
Fund for the Environment, Inc  
Connecticut

Nick Bennett,  
Staff Scientist  
Natural Resources Council of Maine  
Maine



hi all. just a thought . could you do something to help us,increase the fish and help the fishing

JO ANN GOTZON [gotzonhooks@verizon.net]

## MSB Am14 Scoping Comments

Public Comment notes on Amendment 14 RE: Catch Shares:

1. Should a catch share system be considered for the squid fisheries? Why or why not? If so, how should the program be developed?

**RESPONSE:**

In 2009 NMFS/Nero Quota Monitoring system for Illex and Loligo squid reported only 77% and 49% respectively of a % of Quota actually caught. Why would a catch share system need to be developed for a fishery that does not max out the already existing minimum catch? Neither of these fisheries reached their capacity in 2009, based on the current landing information.

2. What problems (if any) in the squid fisheries might be improved if a catch share system is developed for the squid fisheries?

**RESPONSE:**

Currently, the fishery is dominated by small-mesh, bottom trawlers. The fishery is not overfished by NOAA's own landing reports. I don't believe a new system should be implemented, especially one that limits the small fisherman's ability access to the product.

3. How do you think shares should be initially distributed (who should be considered eligible and what criteria should be applied)?

**RESPONSE:**

Any fisherman who has invested time and money in an already existing license to catch squid should be allowed to use that license to the best of their ability to earn a living from it. **Catch shares should not be implemented.**

4. Should the previously announced 5/20/2003 control date be used?

**RESPONSE:**

I disagree with the control date as it eliminates a number of small fishermen who have licenses that they haven't used in many years. There have been extenuating economic factors such as fuel prices, waterfront property increases and many others that have not allowed the small fisherman to actually utilize their quota. I think anyone with a license should be able to utilize it no matter how long it's been since they caught any squid.

5. What should be the limit on the amount of shares that a specific vessel can accumulate under a catch share system? For what reasons?

**RESPONSE:**

Again, until a quota has been reached I don't see the reason for implementing a limit on a specific vessel. Fishermen should be able to fish and make money when species are

available. Natural market conditions should balance each fisherman's earnings with their ability to catch and market their product.

6. Should there be limits on quota leasing?

**RESPONSE:**

The EU dissolved their decades of attempts at a quota-based common fisheries policy admitting that it was a failure. Why are we trying to re-invent the wheel, when democratic free market conditions should be able to work?

7. What provisions for new entrants into the fishery besides their purchase of catch shares from existing participants should be considered? What provisions for small or owner-operated vessels should be considered?

**RESPONSE:**

This is a loaded question. Why would we have to "make" provisions if we have a free market system in place. Limiting entrants in the fishery is again, constraining the hands of small fishermen. There should be no catch shares to limit the small businessman from entering the fisheries. And Catch Shares sounds suspiciously like ITQ. My understanding is that in order to implement ITQ (or catch shares) a referendum needs to be held.

8. What are the potential economic and social outcomes (positive and negative) of a catch share system for the squid fisheries; how would you design a program to avoid or mitigate the negative effects (e.g., Captain, crew and/or entry-level shares; set asides; gear or port preferences).

**RESPONSE:**

There are absolutely no positive economic or social outcomes to a squid catch share fishery (or any other for that matter). It will eliminate jobs, consolidate businesses into only a few large hands. It seems that it is only supported by the EDF who is trying to consolidate and eliminate the small fishing companies into the hands of big business.

9. What communities do you think would be most affected by a catch share system for the squid fisheries? How would you account for the sustained participation of such fishing communities?

**RESPONSE:**

Communities that would suffer by implementing catch shares would be all the fisherman with licenses to catch squid. There would be fewer boats to maintain and fewer families whose lives depend on all the fishing communities. Have you forgotten about the little guy who provides fishing supplies, the guy who repacks the life rafts, the towns that support the seaports along the coast, the hundreds and hundreds of small vendors who provide the maintenance for each of these small coastal vessels? This course of action could have the potential of eliminating a hugely significant and historically important part of the east coast economy.

10. What kind of reporting and/or monitoring requirements would be needed for a catch share system?

**RESPONSE:**

Why are you asking this question of the general public? There currently exists a process that is adequate. Fishermen catch squid, they report it on a VTR. That should be good enough.

11. What provisions should be considered for the incidental catch of squid taken during the targeting of other fisheries?

**RESPONSE:**

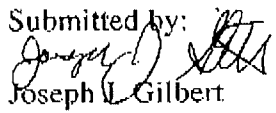
Do you want to make this a choice of species, like NEFMC has done with yellow tail? The incidental catch should be recorded on the VTR and applied against the Quota. No re-inventing the wheel needed.

12. Given the Loligo-butterfish cap being implemented in 2011, would a Loligo catch share system also need a companion butterfish catch-share system?

**RESPONSE:**

NO. No catch shares should be implemented. It seems like catch shares are ITQ in sheep's clothing.

Submitted by:

  
Joseph L. Gilbert  
322 New Haven Ave.  
Milford, CT 06460

FYI.


---

**From:** Dinda Evans [mailto:dindamcp4@yahoo.com]

**Sent:** Wednesday, June 09, 2010 5:46 PM

**To:** Info1

**Subject:** Fw: Take Action to Protect River Herring and American Shad from Ocean Bycatch!



**National Coalition for  
Marine Conservation  
E-Mail Action Network**

PLEASE:

**TAKE ACTION TO PROTECT  
RIVER HERRING AND AMERICAN SHAD  
FROM OCEAN BYCATCH!**

*\*public comment accepted through July 9, 2010\**

The federal Mid-Atlantic Fishery Management Council has announced its intention to address river herring and shad bycatch through its management plan for small-mesh fisheries (Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan). Comments from the public are being sought to determine whether or not to move forward.

Despite inland habitat restoration work and severe restrictions on directed fishing, American shad and river herring populations remain at historic lows. Bycatch in ocean fisheries is believed to be a major source of fishing mortality, yet bycatch continues to be loosely monitored and poorly regulated. The impacts of depleted river herring and shad runs extend well beyond the severe social and economic costs to our coastal communities. River herring and shad are essential to the coastal forage base that supports a wealth of predators like striped bass, bluefish, ospreys and dolphins.

Without public support during this important comment period, actions to investigate and reduce river herring and shad bycatch could be dropped from consideration entirely. **Please take a moment now to urge the Mid-Atlantic Council to take action through Amendment 14** to implement: 1) high levels of at-sea catch monitoring in the mackerel and squid fisheries; 2) enforceable bycatch limits; and, 3) bycatch-triggered trawl fishing area closures that protect river herring and shad in offshore areas where they are known to congregate.

**To whom it might concern**

**I have commented before on this subject. The members of the Delaware River Shad Fishermen's Assoc. are concerned with the decline of the Herring and Shad stocks on the entire East Coast. We feel that the small mesh fishery is having an adverse effect on both of the above mentioned Stocks. The Club would like to have the MAFMC reduce the limits on Herring and Shad. The MAFMC must then vigorously enforce said limits.**

**THANK YOU**

**Ron Marks: President, DRSFA**

## MSB Am14 Scoping Comments

July 8, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

Dear Sir,

I understand that there is a request for comments in reference to Catch Shares being considered for the Squid fishery. I am writing to express my concern over this process being considered or implemented.

As a fisherman I know how important it is to get up every day and work for a living. I am horrified that the federal government is trying to limit in so many ways my ability to earn a living. I am a small fish in a very large sea trying now to eek out a living on the oceans water. However, if catch shares are implemented I will have no ability or reason to drive myself harder to catch my share. My income will suddenly depend on the bigger larger boats fulfilling their quota long before my smaller vessel would have a chance.

I have done some research and I have not found any evidence in the NOAA statistical web site that would lead any reasonable person to believe that the squid fishery is over fished. For that reason alone, implementing catch shares would be detrimental to small fishing communities all over the eastern seaboard.

Please **DO NOT ALLOW CATCH SHARES TO BE IMPLEMENTED.**

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Yarmosh', with a long horizontal line extending to the right.

Brian Yarmosh  
322 New Haven Ave.  
Milford, CT 06460

## MSB Am14 Scoping Comments

July 8, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

Dear Sir,

I understand that there is a request for comments in reference to Catch Shares being considered for the Squid fishery. I am writing to express my concern over this process being considered or implemented.

I work as a bookkeeper for a number of small fishing companies in Connecticut. I have seen what tying the hands of our local small fishermen has done. Over the past 20 years I have seen our fishing fleet steadily decrease due to the massive regulations that have been imposed on the fishing community. Locally, all of our small vendors are going out of business because there are so many fewer boats to supply. The economic conditions that these fishermen have experienced is already severe.

There is no evidence in the NOAA statistical web site that would lead any reasonable person to believe that the squid fishery is over fished. For that reason alone, implementing catch shares would be detrimental to small fishing communities all over the eastern seaboard. Also, from what I understand the EU has already eliminated their catch share program because of its utter failure. Why are you trying to copy an already proven failed system. None of this makes sense to me.

DO NOT ALLOW CATCH SHARES TO BE IMPLEMENTED.

Sincerely,



Priscilla B. Wells  
PO Box 452  
Mystic, CT 06355



## MSB Am14 Scoping Comments

July 8, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

Dear Sir,

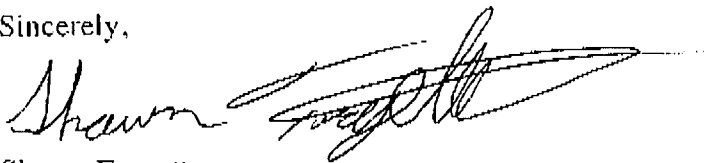
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I have done some research and I have not found any evidence in the NOAA statistical web site that would lead any reasonable person to believe that the squid fishery is over fished. For that reason alone, implementing catch shares would be detrimental to small fishing communities all over the eastern seaboard.

Please DO NOT ALLOW CATCH SHARES TO BE IMPLEMENTED.

Sincerely,



Shawn Forgette  
322 New Haven Ave.  
Milford, CT 06460

## MSB Am14 Scoping Comments

July 8, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

Dear Sir,


I understand that there is a request for comments in reference to Catch Shares being considered for the Squid fishery. I am writing to express my concern over this process being considered or implemented.

As a fisherman I know how important it is to get up every day and work for a living. I am horrified that the federal government is trying to limit in so many ways my ability to earn a living. I am a small fish in a very large sea trying now to eek out a living on the oceans water. However, if catch shares are implemented I will have no ability or reason to drive myself harder to catch my share. My income will suddenly depend on the bigger larger boats fulfilling their quota long before my smaller vessel would have a chance.

I have done some research and I have not found any evidence in the NOAA statistical web site that would lead any reasonable person to believe that the squid fishery is over fished. For that reason alone, implementing catch shares would be detrimental to small fishing communities all over the eastern seaboard.

Please **DO NOT ALLOW CATCH SHARES TO BE IMPLEMENTED.**

Sincerely,



Paul Yarmosh  
322 New Haven Ave.  
Milford, CT 06460

## MSB Am14 Scoping Comments

July 8, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

Dear Sir,

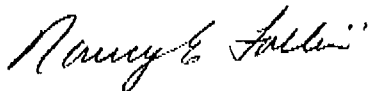
I understand that there is a request for comments in reference to Catch Shares being considered for the Squid fishery. I am writing to express my concern over this process being considered or implemented.

I am the owner of a small fishing company in Connecticut. I have seen what tying the hands of our local small fishermen has done. Over the past 30 years I have seen our fishing fleet steadily decrease due to the massive regulations that have been imposed on the fishing community. Locally, all of our small vendors are going out of business because there are fewer and fewer boats to supply. The economic conditions that these fishermen have experienced are already severe.

There is no evidence in the NOAA statistical web site that would lead anyone person to believe that the squid fishery is over fished. In the past 10 years, the fishery was closed only twice because it reached its quota. Also, from what I understand the EU has already eliminated their catch share program because of its utter failure. (see Worldfishing January 2010 issues). Why are you trying to copy an already proven failed system?

**DO NOT ALLOW CATCH SHARES TO BE IMPLEMENTED.**

Sincerely,



Nancy E. Follini  
322 New Haven Ave.  
Milford, CT 06460

**Didden, Jason T.**

---

**From:** rcitron@krpartners.com  
**Sent:** Thursday, July 08, 2010 3:34 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

I am worried that the incidental capture of American shad and river herring in federally managed ocean trawl fisheries will lead to the near extinction, or possibly the extinction, of the species.

This result may possibly be avoided if the Mid-Atlantic Fishery Management Council (MAFMC) takes the necessary steps to support the protection and recovery of shad and river herring.

I urge the MAFMC to take the lead on this effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Sincerely,  
roger citron  
196 golden hill ave  
haverhill, MA 01830



CAPE COD COMMERCIAL HOOK FISHERMEN'S ASSOCIATION, Inc.  
210-E Orleans Road  
North Chatham, MA 02650  
508-945-2432 • 508-945-0981 (fax)  
www.ccchfa.org • contact@ccchfa.org

Daniel T Furlong, Executive Director  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

RE: Scoping Comments on Amendment 14 to the Mackerel, Squid and Butterfish FMP

July 9th, 2010

Dear Mr. Furlong,

I am writing on behalf of the Board of Directors and the membership of the Cape Cod Commercial Hook Fishermen's Association (CCCHFA) regarding Amendment 14 to the Mackerel, Squid and Butterfish Fishery Management Plan (FMP). CCCHFA is a non-profit organization comprised of responsible, small boat fishermen working to advance sustainable fishery management practices regionally and nationally. As such we have been an active participant in ongoing management work to protect river herring, including ASMFC Amendments 2 and 3 to the Interstate River Herring FMP and NEFMC Amendment 5 to the Federal Atlantic Herring FMP. Our hope is that the Mid-Atlantic Fishery Management Council will take strong action to protect river herring from fishing impacts associated with the Mackerel, Squid and Butterfish FMP; as such we have outlined many of our suggestions below. This action must start with a robust set of alternatives covering three key components: catch monitoring, river herring bycatch and incidental catch reduction, and the establishment river herring catch limits. We also request that the MAFMC focus special attention on the impacts of midwater trawl and midwater pair trawl vessels on all species associated with this FMP.

The majority of CCCHFA's experience on small mesh fisheries regulations is due our continued work on the Atlantic Herring FMP. Our concern regarding the Mackerel, Squid and Butterfish FMP stems from the impacts of Category A and B herring trawlers on both the fisheries they prosecute and their respective bycatch. Over two years of work has been put into the development of Amendment 5 and final alternatives for public comment are expected to be voted on at the September NEFMC meeting. It is our hope that Amendment 14 will complement Amendment 5 and not overlook existing gaps between FMP's through which river herring protections have fallen through in the past. It is important that the MAFMC analyze the impacts of all mackerel, squid and butterfish vessels; however, for the purposes of Amendment 5 overlap, the most critical fleet (in terms of sea herring catch, mackerel catch, and river herring catch) is the large midwater trawl fleet.

As was noted in the scoping documents, most small mesh midwater trawlers could be considered to be on a mackerel trip or a herring trip on any given day, understandably this complicates identifying and analyzing fishing trips. The Amendment 14 document should identify crossover between the FMPs and ensure river herring monitoring and catch reduction measures are consistent, regardless of which fishery the trip is declared into. It is not acceptable to exempt a Category A or Category B herring boat

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from some or all of the river herring measures in Amendment 5 simply by declaring into the mackerel fishery. This overlap issue is subtle, yet complex, and gaps will be easy to miss; so we encourage careful attention be paid to it during this process.

In order to protect river herring, alternatives must be established to reduce bycatch and limit river herring catch. Bycatch reduction is most effective as a set of tools to ensure effective management of an established cap on river herring catch. Reductions should take the form of effort controls and alternatives should include bycatch hotspot closures (temporal and spatial) as well as more adaptive solutions such as mandatory “move-along” rules. Voluntary bycatch avoidance programs can be useful tools for industry, but they are not viable management measures in and of themselves. Any such program should have corollary regulations in Amendment 14. Most importantly, to reiterate, Amendment 14 should include alternatives to establish a ceiling on river herring catch; without this, any bycatch reduction measures in the mackerel, squid and butterfish fishery will be ineffective.

Strong solutions to technical monitoring issues have been extensively explored through Amendment 5 in New England; Amendment 14 should not hesitate to utilize work that has already been done for the NEFMC and consult this work at the beginning of the Amendment 14 process. In particular, the unique challenges of high-volume, high-throughput fisheries like the midwater trawl mackerel, squid and butterfish fishery can and should be met with proactive and common-sense solutions. For instance, the practice of discarding fish directly from the cod-end without first bringing them aboard to be sampled (known as dumping or slippage) must be addressed. Some solutions might include prohibitions on the practice (except in the instance of safety concerns) and accountability measures to ensure these exemptions are not abused. Options for slippage accountability measures include trip termination or caps on dumping in the fishery (i.e. in tonnage or number of events). In addition, Amendment 14 should consider the recent Closed Area I rulemaking template, which established new rules for midwater trawl vessels fishing in the groundfish closed area, to improve groundfish bycatch monitoring. This could be applied to river herring hotspots or be used for the fishery as a whole.

MAFMC has acknowledged in past management document (Amendment 10 Section 6.2) the unique pre-sorting problems in the mackerel, squid and butterfish fishery created by the use of sorting grates on the fish pump intake, especially with regards to large-bodied animals. While not exactly specific to river herring, this does illustrate the important issue of “operational discards” which are discards of catch still in the cod-end after some pumping has taken place. This catch could conceivably contain significant river herring in quantities impossible to determine; and, as such, solutions must be devised to ensure this fish is sampled and accounted for. One option could be electronic monitoring which, with a combination of cameras and catch weight sensors, would allow for documentation of events and accurate independent measurement of the total weight of the slipped catch. Ideally we should be moving towards a system where all fish are somehow provided for sampling (even “un-pumpable” fish); otherwise, the new monitoring program will be undermined.

Amendment 14 should establish strong monitoring measures that will work despite ongoing concerns about funding. It is not appropriate to exclude potential monitoring measures or draw premature conclusions about their cost or feasibility prior to the preparation of actual cost analyses. Additionally, any cost analysis must consider the current hidden costs of inadequate fishery monitoring, such as the cost of being unable to produce viable estimates of river herring catch and the associated impacts on the ecosystem and stakeholders. Additionally, if federal funding cannot be relied upon for a monitoring program the MAFMC should not hesitate to include options where the program is funded by the industry itself. Industry-funded observer coverage is legal and appropriate to consider without a

catch share program. Currently, monitoring (i.e. observer coverage) for the mackerel, squid and butterfish fishery is low relative to the herring fishery in New England, because the herring fishery draws funds from groundfish for monitoring money. The gap that currently exists must be closed through this regulatory vehicle. Lack of monitoring on “mackerel” trips exacerbates the potential for herring boats to seek, and possibly find, exemptions from Amendment 5 measures by going “mackerel” fishing. This cannot be allowed.

As the Scoping Document indicates, a much needed river herring stock assessment will be available shortly. This will obviously be useful moving forward and should provide guidance for setting a cap on river herring catch. Additionally, the stock assessment should be the first step toward the creation of a Federal River Herring FMP. It is our hope that Amendment 14 would make this recommendation, if overlap existing between the different FMPs cannot be resolved. The Magnuson Stevens Act clearly requires that an Annual Catch Limit (ACL) be set for river herring; and, if it remains unclear which Federal FMP should handle this, a separate river herring FMP is needed.

In conclusion, there are three key components to meaningful protection of river herring in Federal waters that Amendment 14 to the Mackerel, Squid and Butterfish FMP must consider. These are listed below along with the key elements of each.

1. River Herring Catch Monitoring
  - i. High levels of catch sampling by independent observers on shore, at sea or both. In order for this to be successful, 100% coverage of large midwater trawlers is necessary. If coverage levels cannot be set at 100%, any remaining options must include transparent and timely extrapolation of observed catch.
  - ii. Slippage of unsampled catch must be tightly controlled and subject to accountability measures in order to discourage the practice.
  - iii. Catch must be weighed or volumetrically estimated by independent third parties.
  - iv. All monitoring data must be publicly available in a timely fashion. Vessel identifying characteristics should be excluded, but information must be available regarding catch, bycatch and coverage.
2. River Herring Catch Reduction
  - i. Effort controls to reduce River Herring bycatch and incidental catch are necessary to ensure recovery of this species.
3. River Herring Catch Limits
  - i. A cap should be established to limit the amount of river herring that can be taken in the mackerel, squid and butterfish fishery

Thank you for your consideration

Sincerely,

Tom Dempsey  
Policy Director

**Didden, Jason T.**

---

**From:** hopecarr@ix.netcom.com  
**Sent:** Thursday, July 08, 2010 2:31 PM  
**To:** Info1  
**Subject:** Scoping Comments on MSB 14

Mr. Daniel Furlong, Mid-Atlantic Fishery Management Council

Dear Mr. Furlong, Mid-Atlantic Fishery Management Council

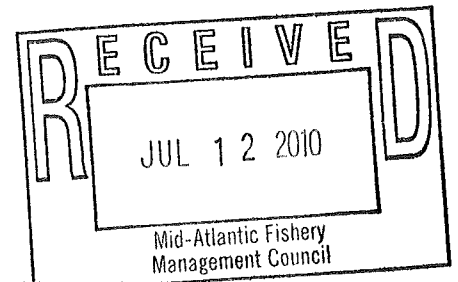
I urge the MAFMC to take the lead on the effort to create a joint, unified strategy to address river herring and shad bycatch throughout their range.

Thank you for your consideration.

Sincerely,  
Hope Carr  
358 85th Street  
Brooklyn, NY 11209



Buckeye Brook  
  
Protect & Preserve  
P.O. Box 9025  
Warwick, R.I. 02889



June 29, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901

RE: Scoping Comments on MSB 14

Dear Mr. Furlong,

On behalf of the Buckeye Brook Coalition of Warwick, Rhode Island. I am writing in response to the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid, and Butter fish Fishery Management Plan (MSB FMP). River herring and American shad populations are at historic lows. We believe that bycatch in federal waters is impeding shad and river herring rebuilding efforts and urge the Mid-Atlantic Council to craft a strategy to monitor *and reduce* incidental catch of these species in its small-mesh fisheries.

The Buckeye Brook Coalition has been taking measures to restore the River Herring runs. Starting with pushing for a moratorium on the taking of river herring back in 2004. We have been monitoring the herring run since 2003. This data has not shown any improvement in the number of herring entering to spawn.

Municipalities have spent billions of dollars improving water quality through storm water and sewage treatment improvements. The most recent success is the Providence Combine Storm Water Overflow Project. Which is drastically improving Narragansett Bay. Hundreds of Environmental groups have been doing all that is possible from land to restore the spawning habits, with no improvements to spawning stocks. The problem is not here on land!

Its time to hear us loud and clear! In order to save the river herring it is up to the Mid Atlantic Fishery Council as well as other Fishery Councils. Hard data of incidental by catch needs to be collected by observers. Safe areas in hot spots need to be put into place. There also must be catch limits imposed on the fisheries, where there are none at present.

**Improved Monitoring and Data collection:**

The current levels of monitoring and data collection within the Mid-Atlantic's small-mesh fisheries are grossly inadequate. In order for data to be used with a high degree of confidence to inform management actions, **greatly increased observer coverage** is necessary.

- Coverage levels must allow for accurate fleet-wide extrapolation of incidental catch data (i.e., bycatch including discarded and kept catch) of blueback herring, alewife and American shad.
- 100% observer coverage should be required for mid-water trawl vessels (including one observer assigned to each vessel in a pair trawl operation).
- All observers, whether employed by or contracted through NMFS, must be NMFS trained and certified and capable of identifying all age classes of river herring and shad to species.
- 100% of catch must be made available to NMFS certified observers for systematic sampling. In other words, no catch should be allowed to be discarded to the sea (i.e., slipped) or transferred to a receiving vessel without sampling when an observer is on board, otherwise the total catch (incidental or target) cannot be estimated properly.
- Because inadequate government funding of the Northeast Fisheries Observer Program remains a serious obstacle to managing small-mesh fisheries bycatch, Amendment 14 must include alternatives for an industry-funded observer program.

**Reduce Incidental Catch of River Herring and Shad:**

All controllable sources of mortality must be controlled in order for shad and river herring runs to recover from their historic lows. Amendment 14 must minimize incidental catch by:

- Establishing annual incidental catch caps for river herring and shad that will trigger gear/area fishery closures;
- Developing near real-time river herring and/or shad bycatch reports and make these reports readily accessible to the public;
- Establishing gear closures around river herring and shad “hotspots” –areas of high probability of incidental catch of river herring or American shad based upon the best available scientific data;
- Coordinating with the NEFMC to create a unified bycatch reduction strategy for the Atlantic herring and Atlantic mackerel fleets because many of the highest capacity vessels involved in these fisheries are the same.

**Long-Term Management Measures:**

- In order to be successful in the long-term, management efforts need to be coordinated among the multiple management bodies (ASMFC, NEFMC, MAFMC) with overlapping jurisdictions over river herring and shad. We urge that the MAFMC lead the efforts to bridge these management gaps by developing, in consultation with the NEFMC, an integrated federal management plan, to work in cooperation with the ASMFC IFMP, to manage river herring and shad throughout their range.

Sincerely, 

Paul H. Earnshaw  
 Buckeye Brook Coalition  
 President  
 401-739-6592

## Diden, Jason T.

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**From:** jmberry [jmberry@ptd.net]  
**Sent:** Tuesday, July 06, 2010 10:11 AM  
**To:** Info1  
**Subject:** Fwd: Scoping Comments on MSB 14

**Categories:** SMB 14 DAN

Sorry!

----- Original Message -----

**Subject:** Fwd: Scoping Comments on MSB 14  
**Date:** Tue, 06 Jul 2010 10:07:55 -0400  
**From:** jmberry <jmberry@ptd.net>  
**To:** <info@mafmc.org>  
**Reply-To:** jmberry@ptd.net

To whom it may concern:  
In recommendation 5 please substitute MAFMC for MAMFC.  
Thanks!

John H. Berry  
Delaware River Shad Fishermen's Association Member

...-... SOS Save Our Shad

----- Original Message -----

**Subject:** Scoping Comments on MSB 14  
**Date:** Tue, 06 Jul 2010 09:52:51 -0400  
**From:** jmberry <jmberry@ptd.net>  
**To:** <info1@mafmc.org>  
**Reply-To:** jmberry@ptd.net

To whom it may concern:  
To help restore the drastically declining Shad and River Herring populations I recommend the following:

1. Increase on-site, at-sea catch and bycatch inspections and weighmaster offloading verification of small mesh fisheries catch and bycatch by sampling techniques to insure quotas are not being exceeded and to gauge bycatch.
2. Reduce small mesh fisheries quotas by 1/3 for a 5 year period.
3. Eliminate small mesh fisheries in known areas of Shad and River Herring concentrations (e.g. overwintering areas off North Carolina; summertime areas in Bay of Fundy and Gulf of Maine).
4. Temporarily suspend commercial Shad and River Herring sales.
5. Require all Eastern U.S. states and Canadian provinces to monitor Shad and River Herring spawning populations and report their findings to MAMFC.

Please call me at 215-850-4839 or 610-625-2113 if you have any questions.  
Thanks!

John H. Berry  
Delaware River Shad Fishermen's Association Member

...-... SOS Save Our Shad

July 9, 2010

Daniel T. Furlong  
Mid-Atlantic Fishery Management Council  
800 North State Street, Suite 201  
Dover, DE 19901  
*via email*

Re: Scoping Document for Amendment 14 to the Atlantic Mackerel, Squid and Butterfish Fishery Management Plan

Dear Mr. Furlong:

The Nature Conservancy offers the following comments on the scoping document for Amendment 14 to the Atlantic Mackerel, Squid and Butterfish Fishery Management Plan.

The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. With the support of more than one million members, The Nature Conservancy has protected more than 120 million acres and 5,000 river miles around the world. We currently have more than 150 marine conservation projects in 32 countries and every coastal state in the U.S.

Through its work with both freshwater and marine species and habitats, the Conservancy helps to connect terrestrial, freshwater and marine conservation efforts by building on the Conservancy's network of partners and innovative approaches developed at sites around the world to pursue integrated coastal conservation. Shad and river herring provide a vital link in both freshwater and marine food webs and require an integrated conservation approach that crosses habitats and political boundaries. They are a focus of our work all along the Atlantic coast, under a comprehensive restoration strategy that aims to address access to and from spawning habitats and habitat restoration, as well as fishing rates.

As noted in ASMFC's letter dated May 27, 2009, the status of river herring stocks coastwide is of great concern. River herring and American shad populations are at historic lows and have shown little sign of recovery despite considerable efforts to improve river habitat and protect remaining populations. Bycatch in federal waters is likely to be an important factor affecting river herring and shad rebuilding efforts and we urge the MAFMC to adopt measures to monitor and reduce incidental catch of these species.


We support mandatory reporting coupled with monitoring programs adequate to reliably estimate bycatch for the entire fishery. Observer coverage needs to increase to adequately cover gear types, range, and seasonality of MSB fisheries to reach the 30% CV (coefficient of variation) recommended in the Standardized Bycatch Reporting Methodology. Both at-sea and dockside monitoring should be employed in the near term to allow comparison of reporting rates. This analysis will inform best practices going forward to maintain a statistically valid and cost-effective monitoring program.

Additionally, biological and genetic research is needed to assess the impact of nearshore bycatch events on populations of shad and river herring in adjacent river systems. These data should be utilized to inform time-area closures, gear restrictions and/or bycatch quotas as appropriate when data indicate high levels of bycatch.

We applaud the Councils and ASMFC for their efforts to create a unified approach to bycatch reduction across habitats and jurisdictions. The Conservancy welcomes the opportunity to work with the MAFMC, NEFMC, ASMFC and other partners to support appropriate funding for the cooperative tagging program and the at-sea observer program to quantify bycatch in ocean fisheries, as well as for funds needed to implement recommendations for conservation and restoration of river habitats for diadromous fishes.

We appreciate the opportunity to provide comments to the scoping document for Amendment 14. If you have any questions, please contact me at 617-227-7017 or [abowden@tnc.org](mailto:abowden@tnc.org). Thank you for your consideration and we look forward to collaborating with the Council in supporting recovery efforts for river herring and other species.

Sincerely,



Alison A. Bowden  
Co-Director, Eastern US Diadromous Fish Program

## ***COUNCIL MEMBER OATH***

I, STATE NAME, as duly appointed member of a Regional Fishery Management Council established under the Magnuson-Stevens Fishery Conservation and Management Act, hereby promise to conserve and manage the living marine resources of the United States of America by carrying out the business of the Council for the greatest overall benefit of the nation.

I recognize my responsibility to serve as a knowledgeable and experienced trustee of the nation's marine fishery resources, being careful to balance competing private or regional interests, and always aware and protective of the public interest in those resources.

I commit myself to uphold the provisions, standards and requirements of the Magnuson-Stevens Fishery Conservation and Management Act and other applicable law, and shall conduct myself at all times according to the rules of conduct prescribed by the Secretary of Commerce.

This oath is freely given and without mental reservation or purpose of evasion.

## **Guidelines for the Ricks E Savage Award**

### **Eligibility:**

A person who has added value to the MAFMC process and management goals through significant scientific, legislative, enforcement or management activities are eligible.

### **Award**

The award will be presented during the December meeting.

### **Selection Process**

1. Written nominations will be solicited and received by the end of September each year by the Executive Committee.
2. Initially, nominations may only be made by Mid-Atlantic Council members.
3. The Executive Committee will select the recipient by consensus.
4. The recipient's identity will remain confidential if possible, until announced during the award presentation.

### **Other Award Rules**

1. Candidates must be nominated each year: no nominations will carry over.
2. Recipients can be reimbursed for travel expenses to receive the award.
3. The recipient will receive a plaque (or plaques). A permanent plaque will be placed at Headquarters.

## MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

**Richard B. Robins, Jr.**  
Chairman

**Lee G. Anderson**  
Vice-Chairman

800 North State Street, Suite 201  
Dover, Delaware 19901  
Tel 302-674-2331  
Toll Free 877-446-2362  
Fax 302-674-5399  
[www.mafmc.org](http://www.mafmc.org)

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

### MEMORANDUM

**DATE:** August 4, 2010  
**TO:** Richard B. Robins, Jr., Chairman, Mid-Atlantic Fishery Management Council  
**FROM:** John Boreman, Ph.D., Chairman, MAFMC Scientific and Statistical Committee  
**Subject:** Recommendation for Replacement of Scott Crosson as an SSC Member

Dr. Scott Crosson, an economist and member of the MAFMC SSC, has resigned from the SSC because he has taken a position with the NMFS Southeast Fisheries Science Center in Miami, FL. The SSC recommends that Dr. David Tomberlin, an economist with the NMFS Office of Science and Technology in Silver Spring, MD, be Scott's replacement. David brings unique qualifications to the SSC, especially in the understanding of economics associated with marine ecosystems. His CV is attached.

cc:

L. Anderson  
C. Moore  
R. Seagraves



# DAVID TOMBERLIN

**HOME:** 220 Brewster Avenue, Silver Spring, MD 20901  
(301) 755-6553; tomlberlin.david@gmail.com

**WORK:** NOAA National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910  
(301) 713-2328; david.tomberlin@noaa.gov

## **EDUCATION:**

Ph.D., Forest Economics, University of Wisconsin - Madison, 1999  
Dissertation: *Timber Supply, Trade, and Environment in the Pacific Rim*

M.S., Agricultural and Resource Economics, North Carolina State University, 1993  
Thesis: *An Essay on Natural Resource Accounting*

B.A., English Literature and Creative Writing, Princeton University, 1988

**RESEARCH INTERESTS:** dynamic models of resource management under various uncertainties; targeted learning and design of monitoring programs; watershed management; Bayesian econometrics

## **RESEARCH EXPERIENCE:**

**NOAA National Marine Fisheries Service, Santa Cruz, CA, and Silver Spring, MD, USA**

**Research Economist (3/99-present)**

- Perform quantitative analysis for adaptive management of fisheries and aquatic habitat, focusing on uncertainty and risk in the conservation of marine and coastal resources
- Analyze fishermen's participation decisions and fleet dynamics
- Identify cost-effective spatial and temporal allocations of environmental restoration funds
- Conduct econometric analysis of investment patterns and seafood consumption choices
- Coordinate agency economists' work on optimal harvest policies in fisheries
- Manage data collections on soil erosion and on consumer preferences
- Supervise graduate students, postdoctoral researchers, and technicians
- Adjunct professor at Oregon State University and University of Maryland Eastern Shore

**Forestry Department, United Nations Food and Agriculture Organization, Rome, Italy**

**Forest Economics Consultant (2/98-7/98)**

- Completed computer simulation analysis of global forest sector activity
- Wrote papers describing model structure, results, and modeling software

**Department of Forest Ecology and Management, University of Wisconsin-Madison**  
**Research Assistant (9/93-3/99)**

- Developed a model of international trade in forest products, emphasizing trade/environment links

**Dept. of Agricultural and Resource Economics, North Carolina State University, Raleigh, NC**

**Research Assistant (1/92-8/93)**

- Assessed natural resource accounting as a measure of sustainable development

**TEACHING EXPERIENCE:**

**University of Maryland, Eastern Shore, Princess Anne, MD**  
**Visiting Lecturer (1/09-5/09)**

- Taught MEES 488/688, Introduction to Environmental and Resource Economics

**University of Wisconsin-Madison, Madison, WI**  
**Teaching Assistant (9/98-12/98)**

- Taught computer laboratory section of Forestry 652, Quantitative Methods for Resource Managers

**Universitas Bung Hatta, Padang, and Universitas Maranatha, Bandung, Indonesia**  
**Lecturer (7/88-7/90)**

- Taught expository writing, literary theory, and business English to university students
- Conducted field visits and translated for Yayasan Mandiri, a rural development NGO

**RESEARCH VISITS:**

University of Reading, Reading, England, April-May 2007

Fondazione Eni Enrico Mattei, Milano, Italy, May 2005

Center for International Forestry Research, Bogor, Indonesia, July-August 1995

**ANALYTICAL SKILLS AND SOFTWARE USED:**

Econometrics, including time series, stochastic frontier, and duration models (MATLAB, SAS)

Mathematical programming (MATLAB/TOMLAB, some GAMS and LINDO)

Stochastic dynamic optimization (MATLAB, FORTRAN)

**CURRENT MANUSCRIPTS:**

Dalton, M., D. Squires, J. Terry, E. Thunberg, and D. Tomberlin. In agency review. Economic Considerations in the Implementation of Allowable Catch Limits. To appear as a NOAA Technical Report.

Kim, J. and D. Tomberlin. In revision. A Watershed Management Model for Fish Habitat Protection and Timber Production. Submitted to *Environmental Management*.

Pittman, S., C. Speir, and D. Tomberlin. Forthcoming. Applying Real Options Analysis to a Dam Removal Decision. Accepted for the 2010 World Congress of Environmental and Resource Economists.

Tomberlin, D. Forthcoming. Decision Support for Environmental Monitoring and Restoration. Accepted for the 2010 International Congress on Environmental Modelling and Software.

**PUBLICATIONS:**

Thompson, M., J. Sessions, K. Boston, A. Skaugset, and D. Tomberlin. 2010. Forest Road Erosion Control Using Multiobjective Optimization. *Journal of the American Water Resources Association* DOI: 10.1111 ? j.1752-1688.2010.00443.x. Published online, print date not yet available.

Tomberlin, D. 2010. Endangered Seabird Habitat Management As A Partially Observable Markov Decision Process. *Marine Resource Economics* 25(1):93-104.

Tomberlin, D. 2010. Managing Multi-Stock Fisheries Under Both Process and Observation Uncertainty. Proceedings of the 25<sup>th</sup> Mini-EURO Conference on Uncertainty and Risk in Planning and Decision Making, Coimbra, Portugal, April 15-17. Published by the Institute for Systems Engineering and Computers, University of Coimbra (CD only). ISBN 978-989-95055-3-7. pp. 1-7.

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- Ish, T., and D. Tomberlin. 2007. Simulation of Surface Erosion on a Logging Road in the Jackson Demonstration State Forest. U.S. Forest Service General Technical Report PSW-GTR-194 pp. 457-463.
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- Bosetti, V. and D. Tomberlin. 2006. Dynamic Participation Decisions in California's Commercial Salmon Fishery. In *Proceedings of the 3<sup>rd</sup> World Congress of Environmental Economists*, Kyoto, July 4-7.
- Holloway, G., and D. Tomberlin. 2006. Bayesian Ranking and Selection of Fishing Boat Efficiencies. *Marine Resource Economics* 21:407-424.
- Holloway, G., and D. Tomberlin. 2006. Duration Analysis of Fleet Dynamics. In *Proceedings of the 2006 IIFET Forum*. Corvallis, OR: International Institute of Fisheries Economics and Trade.
- Tomberlin, D., and T. Ish. 2006. Learning and the Adaptive Management of Fisheries Resources. Presented to the biennial National Marine Fisheries Service Economics and Social Science Workshop, San Francisco, April 2006. Available at: [http://www.st.nmfs.noaa.gov/st5/workshop/2006/documents/Best\\_papers/](http://www.st.nmfs.noaa.gov/st5/workshop/2006/documents/Best_papers/)
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- Tomberlin, D., X. Irz, and G. Holloway. 2006. Bayesian Estimation of Technical Efficiency in the Pacific Hake Fishery. Fisheries Centre Working Paper 2006-22. Vancouver: University of British Columbia Fisheries Centre. 8 pp.
- O'Hanley, J., and D. Tomberlin. 2005. Optimizing the Removal of Small Fish Passage Barriers. *Environmental Modeling and Assessment* 10(2):85-98.
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- Tomberlin, D., and V. Bosetti. 2004. Participation in a Limited-Entry Fishery: An Options Approach. Presented to the biennial NOAA Fisheries Social Science Workshop, New Orleans, October 2004.
- Bosetti, V., and D. Tomberlin. 2004. Real Options Analysis of Fishing Fleet Dynamics: A Test. FEEM Natural Resource Management Working Paper 102. Milan: Fondazione Eni Enrico Mattei.
- Tomberlin, D. 2004. The Allocation Problem in Habitat Restoration. In S. Allen, ed., *Proceedings of the Salmon Habitat Restoration Workshop*. Gladstone, OR: Pacific States Marine Fisheries Commission.
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**SERVICE:**

Short course coordinator, Living Marine Resources Cooperative Science Center (2010)  
Combined Federal Campaign keyworker (2009)  
NOAA Fisheries social science and stock assessment symposium organizer (2008)  
American Fisheries Society symposium organizer (2007)  
MATLAB and GAMS coordinator for agency social scientists (2005-present)  
Graduate committee, Oregon State University Department of Forest Engineering (2005-2009)  
Reviewer for *Agricultural Economics*, *Applied Economics*, *Environmental Science and Policy*, *Forest Science*, *Journal of Applied Ecology*, *Journal of Finance*, *Journal of Forest Economics*, *Journal of Portfolio Management*, *Marine Resource Economics*, *Natural Resource Modeling*, *North American Journal of Fisheries Management*, Great Lakes Fisheries Commission, National Science Foundation, US Geological Survey, and numerous NOAA documents

**HONORS AND AWARDS:**

Fulbright Fellow, Technical University of Crete (2010)  
NOAA Fisheries Social Science Paper Competition (3<sup>rd</sup> place, 2008)  
NOAA Fisheries Social Science Paper Competition (1<sup>st</sup> place, 2006)  
NOAA Fisheries Social Science Paper Competition (2<sup>nd</sup> place, 2004)  
USDA National Research Initiative Young Investigator Award (2003)  
McGovern Scholar, Department of Forestry, University of Wisconsin (1998, 1997)  
USDA National Research Initiative grantee (1998, 1994)  
University of Wisconsin Center for Southeast Asian Studies Fellow (1995)  
Gamma Sigma Delta Honor Society (1994)  
Fellow, Consortium on Teaching of Indonesian, East Java (1991)  
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**Christopher M. Moore, Ph.D.**  
Executive Director

**Lee G. Anderson**  
Vice Chairman

**DATE:** August 4, 2010

**TO:** Council



**FROM:** Jason Didden

**SUBJECT:** Visioning Project Update

A committee meeting has been scheduled for September 9, 2010 at the BWI FOUR POINTS BY SHERATON, and will be noticed in the Federal Register. This date worked for all committee members (Robins, Pate, McMurray, King, Berg, Kray, and O'Shea).

An initial project outline and some related email traffic is included after this page. Additional briefing materials will be distributed prior to the committee meeting.

## Framework for Visioning Project via Surveying the Fisheries - Latest Version

### **"Why"**

- A. Establish goals: "What does the Council want to learn through project?"
  - 1. Is the FMP meeting the stated objectives?
  - 2. What is working well in the FMP?
  - 3. What is not working well in the FMP?
  - 4. What are the current problems in the Council's managed fisheries affecting outcomes for commercial interests (for existing commercial permit holders) or recreational interests (for recreational fishermen) in the existing regulatory regime? What problems are perceived by the non-fishing public stakeholders?
  - 5. What can be improved in the FMP from the stakeholders' perspective and what are the desired outcomes?
  - 6. What do stakeholders want to see their fishery look like in the foreseeable future?
  
- B. Develop a stakeholder-driven vision of the Council's managed fisheries to inform future management of the fisheries: "What does the Council want to do with what it learns from the project?"
  - 1. Review existing FMP goals and objectives relative to the stakeholders' vision of what they want the fisheries to look like.
  - 2. Consider updating or refining FMP goals and objectives in response to stakeholder visioning results.
  - 3. Evaluate and address specific management problems and opportunities identified through the visioning process.
  - 4. Develop a multi-year (5?) strategic plan with milestones to implement the resulting vision.

### **"What"**

- A. Contract with organization/firm that specializes in survey work for specialized support
  
- B. Design initial questions/survey instrument based on goals.
  
- C. Pilot test questions with small groups (APs)
  
- D. Conduct Survey - likely needs PRA clearance.

### **"Who & Where"**

A. Identify groups - Permit holders (directed, incidental?); recreational fishing public, for-hire sector, non-fishing public.

B. Sample design will be based on who the target groups are. Might be able to census some groups, would have to sample others.

### **"When"**

A. OMB PRA clearance can take about 6 months after you submit the survey instrument - involved process but significant institutional resources/knowledge (NOAA) available to assist clearing OMB.

B. One stage or multiple stages? I.e. survey problems and solutions together (possibly difficult - proposed solutions may influence responses to perceived problems) or ID problems in first survey and then solicit opinions on solutions in a second survey?



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

**Lee G. Anderson**  
Vice Chairman

August 4, 2010

Mr. Eric Schwaab, Assistant Administrator for Fisheries  
Office of the Assistant Administrator for Fisheries  
National Marine Fisheries Service  
1315 East West Highway  
Silver Spring, Maryland 20910

Dear Eric:

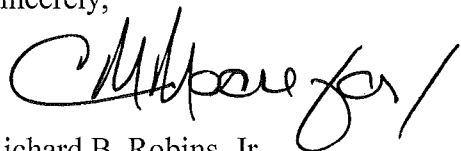
The Mid-Atlantic Fishery Management Council (Council) passed the following motion at its June 2010 meeting: "Move that the Council ask NMFS to pursue a Transboundary Resource Sharing Agreement with Canada for Atlantic mackerel." The motion passed with one abstention and no objections.

Currently the U.S. Atlantic mackerel fishery operates with substantial uncertainty because expected Canadian catch must be deducted "off-the-top" from the total (U.S. plus Canada) Acceptable Biological Catch (ABC) to derive the U.S. portion of the ABC. Since the Canadian catch is not controlled within a joint management framework, mis-estimating Canadian catch could put the mackerel stock at risk for overfishing.

The current ABC specification methodology also puts the U.S. fishery at a disadvantage - if expected Canadian catches are high and the total ABC is low, the U.S. fishery could potentially be left with zero quota. Recent reductions in the total ABC from 211,000 mt to 80,000 mt have highlighted this issue, which has the potential to cause economic dislocation and related job losses in the U.S.

The Council requests that NMFS pursue a Transboundary Resource Sharing Agreement with Canada to achieve coordinated conservation and management as well as a fair allocation to the U.S. fishery. Effective action on this matter is in the best interest of the Atlantic mackerel resource and the relevant vessels, processors, and associated support industries.

Sincerely,



Richard B. Robins, Jr.  
Chairman

cc: Pat Kurkul, George Darcy, Lee Anderson, Chris Moore, Jason Didden, Rich Seagraves, Aja Peters-Mason

**The Scientific and Statistical Committee (SSC) full report is available under Briefing Book TAB 18 and should be referenced. The following provides a summary.**

## **Scup**

### ***1) The materials considered in reaching its recommendation;***

- Terceiro, M. 2010. Stock assessment for scup 2010. U. S. Department of Commerce, Northeast Fisheries Science Center Reference Document 10-16; 86 p.
- Terceiro, M. 2009. Stock assessment for scup for 2009. U. S. Department of Commerce, Northeast Fisheries Science Center Reference Document 09-18; 82 p.
- Miller, T. J., R. Muller, R. O'Boyle and A. A. Rosenberg. 2009. Report of the Review Panel for the Northeast Data Poor Stocks Working Group. January 2007. 34 p.
- Northeast Data Poor Stocks Working Group. 2009. The Northeast Data Poor Stocks Working Group Report, December 8-12, 2008 Meeting. Part A. Skate species complex, deep sea red crab, Atlantic wolffish, scup, and black sea bass. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 09-02; 496 p.
- MAFMC Staff Memo dated 30 June 2010: Scup Management Measures for 2011

### ***2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;***

Derived directly from the stock assessment, the OFL is based on an  $F_{MSY}$  proxy of  $F_{40\%} = 0.177$ ; the OFL is specified at 67.53 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{40\%} = 0.177$ ).

### ***3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard 1 Guidelines;***

The SSC recommends an ABC based on 75% of  $F_{msy}$  ( $F = 0.133$ ), and results in an ABC of 51.7 million pounds. This catch level is based on the 50<sup>th</sup> percentile of catch at  $F = 0.133$  and has associated landings of 42.9 million pounds. The SSC unanimously supported the DPSWG panel's concerns about rapid increases in quota to meet the revised MSY.

### ***4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);***

It is not possible for the SSC to provide the probability distribution function (pdf) associated with the OFL since significant sources of uncertainty were not taken into account in the assessment. The ABC is

roughly equivalent to a  $P^* = 40^{\text{th}}$  percentile, based on an assumed lognormal OFL distribution that has a  $CV = 100\%$ . That  $CV$  of  $100\%$  is considered a reasonable characterization of uncertainty for the OFL distribution.

***5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;***

The estimates of biomass and fishing mortality from the scup stock assessment are likely to be non-robust because the assessment model contains very little information on the abundance of old age classes. It is the SSC's understanding that the assessment model only includes indices of abundance for the first two age classes, and the effective sample size for the age composition of the fishery catch appears to be low, which means that the model will have little ability to determine if the build-up of old individuals is actually occurring or if it is only an artifact of the model. The scup stock assessment predicts that the abundance of age 7+ scup has increased substantially since the early 2000s. This increase of old individuals has a very large effect on the estimated spawning stock biomass (SSB), overall biomass, and fishing mortality. Because of this behavior the model is likely to continue to predict increases in abundance of 7+ individuals with subsequent increases in biomass and SSB, and updated assessments with the current model will not be able to resolve the issue. The current model, because of its reliance on indices of abundance for the first two age classes, is much more sensitive to changes in recruitment than changes in SSB. The available data on the age-composition of the fishery catches and surveys do not show a pattern of increasing abundance in the age 7+ categories. Thus, use of the assessment estimates of SSB and biomass rely on this build-up of old fish, which are not corroborated by the available data.

Other significant sources of uncertainty associated with the scup assessment:

- While older age scup (age 3+) are represented in the catch used in the assessment model, ages 3+ are not represented in the survey data that were used as input to the model. As a result, the dynamics of the older ages of scup are driven solely by catches and inferences regarding year class strength.
- Commercial discard estimates are imprecise and represent a considerable portion of the total catch.
- Uncertainty exists with respect to the estimate of natural mortality ( $M$ ) used in the assessment.
- Uncertainty in the stock status due to uncertainties in the estimates of both the stock's biomass and biological reference points as a proxy was used for  $F_{MSY}$ .
- The assessment does not contain a characterization of uncertainty for the OFL and other biological reference points;
- Recruitment appears high in recent years, but it is unclear how these recent high levels would compare to historical levels of recruitment;
- Survey indices are particularly sensitive to scup availability, which results in high inter-annual variability; and

- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment.

***6) A certification that the recommendations provided by the SSC represents the best scientific information available.***

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

### **Assessment Level Specification**

Level 3 (see attachment 2 for assessment level specification criteria)

### **Special Comments**

Because of the uncertainty with the stock assessment, the SSC would recommend scup be considered for a peer-reviewed benchmark.

## Scup Monitoring Committee Recommendations

Baltimore, MD

July 30, 2010

**Scup Monitoring Committee:** Mark Terceiro, Paul Caruso, Jason McNamee, Greg Wojcik, Alice Weber, Tom Baum, Rich Wong, Steve Doctor, Rob O'Reily, Chris Batsavage, Mike Ruccio, Toni Kerns, Jessica Coakley

**Others:** Dr. Lee Anderson, Kate Taylor

The Scup Monitoring Committee offers the following options for a TAC in 2011 between the status quo TAC and TAC=MSY for this fishery. The Scup Monitoring Committee reiterates the SSC and DPSWG panel concerns about rapid increases in quota to meet the revised MSY.

TAC=2010 ABC=17.09 mil lb; which is status quo.

TAC= Staff Recommendation=19.66 mil lb; which is a 15% increase in TAC relative to 2010.

TAC=24.1 mil lb; which is a 41% increase in TAC relative to 2010.

TAC=26.5 mil lb; which is a 55% increase in TAC relative to 2010.

TAC=MSY=35.6 mil lb

The Council and Board should consider impacts of the increase in commercial quotas in the commercial fishery in terms of trip limits, triggers (i.e., 80%), winter/summer fisheries, market price, and other economic factors including market stability. The Council and Board should consider revisiting the allocations between the commercial and recreational fishery, as well as the commercial winter and summer periods.

There is large uncertainty, given the large increase in harvest limit, in how effective changes in the regulations will be in constraining the fishery landings to the harvest limits.

The Council and Board should consider prior overages in the recreational fishery, in terms of the level of increase and whether it is sufficient to permit at minimum status quo measures to be carried forward.

The Scup Monitoring Committee believe that current commercial management measures are sufficient to constrain the commercial fishery to the TAC options presented from status quo TAC to TAC=MSY. Recreational measures will be discussed in November.

# MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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**Daniel T. Furlong**  
Executive Director

## MEMORANDUM

**Date: June 30, 2010**

**To: Science and Statistical Committee (SSC) and Scup Monitoring Committee (SMC)**

**From: Jessica Coakley**

**Subject: Scup Management Measures 2011**

The re-authorized Magnuson-Stevens Fishery Conservation and Management Act (MSRA) requires each Council establish an SSC to assist it by providing it with among other things, ongoing scientific advice for fishery management decisions, including recommendations for acceptable biological catch (ABC), preventing overfishing, and maximum sustainable yield. Each Council must then develop annual catch limits (ACLs) that do not exceed the fishing level recommendations of its SSC or its peer review process. Amendment 8 to the Scup Fishery Management Plan (FMP) requires that the Scup Monitoring Committee meet annually to review the best available biological and fisheries data and make recommendations regarding management measures. The Council, through the Omnibus ACL/Accountability Measure (AM) Amendment intends to include recommending catch levels that address management uncertainty as one of the Committee roles.

The ABCs, total allowable catch (TAC), total allowable landings (TALs), commercial quotas, recreational harvest limits, commercial size limits, mesh regulations, and landings are presented in Table 1 for each year of the management program.

### **Landings**

In 2009, recreational landings were 2.94 million lb (1,333 mt) and commercial landings were 8.20 million lb (3,719 mt); combined commercial and recreational landings were about 11.14 million lb (5,053 mt; Table 2).

**Table 1. Summary of Federal scup management measures implemented, 1996-2010.**

<u>Management measures</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
ABC (m lb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.70 <sup>a</sup>	17.09
TAC (m lb)	-	9.10	7.28	5.92	5.92	8.37	12.92	18.65	18.65	18.65	19.79	13.97	9.90	15.54 <sup>a</sup>	17.09
Com. TAC (m lb)	-	7.10	5.68	4.62	4.62	6.53	10.08	14.55	14.55	14.55	15.44	10.90	7.72	12.12	13.33
Com. Quota initial (m lb)	-	6.00	4.57	2.53	2.53	4.44	8.00	12.47	12.47	12.47	12.08	9.18	5.46	8.54	11.01
Com. Quota adjusted (m lbs)	-	-	-	-	1.75	3.53	7.25	12.10	12.34	12.23	11.93	8.90	5.24	8.37	10.68
Com. Landings(m lb)	6.43	4.82	4.18	3.32	2.66	4.07	7.28	9.89	9.32	9.38	8.96	9.25	5.18	8.20	-
Rec. TAC (m lb)	-	2.0	1.60	1.30	1.30	1.84	2.84	4.10	4.10	4.10	4.35	3.07	2.18	3.42	3.76
Rec. harvest limit initial (m lb)	-	1.95	1.55	1.24	1.24	1.77	2.77	4.03	4.03	4.02	4.19	2.82	1.88	2.64	3.10
Rec. harvest limit adjusted (m lb)	-	-	-	-	-	-	2.71	4.01	4.01	3.96	4.15	2.74	1.83	2.59	3.01
Rec. landings (m lb)	2.16	1.20	0.88	1.89	5.44	4.26	3.62	8.48	4.24	2.54	2.95	3.65	4.04	2.94	-
Com. fish size (in)	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Min. mesh size (in, diamond)	4.0	4.5	4.5	4.5	4.5	4.5	4.5/5.0	4.5/5.0	4.5/5.0	5.0	5.0	5.0	5.0	5.0	5.0
Mesh threshold	4000/ 1000	4000/ 1000	4000/ 1000	200/ 100	200/ 100	500/ 100	500/ 100	500/ 100	500/ 100	500/ 200	500/ 200	500/ 200	500/ 200	500/ 200	500/ 200

<sup>a</sup> In 2009, the SSC recommend an ABC of 11.70 million lb. Based on the Data Poor Stocks Workgroup Panel Report, which was not available to the SSC at the time the recommendation was made, NMFS increased the TAC to 15.54 million lb.

**Table 2. Scup commercial and recreational landings ('000 lbs), 1981-2009.**

<b>Year</b>	<b>Comm<sup>a</sup></b>	<b>Rec<sup>b</sup></b>	<b>Total</b>	<b>% Comm</b>	<b>% Rec</b>
<b>1981</b>	21,729	5,812	27,541	79%	21%
<b>1982</b>	19,188	5,205	24,393	79%	21%
<b>1983</b>	17,184	6,252	23,436	73%	27%
<b>1984</b>	17,129	2,416	19,545	88%	12%
<b>1985</b>	14,829	6,093	20,922	71%	29%
<b>1986</b>	15,816	11,605	27,421	58%	42%
<b>1987</b>	13,854	6,197	20,051	69%	31%
<b>1988</b>	13,105	4,267	17,372	75%	25%
<b>1989</b>	8,769	5,557	14,326	61%	39%
<b>1990</b>	10,084	4,140	14,224	71%	29%
<b>1991</b>	15,610	8,087	23,697	66%	34%
<b>1992</b>	13,798	4,412	18,210	76%	24%
<b>1993</b>	10,416	3,197	13,613	77%	23%
<b>1994</b>	9,376	2,628	12,004	78%	22%
<b>1995</b>	6,751	1,344	8,095	83%	17%
<b>1996</b>	6,433	2,156	8,589	75%	25%
<b>1997</b>	4,823	1,198	6,021	80%	20%
<b>1998</b>	4,180	875	5,055	83%	17%
<b>1999</b>	3,318	1,886	5,204	64%	36%
<b>2000</b>	2,660	5,443	8,103	33%	67%
<b>2001</b>	4,067	4,262	8,329	49%	51%
<b>2002</b>	7,282	3,624	10,906	67%	33%
<b>2003</b>	9,893	8,484	18,377	54%	46%
<b>2004</b>	9,319	4,239	13,558	69%	31%
<b>2005</b>	9,379	2,542	11,921	79%	21%
<b>2006</b>	8,961	2,954	11,915	75%	25%
<b>2007</b>	9,247	3,648	12,895	72%	28%
<b>2008</b>	5,184	4,044	9,228	56%	44%
<b>2009</b>	8,204	2,940	11,144	74%	26%
<b>Mean</b>	10,365	4,328	14,693	70%	30%

<sup>a</sup> Commercial landings based on Dealer Weighout Data, as of May 27, 2010.

<sup>b</sup> Recreational landings based on pers. comm. with the National Marine Fisheries Service, Fisheries Statistics Division, June 11, 2010.



## **Regulatory review**

Currently, the allocation of the annual commercial quota and recreational harvest limit is governed by the regulatory amendment approved by the Council and Commission in 1997. That amendment established a system that allocated an annual TAC to the commercial and recreational fisheries based on catch data for 1988 to 1992 (78% commercial; 22% recreational). Furthermore, it established a commercial quota system for scup that allocated the commercial TAC into three periods based on landings data for 1983-1992 (i.e. landings were used as a proxy for catch). These are Winter I (January-April; 45.11%), Summer (May-October; 38.95%), and Winter II (November-December; 15.94%).

## **Stock Assessment**

The most recent benchmark assessment on scup was peer-reviewed and accepted in December 2008 by the Data Poor Stock Working Group (DPSWG) Peer Review Panel. Documentation associated with this assessment and previous stock assessments, such as reports on stock status, including annual assessment and reference point update reports, Stock Assessment Workshop (SAW) reports, and Stock Assessment Review Committee (SARC) panelist reports, are available online at the NEFSC website: <http://www.nefsc.noaa.gov/saw/>.

## **Biological Reference Points**

The 2008 DPSWG Peer Review Panel biological reference points for scup include a fishing mortality threshold of  $F_{MSY} = F_{40\%}$  (as  $F_{MSY}$  proxy) = 0.177 and  $SSB_{MSY} = SSB_{40\%}$  (as  $SSB_{MSY}$  proxy) = 202.9 million lb (92,044 mt). The minimum stock size threshold, one-half  $SSB_{MSY}$ , is estimated to be 101.5 million lb (46,022 mt).

## **Stock Status**

Relative to the DPSWG biological reference points, the stock is not overfished and overfishing is not occurring. Fishing mortality varied between  $F = 0.1$  and  $F = 0.3$  during the 1960s and 1970s. Fishing mortality increased steadily during the 1980s and early 1990s, peaking at about  $F = 1.1$  in the mid-1990s. Fishing mortality decreased after 1994, falling to less than  $F = 0.1$  since 2004, with  $F$  in 2009 = 0.043 (Figure 1). There is a 50% chance that  $F$  in 2009 was between 0.033 and 0.058. Spawning stock biomass (SSB) decreased from about 220 million lb (100,000 mt) in 1963 to about 110 million lb (50,000 mt) in 1969, then increased to about 165 million lb (75,000 mt) during the mid 1970s. SSB declined through the 1980s and early 1990s to less than 11 million lb (5,000 mt) in the mid-1990s. With greatly improved recruitment and low fishing mortality rates since 1998, SSB has increased to about 346 million lb (157,000 mt) in 2008 and 342 million lb (155,000 mt) in 2009 (Figure 2). There is a 50% chance that SSB in 2009 was between 331 million lb (150,000 mt) and 357 million lb (162,000 mt). Recruitment at age 0 averaged 92 million fish during 1963-1983, the period in which recruitment estimates are influenced mainly by the assessment model stock-recruitment relationship. Since 1984, recruitment estimates from the model are influenced mainly by the fishery and survey catches at age, and recruitment at age 0 averaged 104 million fish during 1984-2009. The 1999 and 2000 year classes are estimated to be the largest of the time series, at 207 and 184 million age 0 fish. Recruitment has exceeded the 1984-2009 average of 104 million in 2001 and 2004-2009.

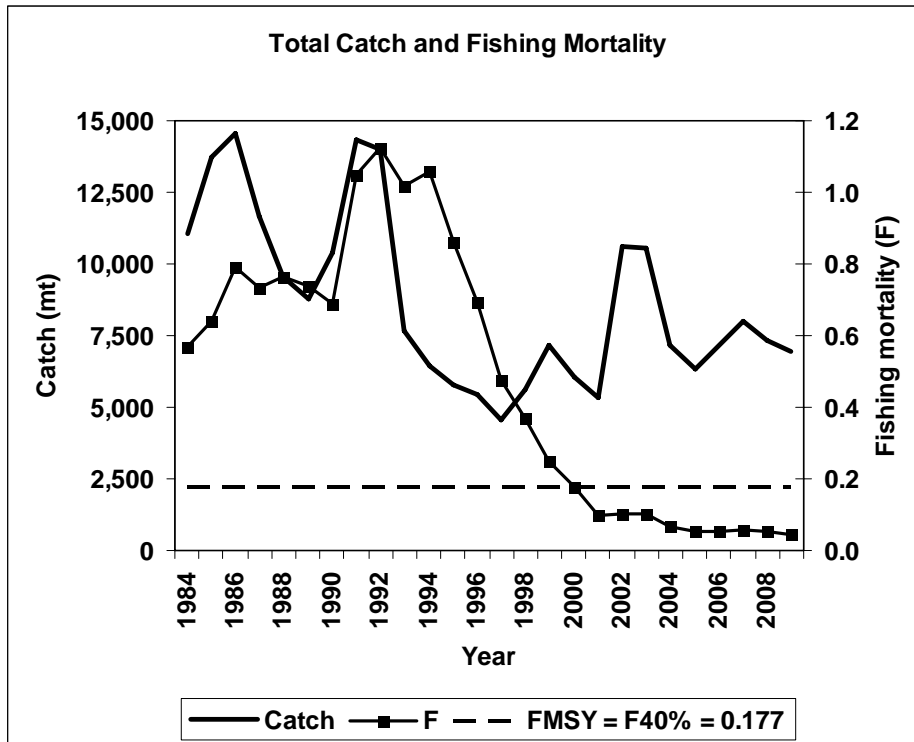


Figure 1. Total catch (landings and discards, metric tons) and fishing mortality rate (F, ages 2-7+) for scup.

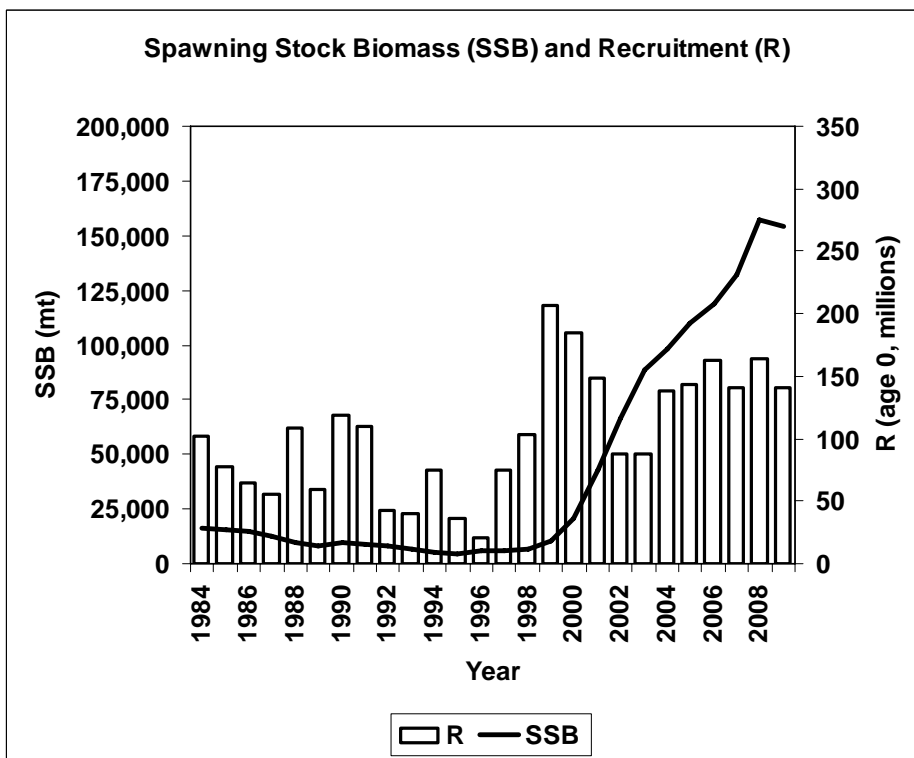


Figure 2. Spawning stock biomass (SSB, metric tons) and recruitment (age 0; millions) for scup.

## **Rebuilding Timeline**

The stock met the rebuilding requirements and is no longer subject to a rebuilding program.

## **Basis for 2011 ABC Recommendation**

Framework 5 to the Summer Flounder, Scup and Black Sea Bass FMP was approved in 2004. That framework allows for the establishment of multi-year TALs (i.e., TALs could be specified for up to 3 years). Although multi-year TALs can be specified through this FMP, the mechanism for setting ABCs, ACLs, and annual catch targets (ACTs) defined under the Omnibus ACL/AM Amendment will not be formally established in the FMP until 2011 (to be applied for 2012 specifications). Therefore it would not be appropriate to set multi-year specifications until after such action. Therefore, I recommend that the TAL be specified for one year, 2011.

The SSC is responsible for recommending an ABC which accounts for the level of scientific uncertainty inherent in the determination of the overfishing limit (OFL), as well as other relevant sources of scientific uncertainty. The SSC and Council are considering a four level ABC control rule framework through the Omnibus ACL/AM Amendment. The tools to quantify the multiple sources of scientific uncertainty for this stock and translate those to offsets in catch and landings have not yet been fully developed. The June 2010 assessment update produced by the Southern Demersal Working Group (SDWG) did not provide a distribution of the OFL, only a point estimate of OFL is available. An OFL distribution would not be available until the next benchmark stock assessment when the SDWG can develop the appropriate methodology, if supportable by the data, and those methods are peer-reviewed through the SAW/SARC process.

In June 2010, the SDWG updated the assessment for scup and produced three sets of projections applying the same models and methods previously reviewed; these were at the threshold fishing mortality rate ( $F=0.177$ ), 75% of  $F$ -threshold which equals  $F=0.133$ , and a TAL of 16.3 million lb (7,397 mt) which is based 20.8% increase above the 2010 TAL (the same percentage increase as from 2009 to 2010). The TAL was increased (as opposed to the TAC) to enable projection of discards at age by the model AGEPRO. The forecasts conducted incorporate uncertainty in 2011 stock sizes due to survey variability and recruitment variability (drawn from distribution of past recruitments), assume the 2010 TAL is harvested (but not exceeded), and assume current discard to landings proportions.

The OFL of 67.53 million lb (30,631 mt) is defined by the 50<sup>th</sup> percentile of catches at the fishing mortality threshold of  $F=0.177$ . It is clear that recommendations for ABC which would equal the OFL would not account for any scientific uncertainty associated with estimation of OFL and assessing the scup stock. Based on projections conducted by the Southern Demersal Working Group (SDWG), the projected catch level associated with a 25%, 50%, and 75% probability of achieving  $F=0.177$  and  $TAL=16.3$  million lb in 2011 are presented in Table 3.

**Table 3. Projected catch/landings (in million lb) and the probabilities of achieving F=0.133 in 2010 and TAL=16.3 million lb.**

<b>Probability of achieving F at that specific Catch/landings</b>	<b>2011 Catch/landings based on F=0.133</b>	<b>2011 Catch/landings based on TAL=16.31 mil lb</b>
25%	49.5/41.2	19.5/16.3
50%	51.7/42.9	19.7/16.3
75%	53.8/44.5	19.8/16.3

Last year, an ABC for 2010 of 17.09 million lb was recommended by the SSC. These catch levels were based on a 10% increase in TAC from the prior year (2009). This was consistent with the statements from the 2008 DPSWG Peer Review Panel which recommended that “...rapid increases in quota to meet the revised MSY would be unwarranted given uncertainties in recruitments. A more gradual increase in quotas is a preferred approach reflective of the uncertainty in the model estimates and stock status.” There is no consistent internal (within the 2010 assessment model) retrospective pattern in F, SSB, or recruitment evident in the scup assessment model. However, between-assessment comparison provides another measure of assessment uncertainty due to “historical” changes in model estimates. The between assessment comparison has resulted in substantial changes to estimates of SSB and recruitment with each assessment update.

Therefore, I recommend an ABC of 19.66 million lb, which is based 20.8% increase above the 2010 TAL (the same percentage increase as from 2009 to 2010).

**Basis for TAC/TAL Recommendation**

The Scup Monitoring Committee should consider how to address management uncertainty when developing their recommendation to the Council for a TAC/TAL, as the SSC does not consider management uncertainty as part of the recommendation for the ABC. I recommend the Monitoring Committee considers overall fishery performance for 2011 when developing their recommendation, as the FMP does not presently allow for recreational and commercial management uncertainty to be considered independently.

**Possession Limits**

In 2005, the Council and Commission recommended possession limit changes during the Winter II periods only. They recommended a possession limit of 2,000 lb (in the Winter II fishery). In addition, if transfer of quota occurs between Winter I and Winter II, then the Winter II possession limit should increase at 1,500 lb intervals for every 500,000 lb of scup transferred, i.e., if a million lb is transferred then the limit would be increased by 3,000 lb to result in a 5,000 lb possession limit. The Winter I landings limit will remain unchanged, i.e., 30,000 lb possession limit (state landings limit for a 2 week period) until 80% of the landings are reached and then the possession limit would drop to 1,000 lb. A review of 2009 and 2010 dealer data indicates that the possession limits should not be changed for 2011

(Table 4).

The possession limits were chosen as an appropriate balance between the economic concerns of the industry (i.e., landing enough scup to make the trip economically viable) and the need to ensure the equitable distribution of the quota over the period. Landings and quotas by period are given in Table 5. The average price per pound by fishing period is given in Table 6. A price-volume relationship for scup was described in Amendment 14 to the FMP. The increase in commercial supply in 2009 in response to less restrictive quotas may have driven the 2009 decrease in price. As such, managers should consider the potential impacts of changes in volume on price in the commercial fishery.

**Table 4. The total number of vessels, trips, and associated pounds for a given threshold (pounds) of scup, based on 2009 and 2010 dealer data.**

<b>Time Period</b>	<b>Threshold</b>	<b>Vessels</b>	<b>%</b>	<b>Trips</b>	<b>%</b>	<b>Pounds</b>	<b>%</b>
	>=1	192	100%	3,294	100%	3,774,583	100%
<b>2009</b>	>=500	123	64%	1,218	37%	3,502,077	93%
<b>Winter</b>	>=5000	61	32%	194	6%	1,809,959	48%
<b>I</b>	>=10000	30	16%	65	2%	898,279	24%
<b>(Jan-Apr)</b>	>=15000	11	6%	15	0%	296,060	8%
	>=20000	5	3%	5	0%	116,795	3%
	>=25000	c*	c	c	c	c	c
	>=30000	0	0%	0	0%	0	0%
<b>Time Period</b>	<b>Threshold</b>	<b>Vessels</b>	<b>%</b>	<b>Trips</b>	<b>%</b>	<b>Pounds</b>	<b>%</b>
	>=1	164	100%	3,219	100%	1,356,961	100%
<b>2009</b>	>=500	96	59%	998	31%	1,075,018	79%
<b>Winter</b>	>=5000	c	c	c	c	c	c
<b>II</b>	>=10000	0	0%	0	0%	0	0%
<b>(Nov-Dec)</b>	>=15000	0	0%	0	0%	0	0%
	>=20000	0	0%	0	0%	0	0%
	>=25000	0	0%	0	0%	0	0%
	>=30000	0	0%	0	0%	0	0%
<b>Time Period</b>	<b>Threshold</b>	<b>Vessels</b>	<b>%</b>	<b>Trips</b>	<b>%</b>	<b>Pounds</b>	<b>%</b>
	>=1	205	100%	3,671	100%	4,735,785	100%
<b>2010</b>	>=500	123	60%	1,531	42%	4,480,360	95%
<b>Winter</b>	>=5000	65	32%	244	7%	2,104,643	44%
<b>I</b>	>=10000	35	17%	64	2%	857,147	18%
<b>(Jan-Apr)</b>	>=15000	16	8%	16	0%	282,473	6%
	>=20000	c	c	c	c	c	c
	>=25000	c	c	c	c	c	c
	>=30000	0	0%	0	0%	0	0%

c\*= confidential Source: Dealer Weighout Data, as of May 27, 2010.

**Table 5. Scup quotas and landings, 2004-2010.**

Year	Period	Commercial Quota <sup>a</sup>	Trip Limits	Landings (lbs)	Date Closed	% of Quota Landed
2004	Winter I	5,568,920	30,000/1,000 <sup>b</sup>	3,648,001	--	65.5
	Summer	4,808,455	--	4,062,145	--	84.5
	Winter II	1,967,825	1,500	1,618,146	--	82.2
2005	Winter I	5,518,367	30,000/1,000 <sup>b</sup>	3,684,679	--	66.8
	Summer	4,764,806	--	4,265,667	--	89.5
	Winter II	1,949,962	1,500	1,454,988	--	74.6
2006	Winter I	3,554,991	30,000/1,000 <sup>b</sup>	3,626,237	--	102.0
	Summer	4,647,569	--	3,219,929	--	69.3
	Winter II	3,729,581	2,000/1,000 <sup>b</sup>	2,115,323	--	56.7
2007	Winter I	4,012,895	30,000/1,000 <sup>b</sup>	3,400,934	--	84.8
	Summer	3,464,914	--	4,254,987	9/21	122.8
	Winter II	1,417,991	2,000/1,000 <sup>b</sup>	1,590,747	--	112.2
2008	Winter I	2,291,699	30,000/1,000 <sup>b</sup>	2,356,716	--	102.8
	Summer	1,437,558	--	1,935,074	6/16	134.6
	Winter II	940,948	2,000/1,000 <sup>b</sup>	892,318	--	94.8
2009	Winter I	3,777,443	30,000/1,000 <sup>b</sup>	3,774,583	--	99.9
	Summer	2,930,733	--	3,072,340	--	104.8
	Winter II	1,334,791	2,000/1,000 <sup>b</sup>	1,356,961	--	101.7
2010	Winter I	4,964,716	30,000/1,000 <sup>b</sup>	4,735,785	--	95.4
	Summer	4,286,759	--	1,275,120 <sup>c</sup>	--	--
	Winter II	1,754,325	2,000/1,000 <sup>b</sup>	--	--	--

<sup>a</sup> Commercial quotas published on various dates in the Federal Register. <sup>b</sup> Trip limit drops once 80% of the quota is reached. <sup>c</sup> NMFS Weekly Quota Report for week ending June 19, 2010. Source: Dealer Weighout Data, as of May 27, 2010.

**Table 6. Commercial scup landings and ex-vessel value by year and period.**

<u>Year</u>	<u>Period</u>	<u>Landings</u> <u>(lbs)</u>	<u>Nominal</u> <u>Value (\$)</u>	<u>Nominal</u> <u>Price</u> <u>Mean (\$/lb)</u>
<b>2003</b>	<b>Winter I</b>	3,737,530	1,874,185	0.50
	<b>Summer</b>	4,456,763	3,231,776	0.73
	<b>Winter II</b>	1,698,323	818,012	0.48
	<b>Total</b>	9,892,616	5,923,973	0.60
<b>2004</b>	<b>Winter I</b>	3,648,001	1,951,029	0.53
	<b>Summer</b>	4,062,145	2,993,811	0.74
	<b>Winter II</b>	1,618,146	984,257	0.61
	<b>Total</b>	9,328,292	5,929,097	0.64
<b>2005</b>	<b>Winter I</b>	3,684,679	2,120,435	0.58
	<b>Summer</b>	4,265,667	3,778,161	0.89
	<b>Winter II</b>	1,454,988	1,077,917	0.74
	<b>Total</b>	9,405,334	6,976,513	0.74
<b>2006</b>	<b>Winter I</b>	3,626,237	2,865,278	0.79
	<b>Summer</b>	3,219,929	3,772,519	1.17
	<b>Winter II</b>	2,115,323	1,250,199	0.59
	<b>Total</b>	8,961,489	7,887,996	0.88
<b>2007</b>	<b>Winter I</b>	3,400,934	3,096,496	0.91
	<b>Summer</b>	4,254,987	2,427,949	0.57
	<b>Winter II</b>	1,590,747	1,164,801	0.73
	<b>Total</b>	9,246,668	6,689,246	0.72
<b>2008</b>	<b>Winter I</b>	2,356,716	2,255,812	0.96
	<b>Summer</b>	1,935,074	2,795,526	1.44
	<b>Winter II</b>	892,318	734,129	0.82
	<b>Total</b>	5,184,108	5,785,467	1.12
<b>2009</b>	<b>Winter I</b>	3,774,583	2,504,951	0.66
	<b>Summer</b>	3,072,340	2,869,310	0.93
	<b>Winter II</b>	1,356,961	884,833	0.65
	<b>Total</b>	8,203,884	6,259,094	0.76

Source: Dealer Weighout Data, as of May 27, 2010.

## **Minimum Fish and Mesh Size - Commercial Fishery**

Amendment 8 to the Summer Flounder, Scup, and Black Sea Bass FMP contains provisions that allow for changes in the minimum fish size and minimum net mesh. Current commercial regulations for scup require a 9 inch-TL minimum fish size in the commercial fishery and the following gear requirements for otter trawls: minimum mesh size of 5 inch for the first 75 meshes from the terminus of the net and for codends constructed with fewer than 75 meshes, a minimum mesh size of 5 inch throughout the net. The threshold level used to trigger the minimum mesh requirements is 500 lbs of scup from November 1 through April 30 and 200 lb or more of scup from May 1 through October 31. In 2005, the Scup Monitoring Committee reviewed information on discards and did not recommend changes to the regulations. The 2009 estimate in discards is lower than 2008, but remains substantially lower than the large discard event in 2002 which occurred prior to the implementation of the current regulations. Therefore, I do not recommend a change in the gear requirements for otter trawls.

Industry members have argued that the minimum fish size should be reduced to 8 inch-TL. I am concerned that a drop in the minimum fish size would reduce yields and spawning potential if fishermen target smaller fish. In 2005, I provided a supplemental memo that reviewed the available information on scup maturity, mesh selectivity, and discards. This information was reviewed and the monitoring committee did not recommend any changes based on this information. As such, I recommend no changes to the minimum fish size and net mesh requirements.

## **Regulated Mesh Areas and Gear Modifications**

Gear restricted areas (GRA) were implemented by NMFS in 2000 to reduce discards of scup in small mesh fisheries. GRAs became effective on November 1, 2000 for the northern area with an exemption for herring fishery. The GRAs were modified in size in late December, 2000 to include areas farther south that were identified as areas of potential scup and *Loligo* interactions. Mackerel and herring small mesh fisheries were exempt from the regulations. Based on recommendations from the Monitoring Committee, the boundary of the southern GRA was moved 3 longitudinal minutes to the west in 2005. No modifications were made to the GRAs in 2006 through 2010. I recommend no changes in the GRAs for 2011.

## **Escape vents**

Current regulations require a circular escape vent of 3.1 inch, a square escape vent of 2.25 inch, or a rectangular escape vent of an equivalent size. Recent studies on escape vents in scup pots suggest that the current vent sizes may be too small. A Council and Commission sponsored workshop which reviewed several vent size studies did not make any recommendations for changes in vent size as they relate to scup. Therefore, I recommend no changes to escape vent size requirements in scup pots for 2011.

## **Research Set-Aside**

I recommend up to 3% of the TAL be made available for the Research Set Aside Program. These collaborative efforts among the public, research institutions, and government are beneficial in broadening the scientific base upon which management decisions are made.



## **Recreational Management Measures**

Specific management measures that will be used to achieve the harvest limit for the recreational fishery in 2011 will not be determined until after the first four waves of 2010 recreational landings are reviewed. These data will be available in early October, 2011. The Monitoring Committee will meet in November, 2010 to review these landings data and make recommendations regarding changes in the recreational possession limit, minimum size, or season.

## **Summary of Staff Recommendation for 2011**

In summary, I recommend:

- 1) The ABC be specified for one year, 2011.
- 2) An ABC of 19.66 million lb, which is based 20.8% increase above the 2010 TAL (the same percentage increase as from 2009 to 2010).
- 3) The Monitoring Committee considers overall fishery performance for 2011 when developing their recommendation for a TAC/TAL (and associated commercial quotas and recreational harvest limits), as the FMP does not presently allow for recreational and commercial management uncertainty to be considered independently.
- 4) No change to current possession limits. (Winter I: 30,000 lb/1,000 lb at 80% quota; Winter II: 2,000 lbs/1,000 lbs at 80% quota, unless trip limits increased by Winter I rollovers)
- 5) No change to current minimum fish size and net mesh requirements. (9 inch-TL; 5 inch mesh at trigger)
- 6) No change to current GRAs.
- 7) No change to escape vent requirements in scup pots.
- 8) Up to 3% of the TAL be made available to the Research Set Aside Program.

**June 22, 2010**

**Scup Assessment Summary for 2010**

**Stock Assessment Workshop (SAW)  
Southern Demersal Working Group (SDWG)**

**National Marine Fisheries Service (NMFS)  
Northeast Fisheries Science Center (NEFSC)  
166 Water Street  
Woods Hole, MA 02543**

## SCUP ASSESSMENT SUMMARY FOR 2010

**State of Stock:** The scup stock is not overfished and overfishing is not occurring relative to the biological reference points recommended by the 2008 Northeast Data Poor Stocks Working Group (DPSWG) Peer Review Panel (NEFSC 2009a; Figure 1). Fishing mortality varied between  $F = 0.1$  and  $F = 0.3$  during the 1960s and 1970s. Fishing mortality increased during the 1980s and early 1990s, peaking at about  $F = 1.1$  in the mid-1990s. Fishing mortality decreased after 1994, falling to less than  $F = 0.1$  since 2004, with  $F$  in 2009 = 0.043 (Figure 2). There is a 50% chance that  $F$  in 2009 was between 0.033 and 0.058. Spawning stock biomass (SSB) decreased from about 100,000 mt in 1963 to about 50,000 mt in 1969, then increased to about 75,000 mt during the late 1970s. SSB declined through the 1980s and early 1990s to less than 5,000 mt in the mid-1990s. With greatly improved recruitment and low fishing mortality rates since 1998, SSB has increased to about 157,000 mt in 2008 and 155,000 mt in 2009 (Figure 3). There is a 50% chance that SSB in 2009 was between 150,000 and 162,000 mt. Recruitment at age 0 averaged 92 million fish during 1963-1983, the period in which recruitment estimates are influenced mainly by the assessment model stock-recruitment relationship. Since 1984, recruitment estimates from the model are influenced mainly by the fishery and survey catches at age, and recruitment at age 0 averaged 104 million fish during 1984-2009. The 1999 and 2000 year classes are estimated to be the largest of the time series, at 207 and 184 million age 0 fish (Figures 3-4). Recruitment has exceeded the 1984-2009 average of 104 million in 2001 and 2004-2009. There is no consistent internal (within the 2010 assessment model) retrospective pattern in  $F$ , SSB, or recruitment evident in the scup assessment model (Figures 5-7). A between-assessment comparison provides another measure of assessment uncertainty due to “historical” changes in model estimates. The 2010 assessment estimates of SSB and  $F$  are intermediate with respect to the 2008 DPSWG assessment and 2009 update for the same years, while the size of the 2007 year class was overestimated in the DPSWG 2008 assessment compared to the 2010 assessment (Figures 8-10).

**Projections for 2010-2011:** The projected recruitment was drawn from distribution of 1984-2009 ASAP SCAA estimates. If the landings in 2010 are 6,123 mt (13.5 million lbs; the 2010 TAL) and the discards are 1,422 mt (3.1 million lbs), the projections estimate  $F$  in 2010 = 0.043 and SSB in 2010 = 180,000 mt, above the biomass target of  $SSB_{MSY} = SSB_{40\%} = 92,044$  mt.

Fishing at a 2011 TAL = 7,397 mt = 16.3 million lbs, a 20.8% increase above the 2010 TAL (the same percentage increase as from 2009 to 2010), results in median  $F$  in 2011 = 0.049, with SSB projected to remain above the biomass target of  $SSB_{MSY} = SSB_{40\%} = 92,044$  mt.

Landings, Discards, and Spawning Stock Biomass (SSB) in metric tons

	<b>2011</b>		
<b>2011 TAL = 7,397 mt</b>	<b>F</b>	<b>Discards</b>	<b>SSB</b>
25%ile	0.047	1,452	184,000
50%ile	0.049	1,523	192,000
75%ile	0.051	1,599	199,000

Fishing at  $F_{\text{threshold}} = F_{40\%} = 0.177$  in 2011 is projected to maintain the stock above the biomass target of  $SSB_{MSY} = SSB_{40\%} = 92,044$  mt. The projections indicate that fishing at  $F_{\text{threshold}} = 0.177$  in 2011 could provide landings that exceed MSY (13,134 mt of landings [28,956 million lbs]; 3,027 mt of discards [6.673 million lbs]; 16,161 mt of total catch [35.6 million lbs]).

Landings, Discards, and Spawning Stock Biomass (SSB) in metric tons

<b>2011</b>			
<b><math>F_{\text{threshold}} = 0.177</math></b>	Landings	Discards	SSB
25%ile	24,390	4,934	176,000
50%ile	25,424	5,207	183,000
75%ile	26,349	5,518	189,000

Fishing at 75% of  $F_{\text{threshold}} = 0.75 * F_{40\%} = 0.133$  in 2011 is projected to maintain the stock above the biomass target of  $SSB_{MSY} = SSB_{40\%} = 92,044$ . The projections indicate that fishing at 75% of  $F_{\text{threshold}} = 0.133$  in 2011 could provide landings that exceed MSY (13,134 mt of landings [28.96 million lbs]; 3,027 mt of discards [6.67 million lbs]; 16,161 mt of total catch [35.629 million lbs]).

Landings, Discards, and Spawning Stock Biomass (SSB) in metric tons

<b>2011</b>			
<b><math>0.75 * F_{\text{threshold}} = 0.133</math></b>	Landings	Discards	SSB
25%ile	18,675	3,775	179,000
50%ile	19,466	3,985	186,000
75%ile	20,174	4,224	192,000

**Catch and Status Table (weights in 000s mt, recruitment in millions, arithmetic means)**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Max <sup>1</sup>	Min <sup>1</sup>	Mean <sup>1</sup>
Commercial landings	1.2	1.7	3.2	4.4	4.2	4.3	4.1	4.2	2.4	3.7	9.9	1.2	4.7
Commercial discards	2.4	1.5	5.6	2.2	0.9	0.7	1.4	1.9	2.9	1.7	5.7	0.7	2.5
Recreational landings	2.5	1.9	1.6	3.8	1.9	1.2	1.3	1.7	1.8	1.3	5.3	0.4	2.0
Recreational discards	<0.1	0.2	0.1	0.2	0.1	0.2	0.4	0.3	0.3	0.2	0.4	<0.1	0.1
Catch used in assessment	6.1	5.3	10.6	10.6	7.2	6.3	7.2	8.0	7.4	6.9	14.5	4.6	9.0
Commercial quota	1.1	2.0	3.6	5.7	5.7	5.7	5.5	4.2	2.5	3.8	5.7	1.1	3.5
Recreational harvest limit	0.6	0.8	1.3	1.8	1.8	1.8	1.9	1.3	0.9	1.2	1.9	0.6	2.6
Spawning stock biomass <sup>2</sup>	21	43	67	88	98	110	119	132	157	155	157	4	44
Recruitment (age 0)	184	149	88	88	138	144	163	141	164	140	207	21	104
F (ages 2-7+)	0.18	0.10	0.10	0.10	0.07	0.05	0.06	0.06	0.05	0.04	1.12	0.04	0.49

1: Over the period 1981-2009 for catch; 1984-2009 for SSB, R, and F

2: On June 1 annually

**Stock Distribution and Identification:** The Mid-Atlantic Fishery Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASMFC) Fishery Management Plan defines the management unit as all scup from Cape Hatteras, North Carolina northeast to the US-Canada border (MAFMC 1999).

**Catch:** The principal gear used in commercial fishing for scup is the otter trawl. After peaking at 22,200 mt in 1960, commercial landings markedly decreased during the 1960s, and then ranged between about 5,000 and 10,000 mt until the late 1980s. Commercial landings averaged 4,500 mt annually during 1988-1997. Commercial fishery quotas were implemented in 1997, and landings then ranged between 1,200 mt and 4,400 mt during 1998-2008; landings were about 3,700 mt in 2009. The recreational rod-and-reel fishery for scup harvests a significant proportion of the total catch. After peaking at 5,300 mt in 1986, recreational landings averaged 1,700 mt annually during 1988-1997. Recreational fishery harvest limits were implemented in 1997, and landings then ranged between 400 mt and 3,800 mt during 1998-2008; landings were about 1,300 mt in 2009. Commercial fishery discard losses are an important part of the total fishery removals from the stock, often at about the same magnitude as the commercial landings.

**Data and Assessment:** The assessment model for scup changed in 2008 from a simple index-based model to a complex statistical catch at age model (ASAP SCAA; NFT 2008a) incorporating a broad range of fishery and survey data (NEFSC 2009b). Biological reference points were therefore also revised. The fishery catch is now modeled as four fleets: commercial landings, recreational landings, commercial discards and recreational discards. Indices of stock abundance from NEFSC winter, spring, and autumn, Massachusetts spring and autumn, Rhode Island spring and autumn, URI, Connecticut spring and autumn, New York, New Jersey, Chesapeake Bay and VIMS trawl surveys were used in the model calibration. There is no consistent retrospective pattern in  $F$ ,  $SSB$ , or recruitment evident in the scup assessment model (Figures 5-7). The 2010 assessment estimates of  $SSB$  and  $F$  are intermediate with respect to the 2008 DPSWG assessment and 2009 update for the same years, while the size of the 2007 year class was overestimated in the DPSWG 2008 assessment compared to the 2010 assessment (Figures 8-10).

The NEAMAP survey and RI Industry Cooperative trap survey data were also considered by the DPSWG and SDWG as indicators of trends in abundance, but have not yet been used in the assessment model calibration. Both series will be considered as candidate calibration indices in the next benchmark assessment.

**Biological Reference Points (BRP):** The 2008 DPSWG Peer Review Panel (NEFSC 2009a) recommended that  $F_{40\%}$  be used as the threshold fishing mortality reference point and spawning stock biomass at  $F_{40\%}$  ( $SSB_{40\%}$ ) be used as the target stock biomass reference point. The recommended reference points are  $FMSY = F_{40\%} = 0.177$  and  $SSBMSY = SSB_{40\%} = 92,044 \text{ mt} = 202.923 \text{ million lbs}$  (Figure 1). The stock biomass threshold of  $\frac{1}{2} SSBMSY = \frac{1}{2} SSB_{40\%} = 46,022 \text{ mt} = 101.461 \text{ million lbs}$ .  $MSY$  at  $FMSY = F_{40\%} = 0.177$  is estimated to be a total catch of 16,161 mt (35.629 million lbs), of which 13,134 mt (28.956 million lbs) are landings and 3,027 mt (6.673

million lbs) are discards. The biological reference points for scup were calculated using yield and SSB per recruit and projection models in the NOAA NFT framework (NFT 2008b, 2008c).

**Fishing Mortality:** Fishing mortality calculated from the average of the currently fully recruited ages (2-7+) varied between  $F = 0.1$  and  $F = 0.3$  during the 1960s and 1970s. Fishing mortality increased during the 1980s and early 1990s, peaking at about  $F = 1.1$  in the mid-1990s. Fishing mortality decreased after 1994, falling to less than  $F = 0.1$  since 2004, with  $F$  in 2009 = 0.043 (Figure 2). There is a 50% chance that  $F$  in 2009 was between 0.033 and 0.058.

**Spawning Stock Biomass:** Spawning stock biomass (SSB) decreased from about 100,000 mt in 1963 to about 50,000 mt in 1969, then increased to about 75,000 mt during the late 1970s. SSB declined through the 1980s and early 1990s to less than 5,000 mt in the mid-1990s. With greatly improved recruitment and low fishing mortality rates since 1998, SSB has increased to about 157,000 mt in 2008 and 155,000 mt in 2009 (Figure 3). There is a 50% chance that SSB in 2009 was between 150,000 and 162,000 mt.

**Recruitment:** Recruitment at age 0 averaged 92 million fish during 1963-1983, the period in which recruitment estimates are influenced mainly by the assessment model stock-recruitment relationship. Since 1984, recruitment estimates from the model are influenced mainly by the fishery and survey catches at age, and averaged 104 million fish during 1984-2009. The 1999 and 2000 year classes are estimated to be the largest of the time series, at 207 and 184 million age 0 fish (Figures 3-4). Recruitment has exceeded the 1984-2009 average of 104 million in 2001 and 2004-2009.

**Special Comment:** The 2008 DPSWG Peer Review Panel (NEFSC 2009a) recommended that "...rapid increases in quota to meet the revised MSY would be unwarranted given uncertainties in recruitments. A more gradual increase in quotas is a preferred approach reflective of the uncertainty in the model estimates and stock status."

## Sources of Information

Mid-Atlantic Fishery Management Council. (MAFMC). 1999. Amendment 12 to the scup, scup, and black sea bass fishery management plan. Dover, DE. 398 p + appendix.

Northeast Fisheries Science Center (NEFSC) 2009a. Report by the Peer Review Panel for the Northeast Data Poor Stocks Working Group, 20 January 2009. 34 p.

Northeast Fisheries Science Center (NEFSC) 2009b. The Northeast Data Poor Stocks Working Group Report, December 8-12, 2008 Meeting. Part A. Skate species complex, Deep sea red crab, Atlantic wolfish, Scup, and Black sea bass. US Dept Commerce, Northeast Fish Sci Cent Ref Doc. 09-02; 496 p.

NOAA Fisheries Toolbox (NFT) 2008a. Age Structured Assessment Program (ASAP), version 2.0.16. [Internet address: <http://nft.nefsc.noaa.gov> ].

NOAA Fisheries Toolbox (NFT). 2008b. Yield per recruit (YPR) , version 2.7.2. (Internet address: <http://nft.nefsc.noaa.gov>).

NOAA Fisheries Toolbox (NFT) 2008c. Age Structured Projection Model (AGEPRO), version 3.1.3. [Internet address: <http://nft.nefsc.noaa.gov> ].

Terceiro, M. 2009. Stock assessment of scup for 2009. US Dept of Commerce, NEFSC Ref Doc 09-18, 82 p.

Figure 1. Spawning stock biomass (SSB; 000s metric tons), fishing mortality (ages 2-7+) and 2008 DPSWG Peer Review Panel recommended biological reference points for scup.

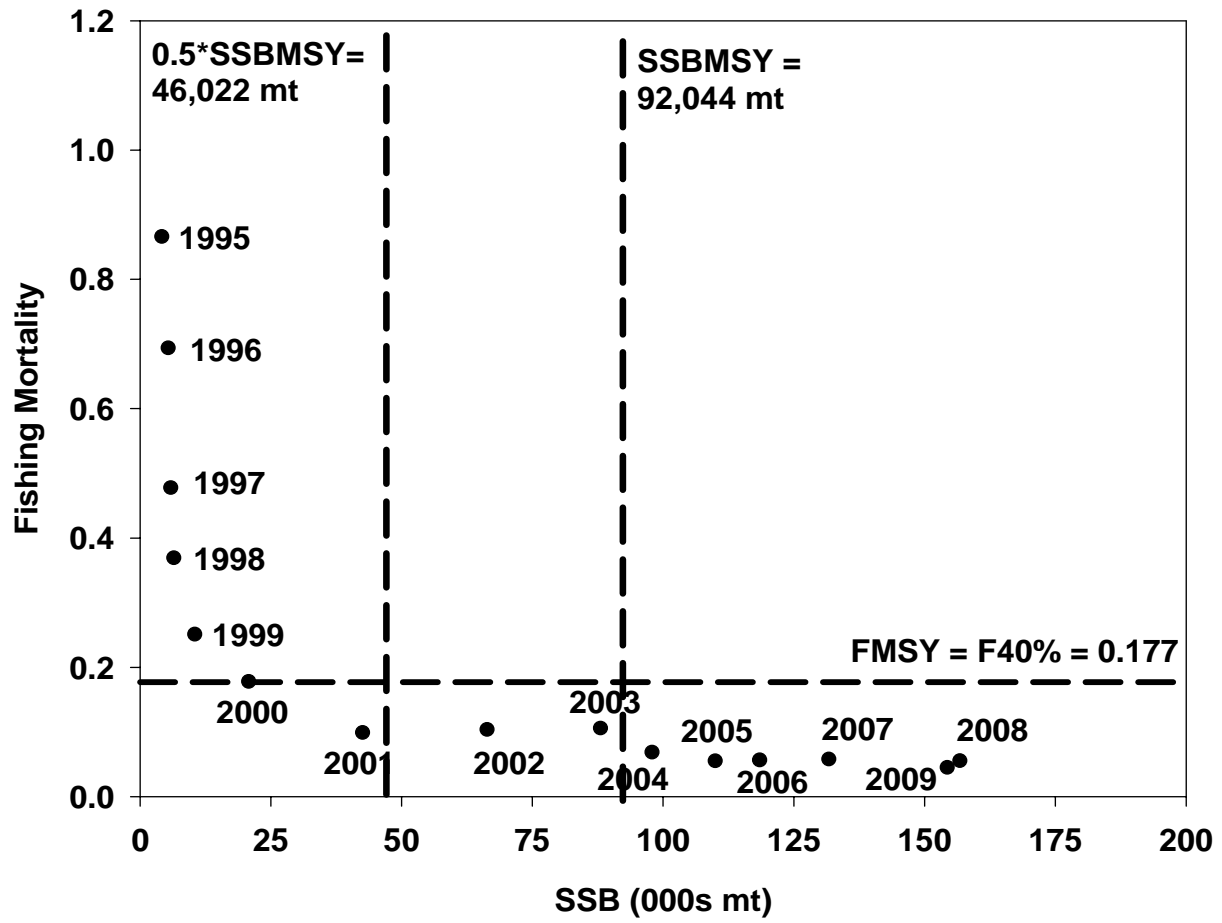




Figure 2. Total catch (landings and discards, metric tons) and fishing mortality rate (F, ages 2-7+) for scup.

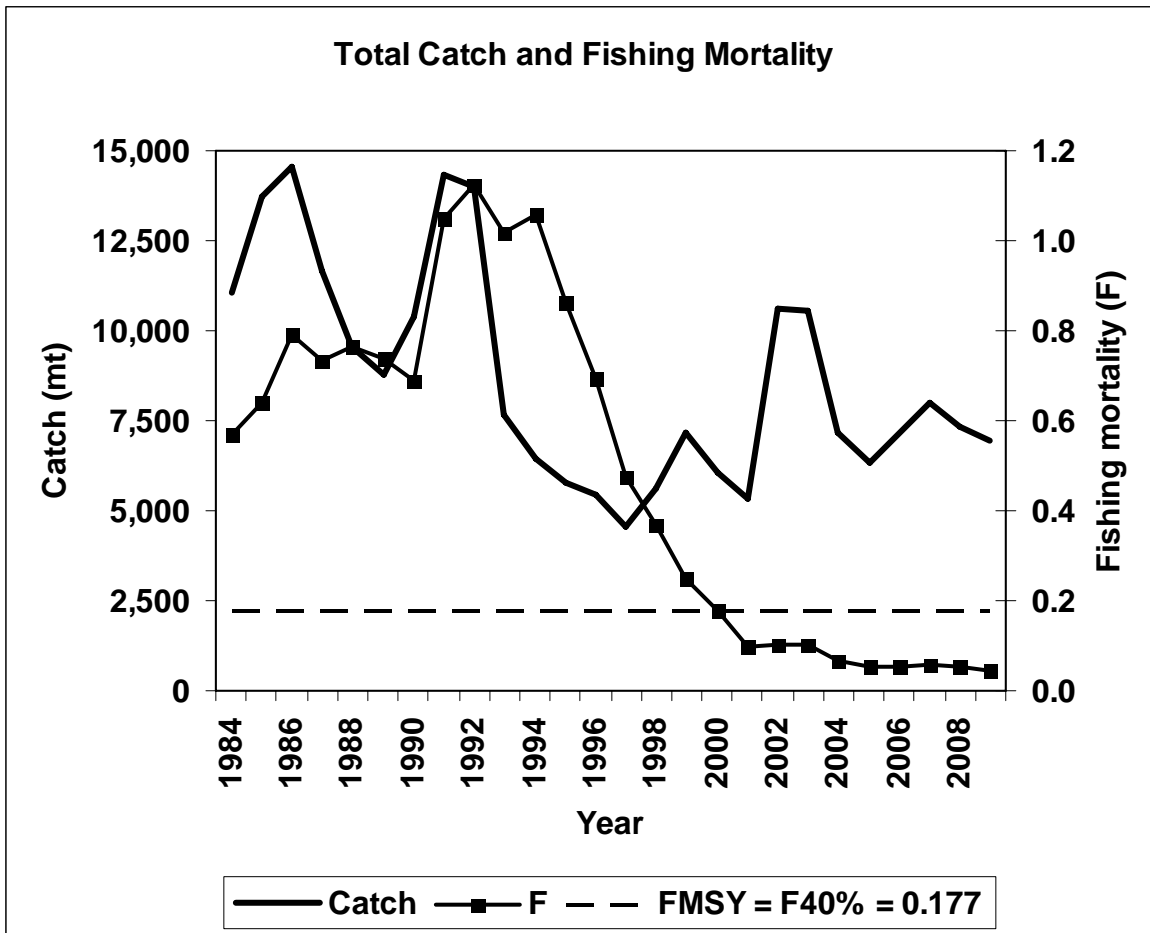


Figure 3. Spawning stock biomass (SSB, metric tons) and recruitment (R, age 0, millions) for scup.

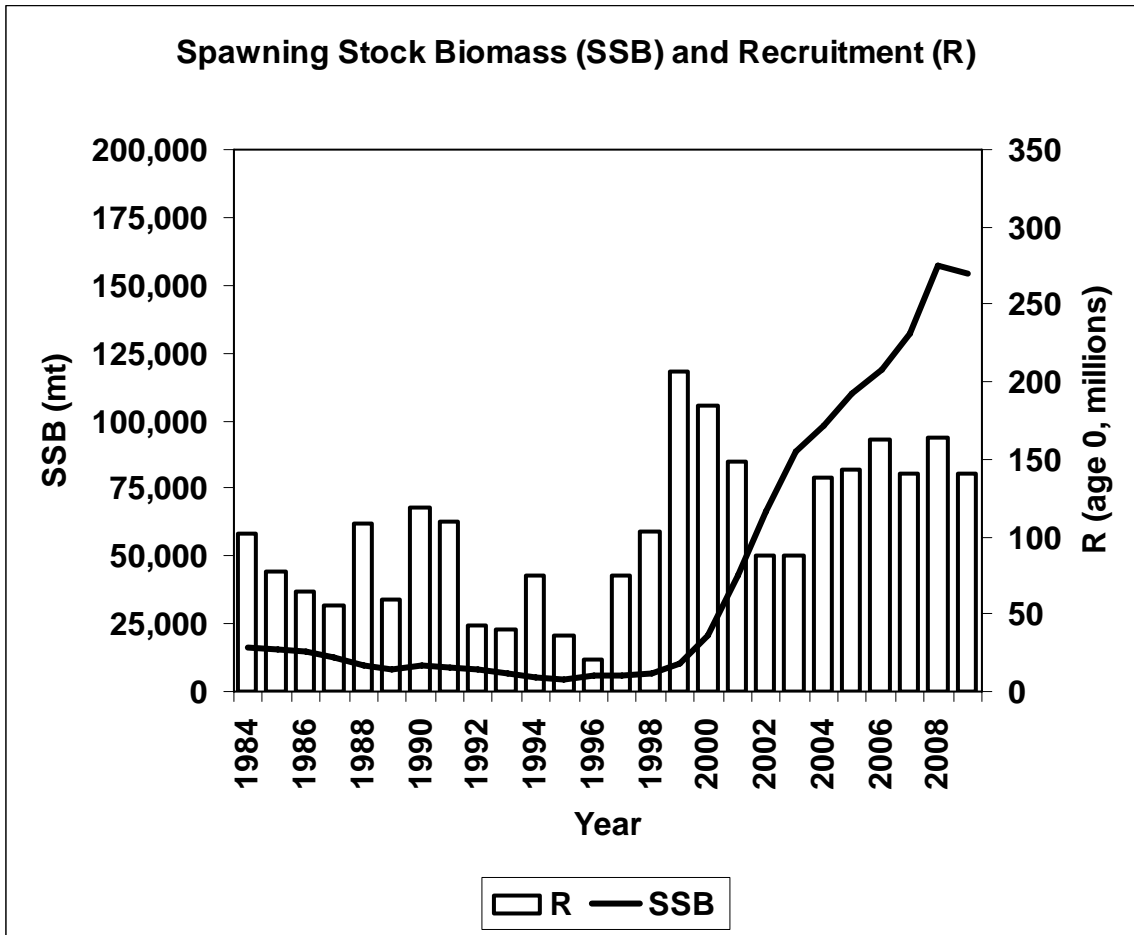


Figure 4. Spawning stock biomass (SSB, metric tons) and recruitment (R, age 0, millions) scatterplot for scup.

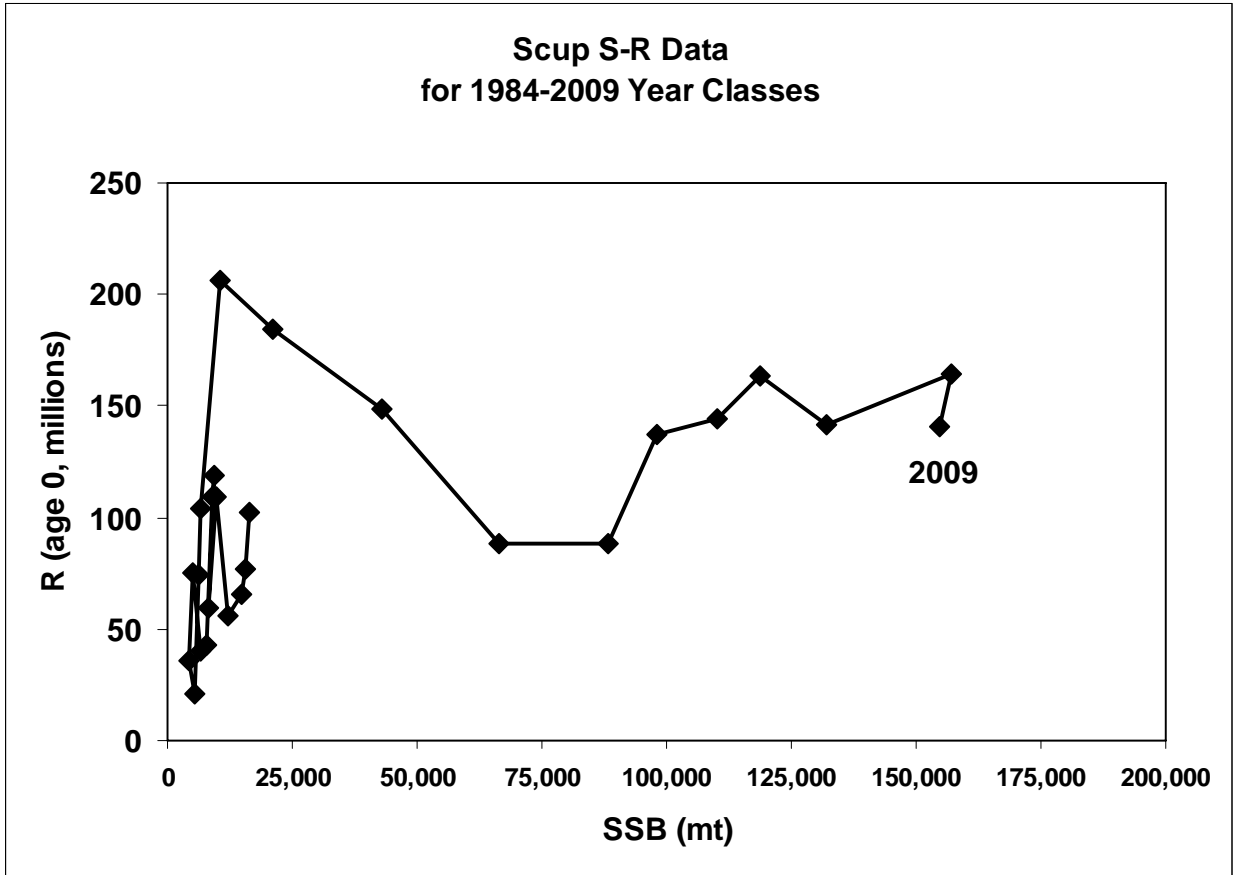


Figure 5. Retrospective analysis of Fishing Mortality for scup. Note that model ages 3-8 are true ages 2-7+.

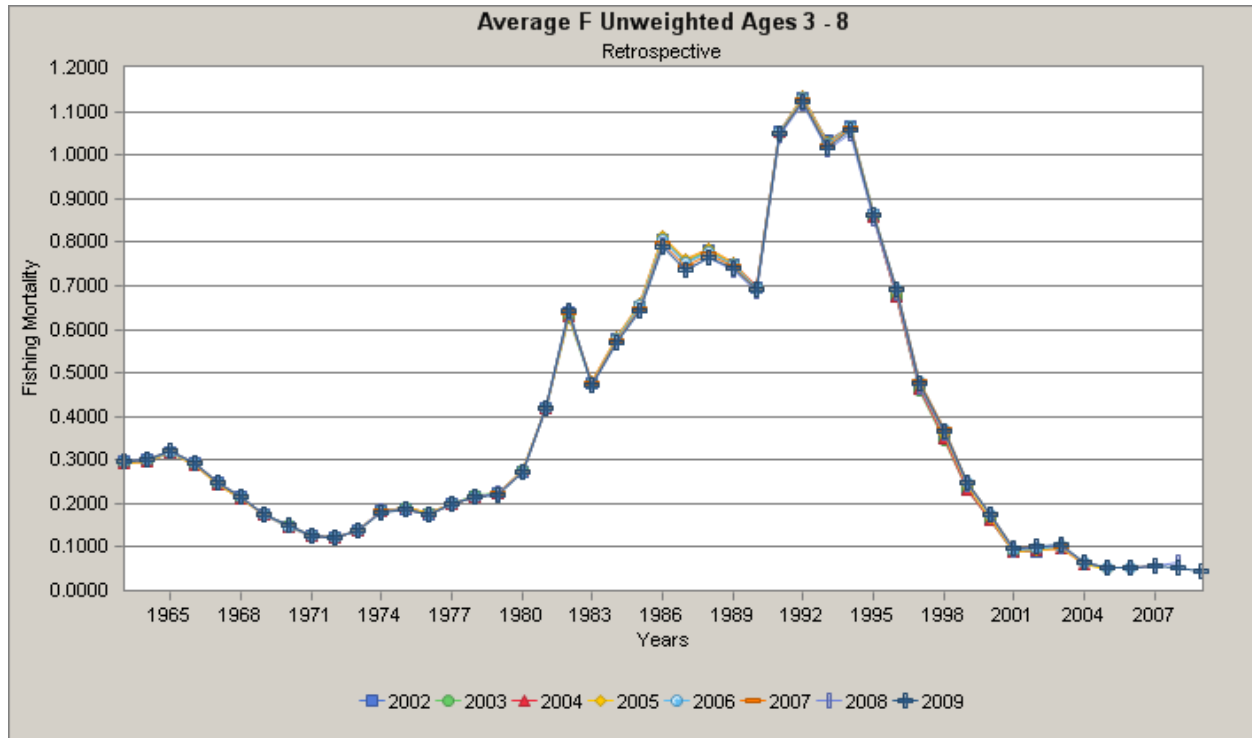


Figure 6. Retrospective analysis of Spawning Stock Biomass (metric tons) for scup.

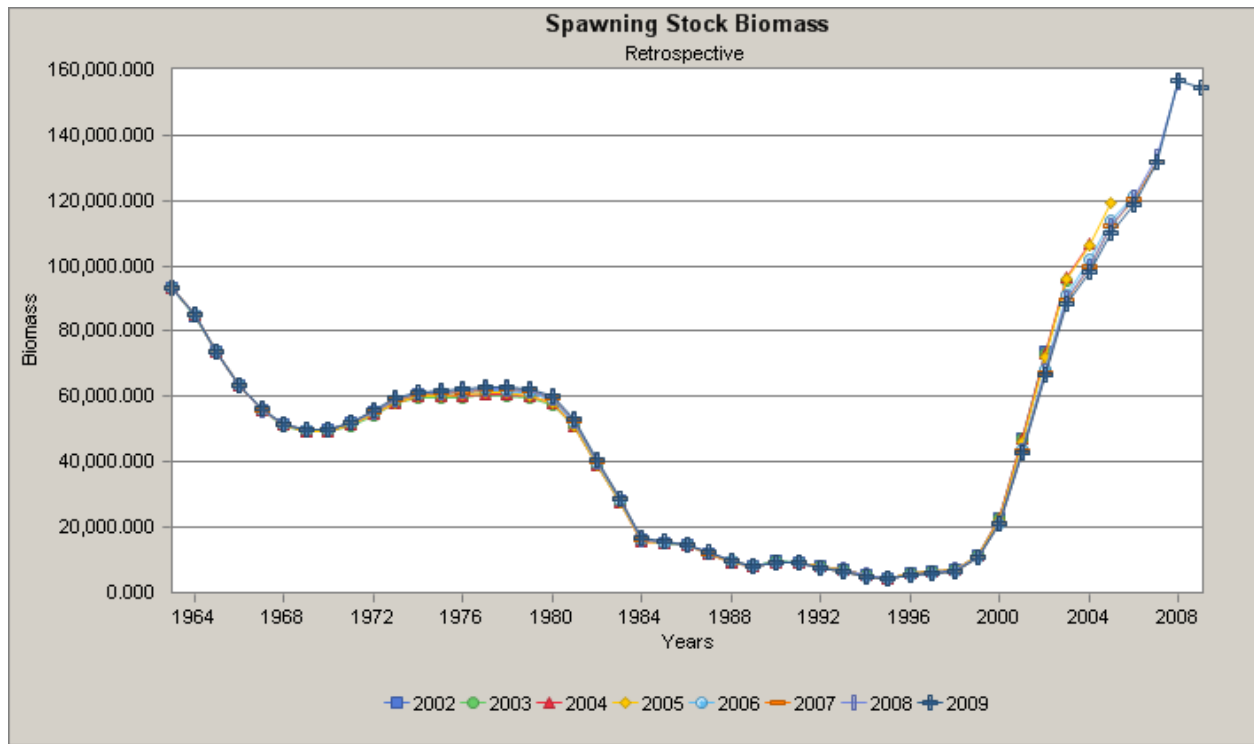


Figure 7. Retrospective analysis of Recruitment (Stock Numbers; age 0, 000s) for scup. Note that model age 1 is true age 0.

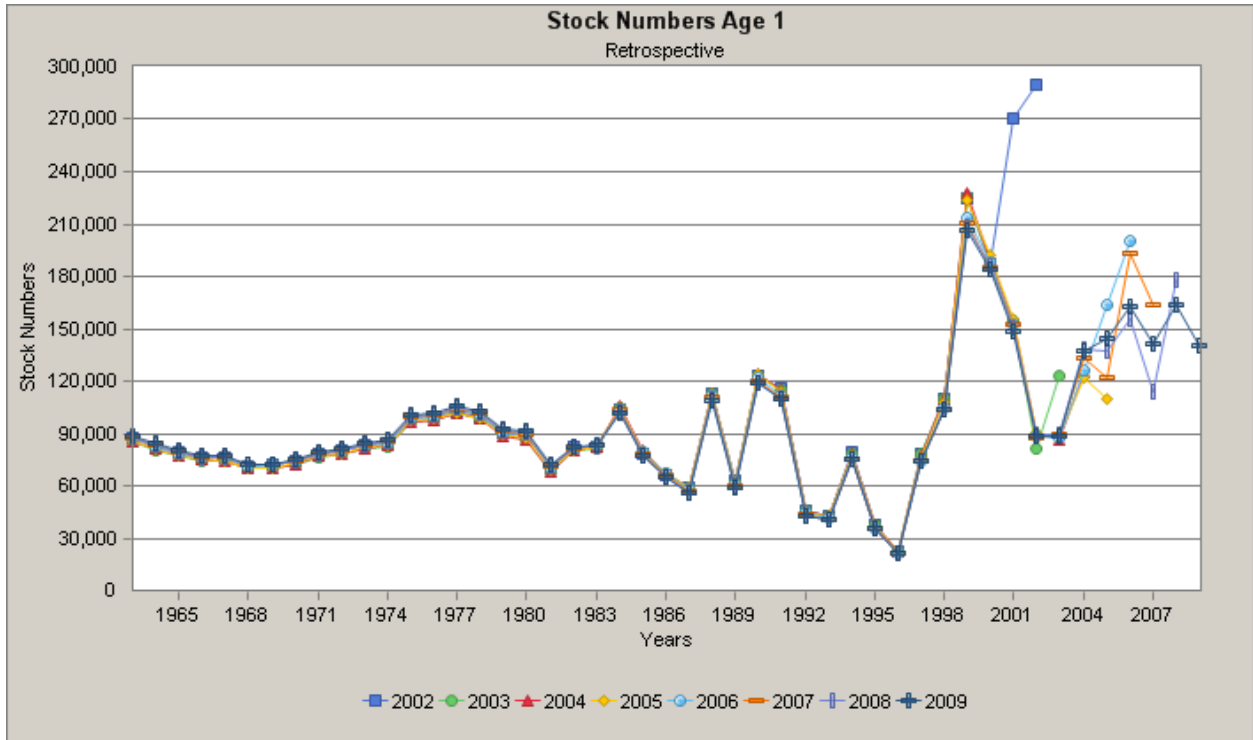


Figure 8. Comparison of Spawning Stock Biomass (SSB; metric tons) estimates from the 2008 DPSWG, 2009 updated, and 2010 updated stock assessments for scup.

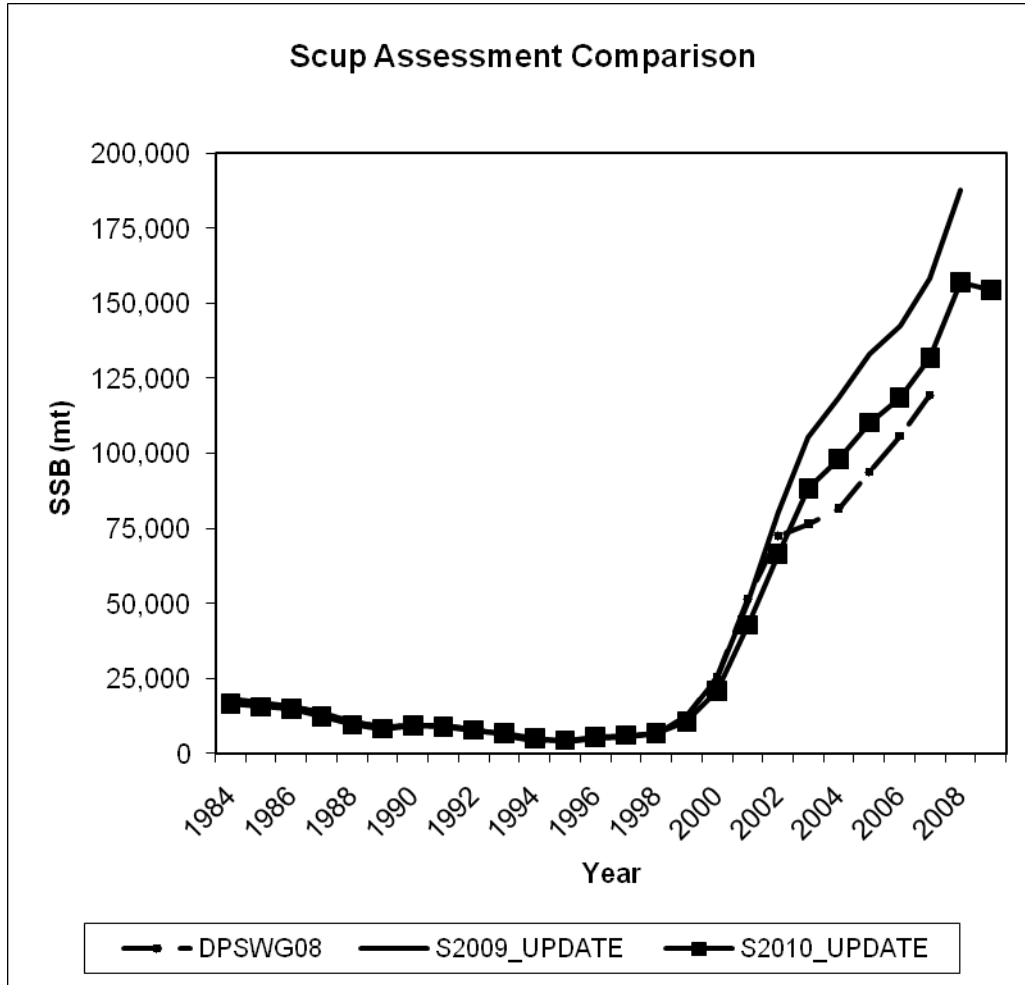


Figure 9. Comparison of Fishing Mortality (F) estimates from the 2008 DPSWG, 2009 updated, and 2010 updated stock assessments for scup.

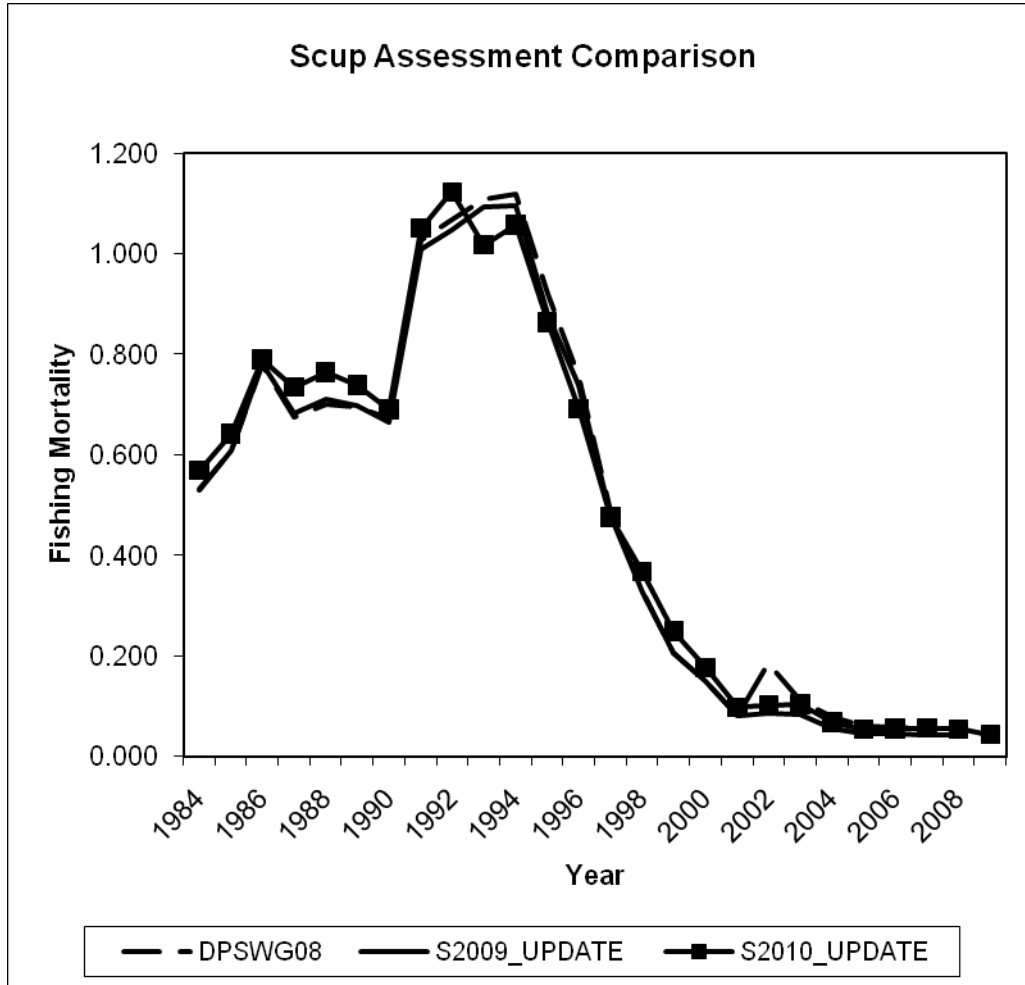
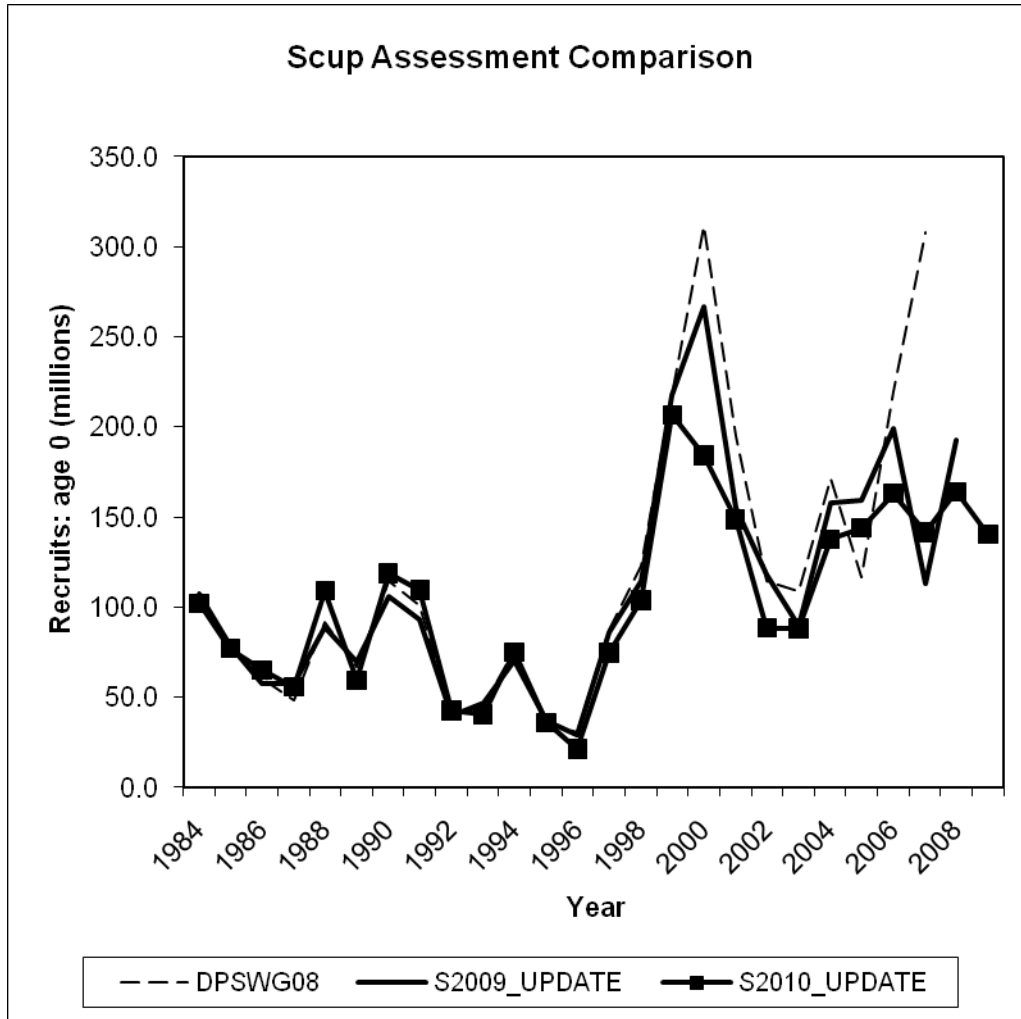




Figure 10. Comparison of Recruitment (millions of age 0 fish) estimates from the 2008 DPSWG, 2009 updated, and 2010 updated stock assessments for scup.





## Scup Stock Assessment Update

### 5 Things To Know

1. How do we assess the population? The information on scup was integrated into a useful mathematical model called an age-structured assessment program (ASAP). The population is modeled, much as the U.S. Census Bureau models human populations using similar data—population size at age, growth rates, age at maturity, reproductive potential and success, life span, and removals by deaths. This scup stock assessment model uses widely-accepted and commonly-used fishery science principles to analyze the population size. The data used have been collected annually since 1963 from fish caught (recreational (since 1981) and commercial) and fish sampled in the ocean (taken on research surveys.) A simpler assessment approach was used in the past because the analytical models (like ASAP) did not work well when they were attempted previously. The ASAP model utilizes more sources of information on scup which indicate age-structure and recruitment have improved in recent years.

2. How do we "check" the models? By conducting a peer review of the assessment such as the December 2008 Northeast Data Poor Stocks Peer Review for scup. A working group of fishery scientists conducts a thorough evaluation of available data, methods and models, and selects those that best represent the scup population. This work is then “peer reviewed” by a group of independent experts. The peer reviews have validated assessment results and helped improve stock assessment methods and modeling. Stock assessment updates are conducted in the years between peer reviews. Updates include the most recent data, but apply the exact same methods that were validated by the peer-review. The 2010 stock assessment update included data through 2009.

3. Is the scup stock rebuilt? The December 2008 data poor stock peer review set the rebuilding goal as 203 million pounds of spawning stock biomass. The stock is no longer under a rebuilding program because the spawning stock biomass exceeded the rebuilding goal in the most recent five years, 2004-2009. The most recent stock assessment update indicated that the 2009 spawning stock size is about 170% of the biomass goal.

4. Are we overfished or overfishing? No, the stock is not considered overfished and is not currently experiencing overfishing.

5. Have harvest quotas and limits been set too low in the past? No. The quotas and limits have been set consistent with the scientific advice. The Data Poor Stocks Peer Review Panel stated that, “rapid increases in quota to meet the revised MSY [maximum sustainable yields] would be unwarranted given uncertainties in recent recruitments” and, “a more gradual increase in quotas is a preferred approach reflective of the uncertainty in the model estimates and stock status”.

**The Scientific and Statistical Committee (SSC) full report is available under Briefing Book TAB 18 and should be referenced. The following provides a summary.**

## **Black Sea Bass**

### ***1) The materials considered in reaching its recommendation;***

- Shepherd, G. R. and J. Nieland. 2010. Black sea bass 2010 stock assessment update. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 10-13; 25 p.
- Shepherd GR. 2009. Black sea bass 2009 stock assessment update. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 09-16; 30 p.
- Miller, T. J., R. Muller, R. O'Boyle and A. A. Rosenberg. 2009. Report of the Review Panel for the Northeast Data Poor Stocks Working Group. January 2007. 34 p.
- Northeast Data Poor Stocks Working Group. 2009. The Northeast Data Poor Stocks Working Group Report, December 8-12, 2008 Meeting. Part A. Skate species complex, deep sea red crab, Atlantic wolffish, scup, and black sea bass. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 09-02; 496 p.
- MAFMC Staff Memo dated 30 June 2010: Black Sea Bass Management Measures for 2011

### ***2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;***

Derived directly from the stock assessment, the OFL would be based on an  $F_{MSY}$  proxy of  $F_{40\%} = 0.42$ , and the OFL is specified at 7.64 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{40\%} = 0.42$ ). However, the SSC is concerned about the high uncertainty in the OFL that is not well characterized in the assessment. There are large uncertainties related to the stock structure, life history, and stock assessment, including the lack of uncertainty characterizations for the model output and biological reference points.

### ***3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard 1 Guidelines;***

The SSC recommends an ABC of 4.5 million pounds, which is based on catch history rather than on  $F$ , when compared to the OFL and  $F_{MSY}$ . The recommendation of a constant catch reflects the SSC's concerns about the reliability of the assessment results, the strong retrospective pattern in biomass, the deviation of survey estimates of stock biomass and model-predicted biomass in recent years, the potential for stock structure within the management unit, and intra-model comparisons which may not adequately characterize the uncertainty. The SSC used this approach in developing its final

recommendations to the MAFMC for the 2010 fishing year. Following the approach adopted by the SSC after remand from the MAFMC to the SSC for black sea bass in December 2009, the constant catch level is based upon catch the catch level in 2008 because of concerns raised by the Monitoring Committee over the impact of conservation measures in 2009.

***4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);***

The assessment did not provide a pdf associated with the OFL, and significant sources of uncertainty were not taken into account. For example, sensitivity analyses of  $M$  and an evaluation of sex-specific  $M$ s, and their potential contribution to the uncertainty in the assessment results would be worthwhile. The ABC of 4.5 million pounds would be the 28<sup>th</sup> percentile of the OFL, assuming a  $CV = 100\%$  for a lognormal distribution of the pdf associated with the OFL.

***5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;***

- Atypical life history strategy (protogynous hermaphrodite);
- Strong annual retrospective pattern in biomass evident for the last 3 years;
- Uncertainty in stock status because of the lack of uncertainty estimation for the biological reference points (proxy used for  $F_{MSY}$ ) and model output;
- Assessment assumes a completely mixed stock, while tagging analyses suggest otherwise;
- Uncertainty exists with respect to  $M$  — because of the unusual life history strategy the current assumption of a constant  $M$  in the model for both sexes may not adequately capture the dynamics in  $M$ ;
- No uncertainty characterization for the OFL; and
- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment.

***6) A certification that the recommendations provided by the SSC represents the best scientific information available.***

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

**Assessment Level Specification**

Level 4 (see Attachment 2 for assessment level specification criteria)

## **Black Sea Bass Monitoring Committee Recommendations**

**Baltimore, MD**

**July 30, 2010**

**Black Sea Bass Monitoring Committee:** Mark Terceiro, Paul Caruso, Jason McNamee, Greg Wojcik, Alice Weber, Tom Baum, Rich Wong, Steve Doctor, Rob O'Reily, Chris Batsavage, Mike Ruccio, Toni Kerns, Jessica Coakley

**Others:** Dr. Lee Anderson, Kate Taylor

The Black Sea Bass Monitoring Committee recommends TAC of 4.5 million lb for the 2011 fishery. If the scup fishery is increased substantially, that may increase recreational management uncertainty for black sea bass and affect the ability to constrain harvest; the effort for the recreational fisheries is interrelated.

# MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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**Daniel T. Furlong**  
Executive Director

## MEMORANDUM

**Date: June 30, 2010**

**To: Science and Statistical Committee (SSC) and Black Sea Bass Monitoring Committee (BSBMC)**

**From: Jessica Coakley**

**Subject: Black Sea Bass Management Measures 2011**

The re-authorized Magnuson-Stevens Fishery Conservation and Management Act (MSRA) requires each Council establish an SSC to assist it by providing it with among other things, ongoing scientific advice for fishery management decisions, including recommendations for acceptable biological catch (ABC), preventing overfishing, and maximum sustainable yield. Each Council must then develop annual catch limits (ACLs) that do not exceed the fishing level recommendations of its SSC or its peer review process. Amendment 9 to the Black Sea Bass Fishery Management Plan (FMP) requires that the Black Sea Bass Monitoring Committee meet annually to review the best available biological and fisheries data and make recommendations regarding management measures. The Council, through the Omnibus ACL/Accountability Measure (AM) Amendment intends to include recommending catch levels that address management uncertainty as one of the Committee roles.

The ABCs, total allowable catch (TAC), total allowable landings (TALs), commercial quotas, recreational harvest limits, commercial size limits, mesh regulations, and landings are presented in Table 1 for each year of the management program.

### **Landings**

In 2009, recreational landings were 2.44 million lb (1,107 mt) and commercial landings were 1.13 million lb (513 mt); combined commercial and recreational landings were about 3.57 million lb (1,619 mt; Table 2). The 2010 commercial landings as of the week ending June 19, 2010, indicate that 54% of the coastwide commercial quota has been landed (Table 3).

### **Regulatory Review**

The Council and Atlantic States Marine Fisheries Commission (ASMFC; Commission) adopted Amendment 13 to the Summer Flounder, Scup and Black Sea Bass FMP in 2002 and NMFS approved Amendment 13 on January 29, 2003. That amendment replaced the quarterly quota system with an annual coastwide quota to facilitate the state-by-state allocation system implemented by the Commission. The commercial fishery is allocated 49% of the TAL. That TAL is divided amongst the states based on the Commission allocation percentages given in Table 4.

**Table 1. Summary of black sea bass management measures and landings, 1996-2010.**

<u>Management measures</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
TAL (m lb)	-	-	6.173	6.173	6.173	6.173	6.800	6.800
Com. quota–initial (m lb)	-	-	3.025	3.025	3.025	3.025	3.332	3.332
Com. quota–adjusted (m lb)	-	-	-	-	2.631	2.642	3.132	3.012
Commercial landings	3.458	2.676	2.593	2.914	2.675	2.857	3.455	2.940
Rec. harvest limit-initial (m lb)	-	-	3.148	3.148	3.148	3.148	3.468	3.468
Rec. harvest limit-adjusted (m lb)	-	-	-	-	-	-	3.434	3.434
Recreational landings	4.125	4.399	1.290	1.697	4.122	3.596	4.442	3.449
Com. fish size (in)	9	9	10	10	10	10	11	11
Min. mesh size (in, diamond)	4.0	4.0	4.0	4.0	4.0	4.0	4.5 <sup>a</sup>	4.5 <sup>a</sup>
Threshold (lb)	100	100	1,000	1,000	1,000	1,000	500/100	500/100
Vent size (in)	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 3/8 <sup>b</sup>	1 3/8 <sup>b</sup>
<u>Management measures</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	
ABC (m lb)	NA	NA	NA	NA	NA	NA	4.500	
TACI (m lb)	NA	NA	NA	NA	NA	2.300	4.500	
TAL (m lb)	8.000	8.200	8.000	5.000	4.220	2.300	3.700	
Com. quota–initial (m lb)	3.920	4.018	3.920	2.450	2.068	1.127	1.813	
Com. quota–adjusted (m lb)	3.768	3.950	3.832	2.377	2.026	1.093	1.759	
Commercial landings	2.969	2.754	2.738	2.183	1.828	1.129	-	
Rec. harvest limit-initial (m lb)	4.08	4.182	4.080	2.550	2.152	1.173	1.887	
Rec. harvest limit-adjusted (m lb)	4.01	4.13	3.989	2.474	2.108	1.138	1.830	
Recreational landings	1.949	2.095	2.105	2.413	1.637	2.441-	-	
Com. fish size (in)	11	11	11	11	11	11	11	
Min. mesh size (in, diamond)	4.5 <sup>a</sup>	4.5 <sup>a</sup>	4.5 <sup>a</sup>	4.5 <sup>a</sup>	4.5 <sup>a</sup>	4.5 <sup>a</sup>	4.5 <sup>a</sup>	
Threshold (lb)	500/100	500/100	500/100	500/100	500/100	500/100	500/100	
Vent size (in)	1 3/8 <sup>b</sup>	1 3/8 <sup>b</sup>	1 3/8 <sup>c</sup>	1 3/8 <sup>c</sup>	1 3/8 <sup>c</sup>	1 3/8 <sup>c</sup>	1 3/8 <sup>c</sup>	

<sup>a</sup>Large trawls are required to possess a minimum of 75 meshes of 4.5 inches diamond mesh in the codend, or for nets with codends less than 75 meshes, the entire net must have a minimum mesh size of 4.5 inches throughout. <sup>b</sup>Vent sizes - 2 3/8 inch circular, 2 inch square, 1 3/8 x 5 3/4 inch rectangular. <sup>c</sup>Vent sizes -2 1/2 inch circular, 2 inch square, 1 3/8 x 5 3/4 inch rectangular with two vents required in the parlor portion of the trap (effective Jan. 2007).

**Table 2. Black sea bass commercial and recreational landings ('000 lb), 1981-2009.**

<b>Year</b>	<b>Comm<sup>a</sup></b>	<b>Rec<sup>b</sup></b>	<b>Total</b>	<b>% Comm</b>	<b>% Rec</b>
<b>1981</b>	2,489	1,628	4,117	60%	40%
<b>1982</b>	2,595	10,054	12,649	21%	79%
<b>1983</b>	3,336	4,530	7,866	42%	58%
<b>1984</b>	4,332	1,961	6,293	69%	31%
<b>1985</b>	3,419	2,540	5,959	57%	43%
<b>1986</b>	4,191	12,461	16,652	25%	75%
<b>1987</b>	4,167	2,392	6,559	64%	36%
<b>1988</b>	4,142	3,945	8,087	51%	49%
<b>1989</b>	2,919	3,621	6,540	45%	55%
<b>1990</b>	3,501	3,047	6,548	53%	47%
<b>1991</b>	2,804	4,316	7,120	39%	61%
<b>1992</b>	3,007	2,914	5,921	51%	49%
<b>1993</b>	3,160	4,985	8,145	39%	61%
<b>1994</b>	2,093	3,054	5,147	41%	59%
<b>1995</b>	2,069	6,339	8,408	25%	75%
<b>1996</b>	3,458	4,125	7,583	46%	54%
<b>1997</b>	2,676	4,399	7,075	38%	62%
<b>1998</b>	2,593	1,290	3,883	67%	33%
<b>1999</b>	2,914	1,697	4,611	63%	37%
<b>2000</b>	2,675	4,122	6,797	39%	61%
<b>2001</b>	2,857	3,596	6,453	44%	56%
<b>2002</b>	3,455	4,442	7,897	44%	56%
<b>2003</b>	2,940	3,449	6,389	46%	54%
<b>2004</b>	2,969	1,949	4,918	60%	40%
<b>2005</b>	2,754	2,095	4,849	57%	43%
<b>2006</b>	2,738	2,105	4,843	57%	43%
<b>2007</b>	2,183	1,628	3,811	57%	43%
<b>2008</b>	1,828	1,637	3,465	53%	47%
<b>2009</b>	1,129	2,441	3,570	32%	68%
<b>Mean</b>	2,945	3,681	6,626	48%	52%

<sup>a</sup> Commercial landings based on Dealer Weighout Data, as of May 27, 2010 and General Canvass as of June 28, 2009. <sup>b</sup> Recreational landings based on pers. comm. with the National Marine Fisheries Service, Fisheries Statistics Division, June 11, 2010.



**Table 3. The 2010 black sea bass quotas and the amount of black sea bass landed by commercial fishermen, in lb, in each state.**

State	Commercial			Research
	Cumulative Landings (lb) <sup>a</sup>	2010 Quotas ASMFC by State (lb) <sup>b</sup>	Percent of Quota (%)	Set-Aside Landings (lb) <sup>a</sup>
ME	0	8,793	0	0
NH	0	8,793	0	0
MA	159,429	228,619	70	2,400
RI	101,744	193,447	53	7,059
CT	8,194	17,586	47	0
NY	65,452	123,103	53	6,643
NJ	207,041	351,722	59	0
DE	19,437	87,931	22	0
MD	91,362	193,447	47	0
VA	195,470	351,722	56	0
NC	107,426	193,447	56	0
Other	0	0		0
<b>Totals</b>	955,558	1,758,610	54	16,102

<sup>a</sup>Cumulative landings as of week ending June 19, 2010. Source: NMFS Weekly Quota Report.

<sup>b</sup> Less research set-aside, overages, and/or state transfers. Source: Toni Kerns (ASMFC, pers. comm. June 22, 2010).

### **Stock Assessment**

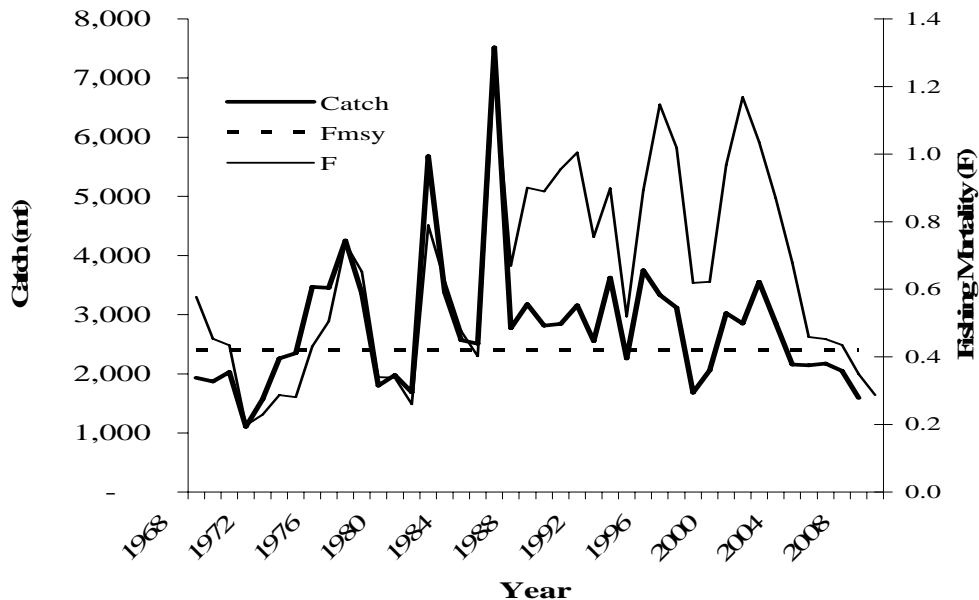
The most recent benchmark assessment on black sea bass was peer-reviewed and accepted in December 2008 by the Data Poor Stock Working Group (DPSWG) Peer Review Panel. The panel recommended that, “*reference points and stock status determinations should be used with caution due to the uncertainty in the natural mortality estimate, the model input parameters, residuals patterns in model fit, and significant uncertainty associated with managing a protogynous species (i.e. individuals change sex from female to male).*” Documentation associated with this assessment and previous stock assessments, such as reports on stock status, including annual assessment and reference point update reports, Stock Assessment Workshop (SAW) reports, and Stock Assessment Review Committee (SARC) panelist reports, are available online at the NEFSC website: <http://www.nefsc.noaa.gov/saw/>.

### **Biological Reference Points**

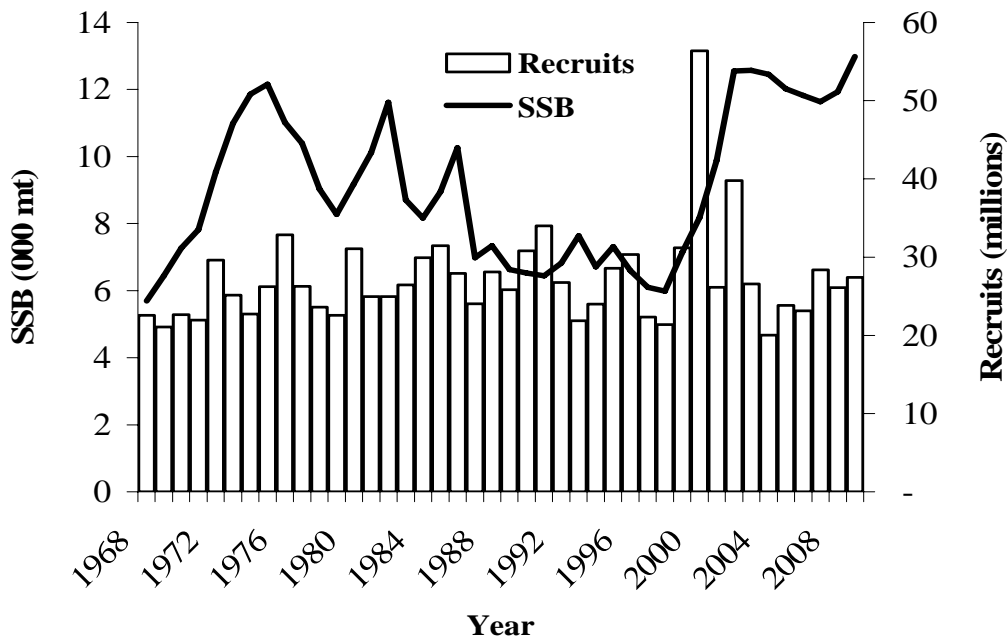
The 2008 DPSWG Peer Review Panel biological reference points for black sea bass include a fishing mortality threshold of  $F_{MSY} = F_{40\%}$  (as  $F_{MSY}$  proxy) = 0.42 and  $SSB_{MSY} = SSB_{40\%}$  (as  $SSB_{MSY}$  proxy) = 27.6 million lb (12,537 mt). The minimum stock size threshold, one-half  $SSB_{MSY}$ , is estimated to be 13.8 million lb (6,269 mt).

## Stock Status

Based on the June 2010 assessment update, the stock is not overfished and overfishing is not occurring, relative to the DPSWG biological reference points. Fishing mortality varied between  $F = 0.20$  and  $F = 0.74$  during the 1960s and 1970s. Fishing mortality increased steadily during the 1980s and early 1990s, peaking at  $F = 1.26$  in 1986. Fishing mortality remained high until after 2001 ( $F=1.17$ ), falling steadily to  $F = 0.29$  in 2009, less than the threshold  $F = 0.42$  (Figure 1). Spawning stock biomass (SSB) decreased from about 26.8 million lb (12,160 mt) in 1975 to about 18.2 million lb (8,275 mt) in 1979, then increased to about 25.6 million lb (11,600 mt) during the mid 1980s. SSB declined through the 1980s and early 1990s to only 14.7 million lb (6,660 mt) in 1996. With improved recruitment and low fishing mortality rates since 2001, SSB has steadily increased to about 28.6 million lb (12,978 mt) in 2009 (Figure 2). Recruitment averaged 26.4 million fish during 1968-1999 but increased to 56 million in 2000 followed by recruitment of 40 million fish in 2002. Although 2004 recruitment was the lowest in the time series, recent years have been near average. The black sea bass model average retrospective pattern suggests that  $F$  is under-estimated and recruitment and total biomass are over-estimated in the terminal year.



**Figure 1. Total catch (landings and discards, metric tons) and fishing mortality rate (F) for black sea bass.**



**Figure 2. Spawning stock biomass (SSB, metric tons) and recruitment (true age 0, model age 1; millions) for black sea bass.**

**Rebuilding Timeline**

The stock met the rebuilding requirements and is no longer subject to a rebuilding program.

**Basis for 2011 ABC Recommendation**

Framework 5 to the Summer Flounder, Scup and Black Sea Bass FMP was approved in 2004. That framework allows for the establishment of multi-year TALs (i.e., TALs could be specified for up to 3 years). Although multi-year TALs can be specified through this FMP, the mechanism for setting ABCs, ACLs, and annual catch targets (ACTs) defined under the Omnibus ACL/AM Amendment will not be formally established in the FMP until 2011 (to be applied for 2012 specifications). Therefore it would not be appropriate to set multi-year specifications until after such action. Therefore, I recommend that the TAL be specified for one year, 2011.

The SSC is responsible for recommending an ABC which accounts for the level of scientific uncertainty inherent in the determination of the overfishing limit (OFL), as well as other relevant sources of scientific uncertainty. The SSC and Council are considering a four level ABC control rule framework through the Omnibus ACL/AM Amendment. The tools to quantify the multiple sources of scientific uncertainty for this stock and translate those to offsets in catch and landings have not yet been fully developed. The June 2010 assessment update produced by the Southern Demersal Working Group (SDWG) did not provide a distribution of the OFL, only a point estimate of OFL is available. An OFL distribution would not be available until the next benchmark stock assessment when the SDWG can develop the appropriate methodology, if supportable by the data, and those methods are peer-reviewed through the SAW/SARC process.

In June 2010, the SDWG updated the assessment for black sea bass and produced four sets of projections applying the same models and methods previously reviewed; these were at the threshold fishing mortality rate ( $F=0.42$ ), 75% of  $F$ -threshold which equals  $F=0.32$ , setting  $F$  in 2011 equal to  $F$  in 2009 ( $F=0.29$ ), and a status quo catch of 4.5 million lb (2,041 mt). The forecasts conducted incorporate assume the 2010 TAL is harvested (but not exceeded), and assume discards equal the 2000-2009 average proportion.

The OFL of 7.64 million lb (3,465 mt) is defined by the the fishing mortality threshold of  $F=0.42$ . It is clear that recommendations for ABC which would equal the OFL would not account for any scientific uncertainty associated with estimation of OFL and assessing the black sea bass stock. The DPSWG Panel noted despite acceptance of the assessment model there was “*considerable uncertainty with respect to stock status.*” In addition, the Panel recommended that, “*management should proceed with caution until the implications of recent rapid changes from high to low index values observed in the survey, but not in model estimates of time series, are more adequately understood.*” The review Panel also, “*recommends the SSC recognize and allow for the sizeable uncertainty in stock status when establishing catch limits.*” In addition, uncertainty characterization for this assessment only includes intermodal variability and there is no uncertainty characterization for the model parameters or the biological reference points.

There is a great deal of uncertainty managing a stock which appears to have strong regional components as a single unit. The local dynamics are evident in discussion with fishermen and biologists from the different regions, as well as the migratory behavior from the NEFSC tagging work. The fishery in MA likely has little effect on the fishery in VA.

Last year, an ABC for 2010 of 4.50 million lb was recommended by the SSC. The SSC concluded in 2010 that a constant catch strategy was more appropriate than a constant  $F$  strategy given the uncertainty in stock abundance and the retrospective pattern in biomass estimates from the assessment. In addition, they concluded that historical catch in the range of 4.0 - 4.5 million lb resulted in stable or increasing biomass; therefore, an ABC was recommended that was equal to catch in 2008 (4.5 million lb).

I recommend an ABC of 4.50 million lb for 2011, which is the same ABC applied to this fishery in 2010.

### **Basis for TAC/TAL Recommendation**

The Black Sea Bass Monitoring Committee should consider how to address management uncertainty when developing their recommendation to the Council for a TAC/TAL, as the SSC does not consider management uncertainty as part of the recommendation for the ABC. I recommend the Monitoring Committee considers overall fishery performance for 2011 when developing their recommendation, as the FMP does not presently allow for recreational and commercial management uncertainty to be considered independently.

## **Commercial Quotas**

Once a TAL has been determined, Amendment 9 specifies that the TAL be allocated to the commercial and recreational fisheries based on 1983 to 1992 landings data. Based on this data, 49% would be allocated to the commercial fishery as a commercial quota and 51% to the recreational fishery as a harvest limit. The ASMFC allocates the commercial quota to each state based on the allocation percentages given in Table 4.

**Table 4. The Commission state-by-state commercial allocation percentages.**

<b>State</b>	<b>Allocation (percent)</b>
<b>ME</b>	0.5
<b>NH</b>	0.5
<b>MA</b>	13.0
<b>RI</b>	11.0
<b>CT</b>	1.0
<b>NY</b>	7.0
<b>NJ</b>	20.0
<b>DE</b>	5.0
<b>MD</b>	11.0
<b>VA</b>	20.0
<b>NC</b>	11.0
<b>Totals</b>	100

## **Gear Regulations and Minimum Fish Size - Commercial Fishery**

Amendment 9 established minimum fish size for black sea bass in federal and state waters. The Council and Commission increased the size limit to 11 inch-TL for 2002 (Table 1). I recommend that the size limit stay at 11 inch-TL for 2011. Amendment 9 also established gear regulations that became effective on December 16, 1996. The Council and Commission recommended a change in the mesh size for 2002. Current regulations state that large trawl nets are required to possess a minimum of 75 meshes of 4.5 inch diamond mesh in the codend, or the entire net must have a minimum mesh size of 4.5 inch throughout. The threshold level used to trigger the minimum mesh requirement size is 500 lb from January through March and 100 lb from April through December. I recommend no change in these regulations for 2011.

The Council and Commission adopted modifications to the circle vent size in black sea bass pots/traps based on the findings of a Council and Commission sponsored workshop. Effective January 1, 2007 the minimum circle vent size requirements for black sea bass pots/traps were increased from 2 <sup>3</sup>/<sub>8</sub> inch to 2 <sup>1</sup>/<sub>2</sub> inch. The requirements of 1 <sup>3</sup>/<sub>8</sub> inch x 5 <sup>3</sup>/<sub>4</sub> inch for rectangular vents and 2 inch for square vents remained unchanged. In addition, 2 vents are now required in the parlor portion of the pot/trap. I recommend no change in these regulations in 2011.

## **Research Set-Aside**

I recommend up to 3% of the TAL be made available for the Research Set Aside Program. These collaborative efforts among the public, research institutions, and government are beneficial in broadening the scientific base upon which management decisions are made.

## **Recreational Management Measures**

Specific management measures that will be used to achieve the harvest limit for the recreational fishery in 2011 will not be determined until after the first four waves of 2010 recreational landings are reviewed. These data should be available in early October, 2010. The Monitoring Committee will meet in November, 2010 to review these landings data and make recommendations regarding changes in the recreational possession limit, minimum size, or season.

## **Summary of Staff Recommendation for 2011**

In summary, I recommend:

- 1) The ABC be specified for one year, 2011.
- 2) An ABC of 4.50 million lb for 2011, which is the same ABC applied to this fishery in 2010.
- 3) The Monitoring Committee considers overall fishery performance for 2011 when developing their recommendation for a TAC/TAL (and associated commercial quotas and recreational harvest limits), as the FMP does not presently allow for recreational and commercial management uncertainty to be considered independently.
- 4) No change to the current minimum fish size (11 inch-TL).
- 5) No change to current gear requirements (4.5 inch mesh with 500/100 lb trigger; current pot/trap vent requirements).
- 6) Up to 3% of the TAL be made available to the Research Set-Aside Program.

# **Black Sea Bass Assessment Summary for 2010**

**National Marine Fisheries Service  
Northeast Fisheries Science Center  
166 Water Street  
Woods Hole, MA 02543**

## BLACK SEA BASS ASSESSMENT SUMMARY FOR 2009

**State of Stock:** The black sea bass stock is not overfished and overfishing is not occurring relative to the biological reference points recommended by the 2008 Northeast Data Poor Stocks Working Group (DPSWG) Peer Review Panel (NEFSC 2009a; Figure 1). Fishing mortality varied between  $F = 0.20$  and  $F = 0.74$  during the 1960s and 1970s. Fishing mortality increased steadily during the 1980s and early 1990s, peaking at  $F = 1.26$  in 1986. Fishing mortality remained high until after 2001 ( $F=1.17$ ), falling steadily to  $F = 0.29$  in 2009 (Figure 2). Spawning stock biomass (SSB) decreased from about 12,160 mt in 1975 to about 8,275 mt in 1979, then increased to about 11,600 mt during the mid 1980s. SSB declined through the 1980s and early 1990s to only 6,600 mt in 1996. With improved recruitment and declining fishing mortality rates since 2001, SSB has steadily increased to about 12,978 mt in 2009 (Figure 3). Recruitment averaged 26.4 million fish during 1968-1999 but increased to 56 million in 2000 followed by recruitment of 40 million fish in 2002. Although 2004 recruitment was the lowest in the time series, recent years have been near average (Figure 4). The black sea bass model average retrospective pattern suggests that  $F$  is under-estimated and recruitment and total biomass are over-estimated in the terminal year (Table 1).

**Projections for 2009-2010:** If landings in 2010 are 1,723 mt (3.8million lbs) and discards are 501 mt (1.1 million lbs), the projected estimate of  $F$  in 2010 = 0.26 with Jan 1, 2011 total biomass of 16,000 mt, which is above the biomass target of  $B_{MSY} = 12,537$  mt (Figure 1). Fishing at  $F_{MSY} = F_{40\%} = 0.42$  in 2011 results in projected total catch of 3,465 mt (7.6 million lbs) with landings of 2,772 mt (6.1 million lbs) assuming discards equal the 2000-2009 average proportion. Fishing at  $F_{2009} = 0.29$  in 2011 results in projected catch of 2,467 mt (5.4 million lbs) with landings of 1,974 mt (4.4 million lbs) while a 2011 fishing mortality of 0.315, which is 75% of  $F_{MSY}$ , results in projected total catch of 2,707 mt (6.0 million lbs) and landings of 2,166 mt (4.8 millions lbs). In all three scenarios, total biomass and spawning stock biomass would remain above  $B_{MSY}$ .

### Projection Table

2010-2012 recruitment average of 1968-2009 estimates. Landings, Discards, and Spawning Stock Biomass (SSB) are given in metric tons.

#### 2011

	<b>F</b>	<b>Landings (mt)</b>	<b>Discards (mt)</b>	<b>SSB (mt)</b>
<b><math>F_{2011}=F_{msy}</math></b>	0.42	2,772	693	13,872
<b><math>F_{2011} = 75\% F_{msy}</math></b>	0.32	2,166	542	14,636
<b><math>F_{2011}=F_{2009}</math></b>	0.29	1,974	493	14,677
<b>Quota=status quo</b> (catch = 4.5 million lbs)	0.23	1,633	408	15,335



**Catch and Status Table (weights in 000s mt, recruitment in millions, arithmetic means)**

<b>Year</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Max<sup>1</sup></b>	<b>Min<sup>1</sup></b>	<b>Mean<sup>1</sup></b>
Commercial landings	1.4	1.4	1.3	1.3	1.0	0.9	0.5	2.0	0.5	1.3
Commercial discards	<0.1	0.4	<0.1	<0.1	<0.1	0.2	0.1	0.4	<0.1	0.1
Recreational landings	1.5	0.8	0.9	0.9	1.0	0.7	1.0	5.6	0.5	1.6
Recreational discards	0.5	0.3	0.2	0.3	0.3	0.4	0.4	0.8	0.1	0.3
Catch used in assessment	3.4	2.9	2.5	2.5	2.5	2.1	2.1	7.8	1.8	3.3
Commercial quota	1.4	1.7	1.8	1.7	1.1	0.9	0.5	1.8	0.5	1.3
Recreational harvest limit	1.6	1.8	1.9	1.8	1.1	1.0	0.5	1.9	0.5	1.4
Spawning stock biomass <sup>1,2</sup>	12.6	12.5	12.2	12.0	11.8	12.1	13.0	13.0	6.0	9.0
Recruitment (age 1)	26.4	20.1	23.9	23.2	28.2	26.2	27.4	56.4	20.0	28.0
F (ages 2-7+)	0.84	0.66	0.45	0.44	0.43	0.35	0.29	1.26	0.26	0.74

1: Over the period 1981-2009

2: Jan 1 estimate

**Stock Distribution and Identification:** The Mid-Atlantic Fishery Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASMFC) Fishery Management Plan for black sea bass defines the management unit as all black sea bass from Cape Hatteras, North Carolina northeast to the US-Canada border (MAFMC 1999).

**Catch:** The principal gears used in commercial fishing for black sea bass are fish pots, otter trawl and handline. After peaking at 9,900 mt in 1952, commercial landings markedly decreased during the 1960s, and have since ranged between about 600 and 2,000 mt. Commercial landings averaged 1,300 mt annually during 1988-1997. Commercial fishery quotas were implemented in 1998, and landings then ranged between 1,300 mt and 1,600 mt during 1998-2009. The recreational rod-and-reel fishery for black sea bass harvests a significant proportion of the total catch. After peaking at 5,600 mt in 1986, recreational landings averaged 1,700 mt annually during 1988-1997. Recreational fishery harvest limits were implemented in 1998, and landings then ranged between 500 mt and 2,000 mt during 1998-2009. Commercial fishery discards, although poorly estimated, appear to be a minor part of the total fishery removals from the stock, generally less than 200 mt per year. Recreational discards are somewhat higher ranging from 100 to 800 mt per year.

**Data and Assessment:** The assessment model for black sea bass changed in 2008 from a simple index-based model to a complex statistical catch at length model (SCALE; NFT 2008a) incorporating a broad range of fishery and survey data (NEFSC 2009b). Biological reference points have also been revised. The fishery catch is modeled as a single fleet with indices of stock abundance from NEFSC winter, spring, and autumn surveys. A model averaging approach was adopted using the average of results from ten candidate models. There appears to be some consistent retrospective bias in F and SSB estimates but less so in recruitment.

**Biological Reference Points (BRP):** The 2008 DPSWG Peer Review Panel (NEFSC 2009a) recommended that  $F_{40\%}$  be used as the fishing mortality threshold reference point and spawning

stock biomass at  $F_{40\%}$  ( $SSB_{40\%}$ ) be used as the stock biomass target reference point. The reference points are  $F_{MSY} = F_{40\%} = 0.42$  and  $SSB_{MSY} = SSB_{40\%} = 12,537$  mt = 27.6 million lbs (Figure 1). The stock biomass threshold of  $\frac{1}{2} SSB_{MSY} = \frac{1}{2} SSB_{40\%} = 6,269$  mt = 13.8 million lbs. The biological reference points for black sea bass were calculated using yield and SSB per recruit in the NOAA NFT framework (NFT 2008b, 2008c).

**Fishing Mortality:** Fishing mortality varied between  $F = 0.20$  and  $F = 0.72$  during the 1960s and 1970s. Fishing mortality increased steadily during the 1980s and early 1990s, peaking at  $F = 1.26$  in 1986. Fishing mortality remained high until 2002, decreasing from 1.17 in 2001 to  $F=0.29$  in 2009 (Figure 2). The average mortality decreased in the most recent years and has remained below  $F_{MSY}$  since 2008.

**Recruitment:** Recruitment at age 1 averaged 26.4 million fish during 1968-1999 and in 2000, peaked at 56.0 million fish. The 2000 and 2002 year classes are estimated to be the largest of the time series, at 56.0 and 39.8 million age 1 fish (Figures 3-4).

**Spawning Stock Biomass:** Spawning stock biomass (SSB) increased from about 5,700 mt in 1968 to about 12,200 mt in 1975, then decreased to about 6,000 mt by 1998. With improved recruitment and declining fishing mortality rates since 2001, SSB has steadily increased since to about 13,000 mt in 2009 (Figure 3). The inter-model variation bounds the biological reference point and suggests that black sea bass has reached or exceeded  $SSB_{MSY}$ .

**Special Comment:** The 2008 DPSWG Peer Review Panel (NEFSC 2009a) recommended - "These new reference points and stock status determinations should be used with caution due to the uncertainty in the natural mortality estimate, the model input parameters, residuals patterns in model fit, and significant uncertainty associated with managing a protogynous species (i.e. individuals change sex from female to male)."

### Sources of Information

Mid-Atlantic Fishery Management Council. (MAFMC). 1999. Amendment 12 to the Summer flounder, scup and black sea bass fishery management plan. Dover, DE. 398 p + appendix.

Northeast Fisheries Science Center (NEFSC) 2009a. Report by the Peer Review Panel for the Northeast Data Poor Stocks Working Group, 20 January 2009. 34 p.

Northeast Fisheries Science Center (NEFSC) 2009b. The Northeast Data Poor Stocks Working Group Report, December 8-12, 2008 Meeting. Part A. Skate species complex, Deep sea red crab, Atlantic wolfish, BLACK SEA BASS, and Black sea bass. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 09-02; 496 p.

NOAA Fisheries Toolbox (NFT). 2009. Statistical Catch-at-Length Model (SCALE), vers. 1.03. (Internet address: <http://nft.nefsc.noaa.gov>).

Figure 1. Spawning stock biomass (SSB; 000s metric tons), fishing mortality, and biological reference points for black sea bass.

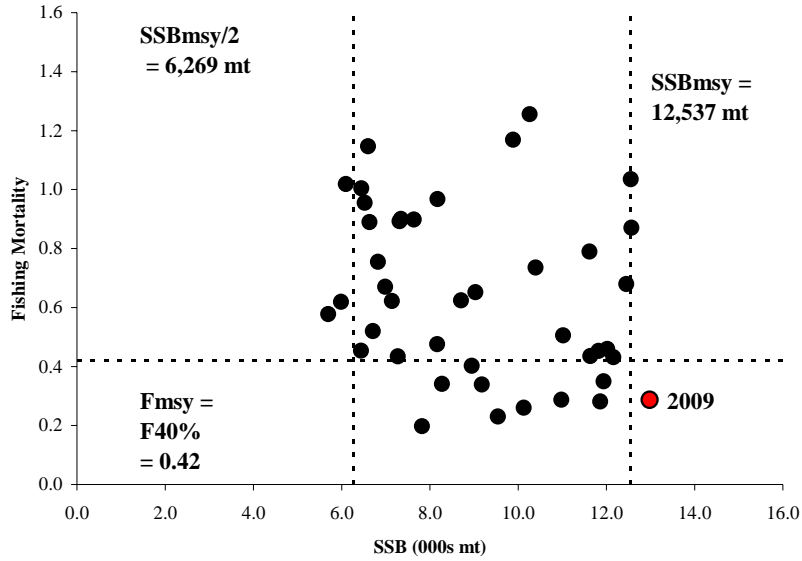


Figure 2. Total catch (landings and discards, metric tons) and fishing mortality rate (F) for black sea bass

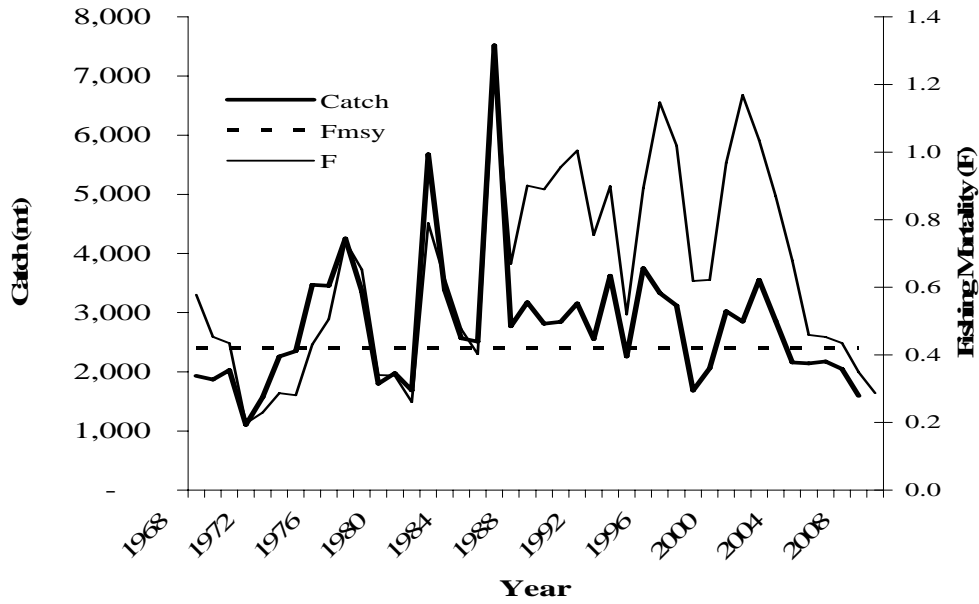


Figure 3. Spawning stock biomass (SSB, metric tons) and recruitment (age 1, millions) for black sea bass.

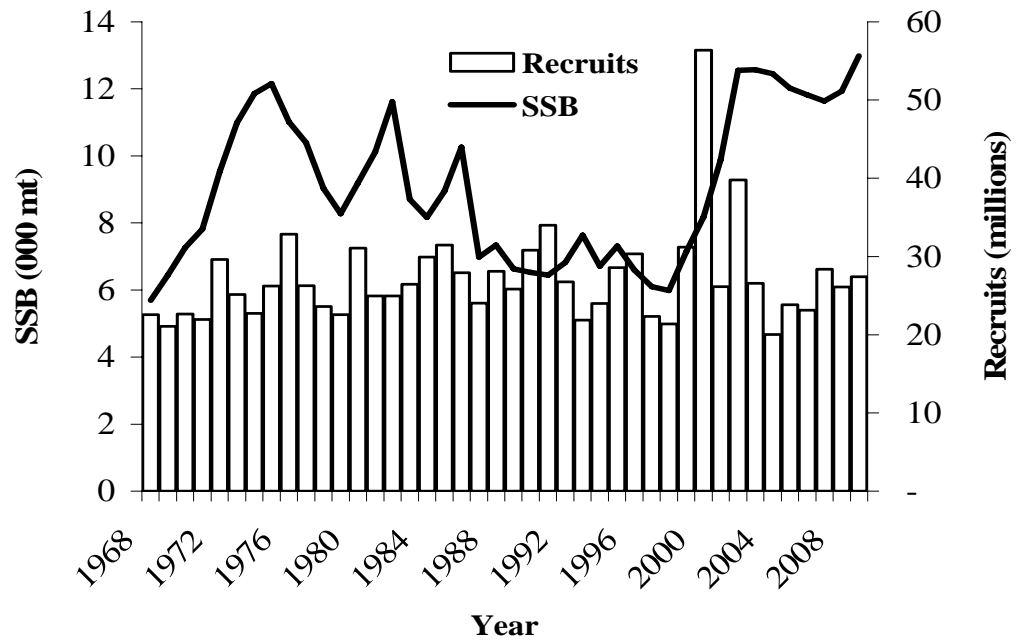


Figure 4. Spawning stock biomass (SSB, metric tons) and recruitment (age 1, millions) scatterplot for black sea bass.

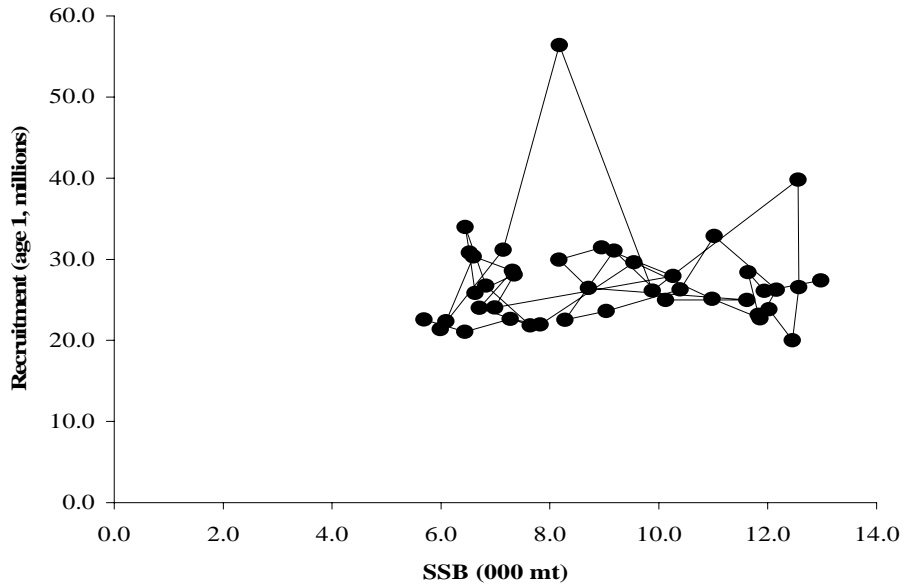


Table 1. Summary of Mohn's rho values for each run and average.

<b>run</b>	<b>F</b>	<b>SSB</b>	<b>R</b>
1	-0.34	0.28	0.27
2	-0.34	0.27	0.27
3	-0.39	0.23	0.30
4	-0.39	0.22	0.29
7	-0.26	0.28	0.25
8	-0.24	0.23	0.23
9	-0.20	0.23	0.22
10	-0.19	0.22	0.21
11	-0.20	0.28	0.21
12	-0.34	0.28	0.28
avg rho	-0.29	0.25	0.25



## Black Sea Bass Stock Assessment Update

### 6 Things To Know

1. How do we assess the population? The limited information on black sea bass was integrated into a useful mathematical model called a statistical catch at length model (SCALE). Using this framework, the population is modeled, much as the U.S. Census Bureau models human populations using similar data—population size at age, growth rates, age at maturity, reproductive potential and success, life span, and removals by deaths. This black sea bass stock assessment model uses widely-accepted and commonly-used fishery science principles to analyze the population size. The data used have been collected annually since 1968 from fish caught (recreational (since 1981) and commercial) and fish sampled in the ocean (taken on research surveys). Information from a tagging study and age data led to the conclusion that natural mortality was higher than previously modeled. Additionally, the interpretation of historical landings concluded that landings taken in the 1950s were not at sustainable levels.

2. Is black sea bass no longer considered a data poor stock? No. Despite the applied modeling approach (SCALE) which better integrates limited information to analyze the black sea bass population, it is still considered a “data poor” stock. There are still gaps in critical life history information for black sea bass life and the current sampling gear may not be optimal to assess the population; these issues will need to be addressed through improved data collection and fish sampling programs and research.

3. How do we "check" the models? By conducting a peer review of the assessment such as the December 2008 Northeast Data Poor Stocks Peer Review for black sea bass. A working group of fishery scientists conducts a thorough evaluation of available data, methods and models, and selects those that best represent the black sea bass population. This work is then “peer reviewed” by a group of independent experts. The peer reviews have validated assessment results and helped improve stock assessment methods and modeling. Stock assessment updates are conducted in the years between peer reviews. Updates include the most recent data, but apply the exact same methods that were validated by the peer-review. The 2010 stock assessment update included data through 2009.

4. Is the black sea bass stock rebuilt? The December 2008 data poor stock peer review set the rebuilding goal as 27.6 million pounds of spawning stock biomass. The stock exceeded the goal in 2003 and 2004; therefore it is no longer under a rebuilding program. The most recent stock assessment update indicated that the 2009 spawning stock size is about 104% of the biomass goal.

5. Are we overfished or overfishing? No, the stock is not considered overfished and is not currently experiencing overfishing based on a review of the most recent year’s data (2009) in the stock assessment update.

6. Have harvest quotas and limits been set too low in the past? No. The quotas and limits have been set consistent with the scientific advice. The Data Poor Stocks Peer Review Panel recommended that, “the Science and Statistical Committee recognize and allow for the sizable uncertainty in stock status when establishing catch limits”.

**The Scientific and Statistical Committee (SSC) full report is available under Briefing Book TAB 18 and should be referenced. The following provides a summary.**

## **Summer Flounder (Fluke)**

### ***1) The materials considered in reaching its recommendation;***

- Terceiro, M. 2010. Stock assessment of summer flounder for 2010. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 10-14; 133 p.
- Terceiro, M. 2009. Stock assessment of summer flounder for 2009. US Department of Commerce, Northeast Fisheries Science Center Reference Document 09-17; 132 p.
- Northeast Fisheries Science Center. 2008. 47th Northeast Regional Stock Assessment Workshop (47th SAW) Assessment Report. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 08-12a; 335 p.
- Northeast Fisheries Science Center. 2008. 47th Northeast Regional Stock Assessment Workshop (47th SAW) Assessment Summary Report. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 08-11; 22 p.
- MAFMC Staff Memo dated 30 June 2010: Summer Flounder Management Measures for 2011

### ***2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;***

Derived directly from the stock assessment, based on an  $F_{MSY}$  proxy of  $F_{35\%} = 0.310$ , the OFL is specified at 40.4 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{35\%} = 0.310$ ).

### ***3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard 1 Guidelines;***

The SSC recommends an ABC based on  $F_{TARGET}$ ,  $F_{40\%}$ , which is  $F = 0.255$ , and results in an ABC of 33.95 million pounds. This catch level is based on the 50<sup>th</sup> percentile of catches at  $F = 0.255$ , and has associated landings of 29.48 million pounds. The SSC expressed concern about the retrospective pattern in recruitment, and the implication of this pattern on the apparently large 2009 year class, which in turn may have a strong influence on the projected rebuilding horizon. The SSC used AGEPRO to examine the potential implication of this pattern on projected SSB if the observed recruitment retrospective continued, thereby resulting in a realized 2009 age class reduced by half in subsequent assessments. The annual retrospective pattern over the last three years has resulted in overestimation of recruitment ranging from 54% to 80%; thus, the halving of the 2009 year class does not represent an overly conservative assumption. Halving of the 2009 year class indicated the stock would still be expected to rebuild by January 1, 2013 (based on November 1, 2012 SSB calculation) under the proposed ABC.

**4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);**

It is not possible to provide a pdf associated with the OFL since significant sources of uncertainty were not taken into account in the assessment. The ABC is roughly equivalent to a  $P^* = 40^{\text{th}}$  percentile, based on an assumed lognormal OFL distribution that has a  $CV = 100\%$ . That CV of 100% is considered a reasonable characterization of uncertainty for the OFL distribution.

**5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;**

- Strong annual retrospective pattern in recruitment evident for the last three years;
- Uncertainty in stock status because of lack of uncertainty estimation for the biological reference points (proxy used for  $F_{\text{MSY}}$ );
- Uncertainty exists with respect to the estimate of  $M$ ;
- No uncertainty characterization for the OFL;
- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment.

**6) A certification that the recommendations provided by the SSC represents the best scientific information available.**

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

### **Assessment Level Specification**

Level 3 (see Attachment 2 for assessment level specification criteria)



## **Summer Flounder Monitoring Committee Recommendations**

**Baltimore, MD**

**July 30, 2010**

**Summer Flounder Monitoring Committee:** Mark Terceiro, Paul Caruso, Jason McNamee, Greg Wojcik, Alice Weber, Tom Baum, Rich Wong, Steve Doctor, Rob O'Reily, Chris Batsavage, Mike Ruccio, Toni Kerns, Jessica Coakley

**Others:** Dr. Lee Anderson, Kate Taylor

Given the concerns over the retrospective patterns in recruitment (i.e., 2008 and 2009 year classes may be substantially overestimated), the Summer Flounder Monitoring Committee recommends a TAC that does not exceed MSY (MSY=32.26 million lb) to reduce the likelihood of overfishing in 2011. The SSC recommended ABC is 33.95 million lb.

# MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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Chairman

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**Daniel T. Furlong**  
Executive Director

## MEMORANDUM

**Date: June 30, 2010**

**To: Science and Statistical Committee (SSC) and the Summer Flounder Monitoring Committee (SFMC)**

**From: Jessica Coakley**

**Subject: Summer Flounder Management Measures 2011**

The re-authorized Magnuson-Stevens Fishery Conservation and Management Act (MSRA) requires each Council establish an SSC to assist it by providing it with among other things, ongoing scientific advice for fishery management decisions, including recommendations for acceptable biological catch (ABC), preventing overfishing, and maximum sustainable yield. Each Council must then develop annual catch limits (ACLs) that do not exceed the fishing level recommendations of its SSC or its peer review process. Amendment 2 to the Summer Flounder Fishery Management Plan (FMP) requires that the Summer Flounder Monitoring Committee meet annually to review the best available biological and fisheries data and make recommendations regarding management measures. The Council, through the Omnibus ACL/Accountability Measure (AM) Amendment intends to include recommending catch levels that address management uncertainty as one of the Committee roles.

The ABCs, total allowable catch (TAC), total allowable landings (TALs), commercial quotas, recreational harvest limits, commercial size limits, mesh regulations, and landings are presented in Table 1 for each year of the management program.

### **Landings**

In 2009, recreational landings were 6.30 million lb (2,858 mt) and commercial landings were 11.06 million lb (5,017 mt); combined commercial and recreational landings were about 17.36 million lb (7,874 mt; Table 2). The 2010 commercial landings as of the week ending June 19, 2010, indicate that 57% of the coastwide commercial quota has been landed (Table 3).

**Table 1. Summary of management measures, 1993-2010.**

Management measures	1993	1994	1995	1996	1997	1998	1999	2000	2001
ABC (m lb)	NA	NA	NA	NA	NA	NA	NA	NA	NA
TAC (m lb)	NA	NA	NA	NA	NA	NA	NA	NA	NA
TAL (m lb)	20.73	26.68	19.40	18.52	18.52	18.52	18.52	18.52	17.91
Com. quota-initial (m lb)	12.35	16.01	14.69	11.11	11.11	11.11	11.11	11.11	10.75
Com. quota-adjusted (m lb)		15.60	14.61 <sup>a</sup>	10.21	8.38	10.93	10.73	10.88	10.06
Com. landings	12.60	10.98	10.83	8.70	8.80	11.19	10.62	11.23	10.94
Com. Overage+/ underage- (m lb)	+0.25	-4.62	+3.78	+2.75	+1.51	+0.26	-0.11	+0.35	+0.88
Rec. harvest limit (m lb)	8.38	10.67	7.76	7.04	7.41	7.41	7.41	7.41	7.16
Rec. harvest limit-adjusted (m lb)	-	-	-	-	-	-	-	-	-
Rec. landings	8.83	9.33	5.42	9.82	11.87	12.48	8.37	16.47	11.64
Rec. Overage+/ underage- (m lb)	+0.45	-1.34	-2.34	+2.78	+4.46	+5.07	+0.96	+9.06	+4.48
Com. fish size (in)	13	13	13	13	14	14	14	14	14
Min. mesh size (in, diamond)	5.5	5.5	5.5	5.5	5.5	5.5	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>

Management measures	2002	2003	2004	2005	2006	2007	2008	2009	2010
ABC (m lb)	NA	NA	NA	NA	NA	NA	NA	21.5	25.5
TAC (m lb)	NA	NA	NA	NA	NA	NA	NA	20.9	25.5
TAL (m lb)	24.3	23.3	28.2	30.3	23.6	17.11	15.77	18.45	22.13
Com. quota-initial (m lb)	14.58	13.98	16.92	18.18	14.15	10.27	9.46	11.07	13.28
Com. quota-adjusted (m lb)	14.46	13.87	16.76	17.90	13.94	9.79	9.32	10.74	12.79
Com. landings	14.49	14.30	17.94	17.10	13.92	9.97	9.13	11.06	-
Com. Overage+/ underage- (m lb)	+0.03	+0.43	+1.17	-0.80	-0.02	+0.18	-0.19	+0.32	-
Rec. harvest limit (m lb)	9.72	9.32	11.28	12.12	9.44	6.84	6.31	7.38	8.85
Rec. harvest limit-adjusted (m lb)	-	9.28	11.21	11.98	9.29	6.68	6.21	7.16	8.59
Rec. landings	8.01	11.64	10.87	10.58	11.55	9.86	7.90	6.30	-
Rec. Overage+/ underage- (m lb)	-1.71	+2.36	-0.34	-1.4	+2.26	+3.18	+1.69	-0.86	-
Com. fish size (in)	14	14	14	14	14	14	14	14	14
Min. mesh size (in, diamond)	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>	5.5 <sup>b</sup>

<sup>a</sup> Includes 3.05 m lb added by court order. <sup>b</sup> Whole Net. NA=not applicable

**Table 2. Commercial and recreational landings of summer flounder ('000 lb), Maine to North Carolina, 1980-2009.**

<b>Year</b>	<b>Comm<sup>a</sup></b>	<b>Rec<sup>b</sup></b>	<b>Total</b>	<b>% Comm</b>	<b>% Rec</b>
<b>1980</b>	31,215	38,222	69,437	45%	55%
<b>1981</b>	21,056	10,081	31,137	68%	32%
<b>1982</b>	22,928	18,233	41,161	56%	44%
<b>1983</b>	29,549	27,969	57,518	51%	49%
<b>1984</b>	37,765	18,765	56,530	67%	33%
<b>1985</b>	32,353	12,490	44,843	72%	28%
<b>1986</b>	26,866	17,861	44,727	60%	40%
<b>1987</b>	27,053	12,167	39,220	69%	31%
<b>1988</b>	32,377	14,624	47,001	69%	31%
<b>1989</b>	17,913	3,158	21,071	85%	15%
<b>1990</b>	9,257	5,134	14,391	64%	36%
<b>1991</b>	13,722	7,960	21,682	63%	37%
<b>1992</b>	16,599	7,148	23,747	70%	30%
<b>1993</b>	12,599	8,831	21,430	59%	41%
<b>1994</b>	10,980	9,327	20,307	54%	46%
<b>1995</b>	10,827	5,421	16,248	67%	33%
<b>1996</b>	8,702	9,820	18,522	47%	53%
<b>1997</b>	8,802	11,866	20,668	43%	57%
<b>1998</b>	11,190	12,477	23,667	47%	53%
<b>1999</b>	10,621	8,366	18,987	56%	44%
<b>2000</b>	11,229	16,468	27,697	41%	59%
<b>2001</b>	10,938	11,637	22,575	48%	52%
<b>2002</b>	14,491	8,008	22,499	64%	36%
<b>2003</b>	14,295	11,638	25,933	55%	45%
<b>2004</b>	17,940	10,871	28,811	62%	38%
<b>2005</b>	17,099	10,580	27,679	62%	38%
<b>2006</b>	13,922	11,549	25,471	55%	45%
<b>2007</b>	9,968	9,858	19,826	50%	50%
<b>2008</b>	9,133	7,902	17,035	54%	46%
<b>2009</b>	11,061	6,296	17,357	64%	36%
<b>Mean</b>	17,415	12,158	29,573	59%	41%

<sup>a</sup> Commercial landings based on Dealer Weighout Data, as of May 27, 2010. <sup>b</sup> Recreational landings based on pers. comm. with the National Marine Fisheries Service, Fisheries Statistics Division, June 11, 2010.

**Table 3. The 2010 state-by-state quotas and the amount of summer flounder landed by commercial fishermen, in lb, in each state as of week ending June 19, 2010.**

State	Cumulative Landings (lb)	Quota (lb) <sup>a</sup>	Commercial	Research
			Percent of Quota (%)	Set-Aside Landings (lb)
ME	0	6,126	0	0
NH	0	59	0	0
MA	162,208	846,667	19	0
RI	1,183,254	2,019,915	59	114,121
CT	162,162	290,704	56	2,080
NY	378,433	984,906	38	65,934
NJ	1,031,639	2,154,122	48	0
DE	0		0	0
MD	97,288	262,629	37	0
VA	1,639,889	2,908,930	56	0
NC	2,690,587	3,371,527	80	0
Other	0		0	0
<b>Totals</b>	<b>7,345,460</b>	<b>12,845,585</b>	<b>57</b>	<b>182,564</b>

<sup>a</sup> Note that the total quota column accounts for Delaware as zero. Quotas adjusted for research set-aside and overages. Source: NMFS Weekly Quota Report for week ending June 19, 2010.

### **Stock Assessment**

The most recent benchmark peer-reviewed accepted assessment for summer flounder resulted from the June 2008 Stock Assessment Workshop (SAW/SARC 47). The assessment utilizes an age-structured assessment model called ASAP. Documentation on this assessment and previous stock assessments, such as reports on stock status, including annual assessment and reference point update reports, Stock Assessment Workshop (SAW) reports, and Stock Assessment Review Committee (SARC) panelist reports, are available online at the NEFSC website: <http://www.nefsc.noaa.gov/saw/>.

### **Biological Reference Points**

The SAW 47 biological reference points for summer flounder include a fishing mortality threshold of  $F_{MSY} = F_{35\%}$  (as  $F_{MSY}$  proxy) = 0.310 and  $SSB_{MSY} = SSB_{35\%}$  (as  $SSB_{MSY}$  proxy) = 132.4 million lb (60,074 mt). The minimum stock size threshold, one-half  $SSB_{MSY}$ , is estimated to be 66.2 million lb (30,037 mt). A fishing mortality target was proposed as by the assessment workgroup of  $F_{TARGET} = F_{40\%} = 0.255$ .

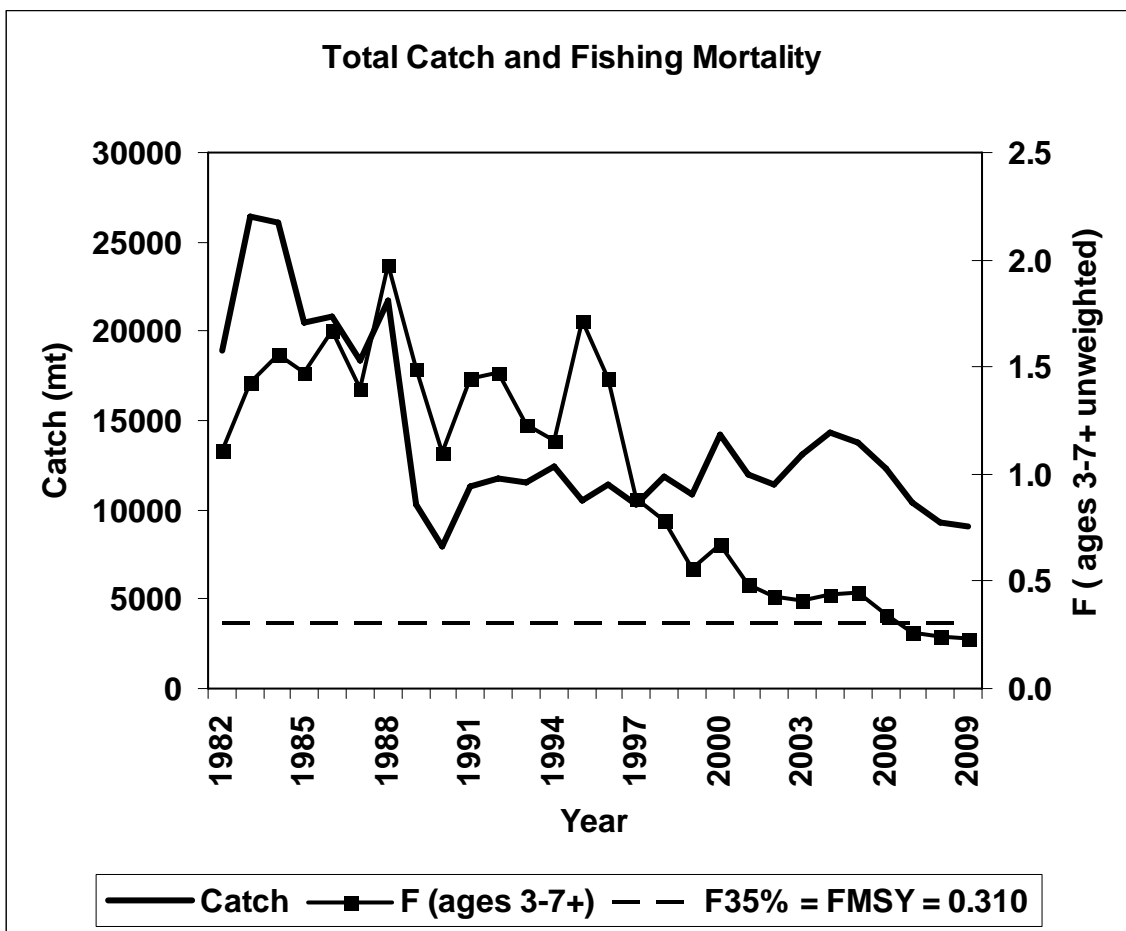
### **Stock Status**

Based on the June 2010 assessment update, the summer flounder stock is not overfished and overfishing is not occurring relative to the biological reference points established in the 2008 SAW 47 assessment. Fishing mortality calculated from the average of the current fully recruited ages (3-7+) ranged between 1.0 and 2.0 during 1982-1996. The fishing mortality rate has declined to below 1.0 since 1997 and was estimated to be 0.237 in 2009, below the threshold fishing mortality reference point =  $F_{35\%}$  (as  $F_{MSY}$  proxy) = 0.310 (Figure 1). There is a 50% probability that the fishing mortality rate in 2008 was between 0.224 and 0.250. Spawning stock biomass (SSB) decreased from about 55.1 million lb (25,000 mt) in the early 1980s to about 15.4 million lb

(7,000 mt) in 1989, then increased to above 88.2 million lb (40,000 mt) by 2002. SSB was estimated to be 117.9 million lb (53,458 mt) in 2009, about 89% of the  $SSB_{35\%}$  (as  $SSB_{MSY}$  target proxy reference point) = 132.4 million lb (60,074 mt; Figure 2). There is a 50% chance that SSB in 2009 was between 111.5 million lb (50,560 mt) and 123.5 million lb (55,998 mt). The arithmetic average recruitment from 1982 to 2009 is 42 million fish at age 0. The 1981 and 1982 year classes are the largest in the historical assessment time series, at 73 and 81 million fish; the 1988 year class is the smallest at 13 million fish. The 2008 year class is currently estimated to be about 49 million fish, 17% above the average. The 2009 year class is currently estimated to be about 82 million fish, about twice the average, and the largest in the assessment time series.

**Rebuilding Timeline**

Under our current rebuilding program, the summer flounder stock is to be fully rebuilt to the levels associated with MSY no later than January 1, 2013 [corresponds to November 1, 2012 estimate of SSB]. The SAW 47 proposed  $SSB_{MSY}$  rebuilding target is estimated to be 132.4 million lb (60,074 mt). In 2009, SSB was estimated to be 117.9 million lbs (53,458 mt), which is about 89% of the rebuilding target.



**Figure 1. Total catch (landings and discards, metric tons) and fishing mortality rate (F, ages 3-7+ unweighted) for summer flounder. The overfishing threshold ( $F_{35\%}$ ) is shown.**

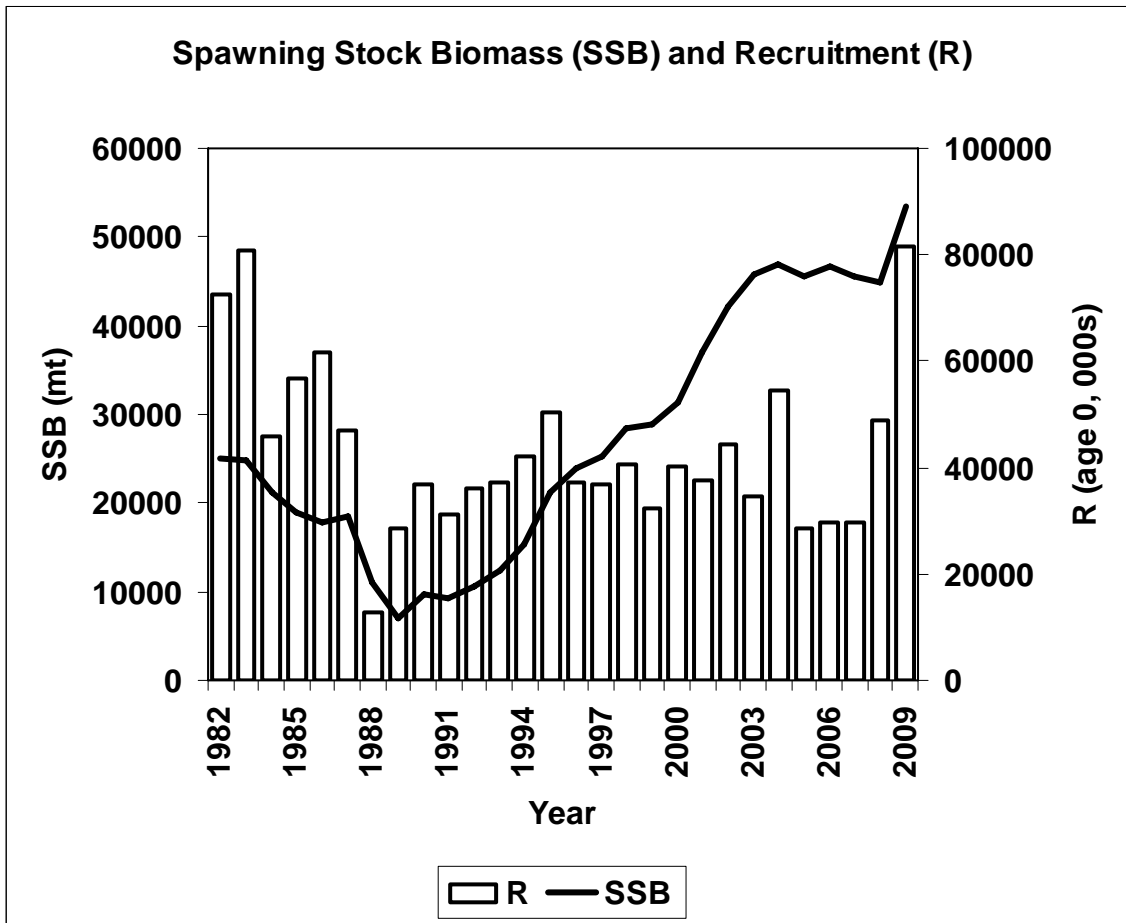


Figure 2. Spawning stock biomass (SSB; metric tons), and recruitment (age 0; millions) for summer flounder.

**Basis for 2011 ABC Recommendation**

Framework 5 to the Summer Flounder, Scup and Black Sea Bass FMP was approved in 2004. That framework allows for the establishment of multi-year TALs (i.e. TALs could be specified for up to 3 years). Although multi-year TALs can be specified through this FMP, the mechanism for setting ABCs, ACLs, and annual catch targets (ACTs) defined under the Omnibus ACL/AM Amendment will not be formally established in the FMP until 2011 (to be applied for 2012 specifications). Therefore it would not be appropriate to set multi-year specifications until after such action. Therefore, I recommend that the TAL be specified for one year, 2011.

The SSC is responsible for recommending an ABC which accounts for the level of scientific uncertainty inherent in the determination of the overfishing limit (OFL), as well as other relevant sources of scientific uncertainty. The SSC and Council are considering a four level ABC control rule framework through the Omnibus ACL/AM Amendment. The tools to quantify the multiple sources of scientific uncertainty for this stock and translate those to offsets in catch and landings have not yet been fully developed. The June 2010 assessment update produced by the Southern Demersal Working Group (SDWG) did not provide a distribution of the OFL, only a point estimate of OFL is available. An OFL distribution would not be available until the next benchmark stock assessment when the SDWG can develop the appropriate methodology, if supportable by the data, and those methods are peer-reviewed through the SAW/SARC process.

In June 2010, the SDWG updated the assessment for summer flounder and produced three sets of projections applying the same models and methods previously reviewed; these were at the threshold fishing mortality rate ( $F=0.310$ ), the June 2008 SDWG recommended fishing mortality target ( $F_{40\%}=0.255$ ), and 75% of  $F$ -threshold which equals  $F=0.233$ . The forecasts conducted incorporate uncertainty in 2011 stock sizes due to survey variability and recruitment variability (drawn from distribution of past recruitments), assume the 2010 TAL is harvested (but not exceeded), and assume current discard to landings proportions.

The OFL of 40.4 million lb (18,321 mt) is defined by the 50<sup>th</sup> percentile of catches at the fishing mortality threshold fishing mortality threshold of  $F=0.310$ , because rebuilding  $F$  is greater than the threshold  $F$ . It is clear that recommendations for ABC which would equal the OFL would not account for any scientific uncertainty associated with estimation of OFL and assessing the summer flounder stock. Based on projections conducted by the SDWG, the projected catch level associated with a 25%, 50%, and 75% probability of achieving  $F_{40\%}=0.255$  and  $F=0.233$  in 2011 are presented in Table 4.

Last year, an ABC for 2010 of 25.50 million lb was recommended by the SSC. These catch levels were based on the 50<sup>th</sup> percentile catch at  $F_{40\%}=0.255$ . The SSC also recommended an ABC based on the 50<sup>th</sup> percentile catch at  $F_{40\%}=0.255$  for 2009. Overfishing has not occurred during the prior 3 years (2007-2009) and  $F$  has been below the applied target  $F_{40\%}=0.255$ . While the retrospective pattern of underestimation of  $F$  and overestimation of SSB appears to have diminished most recently, the internal retrospective pattern of overestimation of recruitment has ranged from +54% to +80% in the most recent three terminal years. The SDWG noted that “Landings that correspond to fishing at or near the threshold fishing mortality rate ( $F_{MSY}=F_{35\%}=0.310$ ) may result in overfishing if the previous retrospective pattern of underestimation of fishing mortality occurs in the future.”

Therefore, I recommend an ABC be selected in the range of 31.29-33.95 million lb, which corresponds to the 50<sup>th</sup> percentile catch at  $F=0.233$  and  $F_{40\%}=0.255$ .

**Table 4. Projected catch/landings (in million lb) and the probabilities of achieving  $F_{40\%}=0.255$  in 2010 and  $F=0.233$ . Staff recommended ABC range in bold.**

Probability of achieving $F$ at that specific catch/landings	2011 Catch/landings based on $F_{40\%}=0.255$	2011 Catch/landings based on $F=0.233$
25%	32.11/27.92	29.60/25.74
<b>50%</b>	<b>33.95/29.48</b>	<b>31.29/27.18</b>
75%	36.33/31.53	33.49/29.07

**Basis for TAC/TAL Recommendation**

The Summer Flounder Monitoring Committee should consider how to address management uncertainty when developing their recommendation to the Council for a TAC/TAL, as the SSC does not consider management uncertainty as part of the recommendation for the ABC. I recommend the Monitoring Committee considers overall fishery performance for 2011 when developing their recommendation, as the FMP does not presently allow for recreational and commercial management uncertainty to be considered independently.



## Commercial Quotas

Once a TAL has been determined, the commercial fishery is allocated 60% of the TAL (i.e. recreational receives 40%). That TAL is divided amongst the states based on the allocation percentages given in Table 5.

**Table 5. The summer flounder allocation formula for the commercial fisheries in each state. Final allocations are adjusted to account for overages, research set-aside, or any other quota adjustments.**

State	Allocation (%)
ME	0.04756
NH	0.00046
MA	6.82046
RI	15.68298
CT	2.25708
NY	7.64699
NJ	16.72499
DE	0.01779
MD	2.03910
VA	21.31676
NC	27.44584
<b>Total</b>	<b>100</b>

## Minimum Fish and Mesh Size - Commercial Fishery

Amendment 2 of the Summer Flounder FMP contains provisions that allow for changes in the minimum fish size and minimum net mesh provisions. Current regulations require a 14 inch-TL minimum fish size in the commercial fishery and a 5.5 inch diamond or 6 inch square minimum mesh in the entire net for vessels possessing more than the threshold amount of summer flounder, i.e., 200 lb in the winter and 100 lb in the summer. The minimum fish size and mesh requirements may be changed through specifications based on the recommendations of the Monitoring Committee. I do not recommend any changes to the minimum fish size or mesh provisions.

## Exemption Programs

Vessels landing more than 200 lb of summer flounder, east of longitude 72° 30.0'W, from November 1 through April 30, and not using a 5.5" minimum mesh (diamond) or 6" minimum mesh (square) net, are required to obtain a small mesh exemption program (SMEP) permit from NMFS. The Summer Flounder, Scup, and Black Sea Bass FMP requires that sea sampling data be reviewed annually to determine if vessels fishing seaward of the line, with smaller than the required minimum mesh size and landing more than 200 lb of summer flounder, are discarding more than 10% of their summer flounder catch. I evaluated the available NMFS sea sample data for the period from November 1, 2009 to April 30, 2010. These data indicate that a total of 441 trips were observed east 72° 30.0'W; 163 of these trips landed summer flounder (Table 6). Of those 163 trips, 78 reported using small mesh and 9 landed more than 200 lb of summer flounder. Of those 9 trips, 1 trip discarded more than 10% of their catch. The percentage of trips that met all these criteria relative to the total number of observed trips east of 72° 30.0'W is 0.2% (1 trips/441 trips). The prior year percentage of trips that met the criteria was 0%. Based on this information, I recommend no change in the SMEP program for 2011.

**Table 6. Numbers of trips that meet specific criteria based on observer trips from November 1, 2009 to April 30, 2010.**

<b>November 1, 2009 – April 30, 2010</b>	<b>Trips</b>
<i>Trips with tows east of 72° 30' W Longitude</i>	441
<i>That landed summer flounder</i>	163
<i>That used small mesh</i>	78
<i>That landed more than 200 lb of summer flounder</i>	9
<i>Number that discarded &gt;10% of summer flounder catch</i>	1
<i>Total discards (lb) from that 1 trip</i>	67
<i>Total landings (lb) from that 1 trip</i>	374
<i>Total catch (lb) from that 1 trip</i>	441

In addition, vessels fishing with a two-seam otter trawl flynet are exempt. Specifically, flynets have large mesh in the wings that measure 8 to 64 inches, the belly of the net has 35 or more meshes that are at least 8 inches, and the mesh decreases in size throughout the body of the net to 2 inches or smaller. Only North Carolina has a flynet fishery at present. The supplemental memo from Chris Batsavage dated June 24, 2010 indicates that summer flounder comprised less than 0.05% of the total landings by flynet in North Carolina in 2009. Therefore, I recommend no change to this exemption program.

### **Bycatch and Research Set-Aside**

Fishermen from a few states have indicated that the commercial regulatory discards associated with the summer flounder quotas are a problem. As such, the states that allocate 15% of their quota to bycatch fisheries should continue to do so, and all other states should consider this measure.

I recommend up to 3% of the TAL be made available for the Research Set-Aside Program. These collaborative efforts among the public, research institutions, and government are beneficial in broadening the scientific base upon which management decisions are made.

### **Recreational Management Measures**

Specific management measures that will be used to achieve the harvest limit for the recreational fishery in 2011 will not be determined until after the first four waves of 2010 recreational landings are reviewed. These data will be available in early October, 2010. The Monitoring Committee will meet in November 2010 to review these landings data and make recommendations regarding changes in the recreational possession limit, minimum size, and season.

### **Summary of Staff Recommendation for 2011**

In summary, I recommend:

- 1) The ABC be specified for one year, 2011.
- 2) An ABC be selected in the range of 31.29-33.95 million lb, which corresponds to the 50<sup>th</sup> percentile catch at  $F=0.233$  and  $F_{40\%}= 0.255$ .
- 3) The Monitoring Committee considers overall fishery performance for 2011 when developing their recommendation for a TAC/TAL (and associated commercial quotas and recreational harvest limits), as the

FMP does not presently allow for recreational and commercial management uncertainty to be considered independently.

4) No change in mesh requirements (5.5 inch diamond or 6 inch square minimum mesh), minimum commercial fish size requirements (14 inch-TL), nor other gear requirements.

5) No change in the current small mesh exemption program (SMEP) or flynet exemptions.

6) Those states not already doing so should consider set aside 15% of their quota for bycatch, to minimize regulatory discards associated with the summer flounder quotas.

7) Up to 3% of the TAL be made available for the Research Set-Aside Program.



North Carolina Department of Environment and Natural Resources

Division of Marine Fisheries

Dr. Louis B. Daniel III

Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

**Memorandum**

**To:** Jessica Coakley, MAFMC

**From:** Chris Batsavage, NCDMF

**Date:** June 24, 2010

**Subject:** Species composition and landings from the 2009 North Carolina flynet fishery

The following table provides the species composition and landings in pounds from the North Carolina flynet fishery in 2009. Individual landings listed as "other species" are not reported because the data are confidential and cannot be distributed to sources outside the NC Division of Marine Fisheries (North Carolina General Statute 113-170.3 (c)). Confidential data can only be released in a summarized format that does not allow the user to track landings or purchases to an individual. You will notice that the summer flounder landings are much lower than in previous years. It was recently discovered that some summer flounder landings from flounder trawls were mistakenly coded as flynet landings since 2005. The next table compares the previous summer flounder flynet landings reported to you with the corrected flynet landings from 2005 to 2008. If you have any questions, please feel free to contact me.

Table 1. Species composition of North Carolina flynet landings in 2009.

Species	Weight (lb)	Percent
Atlantic Croaker	3,847,541	66.06
Atlantic Menhaden (Bait)	1,513,560	25.99
Striped Bass	91,825	1.58
Bluefish	82,868	1.42
Black Sea Bass	54,077	0.93
Smooth Dogfish	37,640	0.65
Squid, Loligo	33,582	0.58
Sea Mullet (Whiting, Kingfish)	18,791	0.32
Weakfish	18,271	0.31
Butterfish	4,339	0.07
Summer Flounder	2,842	0.05
Spot	2,551	0.04
Sheepshead	1,562	0.03
Monkfish (Whole)	1,368	0.02
Shark, Thresher	1,230	0.02
Black Drum	1,108	0.02
Cobia	971	0.02
Spadefish	271	0.00
Other Species	109,813	1.89
Total	5,824,210	

Other Species

Scup	Amberjacks	Spanish Mackerel
Atlantic Mackerel	Blueline Tilefish	Conger Eel
Cutlassfish (Ribbonfish)	King Mackerel	
Sharks	Golden Tilefish	
Horseshoe Crab	Pompano	
Triggerfish	Little Tunny (False Albacore)	

Table 2. Previously reported summer flounder flynet landings and corrected summer flounder flynet landings, 2005-2008.

Year	Previous Landings Data		Corrected Landings Data	
	Flynet Landings (lb)	Percent of Flynet Landings	Flynet Landings (lb)	Percent of Flynet Landings
2005	54,507	0.60	4,102	0.05
2006	16,936	0.19	5,752	0.07
2007	20,024	0.36	7,067	0.13
2008	36,133	0.86	3,147	0.08

**June 23, 2010**

**Summer Flounder  
Assessment Summary for 2010**

**Stock Assessment Workshop (SAW)  
Southern Demersal Working Group (SDWG)**

**National Marine Fisheries Service (NMFS)  
Northeast Fisheries Science Center (NEFSC)  
166 Water Street  
Woods Hole, MA 02543**

## SUMMER FLOUNDER ASSESSMENT SUMMARY FOR 2010

**State of Stock:** The summer flounder stock is not overfished and overfishing is not occurring relative to the biological reference points established in the 2008 SAW 47 assessment (NEFSC 2008). The stock is currently under a rebuilding program with a deadline of January 1, 2013 (corresponding to the November 1, 2012 estimate of SSB). Fishing mortality (F) calculated from the average of the currently fully recruited ages (3-7+) ranged between about 1.0 and 2.0 during 1982-1996. The fishing mortality rate has declined to below 1.0 since 1997 and was estimated to be 0.237 in 2009, below the threshold fishing mortality reference point  $F_{MSY} = F_{35\%} = 0.310$  (Figures 1 & 2). There is a 50% probability that the fishing mortality rate in 2009 was between 0.224 and 0.250 (Figure 3).

Spawning stock biomass (SSB) decreased from about 25,000 mt in the early 1980s to about 7,000 in 1989, then increased to above 40,000 mt by 2002. SSB was estimated to be 53,458 mt in 2009, about 89% of the  $SSB_{MSY} = SSB_{35\%}$  reference point = 60,074 mt (Figures 1 & 4). There is a 50% chance that SSB in 2009 was between 50,560 and 55,998 mt (Figure 5).

The arithmetic average recruitment from 1982 to 2009 is 42 million fish at age 0. The 1981 and 1982 year classes are the largest in the historical assessment time series, at 73 and 81 million fish; the 1988 year class is the smallest at 13 million fish. The 2008 year class is estimated to be about 49 million fish, 17% above the average. The 2009 year class is currently estimated to be about 82 million fish, about twice the average, and is the largest in the assessment time series (Figures 4 & 6).

The summer flounder stock assessment model has historically exhibited a retrospective pattern of underestimation of F and overestimation of SSB; the causes of this pattern have not been determined (Figures 7 & 8). A recent pattern of overestimation in recruitment is also evident (Figure 9). Over the last 7 years, the annual internal model retrospective error in fishing mortality has ranged from +11% in the 2006 terminal year to -35% in 2003, while the annual internal model retrospective error in SSB has ranged from -13% in 2006 to +45% in 2003. Over the last 3 terminal years, the annual internal model retrospective error in recruitment has ranged from +54% for the 2008 year class to +80% for the 2006 year class. Comparison of the estimates for SSB, R and F over the last three assessments indicates consistency of those estimates in line with the most recent internal retrospective pattern of the 2010 assessment model (Figures 10-12).

**Projections for 2009-2010:** The stochastic projections do not explicitly account for the recent retrospective pattern in the assessment, as per the 2006 S&T Peer Review (Terceiro 2006) recommendation. The projected recruitment was drawn from the distribution of 1982-2009 ASAP SCAA model estimates.

If the landings in 2010 equal the TAL = 10,038 mt = 22.13 million lbs and the 2010 discards are 1,720 mt = 3.79 million lbs, the projections estimate a median (50% probability) F in 2010 = 0.241 and a median SSB on November 1, 2010 of 72,367 mt, above the biomass target of SSBMSY = SSB35% = 60,074 mt.

Fishing at  $F_{target} = F_{40\%} = 0.255$  during 2011-2012 is projected to maintain the stock above SSBMSY = SSB35% = 60,074 mt through 2012 (Figure 13). The projections indicate that fishing at  $F_{target} = 0.255$  in 2011 could provide landings that exceed MSY (13,122 mt landings = 28.93 million lbs) in 2011.

Landings, Discards, and Spawning Stock Biomass (SSB) in metric tons

	<b>2011</b>		
<b><math>F_{target} = 0.255</math></b>	Landings	Discards	SSB
25%ile	12,663	1,904	72,433
50%ile	13,371	2,028	76,201
75%ile	14,304	2,176	80,973

Fishing at  $F_{threshold} = F_{35\%} = 0.310$  during 2011-2012 is projected to maintain the stock above SSBMSY = SSB35% = 60,074 mt through 2012. The projections indicate that fishing at  $F_{threshold} = 0.310$  in 2011 could provide landings that exceed MSY (13,122 mt landings = 28.93 million lbs) in 2011.

Landings, Discards, and Spawning Stock Biomass (SSB) in metric tons

	<b>2011</b>		
<b><math>F_{threshold} = 0.310</math></b>	Landings	Discards	SSB
25%ile	15,055	2,274	70,034
50%ile	15,899	2,422	73,678
75%ile	17,008	2,598	78,271



Fishing at 75% of  $F_{threshold} = 0.233$  during 2011-2012 is projected to maintain the stock above  $SSB_{MSY} = SSB_{35\%} = 60,074$  mt through 2012, with landings about 6% less than MSY (13,122 mt landings = 28.93 million lbs) in 2011.

Landings, Discards, and Spawning Stock Biomass (SSB) in metric tons

<b>2011</b>				
<b>0.75* <math>F_{threshold} = 0.233</math></b>	Landings	Discards	SSB	
25%ile	11,674	1,752	73,420	
50%ile	12,327	1,867	77,237	
75%ile	13,186	2,003	82,085	

**Catch and Status Table (weights in 000s mt, recruitment in millions, arithmetic means)**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Max <sup>1</sup>	Min <sup>1</sup>	Mean <sup>1</sup>
Commercial landings	5.1	5.0	6.6	6.5	8.2	7.8	6.3	4.5	4.1	4.8	17.1	4.0	8.1
Commercial discards	0.7	0.5	0.5	0.5	0.2	0.2	0.3	0.3	0.3	0.1	1.5	0.1	0.6
Recreational landings	7.5	5.3	3.6	5.3	4.8	4.7	5.0	4.4	3.6	2.9	12.7	1.4	5.2
Recreational discards	1.0	1.3	0.8	0.9	1.0	1.0	0.8	1.1	1.3	1.2	1.2	0.1	0.6
Catch used in assessment	14.2	12.0	11.4	13.1	14.3	13.8	12.3	10.4	9.3	9.0	26.5	8.0	14.4
Commercial quota	5.0	4.9	6.6	6.3	7.6	8.1	6.4	4.7	4.3	4.9	8.1	4.3	7.3
Recreational harvest limit	3.4	3.2	4.4	4.2	5.1	5.5	4.3	3.1	2.9	3.2	5.5	2.9	4.8
Spawning stock biomass <sup>2</sup>	31.3	37.1	42.1	45.9	46.8	45.6	46.6	45.5	45.0	53.5	53.5	7.1	26.5
Recruitment (age 0)	40.2	37.7	44.2	34.4	54.5	28.6	29.6	29.8	48.9	81.8	81.8	12.8	42.0
F (ages 3-7+)	0.67	0.49	0.43	0.41	0.44	0.45	0.34	0.26	0.24	0.24	1.98	0.24	1.03

1: Over the period 1982-2009

2: On November 1 annually

**Stock Distribution and Identification:** The Mid-Atlantic Fishery Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASMFC) Fishery Management Plan for summer flounder defines the management unit as all summer flounder from the southern border of North Carolina northeast to the US-Canada border. The results of a summer flounder genetics study (Jones and Quattro 1999) are consistent with the definition of the current management unit. The definition of Wilk et al. (1980) of a unit stock extending from Cape Hatteras north to New England has been accepted in this and previous assessments. The conclusions of a study of summer flounder stock structure incorporating tagging data (Kraus and Musick, 2001) are consistent with this assessment unit.

**Catch:** Total landings peaked in 1983 at 26,100 mt. During the late 1980s and into 1990, landings declined markedly, reaching 4,200 mt in the commercial fishery in 1990 and 1,400 mt in the recreational fishery in 1989. Total landings were only 6,500 mt in 1990. The principal gear used in commercial fishing for summer flounder is the otter trawl. Reported 2009 landings in the commercial fishery were 4,848 mt, about 1% under the commercial quota. Commercial discard losses in the otter trawl and scallop dredge fisheries are estimated from fishery observer data and have recently accounted for 5%-10% of the total commercial catch, assuming a discard mortality rate of 80%. Estimated 2009 landings in the recreational rod-and-reel fishery were 2,856 mt, about 12% under the recreational harvest limit. Recreational discard losses have recently accounted for 15%-20% of the total recreational catch, assuming a discard mortality rate of 10%. Total commercial and recreational landings in 2009 were 7,704 mt, and total catch was estimated at 9,017 mt (Figure 2).

**Data and Assessment:** The assessment model for summer flounder changed in the 2008 SAW 47 assessment (NEFSC 2008) from a virtual population analysis (ADAPT VPA) to a statistical catch at age model (ASAP SCAA; NFT 2008a). A new value for natural mortality was also adopted, changing from a constant value of  $M = 0.20$  to age- and sex-specific values that result in a mean value of  $M = 0.25$ . Biological reference points were therefore also revised, and the proxy for FMSY changed from  $F_{max}$  to  $F_{35\%}$ , with  $F_{40\%}$  recommended as  $F_{target}$ . The fishery catch is modeled as two fleets; total landings and total discards. Indices of recruitment and stock abundance from the NEFSC winter, spring, and autumn; Massachusetts spring and autumn; Rhode Island autumn and monthly; Connecticut spring and autumn; Delaware; and New Jersey trawl surveys were used in the ASAP SCAA model calibration. Recruitment indices from surveys conducted by the states of North Carolina, Virginia, and Maryland are also used in the calibration. The 2010 assessment uses the same model configuration as the 2008 SAW 47 (NEFSC 2008) and 2009 (Terceiro 2009) assessments, with input fishery and survey data updated through 2009.

**Biological Reference Points:** The current biological reference points for summer flounder were established in the 2008 SAW 47 assessment (NEFSC 2008), based on yield and SSB per recruit and projection models in the NOAA NFT framework (NFT 2006, 2008b; Thompson and Bell 1934). The threshold fishing mortality reference point is  $FMSY = F_{35\%} = 0.310$ . Maximum Sustainable Yield (MSY) at  $F_{35\%}$  is estimated to be 13,122 mt of landings (28.9 million lbs) and 1,510 mt of discards (3.33 million lbs) for a total catch of 14,362 mt (32.26 million lbs). The SSB reference point is estimated as the projection of Jan 1, 2008 stock sizes at  $F_{35\%} = 0.310$  and average (1982-2007) recruitment of 41.6 million fish per year.  $SSBMSY = SSB_{35\%}$  is estimated to be 60,074 mt (132.4 million lbs), and the biomass threshold of one-half  $SSBMSY$  is estimated to be 30,037 mt (66.2 million lbs). The 2008 SAW47 Panel recommended that  $F_{40\%} = 0.255$  be used as  $F_{target}$  for management.

**Fishing Mortality:** Fishing mortality calculated from the average of the currently fully recruited ages (3-7+) ranged between 1.0 and 2.0 during 1982-1996. The fishing mortality rate has declined to below 1.0 since 1997 and was estimated to be 0.237 in 2009, below the threshold fishing mortality reference point  $FMSY = F_{35\%} = 0.310$  (Figure 1). There is a 50% probability that the fishing mortality rate in 2009 was between 0.224 and 0.250 (Figure 3). The summer flounder stock

assessment has historically exhibited a retrospective pattern of underestimation of  $F$ ; the causes of this pattern have not been determined (Figure 7). Over the last 7 years, the annual internal model retrospective error in fishing mortality has ranged from +11% in the 2006 terminal year to -35% in 2003.

**Spawning Stock Biomass:** Spawning stock biomass (SSB) decreased from about 25,000 mt in the early 1980s to about 7,000 in 1989, then increased to above 40,000 mt by 2002. SSB was estimated to be 53,458 mt in 2009, about 89% of the  $SSB_{MSY} = SSB_{35\%}$  reference point = 60,074 mt (Figures 1 & 4). There is a 50% chance that SSB in 2009 was between 50,560 and 55,998 mt (Figure 5). The assessment has historically exhibited a retrospective pattern of overestimation of SSB; the causes of this pattern have not been determined (Figure 8). Over the last 7 years, the annual internal model retrospective error in SSB has ranged from -13% in the 2006 terminal year to +45% in 2003.

**Recruitment:** The arithmetic average recruitment from 1982 to 2009 is 42 million fish at age 0. The 1981 and 1982 year classes are the largest in the historical assessment time series, at 73 and 81 million fish; the 1988 year class is the smallest at 13 million fish. The 2008 year class is estimated to be about 49 million fish, 17% above the average. The 2009 year class is currently estimated to be about 82 million fish, about twice the average, and is the largest in the assessment time series (Figures 4 & 6). A recent pattern of overestimation in recruitment is evident (Figure 9). Over the last 3 years, the annual internal model retrospective error in recruitment has ranged from +54% for the 2008 year class to +80% for the 2006 year class.

**Special Comment:** Landings that correspond to fishing at or near the threshold fishing mortality rate ( $F_{MSY} = F_{35\%} = 0.310$ ) may result in overfishing if the previous retrospective pattern of underestimation of fishing mortality occurs in the future.

## Sources of Information

Jones, W.J., and J. M. Quattro. 1999. Genetic structure of summer flounder (*Paralichthys dentatus*) populations north and south of Cape Hatteras. *Marine Biology* 133: 129-135.

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Terceiro, M. 2006. Summer flounder assessment and biological reference point update for 2006. [http://www.nefsc.noaa.gov/nefsc/saw/2006FlukeReview/BRP2006\\_Review.pdf](http://www.nefsc.noaa.gov/nefsc/saw/2006FlukeReview/BRP2006_Review.pdf)

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Thompson, W.F., and F.H. Bell. 1934. Biological statistics of the Pacific halibut fishery. 2. Effect of changes in intensity upon total yield and yield per unit of gear. *Rep. Int. Fish. (Pacific halibut) Comm.* 8: 49 p.

Wilk, S.J., W. G. Smith, D.E. Ralph and J. Sibunka. 1980. The population structure of summer flounder between New York and Florida based on linear discriminant analysis. *Trans. Am. Fish. Soc.* 109:265-271.

Figure 1. Spawning stock biomass (SSB; 000s metric tons), fishing mortality (ages 3-7+), and the 2008 SAW 47 biological reference points for summer flounder.

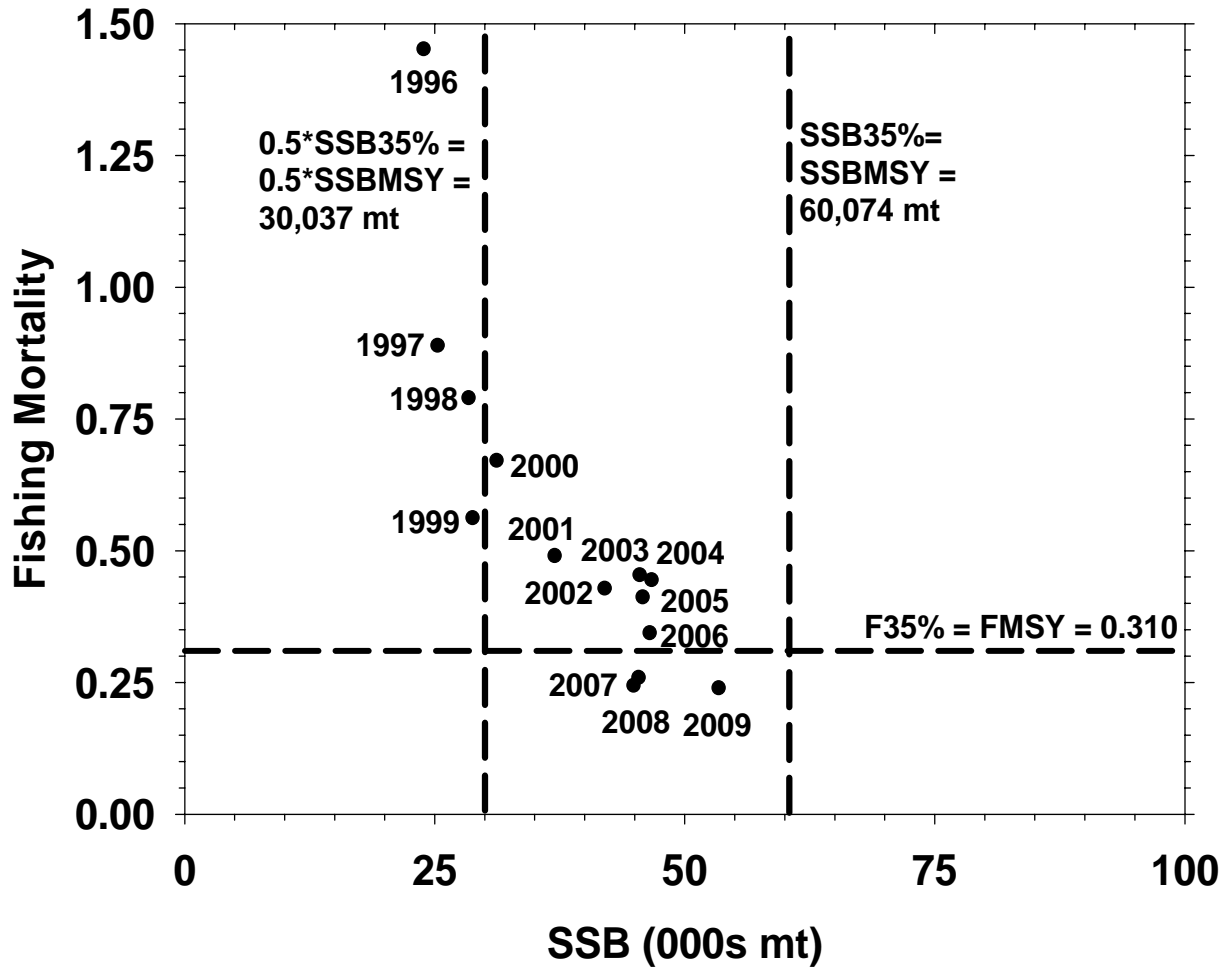


Figure 2. Total catch (landings and discards, metric tons) and fishing mortality rate (F, ages 3-7+) for summer flounder.

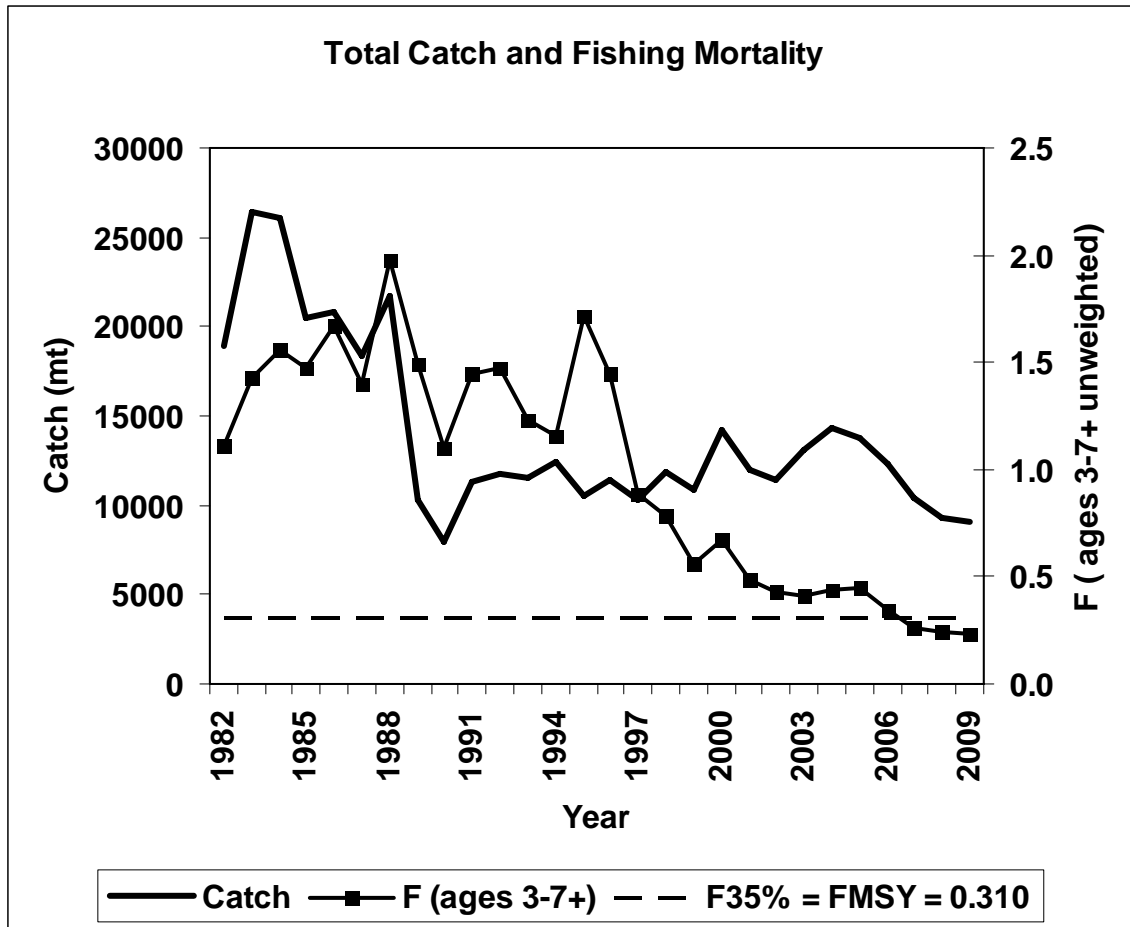


Figure 3. MCMC (Markov Chain Monte Carlo) distribution of instantaneous fishing mortality (F) in 2009 for summer flounder.

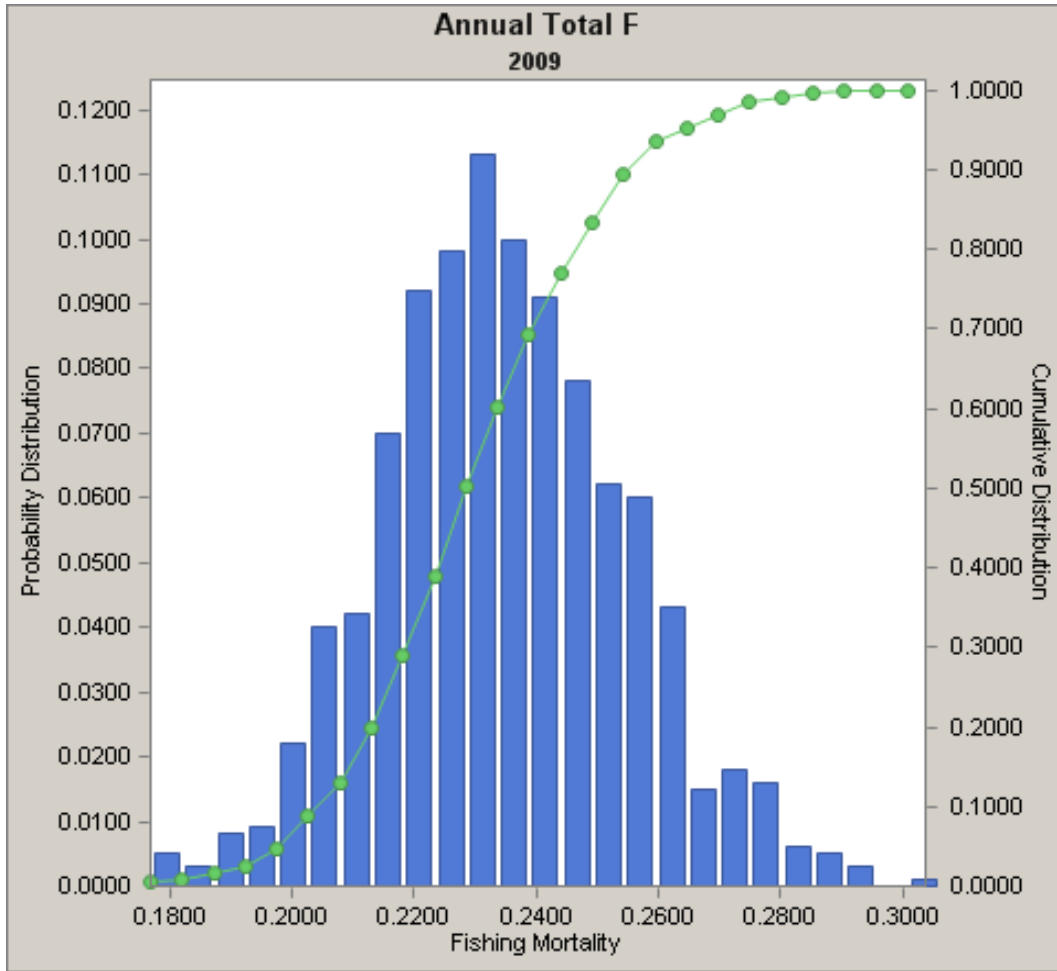


Figure 4. Spawning stock biomass (SSB, metric tons) and recruitment (R, age 0, 000s) for summer flounder.

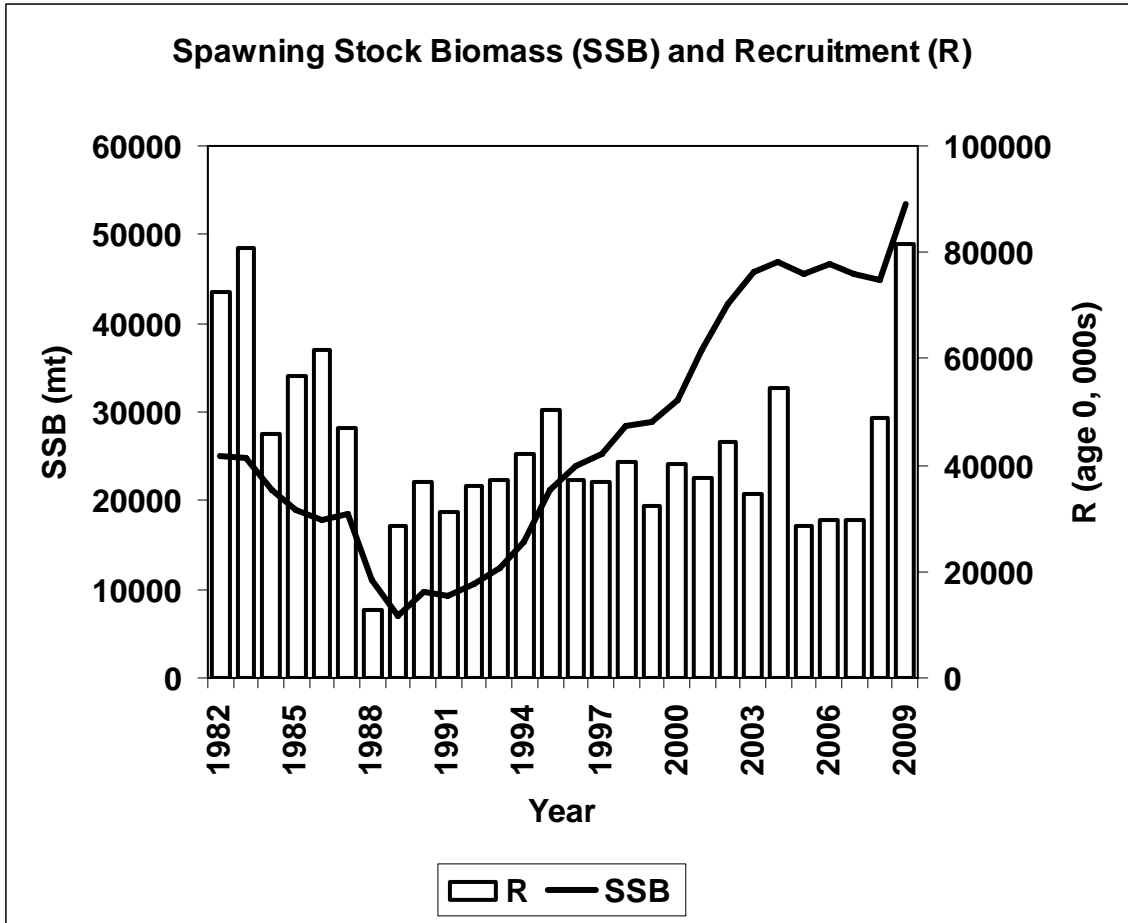




Figure 5. MCMC (Markov Chain Monte Carlo) distribution of Spawning Stock Biomass (SSB) in 2009 for summer flounder.

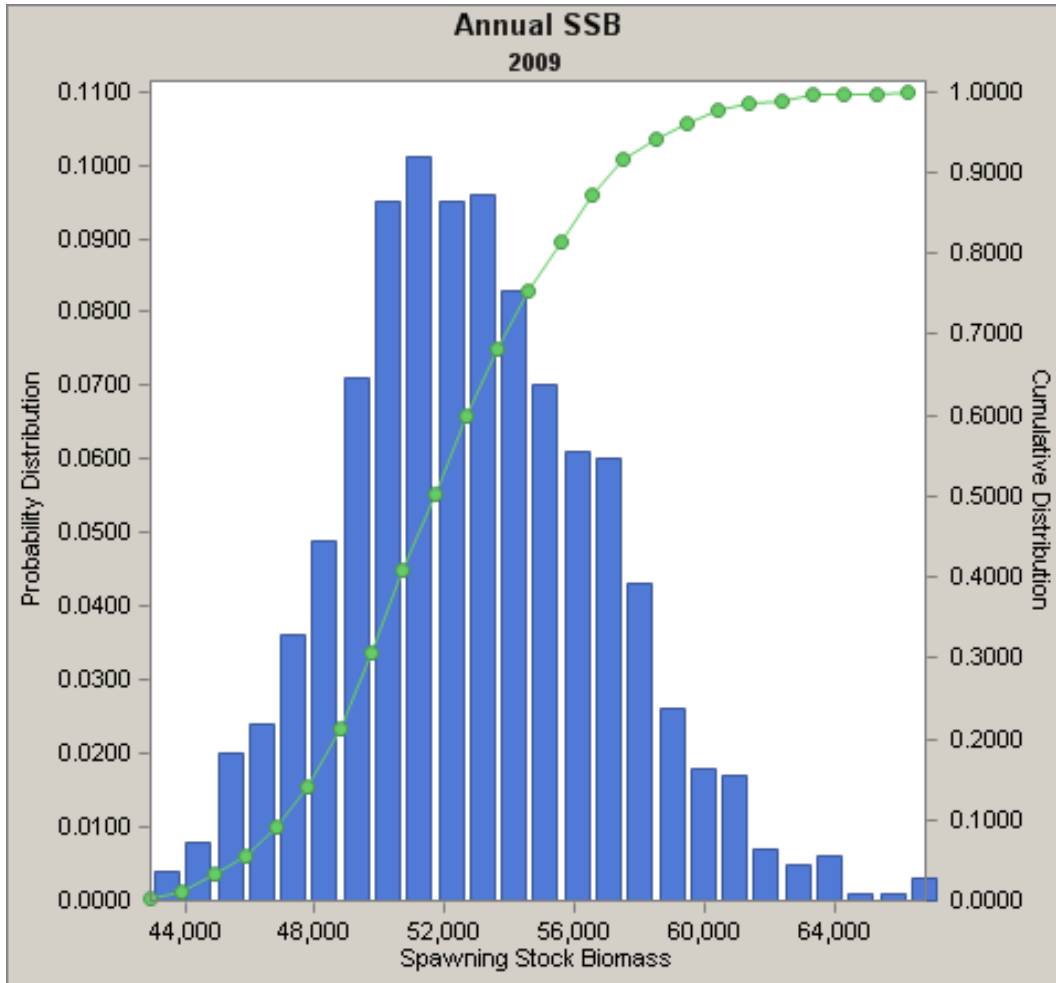


Figure 6. Spawning stock biomass (SSB, metric tons) and recruitment (R, age 0, 000s) scatterplot for summer flounder; 1983-2009 year classes.

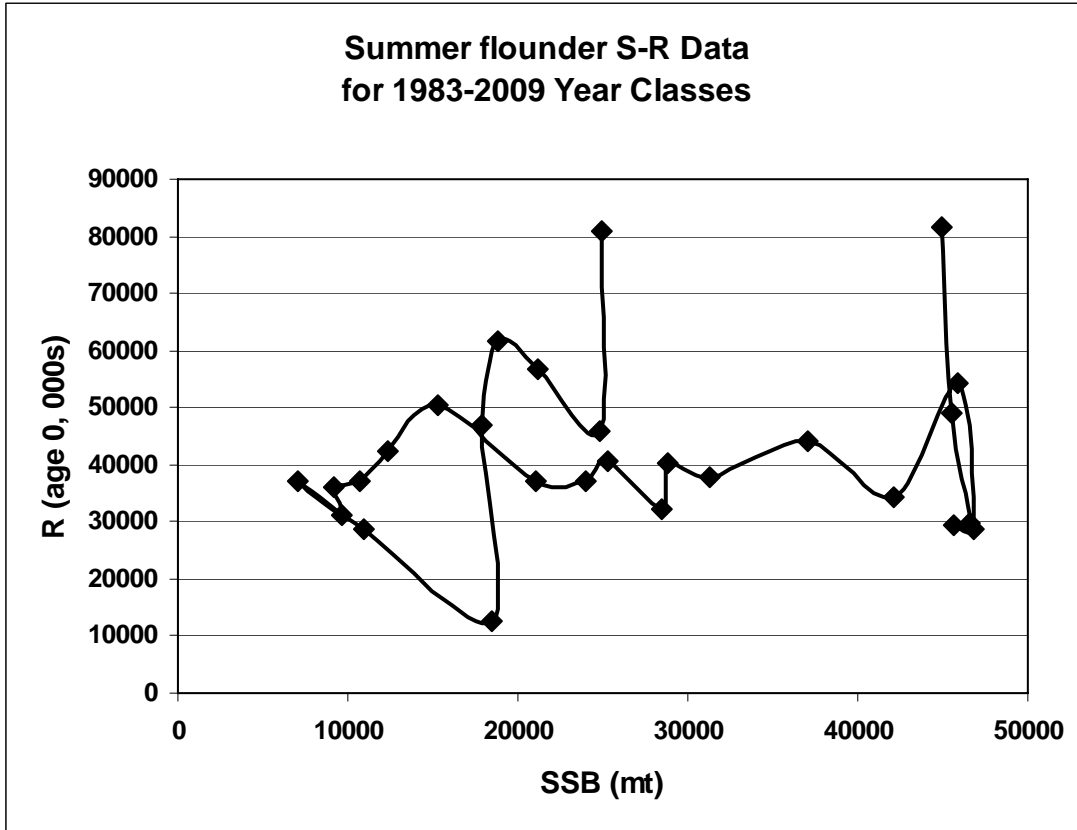


Figure 7. Retrospective analysis of Fishing Mortality for summer flounder. Note that model ages 4-8 are true ages 3-7+.

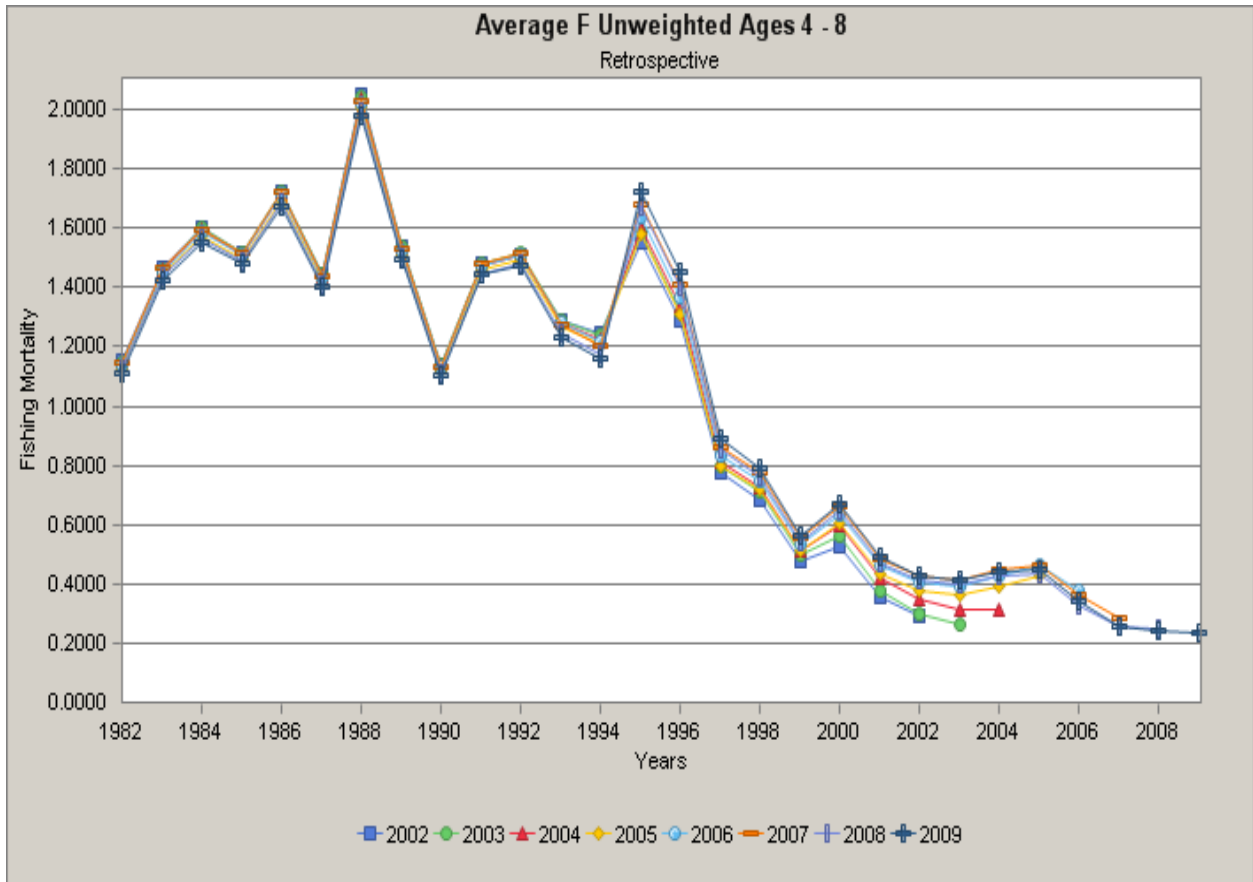


Figure 8. Retrospective analysis of Spawning Stock Biomass (metric tons) for summer flounder.

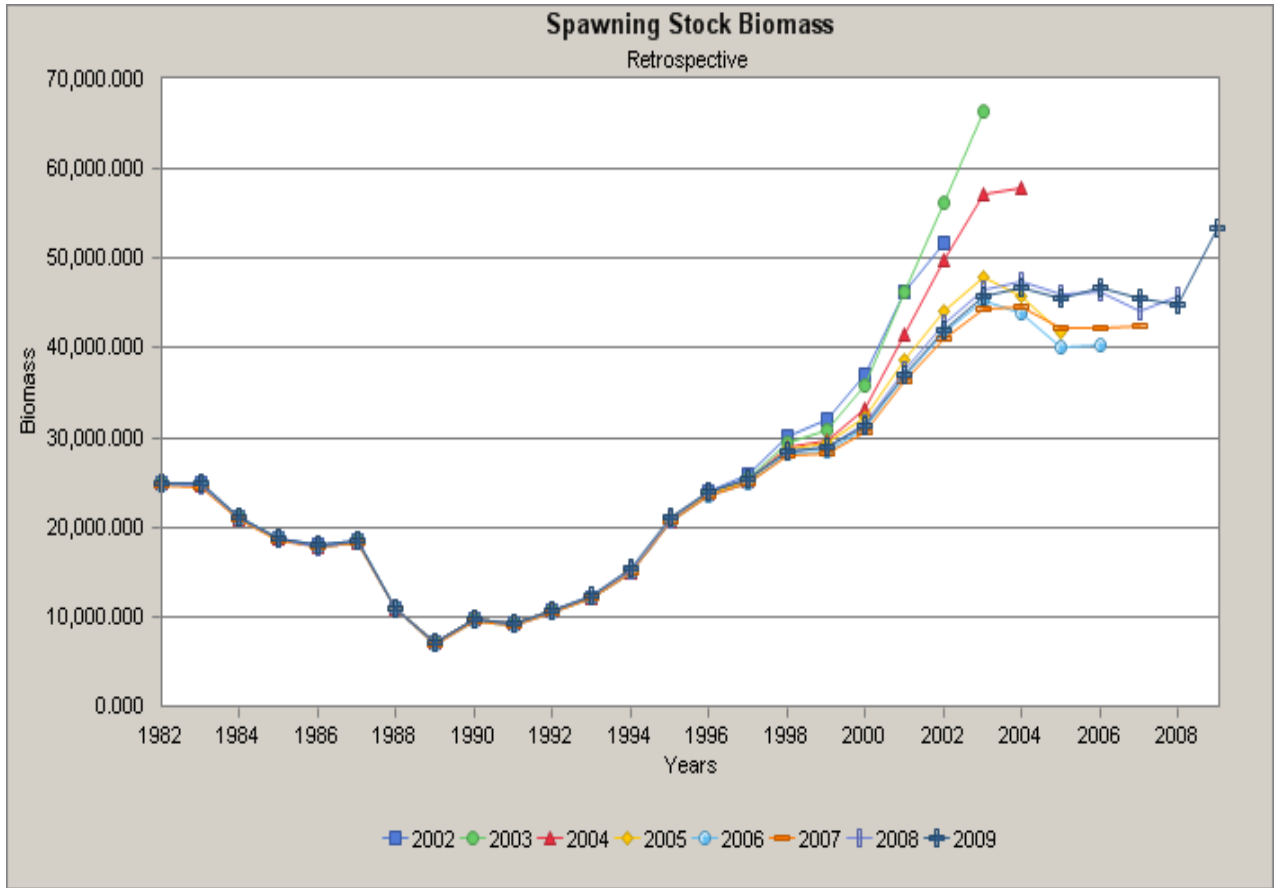


Figure 9. Retrospective analysis of Recruitment (Stock Numbers; 000s age 0 fish) for summer flounder. Note that model age 1 is true age 0.

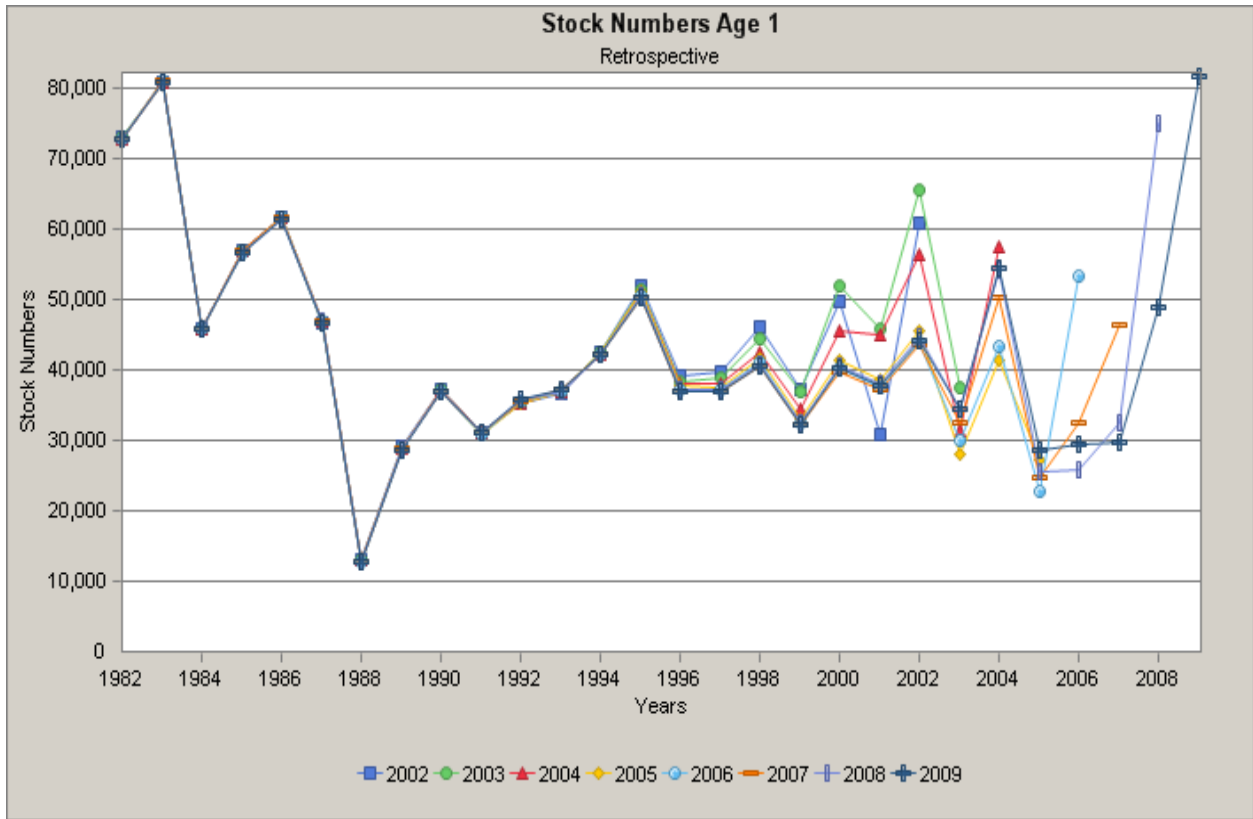


Figure 10. Comparison of Spawning Stock Biomass (SSB; metric tons) estimates from the 2008 SAW47, 2009 updated, and 2010 updated stock assessments for summer flounder.

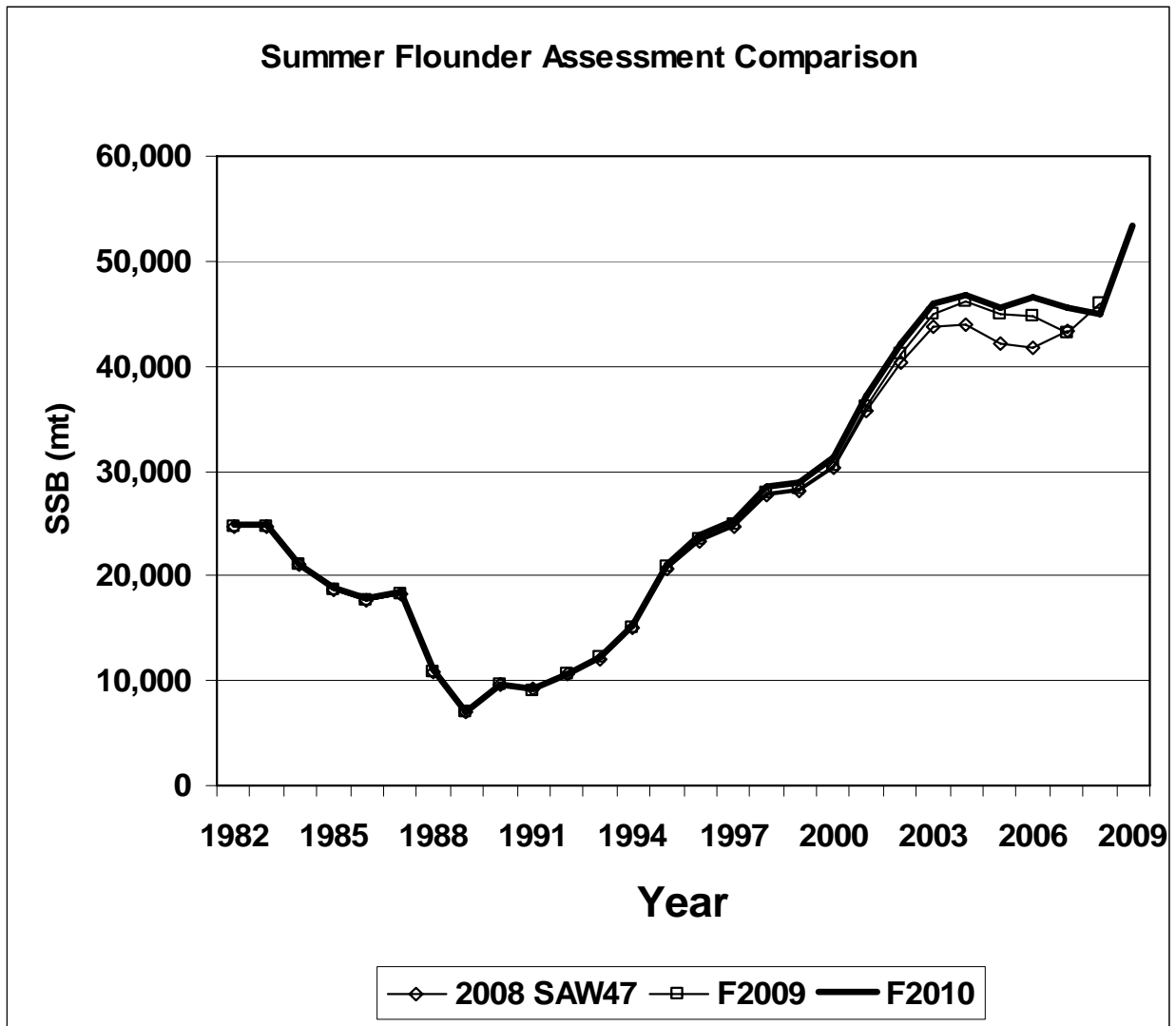


Figure 11. Comparison of Fishing Mortality (F) estimates from the 2008 SAW47, 2009 updated, and 2010 updated stock assessments for summer flounder.

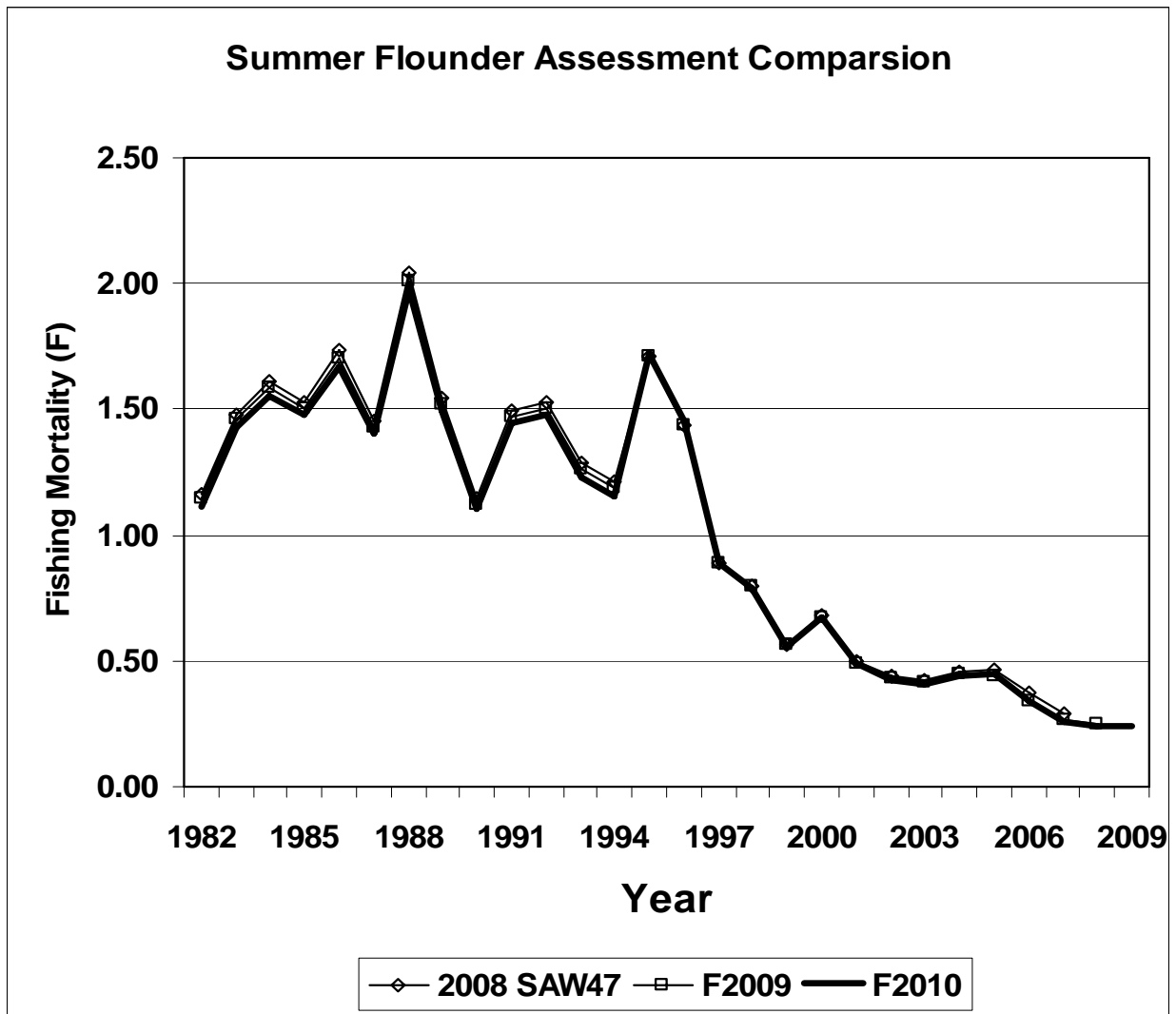


Figure 12. Comparison of Recruitment (000s of age 0 fish) estimates from the 2008 SAW47, 2009 updated, and 2010 updated stock assessments for summer flounder.

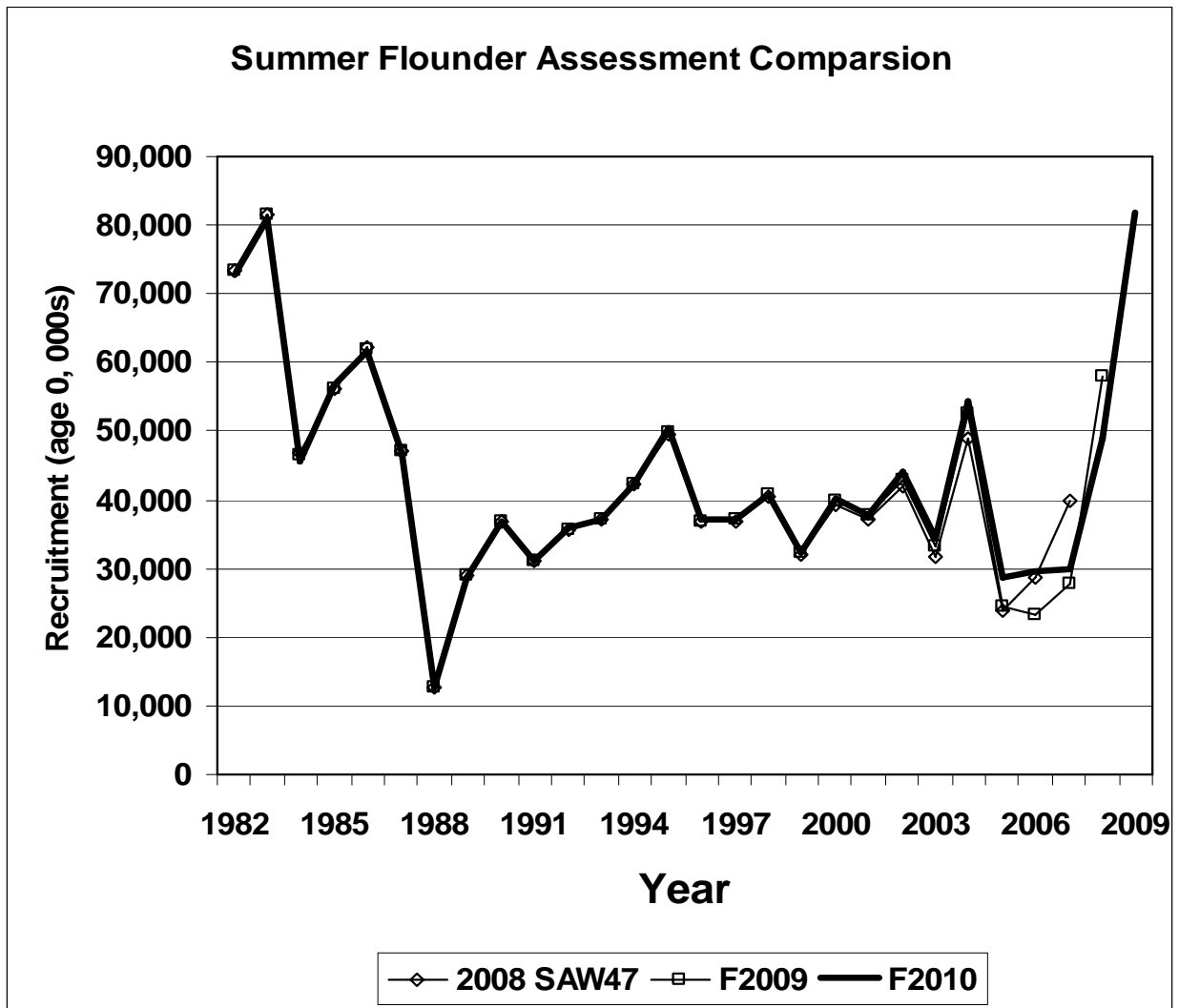
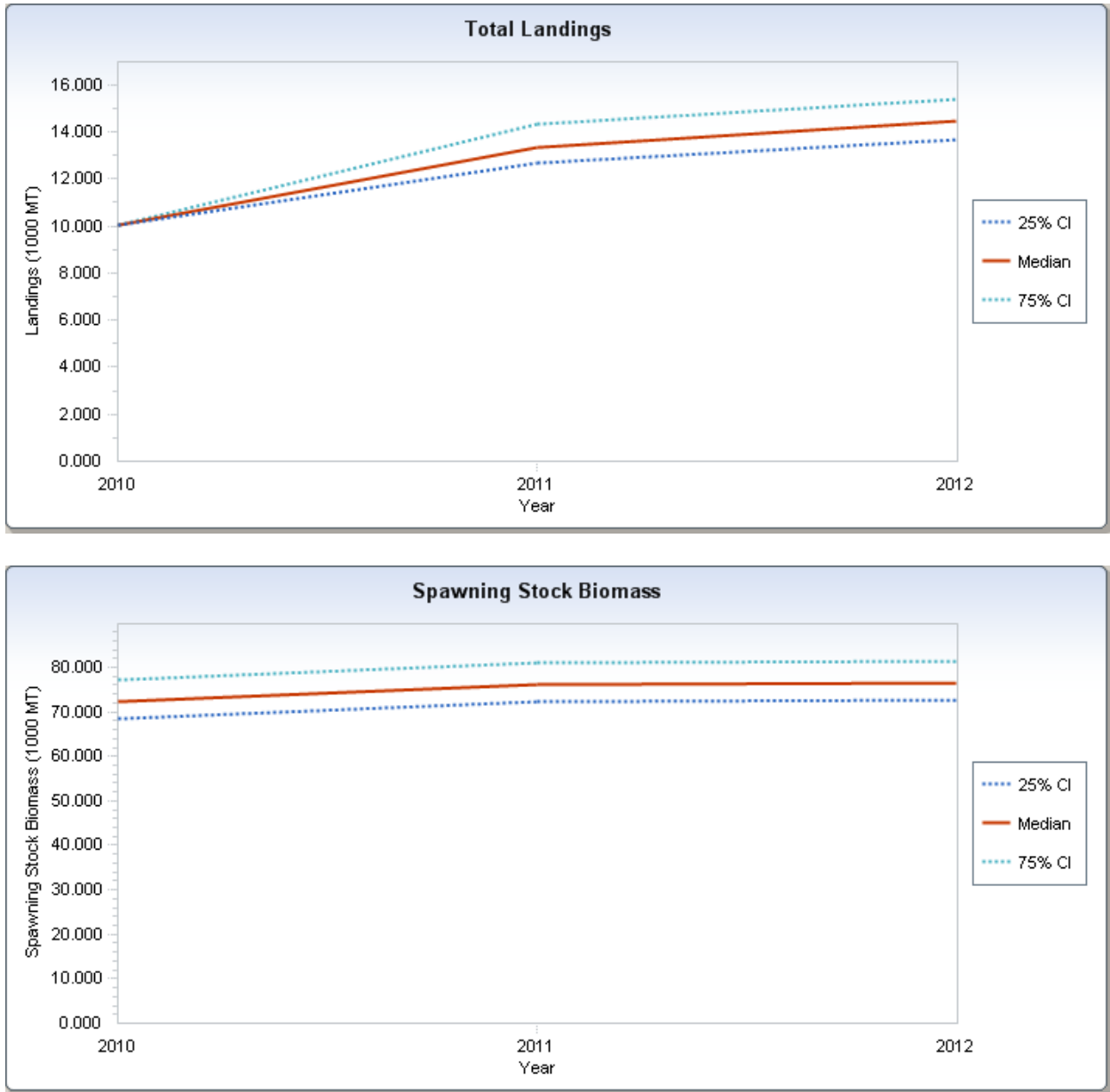




Figure 13. Projection of Landings (top) and Spawning Stock Biomass (bottom) for 2010-2012 at  $F_{target} = F_{40\%} = 0.255$ .





## Summer Flounder Stock Assessment Update

### 6 Things To Know

1. How do we assess the population? The information on summer flounder was integrated into a useful mathematical model called an age-structured assessment program (ASAP). The population is modeled, much as the U.S. Census Bureau models human populations using similar data—population size at age, growth rates, age at maturity, reproductive potential and success, life span, and removals by deaths. The summer flounder stock assessment model uses widely-accepted and commonly-used fishery science principles to analyze the population size. The data used have been collected annually since 1982 from fish caught (recreational and commercial) and fish sampled in the ocean (taken on research surveys.)

2. How do we "check" the models? By conducting a benchmark assessment such as the June 2008 Stock Assessment Workshop (SAW/SARC 47) for summer flounder. A working group of fishery scientists conducts a thorough evaluation of available data, methods and models, and selects those that best represent the summer flounder population. This work is then “peer reviewed” by a group of independent experts. The summer flounder assessments have been peer reviewed 17 times in the last 26 years. The peer reviews have validated assessment results and helped improve stock assessment methods and modeling. Stock assessment updates are conducted in the years between peer reviews. Updates include the most recent data, but apply the exact same methods that were validated by the peer-review. The 2010 stock assessment update included data through 2009.

3. Is the summer flounder stock rebuilt? The June 2008 Stock Assessment Workshop (SAW/SARC 47) set the rebuilding goal as 132 million pounds of spawning stock biomass. The most recent stock assessment update indicates that the current spawning stock size is about 89% of the biomass goal, and that rebuilding can occur on schedule (by Jan. 1, 2013), given continued success in staying at or below annual commercial quotas and recreational harvest limits.

4. Have rebuilding targets been set too high in the past? No, but since 1999 the rebuilding targets have been declining. None, however, has ever been achieved. Targets often change over time as fishery scientists improve models and methods, and as new data are available on how the stock responds (grows, produces young, dies) to ecosystem conditions and fishing rules intended to end overfishing and rebuild the stock.

5. Are we overfished or overfishing? No, but the stock is not yet rebuilt and fishing harvests need to stay within the annual limits to ensure that it will be.

6. Have harvest quotas and limits been set too low in the past? No. The quotas and limits have been set consistent with the scientific advice, and have been exceeded in most years since 1982. Overfishing was occurring from 1982-2006; however it was not occurring in the three most recent years 2007 - 2009. The most recent stock assessment update suggests that initial quotas and limits for 2011 may be set slightly higher than those in 2010 without compromising rebuilding goals if 2010 quotas and limits are not exceeded.

**The Scientific and Statistical Committee (SSC) full report is available under Briefing Book TAB 18 and should be referenced. The following provides a summary.**

## **Bluefish**

### ***1) The materials considered in reaching its recommendation;***

- Northeast Fisheries Science Center. 2005. 41st Northeast Regional Stock Assessment Workshop (41st SAW). 41st SAW assessment report. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 05-14; 237 p.
- Atlantic States Marine Fisheries Commission. 2010. Bluefish assessment summary. Atlantic States Marine Fisheries Commission Bluefish SASC, June 2010. 16 p.
- MAFMC Staff Memo dated 30 June 2010: Bluefish Management Measures for 2011

### ***2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;***

Derived directly from the stock assessment, based on an  $F_{MSY} = 0.19$ , the OFL is specified at 39.621 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{35\%} = 0.19$ ).

### ***3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard 1 Guidelines;***

The SSC recommends an ABC based on  $F_{REBUILD}$ ,  $F = 0.15$ , and results in an ABC of 31.744 million pounds. This catch level is based on the 50<sup>th</sup> percentile of catches at  $F = 0.15$ .

### ***4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);***

It is not possible to provide a pdf associated with the OFL since significant sources of uncertainty were not taken into account in the assessment. Based on the values provided in the assessment document, there is a low probability of exceeding the OFL when constraining the fishery to the ABC. However, the SSC notes that the values of uncertainty provided in the assessment document incorporate uncertainties in only a few elements of the assessment and do not include the impact of significant uncertainties, such as the bimodal selectivity curve, missing elements in the age-length keys, and the highly seasonal nature of the commercial and recreational fisheries.

### ***5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;***

- There is a significant level of missing data involved in the age-length keys (ALKs), which are critical for development of the catch at age matrix.

- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment. Also, some near shore areas previously sampled by the ALBATROSS IV are unavailable for sampling by the BIGELOW.
- Commercial discards are assumed to be insignificant, which may not be the case.
- Much of population biomass (~40%) is in the aggregated 6+ age group for which there is relatively little information.
- Weight at age is assumed to be constant for the period 2004+. This has potentially substantial implications for estimates of population biomass, especially biomass relative to  $B_{msy}$ .
- Questions have been raised about the uncertainty in the MRFSS estimates in general, and are particularly relevant here given the highly episodic nature of bluefish catches in the recreational fisheries coast wide.
- The basis for the unusual bimodal selectivity curve used in the ASAP model is not well understood.

*6) A certification that the recommendations provided by the SSC represents the best scientific information available.*

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

#### **Assessment Level Specification**

Level 3 (see Attachment 2 for assessment level specification criteria)

## Science and Statistical Committee, Bluefish Monitoring Committee Recommendations for 2011

The Council's Scientific and Statistical Committee (SSC) convened on July 29, 2009 to develop an acceptable biological catch (ABC) determination for the 2011 bluefish fishing year. Terms of Reference were developed and addressed at the meeting. These are addressed below:

- 1) The materials considered by the SSC in reaching its recommendation.
  - SARC 41 Summary Report (NEFSC 2005)
  - Bluefish Assessment [Update] Summary (ASMFC 2010)
  - MAFMC Staff Memo to the SSC
- 2) The level of catch (in weight) associated with the overfishing level (OFL) for the stock.
  - Catch associated with OFL is 39.621 M lbs (17,972 mt), which corresponds to  $F = 0.19$  ( $F_{msy}$ )
- 3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock.
  - Catch associated with ABC is 31.744 M lbs (14,399 mt), which corresponds to  $F = 0.15$
- 4) If possible, the probability of overfishing associated with catches associated with OFL and ABC recommendations (if not possible, provide a qualitative evaluation).
  - Applying ASAP model variability only in the projections (other, possibly significant, but unquantifiable sources of uncertainty exist) there is a deterministic 50% probability of overfishing with catches at OFL. This is because the projected yield at  $F_{msy}$  (i.e., OFL) is the median, or 50 percentile value in the projection.
  - Based on the precision of the estimate of ABC, the probability of overfishing at ABC is very low, however, additional sources of uncertainty increase that probability.
  -
- 5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC are:
  - There is a significant level of missing data involved in the age length keys (ALKs) which are critical for development of the catch at age matrix.
  - **Borrow from BSB**. Also, some nearshore areas previously sampled by the R/V Albatross are unavailable for sampling by the FSV Bigelow.
  - Commercial discards are assumed to be insignificant. This may not be the case.
  - Much of population biomass (~40%) is in the aggregated 6+ age group for which there is relatively little information.
  - Weight at age is assumed to be constant for the period 2004+. This has potentially substantial implications for estimates of population biomass, especially biomass relative to  $B_{msy}$ .
  - Questions have been raised about the uncertainty in the MRFSS estimates in general.

- The basis for the unusual bimodal selectivity curve used in the ASAP model is not well understood.
- 6) **BSIA boilerplate.** The assessment was determined to be "Level-3".

The Bluefish Monitoring Committee (MS) met July 30, 2010 to develop bluefish management measure recommendations for 2011. The following consists of their recommendations:

1) TAC/TAL.

- TAC = ABC = 31.744 M lb
- TAL = TAC – Disc (4.451 M lb) = 27.293 M lb

2) Recreational Transfer.

- Transfer = the maximum amount allowed (currently 4.772 M lb) while not resulting in a recreational harvest limit (RHL) in excess of expected recreational harvest. The transfer amount should be revised as needed as new information becomes available.

3) Recreational possession limit.

- Status Quo (15 fish)

4) Research Set-Aside (RSA).

- Up to 3 % of TAL

5) Comments on the weak 2009 year class:

- Management measures beyond the current F-based catch target are not warranted to address the 2009 year class. Additional information on the strength of the 2009 year class will be available in a future assessment update. If a subsequent (i.e., 2010) low year class is observed, additional management action may need to be taken.

A summary of the allocation of the recommended TAL among the recreational and commercial sectors is provided in Table 1. The allocation of commercial quota among the states for 2011 is provided in Table 2.

Table 1. Monitoring Committee recommendations for bluefish TAC/TAL, commercial/recreational allocations in 2011.

<b>Mgmt Measure</b>	<b>M lbs</b>
TAC	31.744
Discards	4.451
TAL	27.293
17% Comm	4.640
83% Rec	22.653
Expected Rec landings	17.882
Allowable Transfer	4.772
Comm Quota	9.411
RHL	17.882

Table 2. Initial allocation of 2011 bluefish commercial quota among states (lbs). Comparison with current year (2010) levels is provided. The 2011 commercial quota represents a 7.9% decrease compared to the specified 2010 quota.

		<b>State Quotas (lb)</b>	
		<b>2010</b>	<b>2011</b>
<b>State</b>	<b>Share</b>		<b>F = 0.15</b>
<b>ME</b>	0.006685	68,275	62,915
<b>NH</b>	0.004145	42,334	39,010
<b>MA</b>	0.067167	685,991	632,136
<b>RI</b>	0.068081	695,326	640,738
<b>CT</b>	0.012663	129,330	119,177
<b>NY</b>	0.103851	1,060,653	977,384
<b>NJ</b>	0.148162	1,513,211	1,394,413
<b>DE</b>	0.018782	191,825	176,765
<b>MD</b>	0.030018	306,580	282,512
<b>VA</b>	0.118795	1,213,280	1,118,028
<b>NC</b>	0.320608	3,274,441	3,017,373
<b>SC</b>	0.000352	3,595	3,313
<b>GA</b>	0.000095	970	894
<b>FL</b>	0.100597	1,027,419	946,760
<b>Total</b>	1.000001	10,213,222	9,411,410



**Date: June 9, 2010**

**To: MAFMC Scientific and Statistical Committee and Bluefish Monitoring Committee**

**From: Jim Armstrong, MAFMC Staff Lead on Bluefish**

**Subject: Bluefish Management Measures for 2011**

## **Introduction**

The specification of bluefish management measures is a joint process conducted annually by the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's Bluefish Management Board (Board) with information and recommendations coming from their associated committees. The Commission's Bluefish Stock Assessment Subcommittee (SASC) updates the bluefish assessment and conducts short term projections. The Council's Scientific and Statistical Committee (SSC) reviews assessment results and determines the acceptable biological catch (ABC) for the upcoming year. ABC is a reduction from the overfishing limit (OFL) based on the SSC's consideration of scientific uncertainty and serves as an upper limit on the catch target that management measures attempt to achieve. The Council's Bluefish Monitoring Committee (MC) develops and recommends specific coastwide (Maine – E. Coast Florida) management measures and allocations that will achieve target catch and make further adjustments to total catch as needed based on management uncertainty. Finally, the Council and Board meet jointly to develop recommendations to be submitted to the National Marine Fisheries Service.

In this memorandum, information is presented to assist the SSC and MC in their roles in the specification process. Assessment update results are presented briefly, and a more detailed summary prepared by the SASC is distributed under separate cover.

## **Assessment Update**

The bluefish stock is assessed using a forward projecting statistical catch at age model (ASAP: Legault and Restrepo 1998) which was reviewed and approved in 2005 by the 41<sup>st</sup> Stock Assessment Review Committee (41<sup>st</sup> SARC). The ASAP model (ver. 2.0.20) was updated using 1982 through 2009 catch data as well as state and federal indices.

The ASAP model estimate of fishing mortality for 2009 is 0.10, well below F threshold ( $F_{msy} = 0.19$ ) and the specified 2009 F target (0.15). This outcome supports the statement that for 2009 *overfishing was not occurring*. The 2009 F estimate is the lowest in the 28 year time series. Relative to historic fishing mortality targets, model estimates of realized F have been below threshold levels since 1997 which is consistent with increasing biomass. Retrospective analysis of terminal year F estimates suggests underestimation of F in 2004, 2007, and 2008, overestimation in 2002 and 2003, and no change in 2005 and 2006 (Figure 4 in the Assessment Update Summary).

The time series of estimated stock biomass continues to trend upward. The estimate for 2009 is 155,991 mt (343.901 M lb). This is above the  $\frac{1}{2} B_{msy}$  biomass threshold of 73,526 mt (162.096 M lb) and supports the statement that *the stock is not overfished*. Furthermore, the biomass estimate is above the biomass target of  $B_{msy}$  (147,052 mt or 324.192 M lb), which is consistent with a



rebuilt stock. The ASAP estimate of biomass has been above  $B_{msy}$  since 2007. Retrospective analysis of terminal year biomass estimates (in this case spawning stock biomass) shows very consistent estimation (Figure 3 in the Assessment Update Summary).

Population abundance peaked in 2007 at 98 million fish, declining slightly in 2008 to 94 million fish and further to 73 million fish in 2009 due to a very weak 2009 year class. While some survey indices (DE age-0 and SEAMAP age-0) support a large 2009 year class, the very low fishery catch of age 0 fish tends to drive the low model estimate. Retrospective analysis indicates variability in updates to terminal year age-0 abundance estimates, but shows no consistent pattern. The size of the 2009 year class will be an important consideration for the 2011 fishing year as it has a moderating effect on projected biomass. These fish will comprise the age-1 bluefish in 2010 and age-2 bluefish in 2011. Selectivity on age 1 and 2 bluefish is 100% and 94%, respectively.

### Sources of Uncertainty

Although the ASAP model quantifies model uncertainty, there is unquantifiable scientific uncertainty associated with this assessment. Most of this uncertainty relates to the data used to establish the age-length key (ALK), a central source of information for developing the catch at age (CAA) matrix that the ASAP model attempts to replicate. Additional sources of uncertainty include commercial discards, the recreational catch, and the survey indices. With regard to the latter, it should be noted that 2009 is the first year in which the NOAA RV Henry B. Bigelow was used for the NMFS inshore fall survey. This may have resulted in under-sampling of fish in nearshore waters since those strata are not accessible to the new vessel.

### Projections

Using ASAP MCMC output through 2009, a range of  $F$  targets from  $F = 0.10$  (status quo) to  $F = 0.19$  ( $F_{msy}$ ) was run through AGEPRO to project yield and population biomass for the 2011 fishing year (Figure 1). Projections incorporate model variability, so projected quantities are bounded by  $\pm$  one standard error. All biomass projections show a flattening trajectory from 2009 to 2011, however, none of the projections show biomass below  $B_{msy}$  in 2011, including  $F = F_{msy}$  (0.19).

The default  $F$  target defined in the FMP is 90% of  $F_{msy}$  which corresponds to  $F = 0.17$  (90% of  $F_{msy} = 0.19$ ). Yields associated with  $F = 0.14$  to  $F = 0.17$  are consistent with the range of catches including current 2010 TAC and average catch from the last five years (Table 1). It is suggested that  $F = 0.17$  serve as an upper bound for  $F$  target for ABC in 2011. Although realized  $F$  has been less than  $F$ -target in four of the last five years, setting the  $F$ -target at  $F_{msy}$  (0.19) would specify fishing at the overfishing level (OFL)

- The TAC (ABC) associated with  $F$  target = 0.17 is 16,199 mt ( $\pm$  1 SE = 15,787 – 16,611 mt; Table 1). Because discards are included in the catch at age matrix within the model input, the yields associated with projections at a given  $F$  include discards. In other words, projected total yield is equivalent to total allowable catch (TAC). In order to calculate the TAL, an estimate of discards for the projection year must be subtracted. Commercial discards are assumed to be insignificant in the model input, so the estimate of discards is calculated as the average weight of the recreational discards for the past three years. The resulting value for 2007-2009 is 2,019 mt which corresponds to a TAL of 14,180 mt, a 7% increase from the 2010 TAL of 13,274 mt.

- The TAC associated with F target = 0.10 is 9,779 mt (-/+ 1 SE = 9,531 – 10,027 mt). The corresponding TAL is 7,760 mt – a 42% decrease from the 2010 TAL.
- Other TAC/TAL scenarios are tabulated below.

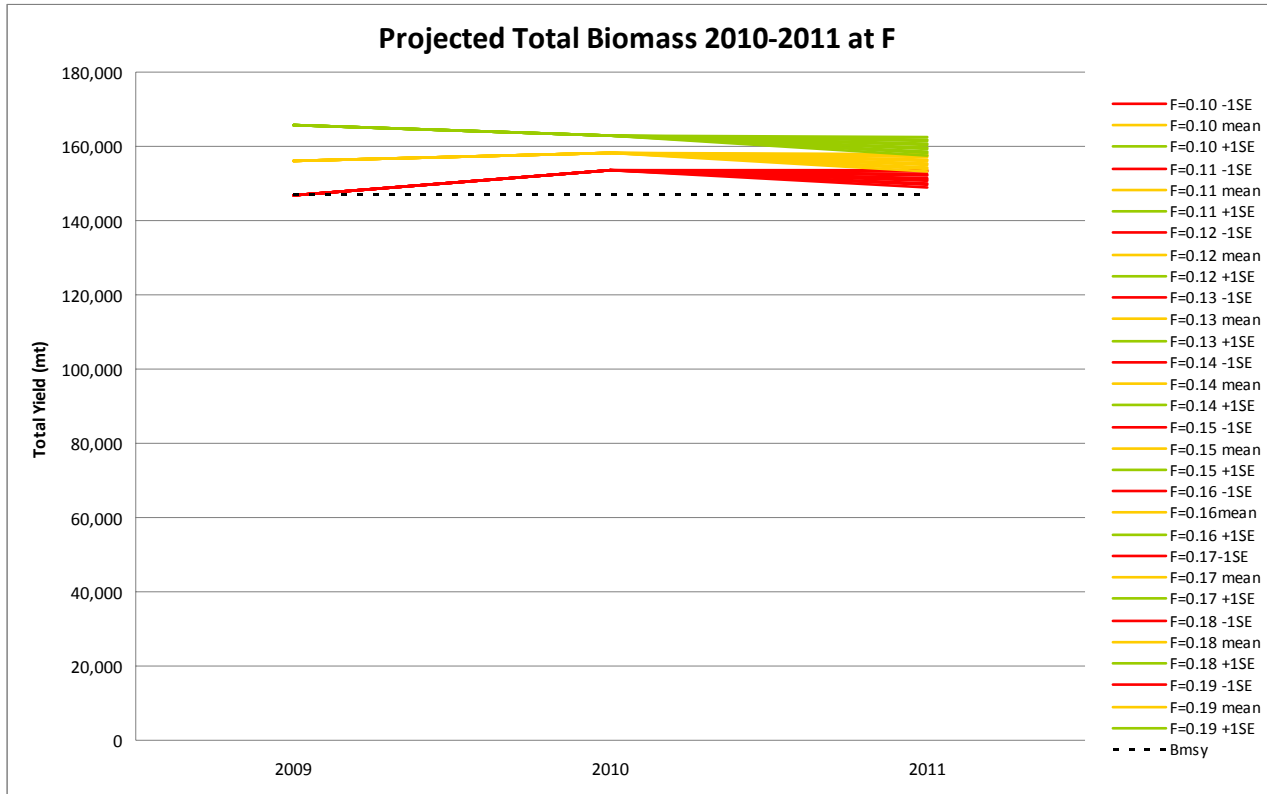


Figure 1. Projected bluefish biomass from AGEPRO.

Table 1. Projected yield scenarios for 2011 over a range of F- targets. All assume catch in 2010 consistent with status quo F.

<b>Yield (mt)</b>					
<b>F-target</b>	<b>- 1 STD DEV</b>	<b>Average (TAC)</b>	<b>+ 1 STD DEV</b>	<b>TAL</b>	<b>% change rel to 2010 TAL (13,274 mt)</b>
0.10	9,531	9,779	10,027	7,760	-42%
0.11	10,445	10,717	10,989	8,698	-34%
0.12	11,352	11,648	11,944	9,629	-27%
0.13	12,253	12,572	12,891	10,553	-20%
0.14	13,146	13,489	13,832	11,470	-14%
0.15	14,033	14,399	14,765	12,380	-7%
0.16	14,913	15,302	15,691	13,283	0.07%
0.17	15,787	16,199	16,611	14,180	7%
0.18	16,654	17,089	17,524	15,070	14%
0.19	17,515	17,972	18,429	15,953	20%

<b>Yield (M lbs)</b>					
<b>F-target</b>	<b>- 1 STD DEV</b>	<b>Average (TAC)</b>	<b>+ 1 STD DEV</b>	<b>TAL</b>	<b>% change rel to 2010 TAL (29,264 M lbs)</b>
0.10	21.012	21.559	22.106	17.108	-42%
0.11	23.027	23.627	24.227	19.176	-34%
0.12	25.027	25.679	26.332	21.228	-27%
0.13	27.013	27.717	28.420	23.265	-20%
0.14	28.982	29.738	30.494	25.287	-14%
0.15	30.937	31.744	32.551	27.293	-7%
0.16	32.878	33.735	34.593	29.284	0.07%
0.17	34.804	35.713	36.621	31.262	7%
0.18	36.716	37.675	38.634	33.224	14%
0.19	38.614	39.621	40.629	35.170	20%

## **Allocation Process**

Based on the historic proportion of commercial and recreational landings for the period 1981-1989, 17% of the TAL is initially allocated to the commercial fishery. The FMP stipulates that if 17% of the TAL is less than 10.5 M lb (4,763 mt), then the commercial quota could be increased up to 10.5 M lb as long as the recreational fishery is projected to land less than 83% of the TAL for the upcoming year.

## **Current Year Specifications**

For the current fishing year, the Council's Science and Statistical Committee (SSC), Monitoring Committee, and the Council recommended an overall TAL of 29.264 M lb (13,274 mt - See Table 2). Although estimated stock biomass was above Bmsy for the second year, the SSC chose a precautionary approach to setting F target and chose  $F = 0.15$  (i.e., Frebuild) for a further year. In the final rule the TAL was divided into a commercial quota of 10.213 M lb (4,633 mt) and a RHL of 18.631 M lb (8,451 mt).

## **Commercial Landings and Recreational Catch/Landings**

The TAC / TAL implemented for fishing years 2000 through 2010, as well as the related landings and F estimates, where applicable are presented in Table 2.

Bluefish commercial landings decreased from 16.5 M lb in 1981 to 7.3 M lb in 1999 (Table 3). From 2000 - 2009, commercial landings have been steady at around 7 M lb except in 2008 when landings (5.97 M lb) reached the lowest level in the 28-year time-series (Table 3).

Recreational catches and landings showed a downward trend from 1981-1999 (Tables 3, 4). Landings decreased to 30.6 M lb in 1990 from the 1981 level of 95.3 M lb. In 1991, recreational landings increased to 33.0 M lb and then steadily declined to 8.3 M lb in 1999, the lowest value in the time series. Since, 1999, recreational landings have generally increased. A decrease in recreational landings occurred in 2009 (13.6 M lb) relative to 2008 (18.9 M lb) (Tables 3, 4). This is a decrease of 28%. The decrease in recreational catch appears to be linked to low catches of age-0 fish. The recreational catch-per-angler dropped 80% relative to catch-per-angler of age-0 fish in 2008. The proportion of bluefish released by anglers in 2008 was 66%. Release percentages have generally increased over time (Table 4).

**Table 2. Summary of bluefish management measures, 2000 - 2010.**

<b>Management Measures</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
TAL (M lb)	35.328	37.841	26.866	37.293	31.85	30.853	24.797	27.762	28.156	29.356	29.264
Comm. Quota (M lb)	9.583	9.583	10.500	10.500	10.500	10.500	8.081	8.689	7.705	9.828	10.213
Comm. Landings (M lb)	8.041	8.688	6.863	7.401	7.994	7.045	6.955	7.499	5.968	6.990	-
Rec. Target	25.745	28.258	16.365	26.793	21.35	20.353	16.718	19.073	20.451	19.528	18.631
Rec. Landings (M lb)	10.606	13.23	11.371	13.136	15.203	16.162	16.894	21.163	18.900	13.583	-
Rec. Possession Limit	10	15	15	15	15	15	15	15	15	15	15
Total Landings	18.647	21.918	18.234	20.537	23.197	23.207	23.849	28.662	24.868	20.573	-
Overage/Underage (M lb)	-16.681	-15.923	-8.632	-16.756	-8.653	-7.646	-0.948	+0.900	-3.288	-8.826	-
Target F	N/A	N/A	N/A	N/A	N/A	0.15	0.15	0.15	0.15	0.15	0.15
ASAP F estimate	0.13	0.15	0.13	0.14	0.15	0.15	0.14	0.16	0.12	0.10	-

RSA=Research Set-Aside maximum value of 100,000 lb in 2009

**Table 3. Bluefish commercial and recreational landings ('000 lb), 1981-2009.**

<b>Year</b>	<b>Comm</b>	<b>Rec</b>	<b>Total</b>	<b>% Comm</b>	<b>% Rec</b>
1981	16,454	95,288	111,742	15%	85%
1982	15,430	83,006	98,436	16%	84%
1983	15,799	89,122	104,921	15%	85%
1984	11,863	67,453	79,316	15%	85%
1985	13,501	52,515	66,016	20%	80%
1986	14,677	92,887	107,564	14%	86%
1987	14,504	76,653	91,157	16%	84%
1988	15,790	48,222	64,012	25%	75%
1989	10,341	39,260	49,601	21%	79%
1990	13,779	30,557	44,336	31%	69%
1991	13,581	32,997	46,578	29%	71%
1992	11,477	24,275	35,752	32%	68%
1993	10,122	20,292	30,414	33%	67%
1994	9,388	15,541	25,036	37%	62%
1995	7,954	14,307	22,316	36%	64%
1996	9,207	11,746	21,047	44%	56%
1997	9,002	14,302	23,365	39%	61%
1998	8,205	12,334	20,581	40%	60%
1999	7,309	8,253	15,560	47%	53%
2000	8,041	10,606	18,642	43%	57%
2001	8,688	13,230	21,919	40%	60%
2002	6,863	11,371	18,235	38%	62%
2003	7,401	13,136	20,539	36%	64%
2004	7,994	15,203	23,244	34%	65%
2005	7,045	16,162	23,188	30%	70%
2006	6,955	16,894	23,879	29%	71%
2007	7,499	21,163	28,177	27%	75%
2008	5,968	18,900	24,602	24%	77%
2009	6,990	13,583	20,573	34%	66%
Avg 81-09	10,408	33,768	44,164	24%	76%
Avg 00-09	7,344	15,025	22,300	33%	67%
Avg 05-09	6,891	17,340	24,084	29%	72%

**Table 4. The estimated number of bluefish caught and the estimated number and weight of bluefish landed by marine recreational fishermen each year, 1981-2009. Source: MRFSS.**

<b>Year</b>	<b>Catch (N_fish)</b>	<b>Landings (N_fish)</b>	<b>Landings (lb)</b>	<b>Pct Released</b>	<b>Mean Weight Landed Fish</b>
1981	31,261,015	23,888,204	95,287,501	24%	4.0
1982	27,220,488	23,723,669	83,005,988	13%	3.5
1983	30,137,390	24,883,543	89,121,883	17%	3.6
1984	26,508,251	20,797,922	67,453,086	22%	3.2
1985	22,473,864	19,245,722	52,514,796	14%	2.7
1986	30,410,510	24,440,850	92,886,709	20%	3.8
1987	27,603,372	21,076,292	76,652,756	24%	3.6
1988	13,364,985	9,905,011	48,222,228	26%	4.9
1989	18,637,256	13,599,939	39,259,673	27%	2.9
1990	16,446,180	11,365,358	30,556,567	31%	2.7
1991	18,291,823	11,942,608	32,997,410	35%	2.8
1992	11,400,060	7,157,754	24,275,170	37%	3.4
1993	9,925,254	5,725,355	20,292,071	42%	3.5
1994	11,920,226	5,767,953	15,540,854	52%	2.7
1995	10,493,882	5,167,979	14,306,582	51%	2.8
1996	9,520,909	4,205,103	11,745,939	56%	2.8
1997	12,573,548	5,413,036	14,301,760	57%	2.6
1998	9,204,267	4,202,111	12,334,001	54%	2.9
1999	11,487,687	3,681,841	8,253,114	68%	2.2
2000	16,260,385	4,897,008	10,605,826	70%	2.2
2001	20,412,006	6,663,237	13,229,769	67%	2.0
2002	15,217,195	5,300,189	11,371,486	65%	2.1
2003	15,049,303	6,045,062	13,135,895	60%	2.2
2004	19,011,754	7,214,739	15,827,833	62%	2.2
2005	22,320,889	8,744,666	18,132,244	61%	2.1
2006	19,783,170	7,547,041	16,752,180	62%	2.2
2007	23,787,677	8,370,609	21,162,663	65%	2.5
2008	20,454,458	6,927,763	18,900,193	66%	2.7
2009	12,786,675	4,748,671	13,582,598	63%	2.9
Avg 81-09	18,412,568	10,781,008	33,852,027	41%	3.1
Avg 00-09	18,508,351	6,645,899	15,270,069	64%	2.3
Avg 05-09	19,826,574	7,267,750	17,705,976	63%	2.3

## **Recreational Harvest Limit and Commercial Quota for 2011**

The algorithm used to estimate recreational harvest for an upcoming year based on an assumption of proportionally constant landings by wave in the fishery. Under this assumption, the recreational bluefish landings from the complete waves in a given year ( $L_t$ ) were divided by the proportion of total recreational landings comprised by those previous  $n$  years ( $P_{t-n}$ ). The ratio ( $L_t / P_{t-n}$ ) was used to project total recreational landings for the current year, and these landings, it was assumed, would be continued into the subsequent fishing year. As of the date of this memorandum, landings data are available for waves 1 and 2 of 2010. Landings for waves 1 and 2 comprised an average 4.9% of the total recreational landings since 2000. It is suggested that this type of projection be postponed until more complete data are available. In the mean time, it is suggested that average recreational landings for 2007-2009 (17.882 M lb) be applied to 2011 for calculation of the recreational harvest limit (RHL) as a placeholder until a projection can be made. 2009 landings (13.583 M lb) are not suggested for use since recreational landings dropped 28% relative to the previous year.

Depending on the  $F$  target chosen by the SSC for 2011, a range of recreational transfers to the commercial sector can occur (Table 5). Under  $F$  targets of 0.10 to 0.13, the resulting commercial quota would be less than what has ever been landed. Additionally, for  $F$ -targets of 0.10 to 0.12, coastwide recreational measures such as a season or bag limits would need to be implemented. For  $F = 0.16$  and  $F = 0.17$ , the maximum commercial quota could be specified. Additionally under these latter scenarios, there would be a remainder of recreational allocation above the assumed landings amount.

A 15 fish recreational possession limit was first implemented in 2001. Prior to that a 10 fish possession limit was in place since 1990, when the FMP was first implemented. There does not appear to be a compelling reason to deviate from the existing possession limits (15 fish) for the 2011 fishing season.

## **Recommendations for 2011**

Staff has presented a range of TAC / TAL based on a range of  $F$  targets. Given the apparent healthy condition of the stock, setting  $F$  at less than 0.14 appears unnecessary. Although there is evidence of a weak 2009 year class, the stock is above  $B_{msy}$  and does not demonstrate a truncated age structure. It is recommended to the SSC that  $F$ -target be set between  $F = 0.15$  and  $F = 0.17$ .  $F = 0.15$  would reduce the TAL from the 2010 level by 7%, which may be an appropriate management response to the 2009 year class.  $F = 0.16$  would reduce the TAL by approximately 0%, and  $F = 0.17$  would increase the TAL by 7%.

It is further recommended to the MC that the transfer scenario be such that a decision on commercial quota takes into account historic landings (Table 3), the constraints of the  $F$ -target permitting. Status quo possession limits are also recommended for the 2008 fishing season. Finally, it is recommended that RSA up to 3% of the TAL be allowed.



Table 5. TALs, commercial quotas, assumed recreational landings, and recreational harvest limits associated with a range of F targets for 2010 - all in M lbs

	F- Target								2010 Measures
	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	
TAL	17.108	19.176	21.228	23.265	25.287	27.293	29.284	31.262	29.264
17% Comm	2.908	3.260	3.609	3.955	4.299	4.640	4.978	5.314	4.975
83% Rec	14.200	15.916	17.619	19.310	20.988	22.653	24.306	25.947	24.289
Expected Rec landings	17.882	17.882	17.882	17.882	17.882	17.882	17.882	17.882	15.381
Allowable Transfer	N/A	N/A	N/A	1.428	3.106	4.772	5.522	5.186	5.387
Comm Quota	2.908	3.260	3.609	5.384	7.405	9.411	10.500	10.500	10.213
RHL	14.200	15.916	17.619	17.882	17.882	17.882	18.784	20.762	18.631
Comment	Requires rec measures	Requires rec measures	Requires rec measures				max comm quota	max comm quota	

**State of Stock:** Relative to the biological reference points proposed by the working group (WG) in the 2005 SARC, the bluefish stock is not overfished and overfishing is not occurring ( $\frac{1}{2}B_{MSY} = 73,526$  mt;  $F_{MSY} = 0.19$ ). This conclusion is based on a 2009 biomass estimate of 155,991 MT and  $F=0.10$  from the ASAP model results. Estimates from ASAP using state and federal indices show a low fishing mortality rate ( $F$ ) and an increasing trend in population biomass. January 1 population estimates show a general increase in abundance since 1997. Abundance estimates peaked in 1982 at 173 million fish, declined to 61 million in the mid-1990s and have since increased to 98 million fish in 2007. Abundance in 2009 declined to 77.7 million fish.

**Forecast for 2010:** Forecast yield in 2011 at status quo  $F$  (0.10) was 9,800 mt, which includes recreational discards with 15% mortality. The forecast is based on a 2010 yield of 9,560 mt. Yield at  $F_{msy}$  (0.19) in 2011 would equal 17,972 assuming 2010 catch of 9,563 mt.

#### Catch and Status Table (weights in '000 mt): Bluefish

Year	2003	2004	2005	2006	2007	2008	2009	Max	Min	Mean
USA Commercial landings <sup>1</sup>	3.4	3.6	3.2	2.9	3.3	2.6	3.2	7.5	0.8	3.7
USA Recreational landings <sup>2</sup>	6.0	7.2	8.2	7.7	9.6	8.6	6.2	37.7	3.7	15.7
USA Recreational discards <sup>2</sup>	1.3	1.8	1.9	1.9	2.7	2.4	1.0	2.6	0.6	1.4
Total Catch <sup>3</sup>	10.7	12.6	13.3	12.5	15.6	13.6	10.3	48.8	8.2	20.7

<sup>1</sup> Min, max and mean since 1950.

<sup>2</sup> Min, max and mean landings and discard mortalities since 1982.

<sup>3</sup> Min, max, and mean total catch since 1982.

**Stock Distribution and Identification:** Bluefish are highly migratory, pelagic species found along the U.S. Atlantic coast from Maine to Florida, but generally are found inshore north of the Carolinas only in warmer months (Beaumariage 1969; Lund and Maltezos 1970; Shepherd et al. 2006). Bluefish in the western North Atlantic are managed as a single stock (NEFSC 1997; Fahay et al. 1999). Genetic data support a unit stock hypothesis (Graves et al. 1992; Goodbred and Graves 1996; Davidson 2002). For management purposes, the ASMFC and MAFMC define the management unit as the portion of the stock occurring along the Atlantic Coast from Maine to the east coast of Florida.

**Catches:** Bluefish are one of the most sought after species by recreational anglers along the Atlantic Coast. In 2009, recreational anglers along the Atlantic Coast harvested nearly 6.2 thousand metric tons (mt) of bluefish (Figure 1, Table 1). Recreational landings have ranged from a low of 3,744 mt in 1999 to a high of 43,222 mt in 1981. Landings from the commercial bluefish fishery have been consistently lower than the recreational catch (Figure 1, Table 1). Regional variations in commercial fishing activity are linked to the seasonal migration of bluefish. Commercial landings decreased from 7,500 mt in 1981 to 3,300 mt in 1999. Commercial landings have been regulated by quota since the implementation of Amendment 1 in 2000. In 2000 and 2001, landings increased to approximately 3,600 mt and 3,900 mt, respectively, but declined in 2002 and 2003 to 3,100 mt and 3,400 mt, respectively. Landing estimates for 2009 increased to 3,151 mt (Figure 1, Table 1). Gill nets are the dominant commercial gear used to target bluefish and account for over 40% of the bluefish commercial landings from 1950 to 2003. Other commercial fishing gears including hook & line, pound nets, seines, and trawls, collectively account for approximately 50% of the commercial landings.

**Data and Assessment:** The ASMFC Bluefish Stock Assessment Sub-Committee compiled the commercial, recreational data, and ageing information for use in updating the assessment. The majority of commercial sampling since 1997 occurred in North Carolina and Virginia, where a large proportion of the

landings are taken. Recreational landings data, length data, and discard estimates were collected from the MRFSS survey. Age data were used from Virginia's cooperative ageing program and consisted of seasonal age data (spring and fall age keys). State agencies between Massachusetts and Florida conduct annual marine finfish surveys and the indices, partitioned by age, were used in a forward projecting catch at age model (ASAP). Indices included in the model were from the NMFS fall survey (ages 0-6+), CT trawl survey (ages 0-6+), NJ trawl survey (ages 0-2), DE trawl survey (ages 0-2), MRFSS recreational catch per angler (ages 0-6+), and SEAMAP survey (age-0). CT trawl survey indices were not estimated for 2008 but were included (ages 0-6+) for 2009. A 15% mortality rate was applied to recreational discards and no commercial discards were estimated for inclusion in this assessment update.

**Biological Reference Points:** The current biological reference points for Atlantic coast bluefish were developed for review at SARC 41 and are used in this assessment for comparison to current stock status ( $\frac{1}{2}B_{MSY} = 73,526$  mt;  $B_{MSY} = 147,051$ ;  $F_{MSY} = 0.19$ ) (Table 2). The current  $F$  of 0.10 is below the SARC 41 approved  $F_{MSY}$  of 0.19. Therefore, it is concluded that bluefish is not experiencing overfishing. The current estimate of biomass (155,991 mt) would not be considered overfished under the FMP definition or the  $B_{MSY}$  value approved by SARC 41.

**Fishing Mortality:** Fishing mortality estimates in ASAP are based on a separability assumption.  $F$  at age is the product of  $F_{MULT}$  and selectivity. Full selectivity is fixed at age 1. The 2009  $F_{mult}$  value equals 0.10. Fishing mortality steadily declined from 0.31 in 1987 to 0.12 in 2002 and has remained steady since 2000 with an average  $F=0.14$ .

**Total Stock Biomass:** Recent mean biomass estimates peaked in 1982 at 425.0 thousand MT, then declined to 103.8 thousand MT by 1996 before increasing to the 2009 level of 156.0 thousand MT.

**Recruitment:** Recruitment estimated in the ASAP model has remained relatively constant since 2000 around 25.0 million age-0 bluefish, with the exception of a relatively large 2006 cohort estimated as 35.2 million fish. The 2009 recruitment estimate was well below average at 8.1 million fish.

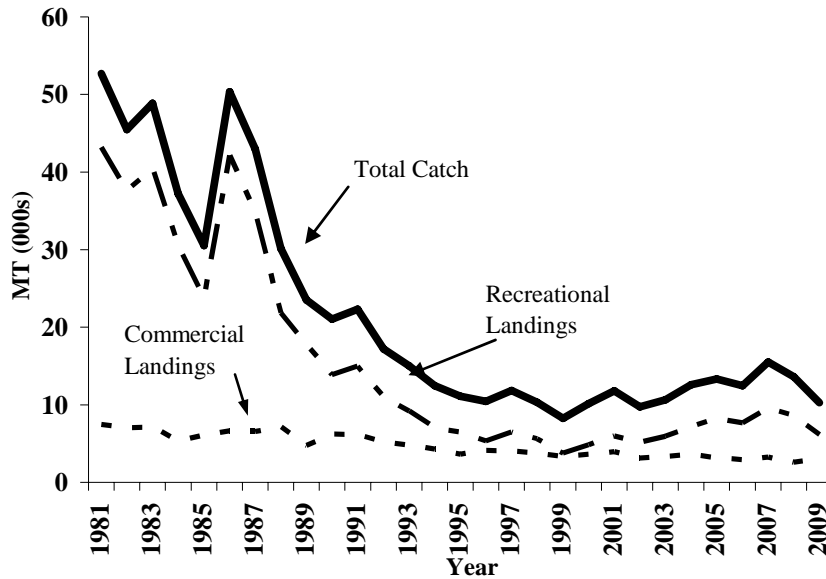
**Modeling:** The subcommittee updated the ASAP model that was approved in the 41<sup>st</sup> SAW peer-review. The bluefish data were truncated to an age-6+ category to reduce the influence of ageing error and to reduce the bimodal nature of the catch-at-age distributions. The ASAP model allows error in the catch-at-age as well as the assumption of separability into year and age components making it better at handling the selectivity patterns and catch data from the bluefish fishery..

**Special Comments:** The highly migratory nature of bluefish populations and the recruitment dynamics of the species create a unique modeling situation. Migration creates seasonal fisheries with unique selectivity patterns resulting in a bimodal partial recruitment pattern. This pattern has been identified in previous assessments as a source of uncertainty in the results and has been held constant in the model. The migratory pattern in bluefish also results in several recruitment events. A spring cohort, originating south of Cape Hatteras, NC during spring migrations, and a summer cohort originating in the offshore Mid-Atlantic Bight result in a bimodal age-0 size distribution. It has been hypothesized that the success of the spring cohort controls the abundance of adult bluefish. The variable intra-annual recruitment pattern, limited ageing data, recent changes in the NEFSC trawl survey and lack of commercial discards also contribute to the uncertainty in the assessment results.

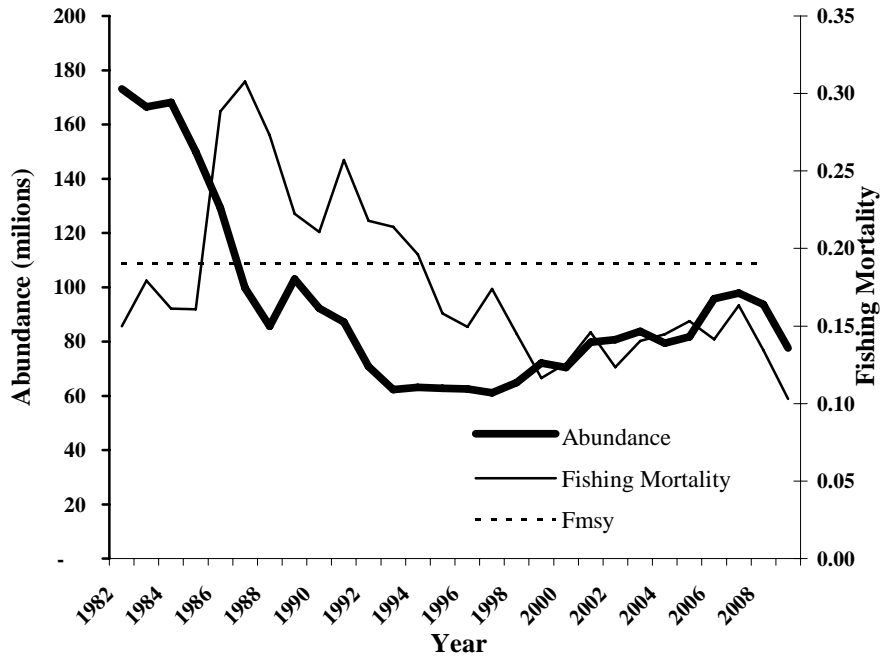
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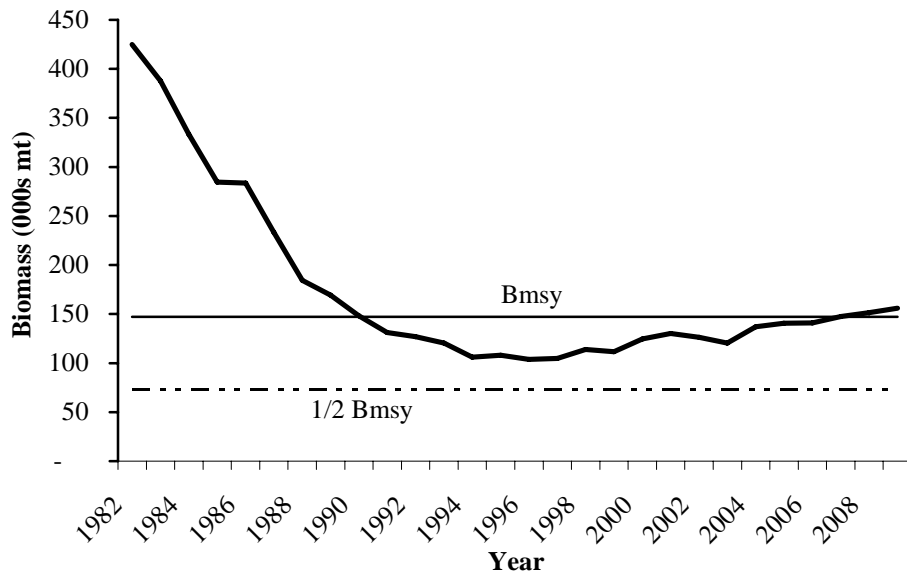
**Bluefish landings and total catch (mt)**



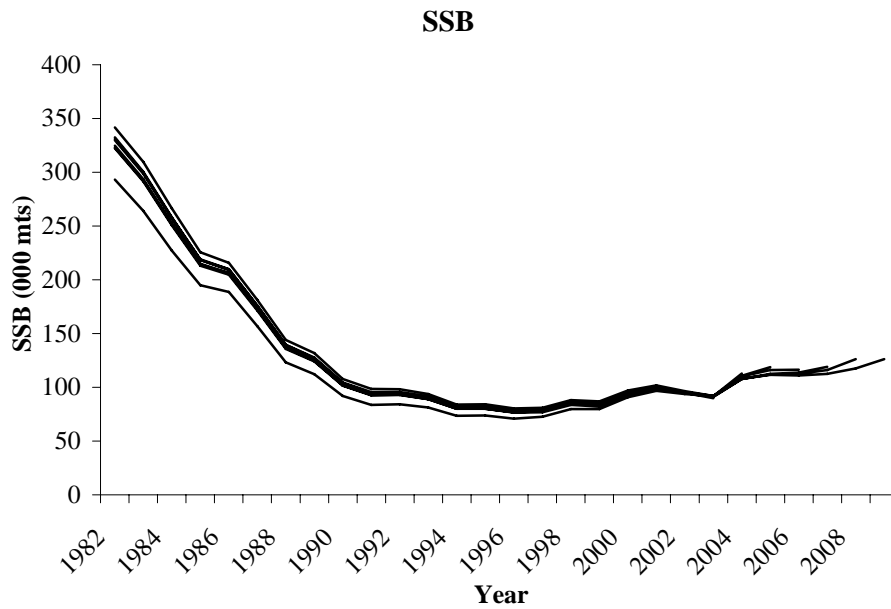
**Figure 1.** Total catch (landings plus recreational discards), recreational and commercial landings of bluefish, Maine to Florida, 1981-2009.



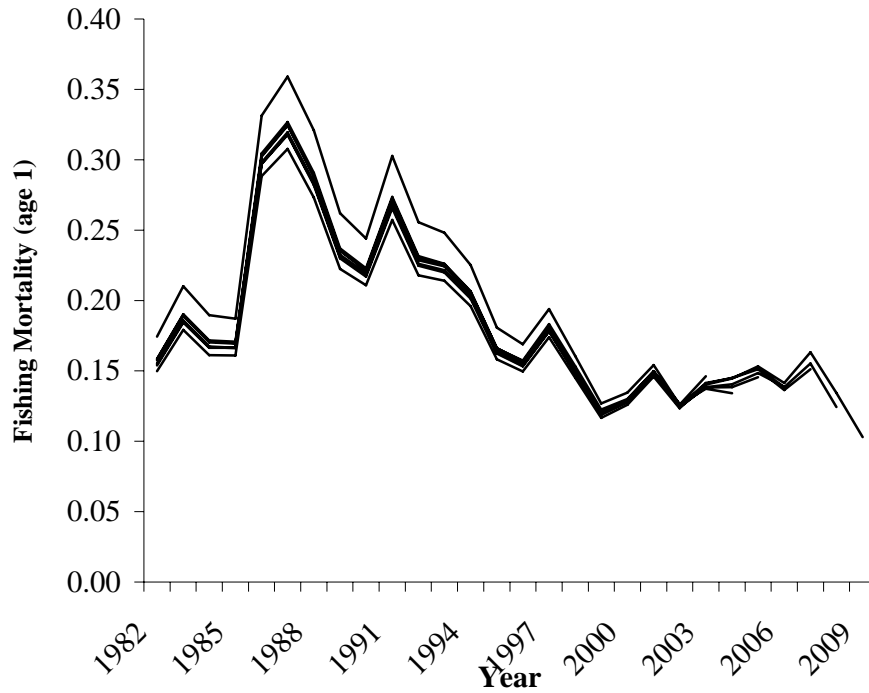
**Figure 2.** Fishing mortality and abundance estimates of bluefish along the Atlantic coast, 1982-2009, estimated from the ASAP model.



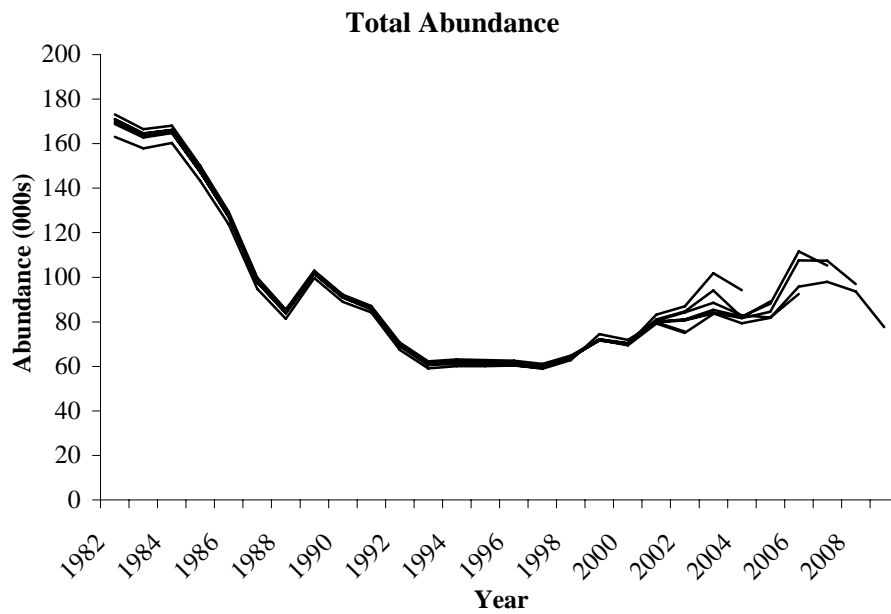
**Figure 3.** Atlantic coast bluefish biomass and biological reference points based on ASAP model results.



**Figure 4.** Retrospective pattern of spawning biomass from the ASAP model.



**Figure 5.** Retrospective pattern of Fmult (age 2) from the updated ASAP model.



**Figure 6.** Retrospective pattern of total abundance from updated ASAP model.



**Figure 7.** Retrospective pattern of age 0 recruits from updated ASAP model.



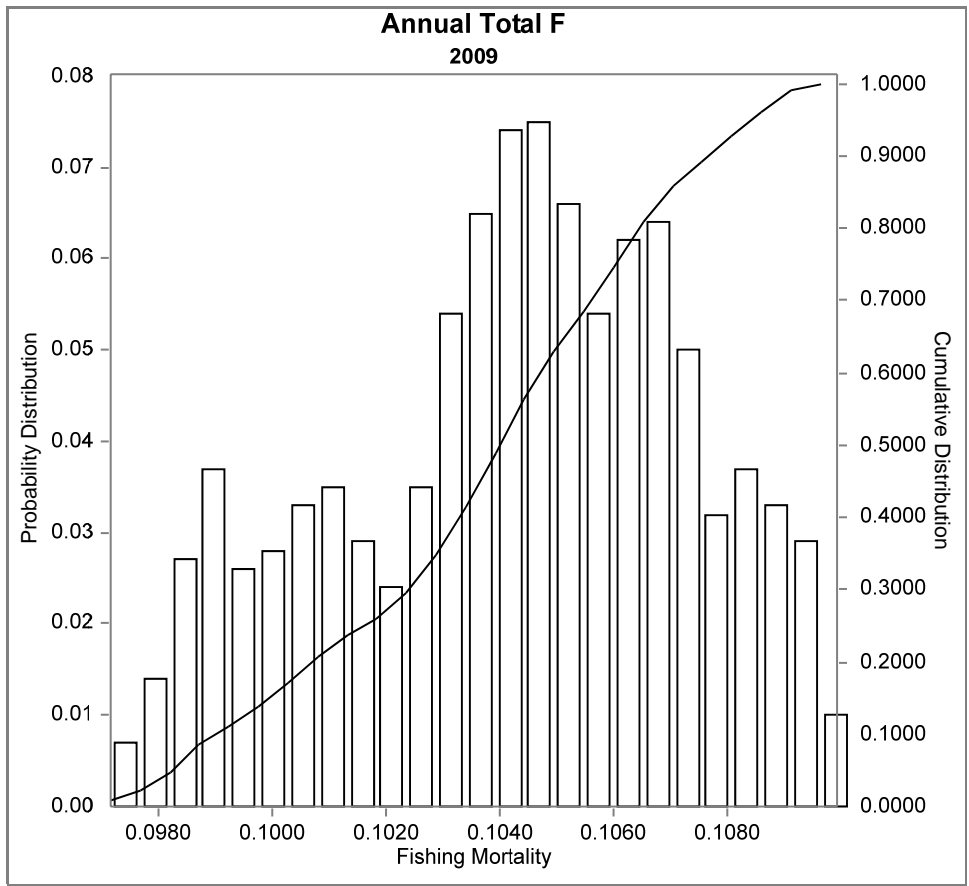


Figure 8. Variability in ASAP 2009 estimates of F based on MCMC results with 1000 iterations.

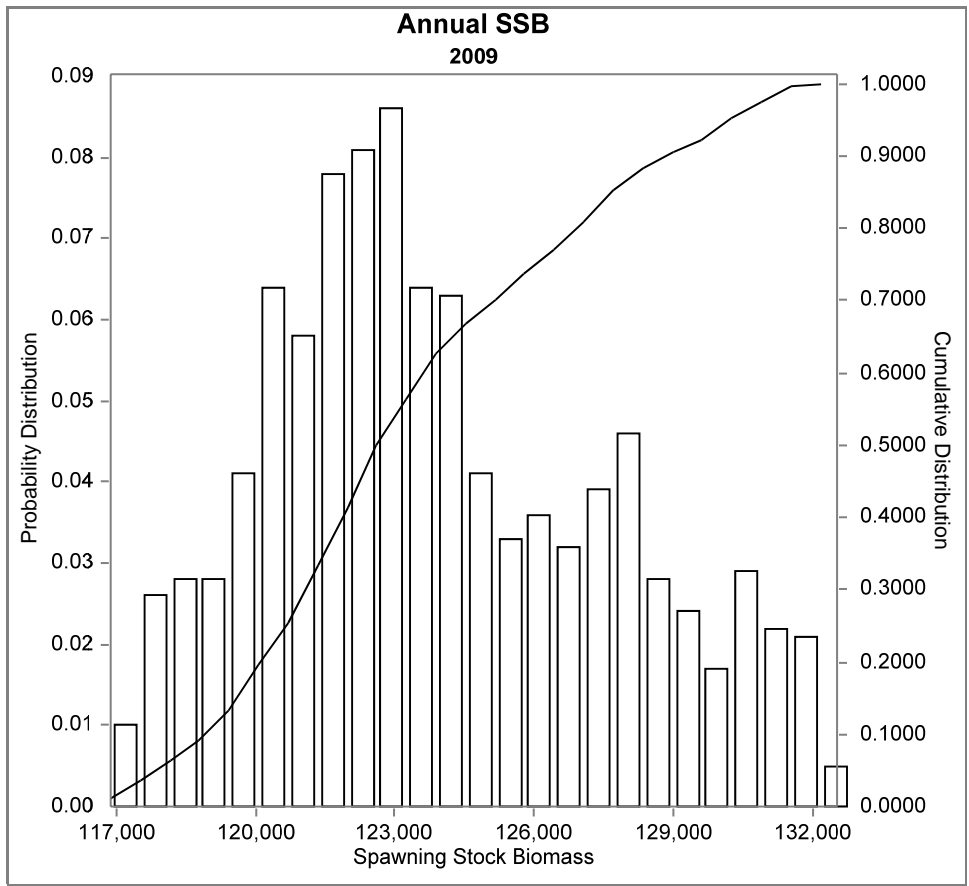


Figure 9. Variability in ASAP 2009 estimate of SSB from MCMC results based on 1000 iterations.

Table 1. Atlantic coast landings and discards of bluefish, 1974-2009.

Year	Commercial Landings (mt)	Commercial Landings (000 lbs)	Recreational Landings (mt)	Recreational Discard (mt)	Recreational Catch (mt)	Total Landings (mt)	Total Catch (mt) (w/o commercial discards)
1974	4,538	10,005					
1975	4,402	9,705					
1976	4,546	10,022					
1977	4,802	10,587					
1978	4,986	10,992					
1979	5,693	12,551					
1980	6,857	15,117					
1981	7,465	16,457	43,222	2,001	45,223		52,688
1982	6,997	15,426	37,651	832	38,483	44,648	45480.5
1983	7,166	15,798	40,425	1,280	41,705	47,591	48871.3
1984	5,380	11,861	30,597	1,260	31,857	35,977	37237.1
1985	6,122	13,497	23,821	599	24,420	29,943	30542.3
1986	6,651	14,663	42,133	1,544	43,677	48,784	50327.6
1987	6,578	14,502	34,769	1,615	36,384	41,347	42962.1
1988	7,161	15,787	21,873	1,146	23,019	29,034	30180.1
1989	4,740	10,450	17,808	989	18,797	22,548	23537.4
1990	6,250	13,778	13,860	929	14,789	20,110	21039.0
1991	6,160	13,580	14,967	1,194	16,161	21,127	22320.5
1992	5,205	11,475	11,011	979	11,990	16,216	17195.1
1993	4,808	10,600	9,204	1,013	10,217	14,012	15025.1
1994	4,304	9,488	7,049	1,128	8,177	11,353	12480.7
1995	3,628	7,998	6,489	1,003	7,492	10,117	11119.9
1996	4,113	9,066	5,328	1,010	6,338	9,441	10450.8
1997	4,064	8,960	6,487	1,287	7,774	10,551	11838.5
1998	3,739	8,242	5,595	999	6,594	9,334	10332.5
1999	3,330	7,341	3,744	1,191	4,935	7,074	8264.4
2000	3,647	8,040	4,811	1,675	6,486	8,458	10132.5
2001	3,945	8,697	6,001	1,857	7,858	9,946	11803.4
2002	3,116	6,869	5,158	1,448	6,606	8,274	9721.4
2003	3,358	7,403	5,958	1,331	7,289	9,316	10647.0
2004	3,647	8,041	7,179	1,761	8,940	10,826	12586.9
2005	3,187	7,026	8,225	1,915	10,140	11,412	13327.3
2006	2,926	6,450	7,663	1,860	9,523	10,589	12449.0
2007	3,267	7,182	9,608	2,653	12,261	12,874	15527.3
2008	2,469	5,655	8,573	2,443	11,016	11,042	13485.3
2009	3,151	6,990	6,161	960	7,121	9,312	10272.7

Table 2. Bluefish biological reference points and current status.

Assessment year	Catch year	F <sub>mult</sub>	F <sub>msy</sub>	1/2 B <sub>msy</sub>	B <sub>msy</sub>	2009 Biomass	2009 reported catch	MSY
2010	2009	0.10	0.19	73,526	147,052	155,991	10,273	15,644

Table 3. Fishing mortality at age from 2009 ASAP model.

	AGE						
	0	1	2	3	4	5	6+
1982	0.05	0.15	0.14	0.07	0.05	0.10	0.14
1983	0.06	0.18	0.17	0.09	0.06	0.12	0.16
1984	0.05	0.16	0.15	0.08	0.06	0.11	0.15
1985	0.05	0.16	0.15	0.08	0.06	0.11	0.15
1986	0.10	0.29	0.27	0.14	0.10	0.20	0.26
1987	0.10	0.31	0.29	0.15	0.11	0.21	0.28
1988	0.09	0.27	0.26	0.13	0.09	0.19	0.25
1989	0.08	0.22	0.21	0.11	0.08	0.15	0.20
1990	0.07	0.21	0.20	0.10	0.07	0.15	0.19
1991	0.09	0.26	0.24	0.12	0.09	0.18	0.24
1992	0.07	0.22	0.21	0.10	0.07	0.15	0.20
1993	0.07	0.21	0.20	0.10	0.07	0.15	0.20
1994	0.07	0.20	0.18	0.09	0.07	0.14	0.18
1995	0.05	0.16	0.15	0.08	0.05	0.11	0.14
1996	0.05	0.15	0.14	0.07	0.05	0.10	0.14
1997	0.06	0.17	0.16	0.08	0.06	0.12	0.16
1998	0.05	0.15	0.14	0.07	0.05	0.10	0.13
1999	0.04	0.12	0.11	0.06	0.04	0.08	0.11
2000	0.04	0.13	0.12	0.06	0.04	0.09	0.12
2001	0.05	0.15	0.14	0.07	0.05	0.10	0.13
2002	0.04	0.12	0.12	0.06	0.04	0.09	0.11
2003	0.05	0.14	0.13	0.07	0.05	0.10	0.13
2004	0.05	0.14	0.14	0.07	0.05	0.10	0.13
2005	0.05	0.15	0.14	0.07	0.05	0.11	0.14
2006	0.05	0.14	0.13	0.07	0.05	0.10	0.13
2007	0.06	0.16	0.15	0.08	0.06	0.11	0.15
2008	0.05	0.13	0.13	0.06	0.05	0.09	0.12
2009	0.03	0.10	0.10	0.05	0.04	0.07	0.09

Table 4. Population abundance (000s) at age from updated ASAP model.

	Jan 1 abundance 000s							total
	0	1	2	3	4	5	6+	
<b>1982</b>	39,961	31,540	15,136	9,642	8,332	7,299	61,230	173,140
<b>1983</b>	39,508	31,101	22,228	10,760	7,351	6,480	49,099	166,528
<b>1984</b>	48,439	30,446	21,286	15,373	8,090	5,660	38,811	168,103
<b>1985</b>	26,731	37,554	21,214	14,972	11,656	6,267	31,564	149,959
<b>1986</b>	20,099	20,727	26,177	14,926	11,354	9,031	26,897	129,210
<b>1987</b>	13,728	14,928	12,719	16,334	10,653	8,420	22,972	99,753
<b>1988</b>	19,547	10,130	8,984	7,793	11,551	7,848	19,765	85,618
<b>1989</b>	44,245	14,593	6,312	5,688	5,603	8,612	17,926	102,980
<b>1990</b>	18,400	33,601	9,565	4,191	4,189	4,250	18,018	92,214
<b>1991</b>	22,979	14,029	22,284	6,422	3,104	3,191	15,175	87,183
<b>1992</b>	11,319	17,247	8,882	14,320	4,652	2,327	12,007	70,754
<b>1993</b>	12,569	8,609	11,356	5,922	10,569	3,534	9,693	62,253
<b>1994</b>	18,775	9,573	5,691	7,601	4,380	8,041	9,022	63,083
<b>1995</b>	17,147	14,386	6,442	3,874	5,669	3,352	11,920	62,789
<b>1996</b>	16,445	13,307	10,055	4,544	2,941	4,396	10,905	62,593
<b>1997</b>	15,023	12,801	9,382	7,150	3,465	2,288	11,032	61,140
<b>1998</b>	20,492	11,598	8,807	6,520	5,389	2,672	9,365	64,843
<b>1999</b>	23,766	15,974	8,213	6,290	4,982	4,198	8,694	72,118
<b>2000</b>	15,662	18,707	11,640	6,025	4,872	3,919	9,568	70,393
<b>2001</b>	27,146	12,288	13,503	8,464	4,646	3,820	9,922	79,790
<b>2002</b>	21,201	21,155	8,694	9,634	6,464	3,618	9,935	80,700
<b>2003</b>	23,042	16,649	15,310	6,337	7,438	5,073	9,985	83,833
<b>2004</b>	16,954	17,990	11,845	10,982	4,853	5,803	10,959	79,385
<b>2005</b>	23,053	13,218	12,745	8,462	8,392	3,781	12,158	81,808
<b>2006</b>	35,163	17,922	9,285	9,033	6,441	6,519	11,437	95,800
<b>2007</b>	26,028	27,444	12,737	6,653	6,914	5,024	13,066	97,865
<b>2008</b>	22,163	20,165	19,083	8,941	5,040	5,352	12,886	93,630
<b>2009</b>	8,013	17,339	14,433	13,765	6,866	3,940	13,321	77,678

Table 5. Population biomass (MT) at age from updated ASAP model.

	biomass at age							total
	0	1	2	3	4	5	6+	
<b>1982</b>	5,595	15,454	23,006	19,767	26,664	30,890	303,578	424,954
<b>1983</b>	3,951	13,062	22,006	23,135	23,229	28,623	273,825	387,830
<b>1984</b>	4,844	12,483	19,796	28,132	23,541	25,372	219,284	333,451
<b>1985</b>	2,673	15,022	20,578	28,895	32,870	25,011	159,494	284,543
<b>1986</b>	2,412	10,156	31,412	34,628	35,764	38,859	130,395	283,627
<b>1987</b>	1,647	4,478	15,008	32,994	31,532	33,066	114,490	233,217
<b>1988</b>	3,323	4,052	8,984	15,975	32,804	27,971	91,374	184,483
<b>1989</b>	5,752	4,378	6,691	12,059	20,395	35,360	84,611	169,245
<b>1990</b>	3,864	16,800	8,417	7,250	13,573	17,753	80,613	148,271
<b>1991</b>	3,217	4,630	15,599	11,109	8,722	12,645	75,343	131,265
<b>1992</b>	1,811	6,726	9,237	27,065	13,025	7,685	61,321	126,871
<b>1993</b>	2,262	5,079	10,788	14,569	28,854	11,441	47,302	120,296
<b>1994</b>	2,253	3,829	5,122	14,290	13,314	30,211	36,925	105,945
<b>1995</b>	2,915	6,330	6,313	6,701	16,156	13,604	55,975	107,994
<b>1996</b>	2,796	5,855	9,854	7,861	8,383	17,839	51,208	103,795
<b>1997</b>	1,953	6,528	9,757	15,874	10,602	9,403	50,745	104,861
<b>1998</b>	3,893	6,959	8,279	15,323	18,323	10,743	50,381	113,900
<b>1999</b>	3,327	8,466	7,556	13,146	17,089	17,212	44,946	111,743
<b>2000</b>	2,662	8,605	11,640	16,389	17,100	14,149	53,966	124,511
<b>2001</b>	4,343	5,407	12,288	21,329	17,980	14,822	53,879	130,048
<b>2002</b>	3,604	11,635	10,171	22,063	18,746	13,676	46,295	126,190
<b>2003</b>	2,765	9,323	15,310	13,751	19,636	18,567	41,040	120,392
<b>2004</b>	1,356	8,096	15,636	23,500	15,868	21,763	50,848	137,067
<b>2005</b>	1,844	5,948	16,823	18,109	27,443	14,177	56,413	140,757
<b>2006</b>	2,813	8,065	12,256	19,330	21,062	24,448	53,067	141,042
<b>2007</b>	2,082	12,350	16,813	14,238	22,607	18,839	60,625	147,553
<b>2008</b>	1,773	9,074	25,190	19,133	16,480	20,070	59,792	151,512
<b>2009</b>	641	7,803	19,051	29,457	22,453	14,775	61,811	155,991

Table 6. Catch at age (000s) for bluefish, Maine to Florida as used in the ASAP model.

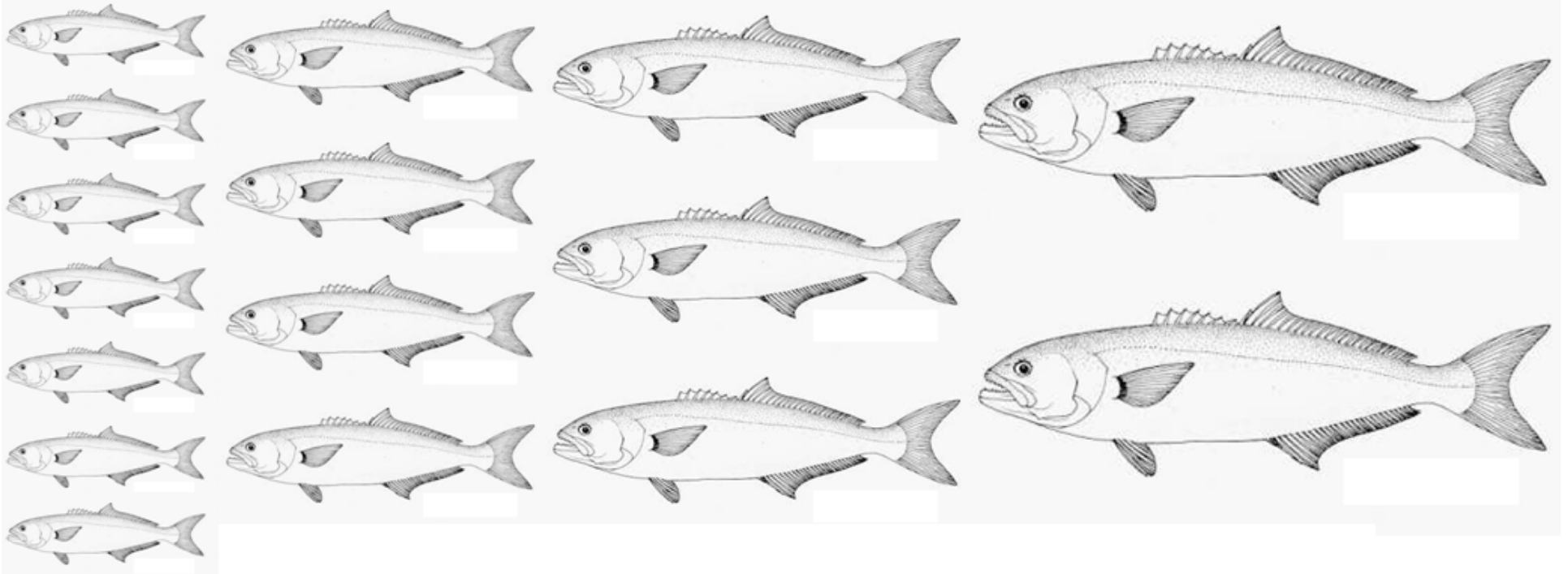
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6+</b>	<b>total</b>
<b>1982</b>	11164.1	9747.9	2850.8	2439.3	795.3	1213.5	3736.3	31,947
<b>1983</b>	4778.4	7666.7	8686.1	3022.0	970.6	1325.3	4778.4	31,228
<b>1984</b>	7121.3	6807.3	6718.5	2039.9	895.1	744.7	3176.7	27,503
<b>1985</b>	4676.7	6468.8	5773.3	2925.5	1328.5	520.0	2377.1	24,070
<b>1986</b>	5169.3	8070.7	8728.0	2801.7	1056.4	1703.1	4465.0	31,994
<b>1987</b>	3127.1	5419.5	5177.8	5757.4	2009.3	1083.0	3948.2	26,522
<b>1988</b>	1709.8	2083.6	2524.0	1588.6	1984.1	1598.6	2740.4	14,229
<b>1989</b>	3473.6	5672.6	3221.1	992.1	395.9	1168.5	2409.8	17,334
<b>1990</b>	2726.7	7185.8	1840.7	687.2	381.8	431.6	2478.6	15,732
<b>1991</b>	3694.6	5292.6	7391.9	1590.7	310.9	224.7	2136.5	20,642
<b>1992</b>	2131.3	9633.3	1709.8	2352.9	583.4	479.2	967.2	17,857
<b>1993</b>	1194.1	2081.6	1566.9	593.0	1040.8	669.0	1178.9	8,324
<b>1994</b>	1970.8	3144.3	1313.3	368.1	296.7	849.5	1073.1	9,016
<b>1995</b>	1822.8	3371.4	735.7	137.7	214.1	695.7	1057.8	8,035
<b>1996</b>	1701.5	2145.1	631.5	202.2	207.2	545.0	1411.8	6,844
<b>1997</b>	1634.1	4299.3	1496.2	510.5	196.6	93.4	1212.3	9,443
<b>1998</b>	683.5	2754.1	2786.1	861.3	261.0	308.0	458.8	8,113
<b>1999</b>	1638.5	1946.1	2096.7	572.8	174.7	352.5	482.8	7,264
<b>2000</b>	667.4	4396.5	2693.3	717.7	96.9	536.0	155.9	9,264
<b>2001</b>	1414.3	4466.7	3466.2	1151.9	198.3	608.0	243.5	11,549
<b>2002</b>	587.1	5145.6	1661.6	542.6	340.3	236.8	415.9	8,930
<b>2003</b>	819.3	2646.0	3975.0	774.6	377.9	319.8	644.0	9,557
<b>2004</b>	434.4	5270.8	2289.6	1265.2	435.4	473.5	662.8	10,832
<b>2005</b>	3262.8	2560.5	4179.2	1389.9	411.9	585.4	494.7	12,884
<b>2006</b>	2718.6	3489.6	2975.5	1090.2	301.9	283.5	662.6	11,522
<b>2007</b>	695.0	3065.0	5390.0	1548.2	852.7	582.7	1375.2	13,509
<b>2008</b>	893.1	3725.3	4011.6	463.1	615.1	239.1	396.3	10,344
<b>2009</b>	144.5	3083.9	2857.8	482.1	354.2	236.5	599.9	7,759

Table 7. Projections of abundance, biomass, SSB and yield for 2010-2012 using AGEPRO model. Assumed weight at age equivalent to 2009. Yield includes recreational discards with 15% mortality.

		<b>F</b>	<b>1-Jan Abundance (000s)</b>	<b>Mean Biomass (000s mt)</b>	<b>SSB (000s mt)</b>	<b>Yield mt</b>
F status quo	<b>2010</b>	0.10	79,513	138.6	131.2	9,563
	<b>2011</b>	0.10	83,368	138.6	130.1	9,779
	<b>2012</b>	0.10	86,108	141.0	129.2	10,821
		<b>F</b>	<b>1-Jan Abundance (000s)</b>	<b>Mean Biomass (000s mt)</b>	<b>SSB (000s mt)</b>	<b>Yield mt</b>
75% Fmsy	<b>2010</b>	0.10	79,513	138.6	131.2	9,563
	<b>2011</b>	0.14	83,368	136.7	128.3	13,489
	<b>2012</b>	0.14	84,493	135.2	123.8	14,490
		<b>F</b>	<b>1-Jan Abundance (000s)</b>	<b>Mean Biomass (000s mt)</b>	<b>SSB (000s mt)</b>	<b>Yield mt</b>
model Fmsy	<b>2010</b>	0.10	79,513	138.6	131.2	9,310
	<b>2011</b>	0.18	83,368	134.9	126.5	16,654
	<b>2012</b>	0.18	82,926	129.7	118.6	17,096
		<b>F</b>	<b>1-Jan Abundance (000s)</b>	<b>Mean Biomass (000s mt)</b>	<b>SSB (000s mt)</b>	<b>Yield mt</b>
current Fmsy	<b>2010</b>	0.10	79,513	162.8	-	9,563
	<b>2011</b>	0.19	83,368	162.5	-	17,972
	<b>2012</b>	0.19	82,542	157.2	-	18,608

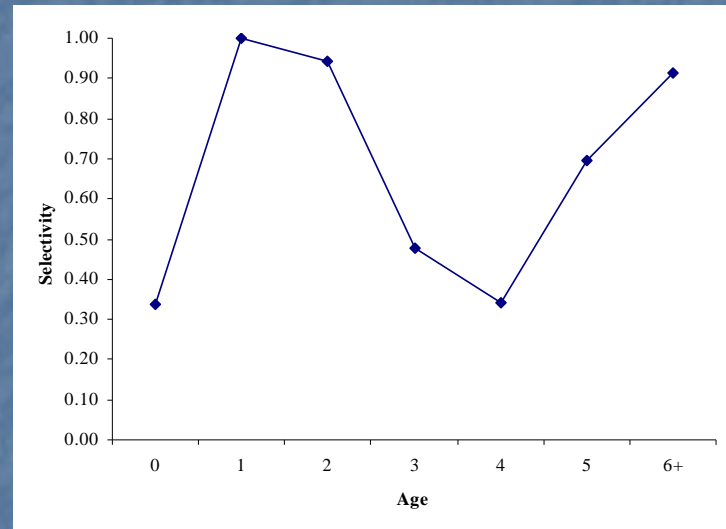


# Bluefish

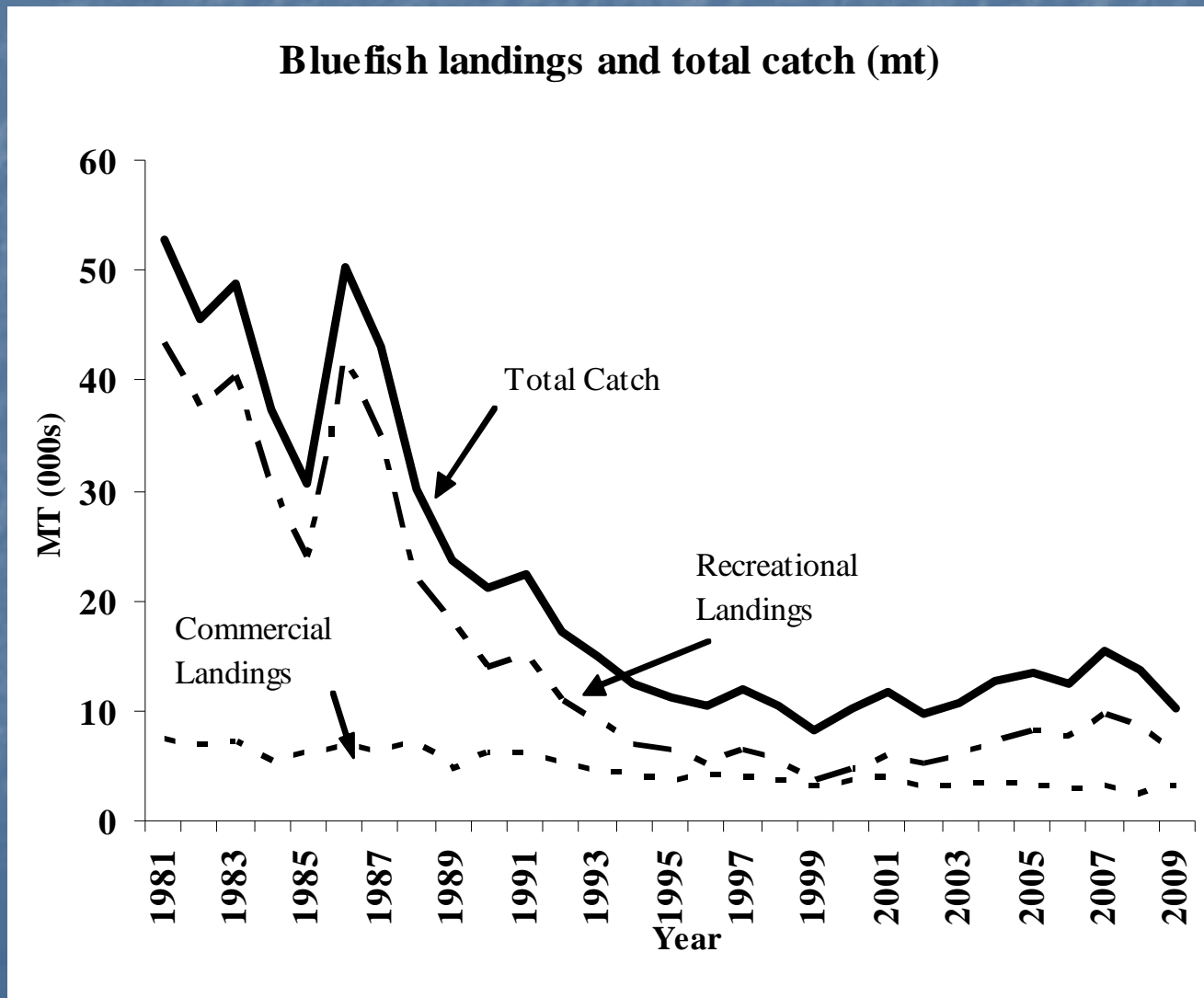


# Stock Characteristics

- Management Unit: Maine – Florida
- Pelagic
- “Highly migratory”
- Bimodal selectivity
- Spring\* and summer cohorts



# Landings



# Stock Assessment

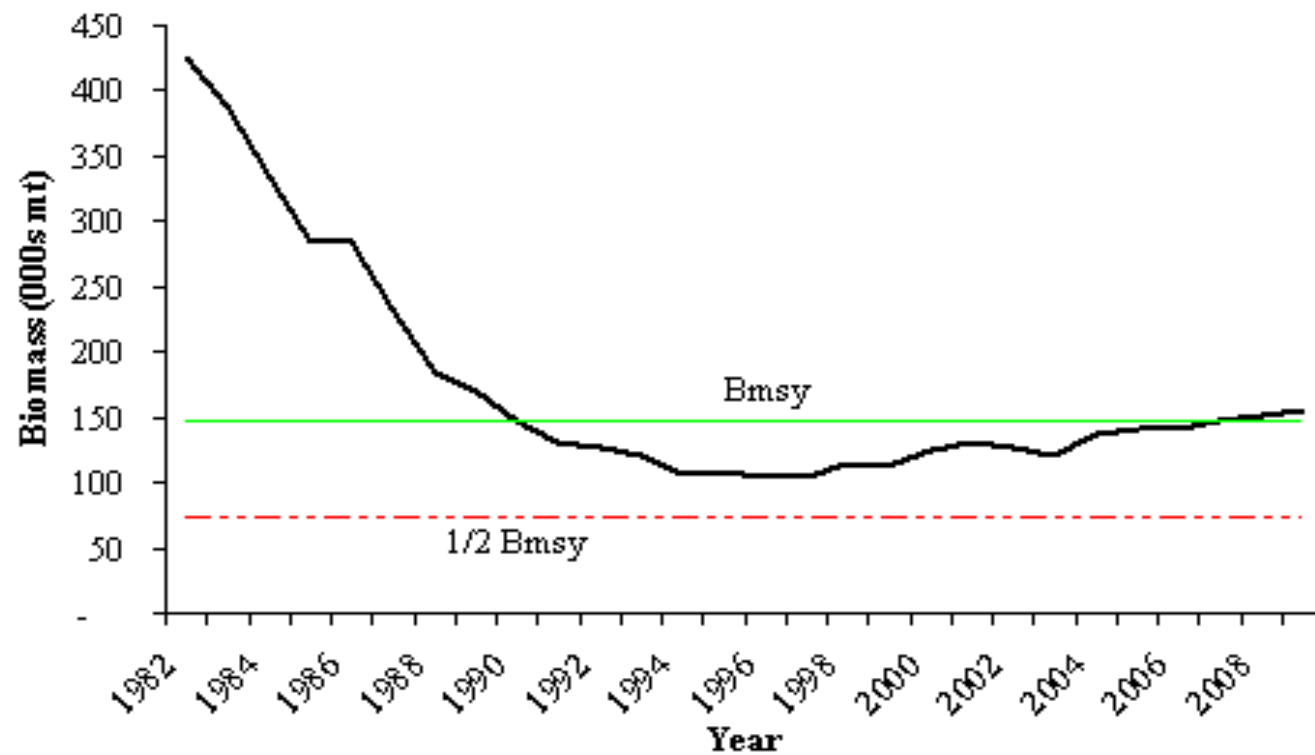
- Age Structured Assessment Program (ASAP)
- Basis for management since 2005 (SAW 41)
- Fishery dependent – Com landings, Rec catch
- 28 Indexes including Rec CPUE
- $F \text{ at age} = F_{\text{MULT}} * \text{Selectivity}$



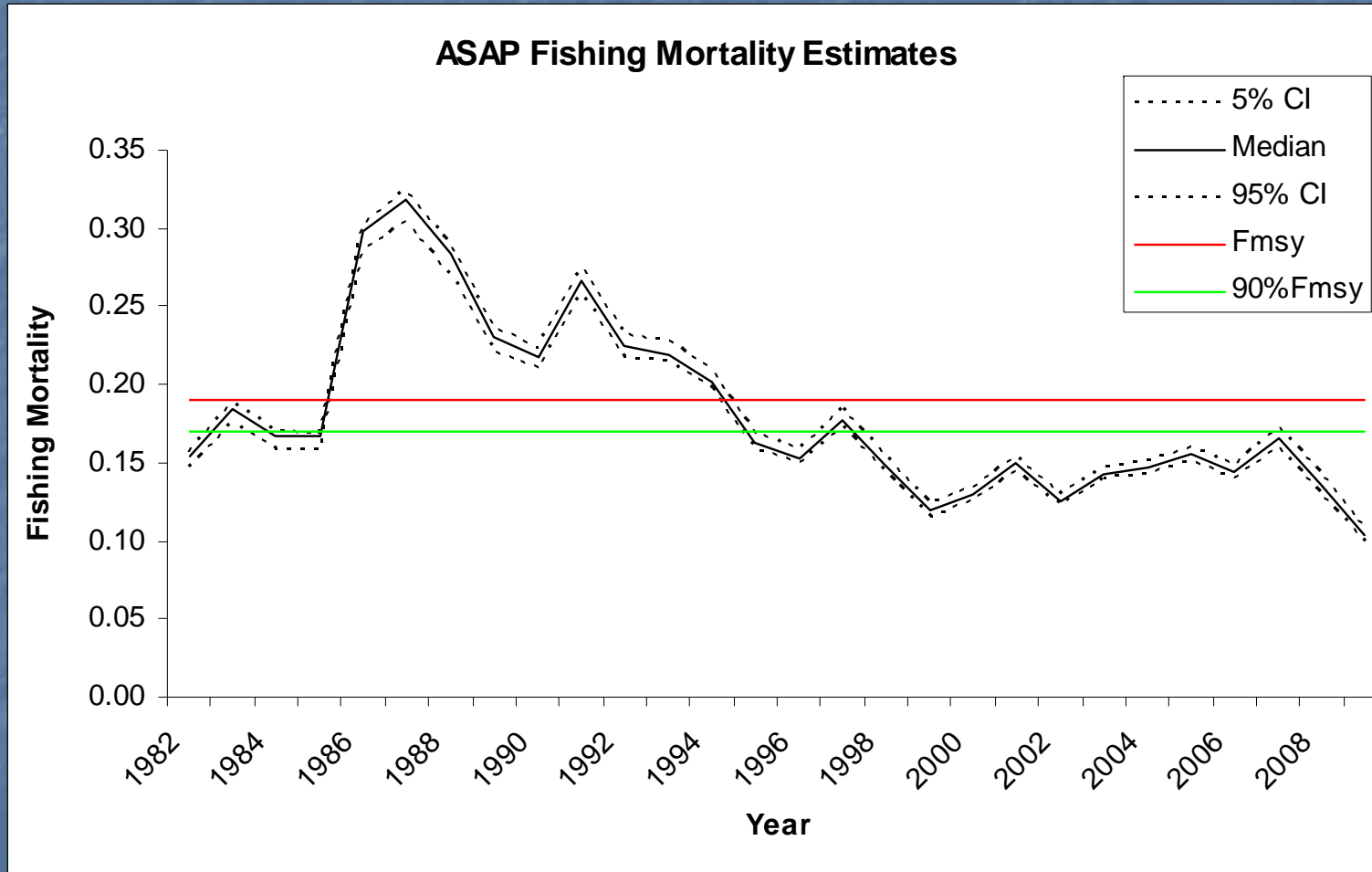
# Stock Status

- Not overfished, overfishing not occurring
- Biomass trending up, F trending down
- Biomass<sub>2009</sub>: 155,991mt ( $B_{MSY}$ : 147,052 mt)
- $F_{2009}$ : 0.10 ( $F_{MSY}$ : 0.19)
- Weak 2009 year class

# Biomass



# Fishing Mortality

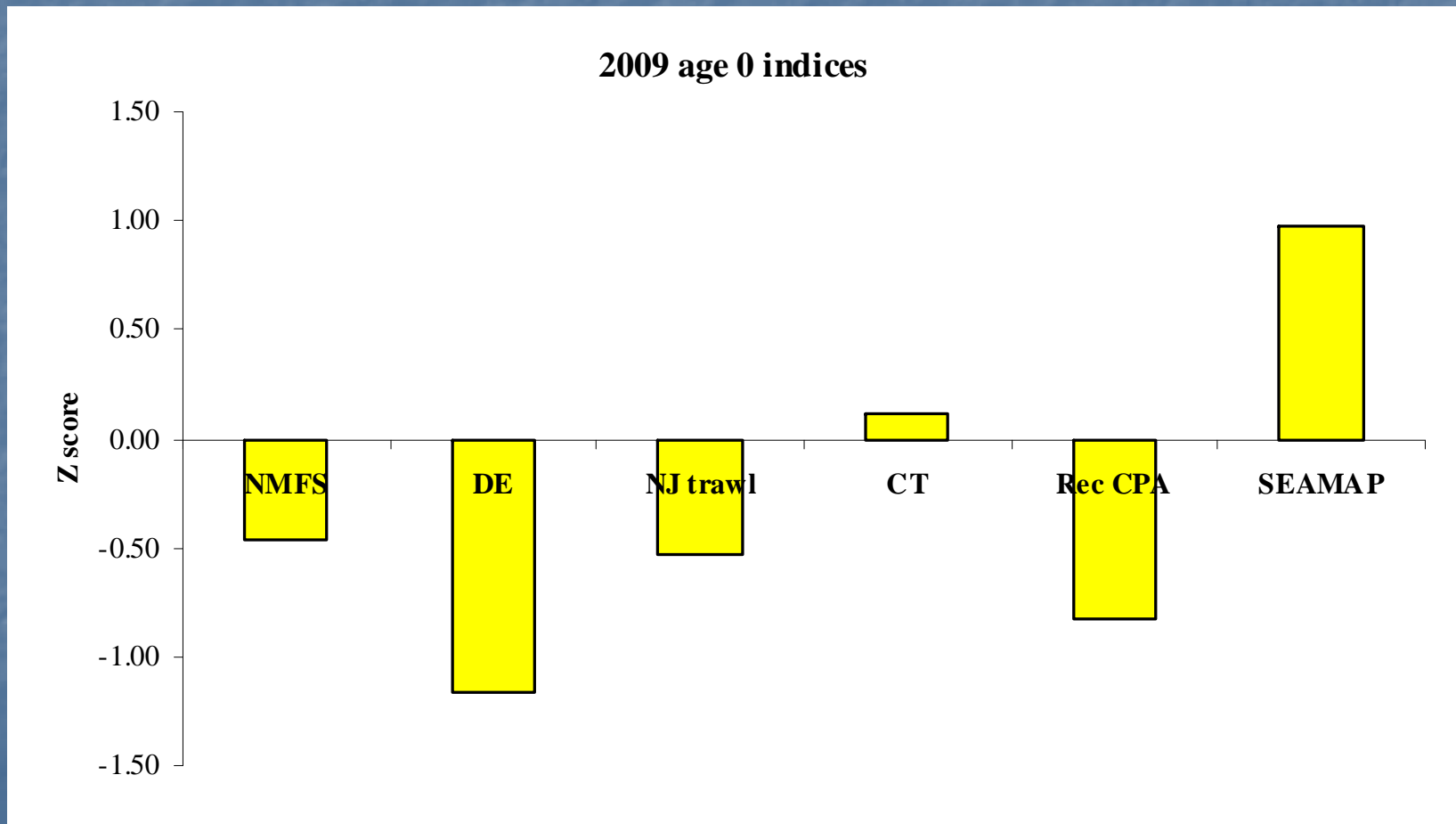


# Abundance

	Jan 1 abundance 000s							total
	0	1	2	3	4	5	6+	
<b>1982</b>	39,961	31,540	15,136	9,642	8,332	7,299	61,230	173,140
<b>1983</b>	39,508	31,101	22,228	10,760	7,351	6,480	49,099	166,528
<b>1984</b>	48,439	30,446	21,286	15,373	8,090	5,660	38,811	168,103
<b>1985</b>	26,731	37,554	21,214	14,972	11,656	6,267	31,564	149,959
<b>1986</b>	20,099	20,727	26,177	14,926	11,354	9,031	26,897	129,210
<b>1987</b>	13,728	14,928	12,719	16,334	10,653	8,420	22,972	99,753
<b>1988</b>	19,547	10,130	8,984	7,793	11,551	7,848	19,765	85,618
<b>1989</b>	44,245	14,593	6,312	5,688	5,603	8,612	17,926	102,980
<b>1990</b>	18,400	33,601	9,565	4,191	4,189	4,250	18,018	92,214
<b>1991</b>	22,979	14,029	22,284	6,422	3,104	3,191	15,175	87,183
<b>1992</b>	11,319	17,247	8,882	14,320	4,652	2,327	12,007	70,754
<b>1993</b>	12,569	8,609	11,356	5,922	10,569	3,534	9,693	62,253
<b>1994</b>	18,775	9,573	5,691	7,601	4,380	8,041	9,022	63,083
<b>1995</b>	17,147	14,386	6,442	3,874	5,669	3,352	11,920	62,789
<b>1996</b>	16,445	13,307	10,055	4,544	2,941	4,396	10,905	62,593
<b>1997</b>	15,023	12,801	9,382	7,150	3,465	2,288	11,032	61,140
<b>1998</b>	20,492	11,598	8,807	6,520	5,389	2,672	9,365	64,843
<b>1999</b>	23,766	15,974	8,213	6,290	4,982	4,198	8,694	72,118
<b>2000</b>	15,662	18,707	11,640	6,025	4,872	3,919	9,568	70,393
<b>2001</b>	27,146	12,288	13,503	8,464	4,646	3,820	9,922	79,790
<b>2002</b>	21,201	21,155	8,694	9,634	6,464	3,618	9,935	80,700
<b>2003</b>	23,042	16,649	15,310	6,337	7,438	5,073	9,985	83,833
<b>2004</b>	16,954	17,990	11,845	10,982	4,853	5,803	10,959	79,385
<b>2005</b>	23,053	13,218	12,745	8,462	8,392	3,781	12,158	81,808
<b>2006</b>	35,163	17,922	9,285	9,033	6,441	6,519	11,437	95,800
<b>2007</b>	26,028	27,444	12,737	6,653	6,914	5,024	13,066	97,865
<b>2008</b>	22,163	20,165	19,083	8,941	5,040	5,352	12,886	93,630
<b>2009</b>	8,013	17,339	14,433	13,765	6,866	3,940	13,321	77,678



# Abundance



# Uncertainty

- Age-length keys
- Inputs for estimating total catch
- RV Bigelow

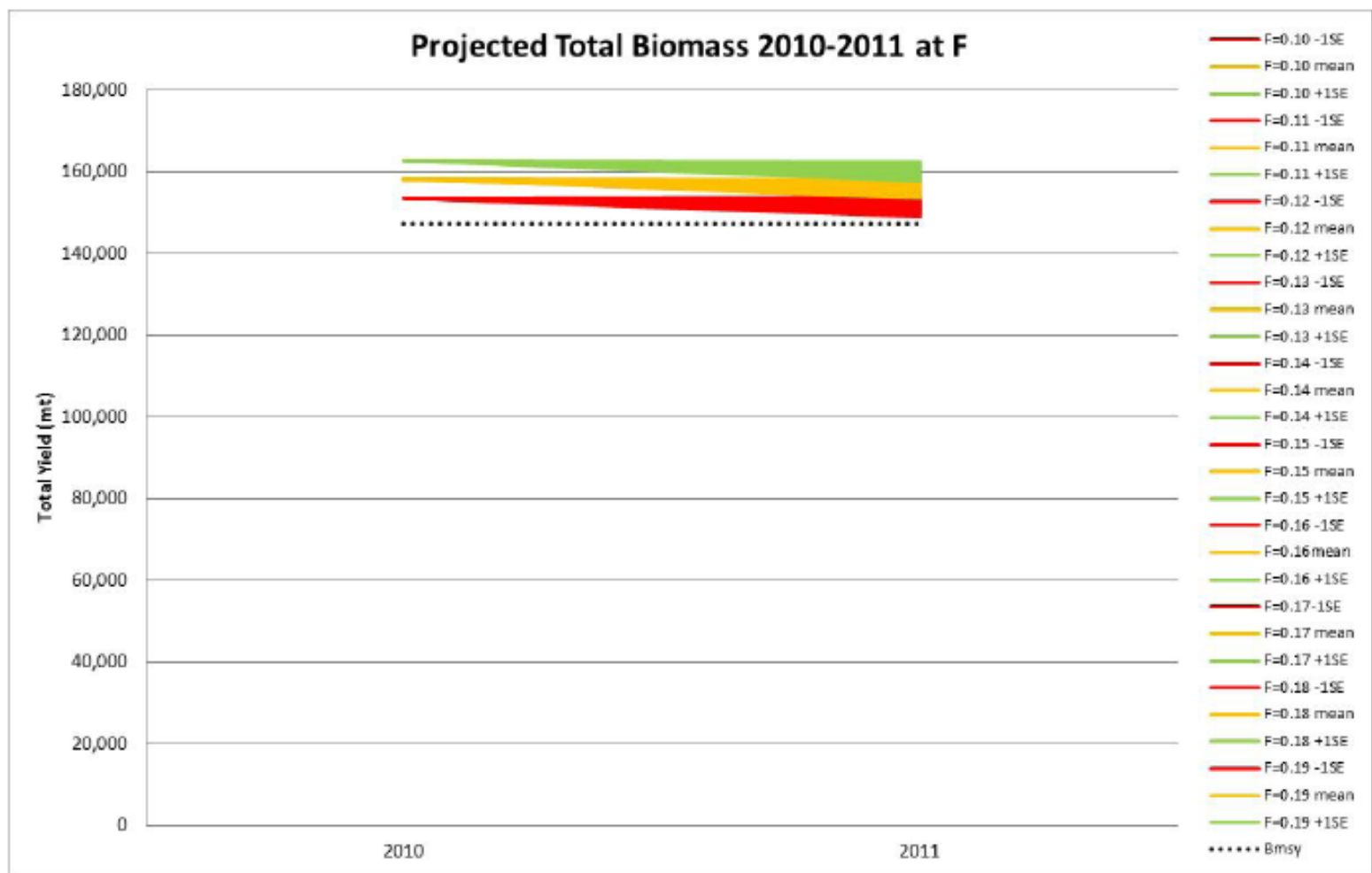


Figure 1. Projected bluefish biomass from AGEPRO.

# ABC

- Reduction from OFL
  - OFL = Catch at  $F_{\text{threshold}}$  (Catch at  $F_{\text{msy}}$ )
  - OFL  $\sim$  17,972 mt (-/+ 2SE = 17,058 - 18,886 mt)
- Level 3
  - Precision estimated for B, F, R, not OFL (not  $F_{\text{msy}}$ )
  - Between SF and SC
  - F-based ABC
- F-target recommended range (0.15 – 0.17)
- SSC recommendation (Catch at  $F = 0.15$ )

Table 1. Projected yield scenarios for 2011 over a range of F- targets. All assume catch in 2010 consistent with status quo F.

Yield (mt)					
F-target	- 1 STD DEV	Average (TAC)	+ 1 STD DEV	TAL	% change rel to 2010 TAL (13,274 mt)
0.10	9,531	9,779	10,027	7,760	-42%
0.11	10,445	10,717	10,989	8,698	-34%
0.12	11,352	11,648	11,944	9,629	-27%
0.13	12,253	12,572	12,891	10,553	-20%
0.14	13,146	13,489	13,832	11,470	-14%
0.15	14,033	14,399	14,765	12,380	-7%
0.16	14,913	15,302	15,691	13,283	0.07%
0.17	15,787	16,199	16,611	14,180	7%
0.18	16,654	17,089	17,524	15,070	14%
0.19	17,515	17,972	18,429	15,953	20%

Yield (M lbs)					
F-target	- 1 STD DEV	Average (TAC)	+ 1 STD DEV	TAL	% change rel to 2010 TAL (29.264 M lbs)
0.10	21.012	21.559	22.106	17.108	-42%
0.11	23.027	23.627	24.227	19.176	-34%
0.12	25.027	25.679	26.332	21.228	-27%
0.13	27.013	27.717	28.420	23.265	-20%
0.14	28.982	29.738	30.494	25.287	-14%
0.15	30.937	31.744	32.551	27.293	-7%
0.16	32.878	33.735	34.593	29.284	0.07%
0.17	34.804	35.713	36.621	31.262	7%
0.18	36.716	37.675	38.634	33.224	14%
0.19	38.614	39.621	40.629	35.170	20%



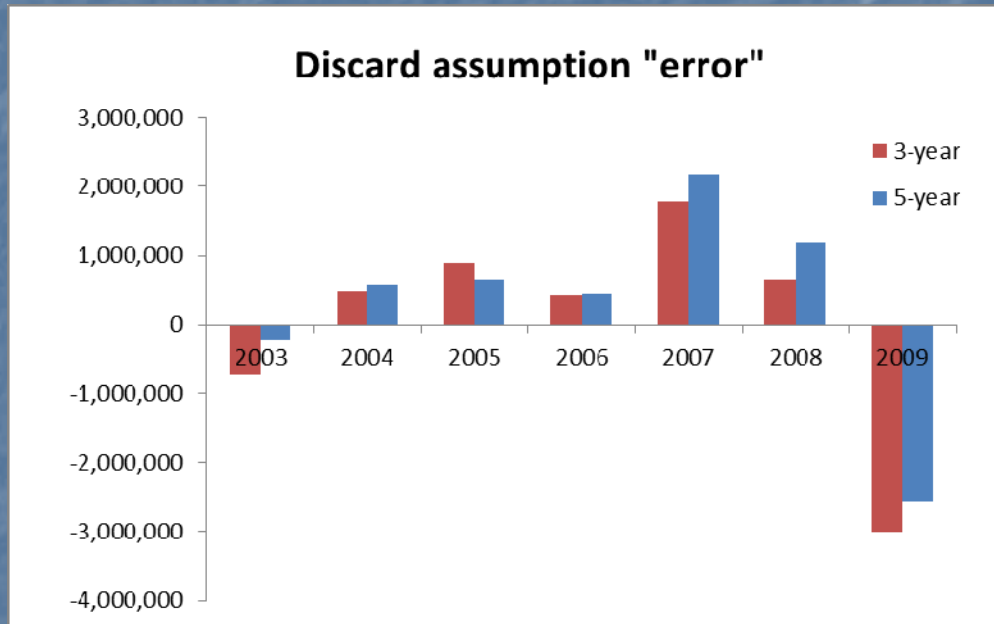


- TAC exceeded once in 10 years
  - Comm fishery - quota monitoring system
  - Rec fishery - less oversight
- Discards
  - Average from past 3 – 5 years assumed

# ABC

Management Uncertainty

# TAC



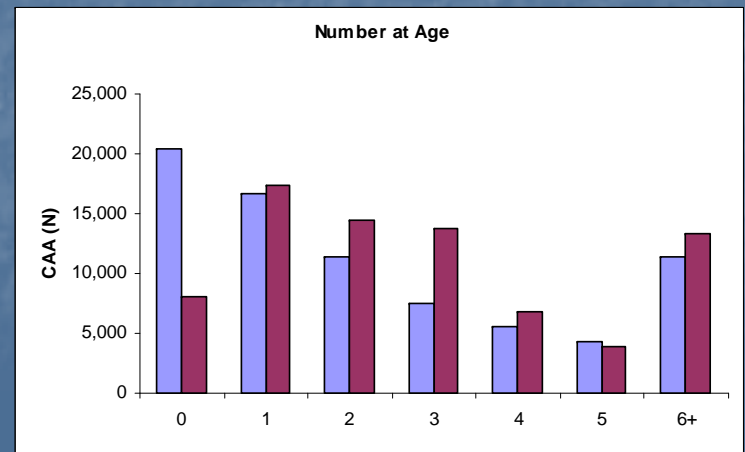
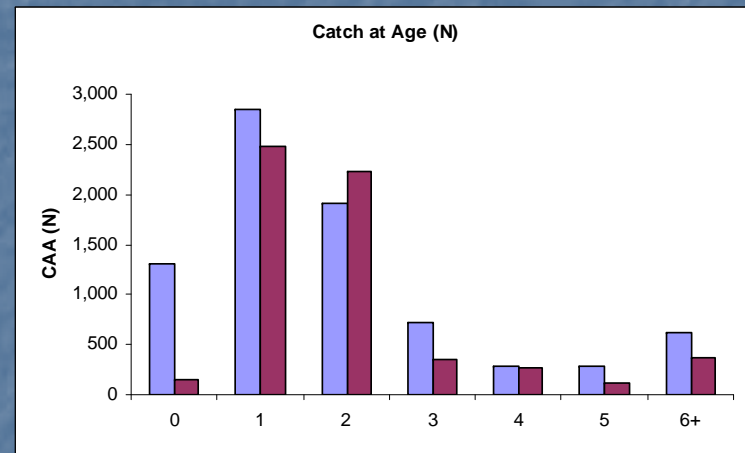
3-Year Ave for 2011: 4.451 M lb

5-Year Ave for 2011: 4.335 M lb

# Weak 2009 Year Class (what to do?)

FL (cm)	0	1	2	3	4	5	6+
14							
15							
16	1.0						
17	1.0						
18	1.0						
19	1.0						
20	1.0						
21	1.0						
22	1.0						
23	1.0						
24	1.0						
25	1.0						
26	0.8	0.2					
27	1.0						
28	0.8	0.3					
29	0.7	0.3					
30	0.8	0.2					
31	0.7	0.3					
32	0.7	0.3					
33	0.3	0.8					
34	0.5	0.7					
35	0.2	0.7	0.2				
36	1.0						
37	1.0						
38	1.0						
39	0.9		0.1				
40	1.0						
41	0.1	0.8	0.1				
42	0.8	0.2					
43	1.0						
44	1.0						
45	1.0						
46	0.7		0.3				
47	1.0						
48	1.0						
49	1.0						
50			0.5				
51			1.0				
52			1.0				
53			1.0				
54			1.0				
55			1.0				
56			1.0				
57			1.0				
58			0.7	0.3			
59			0.5	0.5			
60				1.0			
61				1.0			
62				1.0			
63				1.0			
64				0.8	0.2		
65				0.5	0.5		
66				0.5	0.5		
67				1.0			
68				1.0			
69				0.5	0.5		
70				1.0			
71				1.0			
72				1.0			
73				1.0			
74				1.0			
75				1.0			
76				1.0			
77				1.0			
78				1.0			
79				1.0			
80				1.0			
81				1.0			
82				1.0			
83				1.0			

FL (cm)	0	1	2	3	4	5	6+
14	1.00						
15	1.00						
16	1.00						
17	1.00						
18	1.00						
19	1.00						
20	0.50	0.50					
21	0.33	0.67					
22	1.00						
23	0.50	0.50					
24	1.00						
25	1.00						
26	0.50	0.50					
27	1.00						
28	1.00						
29	1.00						
30	1.00						
31	1.00						
32	1.00						
33	0.89	0.11					
34	0.89	0.11					
35	0.80	0.20					
36	1.00						
37	1.00						
38	0.71	0.29					
39	1.00						
40	1.00						
41	0.83	0.17					
42	0.50	0.50					
43	1.00						
44	0.25	0.75					
45	1.00						
46	1.00						
47	1.00						
48	1.00						
49	1.00						
50	0.67	0.33					
51	1.00						
52	1.00						
53	1.00						
54	1.00						
55	1.00						
56	1.00						
57	1.00						
58	0.50	0.50					
59	1.00						
60	1.00						
61			0.67	0.33			
62			0.50	0.50			
63			0.50	0.50			
64			1.00				
65				0.67	0.33		
66				1.00			
67				1.00			
68				0.67			
69					0.50		
70				1.00			
71				1.00			
72				1.00			
73				1.00			
74					0.33		
75				1.00			
76				1.00			
77				1.00			
78					0.50		
79				1.00			
80				1.00			
81				1.00			
82				1.00			
83				1.00			





# TAC Recommendation

- TAC = ABC = 31.744 M lb
- TAL = TAC – Disc = 27.293 M lb

	F- Target							Recommended		2010
	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	Measures	
TAL	17.108	19.176	21.228	23.265	25.287	27.293	29.284	31.262	29.264	
17% Comm	2.908	3.260	3.609	3.955	4.299	4.640	4.978	5.314	4.975	
83% Rec	14.200	15.916	17.619	19.310	20.988	22.653	24.306	25.947	24.289	
Expected Rec landings	17.882	17.882	17.882	17.882	17.882	17.882	17.882	17.882	15.381	
Allowable Transfer	N/A	N/A	N/A	1.428	3.106	4.772	5.522	5.186	5.387	
Comm Quota	2.908	3.260	3.609	5.384	7.405	9.411	10.500	10.500	10.213	
RHL	14.200	15.916	17.619	17.882	17.882	17.882	18.784	20.762	18.631	
Comment	Requires rec measures	Requires rec measures	Requires rec measures				max comm quota	max comm quota		

# TAC Recommendation

- TAC = ABC = 31.744 M lb
- TAL = TAC – Disc = 27.293 M lb
- Transfer = 4.772 M lb

	F- Target								2010 Measures
	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	
TAL	17.108	19.176	21.228	23.265	25.287	27.293	29.284	31.262	29.264
17% Comm	2.908	3.260	3.609	3.955	4.299	4.640	4.978	5.314	4.975
83% Rec	14.200	15.916	17.619	19.310	20.988	22.653	24.306	25.947	24.289
Expected Rec landings	17.882	17.882	17.882	17.882	17.882	17.882	17.882	17.882	15.381
Allowable Transfer	N/A	N/A	N/A	1.428	3.106	4.772	5.522	5.186	5.387
Comm Quota	2.908	3.260	3.609	5.384	7.405	9.411	10.500	10.500	10.213
RHL	14.200	15.916	17.619	17.882	17.882	17.882	18.784	20.762	18.631
Comment	Requires rec measures	Requires rec measures	Requires rec measures				max comm quota	max comm quota	

		State Quotas (lb)	
State	Share	2010	2011 F = 0.15
ME	0.006685	68,275	62,915
NH	0.004145	42,334	39,010
MA	0.067167	685,991	632,136
RI	0.068081	695,326	640,738
CT	0.012663	129,330	119,177
NY	0.103851	1,060,653	977,384
NJ	0.148162	1,513,211	1,394,413
DE	0.018782	191,825	176,765
MD	0.030018	306,580	282,512
VA	0.118795	1,213,280	1,118,028
NC	0.320608	3,274,441	3,017,373
SC	0.000352	3,595	3,313
GA	0.000095	970	894
FL	0.100597	1,027,419	946,760
<b>Total</b>	<b>1.000001</b>	<b>10,213,222</b>	<b>9,411,410</b>

# Other Recommendations

- Status Quo Possession Limits (15 fish)
- Up to 3 % RSA



# Summary

- $TAC = ABC = 31.744 \text{ M lb}$
- $TAL = TAC - Disc = 27.293 \text{ M lb}$
- Transfer = The maximum amount allowed (currently 4.772 M lb). This should be revised as needed as new information becomes available.
- Status Quo Possession Limits (15 fish)
- Up to 3 % RSA
- Management measures beyond the current F-based catch target are not warranted to address the 2009 year class. Additional information on the strength of the 2009 year class will be available in a future assessment update. If a subsequent (i.e., 2010) low year class is observed, additional management action may need to be taken.

**NOAA  
FISHERIES  
SERVICE**



# SAW/SARC-50 Summary

Presentation: August, 2010

## *SAW/SARC Process*

- 1. SAW Working Groups (WG):** S. Demersal; Invert.; N. Demersal
- 2. External Peer Review Panel:** Center of Independent Experts (CIE) + SSC.
  - Emphasis on reviewing just the science/assessment.
- 3. Products:** (Reviewer's Reports) + (2 Science Reports)  
<http://www.nefsc.noaa.gov/nefsc/saw/> (see SAW50)  
<http://www.nefsc.noaa.gov/publications/> (see Ref. Docs.)
- 4. Management advice:**
  - SAW/SARC reports support SSC in making ABC recommendation.
  - Management Advice developed by Tech. Committees, PDTs, SSC.

**The 50th Northeast Regional  
Stock Assessment Review Committee (50th SARC)  
Stephen H. Clark Conference Room – Northeast Fisheries Science Center  
Woods Hole, Massachusetts  
June 1-6, 2010**

**SARC Chairman:**

**Mr. Robert O'Boyle  
(BetaSci.; NEFMC SSC)**

**SARC Panelists:**

**Dr. Patrick Sullivan  
(Cornell U., NEFMC SSC)**

**Dr. Michael Bell  
(Heriot-Watt U., UK; CIE)**

**Dr. Kurtis Trzcinski  
(Nova Scotia, CA, CIE)**

**Mr. John Wheeler  
(Newfoundland, CA; CIE)**

- A. Monkfish**
- B. Sea scallop**
- C. Pollock**

# Monkfish



Photo: Mark Dixon, NOAA NOS

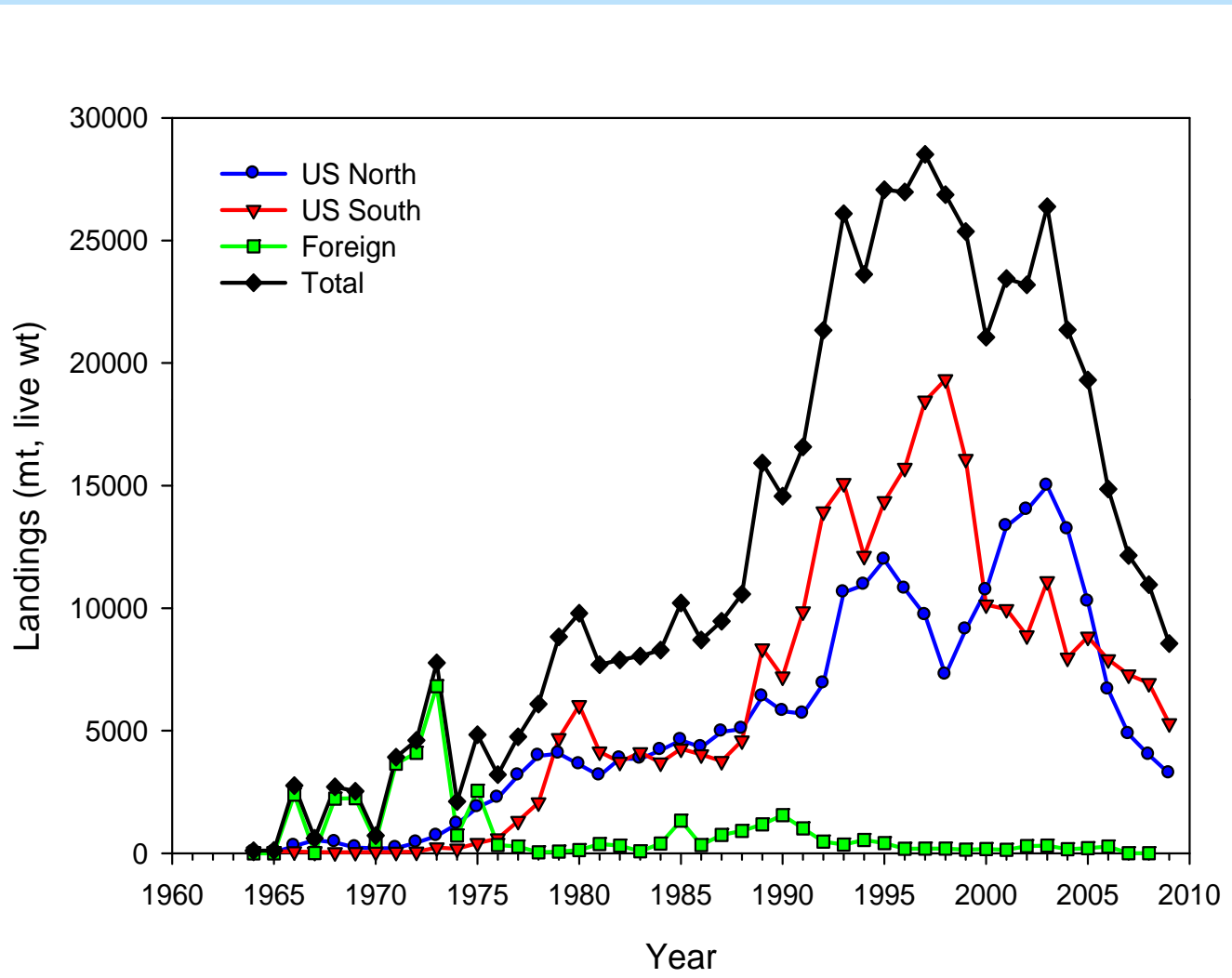


- 1. Characterize the commercial catch including landings, effort, LPUE and discards. Describe the uncertainty in these sources of data.**
- 2. Report results of 2009 cooperative monkfish survey and describe sources of uncertainty in the data and results.**
- 3. Characterize other survey data that are being used in the assessment (e.g., regional indices of abundance, recruitment, length data, state surveys). Describe the uncertainty in these sources of data.**
- 4. Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and characterize the uncertainty of those estimates.**
- 5. Update or redefine biological reference points (BRPs; estimates or proxies for  $B_{MSY}$ ,  $B_{THRESHOLD}$ , and  $F_{MSY}$ ; and estimates of their uncertainty). Comment on the scientific adequacy of existing and redefined BRPs.**
- 6. Evaluate stock status with respect to the existing BRPs, as well as with respect to updated or redefined BRPs (from TOR 5).**

- 7. Evaluate monkfish diet composition data and its implications for population level consumption by monkfish.**
- 8. Develop and apply analytical approaches and data that can be used for conducting single and multi-year stock projections and for computing candidate ABCs (Acceptable Biological Catch; see Appendix to the TORs).**
  - a. Provide numerical short-term projections (through 2016). Each projection should estimate and report annual probabilities of exceeding threshold BRPs for F, and probabilities of falling below threshold BRPs for biomass. In carrying out projections, consider a range of assumptions to examine important sources of uncertainty in the assessment.**
  - b. Comment on which projections seem most realistic, taking into consideration uncertainties in the assessment.**
  - c. Describe this stock's vulnerability to becoming overfished, and how this could affect the choice of ABC.**
- 9. Review, evaluate and report on the status of the SARC and Working Group research recommendations listed in recent SARC reviewed assessments and review panel reports. Identify new research recommendations.**

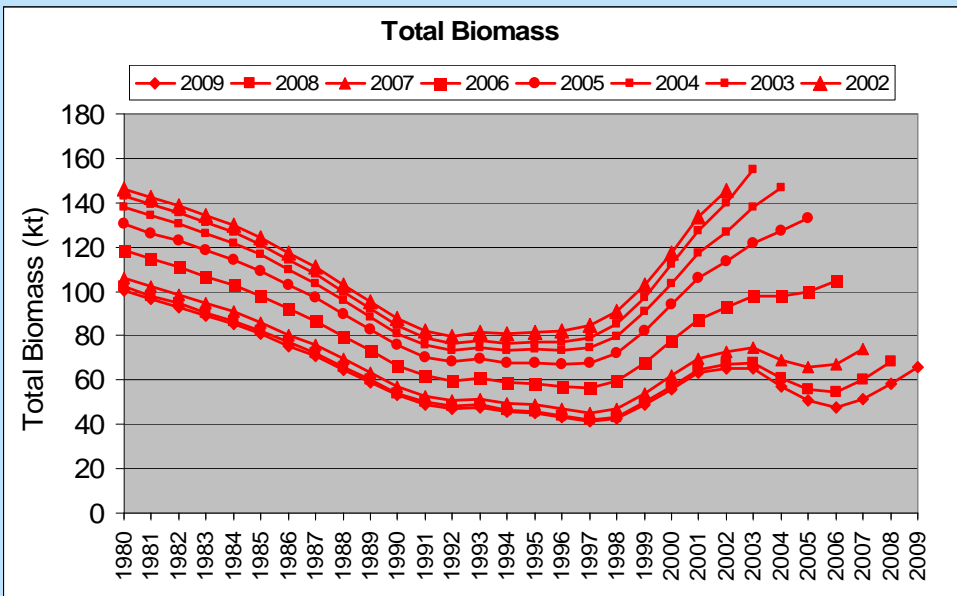
# Monkfish

## Landings ('64-'09)



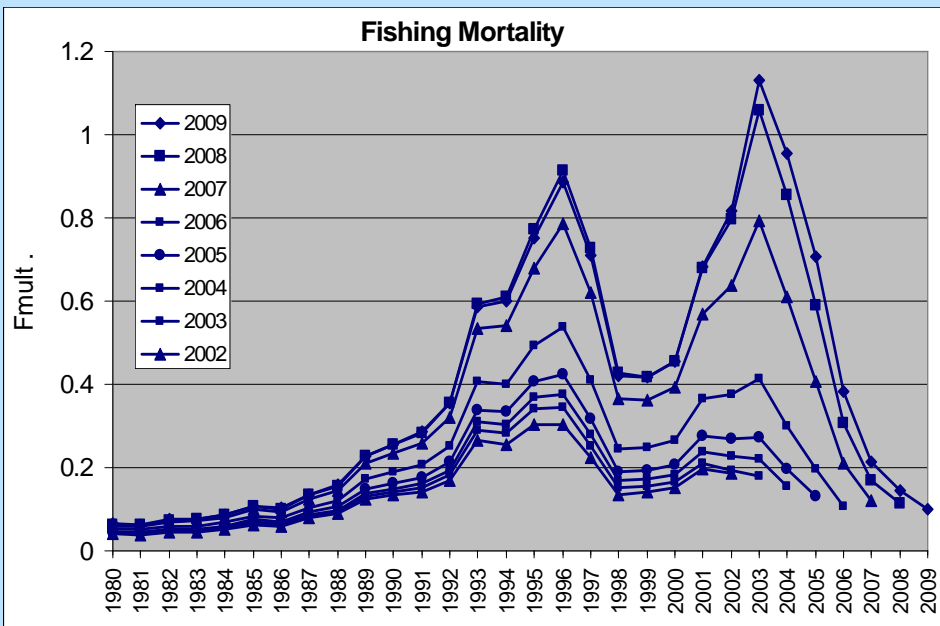
# Monkfish (N)

B



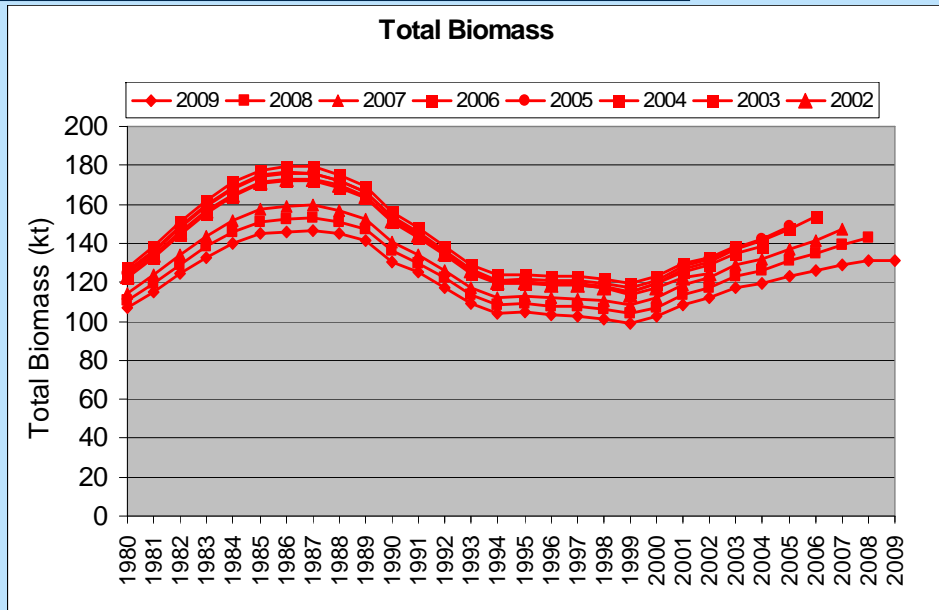
The Northern Area (SCALE) model has a very large retrospective pattern.

F

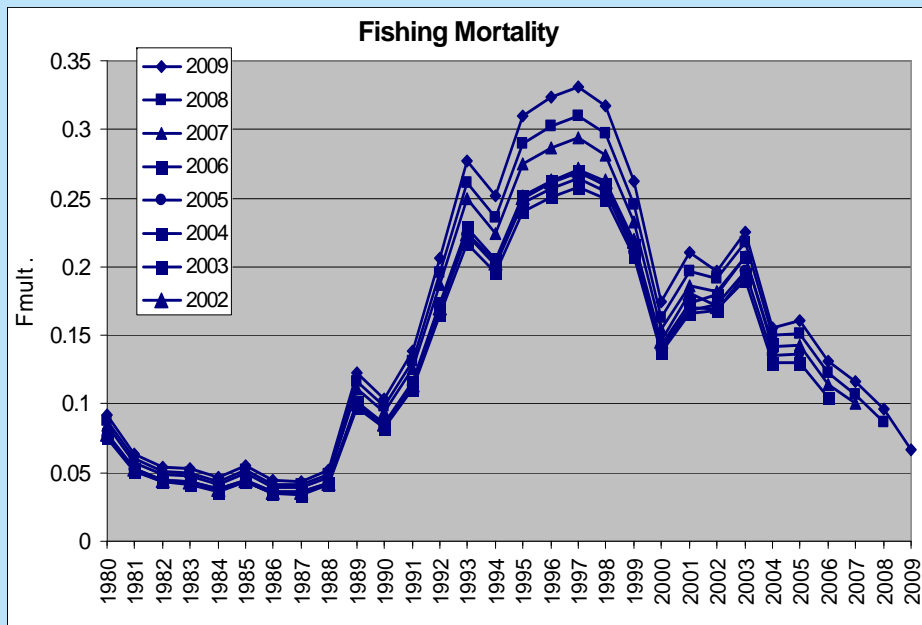


# Monkfish (S)

B



F



**The Southern Area (SCALE) model has a smaller retrospective pattern.**

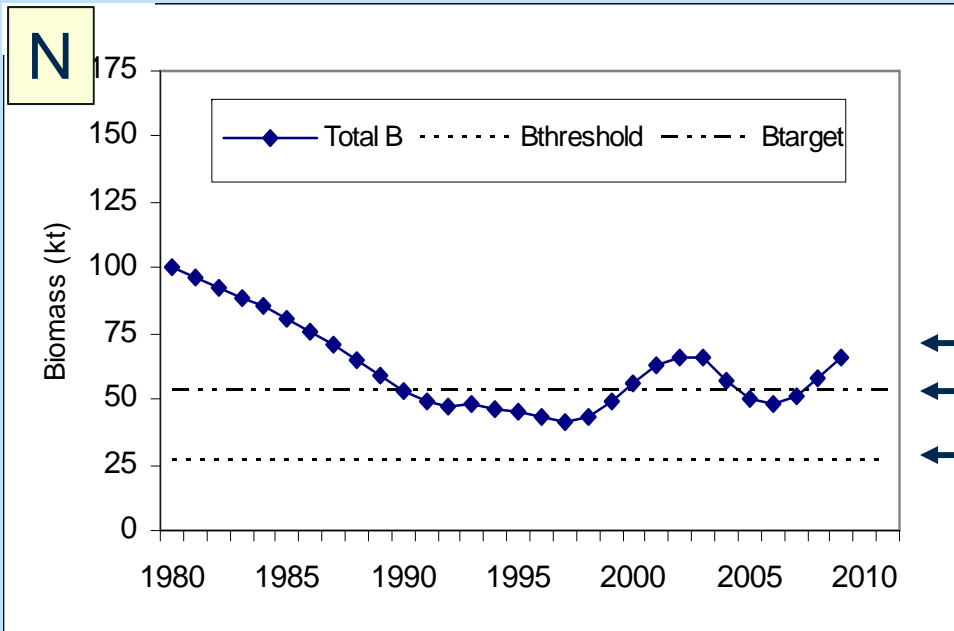
# Monkfish

# Biological Ref. Pnts.

Management Area	BRP	Basis (Kmt)	NEFSC 2007	SAW-2010
<b>Northern</b>				
	Fmax	YPR	0.31	0.43
	Bthreshold	Bloss 1998-2006	65,200	
		0.5*Bmax Projected		26,465
	Btarget	Bavg 1998-2006	92,200	
		Bmax Projected		52,930
<b>Southern</b>				
	Fmax	YPR	0.4	0.46
	Bthreshold	Bloss 1998-2006	96,400	
		0.5*Bmax Projected		37,245
	Btarget	Bavg 1998-2006	122,500	
		Bmax Projected		74,490

# Monkfish

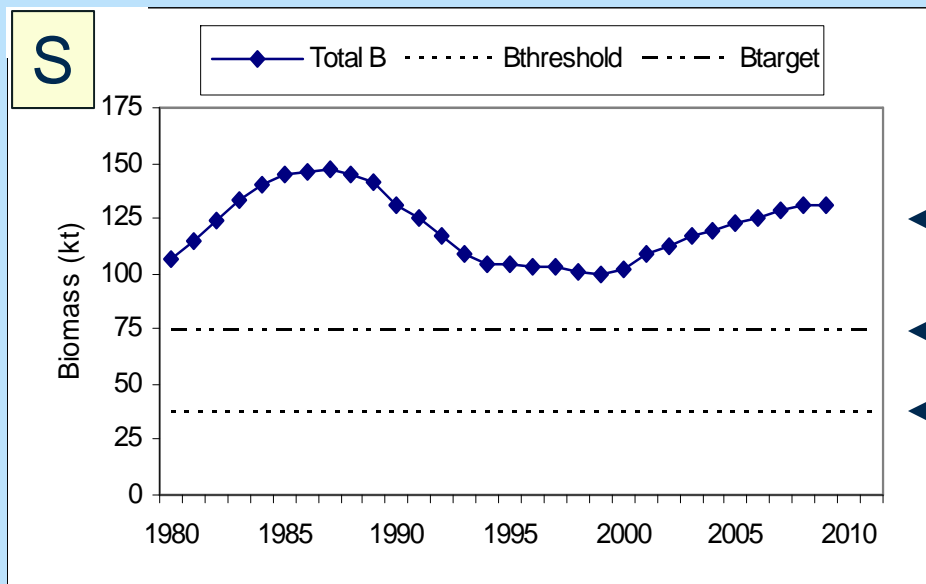
# Stock Status – Not Overfished



B'09 = 66.1 kmt

Btarget = 52.9 kmt

Bthreshold = 26.4kmt



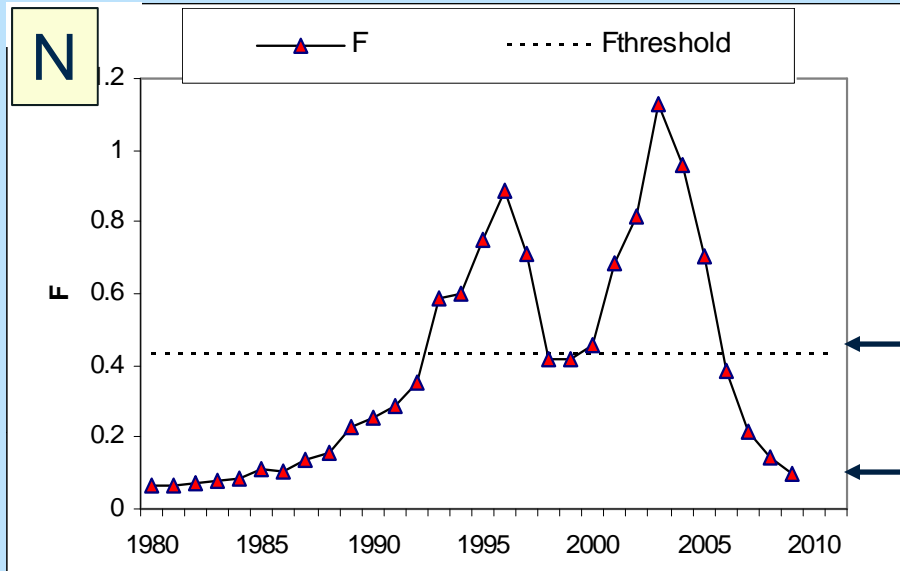
B'09 = 131.2 kmt

Btarget = 74.5 kmt

Bthreshold = 37.2 kmt

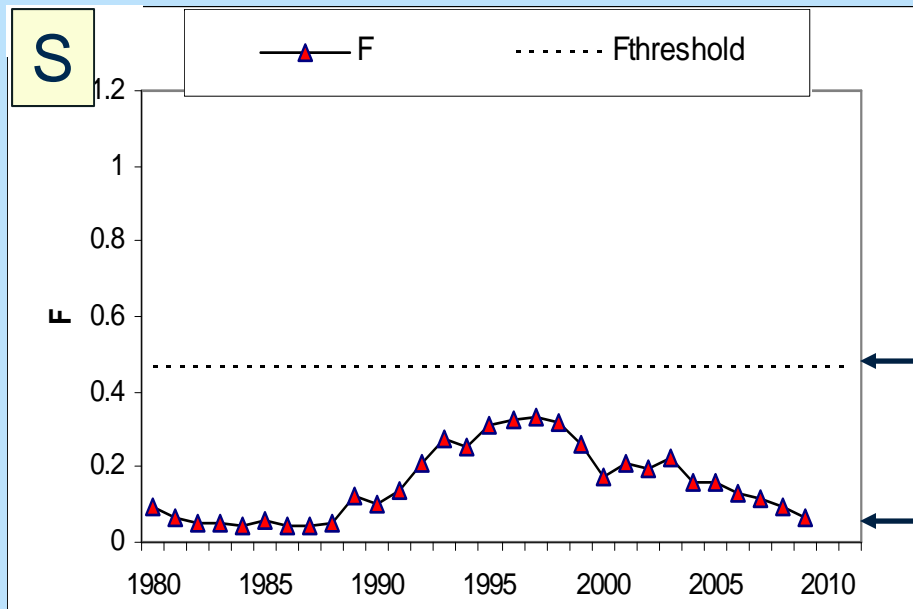
# Monkfish

## Status: NOT Overfishing



F-threshold,  
Proxy=0.43

F'09 = 0.10



F-threshold,  
Proxy=0.46

F'09 = 0.07



## **Monkfish Projections**

Uncertainty in the current state of the northern management area makes it difficult to predict stock dynamics in that area.

## **Monkfish Consumption**

Monkfish prey on mackerel, herring, squid, silver hake, and skates.

- + {
- **SCALE assessment model is superior to previously used survey-based approach.**
  - **Future assessments should benefit from increased catchability of monkfish by *RV Bigelow*.**
  - **Serious concerns about this assessment. High levels of uncertainty throughout. Not well characterized/documentated.**
  - **Aging and assumed natural mortality rate (M) uncertain.**
  - **Catch has decreased in recent years, but length distribution has not expanded.**

- **Large retrospective pattern in northern management area model.**
- **2009 cooperative survey estimate is consistent with SCALE model adjusted for retrospective in northern management area.**
- **Recent retro patterns in “negative” direction. Indicates potential risks to resource. If retro is real, fishing at proposed NMA ACT likely to drive B below Bthreshold by 2016.**
- **Uncertainties in the assessment carry through into the BRPs, creating high uncertainty and low confidence in the latter.**
- **High level in projection uncertainty translates into high level of risk in using these projections.**
- **Cooperative surveys not used to the fullest, and deep sampling fell short.**

- **Take more systematic approach to examine and communicate uncertainty in model and consequences.**
- **SCALE model indicates increasing trend in abundance recently. BUT, this is not apparent in survey indices or fishery length frequencies. Panel is concerned. Confirming this trend through data exploration is needed as reality check on model results.**
- **Give priority to reducing uncertainties in age, growth and natural mortality of monkfish.**

## Sea Scallops

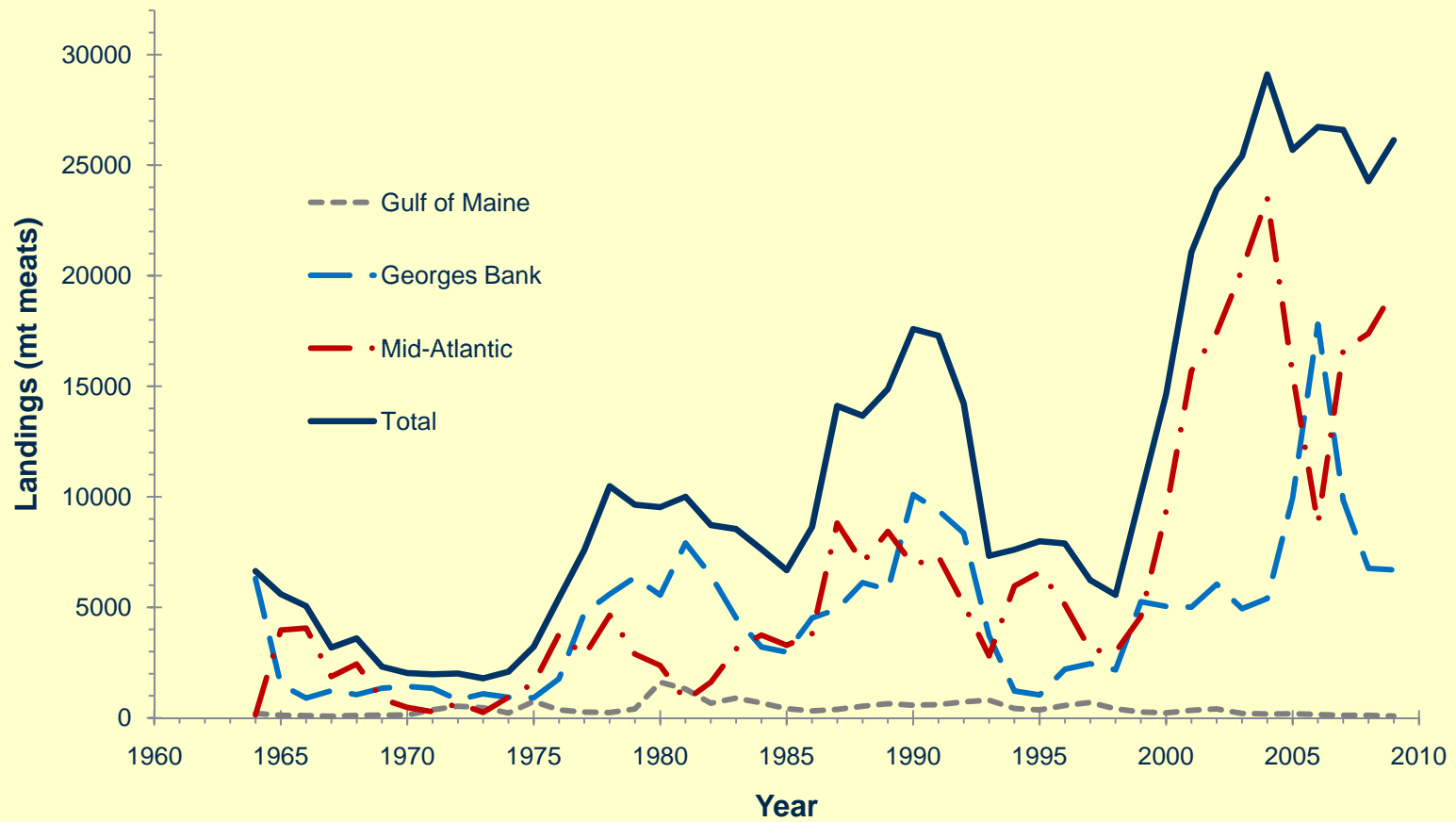


- 1. Characterize the commercial catch including landings, effort, LPUE and discards. Describe the uncertainty in these sources of data.**
- 2. Characterize the survey data that are being used in the assessment (e.g., regional indices of abundance, recruitment, state surveys, length data, etc.). Describe the uncertainty in these sources of data. Document the transition between the survey vessels and their calibration. If other survey data are used in the assessment, describe those data as they relate to the current assessment (Exclude consideration of future survey designs and methods).**
- 3. Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and characterize the uncertainty of those estimates.**
- 4. Update or redefine biological reference points (BRPs; estimates or proxies for  $B_{MSY}$ ,  $B_{THRESHOLD}$ , and  $F_{MSY}$ ; and estimates of their uncertainty). Comment on the scientific adequacy of existing and redefined BRPs.**
- 5. Evaluate stock status with respect to the existing BRPs, as well as with respect to updated or redefined BRPs (from TOR 4).**

- 6. Develop and apply analytical approaches and data that can be used for conducting single and multi-year stock projections and for computing candidate ABCs (Acceptable Biological Catch; see Appendix to the TORs).**
  - a. Provide numerical short-term projections (through 2014). Each projection should estimate and report annual probabilities of exceeding threshold BRPs for F, and probabilities of falling below threshold BRPs for biomass. In carrying out projections, consider a range of assumptions to examine important sources of uncertainty in the assessment.**
  - b. Comment on which projections seem most realistic, taking into consideration uncertainties in the assessment.**
  - c. Describe this stock's vulnerability to becoming overfished, and how this could affect the choice of ABC.**
  
- 7. Review, evaluate and report on the status of the SARC and Working Group research recommendations listed in recent SARC reviewed assessments and review panel reports. Identify new research recommendations.**

# Scallop:

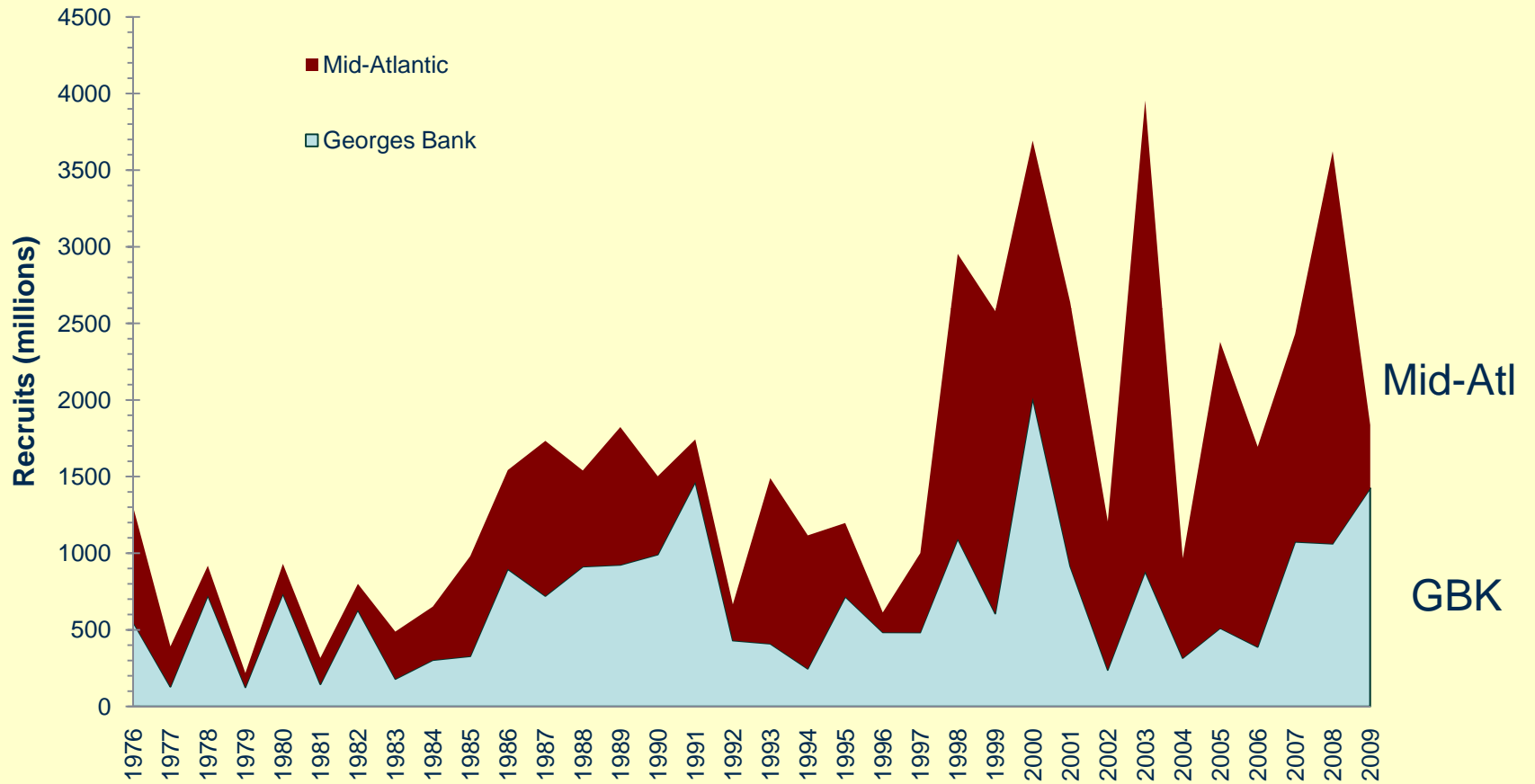
# Landings, 1975-2009





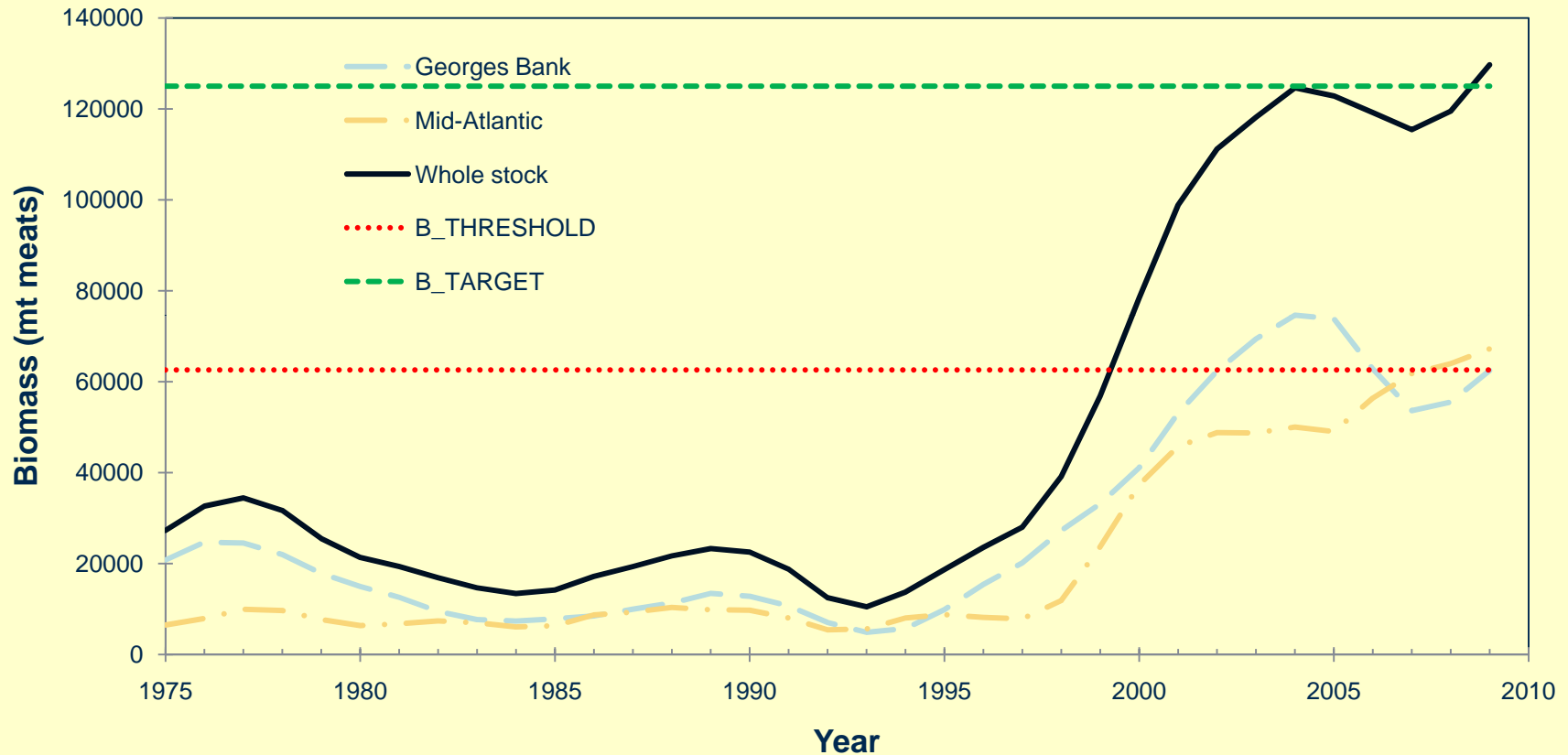
# Scallop:

# Recruitment, 1976-2009



# Scallop:

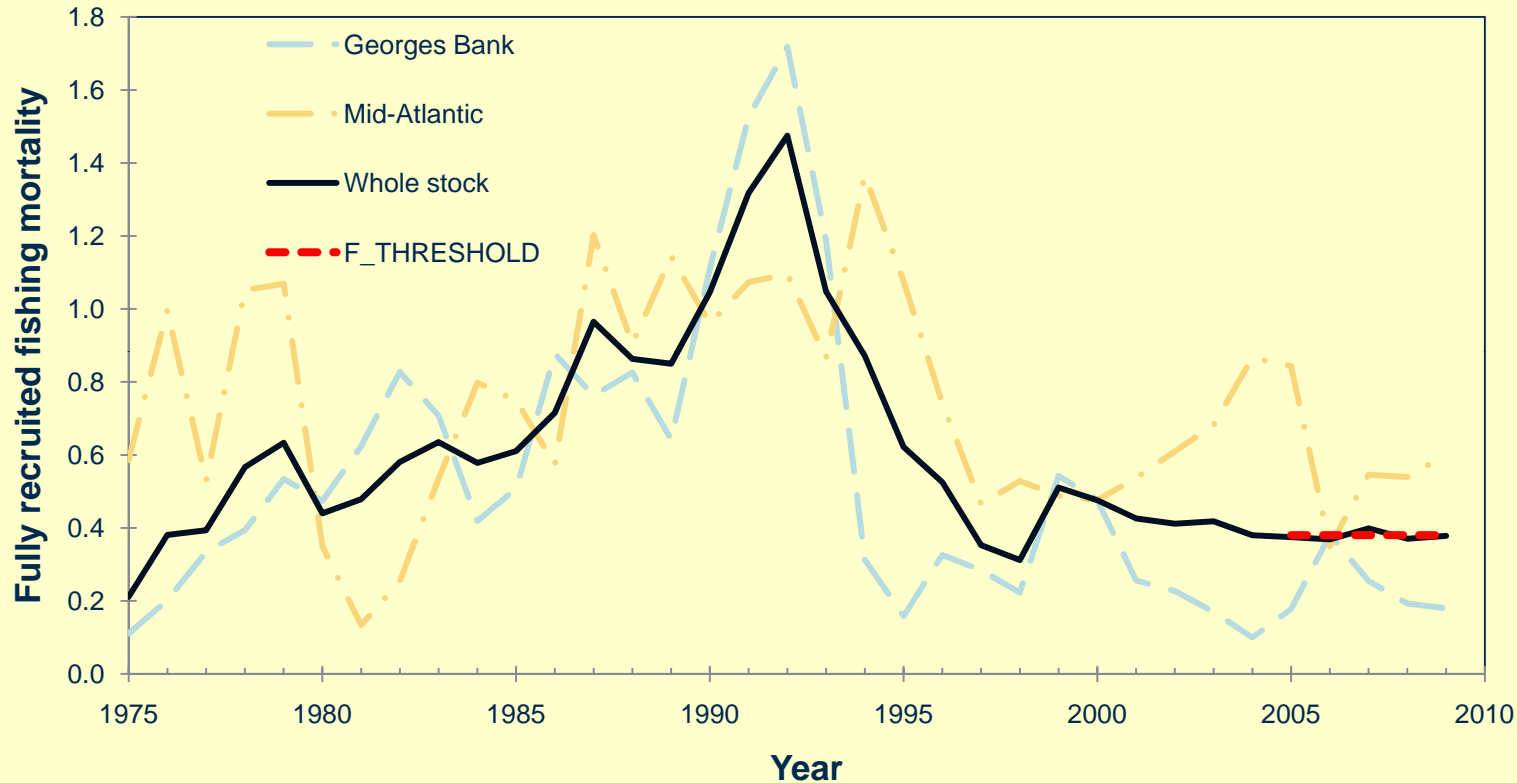
# Biomass (40+ mm SH), 1975-2009



**Status: Not Overfished.**  
 **$B_{09}=129.7$  kmt;  $B_{THRESHOLD}=62.6$  kmt**

# Scallop:

# Fishing Mortality Rate, 1975-2009

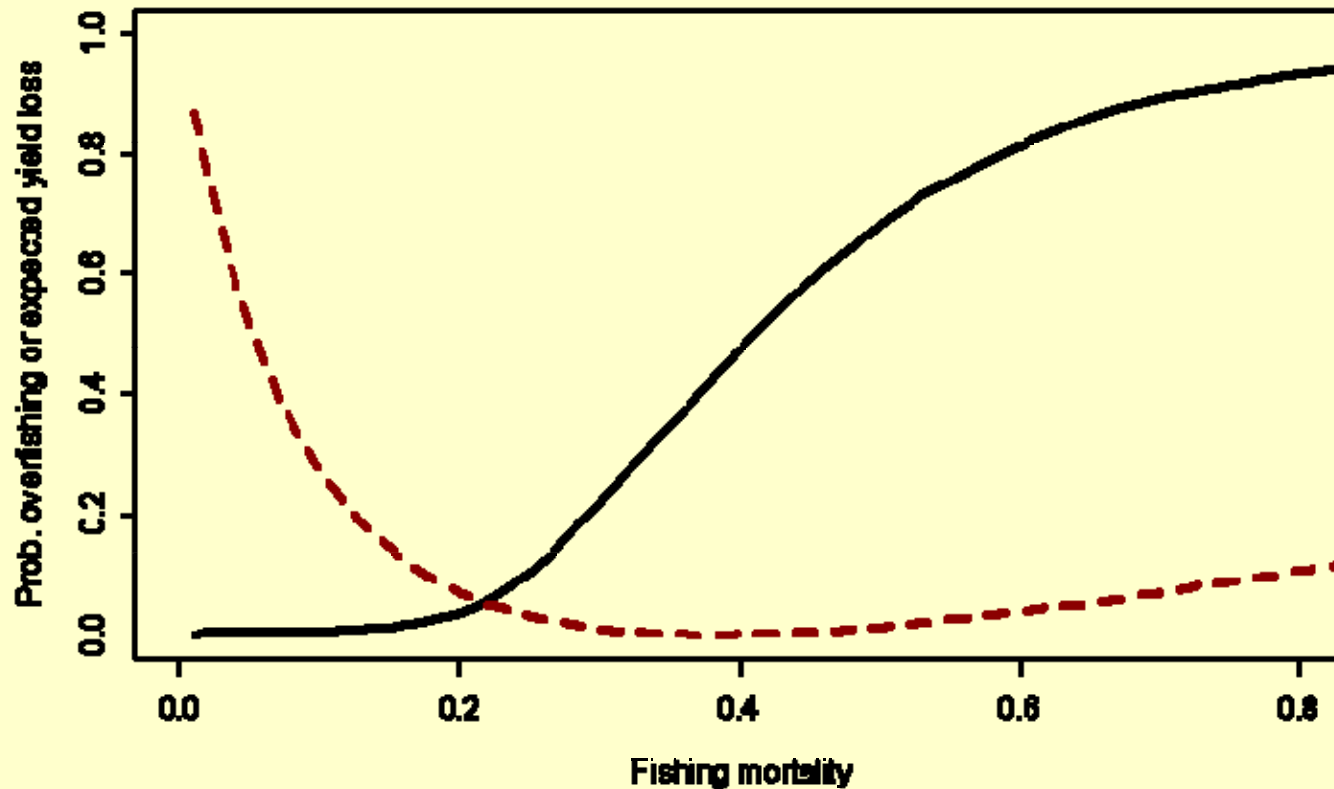


**Status: Not Overfishing (but very close).**

$$F_{'09} = 0.378; F_{\text{THRESHOLD}} = 0.380$$

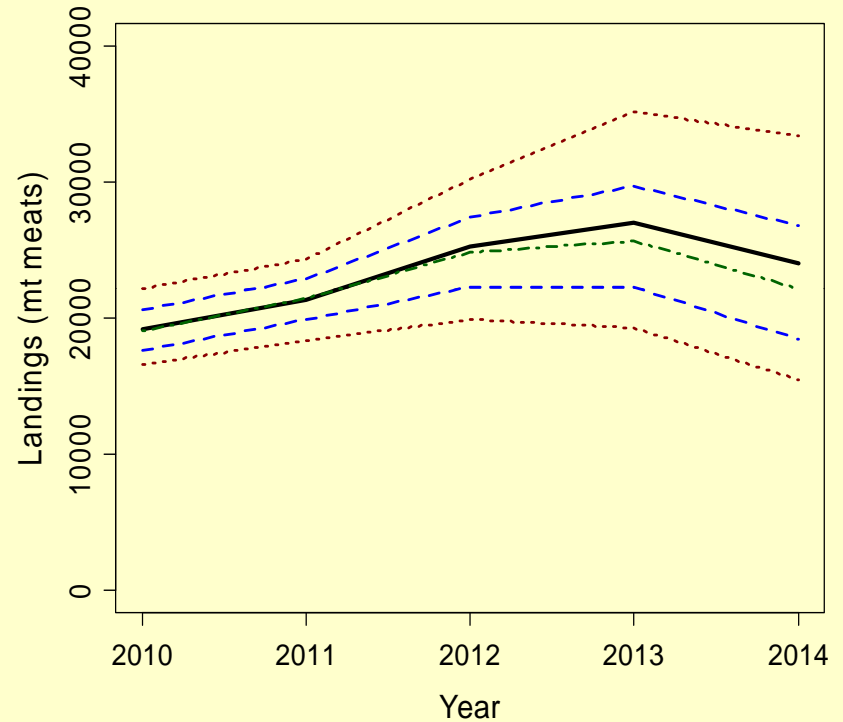
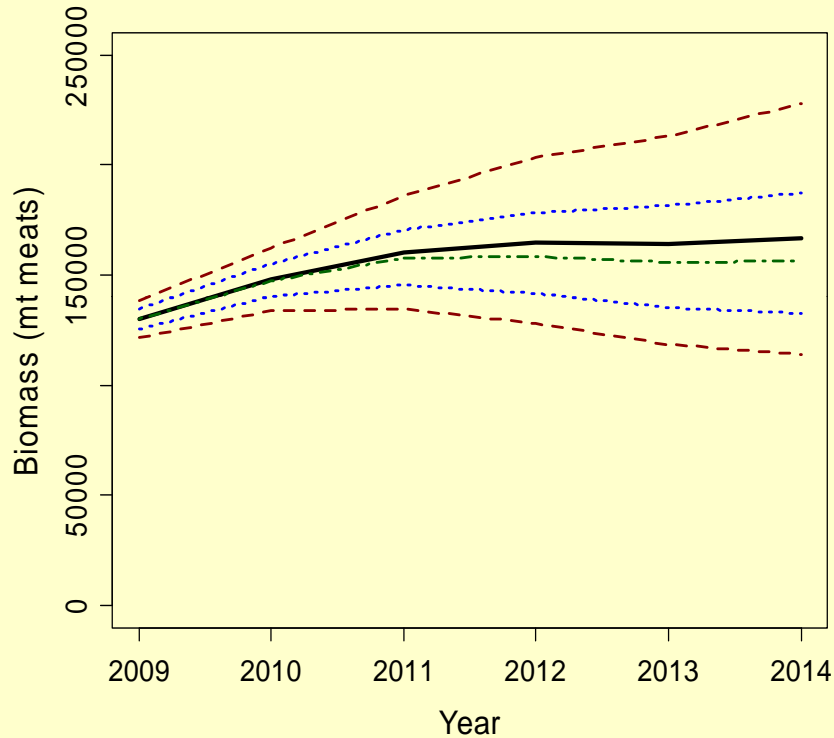
## Scallop:

Tradeoff between  $\text{Pr}\{\text{overfishing}\}$  (solid line) and Loss of Yield to Fishery (dashed line) relative to  $F_{\text{MSY}}$ .



## Scallop:

## Example Whole Stock Projection, through 2014



**Note: The projection model is complex and used for area management.**

- **Assessment was rigorous. Assessment outcomes well supported by available information. Panel endorses use of CASA model and refinements.**
- **New approach for quantifying uncertainties around BRPs relative to exploitation levels is innovative. Will facilitate incorporation of risk assessment into management decisions.**
- **Projection methods are complex, but necessary to accommodate spatial fishery management of sedentary species.**
- **Moderate retrospective patterns, most evident for the MAB. Some concern expressed over risk to stock.**
- **MSY estimate depends on assumption that increased recent recruitment in MAB due to increased biomass levels (i.e. stock-recruitment relationship). MSY is overestimated if this results from temporary environmental factors.**

- **Principal uncertainty concerns current high productivity levels. Establish whether current productivity depends on temporary environmental factors.**
- **There are conflicting signals in the MAB data (SMAST large camera survey abundance declines in 2009; NEFSC dredge survey abundance increasing). Sort out this conflict as new data become available in future.**
- **Develop consistent metric of fishing mortality that accounts for changes in selectivity over time.**
- **Current fishing mortality is close to  $F_{MSY}$  and deserves careful monitoring.**

# Pollock



Photo: Ralph Mayo



- 1. Characterize the commercial and recreational catch including landings, effort, LPUE and discards. Describe the uncertainty in these sources of data, including consideration of stock definition.**
- 2. Characterize the survey data that are being used in the assessment (e.g., regional indices of abundance, recruitment, state surveys, age-length data, etc.). Describe the uncertainty in these sources of data, including consideration of stock definition.**
- 3. Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and characterize the uncertainty of those estimates.**
- 4. Update or redefine biological reference points (BRPs; estimates or proxies for  $B_{MSY}$ ,  $B_{THRESHOLD}$ , and  $F_{MSY}$ ; and estimates of their uncertainty). Comment on the scientific adequacy of existing and redefined BRPs.**
- 5. Evaluate stock status with respect to the existing BRPs, as well as with respect to updated or redefined BRPs (from TOR 4).**
- 6. Evaluate pollock diet composition data and its implications for population level consumption by pollock.**

- 7. Develop and apply analytical approaches and data that can be used for conducting single and multi-year stock projections and for computing candidate ABCs (Acceptable Biological Catch; see Appendix to the TORs).**
  - a. Provide numerical short-term projections (through 2017). Each projection should estimate and report annual probabilities of exceeding threshold BRPs for F, and probabilities of falling below threshold BRPs for biomass. In carrying out projections, consider a range of assumptions to examine important sources of uncertainty in the assessment.**
  - b. Comment on which projections seem most realistic, taking into consideration uncertainties in the assessment.**
  - c. For a range of candidate ABC scenarios, compute probabilities of rebuilding the stock by 2017.**
  - d. Describe this stock's vulnerability to becoming overfished, and how this could affect the choice of ABC.**
  
- 8. Review, evaluate and report on the status of the SARC and Working Group research recommendations listed in recent SARC reviewed assessments and review panel reports. Identify new research recommendations.**

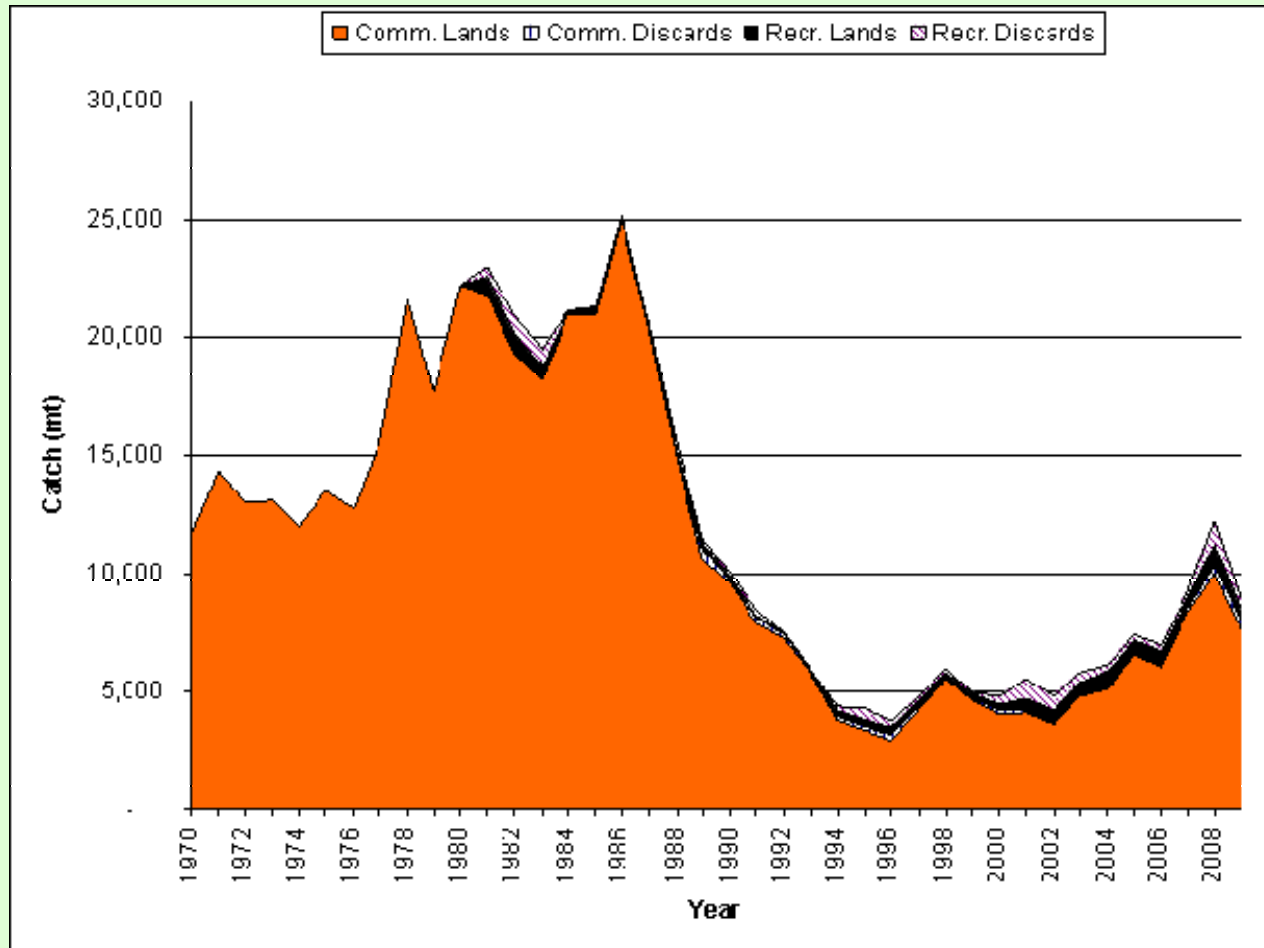
## Pollock:

## Assessment Comparison

<u>GARM-III (2008)</u>	<u>SAW-50 (2010)</u>
<b>Data:</b> NEFSC Fall survey tow data, and total commercial landings	<b>Data:</b> Age-structure, additional surveys, additional years of data, more comprehensive catch info, changes in selectivity, uncertainty in input data
<b>Model:</b> AIM (index-based)	<b>Model:</b> ASAP (Age-structured, forward-projecting, assessment program)
<b>Status Conclusion:</b> Overfished, Overfishing	<b>Status Conclusion:</b> Not Overfished, Not Overfishing

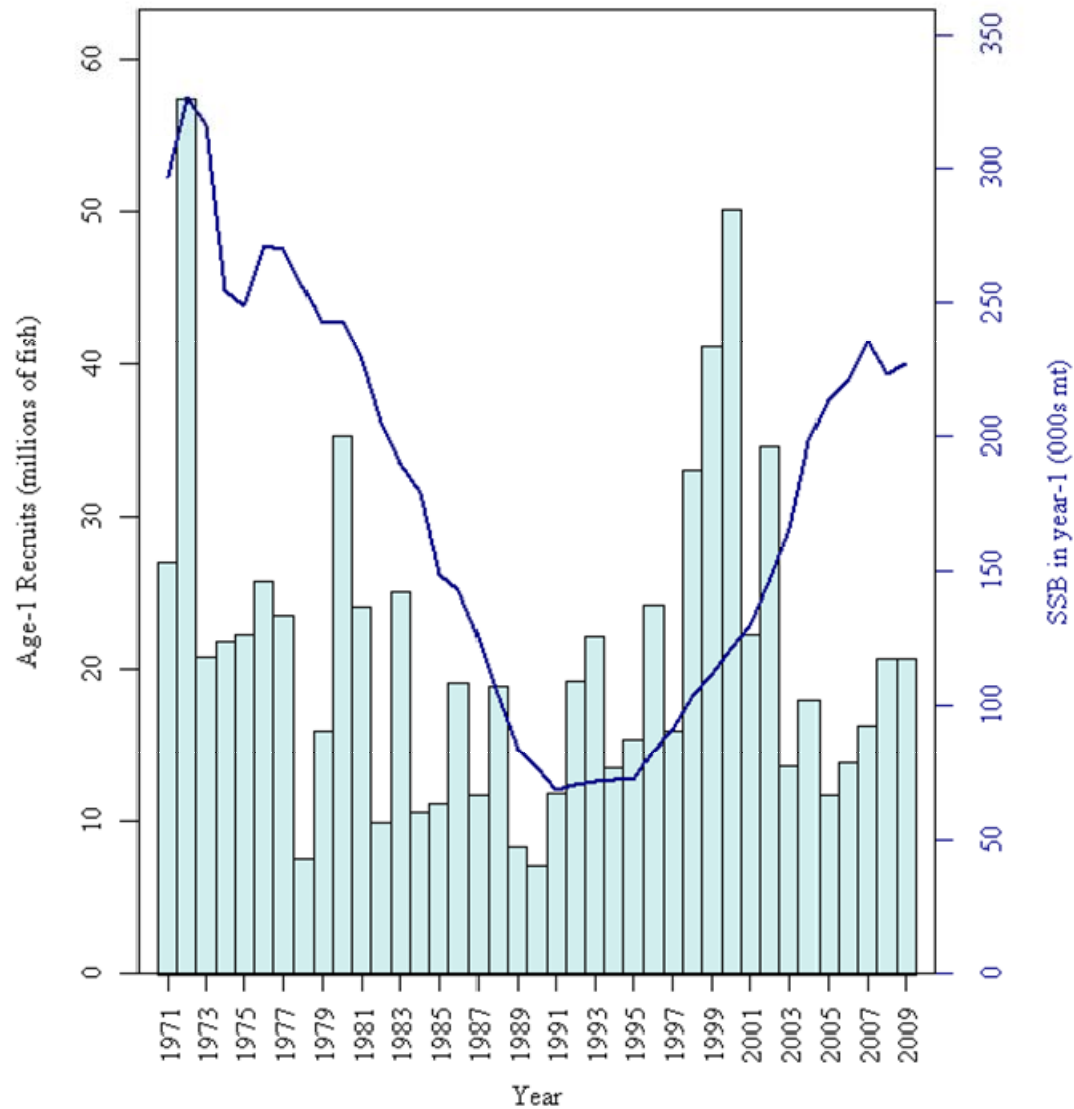
# Pollock:

# Landings & Discards 1970-2009



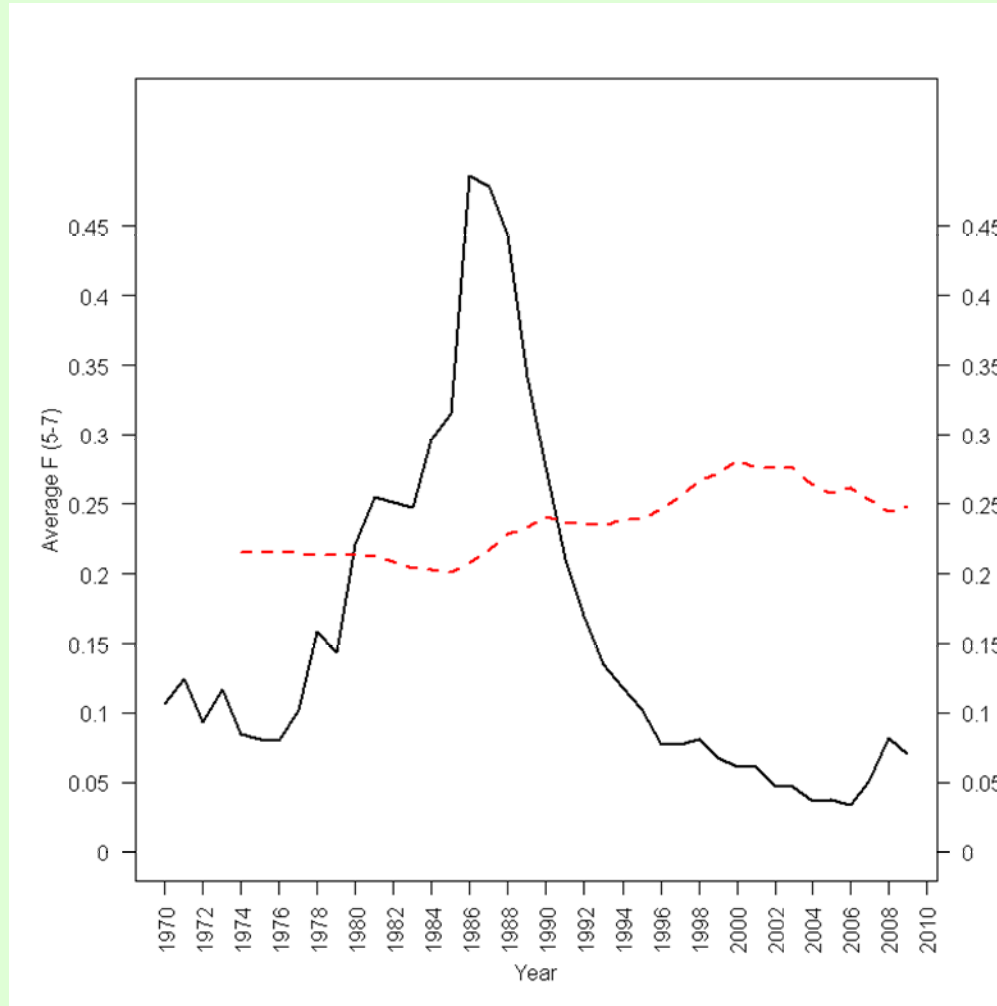
# Pollock:

Recruitment (bars),  
Spawning Stock Biomass (line),  
1971-2009 (basis: ASAP model)



## Pollock:

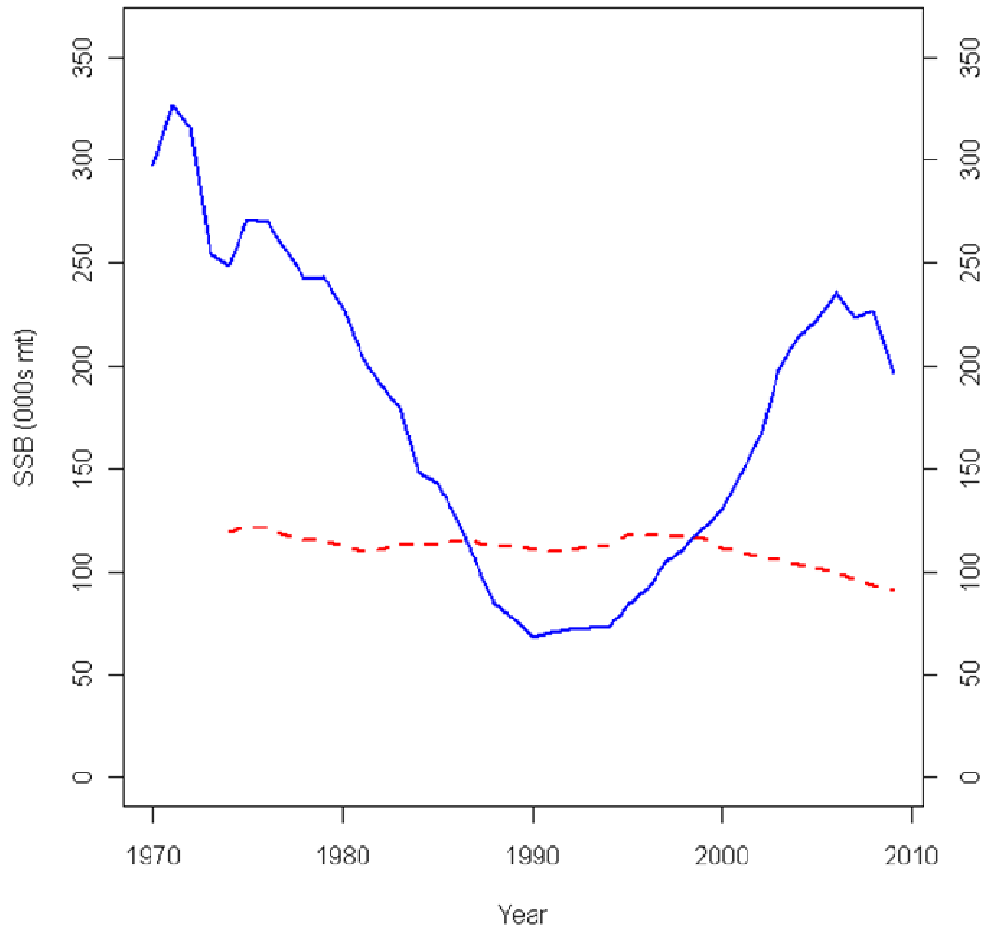
## Fishing Mortality Rate & $F_{\text{THRESHOLD}}$ (dashed line); 1970-2009



**Current Status: Not Overfishing**  
**( $F_{09,5-7}=0.07$ ;  $F_{09,THRESHOLD}=0.25$ )**

## Pollock:

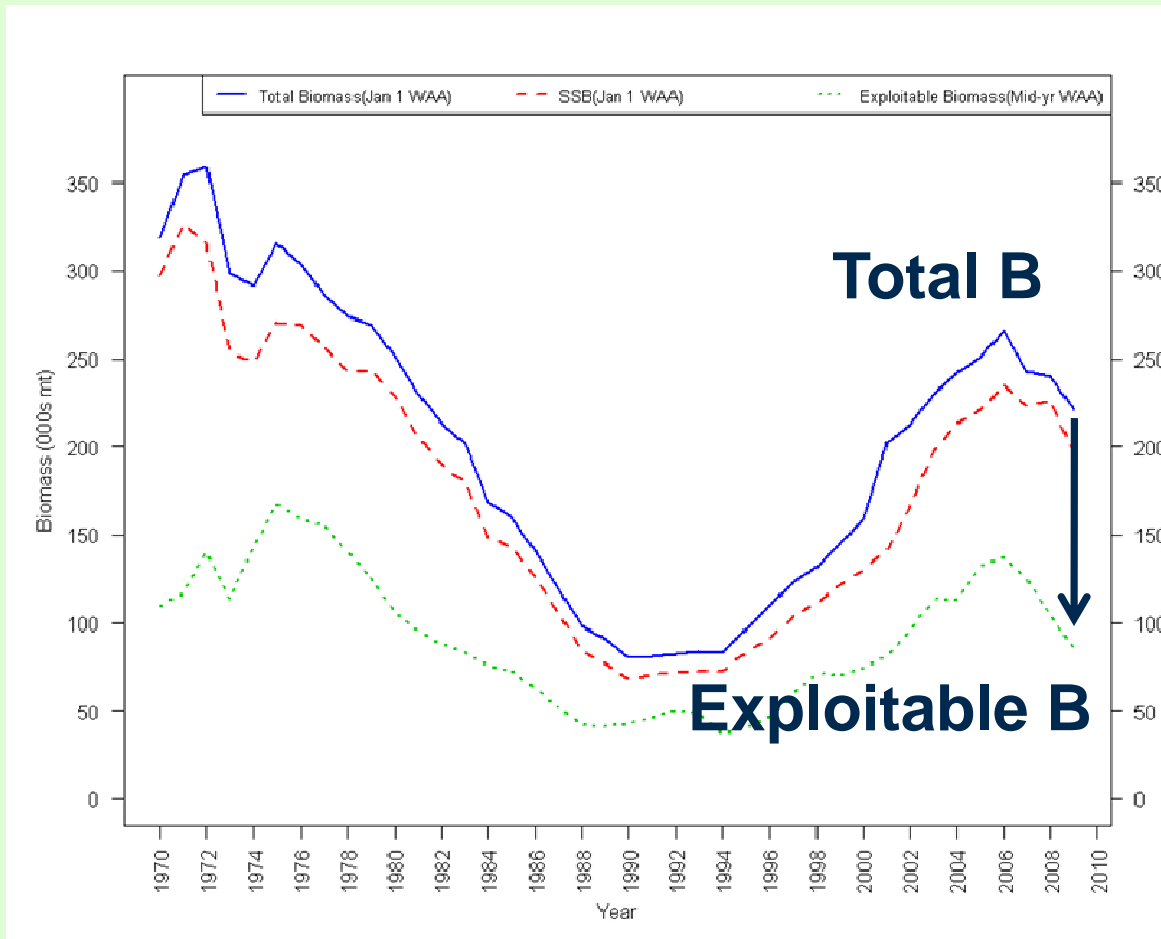
# Spawning Stock Biomass & $B_{\text{TARGET}}$ (dashed line) 1970-2009



**Current Status: Not Overfished**  
**( $SSB_{09} = 196 \text{ kmt}$ ;  $SSB_{\text{THRESHOLD}} = 45.5 \text{ kmt}$ )**

## Pollock:

## Biomass Estimates (1970-2009)



**Substantial B difference (i.e., cryptic biomass”) is due to the “dome” modeling assumption.**



## Pollock:

## SARC Panel Comments:

- Pollock assessment accepted. New assessment method (ASAP) a significant improvement over previous one (AIM). Compared to AIM, ASAP uses more sources of info and makes better use of available data.
- BRPs derived from AIM would have given different stock status (overfished and overfishing occurring).
- Panel expressed strong concern about presumed large and unobserved adult biomass (i.e. “cryptic” biomass associated with “dome” assumption) and its implications for management.
- BRPs were redefined with stronger scientific basis ( $F_{MSY}$  proxy of  $F_{40\%}$ ). However, projections are uncertain because model is sensitive to the “dome” assumption, which leads to higher stock biomass estimates.
- Pollock catch rates may be lower using the *RV Bigelow* due to lower tow speeds. Could negatively impact survey time series for assessing pollock.
- Comparison of ASAP with alternative model (Statistical Catch at Age, SCAA) gave similar results for relative stock trends.

## **Pollock:**

## **SARC Panel Recommendations**

- **Conduct research to confirm (or not) existence of cryptic biomass. A special survey, tagging or other monitoring study.**
- **The assumption that large, faster swimming pollock can avoid capture by the NMFS survey needs to be tested empirically.**
- **Apply risk analysis approach to evaluate consequences to management of the “dome” modeling assumption.**
- **Ensure that catch-age sampling is adequate to support the ASAP assessment model. Adjust sampling designs to respond to changes in fishery management (e.g. sectors).**
- **Make fine adjustments to account for the US-CA transboundary catch prior to 1985.**
- **US-CA collaborative research might be fruitful in characterizing the nature of this stock and its movements (e.g. systematic tagging studies).**
- **Consider incorporating Maine / New Hampshire survey as recruitment index.**

*Science, Service, Stewardship*



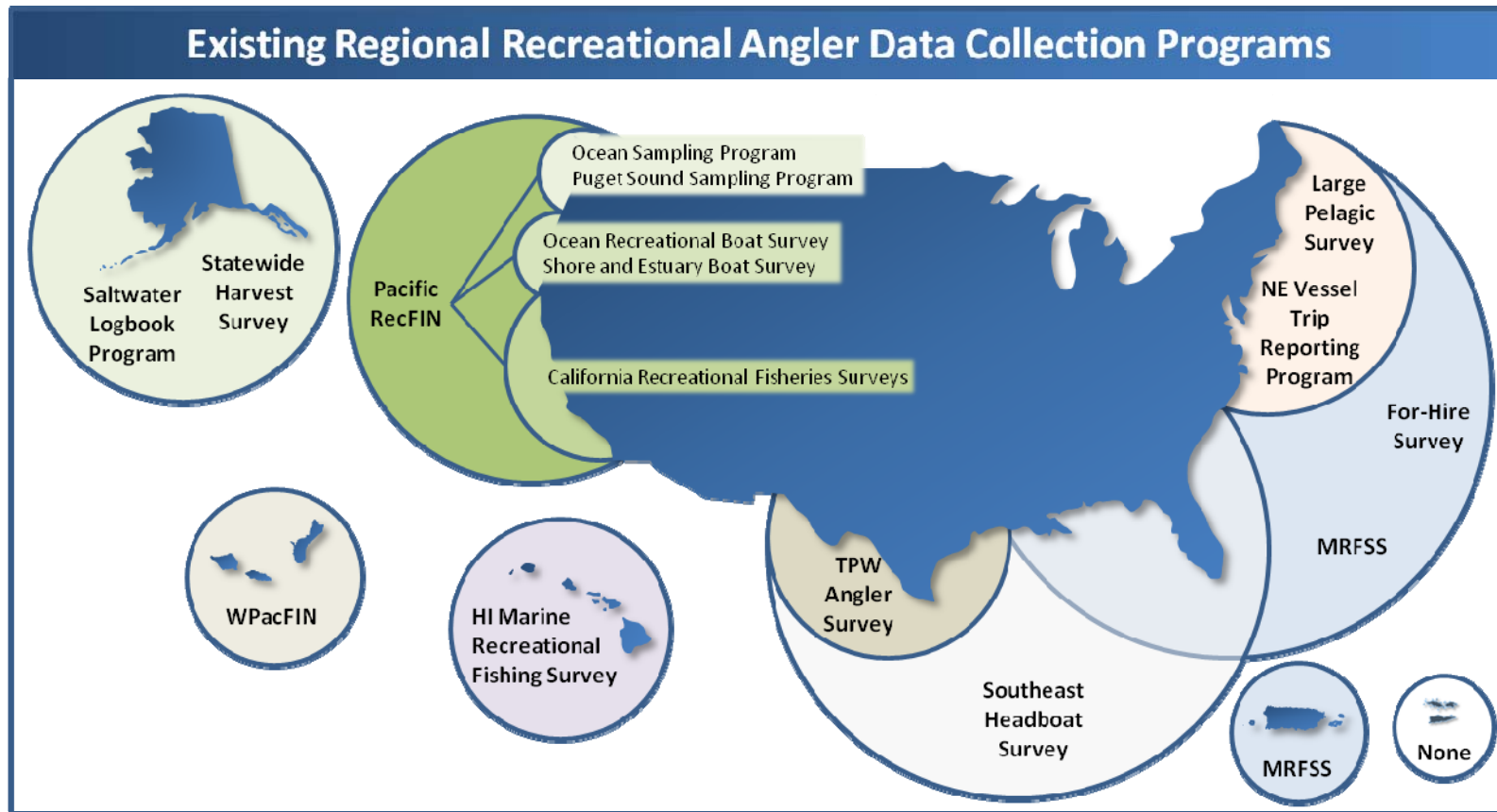
# Marine Recreational Information Program: Update

Mid-Atlantic Fishery Management Council  
August 19, 2010

**NOAA  
FISHERIES  
SERVICE**



# How Did We Get Here?



NOAA  
FISHERIES  
SERVICE

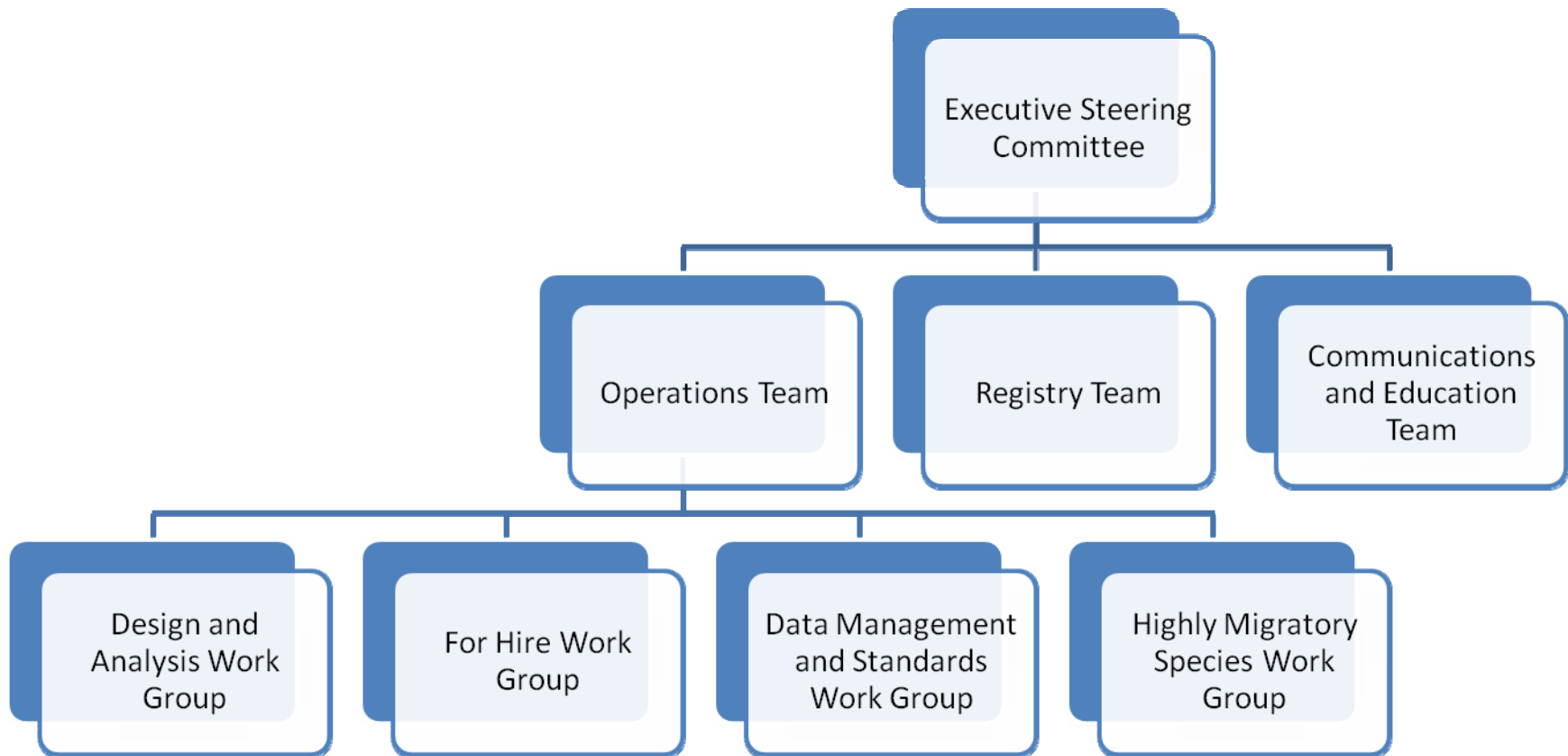


## Marine Recreational Information Program

**Goal:** The MRIP goal is a nationwide system of surveys operating with consistent standards and sufficient flexibility to meet national, regional, and state needs, and to provide reliable information about recreational fishing in a timely manner to support effective and fair management

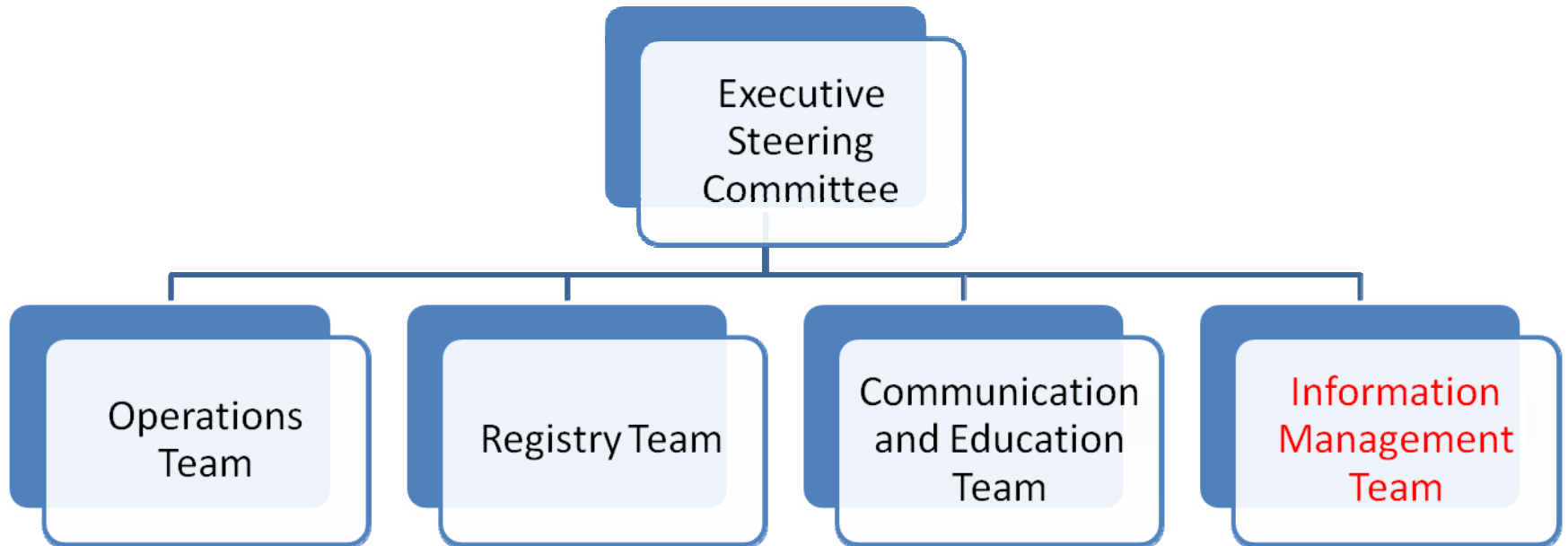


## Original Governance Structure



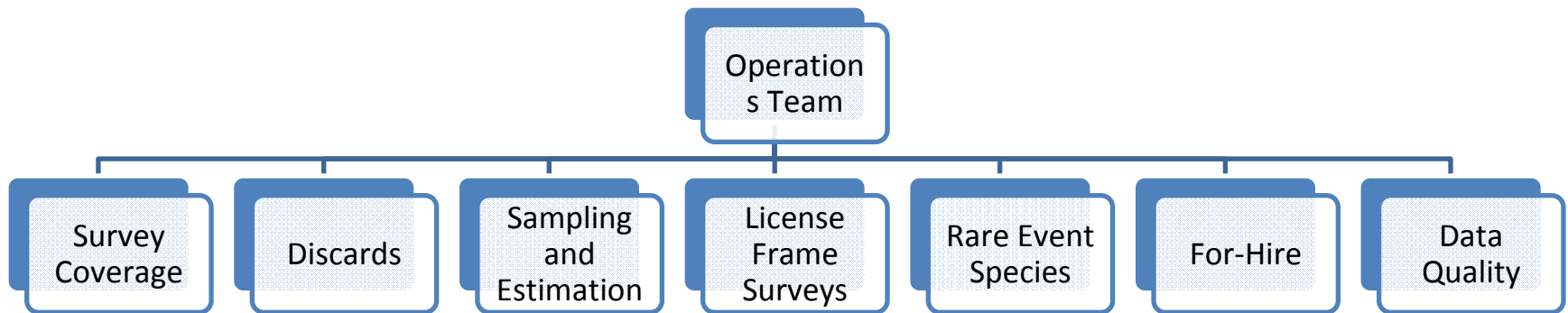


## “New” Governance Structure





## “New” Governance Structure





**NOAA  
FISHERIES  
SERVICE**



## **National Strategy**

- Regional flexibility
- Development of survey design, estimation and management standards and best practices
  - Utilization of angler registries as sample frames
  - Unbiased sampling and estimation designs
- For-hire specific data collection approaches
- Quality assurance and quality control standards
- Enhanced information management and data dissemination tools



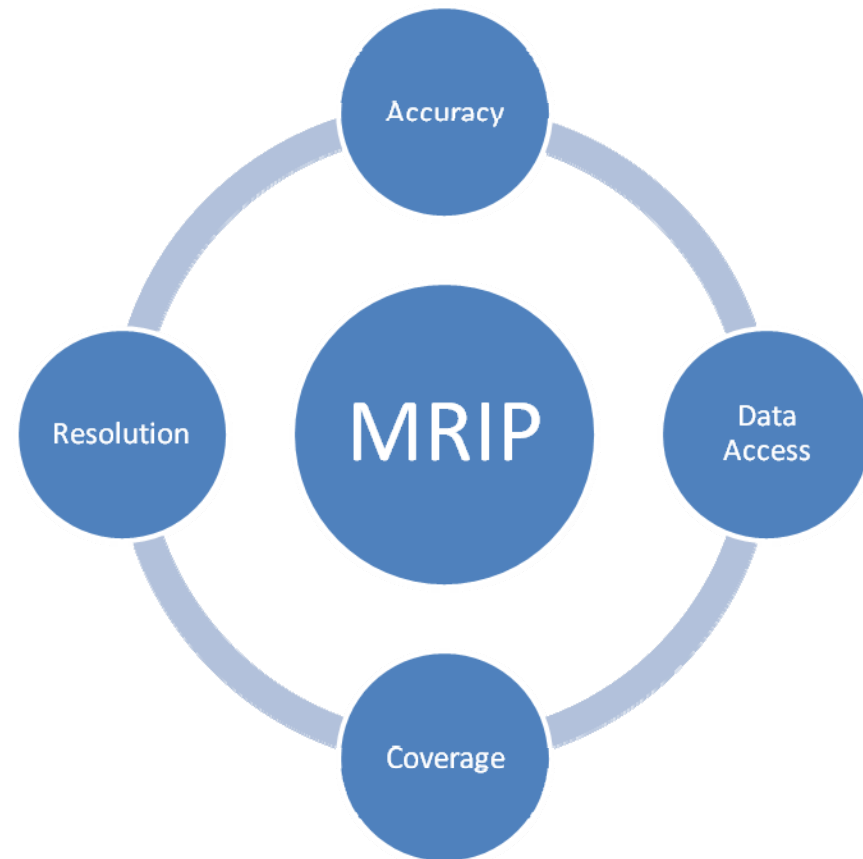
## **Regional Surveys**

Regional survey partners will make their own decisions to meet regional needs within the “umbrella” guidance of MRIP to apply survey parameters such as:

- Basic survey design choices
- Coverage and resolution beyond standard minimums
- For-hire data collection approach
- Biological sampling requirements



- MRIP will satisfy needs for accuracy, resolution, coverage and data access
- Initial efforts are focusing on accuracy and access to information
  - NRC recommendations
- As improved methods are developed focus will shift toward resolution and coverage





## **MRIP Projects Addressing NRC Recommendations**

- Develop comprehensive, universal sampling frame with national coverage;
- Dual-frame procedures should be used whenever possible to reduce sample bias;
- The estimation procedure for information gathered onsite does not use nominal or actual selection probabilities of the sampling design, and therefore, has the potential to produce biased estimates;
- Onsite methods fail to intercept anglers who have private access to fishing waters;

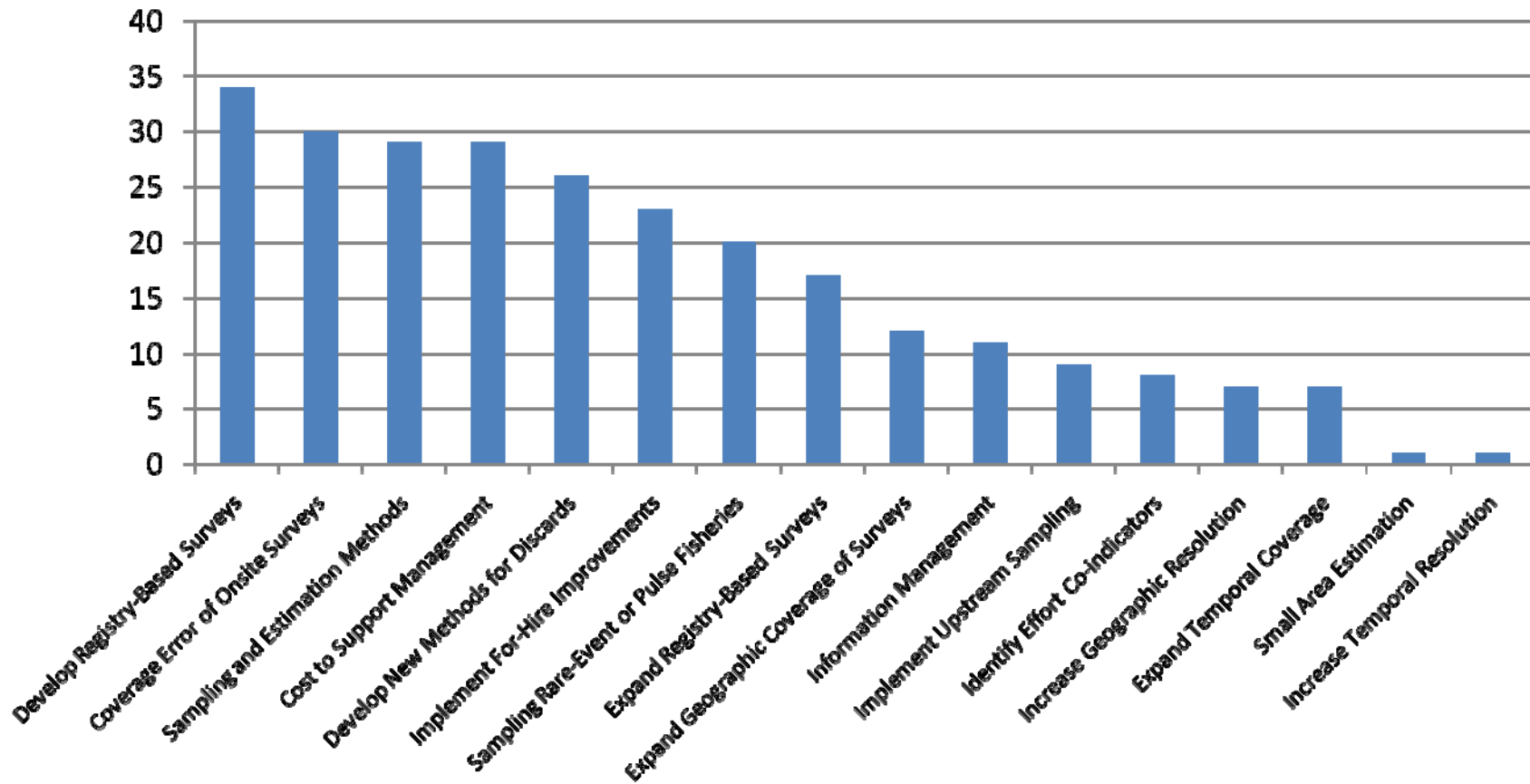


## **MRIP Projects Addressing NRC Recommendations**

- Charter, party and other for-hire recreational fishing operations should be required to maintain logbooks of fish landed and kept as well as fish caught and released;
- The survey fails to provide a valid and reliable method of accounting adequately for fish caught and not brought back to the dock;
- Panel surveys, which contact anglers repeatedly through time, should be considered;
- Development and maintenance of a central data warehouse for recreational fisheries and development of appropriate dissemination tools (Role of Federal Agency).



## 2010 OT Priorities





## Develop Registry-Based Surveys (License Frame Surveys)

- Implement Federal angler registry
- Dual-frame surveys
  - Telephone
  - Mail
- *Enhancing mail survey response rates*
- *Assessing the effects of length of recall period on data quality*



## Coverage Error of Onsite Surveys (Survey Coverage)

- *Assessing impact of private-access and night fishing on catch composition and catch rates*





## **Sampling and Estimation Methods (Sampling and Estimation)**

- **Document sampling and estimation designs for MRFSS surveys**
- **Development of alternative estimation procedure for MRFSS intercept survey**
- **Alternative sampling design for MRFSS intercept survey**
- *Evaluate estimation methods for participation*
- *Review of Estimation Methods for Oregon and Washington Recreational Fishing Boat Surveys*



## **Develop New Methods for Discards (Discards)**

- **Quantifying Accuracy of Self-Reported Data on Atlantic Coast Headboat Trips**
- *Video Assessment of Recreational Discards*



## **Implement For-Hire Improvements (For Hire)**

- **Document for-hire data collection programs**
- **Independent review for-hire data collection methodologies**
- Puerto Rico for-hire census
- Southeast Region Headboat Survey (SRHS) – redesign onsite survey
- SRHS – develop online reporting mechanism
- Validation of HI CML reporting
- Gulf of Mexico logbook reporting



## **Sampling Rare Event or Pulse Fisheries (Rare Event Species)**

- **Evaluation of tournament trips in Large Pelagics Survey**
- **Characterization of HMS fisheries in South Atlantic, Gulf of Mexico**
- **Characterization HMS fishing in Puerto Rico**
- *Develop HMS-specific data collection program in Puerto Rico*



## **Information Management**

- **Develop MRIP Data Management System (MDMS)**
- **Document Ongoing Recreational Fishing Data Collection Programs**
- *Develop MRIP Information Management System*

## **Data Quality**

- Assessment of survey QA/QC procedures



## **Evolving Data Needs For ACLs**

- **Manager needs:**
- Data that's more timely and more precise to support tough decision-making on ACLs and AMs.
- **Is it possible? And if so, when?**



## **TRADEOFFS**

- **Yes, but there are tradeoffs**  
*timeliness, precision, and cost – choose two*



## Next Steps

- 2010 projects getting underway
- Analyze tradeoffs among cost, timeliness and resolution: new project/fall workshop
- Peer review of new methods
- Implementation of survey improvements
  - Revised estimation: by end of 2010
  - Registry-based effort surveys: in 2011
  - Revised intercept survey design: in 2011



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# Discussion



[www.CountMyFish.noaa.gov](http://www.CountMyFish.noaa.gov)

## **DRAFT NOAA ENFORCEMENT PRIORITY SETTING PROCESS**

Office of Law Enforcement, National Marine Fisheries Service  
Office of the General Counsel for Enforcement and Litigation  
National Oceanic and Atmospheric Administration

### Goal:

Establish a process for setting annual priorities at the national and regional level to support NOAA's statutory mandates to manage marine resources, Department of Commerce and NOAA strategic goals, utilize stakeholder input, increase compliance, emphasize partnerships with State and Federal partners, and result in effective and fair enforcement programs.

### Process, key dates, and products:

Over the course of the upcoming year, the Office of Law Enforcement (OLE) and the General Counsel for Enforcement and Litigation (GCEL) will follow the schedule set forth below for determining national and regional priorities.

- August 3 – National Enforcement Summit – public review of draft priority setting process
- September 1 – Adopt final process for priority setting
- September 1 to December 31 – Consult with stakeholders on potential priorities based on national and regional summaries of input from:
  - Stakeholder meetings
  - Consultation with NOAA Fisheries Regional Offices
  - Sanctuary Advisory Councils and Sanctuary management
  - Regional fishery management council enforcement committees
  - Take reduction team meetings
  - State enforcement agency and cooperative enforcement meetings
  - Interstate marine fisheries commission meetings
  - US Coast Guard consultations
  - US Attorneys' Office meetings
  - NOAA Fisheries and National Ocean Service headquarters offices
  - Additional groups and opportunities identified by each region
  - General public
- January – National meeting of NOAA leadership to develop draft national and regional priorities:
  - Development of two broad national priorities
  - Provide guidance for priority setting at the regional level

- January - The priorities developed through this process will also be used to inform NOAA's out-year budget submissions through incorporation in its annual program decision memo.
- February 1 to February 28 – OLE and GCEL headquarters and regional offices will develop draft national and regional priorities based on the national leadership meeting.
- March 1 to April 30 – OLE and GCEL will provide an opportunity for public input through posting on the website, public meeting, or otherwise as appropriate on the proposed national and regional priorities and proposals.
- May 1 to May 30 – OLE and GCEL, based on public input, revise draft proposals to:
  - Identify national and regional priorities for each OLE/GCEL region
  - For each priority, establish a proposal to address the priority which includes:
    - Specific identification of the problem,
    - A specific approach or approaches to address the problem,
    - Identify desired outcomes, milestones, and performance measures associated with the project, and
    - Methods for evaluating for success.
- June 1 – Draft regional priorities and proposals submitted to the Director, OLE, and Assistant General Counsel, GCEL, for review and approval.
- July 1 – Draft plan outlining national and regional priorities submitted to NOAA Assistant Administrator for Fisheries and General Counsel for review and approval.
- August 1 – National and regional priorities approved by the Assistant Administrator and General Counsel and posted to OLE and GCEL websites. These priorities would also be used to inform NOAA's annual guidance memo and out-year budget requests.
- October 1 – Implementation of national and regional priorities reflected in new fiscal year operating plans.

Public engagement:

Throughout the process, OLE and GCEL will work closely with stakeholders to identify priorities and proposals to address them. To ensure a wide range of input, NOAA will solicit suggestions on the development of national and regional priorities for enforcement services through postings on the OLE and GCEL websites.

Evaluation:

Regional enforcement proposals will be reviewed annually and national priorities every two years. The evaluation of enforcement proposals will at a minimum include an evaluation of:

- Annual and quarterly milestones
- Budget tracking
- OLE and GCEL case tracking systems
- State enforcement agency information
- Coast Guard information

Background:

See: Appendix 6 to the March 18, 2010, NOAA action plan in response to the OIG Report “Review of NOAA Fisheries Enforcement Programs and Operations.”



**Plan and Schedule for Developing  
Procedure for Identifying Enforcement Priorities  
Prepared by the NOAA Fisheries Service and NOAA Office of the General Counsel  
March 17, 2010**

The purpose of most enforcement programs is to assure effective compliance with the law so that the purposes of the laws can be met. For NOAA that means assuring that people comply with a number of laws designed to protect such natural resources as fisheries, ocean ecosystems, sanctuaries, threatened and endangered species, and marine mammals. NOAA carries out its enforcement obligations with tools to provide compliance, deterrence, and punishment, all with a goal of encouraging people to meet their legal obligations under these laws. NOAA's enforcers—agents and officers in the Office for Law Enforcement, and attorneys in the Office of General Counsel of Environment and Litigation, along with our partners and colleagues from the Coast Guard, the Fish and Wildlife Service, the U.S. Attorneys offices across the country, other federal agencies, and from States, work together. Our goal is a fair enforcement program that achieves results. We are mindful that NOAA's programs affect lives, livelihoods, and natural resources and inform our actions with those considerations in mind. Fairness means assuring a level playing field—that those who comply with the law are not at a disadvantage compared to those who do not—and also assuring that all people, even those who may have broken the law, are treated fairly and with respect.

Setting priorities is a means of allocating resources to help assure an effective enforcement program. Any process for setting priorities must take into account that the goal is to assure compliance with all the laws NOAA has responsibility for implementing, and that those who are regulated must know and expect that if they break the law they may well face an enforcement action. Thus, priority areas of emphasis are a basis for targeting resources along with resource allocation for more general enforcement in addition to the priority areas.

NOAA's Office for Law Enforcement, in consultation with NOAA's Office of General Counsel, will develop a process for setting enforcement priorities at the regional and at the national level. The goal will be establishment of two priority areas for each region annually, and two national priority areas to last two years, with reassessment at the end of one year. For each priority identified, the offices will develop a plan to characterize the problem to be addressed (e.g., fishing for a particular stock when the fishery is closed; harassment of a particular marine mammal) and an approach to address it that will include both compliance guidance and enforcement tools. At the end of the priority time (one year for regional priorities, two years for national priorities) the offices will identify an internal team to assess the effectiveness of the approach in addressing the problem and obtaining better compliance and resource protection.

We will seek input and feedback on this proposed plan for setting enforcement priorities at the planned Enforcement Summit on June 22, 2010, in Washington, D.C., and as part of the additional outreach surrounding the Summit, and finalize the plan by July 29, 2010.

Overall priority-setting approach

The Assistant Administrator for Fisheries and the NOAA General Counsel will convene a meeting during January of each year to start the priority-setting process. Each will have



consulted with appropriate stakeholders before the meeting, including Fishery Management Councils, other NOAA offices, and affected federal and state agencies. The purpose of the meeting is to assess the effectiveness of enforcement actions over the previous year and to develop proposed areas of priority for use in the coming fiscal year. At the end of the meeting the group will develop a paper setting forth a process for a priority-setting approach for each Region and for selection of two national priorities, criteria for selecting priorities, and a timeline. Priority setting will look across all NOAA statutory authorities and obligations and help to assure a comprehensive program.

Criteria may include: areas of emphasis in the Department of Commerce and NOAA strategic plans; extent of non-compliance; risks to the resource of non-compliance; whether people are intentionally choosing not to comply with the laws because of economic or other motivation; the likelihood that a targeted enforcement program will succeed in protecting the resource; interests, concerns, and actions of other federal and state partners; whether the statutes emphasized have been given sufficient enforcement focus in the past.

We are aware that certain enforcement -- such as undercover operations -- must be kept confidential and enforcement targeting must include a means to assure that such approaches may be used and may be kept confidential.

#### Regional priority setting

Using the procedures, criteria, and timeline above, the Special Agent-in-Charge (SAC) in each Region will conduct a meeting, with outreach both inside and outside the federal government before the meeting, to identify two priority enforcement areas for the coming fiscal year for that Region. The priority-setting process will evaluate resources available to implement the priority approaches. A tentative list of priority areas will be developed and made public. The SAC will provide an opportunity for public input (through posting on the website, public meeting, or otherwise as appropriate) on possible priorities. No later than May, the SAC will develop a draft plan that identifies two priority areas of enforcement for the coming fiscal year, and a plan for implementing those priorities. The draft will be provided to the Director of OLE no later than June 1. The Director will review and, if appropriate, revise the draft priority approach. A final priority plan for each region must be approved by the Assistant Administrator for Fisheries, with a goal of such approval by July 31 of each year. The Director of OLE will then work with the Region to assure implementation of the plan as of the beginning of the coming fiscal year.

#### National priority setting

Using the procedures, criteria, and timeline above, the Director of OLE, in consultation with the Assistant Administrator for Fisheries and the General Counsel, will conduct a meeting, with outreach both inside and outside the federal government before the meeting, to identify for proposal several national priority enforcement areas that will apply during the coming two fiscal years. Identification should take into account those areas identified for the Regions and any national goals. After the first year, the process may result in identification of one additional area of priority for the coming year. The priority-setting process will evaluate resources available to implement the proposed priority approaches. A tentative list of national priority areas will be developed and made public. The Director of OLE will provide an opportunity for public input (through posting on the website, public meeting, or otherwise as appropriate) on proposed

national priorities. No later than June, the Director of OLE will develop a draft plan that identifies up to two national priority areas of enforcement for the coming fiscal year, and a plan for implementing those priorities. The draft will be provided to the Assistant Administrator for Fisheries no later than July 15. The Assistant Administrator for Fisheries will review, consult with the General Counsel, evaluate available resources, and if appropriate, revise the draft priority approach. A final priority plan for national priorities must be approved by the Assistant Administrator for Fisheries, with a goal of such approval by July 31 of each year. The Director of OLE will then work with the General Counsel's office and the regions to assure implementation of the plan as of the beginning of the coming fiscal year.

#### Evaluation

At an established time during each fiscal year, the Assistant Administrator for Fisheries and the General Counsel will provide for an evaluation of the effectiveness of implementing the enforcement priorities for that year and provide input to the Regional and National processes based on that evaluation.

#### Conclusion

To assure a fair and effective enforcement program, establishing targeted priorities to be implemented at the same time as a more general enforcement program should help improve effectiveness. After the priority-setting and implementing approach set forth here has been used for two years, the Assistant Administrator for Fisheries and the General Counsel will convene a meeting to assess whether it has improved compliance and made enforcement, and as a result protection of the nation's marine resources more effective and will make adjustments as appropriate.



THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY

*Final Recommendations  
Of The  
Interagency Ocean Policy  
Task Force  
July 19, 2010*





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## EXECUTIVE SUMMARY

### I. Introduction

In order to better meet our Nation's stewardship responsibilities for the ocean, our coasts, and the Great Lakes, President Obama established the Interagency Ocean Policy Task Force (Task Force) on June 12, 2009. The Task Force is composed of 24 senior-level officials from executive departments, agencies, and offices across the Federal government and led by the Chair of the Council on Environmental Quality (CEQ). The President charged the Task Force with developing recommendations to enhance our ability to maintain healthy, resilient, and sustainable ocean, coasts, and Great Lakes resources for the benefit of present and future generations.



The Deepwater Horizon-BP oil spill in the Gulf of Mexico and resulting environmental crisis is a stark reminder of how vulnerable our marine environments are, and how much communities and our Nation rely on healthy and resilient ocean and coastal ecosystems. The ocean, our coasts, and the Great Lakes deeply impact the lives of all Americans, whether we live and work in the country's heartland or along its shores. America's rich and productive coastal regions and waters support tens of millions of jobs and contribute trillions of dollars to the national economy each year. They also host a growing number of important activities, including recreation, science, commerce, transportation, energy development, and national security and they provide a wealth of natural resources and ecological benefits.

Nearly half of the country's population lives in coastal counties, and millions of visitors enjoy our Nation's seashores each year. The ocean, our coasts, and the Great Lakes are vital places for recreation, including boating, fishing, swimming, nature watching, and diving. These activities not only help fuel our economy, but also are critical to the social and cultural fabric of our country. In addition, coastal ecosystems provide essential ecological services. Barrier islands, coral reefs, mangroves, and coastal wetlands help to protect our coastal communities from damaging floods and storms. Coastal wetlands shelter recreational and commercial fish species, provide critical habitat for migratory birds and mammals, and serve as a natural filter to help keep our waters clean.

Despite the critical importance of these areas to our health and well-being, the ocean, coasts and Great Lakes face a wide range of threats from human activities. Overfishing, pollution, coastal development and the impacts of climate change are altering ecosystems, reducing biological diversity, and

# FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

placing more stress on wildlife and natural resources, as well as on people and coastal communities. Compounding these threats, human uses of the ocean, coasts, and Great Lakes are expanding at a rate that challenges our ability to plan and manage significant and often competing demands. Demands for energy development, shipping, aquaculture, emerging security requirements and other new and existing uses are expected to grow. Overlapping uses and differing views about which activities should occur where can generate conflicts and misunderstandings. As we work to accommodate these multiple uses, we must also ensure continued public access for recreation and other pursuits, and sustain and preserve the abundant marine resources and healthy ecosystems that are critical to the well-being and prosperity of our Nation.

The challenges we face in the stewardship of the ocean, our coasts, and the Great Lakes lie not only within the ecosystems themselves, but also in the laws, authorities, and governance structures intended to manage our use and conservation of them. United States governance and management of these areas span hundreds of domestic policies, laws, and regulations covering international, Federal, State, tribal, and local interests. Challenges and gaps arise from the complexity and structure of this regime.

The time has come for a comprehensive national policy for the stewardship of the ocean, our coasts, and the Great Lakes. Today, as never before, we better comprehend the links among land, air, fresh water, ocean, ice, and human activities. Advances in science and technology provide better and timelier information to guide decision-making. By applying the principles of ecosystem-based management (which integrates ecological, social, economic, commerce, health, and security goals, and which recognizes both that humans are key components of ecosystems and also that healthy ecosystems are essential to human welfare) and of adaptive management (which calls for routine reassessment of management actions to allow for better informed and improved future decisions) in a coordinated and collaborative approach, the Nation will more effectively address the challenges facing the ocean, our coasts, and the Great Lakes and ensure their continued health for this and future generations.

## II. Summary of the Final Recommendations of the Task Force

To develop its recommendations, the Task Force reviewed Federal, State, and foreign policies and models, past and pending legislation, the recommendations contained in the two earlier Ocean Commissions' reports, and public comments.

The Task Force also initiated a robust public engagement process to receive input from a diversity of voices across the country. On behalf of the Task Force, CEQ hosted 38 expert roundtables to hear from a broad range of stakeholder groups. The Task Force also hosted six regional public meetings, and created a website to accept public comments through CEQ. The Task Force received more than 5,000 public comments, with many of the groups commenting representing constituencies of hundreds or thousands of members.

The Task Force recommendations set a new direction for improved stewardship of the ocean, our coasts, and the Great Lakes. They provide: (1) our Nation's first ever *National Policy for the Stewardship of the*

## FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

*Ocean, Our Coasts, and the Great Lakes* (National Policy); (2) a strengthened governance structure to provide sustained, high-level, and coordinated attention to ocean, coastal, and Great Lakes issues; (3) a targeted implementation strategy that identifies and prioritizes nine categories for action that the United States should pursue; and (4) a framework for effective coastal and marine spatial planning (CMSP) that establishes a comprehensive, integrated, ecosystem-based approach to address conservation, economic activity, user conflict, and sustainable use of ocean, coastal, and Great Lakes resources.

### *National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes*

#### **It is the Policy of the United States to:**

- Protect, maintain, and restore the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources;
- Improve the resiliency of ocean, coastal, and Great Lakes ecosystems, communities, and economies;
- Bolster the conservation and sustainable uses of land in ways that will improve the health of ocean, coastal, and Great Lakes ecosystems;
- Use the best available science and knowledge to inform decisions affecting the ocean, our coasts, and the Great Lakes, and enhance humanity's capacity to understand, respond, and adapt to a changing global environment;
- Support sustainable, safe, secure, and productive access to, and uses of the ocean, our coasts, and the Great Lakes;
- Respect and preserve our Nation's maritime heritage, including our social, cultural, recreational, and historical values;
- Exercise rights and jurisdiction and perform duties in accordance with applicable international law, including respect for and preservation of navigational rights and freedoms, which are essential for the global economy and international peace and security;
- Increase scientific understanding of ocean, coastal, and Great Lakes ecosystems as part of the global interconnected systems of air, land, ice, and water, including their relationships to humans and their activities;
- Improve our understanding and awareness of changing environmental conditions, trends, and their causes, and of human activities taking place in ocean, coastal, and Great Lakes waters; and
- Foster a public understanding of the value of the ocean, our coasts, and the Great Lakes to build a foundation for improved stewardship.

The recommended National Policy establishes a comprehensive national approach to uphold our stewardship responsibilities; ensures accountability for our actions; and serves as a model of balanced,



## FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

productive, efficient, sustainable, and informed ocean, coastal, and Great Lakes use, management, and conservation within the global community. The National Policy recognizes that America's stewardship of the ocean, our coasts, and the Great Lakes is intrinsically and intimately linked to environmental sustainability, human health and well-being, national prosperity, adaptation to climate and other environmental change, social justice, foreign policy, and national and homeland security. It sets forth overarching guiding principles for United States management decisions and actions affecting the ocean, our coasts, and the Great Lakes.

### *Policy Coordination Framework to Improve the Stewardship of the Ocean, Our Coasts, and the Great Lakes*

No single agency can successfully resolve the complex and pressing problems facing the ocean, our coasts, and the Great Lakes. Successful stewardship will require an effective governance structure with sustained leadership and broad interagency coordination to effectively manage the many uses of these resources. A coordinated Federal effort, proactively guided by a senior-level interagency body, will ensure that the hundreds of domestic policies, laws, and regulations governing the management of the ocean, our coasts, and the Great Lakes are implemented in a meaningful way.

The Task Force recommends a combination of modifications to the structure of the existing Committee on Ocean Policy<sup>1</sup>, a stronger mandate and direction, and renewed and sustained high-level engagement. Subject to later refinements, the Task Force recommends:

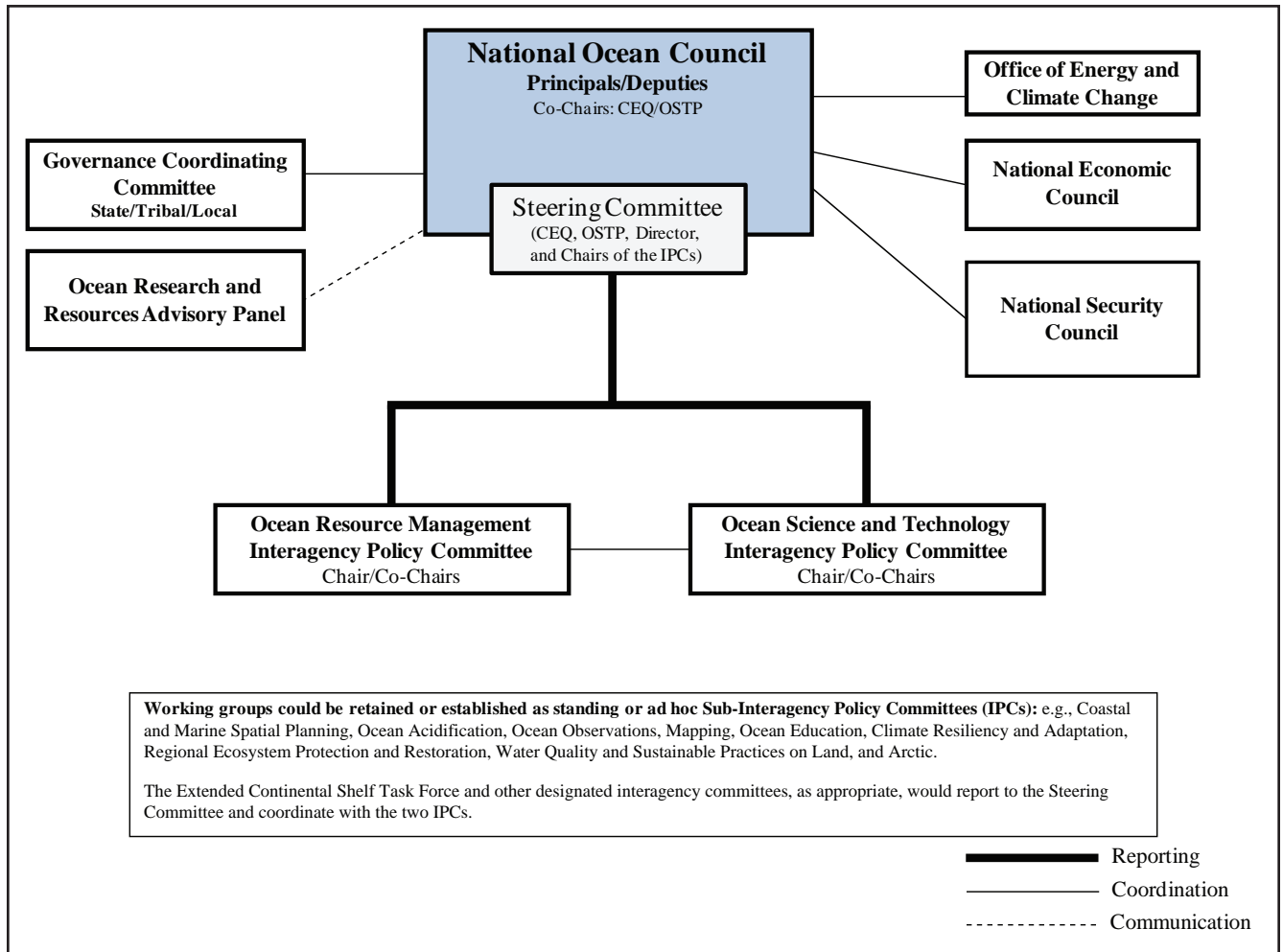
1. Establishing a new National Ocean Council (NOC) which consolidates and strengthens the Principal- and Deputy-level components of the existing Committee on Ocean Policy within a single structure;
2. Strengthening the decision-making and dispute-resolution processes by defining clear roles for the NOC and the NOC leadership;
3. Formally engaging with State, tribal, and local authorities to address relevant issues through the creation of a new committee comprised of their designated representatives;
4. Strengthening the link between science and management through a new NOC Steering Committee; and
5. Strengthening coordination between the NOC, the National Security Council, the National Economic Council, the Office of Energy and Climate Change, the Council on Environmental Quality, the Office of Science and Technology Policy, the Office of Management and Budget, and other White House entities.

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<sup>1</sup> The Committee on Ocean Policy was established by Executive Order 13366 in 2004 and has only been moderately effective in establishing forums for bringing Federal agencies together to coordinate on ocean-related matters.



## Policy Coordination Framework



These recommendations establish high-level direction and policy guidance from a clearly designated and identifiable authority. They also call for more consistent and sustained senior-level participation and attention on ocean-related issues from all member agencies and departments essential to effective management. The Task Force is confident that this combination of improvements provides a framework for more successful policy coordination to improve the stewardship of the ocean, our coasts, and the Great Lakes.

## *Implementation Strategy*

The Task Force recommends an implementation strategy that identifies nine priority objectives (i.e., categories for action) that our Nation should pursue. These priority objectives provide a bridge between policy and specific actions, but do not prescribe in detail how individual entities will undertake their responsibilities, leaving those details to be determined through the development of strategic action plans. The Task Force recommends the following nine priority objectives:

### **National Priority Objectives**

1. **Ecosystem-Based Management:** Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.
2. **Coastal and Marine Spatial Planning:** Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.
3. **Inform Decisions and Improve Understanding:** Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.
4. **Coordinate and Support:** Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government, and as appropriate, engage with the international community.
5. **Resiliency and Adaptation to Climate Change and Ocean Acidification:** Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.
6. **Regional Ecosystem Protection and Restoration:** Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, tribal, local, and regional levels.
7. **Water Quality and Sustainable Practices on Land:** Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.
8. **Changing Conditions in the Arctic:** Address environmental stewardship needs in the Arctic Ocean and adjacent coastal areas in the face of climate-induced and other environmental changes.
9. **Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure:** Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system, and integrate that system into international observation efforts.

## FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

The NOC would develop strategic action plans for each of the priority objectives, focusing on key areas identified by the Task Force. Each strategic action plan would identify specific and measurable near-term, mid-term, and long-term actions, with appropriate milestones, performance measures, and outcomes to meet each objective. In addition, each plan would explicitly identify key lead and participating agencies; gaps and needs in science and technology; potential resource requirements and efficiencies; and steps for integrating or coordinating current and out-year budgets. This strategy would allow adequate time to fully consider the necessary details for implementation, and, as appropriate, to coordinate and collaborate with States, tribal, and local authorities, regional governance structures, academic institutions, non-governmental organizations, recreational users, and private enterprise.

### *Framework for Effective Coastal and Marine Spatial Planning*

As called for in President Obama's June 12, 2009 memorandum, the Task Force recommendations provide a framework for CMSP that offers a new, comprehensive, integrated, regionally-based approach to planning and managing uses and activities. The recommended framework places sound science and the best available information at the heart of decision-making and would bring Federal, State, and tribal partners together in an unprecedented manner to cooperatively develop coastal and marine spatial plans (CMS Plans). This process is designed to decrease user conflict, improve planning and regulatory efficiencies, decrease associated costs and delays, engage affected communities and stakeholders, and preserve critical ecosystem functions and services. The recommendations emphasize

#### **The National Goals of Coastal and Marine Spatial Planning**

1. Support sustainable, safe, secure, efficient, and productive uses of the ocean, our coasts, and the Great Lakes, including those that contribute to the economy, commerce, recreation, conservation, homeland and national security, human health, safety, and welfare;
2. Protect, maintain, and restore the Nation's ocean, coastal, and Great Lakes resources and ensure resilient ecosystems and their ability to provide sustained delivery of ecosystem services;
3. Provide for and maintain public access to the ocean, coasts, and Great Lakes;
4. Promote compatibility among uses and reduce user conflicts and environmental impacts;
5. Improve the rigor, coherence, and consistency of decision-making and regulatory processes;
6. Increase certainty and predictability in planning for and implementing new investments for ocean, coastal, and Great Lakes uses; and
7. Enhance interagency, intergovernmental, and international communication and collaboration.

the importance of frequent and robust stakeholder, scientific, and public engagement throughout the planning process.

The recommended framework includes a unified definition of CMSP, identifies the reasons for engaging in the process, and describes the proposed geographic scope of the planning areas. The framework articulates national goals and guiding principles that would be followed in CMSP efforts and the development and implementation of CMS Plans. Under this framework, the United States will be subdivided into nine regional planning areas: Northeast, Mid-Atlantic, South Atlantic, Great Lakes, Caribbean, Gulf of Mexico, West Coast, Pacific Islands, and Alaska/Arctic regions. Each region will have a corresponding regional planning body consisting of Federal, State, and tribal representatives to develop regional goals, objectives, and ultimately regional CMS plans. To provide for national consistency and support, the framework establishes and describes planning steps and elements, a process by which the NOC would guide and certify the development of regional CMS Plans, a method to address CMS Plan adherence and compliance, a robust information management system to allow easy access to and transparency of data and information necessary for planning, and mechanisms for frequent stakeholder and public input. In addition, the framework describes an implementation approach that maximizes flexibility among the regions, addresses regional capacity, and aims to have CMS Plans for all regions by 2015.

### **III. Support for Joining the Law of the Sea Convention**

The Task Force strongly and unanimously supports United States accession to the Convention on the Law of the Sea and ratification of its 1994 Implementing Agreement. The Law of the Sea Convention is the bedrock legal instrument governing activities on, over, and under the world's oceans. United States accession to the Convention will further our national security, environmental, economic, and diplomatic interests.

Key reasons for accession include:

- The Convention has garnered the unequivocal support of our national security leadership under both Republican and Democratic administrations, because, among other things, it codifies essential navigational rights and freedoms upon which our Armed Forces rely.
- The Convention sets forth the rights and responsibilities of nations to prevent, reduce, and control pollution of the marine environment and to protect and preserve resources off their shores.
- By becoming a party to the Convention, U.S. legal rights to our extended continental shelf can be put on the strongest legal foundation.
- As a party to the Law of the Sea Convention, the United States would have the ability to participate formally and more effectively in the interpretation and development of the Convention.

# FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

- Joining the Law of the Sea Convention would reaffirm and enhance United States leadership in global ocean affairs.

## IV. Conclusion

In response to President Obama's June 12, 2009 memorandum, and after careful consideration of thousands of valuable comments from political leaders, public and private organizations, and citizens, the Task Force is pleased to submit these final recommendations. Once implemented, these final recommendations will provide the first-ever comprehensive national policy of the United States to improve stewardship of the ocean, our coasts, and the Great Lakes.

The Task Force is unanimous in its call for the Nation to set a new course for improved stewardship of the ocean, our coasts, and the Great Lakes. This must include a comprehensive, integrated, transparent, science-based, and ecosystem-based planning process to achieve the sustainable use of the ocean, our coasts, and the Great Lakes. The Task Force is mindful that these recommendations may create a level of uncertainty and anxiety among those who rely on these resources and may generate questions about how they align with existing processes, authorities, and budget challenges. The NOC will address questions and specifics as implementation progresses. Meaningful and frequent opportunities for stakeholder and public engagement throughout the implementation of the National Policy and implementation of coastal and marine spatial planning will be an essential component of cooperatively addressing these uncertainties head-on, and the Task Force recommendations embrace this approach. The Task Force is confident that the investments and improvements described in these final recommendations will advance the economic interests of the United States through sustainable and productive ocean uses; significantly improve our capacity to address the long-term challenges and impacts of climate and environmental changes; and provide a lasting foundation for improving the stewardship of and further enhancing the many vital benefits our Nation can derive from these resources.

With a clear National Policy and a revitalized, empowered, unified, and comprehensive framework to coordinate efforts set forth in these recommendations, we can achieve an America whose stewardship ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured so as to promote the well-being, prosperity, and security of present and future generations.

## RECOMMENDATIONS

### PART ONE. NATIONAL POLICY FOR THE STEWARDSHIP OF THE OCEAN, OUR COASTS, AND THE GREAT LAKES

#### I. Vision

An America whose stewardship ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured so as to promote the well-being, prosperity, and security of present and future generations.

#### II. National Policy Context

##### *The Value of the Ocean, Our Coasts, and the Great Lakes*

America is intricately connected to and directly reliant on the ocean, our coasts, and the Great Lakes. Each of us – whether living and working in the country’s heartland or along its coasts – affects and is affected by these places. Their beauty inspires us, and their bounty contributes to our national well-being and security. Nearly half of our population is located in coastal counties. Our rich and productive coastal regions and waters account for the great majority of the national economy, totaling trillions of dollars each year, and support distant communities that may not even be aware of the connection between the land and sea. Millions of visitors enjoy our Nation’s seashores each year, contributing not only to the economy, but also to personal and communal satisfaction and fulfillment. The sea is both a refuge for spiritual reflection and a powerhouse of excitement for educating students of all ages and interests.

With over 95,000 miles of coastline and the largest Exclusive Economic Zone (EEZ) in the world, our Nation benefits from a wealth of goods and services derived from the ocean, our coasts, and the Great Lakes. They provide food, fresh water, minerals, energy, and other natural resources and ecological benefits. They support tens of millions of jobs and





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play a critical role in our Nation's transportation, economy, and trade, as well as in the global mobility and readiness of our Armed Forces and the maintenance of international peace and security. They are also vital places for recreation, including boating, fishing, swimming, nature watching, and diving, which are critical to the economic, social, and cultural fabric of our country.

The ocean supports human health and well-being in myriad ways, including as a source of healthy foods, pharmaceuticals, and other beneficial compounds. The ocean is a source of existing energy and offers numerous opportunities for renewable energy, which can help to secure our energy independence and mitigate climate change.

The ocean and Great Lakes exert significant influence over how our planet functions. Covering over 70 percent of the Earth, the ocean plays a primary role in our planet's environment and natural operations, including weather and climate. The ocean's ability to absorb and store heat from the atmosphere and transport it to other parts of the globe keeps daily temperatures within a livable range. The Great Lakes are the largest freshwater system on Earth, with 10,000 miles of shoreline and some 95 percent of the Nation's fresh surface water. While we commonly refer to different oceans (Atlantic, Pacific, Arctic, etc.), it is important to recognize that all of these bodies of water are connected and influenced by each other. These linkages require our Nation to recognize that we benefit from and affect one global ocean.



The ocean shapes and sustains all life on Earth. We are dependent on the ocean for the air we breathe, the food we eat, and the water we drink. Though we may not think about it, processes on land and in the water, including biological processes, are intricately linked so that changes in one can have profound effects on the other. The ocean is both the beginning and the end of the Earth's water cycle. Water that evaporates from the surface of the ocean becomes rain that falls on our fields and fills our aquifers. Much of this precipitation eventually finds rivers which flow back to the sea, starting the cycle once more. Half of the oxygen we breathe comes from microscopic plants living in the ocean. Coastal barrier islands, coral reefs, mangroves, and wetlands serve as buffers between coastal communities and damaging floods and storms. Coastal wetlands are a nursery for many recreational and commercial fish species, provide essential habitat for many migratory birds and mammals, and serve as a natural filter helping to keep our waters clean. Ocean and coastal ecosystems absorb and detoxify many pollutants,

recycle nutrients, and help control pests and pathogens. Marine ecosystems house biological diversity exceeding that found in the world's rain forests.

### *Challenges Facing the Ocean, Our Coasts, and the Great Lakes*

The importance of ocean, coastal, and Great Lakes ecosystems cannot be overstated; simply put, we need them to survive. It is clear that these invaluable and life-sustaining assets are vulnerable to human activities and, at the same time, human communities are rendered more vulnerable when these resources are degraded. Yet ocean, coastal, and Great Lakes ecosystems are experiencing an unprecedented rate of change due to human activities. We are only now beginning to understand the full extent of the direct and indirect consequences of our actions on these systems.



Climate change is impacting the ocean, our coasts, and the Great Lakes. Increasing water temperatures are altering habitats, migratory patterns, and ecosystem structure and function. Coastal communities are facing sea-level rise, inundation, increased threats from storms, erosion, and significant loss of coastal wetlands. The ocean's ability to absorb carbon dioxide from the atmosphere buffers the impacts of climate change, but also causes the ocean to become more acidic, threatening not only the survival of individual species of marine life, but also entire marine ecosystems. The ocean buffers increased global temperatures by absorbing heat, but increasing temperatures are causing sea levels to rise by expanding seawater volume and melting land-based ice. Increased temperatures may eventually reduce the ocean's ability to absorb carbon dioxide. Conversely, climate change is predicted to lower the water levels of the Great Lakes, thereby altering water cycles, habitats, and economic uses of the lakes.

Along many areas of our coasts and within the Great Lakes, biological diversity is in decline due to overfishing, introduction of invasive species, and loss and degradation of essential habitats from coastal development and associated human activities. The introduction of non-native species can carry significant ecological and economic costs. Human and marine ecosystem health are threatened by a range of challenges, including increased levels of exposure to toxins from harmful algal blooms and other sources, and greater contact with infectious agents. Areas in numerous bays, estuaries, gulfs, and the Great Lakes are now consistently low in or lacking oxygen, creating dead zones along our bays and coasts. Unsustainable fishing (e.g., overfishing) remains a serious concern with consequences for marine ecosystems and human communities. In the Arctic, environmental changes are revealing the vulnerability of its ecosystems. These changes are increasing stressors and impacts on the ecosystems, people, and communities in the region and are presenting new domestic and international management challenges.



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Many of these concerns are attributable not only to activities within ocean, coastal, and Great Lakes ecosystems, but also to actions that take place in our Nation's interior. For example, our industries, agricultural and transportation operations, cities, and suburbs generate various forms of pollution. Industrial operations emit pollutants, such as nitrogen and mercury, into the atmosphere that often find their way into the ocean and Great Lakes. Rain washes residues, chemicals, and oily runoff from our roadways into our estuaries and coastal waters. Heavy rainfall events can wash sediment, pesticides, debris, and nutrients from our fields, lawns, and agricultural operations into our waters. Urban and suburban development, including the construction of roads, highways, and other infrastructure, as well as modification to rivers and streams, can adversely affect the habitats of aquatic and terrestrial species.

Demands on the ocean, our coasts, and the Great Lakes are intensifying, spurred by population growth, migration to coastal areas, and economic activities. Human uses of the ocean, coasts, and the Great Lakes are expanding at a rate that challenges our ability to plan and manage them under the

current sector-by-sector approach. New and expanding uses—including energy development, shipping, aquaculture, and emerging security requirements—are expected to place increasing demands on our ocean, coastal, and Great Lakes ecosystems. There is also increasing demand for access to these places for recreational, cultural, and other societal pursuits. As these demands increase, overlapping uses and differing views about which activities should occur where can generate conflicts and misunderstandings. At the same time, there is an overarching need to sustain and preserve abundant marine resources and healthy ecosystems that are critical to the well-being and continued prosperity of our Nation.



### *The State of the National Framework for Policy Coordination*

The challenges we face in the stewardship of the ocean, our coasts, and the Great Lakes lie not only within the ecosystems themselves, but also in the laws, authorities, and governance structures intended to manage our use and conservation of them. United States governance and management of these areas span hundreds of domestic policies, laws, and regulations covering international, Federal, State, tribal, and local interests. These issues range from stewardship and resource use, to maritime safety and commerce, national security, water quality, ports and other transportation infrastructure, and energy. Challenges and gaps arise from the complexity and structure of this regime.

These challenges are not limited to our domestic governance and management regimes. Our Nation, as a major maritime power and coastal State, has a large stake in the development and interpretation

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of international law and policy applicable to the ocean, our coasts, and the Great Lakes. Our national security interests are tightly linked to navigational rights and freedoms, as well as to operational flexibility. Our national security and economic interests are also linked to our ability to secure U.S. sovereign rights over resources in extensive marine areas off our coasts, to promote and protect U.S. interests in the marine environment, and to ensure that our maritime interests are respected and considered internationally. The Administration's support for accession to the 1982 United Nations Convention on the Law of the Sea (the Law of the Sea Convention) reflects several important objectives, including strengthening our Nation's ability to participate in and influence international law and policy related to the ocean.

### *Time to Act*

The time has come for a national policy to uphold our stewardship responsibilities, ensure accountability for our actions, and serve as a model of balanced, productive, efficient, sustainable, and informed ocean, coastal, and Great Lakes use, management, and conservation within the global community. Today, as never before, we better comprehend the linkages among land, air, fresh water, ocean, ice, and human activities. We recognize that change is occurring rapidly and must be addressed. Advances in science and technology provide better and timelier information and understanding to guide decision-making. By applying the principles of ecosystem-based management (in which we integrate ecological, social, economic, commerce, health, and security goals, and recognize humans as key components of the ecosystem and healthy ecosystems as essential to human well-being) and adaptive management (whereby we routinely assess management actions to allow for better informed and improved future decisions) in a coordinated and collaborative approach, the Nation can improve its response to environmental, social, economic, and security challenges. With a clear national policy and a revitalized, empowered, unifying, and comprehensive framework to coordinate efforts among Federal, State, tribal, and local authorities, including regional governance structures, non-governmental organizations, the private sector, and the public, we can work together toward the changes needed to secure the health and prosperity of the ocean, our coasts, and the Great Lakes.

### **III. Policy**

America's stewardship of the ocean, our coasts, and the Great Lakes is intrinsically and intimately linked to environmental sustainability, human health and well-being, national prosperity, adaptation to climate and other environmental changes, social justice, international diplomacy, and national and homeland security. Therefore, it is the policy of the United States to:

1. Healthy and Resilient Ocean, Coasts, and Great Lakes
  - Protect, maintain, and restore the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources;
  - Improve the resiliency of ocean, coastal, and Great Lakes ecosystems, communities, and economies;

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- Bolster the conservation and sustainable uses of land in ways that will improve the health of ocean, coastal, and Great Lakes ecosystems; and
  - Use the best available science and knowledge to inform decisions affecting the ocean, our coasts, and the Great Lakes, and enhance humanity's capacity to understand, respond, and adapt to a changing global environment.
2. Safe and Productive Ocean, Coasts, and Great Lakes
    - Support sustainable, safe, secure, and productive access to, and uses of, the ocean, our coasts, and the Great Lakes;
    - Respect and preserve our Nation's maritime heritage, including our social, cultural, recreational, and historical values; and
    - Exercise rights and jurisdiction and perform duties in accordance with applicable international law, including respect for and preservation of navigational rights and freedoms, which are essential for the global economy and international peace and security.
  3. Understood and Treasured Ocean, Coasts, and Great Lakes
    - Increase scientific understanding of ocean, coastal, and Great Lakes ecosystems as part of the global interconnected systems of air, land, ice, and water, including their relationships to humans and their activities;
    - Improve our understanding and awareness of changing environmental conditions, trends, and their causes, and of human activities taking place in ocean, coastal, and Great Lakes waters; and
    - Foster a public understanding of the value of the ocean, our coasts, and the Great Lakes to build a foundation for improved stewardship.

The United States will promote the objectives of this policy by:

- Ensuring a comprehensive and collaborative framework for the stewardship of the ocean, our coasts, and the Great Lakes that facilitates cohesive actions across the Federal Government, as well as participation of State, tribal, and local authorities, regional governance structures, non-governmental organizations, the public, and the private sector;
- Cooperating and exercising leadership at the international level, including by joining the Law of the Sea Convention; and
- Supporting ocean stewardship in a fiscally responsible manner.

### IV. Principles

1. United States management decisions and actions affecting the ocean, our coasts, and the Great Lakes will be guided by the following stewardship principles to further this policy:
  - a. As responsible environmental stewards we will protect, maintain, and restore the health, productivity, and resiliency of ocean, coastal, and Great Lakes ecosystems (including their waters and resources). Policies, programs, and activities of the United States should be

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managed and conducted in a manner that seeks to prevent or minimize adverse environmental impacts to the ocean, our coasts, and the Great Lakes ecosystems and resources, including cumulative impacts, and to ensure and improve their integrity. They should be managed and conducted in a manner that does not undermine efforts to protect, maintain, and restore healthy and biologically diverse ecosystems and the full range of services they provide;



- b. Decisions affecting the ocean, our coasts, and the Great Lakes should be informed by and consistent with the best available science. Decision-making will also be guided by a precautionary approach as reflected in the Rio Declaration of 1992, which states in pertinent part, “[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation;” and
  - c. Actions taken to protect the ocean, our coasts, and the Great Lakes should endeavor to promote the principles that environmental damage should be avoided wherever practicable and that environmental costs should be internalized, taking into account the approach that those who cause environmental damage should generally bear the cost of that damage.
2. Human activities that may affect ocean, coastal, and Great Lakes ecosystems should be managed using ecosystem-based management and adaptive management, through an integrated framework that accounts for the interdependence of the land, air, water, ice, and the interconnectedness between human populations and these environments. Management should include monitoring and have the flexibility to adapt to evolving knowledge and understanding, changes in the global environment, and emerging uses.
  3. Current and future uses of ocean, coastal, and Great Lakes ecosystems and resources should be managed and effectively balanced in a way that:
    - a. Maintains and enhances the environmental sustainability of multiple uses, including those that contribute to the economy, commerce, recreation, security, and human health;
    - b. Harmonizes competing and complementary uses effectively;
    - c. Integrates efforts to protect, maintain, and restore the health, productivity, and resiliency of ocean, coastal, and Great Lakes ecosystems and the services they provide; and
    - d. Recognizes environmental changes and impacts, including those associated with an increasingly ice-diminished Arctic, sea-level rise, and ocean acidification.
  4. The United States should support disciplinary and interdisciplinary science, research, monitoring, mapping, modeling, forecasting, exploration, and assessment to continually improve understanding of ocean, coastal, and Great Lakes ecosystems. These efforts should include improving understanding of physical, biological, ecological, and chemical processes and changes,



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their interconnectedness with other parts of the Earth system and with human populations, and the potential social and economic consequences of management decisions on the long-term health and well-being of the population, including human health and safety. This knowledge, along with traditional knowledge, should be applied through ecosystem-based management and adaptive management. Information resulting from these efforts should be easily accessible to the public.



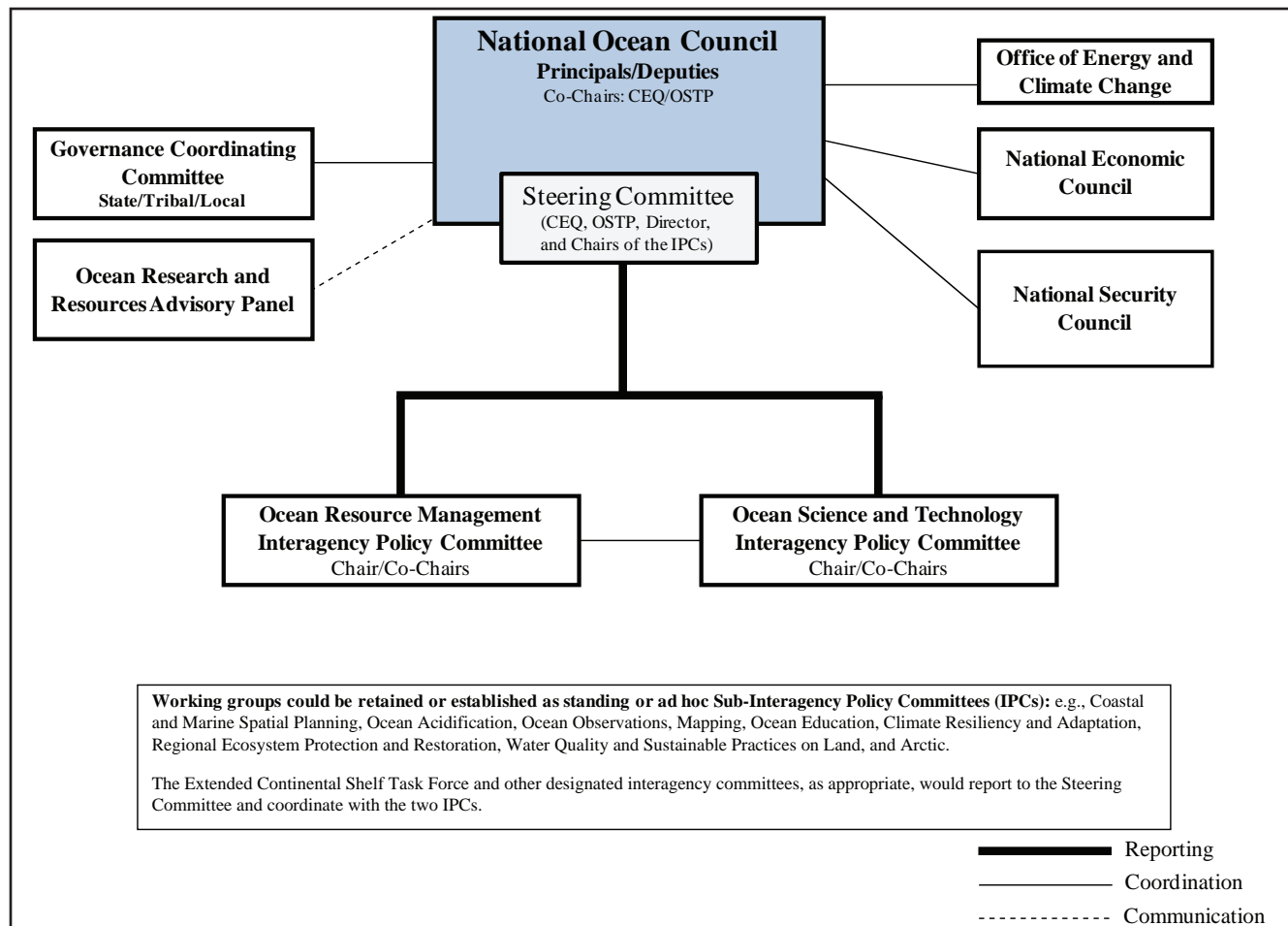
5. The United States should develop an improved awareness of changing environmental conditions and trends, and their causes, and of human activities that take place in the ocean, coastal, and Great Lakes environments.
6. United States policies, programs, and activities should enhance formal and informal education about the ocean, our coasts, and the Great Lakes and their uses to build a foundation for greater understanding and improved stewardship, and build capacity to produce future scientists, managers, and members of a dynamic and innovative workforce.
7. The United States should cooperate and provide leadership internationally in the protection, management, and sustainable use of the world's ocean, coastal regions, and the Great Lakes in keeping with applicable conventions and agreements, and with customary international law, as reflected in the Law of the Sea Convention.
8. United States programs, policies, and activities that may impact ocean, coastal, or Great Lakes ecosystems, or engage the use of their resources, should be designed to meet measurable benchmarks in support of clear goals and objectives related to stewardship of these ecosystems.
  - a. These goals and objectives of programs and activities should be periodically reevaluated and their effectiveness assessed. This information should be used to adjust management priorities and guide future management and resource decisions; and
  - b. The United States should develop appropriate standards and methods for measurement and assessment of parameters associated with the health of ocean, coastal and Great Lakes ecosystems.
9. United States policies, programs, and activities that may impact ocean, coastal, or Great Lakes ecosystems, or engage the use of their resources, should be assessed and conducted within an integrated and comprehensive interagency planning framework that:

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- a. Considers and addresses the full suite of impacts on resources, biological diversity, and ecosystems;
- b. Is based on the best available scientific knowledge;
- c. Considers and addresses potential use conflicts;
- d. Ensures and advances coordination and collaboration across federal, state, tribal, and local jurisdictional lines, and with regional governance structures, the private sector, foreign governments, and international organizations, as appropriate;
- e. Is coordinated and promotes consistency with our homeland and national security and foreign policy interests;
- f. Is coordinated and promotes consistency with other national strategies that include environmental stewardship components relevant to the ocean, our coasts, and the Great Lakes;
- g. Considers and respects our nation's maritime heritage, including our social, cultural, historical, recreational, and aesthetic values;
- h. Aims to maximize long-term net benefits to society by considering a range of reasonable alternatives that balance potential economic, environmental, public health and safety, and other advantages; distributive impacts; and social justice and equity;
- i. Operates through an open and transparent approach that encourages broad public participation;
- j. Ensures consistency with management and budgetary goals and compliance with relevant legal requirements;
- k. Seeks to eliminate redundancy and encourage efficiencies and synergies; and
- l. Includes a reporting and accountability mechanism.

Implementing a number of the policy elements and principles directed above will require appropriate resources and assets. Departments and agencies shall work to identify future budgetary, administrative, regulatory, or legislative proposal requirements to implement these elements within the budgetary and management guidelines of the President's budget.

PART TWO. POLICY COORDINATION FRAMEWORK



The recommended policy coordination framework provides a combination of modifications to the structure of the existing Committee on Ocean Policy, a stronger mandate and direction, and renewed and sustained high-level engagement. This combination of improvements provides a framework for more successful policy coordination to improve the stewardship of the ocean, our coasts, and the Great Lakes. The recommended policy coordination framework would provide a reinvigorated structure that would strengthen ocean governance and coordination by providing clear and visible leadership and sustained high-level engagement within the Federal Government. Additionally, the structure would provide for greater participation by, and coordination of State, tribal, and local authorities, and regional governance structures. The linkage between management and science would be strengthened, as would coordination with other senior level entities on relevant economic, climate, and security matters. This combination of improvements would enhance the stewardship of the ocean, our coasts, and the Great Lakes.

## I. National Ocean Council

### *Structure*

The National Ocean Council (NOC) would be a dual Principal- and Deputy-level committee. Membership of the NOC would include: the Secretaries of State, Defense, the Interior, Agriculture, Health and Human Services, Commerce, Labor, Transportation, Energy, and Homeland Security; the Attorney General; the Administrator of the Environmental Protection Agency; the Chair of the



Council on Environmental Quality (CEQ); the Director of the Office of Management and Budget (OMB); the Administrator of the National Aeronautics and Space Administration; the Director of National Intelligence; the Director of the Office of Science and Technology Policy (OSTP); the Director of the National Science Foundation; the Chairman of the Federal Energy Regulatory Commission;<sup>2</sup> the Chairman of the Joint Chiefs of Staff; the Assistants to the President for National Security Affairs, Homeland Security and Counterterrorism, Domestic Policy, Energy and Climate Change, and Economic Policy; an employee of the United States designated by the Vice President; the Under Secretary of Commerce for Oceans and Atmosphere (NOAA Administrator); and such other officers or employees of the United States as the Co-Chairs may from time to time designate.

### *Co-Chairs*

The NOC would be co-chaired by the Chair of the CEQ and the Director of OSTP. This construct would provide the NOC with the balance of equities at the most senior level of its leadership and better facilitate interagency cooperation and collaboration.

### *Function*

Subject to the direction of the President and unless as otherwise provided for by law, the NOC would perform the following functions:

1. **Tier-one functions of the NOC (Principal-level)**. The NOC has overall responsibility for implementation of the National Policy, including coastal and marine spatial planning. Functions

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<sup>2</sup> Federal Energy Regulatory Commission and other independent regulatory agencies participate on the NOC by invitation of the Co-Chairs.



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would include: (1) periodically update and set national priority objectives; (2) review and provide annual direction on National Policy implementation objectives based on Administration priorities and recommendations from the Deputy-level; and (3) be a forum for dispute resolution and decision-making of issues that could not be resolved at the Deputy-level. The NOC would be required to meet a minimum of twice per year, but the Co-Chairs could call additional meetings as necessary for dispute resolution or other purposes.

2. **Tier Two (Deputy-level) functions would include:** (1) ensure execution of National Policy implementation objectives; (2) ensure implementation of coastal and marine spatial planning; (3) transmit Administration priorities to the Ocean Resource Management Interagency Policy Committee (ORM-IPC) and Ocean Science and Technology Interagency Policy Committee (OST-IPC); (4) ensure activities of and products from the ORM-IPC and OST-IPC are consistent with Administration policy; (5) coordinate with the National Security Council (NSC), National Economic Council (NEC),<sup>3</sup> Office of Energy and Climate Change (OECC), and other offices, as appropriate; (6) provide direction and feedback to, and receive external input and advice from, its advisory bodies; and (7) assist with dispute resolution and decision-making, and if unable to do so, to forward the issues to the Principal-level. This group would also assume the duties of the statutorily mandated National Ocean Research Leadership Council (NORLC) under 10 U.S.C. § 7902.

The Deputies would be required to meet a minimum of quarterly.

## II. Authorities and Responsibilities of the National Ocean Council Co-Chairs

1. Advise the President on the Implementation of the National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes

The Co-Chairs would advise the President on matters regarding implementation of the *National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes* (National Policy), consistent with the consensus views of the NOC. If consensus cannot be achieved, the Co-Chairs would provide their own views equally with the views of each member of the NOC.

2. Implementation of the National Policy

On behalf of the NOC, the Co-Chairs would have overall responsibility for coordinating and facilitating the implementation of the National Policy, subject to the direction of the NOC and the President, including the following:

- **Development of Strategic Action Plans** – The Co-Chairs would facilitate development by the NOC of strategic action plans to further the National Policy and identify progress

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<sup>3</sup> The existing Committee on the Marine Transportation System's coordination with the NOC governance structure would be done through the National Economic Council, at both the Principal-level and Deputy-level. Coordination with the ORM-IPC and OST-IPC would also be developed, as appropriate.

toward meeting defined goals and objectives.

- **Implementation of Coastal and Marine Spatial Planning** – The Co-Chairs would facilitate implementation of coastal and marine spatial planning in accordance with Part 4 below.

- **Reporting and Accountability** – The Co-Chairs would be responsible for: (1) coordinating interagency reporting on implementation and progress; (2) monitoring and ensuring effective implementation of policy decisions; (3) providing oversight and accountability for document preparation; and (4) coordinating and expediting interagency review and clearance of documents and reports within the NOC purview.



- **Budget** – The Co-Chairs would coordinate the development of an annual budget guidance memorandum on ocean priorities consistent with the goals and objectives of the National Policy. While it is understood that the Co-Chairs' authority would not be construed to impair or otherwise affect the function of the Director of OMB, they would work with OMB to issue interagency budget guidance consistent with annual priorities, develop crosscuts to inform the annual priorities on ocean, coastal, and Great Lakes stewardship, and consult with OMB and the NOC to identify programs that contribute significantly to the National Policy. The Co-Chairs also would work with OMB to coordinate preparation of the biennial Federal Ocean and Coastal Activities Report mandated by Section 5 of the Oceans Act of 2000.
- **Emerging Issues** – The Co-Chairs would bring any Presidential ocean actions or priorities to the NOC, as appropriate, for action and implementation and would coordinate proper management of and response to emerging issues of relevance to the National Policy.
- **International** – In implementing this policy, the Co-Chairs would coordinate with the Secretary of State and the heads of other relevant agencies on matters related to the policy issues that arise within the Intergovernmental Oceanographic Commission, International Whaling Commission, Arctic Council, International Maritime Organization, regional fishery management organizations, and other similar international organizations.

### 3. Co-Chairs of the NOC

- The Co-Chairs shall have authority to call NOC meetings, draft the agenda, prioritize issues, and call Deputies' meetings.

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## 4. Coordination and Integration

- The Co-Chairs would be the point of contact to coordinate with the National Security Advisor (NSA), NEC Director, and Assistant to the President for Energy and Climate Change (APECC), and other senior White House officials, as appropriate. The Co-Chairs would have authority to request meetings with these entities for the purposes of coordination and resolution of issues of overlapping responsibility.

## 5. Decision-Making and Dispute Resolution

- The Co-Chairs would seek to encourage decisions and recommendations based on consensus of the NOC.
- Disputes that could not be resolved at the Deputy-level would be referred to the Co-Chairs. The Co-Chairs would facilitate resolution among the Principals.
- With respect to those matters in which resolutions or consensus could not be reached, the Co-Chairs would coordinate with the APECC, NEC Director, and NSA, as appropriate, to frame the disputed issue or issues for decision by the President.
- The establishment of the NOC would not be construed to impair or otherwise affect: (1) authority granted by law to an executive department or agency or the head thereof; or (2) functions assigned by the President to the NSC (or subordinate bodies) relating to matters affecting foreign affairs, national security, homeland security, or intelligence – any of these matters that are not resolved by consensus within the NOC will be forwarded to the NSC for resolution.

## III. Steering Committee

### *Structure*

The Steering Committee would be a high-level, streamlined body of five members from OSTP, CEQ, and one Chair each of the ORM-IPC and OST-IPC, and the Director of the NOC Staff.

The Steering Committee would meet at least every other month, but more often as issues require, and work in consultation with NSC, NEC, and OMB to ensure their respective input on relevant matters, as appropriate. NOC staff would attend these meetings and be responsible for ensuring the implementation of agreed-upon actions.

### *Function*

The Steering Committee would be the key forum for ensuring integration and coordination on priority areas within the NOC. In particular, it would ensure that there is coordination of management and science issues and that the activities of the ORM-IPC and OST-IPC are aligned to fully support implementation of the National Policy and priorities agreed upon by the NOC. The Steering Committee would identify key issues and assist in developing the agenda for the NOC. The NOC staff would be responsible for ensuring the implementation of agreed upon actions. In addition, the Extended Continental Shelf Task Force and other designated interagency committees, as appropriate, would report to the Steering Committee.

## **IV. National Ocean Council Staff Leadership and Support**

### *Structure*

Two senior-level staff members, a Director of the NOC Staff, and a Deputy Director, would support the Co-Chairs in the implementation of the National Policy. On a day-to-day basis they would be responsible for ensuring the execution of the functions of the full-time staff supporting the NOC. They would be charged with ensuring the effective operation of the NOC, and the efficient implementation of the National Policy, under the guidance of the Co-Chairs. In addition, the NOC would initially be supported by an ocean policy office consisting of a minimum of six to eight dedicated staff comprised of interagency representatives on staggered two-year assignments from departments, agencies, and offices represented on the NOC. These full-time NOC staff personnel would report to the staff Director and Deputy Director.

### *Function*

The staff Director and Deputy Director, as appropriate, would represent the Co-Chairs at policy-level meetings and forums, external events, and interaction with Congress. They would work with the IPC Co-Chairs to also ensure policy coordination and integration of the IPCs and facilitate close coordination between the NOC and its Ocean Research and Resources Advisory Panel (ORRAP) and Governance Coordinating Committee (GCC). They would oversee the NOC staff on a day-to-day basis and serve as the points of contact to coordinate at a staff level with CEQ, NSC, NEC, OSTP, OECC, and other offices, as appropriate. The staff Director, Deputy Director, and other NOC staff personnel would serve as the core support to the NOC in its operations and in implementation of the National Policy. Each member of the NOC staff would be required to have programmatic experience and analytical skills. Each staff member would work to provide administrative support to, and ensure coordination among, the NOC and the IPCs, GCC, and other appropriate entities.

## **V. Ocean Resource Management Interagency Policy Committee**

### *Structure*

The ORM-IPC is the successor to the current Subcommittee on Integrated Management of Ocean Resources. Chairs of the ORM-IPC are designated by the NOC. The group would consist of Deputy Assistant Secretaries or comparable representatives, or appropriate senior-level representatives with decision-making authority from departments, agencies and offices represented on the NOC. The ORM-IPC reports to the NOC. The ORM-IPC may establish Sub-IPCs as necessary, as approved by the NOC.

### *Function*

The ORM-IPC would function as the ocean resource management body of the NOC, with an emphasis on ensuring the interagency implementation of the National Policy, national priority objectives, and other priorities defined or approved by the NOC. This would include the development of strategic plans, in coordination with the OST-IPC, for the implementation of priority management objectives,





with clear outcomes, milestones, deadlines, designated agencies, and performance measures with an adaptive review process. The ORM-IPC Chairs would develop a charter for the operation of the body, to be approved by the NOC, including, but not limited to, membership, meetings (e.g., requiring that it meet at least every two months), development of a new or updated work plan based on direction from the NOC, and a process for external input (e.g., State, tribal, local, regional, and the public).

### **VI. Ocean Science and Technology Interagency Policy Committee**

#### *Structure*

The National Science and Technology Council's (NSTC) Joint Subcommittee on Ocean Science and Technology (JSOST) would serve as the OST-IPC. Chairs of the OST-IPC would be appointed through NSTC procedures in consultation with the NOC. The group would consist of Deputy Assistant Secretaries or comparable representatives, or appropriate senior-level representatives with decision-making authority from departments, agencies, and offices represented on the NOC. The NSTC would direct the OST-IPC to advise and assist the NOC in consonance with this National Policy and to work with associated bodies (e.g., the ORM-IPC) accordingly.

#### *Function*

The OST-IPC would function as the ocean science and technology body of the NOC, with an emphasis on ensuring the interagency implementation of the National Policy, national priority objectives, and other priorities for science and technology objectives. This would include the development of strategic

plans (e.g., the Ocean Research Priorities Plan and Implementation Strategy), in coordination with the ORM-IPC, for interagency implementation of priority science and technology objectives, with clear outcomes, milestones, deadlines, designated agencies, and performance measures with an adaptive review process. The OST-IPC Chairs, in close coordination with the NOC, would develop a charter for the operation of the body, to be approved by the NSTC, and would include, but not be limited to, membership, meetings (e.g., requiring that it meet at least every two months), development of a new or updated work plan based on input from the NOC, and a process for external input (e.g., State, tribal, regional, and public). The OST-IPC would also retain the legislatively mandated functions of JSOST, report to the NSTC's Committee on Environment and Natural Resources, and maintain a close operational relationship with the NOC. It would continue to adhere to the rules and regulations of the NSTC. The OST-IPC may establish Sub-IPCs, as necessary, and will do so under NSTC procedures and in close coordination with the NOC.

### **VII. Governance Coordinating Committee**

#### *Structure*

The NOC, in consultation with the White House Office of Intergovernmental Affairs, would establish the GCC that would consist of eighteen members from States, federally-recognized tribes, and local governments. Members would be chosen by the NOC and would be comprised of: (1) one State representative each from the Great Lakes Region, Gulf of Mexico Region, Mid-Atlantic Region, Northeast Region, South Atlantic Region, and West Coast Region, chosen in consultation with the Governors represented on the existing regional governance structures;<sup>4</sup> (2) one State representative each from Alaska, the Pacific Islands,<sup>5</sup> and the Caribbean,<sup>6</sup> chosen in consultation with respective Governors; (3) two at-large representatives from inland States, chosen in consultation with the National Governors Association; (4) one State legislative representative, chosen in consultation with the National Conference of State Legislatures; (5) three at-large tribal representatives, chosen in consultation with tribal councils, national and regional tribal organizations (e.g., the National Congress of American Indians); and (6) three local government representatives from coastal States (i.e., two mayors and one county official), chosen in consultation with the U.S. Conference of Mayors, the National League of Cities, and the National Association of Counties. Representatives would serve for staggered two-year terms. These representatives would select a Chair and Vice-Chair from their members. In addition, the GCC may establish subcommittees chaired by representatives of the GCC. These subcommittees would include additional representation, as appropriate, from State, tribal, and local governments, respectively, to provide for greater collaboration and expanded exchange of views. The GCC would be supported by the NOC staff.

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<sup>4</sup> Existing regional governance structures include the Great Lakes Commission, the Governors' South Atlantic Alliance, the Gulf of Mexico Alliance, the Mid-Atlantic Regional Council on the Ocean, the Northeast Regional Ocean Council, and the West Coast Governors' Agreement on Ocean Health.

<sup>5</sup> For purposes of this section "Pacific Islands" include Hawaii, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa.

<sup>6</sup> For purposes of this section "Caribbean" includes the Commonwealth of Puerto Rico and the U.S. Virgin Islands.

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## *Function*

The role of the GCC would be to serve as a formal body for State, tribal, and local government representatives to deliberate and coordinate with the NOC on issues of inter-jurisdictional collaboration and cooperation on the National Policy and related matters. These matters would include coordinating on the development of a uniform procedure to facilitate resolution at the regional level of disputes regarding the development of coastal and marine spatial plans (CMS Plans) prior to elevation to the NOC and providing advice on long-term strategic management and research priorities. The GCC would submit to the IPCs and the Steering Committee ocean and coastal related issues for potential discussion by the NOC and provide input on issues at the request of the Steering Committee. The GCC would also have regular and continued communication with the IPCs, via the NOC Steering Committee, throughout the development of the strategic action plans and implementation of the National Policy.

The United States has a unique legal relationship with federally recognized American Indian and Alaska Native tribal governments (tribes) as set forth in United States treaties, statutes, Executive Orders, and court decisions. These instruments establish a framework for the Federal Government's recognition of and support for tribal sovereignty and tribal self-government and self-determination, consistent with applicable Federal law, but not necessarily with State law. While the GCC includes three tribal representatives, the function of the GCC and these representatives would not replace Government-to-Government consultations with tribes under existing authorities.

## **VIII. Ocean Research and Resources Advisory Panel**

### *Structure*

The ORRAP is a legislatively established body that advises the NORLC under the Federal Advisory Committee Act (FACA).

### *Function*

The ORRAP would provide independent advice and guidance to the NOC. Current membership is comprised of individuals from the National Academies, State governments, academia, and ocean industries, representing marine science, marine policy, and other related fields. However, ORRAP membership would be reviewed to determine whether to include additional representatives to broaden the level of expertise in support of the goals of the National Policy. The NOC would routinely provide guidance and direction on the areas for which it seeks advice and recommendations from the ORRAP.

## **IX. Review and Evaluation**

After 12 months of operation, the NOC would conduct a review of the governance structure to evaluate its effectiveness and make any necessary changes or improvements.

PART THREE. IMPLEMENTATION STRATEGY

**National Priority Objectives**

HOW WE DO BUSINESS

1. **Ecosystem-Based Management:** Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.
2. **Coastal and Marine Spatial Planning:** Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.
3. **Inform Decisions and Improve Understanding:** Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.
4. **Coordinate and Support:** Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government and, as appropriate, engage with the international community.

AREAS OF SPECIAL EMPHASIS

1. **Resiliency and Adaptation to Climate Change and Ocean Acidification:** Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.
2. **Regional Ecosystem Protection and Restoration:** Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, tribal, local, and regional levels.
3. **Water Quality and Sustainable Practices on Land:** Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.
4. **Changing Conditions in the Arctic:** Address environmental stewardship needs in the Arctic Ocean and adjacent coastal areas in the face of climate-induced and other environmental changes.
5. **Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure:** Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system and integrate that system into international observation efforts.



## I. Introduction

The National Policy would provide our Nation with a comprehensive approach, solidly based on science and technology, to uphold our stewardship responsibilities, and ensure accountability for our actions to present and future generations. Furthermore, the United States intends, through the National Policy, to serve as a model of balanced, productive, efficient, sustainable, and informed ocean, coastal, and Great Lakes use, management, and conservation within the global community. This implementation strategy recommends a clear set of priority objectives that our Nation should pursue to further the National Policy.

### *Overview of National Priority Objectives*

This implementation strategy recommends nine priority objectives. The first four, which together frame *How We Do Business*, represent overarching ways in which the Federal Government must operate differently or better to improve stewardship of the ocean, our coasts, and the Great Lakes. The implementation of ecosystem-based management embodies a fundamental shift in how the United States manages these resources, and provides a foundation for how the remaining objectives would be implemented. Within that construct, the implementation of coastal and marine spatial planning and management would mark the beginning of a new era of comprehensive, integrated techniques to address conservation, economic activity, user conflict, and sustainable use of ocean, coastal, and Great Lakes resources. The other overarching objectives – to better inform decisions and improve understanding by the public through a strengthened ability to obtain and use science and information and to better coordinate and support science-based management across various authorities and governance structures are, in and of themselves, not new concepts. However, these efforts have suffered from the lack of a clear National Policy and a comprehensive framework within which to achieve desired outcomes.

The implementation strategy also identifies five *Areas of Special Emphasis*, each of which represents a substantive area of particular importance to achieving the National Policy. These priority areas of work seek to address some of the most pressing challenges facing the ocean, our coasts, and the Great Lakes. For many years, scientists, resource managers, private industry, and others have been wrestling with these issues with a variety of existing Federal Government programs in place to address them. While those efforts have delivered their share of results, in each of these critical areas more can – and must –



be done. In many cases, we have lacked the capability and understanding – both scientific and technical – to affect the type of change required. In the last several years, however, science has significantly evolved and advanced, and our capacity to respond to environmental and technological changes in these five areas has improved substantially. With this strategy, these specific areas of work should be viewed as national priorities with a renewed and coordinated effort at finding and implementing solutions. Over time, the NOC will assess the progress on these areas and also identify other areas to be addressed.

### *Planning*

Together, these nine priority objectives provide a bridge between the National Policy and action on the ground and in the water, but do not prescribe in detail how individual entities would undertake these responsibilities. For each priority objective, the NOC would be responsible for, and oversee development of, a strategic action plan within six to twelve months from its establishment. The NOC's ORM-IPC and OST-IPC would be charged with developing these plans. The plans would address the *Obstacles* and *Opportunities* identified for each objective and would focus on, but not be limited to, the key areas identified under each objective. In addition, each plan would:

- Identify specific and measurable near-term, mid-term, and long-term actions, with appropriate milestones, performance measures, and outcomes to fulfill each objective;
- Consider smaller-scale, incremental, and opportunistic efforts that build upon existing activities, as well as more complex, larger-scale actions that have the potential to be truly transformative;
- Explicitly identify key lead and participating agencies;
- Identify gaps and needs in science and technology; and
- Identify potential resource requirements and efficiencies; and steps for integrating or coordinating current and out-year budgets.

The plans would be adaptive to allow for modification and addition of new actions based on new information or changing conditions. Their effective implementation would also require clear and easily understood requirements and regulations, where appropriate, that include enforcement as a critical component. Implementation of the National Policy for the stewardship of the ocean, our coasts, and the Great Lakes will recognize that different legal regimes, with their associated freedoms, rights, and duties, apply in different maritime zones. The plans would be implemented in a manner consistent with applicable international conventions and agreements and with customary international law as reflected in the Law of the Sea Convention. The plans and their implementation would be assessed and reviewed annually by the NOC and modified as needed based on the success or failure of the agreed upon actions. Upon identification and finalization of plans, the NOC Co-Chairs, in collaboration with OMB, would develop an annual interagency ocean budget guidance memorandum. Recognizing the reality of the limited availability of new resources, each of the Federal agencies engaged in the implementation

## FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

of strategic action plans would re-evaluate how resources should best be allocated in light of their statutory and regulatory mandates.

While these plans are under development, any agency that is conducting an activity that supports or furthers one of the objectives would bring them to the attention of the NOC. The NOC – working with the agency – would review the activity to determine how it might best contribute to overall implementation of the priority objectives, including being incorporated into the relevant strategic action plan.

### *Transparency and Collaboration*

Transparency in developing strategic action plans and implementing the National Policy is critical. As the NOC develops and revises the plans, it will ensure substantial opportunity for public participation. Final plans, revisions, and reports of how well plan performance measures are being met would be made publicly available.

The effective implementation of this far-reaching and comprehensive National Policy would require active collaboration of the Federal Government with State, tribal, and local authorities, regional governance structures, academic institutions, non-governmental organizations, recreational interests, and private enterprise. In developing and revising the plans, the NOC would reach out to these interested parties, as appropriate, through the NOC's GCC, the ORRAP, workshops, and by other means. Furthermore, international collaboration on a broad range of ocean issues is an important component of these objectives. The Nation plays a leadership role in various international forums that deal with these issues, such as the Arctic Council, the International Maritime Organization, the Intergovernmental Oceanographic Commission, regional fisheries management organizations, and the International Whaling Commission. By joining the Law of the Sea Convention now, we can reaffirm and enhance United States leadership in the development and interpretation of international law applicable to the ocean. The Convention's provisions are highly favorable to the national security, environmental, and economic interests of the United States. Becoming a party would give the United States the ability to participate formally and more effectively in the interpretation and development of the Convention.



## II. National Priority Objectives

### How We Do Business

1. **Ecosystem-Based Management: Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.**

#### *Obstacles and Opportunities*

Traditional management of resource use and other activities in the ocean, along our coasts, and in the Great Lakes has focused on individual species, resources, areas, or actions with limited consideration for how the management practices of one might impact the sustainability of another. This has often led to disjointed management approaches resulting in loss of resources, economic hardship, and environments at risk. To ensure healthier, more resilient, and productive ocean, coastal, and Great Lakes environments, comprehensive management systems are needed that fully integrate ecological, social, economic, and security goals into decisions. Embedding ecosystem-based management, grounded in science, as an overarching principle would be a fundamental shift in the traditional way the Federal Government approaches management of the ocean, our coasts, and the Great Lakes. It would provide the opportunity to ensure proactive and holistic approaches to better manage the use and conservation of these valuable resources. This broad-based application of ecosystem-based management would provide a framework for the management of our resources, and allow for such benefits as helping to restore fish populations, control invasive species, support healthy coastal and Great Lakes communities and ecosystems, restore sensitive species and habitats, protect human health, and rationally allow for emerging uses of the ocean, including new energy production.

#### *The Plan Should Address:*

- “Best practices” for developing and implementing effective ecosystem-based management systems;
  - Identification and prioritization of geographic areas of special sensitivity or in greatest need for ecosystem-based management;
  - Establishment of a process for working with States, tribal, and local authorities and regional governance structures to apply the most successful approaches in these areas of the greatest need; and
  - Measures to ensure that decisions about ocean, coastal, and Great Lakes activities, uses, and goals are made based on the best available science and incorporate principles of ecosystem-based management.
2. **Coastal and Marine Spatial Planning: Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.**

#### *Obstacles and Opportunities*

The ocean, our coasts, and the Great Lakes are host to countless commercial, recreational, scientific, energy, and security activities, which often occur in or near areas set aside and managed for



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conservation and resource protection goals. Overlapping uses and differing views, about what activities should occur and where, can generate conflicts and misunderstandings. Coastal and marine spatial planning (CMSP) that fully incorporates the principles of ecosystem-based management will provide a means to objectively and transparently guide and balance allocation decisions for use of ocean, coastal, and Great Lakes waters and resources. It would allow for the reduction of cumulative impacts from human uses on marine ecosystems, provide greater certainty for the public and private sector in planning new investments, and reduce conflicts among uses and between using and preserving the environment to sustain critical ecological, economic, recreational, and cultural services for this and future generations.

### *The Plan Should Address:*

- Implementation and expansion of the Framework for Effective Coastal and Marine Spatial Planning as described later in this document.

3. **Inform Decisions and Improve Understanding:** Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.

### *Obstacles and Opportunities*

A broad program of basic and applied disciplinary and interdisciplinary scientific research, mapping, monitoring, observation, and assessment, coupled with development of forecasts, models, and other decision-support tools, is required to build knowledge of ocean, coastal, and Great Lakes ecosystems and processes and ensure that management and policies are based on sound science. Increased understanding of watershed processes and the linkages with our coasts will be necessary to develop better decision-support tools to adequately manage human uses, human impacts, including disproportionate impacts on minority or low income populations, and watershed conservation activities that affect our ocean and coasts. In addition, increased scientific knowledge and a more comprehensive awareness and a detailed understanding of current and emerging human activities taking place in and around our waters are essential to sound ocean planning and management. However, there are significant gaps in our understanding of ocean ecosystem dynamics, ocean conditions and trends, and the complex links between these conditions and human health, economic opportunities, national and homeland security, and social justice. There is significant opportunity to improve how and what information we gather to better understand change and respond



to challenges, better integrate current scientific knowledge (natural, social and traditional/cultural) and real-time data into decision-making, improve the management and integration of data supporting science and decision-making, and identify and close knowledge gaps necessary to adequately understand the impacts of human activities on the ocean, our coasts, and the Great Lakes. A diverse, interdisciplinary, ocean-literate workforce that has the



appropriate skills and training to capitalize on these opportunities is needed. In addition, formal and informal education programs developed and implemented to target grades K-12 and beyond would create opportunities for enhanced appreciation of coastal and ocean issues, and better prepare the workforce of the future. Robust education programs already exist in many NOC member agencies and can serve as the foundation for increasing knowledge on ocean, coastal, and Great Lakes issues. Success in building our knowledge and applying it to improve management also relies on an engaged and informed public. Many Americans do not realize the importance of the ocean, our coasts, and the Great Lakes to their daily lives, the benefits they provide, or the possibilities they present for further discovery. There is great opportunity to raise awareness and identify ways we can help protect our waters and their resources.

### Inform and Improve

#### *The Plan Should Address:*

- Identification of priority issues in addressing emerging topics and changes in ocean, coastal, and Great Lakes ecosystems and processes;
- Specific scientific requirements and research needs, including the need for reconciling inconsistent standards, physical infrastructure, research platforms, organizations, and data management, to identify critical gaps, ensure high quality data, and provide information necessary to inform management, including mechanisms to transition research results into information products and tools for management;
- The development of a more comprehensive awareness of environmental conditions and trends and human activities that take place in the ocean, coastal, and Great Lakes environments; and
- Requirements for routine integrated ecosystem assessments and forecasts, including impacts related to climate change, to address vulnerability, risks, and resiliency, and inform tradeoffs and priority-setting.

## Educate

### *The Plan Should Address:*

- Challenges, gaps, opportunities, and effective strategies for training and recruiting the current and next generation of disciplinary and interdisciplinary scientists, technicians, operators, managers, and policy-makers, with a particular focus on the needs of disadvantaged or under-served communities; and
- Identification of successful formal and informal education and public outreach approaches, including their application toward a focused nation-wide campaign to build public awareness, engagement, understanding, and informed decision-making, with specific emphasis on the state of ecosystems.



4. **Coordinate and Support: Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government and, as appropriate, engage with the international community.**

### *Obstacles and Opportunities*

One of the significant obstacles to effective management of the ocean, our coasts, and the Great Lakes is the complex set of Federal, State, tribal, and local laws, authorities, mandates, and governance structures intended to manage their use and conservation. Consistent approaches to the management of resources, including ecosystem-based and adaptive management, are difficult to achieve given this shared, piece-meal, and overlapping jurisdictional model. Furthermore, the United States is party to numerous international agreements and subject to customary international law regarding use and protection of the ocean and the Great Lakes. The United States should engage with international partners bilaterally and multilaterally to achieve increased cooperation and coordination on ocean issues. Through increased communication, coordination, and integration across all levels of government, we can streamline processes, reduce duplicative efforts, leverage resources, resolve disparities, and enhance synergy. A set of shared principles and objectives coordinated among all levels of government would translate into effective outcomes consistent with the National Policy.

## Coordinate

### *The Plan Should Address:*

- Identification of gaps, inconsistencies, and duplications in statutory authorities, policies, and regulations, and taking necessary and appropriate actions to address them;
- Procedures to identify and align mutual and consistent management objectives and actions across jurisdictions;



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- Tangible tools and procedures to prevent and resolve conflicts across jurisdictions and disagreements concerning jointly managed ocean, coastal, and Great Lakes resources; and
- Opportunities for engaging the international community to further the objectives of the policy, as appropriate.

### Support

#### *The Plan Should Address:*

- Actions to assist the States in advancing the network of regional alliances to protect ocean, coastal, and Great Lakes health;
- Evaluation of existing or new funding sources and options to protect, maintain, and restore ocean resources; and
- Legislative or regulatory changes necessary to simplify the sharing and transfer of resources among Federal, State, tribal, and local agencies.

### Areas of Special Emphasis

1. **Resiliency and Adaptation to Climate Change and Ocean Acidification: Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.**

#### *Obstacles and Opportunities*

The ocean plays a central role in shaping the Earth's climate and influencing climate variability. Because of this important relationship and the ecosystem services that the ocean, our coasts, and Great Lakes provide, global climate change and its associated impacts as well as ocean acidification pose some of the most serious threats to these ecosystems and coastal communities. Warming ocean temperatures have a profound impact on



the distribution of rainfall over land, the melting of ice sheets, and the distribution and productivity of species. Sea-level rise, increased severe storm events, rapid erosion, and salt water intrusion threaten low-lying coastal communities with the destruction of infrastructure, flood inundation, the potential displacement of millions of people, and the loss of key species and habitats. At the same time, climate change is predicted to lower the water levels of the Great Lakes, thereby altering water cycles and supply, habitat, and economic uses of the Lakes. In addition, ocean acidification is expected to have significant and largely negative impacts on the marine food web, ocean ecosystems as a whole, and biological diversity in general. Since climate change and ocean acidification may have widespread impacts,



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increased coordination of monitoring and mapping efforts and improved understanding of the changes in the ocean are vital to minimizing these impacts on our marine and Great Lakes ecosystems and coastal communities. We have an opportunity and a responsibility to develop strategies for reducing the vulnerability, increasing the resilience, and improving adaptation of human and natural systems to climate change impacts, as well as for mitigating the effects of climate change itself.

### *The Plan Should Address:*

- Research, observations and modeling needed to forecast regional and local scale climate change impacts and related vulnerabilities for natural resources, health, infrastructure, and livelihoods, including social and economic impacts;
  - Better integration of ocean and coastal science into the broader climate dialogue and measures to improve understanding of the connections among land, water, air, ice, and human activities;
  - Evaluation of potential social and economic costs related to sea-level rise, such as accelerating erosion, increased saltwater intrusion, and more severe coastal and inland flooding;
  - Adaptive actions to identified climate change impacts and related vulnerabilities, such as ocean acidification, and the development of ecological and economic resilience strategies and priorities for research and monitoring to address these strategies;
  - Changes to local and regional ocean and lake management systems that incorporate changing climate risks and elements of resilient systems; and
  - A comprehensive approach to understanding human health implications of policies for the ocean, our coasts, and Great Lakes, and for identifying opportunities for the protection and enhancement of human health.
2. **Regional Ecosystem Protection and Restoration: Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, tribal, local, and regional levels.**

### *Obstacles and Opportunities*

Along our coasts and the Great Lakes, essential habitats continue to suffer significant losses and degradation due to coastal development, sea-level rise, and associated human activities. Impacts on these ecosystems and the people and communities in these areas are presenting new management challenges. Additionally, external stressors, including invasive species, are impacting native species and habitat. While progress has been made in addressing some of these challenges through ecosystem-based management, the threat of critical habitat loss and degradation of ecosystem services is still apparent in the Gulf Coast, the Chesapeake Bay, Puget Sound, South Florida, San Francisco Bay, and the Great Lakes. By addressing coastal and ocean challenges that cross jurisdictional boundaries and sectors on a regional and ecosystem scale, we can more effectively manage these resources. Because climate change is impacting our coastlines, it has become even more important to assess and place priorities on ecosystem restoration projects. These experiences provide valuable lessons for other coastal ecosystems.

### *The Plan Should Address:*

- Prioritization of the locations and geographic scope of coastal and Great Lakes ecosystem restoration projects, including implementation of the Great Lakes Restoration Initiative;
  - Interim and longer term goals and mechanisms to facilitate collaboration among stakeholders to implement projects;
  - Best practices for collaborative science-based planning to achieve ecosystem restoration goals building on the lessons learned in ongoing ecosystem restoration efforts;
  - Impacts of invasive species on ocean, coastal, and Great Lakes ecosystems, and a range of methodologies for control and prevention of these species; and
  - Protection, maintenance, and restoration of populations and essential habitats supporting fisheries, protected species, ecosystems, and biological diversity.
3. **Water Quality and Sustainable Practices on Land: Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.**

### *Obstacles and Opportunities*

Nonpoint source pollution (pollution that comes from diffuse sources instead of one specific point), caused by poor land management practices, is the leading cause of water quality problems in the United States and a major cause of rapidly declining ocean and coastal ecosystem health. Runoff from suburban streets and lawns, agricultural and industrial uses, transportation activities, and urban development – even hundreds of miles away – negatively impacts water quality, resulting in deleterious effects on ocean, coastal, and Great Lakes systems as evidenced by harmful algal blooms, expansive dead zones, marine debris, and increased incidents of human illness. Areas with particularly poor water quality are known to experience frequent beach closures, massive fish kills, and areas of toxic sediments.

Since this pollution comes from many diffuse sources throughout the country, addressing it requires a strong commitment to coordination and cooperation between multiple sectors and among Federal, State, tribal, local authorities, and regional governance structures. Fortunately, a number of point and non-point source prevention programs are available to Federal, State, tribal, local, regional, and private entities to reduce the amount of pollutants that are transported from our Nation's watersheds and into our coastal waters. There are opportunities to achieve significant reductions in these inputs to our coasts and ocean through concrete mechanisms that integrate and coordinate land-based pollution reduction programs.



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## *The Plan Should Address:*

- The major impacts of urban and suburban development and agriculture, including forestry and animal feedlots, on ocean, coastal, and Great Lakes waters;
- The relative contributions of significant land-based sources of pollutants, sediments, and nutrients to receiving coastal waters and ways to address them, including recommendations of how to integrate and improve existing land-based conservation and pollution programs;
- Best management practices, use of conservation programs, and other approaches for controlling the most significant land-based sources of nutrients, sediments, pathogens, toxic chemicals, solid waste, marine debris, and invasive species; and
- The establishment of a comprehensive monitoring framework and integration with State monitoring programs.

4. **Changing Conditions in the Arctic:**  
**Address environmental stewardship needs in the Arctic Ocean and adjacent coastal areas in the face of climate-induced and other environmental changes.**

### *Obstacles and Opportunities*

Climate change is having a disproportionately greater impact on polar regions than elsewhere, and the Arctic region is faced with serious problems. Permafrost is thawing at an accelerated rate, which leads to the release of large amounts of methane. Multi-seasonal sea ice is rapidly deteriorating. Much of the Alaskan Arctic seashore is threatened by coastal erosion and other environmental challenges. Increased human activity in the area is bringing additional stressors to the Arctic environment, with serious implications for Arctic communities and ecosystems. At the same time, the diminishing ice presents opportunities and pressures for increased development of living and non-living resources and for increased commerce and transportation. Working with all of the stakeholders, including the indigenous communities, we have the opportunity to develop proactive plans, informed by the best science available, to manage and encourage use while protecting the fragile Arctic environment.



## *The Plan Should Address:*

- Better ways to conserve, protect, and sustainably manage Arctic coastal and ocean resources, effectively respond to the risk of increased pollution and other environmental degradation on humans and marine species, and adequately safeguard living marine resources;

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- New collaborations and partnerships to better monitor and assess environmental conditions and devise early warning and emergency response systems and procedures to be prepared for and respond to emerging events in the Arctic region, such as environmental disasters;
  - Consistency and coordination with the implementation of United States Arctic Region Policy as promulgated in National Security Presidential Directive 66/Homeland Security Presidential Directive 25 (2009); and
  - Improvement of the scientific understanding of the Arctic system and how it is changing in response to climate-induced and other changes.
5. **Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure: Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system and integrate that system into international observation efforts.**

### *Obstacles and Opportunities*

Our ability to understand weather, climate, and ocean conditions, to forecast key environmental processes, and to strengthen ocean management decision-making at all levels is informed by a sound knowledge base. Efficient and effective coordination of the many available tools, continued development of new tools and infrastructure, and integration of them into a cohesive, unified, robust system is becoming increasingly difficult as an ever increasing number of data collection and processing systems come on line. New ground-breaking observation technologies give us the ability to observe and study global processes at all scales. These new tools, if fully integrated, will significantly advance our knowledge and understanding of the ocean, our coasts, and the Great Lakes. Furthermore, successful integration of new tools and data will improve our ability to engage in science-based decision-making and ecosystem-based management by ensuring that biological, ecological, and social data and processes are included in the calculus.

### *The Plan Should Address:*

- A nationally integrated system of ocean, coastal, and Great Lakes observing systems, comprised of Federal and non-Federal components, and cooperation with international partners and organizations, as appropriate;
- Regional and national needs for ocean information, to gather specific data on key ocean, coastal, and Great Lakes variables that are required to support the areas of special emphasis and other national needs;
- The use of unmanned vehicles and remote sensing platforms and satellites to gather data on the health and productivity of the ocean, our coasts, and the Great Lakes;
- The capabilities and gaps of the National Oceanographic Fleet of ships and related facilities; and
- Data management, communication, access, and modeling systems for the timely integration and dissemination of data and information products.



## PART FOUR. THE FRAMEWORK FOR EFFECTIVE COASTAL AND MARINE SPATIAL PLANNING

### I. Introduction

Coastal and marine spatial planning is one of the nine priority objectives in the recommendations. This framework for CMSP in the United States provides a definition of CMSP, identifies the reasons for engaging in CMSP, and describes its geographic scope. It articulates national CMSP goals and guiding principles that would be adhered to in CMSP efforts and the eventual development and implementation of coastal and marine spatial plans. In addition, this framework describes how CMSP and CMS Plans would be regional in scope and developed cooperatively among Federal, State, tribal, local authorities, and regional governance structures, with substantial stakeholder and public input.

### II. What is Coastal and Marine Spatial Planning?

CMSP is a comprehensive, adaptive, integrated, ecosystem-based, and transparent spatial planning process, based on sound science, for analyzing current and anticipated uses of ocean, coastal, and Great Lakes areas. CMSP identifies areas most suitable for various types or classes of activities in order to reduce conflicts among uses, reduce environmental impacts, facilitate compatible uses, and preserve critical ecosystem services to meet economic, environmental,



security, and social objectives. In practical terms, CMSP provides a public policy process for society to better determine how the ocean, coasts, and Great Lakes are sustainably used and protected - now and for future generations.

### III. Why Coastal and Marine Spatial Planning?

The Nation’s interests in the ocean, our coasts, and the Great Lakes support a growing number of significant and often competing uses and activities, including commercial, recreational, cultural, energy, scientific, conservation, and homeland and national security activities. Combined, these activities profoundly influence and benefit coastal, regional, and national economies and cultures. However, human uses of our ocean, coasts, and the Great Lakes are expanding at a rate that challenges our ability to plan and manage them under the current sector-by-sector approach. While many existing permitting processes include aspects of cross-sectoral planning (through, for example, the process governed by the National Environmental Policy Act), most focus solely on a limited range of management tools and outcomes (e.g., oil and gas leases, fishery management plans, and marine protected areas). Missing from this picture is a more integrated, comprehensive, ecosystem-based, flexible, and proactive approach to planning and managing these uses and activities. This new approach would be national in scope to address national interests, but also scalable and specific to regional and local needs. Without such an improved approach, we risk an increase in user conflicts, continued planning and regulatory inefficiencies with their associated costs and delays, and the potential loss of critical economic, ecosystem, social, and cultural services for present and future generations.

Recent scientific and ocean policy assessments have demonstrated that a fundamental change in our current management system is required to achieve the long-term health of our ocean, coasts, and Great Lakes in order to sustain the services and benefits they provide to society. The present way we

#### **Traditional, New, and Expanding Ocean, Coastal, And Great Lakes Uses**

*The ocean, our coasts, and the Great Lakes are home to and support myriad important human uses. CMSP provides an effective process to better manage a range of social, economic, and cultural uses, including:*

- Aquaculture (fish, shellfish, and seaweed farming)
- Commerce and Transportation (e.g., cargo and cruise ships, tankers, and ferries)
- Commercial Fishing
- Environmental/Conservation (e.g., marine sanctuaries, reserves, national parks, and wildlife refuges)
- Maritime Heritage and Archeology
- Mining (e.g., sand and gravel)
- Oil and Gas Exploration and Development
- Ports and Harbors
- Recreational Fishing
- Renewable Energy (e.g., wind, wave, tidal, current, and thermal)
- Other Recreation (e.g., boating, beach access, swimming, surfing, nature and whale watching, and diving)
- Scientific Research and Exploration
- Security, Emergency Response, and Military Readiness Activities
- Subsistence Uses
- Tourism
- Traditional Hunting, Fishing, and Gathering
- Working Waterfronts

manage these areas cannot properly account for cumulative effects, sustaining multiple ecosystem services, and holistically and explicitly evaluating the tradeoffs associated with proposed alternative human uses.

Scientific understanding and information are central to achieving an integrated and transparent planning process. Natural and social sciences can inform decisions about how to achieve societal objectives from the Nation's ocean, coastal, and Great Lakes waters, both now and into the future, while maintaining ecosystem integrity. Built on this foundation of sound science, this new system for planning should facilitate maintenance of essential ecosystem services, encourage compatible uses, minimize conflicts, evaluate tradeoffs in an open and transparent manner, and include significant and meaningful stakeholder involvement.

### *The Benefits of CMSP*

As recommended in this framework, CMSP is intended to yield substantial economic, ecological, and social benefits. To do so, it must fully incorporate the principles of sound science for ecosystem-based and adaptive management, be transparent, and be informed by stakeholders and the public. Many have raised concerns regarding whether CMSP would result in additional layers of regulatory review or delays in decision-making. To the contrary, CMSP is intended to build upon and significantly improve existing Federal, State, tribal, local, and regional decision-making and planning processes. Thus, while the development of CMSP would require significant initial investments of both human and financial resources, these investments are expected to result in substantial benefits. Several States, regions, and other nations have already recognized the many advantages of marine spatial planning, undertaken the planning process, and are eager to take positive steps to realize those advantages.

### **CMSP can facilitate sustainable economic growth. For instance:**

#### ***In the Netherlands-***

A “preferred sand mining area” has been identified within its territorial sea. This use allocation through marine spatial planning will allow sand extraction closer to shore at less cost to both the private sector and the government, especially in the next 20 years when it is used for coastal adaptation to anticipated climate change.

#### ***In Germany-***

An environmental assessment for a wind farm permit costs about €1 million (US\$1.5 million) to prepare. Because the federal government has already prepared a Strategic Environmental Assessment for its marine spatial plan that includes priority areas for wind farms, costs of preparing and reviewing an environmental assessment for every permit proposed in a “Priority Wind Farm Area” will be reduced or avoided.

*Examples Courtesy of Dr. Charles Ehler, UNESCO*

CMSP is intended to facilitate sustainable economic growth in coastal communities by providing transparency and predictability for economic investments in coastal, marine, and Great Lakes industries, transportation, public infrastructure, and related businesses. CMSP could promote national objectives such as enhanced national energy security and trade and provide specific economic incentives (e.g., cost savings and more predictable and faster project implementation) for commercial users.

CMSP is intended to improve ecosystem health and services by planning human uses in concert with the conservation of important ecological areas, such as areas of high productivity and biological diversity; areas and key species that are critical to ecosystem function and resiliency; areas of spawning, breeding, and feeding; areas of rare or functionally vulnerable marine resources; and migratory corridors. Enhanced ecosystem services and benefits can be attained through CMSP because they are centrally incorporated into the CMS Plan as desired outcomes of the process and not just evaluated in the context of individual Federal or State agency action. CMSP allows for a comprehensive look at multiple sector demands which would provide a more complete evaluation of cumulative effects. This ultimately is intended to result in protection of areas that are essential for the resiliency and maintenance of healthy ecosystem services and biological diversity, and to maximize the ability of marine resources to continue to support a wide variety of human uses.

**CMSP allows proactive planning to integrate a wide range of ecosystem services. For instance:**

*Provisioning*

Energy, Seafood, Biomedical

*Regulating and Supporting*

Flood Prevention, Biological Diversity Maintenance, Climate Regulation, Erosion Control, Control of Pests and Pathogens, Nutrient Recycling, and Primary Production

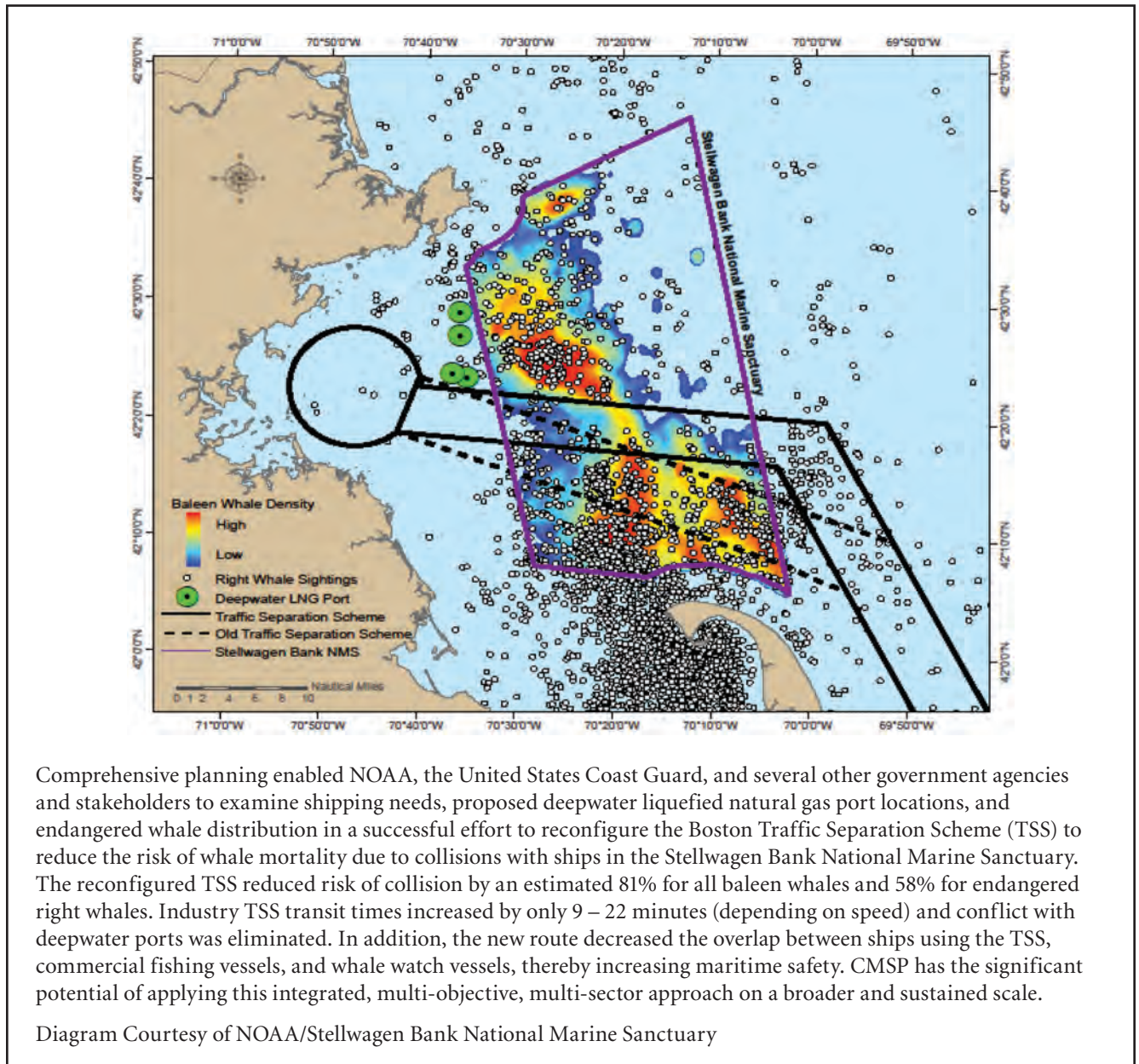
*Cultural Services*

Education, Recreational, Heritage, and Spiritual





## Example of the Potential Benefits of CMSP: Stellwagen Bank National Marine Sanctuary



From a societal perspective, CMSP would improve opportunities for community and citizen participation in open planning processes that would determine the future of the ocean, our coasts, and the Great Lakes. For example, the CMSP process would recognize the social, economic, public health, and conservation benefits of sustainable recreational use of ocean, coastal, and Great Lakes resources (e.g., fishing, boating, swimming, and diving), by providing improved coordination with recreational users to ensure consideration of continued access and opportunities to experience and enjoy these activities consistent with safety and conservation goals. Integrated engagement and coordination should result in stronger and more diverse ocean, coastal, and Great Lakes stewardship, economies, and communities. Moreover, CMSP can assist managers in planning activities to sustain cultural and recreational uses, human health and safety, and the continued security of the United States. For

instance, CMSP would help to ensure that planning areas identified as important for public use and recreation are not subject to increased risk of harmful algal blooms, infectious disease agents, chemical pollution, or unsustainable growth of industrial uses.

## IV. Integration, Cooperation, and Coordination

Strong partnerships among Federal, State, tribal, and local authorities, and regional governance structures would be essential to a truly forward-looking, comprehensive CMSP effort. One of the significant benefits of CMSP is to improve the ability of these authorities to seamlessly coordinate their objectives with broader planning efforts by participating in the CMSP process for areas within and beyond their jurisdictional waters. Many States and regional governance structures have already engaged in some form of comprehensive marine planning and CMSP would build upon and incorporate these efforts. Also, the United States has a unique legal relationship with federally-recognized American Indian and Alaska Native tribal governments. These tribal governments, and the indigenous populations in Hawaii and the United States Commonwealths and Territories, are integrally linked to the maritime realm and would play an important role in CMSP.

The United States shares maritime and Great Lakes boundaries with a number of countries and has the world's largest EEZ and an extensive Continental Shelf. The development of CMSP provides opportunities for engagement with other countries, in coordination with the Department of State and other relevant agencies. The views and decisions of relevant international fora should be taken into account, where appropriate, in CMSP and the development of CMS Plans.

The ability for States and tribes to participate in the CMSP process for areas within and beyond their respective jurisdictions can afford the following potential opportunities and incentives:

- Encourage and inform the Federal government to better manage resources or address processes that transcend jurisdictional boundaries;
- Define local and regional objectives and develop and implement CMSP in a way that is meaningful to regionally specific concerns;
- Leverage, strengthen, and magnify local planning objectives through integration with regional and national planning efforts;
- Proactively address concerns over proposed activities impacting State and tribal interests and minimize use conflicts before they escalate;
- Leverage support from the Federal government to build CMSP capacity, access CMSP data, and acquire scientific, technical, and financial assistance;
- Access data through CMSP portal(s) and utilize science tools developed, established, and maintained for CMSP efforts;
- Benefit from sustained Federal participation on the regional planning bodies that consist of representatives empowered to make decisions and commitments on behalf of their respective agencies, in turn helping to integrate and improve decision-making;
- Provide a clearer and easier point of access for all Federal agencies with regard to ocean, coastal, and Great Lakes issues; and
- Achieve regulatory efficiencies, reduction in administrative delays, and cost savings.

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Similarly, as the United States is a leader in various international fora that deal with marine issues, the United States should introduce relevant aspects of CMSP for consideration by such bodies.

### **V. Public and Stakeholder Engagement**

In addition to coordination and cooperation among all levels of government, robust public and stakeholder engagement is integral to a successful CMSP process. Given the multi-objective nature of CMSP it is critical to ensure there are numerous opportunities for a broad range of input to gain a better understanding of the human uses and influences on the planning area, and expectations, interests, and requirements for the future. Including a broad range of interests throughout the planning and implementation of CMSP is necessary to strengthen mutual and shared understanding about relevant problems and opportunities and will better inform the process and its outcomes.

### **VI. The Authority for Coastal and Marine Spatial Planning**

Federal statutes often include authorizing language that explicitly gives agencies the responsibility to plan and implement the objectives of the statutes. Moreover, several Federal statutes specifically authorize agency planning with respect to the ocean, coastal, and Great Lakes environments. Federal agencies and departments also administer a range of statutes and authorized programs that provide a legal basis to implement CMSP. These statutory and regulatory authorities may govern the process for making decisions (e.g., through Administrative Procedure Act rulemaking and adjudications) and not just the ultimate decisions made. The processes and decision-making CMSP envisions would be carried out consistent with and under the authority of these statutes. State, tribal, and local authorities also have a range of existing authorities to implement CMSP, although this will vary among and within regions. This framework for CMSP is to provide all agencies with agreed upon principles and goals to guide their actions under these authorities, and to develop mechanisms so that Federal, State, tribal, and local authorities, and regional governance structures can proactively and cooperatively work together to exercise their respective authorities.

An agency or department's capacity to internalize the elements of any particular CMS Plan would vary depending on the nature of applicable statutes. CMSP is intended to provide a better framework for application of these existing laws and agency authorities, but is not intended to supersede them. Where pre-existing legal constraints, either procedural or substantive, are identified for any Federal agency, the NOC would work with the agency to evaluate necessary and appropriate legislative solutions or changes to regulations to address the constraints. In the interim, agencies would comply with existing legal requirements but should endeavor, to the maximum extent possible, to integrate their actions with those of other partners to a CMS Plan.

### **VII. The National Goals of Coastal and Marine Spatial Planning**

For CMSP to be successful, it must be based on clear, broad-based goals that define the desired outcomes to be achieved. CMSP in the United States would be developed and implemented to further the following goals:

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1. Support sustainable, safe, secure, efficient, and productive uses of the ocean, our coasts, and the Great Lakes, including those that contribute to the economy, commerce, recreation, conservation, homeland and national security, human health, safety, and welfare;
2. Protect, maintain, and restore the Nation's ocean, coastal, and Great Lakes resources and ensure resilient ecosystems and their ability to provide sustained delivery of ecosystem services;
3. Provide for and maintain public access to the ocean, coasts, and Great Lakes;
4. Promote compatibility among uses and reduce user conflicts and environmental impacts;
5. Improve the rigor, coherence, efficiency, and consistency of decision-making and regulatory processes;
6. Increase certainty and predictability in planning for and implementing new investments for ocean, coastal, and Great Lakes uses; and
7. Enhance interagency, intergovernmental, and international communication and collaboration.

### **VIII. The National Guiding Principles for Coastal and Marine Spatial Planning**

In order to achieve the national goals of CMSP, planning efforts are to be guided by the following principles:

1. CMSP would use an ecosystem-based management approach that addresses cumulative effects to ensure the protection, integrity, maintenance, resilience, and restoration of ocean, coastal, and Great Lakes ecosystems, while promoting multiple sustainable uses.
2. Multiple existing uses (e.g., commercial fishing, recreational fishing and boating, subsistence uses, marine transportation, sand and gravel mining, and oil and gas operations) and emerging uses (e.g., off-shore renewable energy and aquaculture) would be managed in a manner that reduces conflict, enhances compatibility among uses and with sustained ecosystem functions and services, provides for public access, and increases certainty and predictability for economic investments.
3. CMSP development and implementation would ensure frequent and transparent broad-based, inclusive engagement of partners, the public, and stakeholders, including with those most impacted (or potentially impacted) by the planning process and with underserved communities.
4. CMSP would take into account and build upon the existing marine spatial planning efforts at the regional, State, tribal, and local level.
5. CMS Plans and the standards and methods used to evaluate alternatives, tradeoffs, cumulative effects, and sustainable uses in the planning process would be based on clearly stated objectives.
6. Development, implementation, and evaluation of CMS Plans would be informed by



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sound science and the best available information, including the natural and social sciences, and relevant local and traditional knowledge.

7. CMSP would be guided by the precautionary approach as reflected in Principle 15 of the Rio Declaration, “Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”
8. CMSP would be adaptive and flexible to accommodate changing environmental conditions and impacts, including those associated with global climate change, sea-level rise, and ocean acidification; and new and emerging uses, advances in science and technology, and policy changes.
9. CMSP objectives and progress toward those objectives would be evaluated in a regular and systematic manner, with public input, and adapted to ensure that the desired environmental, economic, and societal outcomes are achieved.
10. The development of CMS Plans would be coordinated and compatible with homeland and national security interests, energy needs, foreign policy interests, emergency response and preparedness plans and frameworks, and other national strategies, including the flexibility to meet current and future needs.
11. CMS Plans would be implemented in accordance with customary international law, including as reflected in the Law of the Sea Convention, and with treaties and other international agreements to which the U.S. is a party.
12. CMS Plans would be implemented in accordance with applicable Federal and State laws, regulations, and Executive Orders.

### **IX. Geographic Scope of Coastal and Marine Spatial Planning**

The geographic scope of the planning area for CMSP in the United States includes the territorial sea, the EEZ, and the Continental Shelf. The geographic scope of the planning area would extend landward to the mean high-water line. The geographic scope for the Great Lakes would extend from the ordinary high-water mark and include the lakebed, subsoil, and water column to the limit of the United States and Canada international boundary, as maintained by the International Boundary Commission, and includes Lake St. Clair and the connecting channels between lakes. Privately owned lands as defined by law would be excluded from the geographic scope.

The geographic scope would include inland bays and estuaries in both coastal and Great Lakes settings. Inclusion of inland bays and estuaries is essential because of the significant ecological, social, and economic linkages between these areas with offshore areas. Additional inland areas may be included in the planning area as the regional planning bodies, described in Section X of this Part, deem appropriate. Regardless, consideration of inland activities would be necessary to account for the significant interaction between upstream activities and ocean, coastal, and Great Lakes uses and ecosystem health. Likewise, consideration would also be given to activities occurring beyond the EEZ and continental shelf that may influence resources or activities within the planning area.

### *The Great Lakes and CMSP*

Great Lakes resources are governed in part by a body of law, treaties, and regional policy that is distinct from our ocean and other coastal areas. Of paramount significance is the Great Lakes Water Quality Agreement (GLWQA) with Canada and its implementation under various Federal laws that commit each country to restore and maintain the chemical, physical, and biological integrity of the Great Lakes through use of ecosystem-based management. However, while various Federal regulatory authorities apply in the United States Great Lakes, the submerged lands underlying them are largely under the jurisdiction and ownership of the Great Lakes States.



CMSP efforts in the Great Lakes would be complementary to and closely coordinated with the GLWQA and other Great Lakes initiatives and authorities, such as the President's Great Lakes Restoration Initiative and Executive Order 13340, which established a cabinet-level Great Lakes Interagency Task Force, its Regional Working Group, and a multi-stakeholder Great Lakes Regional Collaboration.

### *Land-based Activities and Their Relation to CMSP*

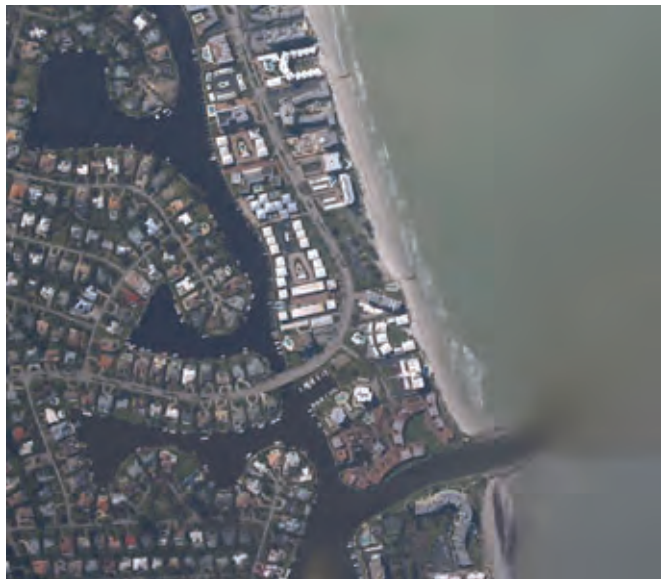
Although the geographic scope of the CMSP area in the United States would not include upland areas unless a regional planning body determines to include them, the health and well-being of the ocean, our coasts, and the Great Lakes are in large part the result of the interrelationships among land, water, air, and human activities. Effective management of environmental health and services, maritime economies, commerce, national and homeland security interests, and public access necessitate connecting land-based planning efforts with ocean, coastal, and Great Lakes planning. Thus, successful implementation of CMSP would ultimately depend upon a better integration of coastal planning that considers influences from, and activities within, coastal watersheds and other contributing land areas. Land-based watershed planning efforts (e.g., components of the Great Lakes Restoration Initiative Action Plan) should inform and influence CMSP within each region. Similarly, ocean, coastal, and Great Lakes activities that affect land-based ecosystems should be considered and accounted for during CMSP efforts using the existing State and Federal programs including the Coastal Zone Management Act (CZMA), Clean Water Act, Clean Air Act, and other relevant authorities. It is the intent of the CMSP process to better understand how current mandates and programs interact towards the common goals of CMSP and, in doing so, to better coordinate, and where appropriate, strengthen their collective

benefits. In addition, watershed monitoring, terrestrial observation activities, and ocean, coastal, and Great Lakes observation systems should be linked to provide the necessary information on interactions and impacts across the land-sea boundary.

### **X. Development and Implementation of Coastal and Marine Spatial Planning**

CMSP would be developed and implemented using a regional approach to allow for the variability of economic, environmental, and social aspects among different areas of the United States. This section describes the regional approach, recommended steps, and the essential elements to be included in the development and implementation of CMSP.

Given the importance of conducting CMSP from an ecosystem-based perspective, combined with the likely involvement of existing regional governance structures in developing plans, a consistent planning scale with which to initiate



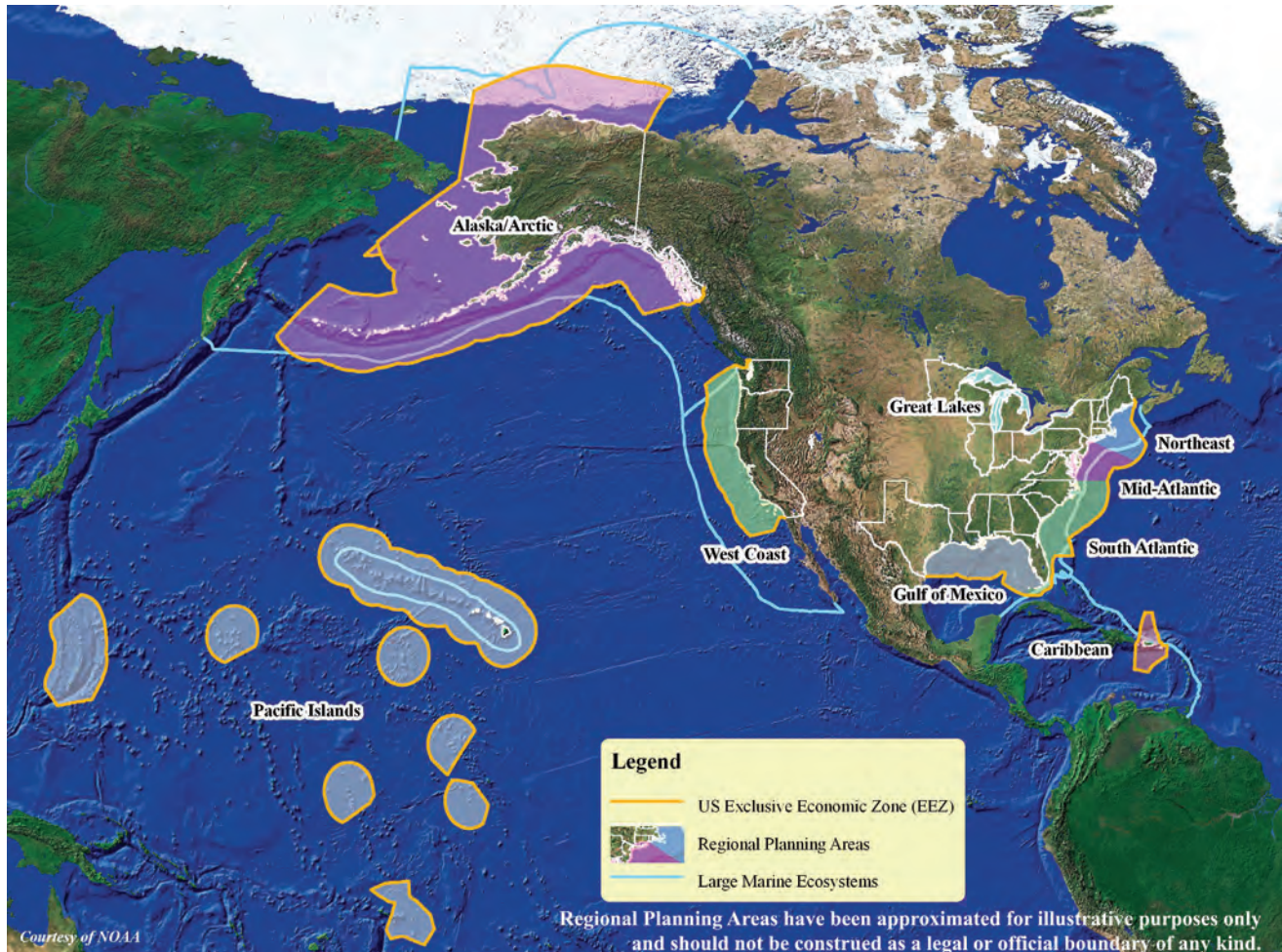
CMSP is at the large marine ecosystem (LME) scale.<sup>7</sup> These recognized LMEs were defined on the basis of consistent ecological conditions and other factors. Overall, the boundaries of regional governance structures for the Northeast, Mid-Atlantic, South Atlantic, Gulf Coast, and West Coast lie within LME boundaries. This regional approach, consistent with the LMEs, would also be applied to the Great Lakes, Alaska, the Pacific Islands, and the Caribbean. Therefore, for CMSP purposes, the United States would be subdivided into nine regional planning areas based on LMEs, with modifications as necessary to ensure inclusion of the entire U.S. EEZ and Continental Shelf and to allow for incorporation of existing state or regional ocean governance bodies. The NOC would facilitate the development of regional CMS Plans for those areas.

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<sup>7</sup> The U.S. ocean and coastal waters hold all or parts of eleven LMEs: the West Bering Sea, East Bering Sea, Chukchi Sea, Beaufort Sea, Gulf of Alaska, California Current, Gulf of Mexico, Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Insular Pacific-Hawaiian, and the Caribbean Sea. For representational purposes only, the five Alaskan LMEs are depicted as a single complex in the map on page 52. Although, as a large fresh-water system, the Great Lakes are not usually considered an LME, they do represent a large regional ecosystem of similar scale and are considered as such for this framework. Further detail on LMEs can be found at: <http://www.lme.noaa.gov>.



Large Marine Ecosystems and Regional Planning Areas



*Regional Planning Body*

The NOC would work with the States<sup>8</sup> and federally-recognized tribes, including Alaska Native Villages, to create regional planning bodies – coinciding with the regional planning areas – for the development of regional CMS Plans. The membership of each of the nine regional planning bodies would consist of Federal, State, and tribal authorities relevant to CMSP for that region (e.g., resource management, including coastal zone management and fisheries management, science, homeland and national security, transportation, and public health). Members would be of an appropriate level of responsibility within their respective governing body to be able to make decisions and commitments throughout the process. Each regional planning body would identify Federal and non-Federal co-leads.<sup>9</sup> Appropriate State and tribal representation would be determined by applicable States and tribes, consistent with the types of representation described by the NOC per Section XVI of this Part. Regional planning bodies would develop a mechanism to engage other indigenous community representatives

<sup>8</sup> For purposes of this framework, “States” also include the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa.

<sup>9</sup> Each regional planning body would have one Federal co-lead, one State co-lead, and, as appropriate, one tribal co-lead. The co-leads would be responsible for guiding and facilitating the timely progress of the CMSP process, but would not have final decision-making authority.



with jurisdictional responsibilities or interests relevant to CMSP, as well as coordinate with appropriate local authorities throughout the CMSP process. In addition, the regional planning bodies would provide a formal mechanism for consultation with the Regional Fishery Management Councils (RFMCs) across their respective regions on fishery related issues given their unique statutory responsibilities under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and quasi-regulatory role in fisheries management.<sup>10</sup> The NOC would prepare guidance for regional planning bodies in meeting these consultative process requirements in order to ensure consistency across regions. In the future, if other statutorily-mandated or quasi-regulatory groups are identified, the NOC would determine whether a formal mechanism for consultation should be developed for such groups and, if necessary, provide guidance for regional planning bodies on the development of such a process.

Each regional planning body<sup>11</sup> should make every effort to ensure representation from all States within a region, ideally through, or as part of, the existing regional governance structures created by or including the States to address cross-cutting issues, including regional planning. Given that activities that happen outside of the planning area of each regional planning body may affect CMSP decisions in that area, ex officio membership on these bodies could be extended to adjacent coastal States to help integrate and enhance consistency among regions. Inland States may also be afforded membership, as determined appropriate by the regional planning body. It is also recognized that the United States shares maritime boundaries with other nations (e.g., Canada and Mexico) and the regional planning bodies for those respective areas may include ex officio representatives or observers from these nations.

### Nine Proposed Regional Planning Areas and Corresponding Minimum State Representation

1. **Alaska /Arctic Region:** Alaska
2. **Caribbean Region:** Puerto Rico and U.S Virgin Islands
3. **Great Lakes Region:** Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin
4. **Gulf of Mexico Region:** Alabama, Florida, Louisiana, Mississippi, and Texas
5. **Mid-Atlantic Region:** Delaware, Maryland, New Jersey, New York, Pennsylvania, and Virginia
6. **Northeast Region:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
7. **Pacific Islands Region:** Hawaii, Commonwealth of the Northern Mariana Islands, American Samoa, and Guam
8. **South Atlantic Region:** Florida, Georgia, North Carolina, and South Carolina
9. **West Coast Region:** California, Oregon, and Washington

<sup>10</sup> There are no Regional Fishery Management Councils in the Great Lakes Region, but the Great Lakes regional planning body should work with the Great Lakes Fishery Commission and other relevant entities, as appropriate.

<sup>11</sup> The Task Force based the State membership of the nine regional planning areas in part on the membership of the existing regional governance structures, where they exist, with the following one exception: Pennsylvania was added to the Mid-Atlantic Region, in addition to the Great Lakes Region, because Pennsylvania has a coastline on the Delaware River that would, under the defined geographic scope, be included in the CMSP regional planning area.

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Furthermore, there would be flexibility to develop sub-regional plans provided that these plans are encompassed in an overarching regional CMS Plan and overseen by the regional planning body. This construct may be particularly useful in the Alaska/Arctic and Pacific Islands Regions given the geographic breadth, the logistical constraints of coordinating resources across a region that spans the international dateline, and that multiple LMEs are encompassed by the Alaska/Arctic Region.

### *CMSP Development Agreement*

The members of each regional planning body (the “partners”) would prepare and execute a CMSP Development Agreement, a model of which the NOC would develop as described in Section XVI of this Part. The Development Agreement would be an express commitment to work cooperatively to engage in CMSP and develop eventual CMS Plans, identify the regional planning body members for each of the partners, and define ground rules, roles, and responsibilities of the partners.

### *Dispute Resolution Process*

CMSP would provide a process for resolving conflicts should members of the regional planning bodies disagree during the development or modification of CMS Plans and in the interpretation of NOC-certified CMS Plans. The NOC would develop this process, in cooperation with the GCC, to ensure consistency from region to region. This process would be designed in a way to ensure that most disputes would be resolved at the regional level. If a conflict cannot be resolved at the regional level, the regional planning body leads would elevate the issue to the NOC for resolution, via the NOC resolution process outlined earlier. In those instances in which such a conflict reflects a dispute between Federal and non-Federal members at the regional level, the NOC would consult with the GCC as part of this process. Disputes regarding a specific agency’s decisions pursuant to its statutory authority would be addressed through the various procedures and mechanisms available under that authority or other relevant authorities (e.g., Administrative Procedure Act).

### *Work Plan*

Each regional planning body would develop a formal regional work plan that describes the agreed-upon process for CMSP and development of CMS Plans (including all essential elements), specifies members, identifies co-leads, establishes key milestones, identifies resources, specifies time frames, and addresses the essential elements required for the planning process, as defined below. The work plan would allow flexibility to account for the particular circumstances of a given region (e.g., if a region has existing State plans). In addition, each work plan would specify a formal mechanism for consultation to engage the RFMCs within the region as well as a mechanism to engage the indigenous community representatives. The work plan should also describe how the regional planning body would coordinate with appropriate local authorities. The NOC would review and approve each regional work plan prior to its implementation.

## *Essential Elements of the CMSP Process*

### Essential Elements of the CMSP Process

- Identify Regional Objectives
- Identify Existing Efforts that Should Help Shape the Plan throughout the Process
- Engage Stakeholders and the Public at Key Points throughout the Process
- Consult Scientists and Technical and Other Experts
- Analyze Data, Uses, Services, and Impacts
- Develop and Evaluate Alternative Future Spatial Management Scenarios and Tradeoffs
- Prepare and Release for Public Comment a Draft CMS Plan with Supporting Environmental Impact Analysis Documentation
- Create a Final CMS Plan and Submit for NOC Review
- Implement, Monitor, Evaluate, and Modify (as needed) the NOC-certified CMS Plan

The CMSP process consists of a series of steps that would eventually lead to the development of a comprehensive, multi-sectoral, and multi-objective CMS Plan. Although the CMSP process envisions optimum flexibility among and within regions, the following essential elements – and how the partners plan to accomplish them – would need to be addressed in the work plan in order to ensure a level of national consistency across regions. The process would be adaptive and refined as regions gain experience with CMSP.

- **Identify Regional Objectives:** Each region would define and agree upon a set of specific and measurable regional objectives that provide clear direction, outcomes, and timeframes for completion. These regional objectives would be consistent with the national goals and principles identified in this framework and with any national objectives the NOC has articulated for purposes of CMSP. These objectives would serve as a statement of purpose and need for action to guide the planning process and eventual development of an ecosystem-based, comprehensive, integrated CMS Plan.
- **Identify Existing Efforts that Should Help Shape the Plan throughout the Process:** The regional planning body would identify existing efforts (e.g., State and Federal ocean plans, data management efforts, and CMSP decision products) that would allow the regional plan to build on existing work. This work should be leveraged and expanded to enable a more



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organic and holistic approach that would advance the region as a whole while not duplicating or hindering existing and ongoing efforts. These existing efforts can include those that are region-wide, State focused, or more site-specific marine spatial plans or efforts (e.g., Great Lakes Restoration Initiative Action Plan, Massachusetts Ocean Plan, Rhode Island Ocean Special Area Management Plan, or National Marine Sanctuary management plans), as well as issue-specific plans that seek to incorporate some aspects of CMSP approaches and principles (e.g., ocean energy and fishery management plans), as appropriate.

- **Engage Stakeholders and the Public at Key Points throughout the Process:** The regional planning body would ensure there is frequent and regular stakeholder engagement throughout all phases of the CMSP process, including development, adoption, implementation, evaluation, and adaptive management phases. To better ensure all concerns and ideas are considered, stakeholder engagement should be emphasized with those most impacted (or potentially impacted) by the planning process. Considerations should also be given to ensuring inclusion of underserved communities. Regions would establish an inclusive and transparent process for stakeholder participation (or, if applicable, utilizing an existing process) that ensures engagement with a representative balance of major social, cultural, economic, environmental, recreational, human health, and security interests. The regional planning body should also identify previous stakeholder input to regional or State CMSP efforts including the existing documentation on their input and needs. Stakeholder and public participation would be sought through a variety of robust participatory mechanisms that may include, but are not limited to, workshops, town halls, public hearings, public comment processes, and other appropriate means. Stakeholder and public engagement would be consistent with existing requirements for public notice and input under applicable laws. Additionally, regional planning bodies would operate with the maximum amount of transparency, participation, and collaboration to the extent permissible by law. The NOC would provide guidance on such operating procedures including methods that ensure effective public and stakeholder participation, encourage diversity of opinions, and contribute to the accountability of the CMSP process (e.g., public meetings, document availability, and timely public notification).
- **Consult Scientists and Technical and Other Experts:** The regional planning body would consult scientists, technical experts, and those with traditional knowledge of or expertise in coastal and marine sciences and other relevant disciplines throughout the process to ensure that CMSP is based on sound science and the best available information. To this end, the regional planning body would establish regional scientific participation and consultation mechanisms to ensure that the regional planning body obtains relevant information. Such consultation could take the form of regional private-public technology and science partnerships. In addition, the regional planning bodies would work with existing science and technical entities, such as the regional ocean observation organizations, and other organizations with relevant physical, biological, ecological, and social science expertise. Scientific participation and consultation mechanisms would provide scientific and technical oversight and support to the regional planning body throughout the CMS Plan development, implementation, and evaluation phases.





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- **Analyze Data, Uses, Services, and Impacts:** With assistance from scientific and technical experts, the regional planning body would investigate, assess, forecast, and analyze the following:



- Important physical and ecological patterns and processes (e.g., basic habitat distributions and critical habitat functions) that occur in the planning area, including their response to changing conditions;
- The ecological condition and relative ecological importance or values of areas within the planning area, including identification of areas of particular ecological importance, using regionally-developed evaluation and prioritization schemes that are consistent with national guidance provided by the NOC;
- The economic and environmental benefits and impacts of ocean, coastal, and Great Lakes uses in the region;
- The relationships and linkages within and among regional ecosystems, including neighboring regions both within and outside the planning area, and the impacts of anticipated human uses on those connections;
- The spatial distribution of, and conflicts and compatibilities among, current and emerging ocean uses in the area;
- Important ecosystem services in the planning area and their vulnerability or resilience to the effects of human uses, natural hazards, and global climate change;
- The contributions of existing placed-based management measures and authorities; and
- Future requirements of existing and emerging ocean, coastal, and Great Lakes uses.

This analysis would form the basis of the Regional Assessment described in the Essential Elements of the CMS Plan below. The regional planning body would identify and leverage existing approaches and efforts to collect information as well as clearly identify where there are gaps in data and information and what assumptions are made in the assessments, forecasts, and analyses to ‘compensate’ for lack of information and data.

- **Develop and Evaluate Alternative Future Spatial Management Scenarios and Tradeoffs:** The regional planning body would identify a range of alternative future spatial management scenarios based upon the information gathered on current, emerging, and proposed human uses, ecosystem conditions, and ecosystem services. Comparative analyses would assess, forecast, and analyze the tradeoffs and cumulative effects and benefits among multiple human use alternatives. The alternatives and the supporting analyses would provide the basis for a draft CMS Plan.
- **Prepare and Release for Public Comment a Draft CMS Plan with Supporting Environmental Impact Analysis Documentation:** Once a draft CMS plan and supporting environmental impact analyses, including alternatives, are completed, the regional planning body would release it for

## FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

appropriate public review and comment. During the development of a CMS Plan and before formal adoption of a final CMS Plan, regional planning bodies would also have the flexibility to move forward with CMSP efforts and agreements to address ongoing issues and regional coordination. It is recognized that these agreements would likely become part of the final CMS Plan. In drafting the CMS Plan, the regional planning body would resolve disputes using the process developed by the NOC, as discussed above in this Section.

- **Create a Final CMS Plan and Submit for NOC Review:** Based on public review of the draft plan and alternatives, the regional planning body would develop the final CMS Plan and environmental impact analysis that includes elements detailed in the Essential Elements of the Plan. The regional planning body would submit the final CMS Plan to the NOC for national consistency certification, as described in Section XII of this Part. Certification by the NOC would not occur until after release of the final CMS Plan for 30 days of public notice. These CMS Plans are intended to be iterative and are expected to be modified through the adaptive process described below.
- **Implement, Monitor, Evaluate, and Modify (as needed) the NOC-Certified CMS Plan:** The regional planning body would have an ongoing responsibility to monitor and assess the effectiveness of the CMS Plan. The regional planning body would adapt the CMS Plan, as necessary, based on relevant changes in ecological, economic, human health, safety, security, or social conditions and information. During implementation, each region would integrate new data and scientific findings to refine regional objectives and their respective goals. As new technologies are developed to observe and monitor ocean, coastal, and Great Lakes environments and their uses, they would be considered for application in regional CMSP monitoring and evaluation efforts.

### *Essential Elements of the CMS Plan*

#### **Essential Elements of the CMS Plan**

- Regional Overview and Scope of Planning Area
- Regulatory Context
- Regional Assessment
- Objectives, Strategies, Methods, and Mechanisms for CMSP
- Compliance Mechanisms
- Monitoring and Evaluation Mechanisms
- Incorporation of the Dispute Resolution Process

CMS Plans are expected to vary from region to region according to the specific needs, capacity, and issues particular to each region. A completed CMS Plan would contain the following essential elements in order to ensure national consistency across regions and certification by the NOC. Scientific data, information, and knowledge, as well as relevant traditional knowledge would underpin each of these essential elements.

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- **Regional Overview and Scope of Planning Area:** The CMS Plan would include a regional overview of the planning area. This overview would include a description of the planning area's ecosystems and their biological, chemical, and physical environments; social, recreational, human health, safety, security, and economic uses; ecological and conservation considerations, including identification of important ecological areas, habitats, flora, and fauna; and other concerns of the region. The overview would describe how the CMS Plan relates to and furthers the National Policy, CMSP national goals and principles, any national objectives developed by the NOC, regional objectives, and other relevant national, regional, State, and other policies. The CMS Plan would also define the geographic scope of the planning area.
- **Regulatory Context:** The CMS Plan would describe the statutes, rules, and regulations relevant to implementing CMSP throughout all levels of government. It would also describe, as appropriate, the principal existing planning processes (e.g., Great Lakes Restoration Initiative Action Plan or State marine spatial plans) that may be relied on or incorporated as part of the regional CMS Plan.
- **Regional Assessment:** The CMS Plan would include a regional assessment, based on environmental, social, economic, and other necessary data and knowledge, describing the existing and predicted future conditions, uses, and characteristics of the ocean, coastal, or Great Lakes areas covered in the CMS Plan. The regional assessment would include: relevant biological, chemical, ecological, physical, cultural, and historical characteristics of the planning area; ecologically important or sensitive species/habitats/ecosystems; and areas of human activities. The assessment would also include an analysis of ecological condition or health and of cumulative risks as well as forecasts and models of cumulative impacts. The regional assessment would explain the information obtained and analyses conducted during the planning process and how they were used to help determine management decisions and plan alternatives.
- **Objectives, Strategies, Methods, and Mechanisms for CMSP:** This section would describe the regional objectives and proposed strategies, methods, and mechanisms for CMSP for the region. It would provide the analysis, evaluation of options, and the basis for the conclusions made in the CMS Plan. It would describe the spatial determinations for conservation and uses, at the appropriate scale, and include any necessary visual representations. The CMS Plan would describe the strategies, methods, and mechanisms for integrated or coordinated decision-making, including addressing use conflicts. The CMS Plan would further describe the continuing processes by which implementation would proceed, including mechanisms to ensure that individual partner and collaborative decision-making are reviewed for consistency with plan priorities and objectives. The CMS Plan would describe continued opportunities for stakeholder and public engagement. It would provide the flexibility needed to accommodate activities and operations in preparation for and response to disasters, emergencies, and similar incidents. The CMS Plan would also consider a regional process for requesting variances and amendments.
- **Compliance Mechanisms:** The CMS Plan would specify mechanisms to enhance coordination and cooperation among decision-makers and promote consistency in each agency's interpretation and application of its respective existing laws and regulations used for implementation and enforcement of CMS Plans.
- **Monitoring and Evaluation Mechanisms:** The CMS Plan would specify the monitoring and evaluation mechanisms, including a reporting mechanism, to be employed to assess the effectiveness of the CMS Plan and identify where and when changes need to be considered. As part of monitoring and evaluation, regional planning bodies would define a clear set of regional performance measures to be used to assess whether or not the region is meeting national and regional objectives and goals.

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Additionally, regional planning bodies would participate in the periodic execution of regional ecosystem assessments to evaluate impacts of management actions from economic, ecological, and social perspectives in order to inform the CMS Plan. Monitoring and evaluation will follow from and build upon the original regional assessment, consistent with national guidance provided by the NOC.

- **Incorporation of the Dispute Resolution Process:** The CMS Plan would incorporate the dispute resolution process, as described in Section X of this Part.

### **XI. The Nature of the Planning Process and National Ocean Council-Certified Coastal and Marine Spatial Plans**

CMSP is intended to provide Federal, State, tribal, and regional bodies, stakeholders, and the public with a meaningful forum within which to develop a plan to better manage multiple sustainable uses, resolve conflicts, and support ecosystem-based management of the ocean, coasts, and Great Lakes in accordance with shared goals, guiding principles, and applicable legal authorities. In this way, regional objectives and national objectives, goals, and guiding principles can be considered in a single, comprehensive, and integrated process. In order to be successful, the outcome of CMSP would have to result in meaningful improvements in the way that Federal, State, tribal, local, and regional bodies, stakeholders, and the public participate in the use and conservation of these areas.

While the goal of this framework is to move toward comprehensive, integrated, flexible, proactive, ecosystem-based CMSP, this would not happen instantaneously. CMSP must be initiated and developed thoughtfully, allowing for time to address the myriad complexities and challenges that would undoubtedly arise as the process moves forward. Moreover, while this framework identifies some of the incentives and benefits for a coordinated Federal, State, tribal, and regional effort and envisions a fully coordinated planning process, there would be substantial flexibility to determine how best to develop and implement CMSP for each particular region. In the event that a particular State or tribe opts not to participate in the development or implementation of a CMS Plan, the development or implementation of the CMS Plan would continue. While this is not optimal because it would not result in a fully integrated CMS Plan, the benefits of coordinated planning among the participating partners warrant its completion.

Development and implementation of CMS Plans would be an iterative process leading to a comprehensive, multi-objective, multi-sectoral plan within the first five years. Since each region may have different drivers and capabilities for CMSP, regions may choose to prioritize initial development and implementation steps. While CMSP should help resolve many use conflicts, it is not realistic to expect that all such conflicts would be resolved. Further, partners might agree not to resolve certain issues in a CMS Plan at a particular time, but rather to acknowledge these issues and indicate how the parties would continue to work on them as part of the iterative CMSP process. Such issues may be resolved as data gaps are filled, new information is developed, or as State or Federal legal authorities are enacted, changed, or updated.





To ensure that CMSP is effective and has a positive overall impact, each partner participating in CMSP would need to commit in good faith to: (1) a cooperative, open, and transparent CMSP process leading to the development and implementation of CMS Plans, acknowledging that each partner may have different authorities and non-discretionary mission objectives that must be fully addressed; (2) ensure that consideration of the National Policy, national CMSP goals, objectives, and principles, and regional CMSP objectives are incorporated into the decision-making process of all the partners consistent with existing statutory, regulatory, and other authorities, and the critical needs of emergency response, and homeland and national security activities; and (3) dispute resolution processes that enable concerns and issues not resolved through the cooperative planning process to be resolved quickly, rationally, and fairly.

Signing onto the CMS Plan would be an express commitment by the partners to act in accordance with the CMS Plan, within the limits of applicable statutory, regulatory, and other authorities, and respecting critical emergency response and homeland and national security needs. Thus, State and Federal regulatory authorities would adhere to, for example, the processes for improved and more efficient permitting, environmental reviews, and other decision-making identified in the CMS Plan to the extent these actions do not conflict with existing legal obligations. State and Federal authorities with programs relevant to the CMS Plan would in a timely manner review and modify programs, as appropriate, to ensure their respective activities, including discretionary spending (e.g., grants and cooperative agreements), adhere to the CMS Plan to the extent possible. State and Federal agencies

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would also be expected to formally incorporate relevant components of the CMS Plan into their ongoing operations or activities consistent with existing law. This may be implemented in a variety of ways. For example, agencies could enter into memoranda of understanding (MOUs) to coordinate or unify permit reviews and decision-making processes. Where existing regulatory or statutory requirements impose constraints on the ability of an agency to fully implement the CMS Plan, the agency would seek, as appropriate, regulatory or legislative changes to fully implement the CMS Plan.

### *Relationship of CMSP to Existing Authorities*

CMSP under this framework would not vest the NOC or regional planning bodies with new or independent legal authority to supersede existing Federal, State, or tribal authorities. Rather, the NOC would facilitate the development of CMSP and provide national context and guidance within which bottom-up, flexible, regionally-based CMS Plans would be developed and implemented. Regional planning bodies would function as convening and planning bodies that comprise Federal, State, and tribal representatives responsible for implementing existing authorities to create a process, and ultimately a plan, to better apply such existing authorities to achieve agreed upon regional goals and objectives.

In and of themselves, CMS Plans, would not be regulatory or necessarily constitute final agency decision-making. However, they are intended to guide agency decision-making and agencies would adhere to the final CMS Plans to the extent possible, consistent with existing authorities, as described in Section XIV of this Part. Adherence to and implementation of the CMS Plan would be the result of a multi-year planning process by which regional planning body members would openly discuss their respective legal authorities, requirements, and processes and how they can be better applied in the CMSP context. Once a CMS Plan is approved, Federal, State, and tribal authorities would implement them through their respective legal authorities. Thus, for example, State permitting decisions remain within the purview and are the responsibility of the relevant State agency, not the NOC, regional planning body, or any of its other members. Also, as described earlier, disputes regarding a specific agency's decisions pursuant to its statutory authority would be addressed through the various procedures and mechanisms available under that authority or other relevant authorities (e.g., Administrative Procedure Act).

One example of the potential relationship between CMSP and existing authorities is the application of CZMA Federal consistency. Since there will be multiple Federal agencies and States involved in any one CMS Plan, the Federal agencies would need to determine how CZMA review would occur as



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Federal agencies adopt the plan. For example, if a State works with the Federal agencies to develop a CMS Plan, the CMS Plan could include measures to ensure that it is consistent to the maximum extent practicable with the enforceable policies of a State's CZMA program. The relevant State could consider potential changes to the State's enforceable policies to achieve agreed upon regional CMSP objectives. Also, a CMS Plan might include CZMA Federal consistency administrative efficiencies so that CZMA review would not be needed for some activities. Finally, if a State incorporates a CMS Plan into its federally approved CZMA program, then it is likely that the CMS Plan would not need a CZMA Federal consistency review.

### *Relationship of CMSP to Existing Regional Entities*

As mentioned above, the regional planning bodies would build upon the efforts of the existing regional governance structures. The regional planning bodies in conjunction with the NOC and the GCC would establish formal mechanisms or consultative processes to engage entities with statutorily-mandated or quasi-regulatory bodies that have an express role in the management and regulation of ocean, coastal, and Great Lakes resources. Specifically, as discussed earlier in Section X, a formal mechanism for consultation with the RFMCs would be incorporated into the CMSP process. In addition, regional planning bodies would coordinate with other existing regional entities and bodies such as Harbor Safety Committees, Regional Aquatic Nuisance Species Panels, and Area Maritime Security Committees, as appropriate.

### *Relationship of CMSP to Existing Plans and Projects*

CMSP is not meant to delay or halt existing or pending plans and projects related to marine and Great Lakes environments or their uses. However, those responsible for making decisions on such plans and projects would be expected to take into account the national CMSP goals and principles, national policies, and any identified national and regional CMSP objectives in future decision-making to the extent possible under existing law. Once a CMS Plan is put into effect following NOC certification, its implementation would be phased in to avoid undue disruption or delay of projects with pending permits or other applications. The NOC would provide additional guidance on how best to accomplish this phased-in approach.

## **XII National Consistency**

### *Certification by the NOC for National Consistency*

The NOC would review each regional CMS Plan to ensure it is consistent with the National Policy, CMSP goals and principles as provided in this framework, any national objectives, performance measures, or guidance the NOC has articulated, and any other relevant national priorities. The NOC's review would ensure that the CMS Plans include all the essential elements described in this framework. The NOC would also consider the CMS Plan's compatibility with an adjacent region's CMS plan regarding issues that cross regional boundaries. Certification by the NOC would not occur until after release of the final CMS Plan for 30 days of public notice. The NOC would review and make a



decision on certification within six months of receipt of the CMS Plan. If a regional CMS Plan does not meet certification requirements, the NOC would work with the regional planning body to address issues with the CMS Plan and could allow for approval of those parts of a CMS Plan that do meet such requirements. Upon certification by the NOC, a decision document adopting the CMS Plan would be co-signed by senior State officials (e.g., Governors), tribal representatives, as appropriate, and senior officials of the Federal agencies represented on the regional planning body. Upon signature by the partners, the CMS Plan would be considered “in effect” and implementation would begin.<sup>12</sup>

### *National CMSP Objectives, Performance Measures, and Guidance*

The NOC would establish national objectives, national outcome-based performance measures, and guidance to promote national consistency in the development and implementation of CMS Plans. Because the intent of CMSP is integration across sectors, the NOC would develop a range of national objectives. These may include: economic, conservation, security, and social objectives. The NOC would also develop national performance measures to evaluate, monitor, and report on progress towards implementing national CMSP objectives. As specified in the *Essential Elements of the CMSP Process* and



the *Essential Elements of the Plan*, regional planning bodies would develop region-specific objectives and associated performance measures, as part of the regional CMSP process. Regional performance measures developed by the regional planning bodies would be used to track improvements towards stated CMS Plan objectives. These regional measures and objectives would be consistent with the nationally established objectives and measures.

Regional and national performance measures should directly relate to the stated national and regional objectives established in the CMSP process. Performance measures would assess both conservation and socio-economic objectives of the CMS Plan. Measures of conservation may include, but are not limited to, indicators of ecosystem health such as the status of native species diversity and abundance, habitat diversity and connectivity, and key species (*i.e.*, species known to drive the structure and function of ecosystems). In addition, socio-economic measures would be developed and may include, but are not limited to: the economic value or productivity of certain economic sectors, such as commercial and recreational fisheries, aquaculture, and offshore energy; the number of recreation days; and the time

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<sup>12</sup> If the NOC does not certify a plan, it would provide to the regional planning body the specific reasons for its decision. The regional planning body would then have continued opportunity to address the NOC’s reasons and resubmit the plan.

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required for permit applications to complete the regulatory process. Performance measures would provide a means of demonstrating results of and provide accountability for the CMSP process to stakeholders, the general public, and decision-makers.

The NOC would develop guidance in conjunction with the regional planning bodies for regional objectives and concomitant performance measures to ensure that they are cost-effective, measurable, interpretable, grounded in theory, responsive, and specific. The NOC would develop consistent guidance for these ecological and socio-economic approaches and tools to assist regional planning bodies in these efforts in order to provide for nationally applicable common scales of assessment. This will ensure that regional planning bodies are given the independence and flexibility to develop regionally meaningful objectives and measures, but also assure that regional measures and reporting are consistent with a national CMSP performance system.

### **XIII. Consistency with International Law**

CMS Plans would be implemented in accordance with customary international law, including as reflected in the Law of the Sea Convention, and with treaties and other international agreements to which the United States is a party. Seaward of the baseline, development and implementation of CMS Plans are to be consistent with the extent to which the United States exercises its rights and jurisdiction and performs duties in its territorial sea, EEZ, and Continental Shelf. CMS Plans would not change the rights, duties, and jurisdiction of the United States under international law, including with respect to navigational rights and freedoms. Nothing in this document or in CMS Plans developed pursuant to it would create private rights of action or other enforceable individual legal rights regarding the meaning and applicability of international law.

### **XIV. Adherence to and Compliance with National Ocean Council-Certified Coastal and Marine Spatial Plans**

Signatories and all NOC member agencies would adhere to a NOC-certified CMS Plan, within the limits of their existing statutory and regulatory authorities. If a signatory intends to take an action that does not substantially adhere to a certified CMS Plan, it would need to provide advance notice to the regional planning body and the NOC, including justification (e.g., new statutory requirement) for the non-adherence. The CMS Plan signatories and the NOC would periodically evaluate the reasons requiring deviation from a NOC-certified CMS Plan, and, as appropriate, develop recommendations for minimizing these deviations in the future, including CMS Plan modification or underlying regulatory or statutory changes. Disputes regarding agency interpretation of a CMS Plan would be resolved according to the dispute resolution process developed by the NOC, as described above.

Agencies would incorporate components of the CMS Plan into their respective regulations to the extent possible. Adherence with CMSP would be achieved through Federal and State agencies and tribal authorities incorporating CMS Plans into their pre-planning, planning, and permitting processes, to the extent consistent with existing laws and regulations. The CMS Plan signatories would periodically

review these processes, and where legal constraints are identified, would seek to remedy these constraints, including by working with the NOC to evaluate whether a legislative solution or changes to regulations are necessary and appropriate.

The effectiveness of the CMSP process depends, in-part, on the willingness and the ability of Federal, State, and tribal authorities to ensure that activities of third-parties are in compliance with relevant laws and regulations. The Nation would not achieve the benefits of comprehensive and integrated CMSP if there were inconsistent use or violation of the applicable laws and regulations. Successful enforcement, carried out by agencies exercising their individual enforcement authorities and responsibilities, must be based upon clear, concise, and easily understood requirements that reflect the practical realities of compliance and enforcement.

CMS Plans would provide a framework for improved coordination and cooperation among Federal, State, tribal, and local enforcement agencies as they work together to enforce existing regulations in accordance with their respective authorities in support of regional goals that often extend beyond individual agency jurisdictions. To the extent permitted by existing laws and regulations, this cooperative regional approach should build productive partnerships that encourage sharing of information and best practices, help foster mutually agreed upon enforcement priorities and strategies, and make more effective use of scarce enforcement resources by focusing those resources on the highest regional enforcement priorities. A cooperative enforcement approach for Federal, State, and tribal CMSP-related laws could also facilitate more consistent interpretation and application of regulations across agencies and jurisdictions, resulting in greater certainty and understanding for ocean, coastal, and Great Lakes users, which in turn could foster improved compliance and overall effectiveness. The NOC and CMS Plan signatories would periodically review enforcement effectiveness and seek to remedy any conflicts or gaps in existing Federal-State-tribal coordinated enforcement mechanisms.

### **XV. Scientific Knowledge and Data Integration, Research, Management, and Access**

CMSP is fundamentally science-based and adaptive in response to new evidence, technology, and understanding. Essential to CMSP are scientific knowledge and data, collectively referred to here as *information*. Information is necessary to comprehensively, consistently, and continually investigate, assess, forecast, and analyze human uses, ecosystem conditions, management alternatives, information and data gaps, and CMS Plan effectiveness. Reflecting our long history of ocean science and exploration, the United States holds vast stores of natural and social science information about ocean, coastal, and Great Lakes ecosystems and their uses which can immediately be used to begin informing CMS Plan development. However, data and knowledge gaps, particularly regarding the complexities of these ecosystems, human use patterns, and the relationship between the two, indicate the need for continuing research to supplement existing information, especially in the context of changing environmental conditions and societal needs. Additional CMSP research will provide new information, including on specific and cumulative effects, ecosystems processes and resiliency, and the assessment and valuation of ecosystem services.

Relevant and credible information is critical for successful planning and, in turn, must be accessible to Federal, State, and local managers, tribes, academics, the private sector, and the public. A robust national information management system dedicated to coastal and marine scientific data and information products is required to meet the diverse data and application requirements of CMSP, and the varying technical capabilities of users. The NOC, working with the regional planning bodies, would create a system that is compatible with existing Federal information systems, captures relevant Federal information resources, has effective governance and accountability across agencies, and preserves data confidentiality, where appropriate. The NOC would leverage and build upon existing national data systems and initiatives (e.g., ocean observation), where appropriate. Within this construct, Federal agencies and the other regional partners would make relevant data, metadata, and derived products available and web accessible using recognized national and international standards and protocols to the extent permitted by law and regulation. In addition, State agencies, tribes, academia, the private sector, stakeholders, and other non-governmental sources would be encouraged to make their relevant information and knowledge, including local and traditional knowledge, available through this system. Exceptions would include sensitive but unclassified information that cannot be synthesized and modified into a format that is appropriate for broader distribution, pursuant to CMSP needs and information that is proprietary, statutorily confidential, or classified information.

### **Principles to Manage and Disseminate CMSP Information**

- CMSP information is a national strategic asset and must be developed and managed on an ongoing basis to meet planning needs.
- CMSP information would be made available and accessible with nationally compliant “information about information” (i.e., metadata) to stakeholders.
- Federal agencies would improve metadata to make information easier to discover, retrieve, use, and manage.
- CMSP information that is collected, produced, or disseminated by Federal agencies, including information obtained from non-Federal sources, would meet government-wide information quality standards, and any other additional minimum standards adopted by the NOC.

To provide easy user access to agency CMSP-related information, a national information management system with either a central portal or regional portals that connect to CMSP information would be developed. The NOC would identify a Federal lead agency or collaborative entity to manage, implement, and update the CMSP portal(s) and components of the information management system. System interoperability, information exchange, and information and application technologies are intrinsically linked and would be developed and implemented together within the CMSP portal(s). To ensure national consistency, minimum data standards for CMSP information would be adopted and include standards for information quality. All information management and provision activities would be developed and updated with participation from existing and appropriate Federal data centers and initiatives. The NOC would ensure that the information is publicly available and easy-to-access

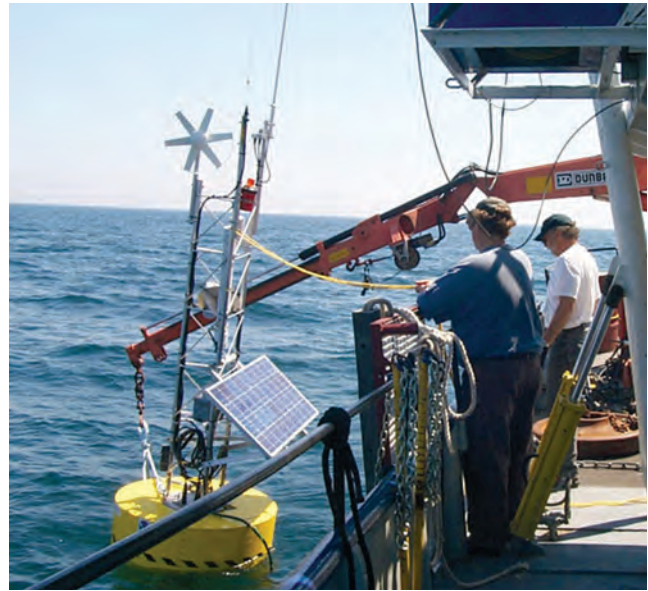


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through computer readable files and web service formats that support a variety of CMSP and user needs. This could include web browsers, geospatial web services, and other web-based collaborative resources. The CMSP portal would leverage emerging web technologies, including private sector partnerships, to increase transparency and promote public engagement.

In order to build upon the existing CMSP scientific foundation, the NOC would establish mechanisms to identify and address priority CMSP science needs. This would include identification of priority CMSP research, data acquisition and information synthesis gaps, and new tools that would be required to apply science more effectively in the CMSP process. Identification of data, information, and research needs would be conducted on a regular basis as part of the adaptive and iterative process to improve the development and application of CMSP over time.

Additionally, nationally consistent, derived data products, ranging from consistent habitat maps as data layers to specialized decision-support tools, would be developed to provide a consistent framework for regional assessments and alternative future spatial management scenarios. The NOC may provide further guidance for using such information in decision-making, for example, how to decide which areas are of particular ecological importance or value. Designed or adapted specifically for CMSP, these science-based decision-support tools, including models, assessments, and visualization capabilities,

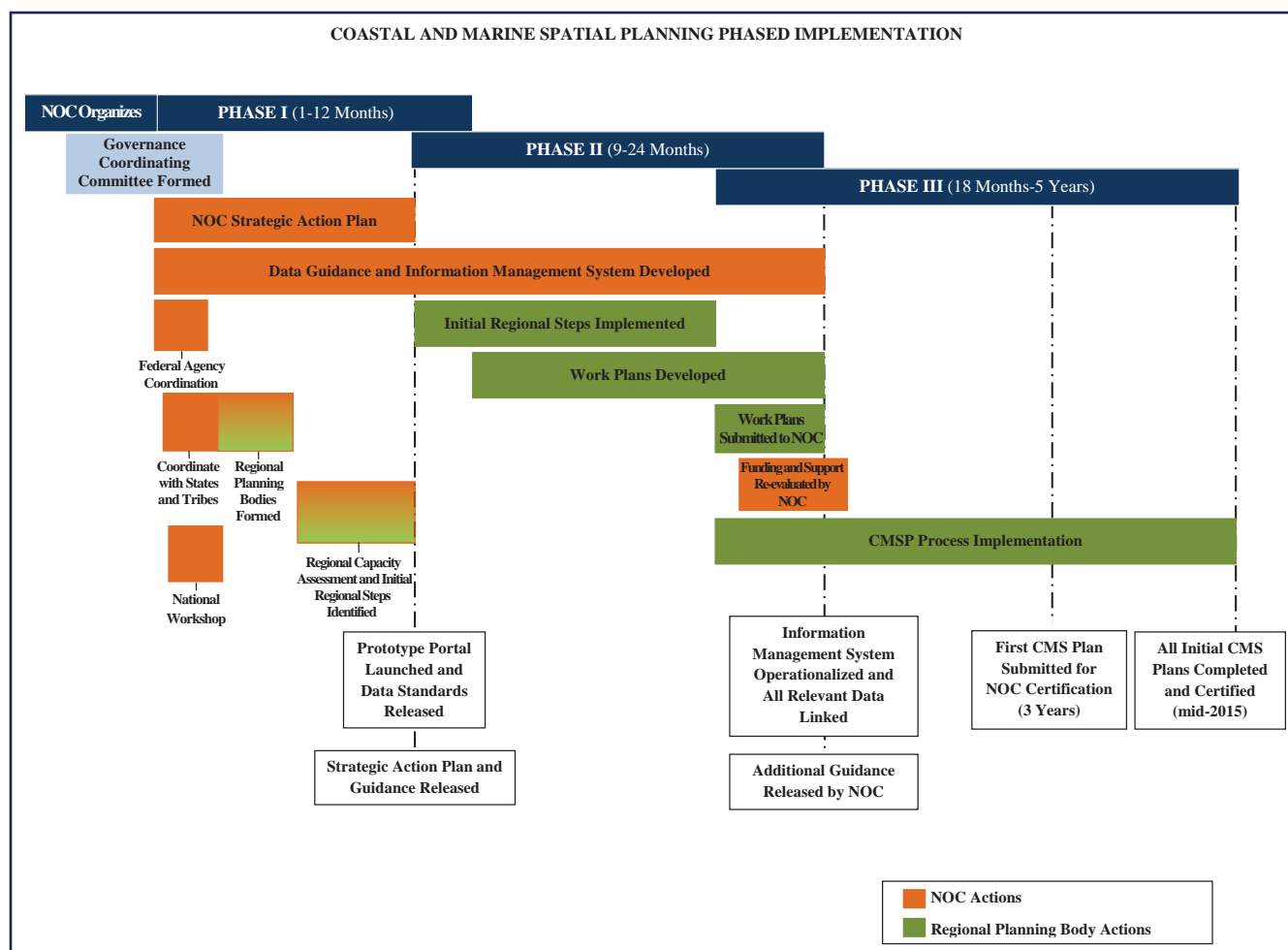




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would enable the regional planning bodies to synthesize information most relevant to CMSP decisions in ways that produce robust comprehensive CMS Plans. These tools would offer a shared knowledge base for meaningful stakeholder engagement, objective assessment of alternative and future scenarios, identification of the types of uses that are consistent with societal objectives, and regular evaluation of CMS Plans. They would be developed and made accessible in a way that regional and State efforts could build upon or add regional specific data and information to leverage these efforts and analyze the regionally-specific aspects of their planning within the broader national framework.

## XVI. Implementation



Implementation of this framework would occur in multiple phases through the NOC and among the regions. As a first step, the NOC would undertake initial actions to develop and build a foundation for the national CMSP efforts. Concurrently, the NOC would directly engage States and tribes to discuss cooperative strategies to move forward with CMSP. Recognizing the extensive scope of the task of developing and implementing CMSP, it is important for Federal, State, tribal, and other partners to prioritize efforts in this initial implementation period. Each of the regions could have different priorities and be at varying stages in the development of the data, analyses, and the relevant issues for

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policy-makers. With these differences in mind, the phased approach outlined below would enable the NOC and the regions sufficient time to develop capacity, build on existing efforts, and leverage and gain efficiencies from lessons learned. In order to best achieve the completion of CMS Plans in all regions by 2015, the NOC would have the flexibility to make minor adjustments or modifications to this implementation schedule.

### *Phase I (1-12 months)*

Many of the actions the NOC and State, tribal, and regional representatives commence in Phase I would serve as the foundation to implement CMSP on a national scale.

#### Develop NOC Internal Organization and Begin Strategic Action Plan (Months 1-9)

In the first month of Phase I, building on the initial establishment and organization period of the NOC, the NOC would determine how best to incorporate CMSP into the NOC governance structure (e.g., establish a CMSP Interagency Policy Sub-Committee), decide on the roles of individual agencies in implementing specific elements of the CMSP framework, including identification of a lead Federal agency for each regional planning body that would serve with non-Federal co-lead(s), and assess resource needs including personnel, financial, and technical CMSP support.

The NOC would then begin development of a strategic action plan to address specific areas that require additional consideration, analysis, and elaboration. The strategic action plan would be released in six to nine months and include: national objectives; national performance measures; guidance regarding the development of a national information management system, including identification of additional CMSP information and research needs; legal analysis and recommendations for legislative changes, if necessary; description of a dispute resolution mechanism, as described previously; and any additional guidance the NOC deems appropriate for CMSP. The NOC would also further assess the relationship between RFMCs and regional planning bodies and determine the most effective mechanism for engagement in the CMSP process, including whether representation on the regional planning bodies is the best method for such engagement. The NOC would ensure opportunity for the GCC, existing regional governance organizations, and public participation as it develops the strategic action plan for coastal and marine spatial planning. The NOC, in cooperation with the GCC, would provide for a mechanism for resolving disputes if they occur among the members of the regional planning bodies during the development of CMS Plans, as described in Section X of this Part.

#### *Develop and Implement Public and Stakeholder Engagement*

Early and meaningful steps to facilitate public and stakeholder outreach and education regarding CMSP and its implementation are vital to advance national CMSP efforts. As discussed above, the NOC would ensure substantial opportunity for public participation as it develops all nine strategic action plans, including the strategic action plan for coastal and marine spatial planning. Also, to better inform all participants and the public, the NOC would work with Federal agencies and the regional planning bodies, when established, to guide the drafting and production of educational materials, guidebooks,

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manuals, and other materials. These materials would be developed keeping in mind that the content should reflect the issues, language, and methods that would be meaningful in a particular region. These materials would include a glossary of key CMSP terms in order to reduce potential misunderstandings that could result in an inconsistent or ineffective CMSP process. The NOC, in coordination with the regional planning bodies, when established, would hold additional informational workshops for stakeholders to discuss the CMSP process and potential ways stakeholder participation would take place. Additional stakeholder engagement would be conducted by the regional planning bodies throughout the CMSP process.

### *National Objectives and National Performance Measures*

As part of the strategic action plan, the NOC would establish national objectives for CMSP consistent with, and in furtherance of, the National Policy, CMSP goals and principles, and other relevant national goals and priorities. These national objectives would serve as additional direction for the development of regional objectives and to help to maintain national and regional consistency of CMSP. Along with these objectives, national outcome-based performance measures would be established to help define success and measure results.

### *Guidance Regarding the Development of a National Information Management System*

While overarching objectives and measures would help direct CMSP efforts, guidance on data, technology, and tools would also be developed. During the first six to nine months, initial actions to coordinate, integrate, and manage data would be necessary. The NOC would begin development of a national information management system and CMSP portal(s), adopt minimum data standards consistent with government-wide information quality standards, identify a Federal lead agency or entity to manage, implement, and update the CMSP portal(s), identify and begin development of any new standard tools or models needed for CMSP in all regions, and identify additional CMSP information and research needs. At the end of nine months, guidance on these fundamentals would be released as part of the strategic action plan and a prototype CMSP portal(s) would be operational. However, building the information management system and linking the relevant data may take up to two years and would be ongoing as new information becomes available.

### *Legal Analysis and Recommendations of Legislative Changes, if Necessary*

Also, as part of the strategic action plan, the NOC would oversee efforts to identify gaps and conflicts in Federal authorities and recommend potential steps to reconcile them. This effort would examine how various statutory authorities of particular agencies can be harmonized in order to support comprehensive, integrated CMSP. Further, the NOC would consider how legal authorities of Federal, State, tribal, and local entities might collectively be used to support implementation of regional CMSP efforts. In doing so, the NOC should identify objective priorities and existing grant or other assistance programs that can support CMSP, consistent with relevant authorities.

## FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

### Convene and Organize Federal Agency Representatives in the Regions (Months 1-2)

National and regional Federal agency representatives would convene to discuss current and improved methods for communicating, sharing data and products, exploring regulatory efficiencies, and determining how best to work with State and tribal partners to achieve a CMS Plan. Due diligence is necessary on the part of the Federal community to self organize and coordinate among agencies before engaging State and tribal partners to ensure that a service is being provided in a way that meets considerations unique to each region.

### Develop Model Agreement (Months 1-3)

During the first three months of Phase I, the NOC would create and make available a model development agreement to be used by the regional planning bodies. This model would be used to foster efficiency and consistency in forming the regional planning bodies. As described in Section X of this Part, the development agreement would be an express commitment to work cooperatively to engage in CMSP and develop eventual CMS Plans, identify the lead representatives for each of the partners, and define ground rules, roles, and responsibilities of the partners.

### Organize and Convene a National Workshop(s) and CMSP Simulation Exercise (Months 2-4)

Within the initial two to four months of Phase I, the NOC would also organize and convene, with input from the GCC, one or more workshops and a CMSP process simulation exercise for potential regional planning body representatives. The workshop(s) would be a forum to directly engage Federal, State, and tribal representatives, to give an overview of CMSP and the national framework, to demonstrate and test how this framework would work in a planning exercise, and to discuss collaborative strategies to move forward. The NOC would identify lessons learned and additional operational issues that were brought to light from the workshop(s) and exercise within two months of workshop completion.

### Determine Composition of and Establish Regional Planning Bodies (Months 4-6)

After the workshop and exercise are held, the NOC, with advice from the GCC, would determine the additional types of representation needed for the composition of the regional planning bodies. Once the composition of the regional planning bodies is determined, the NOC would coordinate with the appropriate State authorities (e.g., Governors) and tribal representatives to establish regional planning bodies for each of the nine regions, identify specific members, and enter into a development agreement.

### Capacity Assessment and Identification of Initial Regional Steps (Months 6-12)

During the latter six to twelve months of Phase I, the regional planning bodies would conduct a regional CMSP capacity assessment. The assessment would evaluate capabilities, expertise, and resources in each region available to develop and implement CMSP. In addition, the assessment would help to identify and prioritize initial regional steps described below in Phase II. The NOC, in coordination with the regional planning bodies, would make a determination on how best to meet the needs identified in the capacity assessment and to support the initial regional steps through existing mechanisms, and possibly new resources and/or funding mechanisms.

# FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

## Develop Stakeholder and Scientific Participation Process (Months 6-18)

During Phase I, each regional planning body would begin to identify key stakeholders, scientific and technical experts, non-governmental organizations, and other partners to engage in the CMSP process. A formal mechanism for regular stakeholder, scientific, and technical input would be established and incorporated into the process. Additionally, regional planning bodies, in conjunction with the NOC, would establish procedures and methods to ensure transparency, participation, and collaboration in the planning process, such as public meetings, document availability, and timely public notification.



## ***Phase II (9-24 months)***

Building on Phase I's initial foundational steps of CMSP implementation, Phase II focuses on building capacity and testing specific issues or elements of the process.

### Initial Regional Steps (Months 9-18) and Work Plan Development (Months 12-24)

During Phase II, the NOC would enable the regions to focus during the initial work plan development period on those issues that are of highest regional priority. In this way, these early steps in each region can serve as a test for the other regions for specific issues. For example, a region may select to begin CMSP efforts by organizing, gathering, and analyzing data, whereas another region may select to focus on developing regional CMS Plan objectives. The focus for each region's initial steps should be agreed upon after the capacity assessment is completed at the end of Phase I. After the initial regional steps are underway, the regional planning bodies would begin development of a full CMSP work plan, as detailed in Section X of this Part. In development of its work plan, each regional planning body should integrate the lessons learned from its and other regions' initial steps and also consider how to best integrate relevant ongoing regional planning initiatives.

### Work Plan Submittal and Planning Process Preparation (Months 18-24)

Once initial regional steps are completed or in tandem with their completion, the regional planning bodies would submit to the NOC a package consisting of the proposed work plan. Once the work plan is submitted, the NOC would re-evaluate how best to support the regional CMSP effort through existing mechanisms, and possibly new resources or funding mechanisms to build on the lessons learned from the initial regional CMSP steps. For example, support might involve individual agencies



contributing staff or technical expertise to efforts coordinated through the NOC, or identifying existing grant programs to help support CMSP and achieve mutually agreed upon outcomes.

### ***Phase III (18 months to 5 years)***

While continuing to advance the actions and steps of Phases I and II, regional planning bodies would build out and scale up their efforts to establish a comprehensive CMSP process during Phase III to develop, multi-objective, multi-sectoral CMS Plans in all regions.

#### Develop and Carry Out CMSP Process and Provide Feedback from Initial Regional Steps (Months 18 and beyond)

After the initial regional steps are undertaken by each region, the regional planning bodies would transition into Phase III, developing and carrying out a CMSP process using the initial regional steps and the work of the NOC as a foundation. There is recognition that some regions' planning processes might be longer or more complicated than others. The timeframes for completion of the CMSP process are intended to be flexible to account for differing levels of resources, capacity, and other factors. During this process, regional planning bodies, in coordination with the NOC, would develop a mechanism for providing feedback and status reports to the NOC and appropriate State and tribal leadership to share lessons learned, best practices, and ensure routine and frequent communication nationally and among the regions. The regional planning bodies, in coordination with the NOC, would also ensure consistency, address questions and concerns, and adaptively manage the effort as appropriate. Although there would be flexibility in the framework to allow for variable CMSP process timeframes, regional planning bodies are encouraged to have final CMS Plans completed in three years and all regions would be expected to have final CMS Plans certified and implementation started by mid-2015. These final CMS Plans are intended to be iterative and are expected to be modified through the adaptive process beyond 2015.

## **XVII. Priorities for Financial and Other Support**

Recognizing the reality of the limited availability of new resources, each of the Federal agencies engaged in this bold mission of developing and implementing CMSP would re-evaluate how resources are allocated in light of their statutory and regulatory mandates. Agencies would use the implementing actions of the President to recommend adjustments to their respective agency priorities to better align with the approved National Policy and CMSP goals. As CMSP is developed and implemented over time, the NOC would consider any additional resource needs through the budget prioritization process described earlier. Various Federal agencies would have differing roles to support the scientific basis and governance structures necessary to develop and implement CMSP. The following four areas should receive initial priority consideration for financial and other support for CMSP.

### 1. National Workshop(s) and Simulation Exercise

Priority: Hold a national workshop(s) and simulation exercise.

## FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

Rationale: The first step towards a constructive process for CMSP would be for the participants to engage in a forum that creates a common vision for implementing CMSP, to identify challenges and solutions for regional CMSP development, and to enhance the capacity of regions to implement CMSP. This priority also would include support to ensure widespread involvement of Federal, State, and tribal representatives.

### 2. Initial Support for Regional CMSP Processes

Priority: Support the development of regional CMSP, including the capacity for regional planning bodies and the NOC to carry out initial CMSP activities.

Rationale: A comprehensive and inclusive approach for regional CMSP planning processes would be based on each region engaging Federal, State, and tribal representatives to form the regional planning bodies. An effective process to sustain initial CMSP activities would necessitate regional planning bodies to organize and establish the necessary CMSP coordination (e.g., partnerships, interagency teams, and technical support staffing). To attain national and regional objectives, regional planning bodies would assess capacities, target resources, and begin implementing initial regional steps (e.g., stakeholder engagement, information acquisition, and CMS Plan development). This priority would also include support for the NOC to establish and carry out the necessary national CMSP steps (e.g., national objectives, national guidance, and building regional capacities), as described in Section XVI of this Part.

### 3. National Data and Information Management System, Prototype CMSP Portal(s) and Initial Development of Science and Information Needs

Priority: Improve and integrate the information (i.e., data and knowledge) used to inform CMSP; and identify additional scientific research to support CMSP information needs.

Rationale: Effective CMSP would utilize the best available data and objective analyses. Such information would be nationally consistent, publicly available, and easily accessible to promote public engagement and allow for a consistent framework for regional implementation. Priority would be given to developing the national information management system and a prototype CMSP data portal(s). Subsequent efforts would identify and fill key national information needs,<sup>13</sup> and develop CMSP decision-support tools and derived data products, including visualization tools, forecasting, and routine integrated ecosystem assessments. Additionally, scientific understanding is central to make informed CMSP decisions that reflect an integrated and transparent planning framework. To achieve this end would require a robust research foundation.

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<sup>13</sup> Identification and filling information gaps, as previously presented in the framework, is an ongoing and iterative process. This framework recognizes that the acquisition of data and knowledge would proceed in tandem with developing CMS Plans using sound science and the best available information.

# FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

## 4. Public Outreach and Stakeholder Engagement

Priority: Build the knowledge, skills, and understanding of CMSP through regional planning bodies and stakeholder workshops, blogs, webinars, and other outreach methods.

Rationale: An informed and engaged public and stakeholder community is critical to the effective implementation of the CMS Plans. Effective CMSP is predicated on the building of knowledge, skills, and understanding of CMSP through a range of robust outreach approaches.





## PART FIVE. CONCLUSION



In response to President Obama's June 12, 2009 memorandum, and after careful consideration of thousands of valuable comments from political leaders, public and private organizations, and citizens, the Task Force is pleased to submit these final recommendations for a comprehensive national ocean policy, an improved governance structure, a targeted implementation strategy, and a framework

for effective coastal and marine spatial planning. Once implemented, these final recommendations will provide the first-ever comprehensive national policy of the United States to improve stewardship of the ocean, our coasts, and the Great Lakes.

The Task Force is unanimous in its call for the Nation to set a new course for improved stewardship of the ocean, our coasts, and the Great Lakes. This must include a comprehensive, integrated, transparent, science-based, and ecosystem-based planning process to achieve the sustainable uses of the ocean, our coasts and the Great Lakes. The Task Force is mindful that these recommendations may create a level of uncertainty and anxiety among those who rely on these resources and may generate questions about how they align with existing processes, authorities, and budget challenges. The NOC will address questions and specifics as implementation progresses. Meaningful and frequent opportunities for stakeholder and public engagement throughout the implementation of the National Policy and implementation of coastal and marine spatial planning will be an essential component of cooperatively addressing these uncertainties head-on, and the Task Force recommendations embrace this approach. The Task Force is confident that the investments and improvements described in these final recommendations will advance the economic interests of the United States through sustainable and productive ocean uses; significantly improve our capacity to address the long-term challenges and impacts of climate and environmental changes; and provide a lasting foundation for further enhancing the many vital benefits our Nation can derive from these areas.

With a clear National Policy and a revitalized, empowered, unified, and comprehensive framework to coordinate efforts set forth in these recommendations, we can achieve an America whose stewardship ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured so as to promote the well-being, prosperity, and security of present and future generations.

# FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

## APPENDIX A.

### PRESIDENTIAL MEMORANDUM ON A NATIONAL POLICY FOR THE OCEAN, OUR COASTS, AND THE GREAT LAKES

THE WHITE HOUSE

Office of the Press Secretary

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For Immediate Release

June 12, 2009

June 12, 2009

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: NATIONAL POLICY FOR THE OCEANS, OUR COASTS,  
AND THE GREAT LAKES

The oceans, our coasts, and the Great Lakes provide jobs, food, energy resources, ecological services, recreation, and tourism opportunities, and play critical roles in our Nation's transportation, economy, and trade, as well as the global mobility of our Armed Forces and the maintenance of international peace and security. We have a stewardship responsibility to maintain healthy, resilient, and sustainable oceans, coasts, and Great Lakes resources for the benefit of this and future generations.

Yet, the oceans, coasts, and Great Lakes are subject to substantial pressures and face significant environmental challenges. Challenges include water pollution and degraded coastal water quality caused by industrial and commercial activities both onshore and offshore, habitat loss, fishing impacts, invasive species, disease, rising sea levels, and ocean acidification. Oceans both influence and are affected by climate change. They not only affect climate processes but they are also under stress from the impacts of climate change. Renewable energy, shipping, and aquaculture are also expected to place growing demands on ocean and Great Lakes resources. These resources therefore require protection through the numerous Federal, State, and local authorities with responsibility and jurisdiction over the oceans, coasts, and Great Lakes.

To succeed in protecting the oceans, coasts, and Great Lakes, the United States needs to act within a unifying framework under a clear national policy, including a comprehensive, ecosystem-based framework for the longterm conservation and use of our resources.

In order to better meet our Nation's stewardship responsibilities for the oceans, coasts, and Great Lakes, there is established an Interagency Ocean Policy Task Force (Task Force), to be led by the Chair of the Council on Environmental Quality. The Task Force shall be composed of senior policy-level officials from the executive departments, agencies, and offices represented on the Committee on Ocean Policy established by section 3 of Executive Order 13366 of December 17, 2004. This Task Force is not meant to duplicate that structure, but rather is intended to be a temporary entity with the following responsibilities:

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1. Within 90 days from the date of this memorandum, the Task Force shall develop recommendations that include:

a. A national policy that ensures the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhances the sustainability of ocean and coastal economies, preserves our maritime heritage, provides for adaptive management to enhance our understanding of and capacity to respond to climate change, and is coordinated with our national security and foreign policy interests. The recommendations should prioritize upholding our stewardship responsibilities and ensuring accountability for all of our actions affecting ocean, coastal, and Great Lakes resources, and be consistent with international law, including customary international law as reflected in the 1982 United Nations Convention on the Law of the Sea.

b. A United States framework for policy coordination of efforts to improve stewardship of the oceans, our coasts, and the Great Lakes. The Task Force should review the Federal Government's existing policy coordination framework to ensure integration and collaboration across jurisdictional lines in meeting the objectives of a national policy for the oceans, our coasts, and the Great Lakes. This will include coordination with the work of the National Security Council and Homeland Security Council as they formulate and coordinate policy involving national and homeland security, including maritime security. The framework should also address specific recommendations to improve coordination and collaboration among Federal, State, tribal, and local authorities, including regional governance structures.

c. An implementation strategy that identifies and prioritizes a set of objectives the United States should pursue to meet the objectives of a national policy for the oceans, our coasts, and the Great Lakes.

2. Within 180 days from the date of this memorandum, the Task Force shall develop, with appropriate public input, a recommended framework for effective coastal and marine spatial planning. This framework should be a comprehensive, integrated, ecosystem-based approach that addresses conservation, economic activity, user conflict, and sustainable use of ocean, coastal, and Great Lakes resources consistent with international law, including customary international law as reflected in the 1982 United Nations Convention on the Law of the Sea.

3. The Task Force shall terminate upon the completion of its duties.

The Task Force's recommendations and frameworks should be cost effective and improve coordination across Federal agencies.

This memorandum covers matters involving the oceans, the Great Lakes, the coasts of the United States (including its

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# FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

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territories and possessions), and related seabed, subsoil, and living and non-living resources.

This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person. Nothing in this memorandum shall be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, regulatory, and legislative proposals.

The Chair of the Council on Environmental Quality is hereby authorized and directed to publish this memorandum in the *Federal Register*.

BARACK OBAMA

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# FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE

## APPENDIX B. INTERAGENCY OCEAN POLICY TASK FORCE MEMBERSHIP LIST

### Task Force Chair

#### White House Council on Environmental Quality

Nancy Sutley  
Chair

#### **Department of Agriculture**

Robert Bonnie  
Senior Advisor to the Secretary

#### **Department of Commerce**

Dr. Jane Lubchenco  
Undersecretary for Oceans and Atmosphere  
NOAA Administrator

#### **Department of Defense**

Vice Admiral James Houck  
Judge Advocate General of the Navy

#### **Environmental Protection Agency**

Peter Silva  
Assistant Administrator for Water

#### **Department of Energy**

David Sandalow  
Assistant Secretary for Policy and International  
Affairs

#### **Federal Energy Regulatory Commission**

John Katz  
Deputy Associate General Counsel

#### **Department of Health and Human Services**

Dora Hughes  
Counselor for Science & Public Health

#### **Department of Homeland Security**

Admiral Thad Allen  
Commandant, U.S. Coast Guard

#### **Department of the Interior**

Laura Davis  
Associate Deputy Secretary

#### **Office of the Joint Chiefs of Staff**

Major General Darren McDew  
Vice Director for Strategic Plans and Policy,  
Joint Staff

#### **Department of Justice**

John Cruden  
Acting Assistant Attorney General,  
Environment and Natural Resources Division

#### **Department of Labor**

Megan Uzzell  
Senior Advisor to the Secretary

#### **National Aeronautics and Space Administration**

Dr. Michael Freilich  
Director of the Earth Science Division

#### **National Security Council**

Ed Fendley  
Director for International Environmental  
Issues

#### **National Science Foundation**

Timothy Killeen  
Assistant Director for the Geosciences

#### **Department of the Navy**

Robert Work  
Under Secretary of the Navy

#### **Department of State**

David Balton  
Deputy Assistant Secretary for Oceans and Fisheries

#### **Department of Transportation**

Katie Thomson  
Counselor to the Secretary of Transportation

#### **Office of the Vice President**

Terrell McSweeney  
Deputy Assistant to VP & Domestic Policy Advisor

#### **White House Office of Energy and Climate Change**

Jody Freeman  
Counselor for Energy and Climate

#### **White House Office of Information and Regulatory Affairs**

Michael Fitzpatrick  
Associate Administrator

#### **White House Office of Management and Budget**

Sally Ericsson  
Associate Director for Natural Resource Programs

#### **White House Office of Management and Budget**

Xavier Briggs  
Associate Director for General Government Programs

#### **White House Office of Science and Technology Policy**

Shere Abbott  
Associate Director of Environment

## APPENDIX C. PUBLIC ENGAGEMENT

Below is a description of the methods and summary results from the Task Force's public engagement process. In addition, included is a summary of key public comments and how they were addressed by the Task Force in the Final Recommendation.

### I. Overview

The Task Force carried out a public engagement process throughout the 180-day period to receive input for consideration as it developed these recommendations. This builds on the comprehensive reports of the U.S. Commission on Ocean Policy and the Pew Oceans Commission, which were based on significant scientific, public, and stakeholder input. CEQ, on behalf of the Task Force, organized and hosted thirty-eight expert roundtables to hear from a broad range of stakeholders and interest groups. The roundtables included representatives from sectors including energy, conservation, recreational fishing, commercial fishing, transportation, agriculture, human health, State, tribal, and local governments, ports, recreational boating, business, and national and homeland security. Task Force representatives attended each roundtable. There was robust participation and the Task Force received many valuable comments and perspectives for its consideration during each session.

On behalf of the Task Force, CEQ also set up a website to accept public comments. The Task Force received approximately five thousand comments from a range of affected parties, including academia, citizens, commercial and recreational interests, non-governmental organizations, and States, tribes, and regional governance structures. Many of the groups commenting represented constituencies of hundreds or thousands of members.

Additionally, the Task Force hosted six regional public meetings with over two thousand public participants, in which Task Force members were available to answer questions and the public was able to voice their concerns and opinions. These meetings took place in the following regions: Alaska (held in Anchorage, Alaska, August 21, 2009); West Coast (held in San Francisco, California, September 17, 2009); East Coast (held in Providence, Rhode Island, September 24, 2009); Pacific Islands (held in Honolulu, Hawaii and via satellite link, September 29, 2009); Gulf Coast (held in New Orleans, Louisiana, and via interactive video link October 19, 2009); and Great Lakes (held in Cleveland, Ohio, October 29, 2009).

The public meetings, roundtables, and website showcased a strong desire and enthusiasm among participants for a national policy that provides clarity and direction regarding how the Nation will better care for the ocean, our coasts, and the Great Lakes. A valuable and wide diversity of interests were represented, and several key themes emerged. While not exhaustive, these include:

- Support for adopting ecosystem-based management as a guiding principle, acknowledging regional differences, and practicing adaptive management in light of concerns about competing uses and growth of industrial uses;

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- Support for embracing science-based decision-making and investing in ecosystem-based science, research, ocean observations, and mapping including comprehensive research on the linkages among ecosystem health, human health, economic opportunity, national and homeland security, social justice, and environmental change, including climate change;
- Desire for improved coordination and collaboration across Federal, State, tribal, and local governments, and regional governance structures, and for improved transparency and public participation, while avoiding new layers of bureaucracy and unnecessary costs;
- Support for improving both formal and informal education about the ocean, our coasts, and the Great Lakes;
- Support for ensuring that policies are adequately funded; and
- Support for joining the 1982 United Nations Convention on the Law of the Sea (the Law of the Sea Convention).

### **II. Summary of Public Comments on the Interim Report of the *Interagency Ocean Policy Task Force* and on the *Interim Framework for Effective Coastal and Marine Spatial Planning***

The Task Force reviewed the public comments received in response to the *Interim Report* and *Interim Framework* and determined whether substantive comments were adequately addressed, merited further consideration and resulting changes, or were more suited for further consideration by the National Ocean Council (NOC), if established, as it implements the National Policy, if adopted.

#### *Comments on the Interim Report of the Interagency Ocean Policy Task Force*

Substantive comments on the Interim Report ranged from general support for a national policy and improved Federal coordination, to concerns over the process, and concerns that the Interim Report did not adequately account for economic uses of the ocean, our coasts, and the Great Lakes, or specifically mention the benefits of certain types of activities. There also were comments on governance, and numerous specific comments on the nine priority objectives of the implementation strategy, and other specific recommendations (e.g., reauthorize certain laws). The following summarizes some of the key substantive comments received and how the Task Force addressed them:

##### 1. Overall Tone and Balance

Comments have suggested that the balance between conservation and ocean uses in the report was skewed too much toward stewardship, and failed to emphasize certain types of uses such as recreational fishing, aquaculture, or renewable energy. The Task Force determined that the overall tone and balance of the recommendations were consistent with the President's direction to recommend a stewardship policy for the ocean, our coasts, and the Great Lakes. Improved stewardship will support not only healthier and more resilient ocean, coastal, and Great Lakes ecosystems and services, but also benefit the economies (e.g., commercial and recreational activities) and communities that rely on them. The Task Force recognizes the



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significant role of recreation and other existing and emerging sustainable uses (e.g., renewable energy, aquaculture) of ocean, coasts, and Great Lakes resources. However, it did not single out individual sectors for discussion in the recommendations. Rather, the recommendations discuss better managing all uses of the ocean, coasts, and Great Lakes in a sustainable manner.

### 2. Recreational Users

Comments expressed a concern that recreational fishing interests and the unique distinction between recreational and commercial fishing were not adequately represented in the *Interim Report*. Additionally, the Task Force received comments to recognize that recreational users (e.g., anglers, boaters, and other outdoor enthusiasts) not only use and rely on the health of ocean, coastal, and Great Lakes resources, but have a long history of actively participating in their conservation and stewardship.

The Task Force made several changes in the recommendations to distinguish recreational and commercial fishing and to more expressly recognize the importance of access to the ocean, our coasts, and the Great Lakes for recreation. The Task Force recognizes the importance of recreation, including sustainable recreational fishing, and that Americans should continue to enjoy such outdoor experiences, which are also critical to the economic, social, and cultural fabric of our country. Recreational users have a long history of actively participating in the stewardship of the ocean, coastal, and Great Lakes resources. Ensuring healthier oceans, coasts, and Great Lakes will benefit all recreational activities and the communities and economies that rely on them.

### 3. Ecosystem-Based Management

A range of comments were received concerning the use of ecosystem-based management in the *Interim Report*. Some suggested that the language regarding ecosystem-based management be strengthened while others would like to ensure that ecosystem-based management, while a good principle, not be mandated. The Task Force determined that this principle, which was articulated in the President's June 12, 2009 memorandum, is critical to how we govern and manage our ocean, coasts, and Great Lakes and should remain as one of the nine priority objectives. How ecosystem-based management will be defined and implemented would be further addressed by the NOC as it develops a strategic action plan for this priority objective.

### 4. Precautionary Approach

A range of comments were received concerning the use of the precautionary approach as one of the National Principles. Application of a precautionary approach, as defined in the recommendations (“[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”), is consistent with and essential for improved stewardship. Moreover, the United States has already affirmed this exact wording in the 1992



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Rio Declaration on Environment and Development. Many comments supported its inclusion while others were concerned it would be used to prevent activities from occurring. These latter comments, however, may have misinterpreted the precautionary approach here as mandating, for example, the prohibition of activities that present an uncertain potential for significant harm unless the proponent of the activity shows that it presents no appreciable risk of harm. The Task Force has retained the precautionary approach as reflected in the Rio Declaration in its final recommendations, as it believes that we must be able to avail ourselves of timely, cost-effective stewardship measures, consistent with the approach articulated in the Rio Declaration. Some comments used the term “precautionary principle,” but the United States has long taken the position that precaution is a tool or approach rather than a “principle,” given the lack of a single definition or agreed formulation and the differing implications of its various forms.

### 5. National Ocean Council Membership

Comments were received on the role of the National Oceanic and Atmospheric Administration (NOAA) in the recommended governance structure, particularly that it should have a more prominent role on the NOC. The Department of Commerce would have a seat on the NOC. However, the Task Force recognizes that NOAA (an agency within the Department of Commerce) plays a particularly important role in coastal and ocean research, planning, and management. While the Task Force had always envisioned that NOAA would have a substantial role within the NOC and in the implementation of these recommendations, the Task Force has determined that the final recommendations should be more explicit by clarifying that the NOAA Administrator should also be added as a member of the NOC.

### 6. State, Tribal, and Local Government Role

A variety of comments were received pertaining to the role of State, tribal, and local governments in the recommended governance structure. Comments advocated for a greater role for State, tribal, and local governments and for more detail regarding the interplay of the Governance Advisory Committee with other entities in the NOC structure. The Task Force addressed these comments in five main areas: (1) changing the name of the Governance Advisory Committee to the Governance Coordinating Committee (GCC) to more accurately reflect its function; (2) modifying the composition of the GCC to include representation from local governments and State legislatures; (3) expressly acknowledging the unique legal relationship with federally recognized American Indian and Alaska Native tribal governments; (4) clarifying GCC functions and its relationship to other governance structure entities; and (5) strengthening coordination and collaboration between the GCC and various levels of the NOC.

## 7. Transparency and Public Input

Comments suggested adding more detail on how the NOC will incorporate public input and keep the public informed about its actions. The Task Force addressed these comments throughout the recommendations, including adding new text that expressly identifies the need for the NOC to ensure substantial opportunity for public participation as it develops strategic action plans.

## 8. Additional Priority Objectives and Specificity of Implementation Strategy

Comments suggested a range of additional priority objectives, including Community and Cultural Access, Protection of Culture and Traditions, Caribbean and the Pacific Islands, Antarctica, Coral Reefs, Marine Aquaculture, Recreational Fishing, Fisheries Management, Renewable Energy, Marine Transportation Safety, and Collaborative Environmental Problem Solving in Underserved Coastal Communities. While the Task Force strongly considered a wide array of priority objectives, the Task Force determined that the nine priority objectives, with some minor modifications, set out in these recommendations were the most appropriate initial priorities of the NOC. In addition, the NOC may always identify additional or different priority objectives in years to come. In fact, the functions of the NOC include updating and setting national priority objectives, as well as providing National Policy implementation objectives. Comments also advocated for more specificity in the implementation strategy, but the Task Force determined that further clarity and detail is best determined by the NOC and its component bodies.

### *Comments on the Interim Framework for Effective Coastal and Marine Spatial Planning*

Substantive comments on the *Interim Framework* ranged from questioning the overall need for coastal and marine spatial planning (CMSP) to general support for a new, more efficient, ecosystem-based approach to managing sustainable uses of the ocean, our coasts, and the Great Lakes. Some comments also advocated for ensuring that CMSP provides a balance between economic uses and stewardship, while others raised questions or concerns over the relationship of CMSP to existing processes and authorities and specifics of how the process will work. Some comments were similar to those received on the *Interim Report* and are addressed in the previous section. The following summarizes some of the additional key substantive comments received on the Interim Framework and how the Task Force addressed them.

#### 1. Why Coastal and Marine Spatial Planning

Comments raised a variety of issues regarding the general nature of this effort. For example, it was suggested that the *Interim Framework* did not provide an adequate description of the problem trying to be solved; that existing processes are sufficient and only require improved coordination rather than a new top-down bureaucracy with too much authority vested in the National Ocean Council. Other comments strongly supported the need for CMSP and

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the benefits to be derived from more proactive, multi-objective, multi-sectoral planning. Some comments raised concern that many processes in the *Interim Framework* were vague and required greater clarity and definition of terms (e.g., ecosystem-based management).

The recommendations describe a flexible, regionally based approach for the development of CMSP. The NOC would facilitate development of coastal and marine spatial plans (CMS Plans) and provide national guidance to ensure national consistency, as appropriate. The Task Force has made a number of changes to better clarify the processes described in the recommendations. The recommendations also describe that the NOC would provide further clarity through the development of a strategic action plan and national guidance documents, which would be developed with public and stakeholder input.

### 2. Overarching Goals, Principles, and Nature of Coastal and Marine Spatial Planning

Comments suggested that the *Interim Framework* should have as its primary overarching goal “protection, maintenance, and restoration” as this is a fundamental goal that supports all others (e.g., healthy ecosystems support the full range of ecosystem services). Other comments suggested that the *Interim Framework* should recognize benefits of commercial and recreational uses, and the significant economic benefits to be derived from the responsible production of energy resources, and other economic activities in Federal offshore waters.

The Task Force agrees that healthy ecosystems provide the foundation for the full range of ecological services the ocean, coasts, and Great Lakes provide, including economic, environmental, and societal benefits. CMSP is intended to result in better management of and planning for sustainable multiple uses (e.g., energy, recreation, and commercial and recreational fishing) across sectors as well as to improve conservation of the ocean, coasts, and Great Lakes. The Task Force believes that the recommendations adequately discuss the multi-objective nature of CMSP and the potential economic, environmental, and societal benefits.

### 3. Integration, Cooperation, and Coordination

Comments requested that the Task Force clarify that CMSP is intended to build off of and incorporate existing plans, processes, and authorities. Comments also requested that the Task Force recognize that certain decisions should be left to, or deference be given to, State decision-makers. There are a number of places throughout the *Interim Framework* (e.g., “Essential Elements of the CMSP Process”) that expressly discuss the relationship of CMSP to existing processes. The Task Force has made additional clarifying changes to address these comments.

### 4. Geographic Scope

There were a number of comments on various aspects of the geographic scope for CMSP, including the treatment of private lands, inland areas, and bays and estuaries. The recommendations exclude private lands from the CMSP planning area; clarifying that the

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exclusion applies to all private lands, not only private submerged lands. The Task Force decided to leave the regional planning bodies with the flexibility to include inland areas within the geographic scope, but has recommended that the NOC, in coordination with the GCC, develop guidance for the regional planning bodies to help determine whether to include inland areas. Finally, the Task Force determined to maintain the requirement to include bays and estuaries due to the strong linkages with ocean, coastal, and Great Lakes areas.

### 5. Development and Implementation of Coastal and Marine Spatial Planning

A number of comments raised questions regarding the role, composition, and operation of the regional planning bodies. The Task Force has maintained the core composition of regional planning bodies to include State, Federal, and tribal authorities, and has further articulated the types of representatives to be considered for inclusion. The Task Force did not add local governments to the regional planning bodies due to the numerous and wide variety of local authorities that could result in very disparate participation and representation across regions. However, the recommendations require regional planning bodies to coordinate with local governments, as appropriate, throughout the process.

Some comments suggested adding a Regional Fishery Management Council (RFMC) representative to the regional planning bodies given their unique quasi-regulatory role under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The Task Force is interested in finding the most effective opportunity for sustained and meaningful engagement with the RFMCs as it is their statutory responsibility to develop fishery management plans and management measures for fisheries which NOAA then reviews and, if approves, implements through regulation. While the Task Force acknowledges the relatively unique role that RFMCs play, it did not want to prescribe a particular method for how RFMCs should be included in the CMSP process without more thoughtful consideration and analysis. The recommendations describe that the regional planning bodies would provide a formal mechanism for consultation with the RFMCs across their respective regions on fishery related issues and that the NOC would further assess if representation on the regional planning bodies is the best method for this engagement. In the future, if other statutorily-mandated or quasi-regulatory groups are identified, the NOC would determine whether a formal mechanism for consultation should be developed for such groups and, if necessary, provide guidance for regional planning bodies on the development of such a process.

Comments questioned how the regional planning bodies would operate, who would lead them, and how decisions would be made. Comments also suggested clarifying that the regions could create sub-regional planning bodies. The Task Force has clarified that the work plan to be developed by each regional planning body would specify the participants, Federal and non-Federal co-lead(s), timing, milestones, etc. The Task Force also clarified that there would be flexibility to develop sub-regional plans provided that these plans are encompassed in the

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regional planning body's final CMS Plan. The Task Force recognized that this flexibility may be particularly useful in the Alaska/Arctic and Pacific Islands Regions.

There were a number of comments regarding strengthening involvement of stakeholders, the public, and scientific and technical experts in the CMSP process. The recommendations clarify and strengthen their role in CMSP, including requiring the development of inclusive and transparent stakeholder and scientific participation and consultation mechanisms in each region.

### 6. Nature of Planning Process and CMS Plans and Adherence to CMS Plans

Comments raised questions about whether CMS Plans would be comprehensive, multi-objective, and multi-sectoral. The Task Force has clarified that while there is flexibility as part of the CMSP process to address different priority issues at certain times, the final CMS Plans would be required to achieve this level of comprehensiveness in order to receive NOC certification. The Task Force also clarified that while it is recognized that CMSP is an iterative process and initial CMS Plans would likely identify gaps in understanding that may limit the ability to make informed decisions at a particular time, these gaps would be identified in the CMS Plan along with an implementation approach to how they would be addressed in future iterations of the CMS Plan.

A number of comments raised questions regarding the binding or non-binding nature of CMS Plans and the requirements to adhere to them. Comments also questioned the scope of the allowance for deviations from CMS Plans. The Task Force has clarified the language regarding the binding nature of CMS Plans to be consistent throughout the document. As it relates to deviations, the existing language allows for deviations from CMS Plans, but requires periodic reviews to determine why they are occurring and to identify remedies to minimize such deviations. The Task Force expects that as agencies gain experience with this process, any deviations would be minimized. The Task Force does not intend this language to be a broad exemption to CMS Plans.

Comments also expressed that the *Interim Framework* does not clearly establish the relationships between CMS Plans and existing regulatory authorities, including the Magnuson-Stevens Fishery Conservation and Management Act, Coastal Zone Management Act, and Outer Continental Shelf Lands Act. The Task Force has added language to better clarify the relationship between CMSP and existing authorities.

Comments suggested that the Task Force consider adding language that addresses what happens if a State opts out or a regional plan does not meet NOC certification requirements. The Task Force has added language clarifying that even if some States or tribes opt out of the CMS Process, the Federal, and participating State and tribal authorities would continue to develop and implement a regional CMS Plan.

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### 7. National Consistency

Comments raised concerns that with nine different regions there could be different standards applied to the same activities (e.g., ballast water), or potential for other significant inconsistencies regarding commerce and other socio-economic sectors. The recommendations make clear that the NOC would develop national guidance and objectives to ensure national consistency and seek to minimize inconsistencies and conflicts across regions for cross-cutting or national issues. Development of this guidance would include opportunities for robust public and stakeholder participation.

### 8. Scientific Knowledge and Data Integration, Research, Management, and Access

Comments raised concerns over the complexities and resources needed to create a new information management system and encouraged adapting an existing system or search tool as an alternative. Comments also requested that the Interim Framework make clear that State, local, and other data would be included in the system, not only Federal data. Other comments requested a greater emphasis on local and traditional knowledge as data/information sources. These issues have been addressed in the recommendations.

### 9. Implementation

Comments on the length of the implementation process varied from the timeframe for development of CMS Plans being too short to excessively long. The Task Force determined that given the varied range of comments the phased, flexible approach recommended in the document provides an ambitious, but achievable timeline to develop CMSP in the United States.

### 10. Resources

While the Task Force is mindful of the national economic situation and budgetary challenges, it is confident that making the investments and improvements in these recommendations will advance the economic interests of the United States and facilitate greater efficiencies across the Federal Government. Recognizing the reality of the limited availability of new resources, Federal agencies would re-evaluate how resources are allocated in light of their statutory and regulatory mandates to further the recommended National Policy. Also, the President's Fiscal Year 2011 Budget Request includes funding that would support priority activities identified in these recommendations, such as coastal and marine spatial planning, geospatial modernization, regional ocean partnerships, water quality improvement, habitat restoration, integrated ecosystem assessments, coastal and estuarine land protection, research and development of ocean sensor technology, and environmental tools to support resilient coastal communities.





# Council Report

*An update published by the New England Fishery Management Council – June 2010*

The Council Report summarizes major issues voted on or discussed at each regularly scheduled NEFMC meeting. The Council met most recently on June 22-24, in Portland, ME.

**At its June meeting, the Council addressed issues related to monkfish, groundfish, sea scallops essential fish habitat and management priorities.**

## Monkfish

### **Amendment 5 measures approved**

At its meeting in Portland, ME last week, the New England Fishery Management Council cast its final vote to approve Amendment 5 of the Monkfish Fishery Management Plan and forward the package of management measures to the Secretary of Commerce for review. The Council approved a suite of new monkfish rules at its April meeting, but a decision on the annual monkfish catch target for 2011-2013 for the Northern Management Area (NMA), which includes New England waters, was conditional, pending the outcome of analyses associated with an alternative target.

Results presented at the meeting, indicated the alternative target would have set the monkfish total catch at 13,988 metric tons, or 31 million pounds, but the Council chose to retain its initial target of 10,750 metric tons or 24 million pounds. The more conservative target level was adopted because it is more likely ensure greater stability of the monkfish resource and better opportunities for those who participate in the fishery, especially given the high degree of scientific uncertainty associated with the current stock status.

The Council has also approved a 2011-2013 annual catch target for the Southern Management Area (SMA) of 11,469 metric tons, or 25 million pounds. The new SMA and NMA catch targets represent increases of 75% and 100%, respectively, over the catch targets in place since 2007. These increases are justified based on peer reviewed stock assessments that have concluded both monkfish stocks are above their management biomass targets. But the assessments contain statements about the uncertainty associated with the scientific understanding of monkfish biology, a situation that warrants a precautionary management approach.

The Monkfish Plan and its amendments are prepared jointly with the Mid-Atlantic Council. Both Councils have now approved the new management measures which are expected to be in place at the start of the fishing year in May 2011, if approved by the National Marine Fisheries Service on behalf of the Secretary of Commerce.

## Groundfish

### **Framework 45 initiated: yellowtail flounder, Gulf of Maine winter flounder and pollock to be revisited; party/charter control rule reaffirmed**

New measures discussed at last week's Council could mitigate some of the negative impacts being experienced by several "sectors" and the "common pool" fishery organized under the rules of the newly implemented catch share program, Amendment 16 to the Groundfish Plan.

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Issues identified for further development and inclusion in Framework Adjustment 45 included the following, beginning with a request to the Council's Scientific and Statistical Committee to review any new data collected and determine whether these would affect the current allowable biological catch (ABC) recommendation for Gulf of Maine winter flounder:

- Adopting new status determination criteria for pollock, and setting a new allowable biological catch and annual catch limit for 2011-2012 -- a change that could result in an increase in pollock catches.
- Modifying the Georges Bank yellowtail flounder rebuilding strategy - possibly resulting in a longer rebuilding period with less negative consequences for fishermen.
- Adopting new sectors based on requests received by May 1, 2010.
- Exempting Handgear A and B permits from dockside monitoring requirements (currently scheduled to be effective in fishing year 2012 for common pool vessels).
- Protecting spawning cod aggregations; during this very preliminary discussion, the action was intended to apply to specifically identified aggregations targeted by recreational fishermen in the Ipswich Bay/Whaleback areas of Mass Bay and sector vessels fishing in blocks 132 and 133; it also could include a May and June prohibition of cod possession by recreational fishermen in defined areas of blocks 132 and 133, or a closure of these areas to recreational fishermen, and removal of the sector exemption from the June rolling closure in blocks 132 and 133.
- Allowing General Category scallop dredge vessels to fish in the Great South Channel area year round (remove the current seasonal prohibition during yellowtail flounder spawning).

The Council also voted to reaffirm the existing control date for Northeast Multispecies party/charter permits (March 30, 2006). While there was recognition that it needed to address the management concerns of the party/charter industry, the development of additional party/charter measures will be determined through the Council's priority setting process.

The groundfish framework adjustment is scheduled for implementation in fishing year 2011.

## **Sea Scallops**

### **Framework 22 Moves Forward**

On the heels of final steps to complete Amendment 15 to the Scallop Plan, the Council unanimously approved a motion to initiate Framework Adjustment 22 last week. The action will contain fishery specifications for 2011-2012, including the area rotation schedule for the next two years and measures to minimize the impacts of incidental take of sea turtles in the fishery. Additional issues under consideration at this early stage of development include modifications to the vessel monitoring systems (VMS) and other measures based on Scallop Advisory Panel input, such as delaying the opening date of Mid-Atlantic access areas for general category vessels and revisiting a provision to allow limited access general category IFQ vessels to possess up to 100 bushels of in-shell scallops seaward of the VMS demarcation line.

There also may be consideration of a new, shorter and/or smaller rotational area in the Great South Channel, modifications to the overfishing definition and scallop reference points, and gear restrictions for small dredge permit vessels operating in the rotational access areas. The Council also reviewed the research priorities approved by the Scallop Committee for the 2011 and 2012 Research Set-Aside program. Final approval of Framework 22 is scheduled to occur at the Council's November 16-18 meeting in Brewster, MA.



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## **Habitat**

### **Update on the EFH Omnibus Amendment**

The overall goal of the second phase of Essential Fish Habitat Omnibus (EFH) Amendment 2 is to develop a series of alternatives that will minimize the impacts of fishing on EFH across Council FMPs. Council staff and Habitat Plan Development Team (PDT) members reviewed ongoing Swept Area Seabed Impact model analyses, and the Habitat Committee Chair presented a series of preliminary tasking to the PDT based in part on those analyses.

The Committee's recommendations included new habitat management areas, removal of some existing habitat management areas, and development of research areas. For all measures, they recommended upfront consideration of the tradeoffs between costs to habitat and costs to the industry.

These motions and the underlying analyses were discussed by the Council, and the tasking was approved for further development by the Habitat PDT, Committee, and Advisory Panel. Additional meetings will be scheduled to refine these concepts into formal alternatives for Council consideration.

### **Management Priorities**

#### **Items revised in response to pressing issues**

In further discussions intended to sort out the number of management actions the Council will work on in 2010 and 2011, members continued to support work on a joint scallop/groundfish action that would allow the transfer of yellowtail flounder between the two fisheries. It placed the same level of importance on Framework Adjustment 45 to the Groundfish Plan (described above).

Meanwhile, the Groundfish Plan Development Team was directed to use the following goals to shape its recommendations to the Council on measures relating to accumulation limits: 1) maintain inshore and offshore fleets; 2) to the extent possible, maintain a diverse groundfish fishery, including different gear types, vessel sizes, geographic locations, and levels of participation; 3) maintain a balance in the geographic distribution of permits to protect fishing communities and the infrastructure they provide and 4) prohibit any person or government entity from acquiring or controlling excessive access to the resource, through in order to prevent extraction of disproportionate economic rents from other permit holders. A revised priorities list is posted on the Council's website under [What's New](#).

### **Materials on the Web**

Meeting materials related to the above issues and PowerPoint presentations that accompanied the briefings provided to the Council in April are located on the Council's website [www.nefmc.org](http://www.nefmc.org). Audio files of the full meeting discussions are posted at <http://www.nefmc.org/actions/index.html>.

**Next Council Meeting – September 28-30, 2010, Newport, RI**

**SUMMARY REPORT  
JOINT SA/GM MACKEREL COMMITTEE MEETING  
JUNE 8, 2010  
ORLANDO, FL**

The South Atlantic and Gulf Mackerel Committees met on June 8, 2010 in Orlando, FL. The committee received presentations by:

1. Rick Leard, GMFMC Staff, reviewed the Gulf Council SSC recommendations for King Mackerel, Spanish Mackerel & Cobia.
2. Rick Leard, GMFMC Staff, reviewed Joint Action 1. Fishery Management Unit
3. Sue Gerhart, NMFS Staff, reviewed Joint Action 2. Framework
4. Gregg Waugh, SAFMC Staff, reviewed Joint Action 3. Cobia Management Groups
5. Rick Leard, GMFMC Staff reviewed Gulf Actions 4-12
6. Gregg Waugh, SAFMC Staff, reviewed South Atlantic Actions 13-18

Under Other Business, the Joint Committees addressed the following items:

- A. King Mackerel Catch Share Program – Rick Leard reviewed the timing for Gulf Council consideration noting that the King Mackerel LAPP AP would not meet until at least late July or August. The Joint Committees agreed to add more representation of South Atlantic Council fishermen to the LAPP AP.
- B. Public Hearing Dates/Locations – Gregg Waugh reviewed the current timing that would have the Councils approving Amendment 18 for public hearings in September (SA) and October (GM), conducting the hearings in November/December 2010, reviewing comments/providing final guidance in December 2010 (SA)/February 2011 (GM), and final approval of complete document in March 2011(SA)/April 2011(GM). These actions could slip one Council meeting with final approval in June 2011 and still meet the 2011 statutory deadline. The Committees asked the Councils to review the scoping locations and provide guidance to staff.
- C. Atlantic King Mackerel Quota – Brian Chevront raised concern about how quickly the Atlantic king mackerel quota was being filled this year. Phil Steele (NMFS) presented recent data that showed as of 6/8/10 984,512 pounds have been landed representing 27% of the quota. NMFS was requested to present a comparison of landings through a similar time period over the past several years on Friday.
- D. Quota Combinations in Gulf – Roy Crabtree indicated that he would be suggesting that the Gulf Council consider combining Western Zone and Northern Subzone quotas in the Gulf due to the impacts from closures from the oil spill for 1 year.

**Guidance to Staff**

The Joint Committees directed each staff to schedule meetings with each Council's Mackerel Advisory Panel prior to the Councils approving Amendment 18 for public hearings.

## **Motions**

The alternatives being considered are shown below; the motions are shown under each action. Both Committees voted on Joint Actions 1-3. The Gulf Committee voted on Gulf actions and the South Atlantic Committee voted on South Atlantic actions.

The South Atlantic Council's Committee did not complete OFL/ABC actions for Spanish mackerel and Cobia given the need to discuss the SSC's report. They concluded that the discussion would continue during the full Council session on Friday morning.

## **2.0 MANAGEMENT ALTERNATIVES**

### **2.1 ACTION 1: Modifications to the Fishery Management Unit**

Alternative 1. Status quo - retain only Gulf and Atlantic group king and Spanish mackerel and cobia in the management unit for management purposes and clarify that the other species are included in the management unit of the CMP FMP for data collection purposes only.

Alternative 2. Retain only Gulf and Atlantic group king and Spanish mackerel and cobia in the management unit and designate all other species as ecosystem component species.

Alternative 3. Retain only Gulf and Atlantic group king and Spanish mackerel and cobia in the management unit, remove dolphin in the Atlantic, and designate all other species in the CMP FMP management plan as ecosystem component species.

Alternative 4. Remove all species other than king mackerel, Spanish mackerel, and cobia from the CMP FMP.

**GULF COMMITTEE: REMOVE ALTERNATIVES 2 & 3 FROM ACTION 1 AND MOVE THEM TO THE CONSIDERED BUT REJECTED APPENDIX APPROVED BY GULF COMMITTEE**

**SA COMMITTEE: REMOVE ALTERNATIVES 2 & 3 FROM ACTION 1 AND MOVE THEM TO THE CONSIDERED BUT REJECTED APPENDIX APPROVED BY SA COMMITTEE**

**GULF COMMITTEE: ADD INDIVIDUAL ALTERNATIVES OR OPTIONS TO REMOVE THE INDIVIDUAL SPECIES THAT ARE CURRENTLY LISTED IN THE MANAGEMENT UNIT FOR DATA COLLECTION PURPOSES APPROVED BY GULF COMMITTEE**

**SA COMMITTEE: ADD INDIVIDUAL ALTERNATIVES OR OPTIONS TO REMOVE THE INDIVIDUAL SPECIES THAT ARE CURRENTLY LISTED IN THE MANAGEMENT UNIT FOR DATA COLLECTION PURPOSES APPROVED BY SA COMMITTEE**

**SA COMMITTEE: ANY OF THOSE SPECIES CURRENTLY LISTED IN THE MANAGEMENT UNIT FOR DATA COLLECTION PURPOSES, BEFORE THEY ARE ADDED TO THE PLAN, SHOULD BE ASSESSED BY A SEDAR ASSESSMENT APPROVED BY SA COMMITTEE**

**GULF COMMITTEE: ANY OF THOSE SPECIES CURRENTLY LISTED IN THE MANAGEMENT UNIT FOR DATA COLLECTION PURPOSES, BEFORE THEY ARE ADDED TO THE PLAN, SHOULD BE ASSESSED BY A SEDAR ASSESSMENT APPROVED BY GULF COMMITTEE**

## **2.2 ACTION 2: Modify the Framework Procedure**

Alternative 1. No Action – Do not modify the framework procedure.

Alternative 2. Modify the framework procedure as shown in Appendix A.

Alternative 3. Modify the framework procedure as shown in Appendix B.

Alternative 4. Modify the framework procedure as shown in Appendix C.

Alternative 5. Modify the framework procedure as shown in Appendix D.

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES AS PRESENTED APPROVED BY GULF COMMITTEE**

**SA COMMITTEE: SELECT ALTERNATIVE 4 (APPENDIX C) AS OUR PREFERRED MOTION WITHDRAWN**

**SA COMMITTEE: APPROVE THE RANGE OF ALTERNATIVES APPROVED BY SA COMMITTEE**

## **2.3 ACTION 3: Establish Separate Atlantic and Gulf Migratory Groups of Cobia**

Alternative 1. No action - Maintain one group of cobia.

Alternative 2. Separate the two migratory groups at the Miami-Dade/Monroe County line.

Alternative 3. Separate the two migratory groups at the SAFMC/GMFMC boundary.

**SA COMMITTEE: APPROVE THE RANGE OF ALTERNATIVES APPROVED BY SA COMMITTEE**

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES IN ACTION 3 APPROVED BY GULF COMMITTEE**

## **2.4 ACTION 4: Set ACL for Gulf Group Cobia**

Alternative 1. No action – do not set ACL for Gulf group cobia

Alternative 2. Set ACL = MSY at 1.5 MP for Gulf group cobia

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1986 through 2009

Alternative 3. Set ACL = ABC (yield corresponding  $0.75 \times \text{FMSY}$  when the stock is at equilibrium [currently estimated at 1.45 MP] for Gulf group cobia)

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACLs based on current average percent of catches for the period 1986 through 2009

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES FOR ACTION 4 AS PRESENTED  
APPROVED BY GULF COMMITTEE**

## **2.5 ACTION 5: Set ACT for Gulf Group Cobia**

Alternative 1. No action – do not set ACT for Gulf group cobia

Alternative 2. Set ACT = ACL = MSY = 1.5 MP for Gulf group cobia

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1986 through 2009

Alternative 3. Set ACT = ABC (yield corresponding  $0.75 \times \text{FMSY}$  when the stock is at equilibrium [currently estimated at 1.45 MP] for Gulf group cobia)

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1986 through 2009

Alternative 4. Set ACT at  $0.90 \times \text{ABC}$  (yield corresponding  $0.75 \times \text{FMSY}$  when the stock is at equilibrium [currently estimated at 1.45 MP] for Gulf group cobia) which is 1.23 MP

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1999 through 2009

Option c. Set separate commercial and recreational ACTs based on current average percent of catches for the period 1986 through 2009

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES FOR ACTION 5 AS PRESENTED  
APPROVED BY GULF COMMITTEE**

**2.6 ACTION 6: Set AMs for Gulf Group Cobia**

Alternative 1. No Action – Retain current in-season accountability measures (AMs) for Gulf group cobia.

Option a. Commercial bag limit of 2 per person per day

Option b. Recreational bag limit of 2 per person per day

Alternative 2. Change in-season AMs

Option a. Commercial

Suboption i. Closure when commercial/stock ACL/ACT reached

Suboption ii. Trip limit implemented when x% of stock/commercial ACL/ACT reached

Option b. Recreational

Suboption i. Closure when stock/recreational ACL/ACT reached

Suboption ii. Bag limit reduced when x% of stock/recreational ACL/ACT reached

Alternative 3. Set post-season AMs

Option a. Commercial

Suboption i. Payback of overage from quota in the following year

Suboption ii. Implement trip limit in the following year

Option b. Recreational

Suboption i. Payback of overage from quota in the following year

Suboption ii. Reduce bag limit in the following year

Suboption iii. Shorten season in the following year

Note: The Council may choose more than one preferred alternative.

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES FOR ACTION 6 AS PRESENTED  
APPROVED BY GULF COMMITTEE**

## **2.7 ACTION 7: Set ACL for Gulf Migratory Group King Mackerel**

Alternative 1. Status Quo – Set ACL for Gulf group king mackerel at 10.2 MP

Alternative 2. Set ACL = ABC (13.215 MP) for Gulf group king mackerel

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations

Option c. For the commercial sector, set separate ACLs for hook-and-line and run-around gillnets

Alternative 3. Set ACL = 0.90\* ABC (11.894 MP) for Gulf group king mackerel

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations

Option c. For the commercial sector, set separate ACLs for hook-and-line and run-around gillnets

**GULF COMMITTEE: ACCEPT THE 3 ALTERNATIVES FOR ACTION 7  
APPROVED BY GULF COMMITTEE**

## **2.8 ACTION 8: Set ACT for Gulf Migratory Group King Mackerel**

Alternative 1. No action – do not set ACT for Gulf group king mackerel

Alternative 2. Status Quo – Set ACT = current TAC (10.2 MP)

Alternative 3. Set ACT = ACL = ABC (13.215 MP) for Gulf group king mackerel

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations

Option c. For the commercial sector, set separate ACTs for hook-and-line and run-around gillnets

Alternative 4. Set ACT = 0.90\* ABC (11.894 MP) for Gulf group king mackerel

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations

Option c. For the commercial sector, set separate ACTs for hook-and-line and run-around gillnets

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES FOR ACTION 8  
APPROVED BY GULF COUNCIL**

**GULF COMMITTEE: ADD AN ALTERNATIVE TO ACTION 8 THAT MATCHES  
WHAT IS LISTED FOR SPANISH MACKEREL IN ACTION 11  
APPROVED BY GULF COMMITTEE**

## **2.9 ACTION 9: Set AMs for Gulf Migratory Group King Mackerel**

Alternative 1. Status Quo – Retain current in-season accountability measures (AMs) for Gulf group king mackerel.

Option a. Commercial

Suboption i. Quota closures by zone, subzone, and gear (see Table 1)

Suboption ii. Trip limits and trip limit triggers (see Table 2)

Option b. Recreational bag limit of 2 per person, including captain and crew of for-hire vessels with authority of Regional Administrator to revert bag limit to zero

Alternative 2. Change in-season AMs

Option a. Commercial

Suboption i. Closure when stock/commercial ACL/ACT reached

Suboption ii. Trip limit(s) reduced when x% of stock/commercial ACL/ACT reached

Option b. Recreational

Suboption i. Closure when stock/recreational ACL/ACT reached

Suboption ii. Bag limit reduced to one when x% of stock/recreational ACL/ACT reached

Alternative 3. Set post-season AMs for Gulf group king mackerel

Option a. Commercial

Suboption i. Payback of overage from quota in the following year

Suboption ii. Reduce trip limit in the following year

Option b. Recreational

Suboption i. Payback of overage from quota in the following year

Suboption ii. Reduce bag limit in the following year

Suboption iii. Shorten season in the following year

Note: The Council may choose more than one preferred alternative.

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES FOR ACTION 9 WITH THE INTENT TO ADD A SUBALTERNATIVE FOR RUN-AROUND GILL NET PAYBACK. APPROVED BY GULF COMMITTEE**

## **2.10 ACTION 10: Set ACL for Gulf Migratory Group Spanish Mackerel**

Alternative 1. Status Quo – Set ACL for Gulf group Spanish mackerel equal to current TAC of 9.1 MP

Alternative 2. Set ACL = yield when fishing at F30% SPR = MSY = 9.0 MP for Gulf group Spanish mackerel

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings



Alternative 3. Set  $ACL = ABC = \text{yield}$  corresponding to a fishing mortality rate (FOY) defined as:  $FOY=0.75 \cdot FMSY$  when the stock is at equilibrium (currently estimated at 8.3 MP) for Gulf group Spanish mackerel

Option a. Set a single ACL

Option b. Set separate commercial and recreational ACLs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES LISTED FOR ACTION 10 APPROVED BY GULF COMMITTEE**

**2.11 Action 11: Set ACT for Gulf Migratory Group Spanish Mackerel**

Alternative 1. No action – do not set ACT for Gulf group Spanish mackerel

Alternative 2. Status quo – set ACT equal to current TAC for Gulf group Spanish mackerel at 9.1 MP

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Alternative 3. Set  $ACT = \text{yield}$  when fishing at  $F30\% \text{ SPR} = MSY = 8.7 \text{ MP}$  for Gulf group Spanish mackerel

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Alternative 4. Set  $ACT = ABC = ACL = \text{yield}$  corresponding to a fishing mortality rate (FOY) defined as:  $FOY=0.75 \cdot FMSY$  when the stock is at equilibrium (currently estimated at 8.3 MP) for Gulf group Spanish mackerel

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

Alternative 5. Set  $ACT = 0.90 \cdot \text{yield}$  corresponding to a fishing mortality rate (FOY) defined as:  $FOY=0.75 \cdot FMSY$  when the stock is at equilibrium (currently estimated at 8.3 MP) for Gulf group Spanish mackerel.  $ACT=7.47 \text{ MP}$

Option a. Set a single ACT

Option b. Set separate commercial and recreational ACTs based on current allocations (57% commercial, 43% recreational)

Option c. Set separate commercial and recreational ACLs based on recent landings

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES FOR ACTION 11 AS PRESENTED  
APPROVED BY GULF COMMITTEE**

**2.12 ACTION 12: Set AMs for Gulf Migratory Group Spanish Mackerel**

Alternative 1. Status Quo – Retain current in-season accountability measures (AMs) for Gulf group Spanish mackerel.

Option a. Commercial quota closure

Option b. Recreational bag limit of 15 per person per day

Alternative 2. Change in-season AMs

Option a. Commercial

Suboption i. Closure when stock ACL/ACT reached

Suboption ii. Trip limit implemented when x% of stock/commercial ACL/ACT reached

Option b. Recreational

Suboption i. Closure when stock/recreational ACL/ACT reached

Suboption ii. Bag limit reduced when x% of stock/recreational ACL/ACT reached

Alternative 3. Set post-season AMs

Option a. Commercial

Suboption i. Payback of overage from quota in the following year

Suboption ii. Implement trip limit in the following year

Option b. Recreational

Suboption i. Payback of overage from quota in the following year

Suboption ii. Reduce bag limit in the following year

Suboption iii. Shorten season in the following year

Note: The Council may choose more than one preferred alternative.

**GULF COMMITTEE: ACCEPT THE ALTERNATIVES LISTED IN ACTION 12  
APPROVED BY GULF COMMITTEE**

**4.13 Action 13. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), and ACT levels for Atlantic Migratory Group king mackerel**

**4.13.1 Maximum Sustainable Yield (MSY), Minimum Stock Size Threshold (MSST) and Maximum Fishing Mortality Threshold (MFMT)**

The Council has determined that the value for MSY is the value of yield at  $F_{MSY}$  from the most recent stock assessment. Currently MSY = 10.4 million pounds. Based on the SEDAR 16 assessment, MSY = 8.964 million pounds (Table 4). **Based on updated projections, MSY =**

9.357-12.836 million pounds (Table 5b).

The Council has determined that the value for MSST is the value from the most recent stock assessment based on  $MSST = [(1-M) \text{ or } 0.5 \text{ whichever is greater}] * B_{MSY}$ . Currently  $MSST = 0.85(B_{MSY})$  with no poundage estimated. Based on the SEDAR 16 assessment,  $MSST = 1,827.5$  billion hydrated eggs (Table 4).

The Council has determined that the value for MFMT is the value of  $F_{MSY}$  or proxy from the most recent stock assessment. Currently  $MFMT = F_{MSY} = F_{30\%SPR}$  with no poundage estimated. Based on the SEDAR 16 assessment,  $MFMT = F_{MSY} = F_{30\%SPR} = 0.256$  (Table 4).

#### **4.13.2 Overfishing Level (OFL)**

The Scientific and Statistical Committee provided the following OFL at their April 2010 meeting: "The OFL for king mackerel is 12.8359 million pounds (corresponds to yield at  $F_{30\%SPR}$ , the accepted MSY proxy from the last stock assessment)." Note: This is the expected yield in 2011 (Table 5b).

#### **4.13.3 Allowable Biological Catch (ABC) Control Rule and ABC**

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group king mackerel.

Alternative 2. Establish ABC based on the SSC's ABC control rule.

The Council is also considering the following non-SSC Control Rules:

Alternative 3. Establish an ABC Control Rule where ABC equals OFL.

Alternative 4. Establish an ABC Control Rule where ABC equals a percentage of OFL.

Alternative 4a.  $ABC = 65\% \text{ OFL}$

Alternative 4b.  $ABC = 75\% \text{ OFL}$

Alternative 4c.  $ABC = 85\% \text{ OFL}$

Alternative 5. Establish an ABC Control Rule where ABC equals a percentage of the yield at MFMT.

Alternative 5a.  $ABC = \text{yield at } 65\% \text{ MFMT}$

Alternative 5b.  $ABC = \text{yield at } 75\% \text{ MFMT}$

Alternative 5c.  $ABC = \text{yield at } 85\% \text{ MFMT}$

Alternative 6. Establish an ABC Control Rule where ABC is a percentage of OFL. The percentage is based upon the level of risk of overfishing ( $P^*$ ).

Alternative 6a.  $ABC = X\% \text{ of OFL}$ . The  $X\%$  is based upon  $P^*$  equals .20.

Alternative 6b.  $ABC = X\% \text{ of OFL}$ . The  $X\%$  is based upon  $P^*$  equals .30.

Alternative 6c.  $ABC = X\% \text{ of OFL}$ . The  $X\%$  is based upon  $P^*$  equals .40.

Alternative 6d.  $ABC = X\% \text{ of OFL}$ . The  $X\%$  is based upon  $P^*$  equals .50.

**SAFMC COMMITTEE: ACCEPT THESE ALTERNATIVES  
APPROVED BY COMMITTEE  
DIRECTION TO LOOK AT COMBINING ALT. 4 & 5**

**4.13.4 Optimum Yield (OY)**

Currently OY = the yield from fishing at a fishing mortality rate equal to 40% Spawning Potential Ratio; however, a value was not previously estimated. Based on the SEDAR 16 assessment and the Council's actions on other species, the following options are likely (Tables 4 and 5a).

Alternative 1. No action. Currently OY = yield at  $F_{40\%SPR}$  with no poundage estimated. However, using the updated projections yields a range of 8.40 – 9.20 million pounds.

Alternative 2. OY = 65% of the yield at  $F_{30\%SPR} = 7.96 – 8.36$  million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

Alternative 3. OY = 75% of the yield at  $F_{30\%SPR} = 8.46 – 9.37$  million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

Alternative 4. OY = 85% of the yield at  $F_{30\%SPR} = 8.80 – 10.46$  million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

**The following alternative has been added for consideration:**

Alternative 5. OY = yield at  $F_{30\%SPR} = 9.36 – 12.84$  million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

**SA COMMITTEE: ADOPT THE ALTERNATIVES UNDER 4.13.4.  
APPROVED BY COMMITTEE**

**4.13.5 Annual Catch Limit (ACL)**

Alternative 1. No action. Currently TAC or ACL = 10.0 million pounds based on an ABC of 8.9 - 13.3 million pounds.

Alternative 2. ACL = ABC = 10.46 million pounds which is the average of the ABC values for 2011-2013 recommended by the SSC.

Alternative 3. ACL = ABC = 10.06 million pounds which is the lowest value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).

Alternative 4.  $ACL = ABC = 10.36$  million pounds which near the middle value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).

Alternative 5.  $ACL = ABC = 10.95$  million pounds which is the highest value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).

Alternative 6.  $ACL = X\%$  of  $ABC = \underline{\hspace{2cm}}$  million pounds.

**SA COMMITTEE: ADOPT THE ALTERNATIVES UNDER 4.13.5 BUT MOVE ALTERNATIVE 2 OR 4 TO THE CONSIDERED BUT REJECTED APPENDIX.  
APPROVED BY COMMITTEE**

#### **4.13.6 Annual Catch Target (ACT)**

Action 13a. Commercial Sector ACT

Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group king mackerel.

Alternative 2. The commercial sector ACT equals the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 4. The commercial sector ACT equals 80% of the commercial sector ACL.

**SA COMMITTEE MOTION: ACCEPT THE ALTERNATIVES FOR  
COMMERCIAL SECTOR ACT.  
APPROVED BY COMMITTEE**

Action 13b. Recreational Sector ACT

Alternative 1 (no action). Do not specify recreational sector ACTs for Atlantic migratory group king mackerel.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Alternative 4. The recreational sector ACT equals  $sector\ ACL[(1-PSE) \text{ or } 0.5, \text{ whichever is greater}]$ .

**SA COMMITTEE MOTION: ACCEPT THE 4 ALTERNATIVES FOR  
RECREATIONAL SECTOR ACT.  
APPROVED BY COMMITTEE**

#### 4.14 Action 14. Specify Accountability Measures (AMs) for Atlantic Migratory Group king mackerel

The Councils may specify multiple preferred from among the following:

Alternative 1 (Status Quo). The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.

Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Implement Accountability Measures (AMs) for the recreational sector for this stock. If the recreational sector ACL is exceeded, the Regional Administrator shall publish a notice to **reduce the length of the following fishing year** by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use the most recent three-year running average.

Alternative 3. Option c. Examine the impacts of release mortality resulting from increasing the minimum size limit from 20 inches fork length to 24 inches fork length. Evaluate whether the minimum size limit should be reduced to 20 inches fork length.

Alternative 4. Option d. Status Quo - the bag limit for Atlantic group king mackerel would remain at 3 NY-GA, 2 FL (Note: Under this bag limit, the recreational catch was 3.775 million pounds in 2006/2007, 6.845 million pounds in 2007/2008, and 3.905 million pounds in 2008/2009.)

Alternative 5. Option e. Include within the existing bag limit, one fish >45 inches FL.

Alternative 6. Option f. Include within the existing bag limit, one fish >50 inches FL.

Alternative 7. Option g. Prohibit bag limit sales of ~~recreationally-caught~~ Atlantic migratory group king mackerel.

**SA COMMITTEE MOTION: MODIFY ALTERNATIVE 7 TO PROHIBIT BAG LIMIT AND TOURNAMENT SALES OF ATLANTIC MIGRATORY GROUP KING MACKEREL**

**SUB-MOTION: TO SPLIT THE MOTION INTO TWO ALTERNATIVES: (1) PROHIBIT TOURNAMENT SALES IF THEY ARE COUNTED AGAINST THE COMMERCIAL QUOTA AND (2) PROHIBIT BAG LIMIT SALES**

**SUB-MOTION APPROVED BY COMMITTEE  
MAIN MOTION APPROVED BY COMMITTEE**

Alternative 8. TRIP LIMITS FOR ATLANTIC GROUP KING MACKEREL

MOTION: BOTH COMMITTEES APPROVED DELETING A AND KEEPING B (6/04)

~~a. Status Quo The possession limits are as follows:~~

<del>April 1 – March 31 NY/CT to Volusia/Flagler</del>	<del>3,500 pounds</del>
<del>April 1 – October 31 Volusia/Flagler to Brevard/Volusia</del>	<del>3,500 pounds</del>
<del>April 1 – October 31 Brevard/Volusia to Dade/Monroe</del>	<del>75 fish</del>
<del>April 1 – October 31 Monroe County</del>	<del>1,250 pounds</del>

b. Modify the bycatch allowances for the shark drift net fishery to:

1. 25 fish per vessel per trip from April 1 through November 15
2. 20 fish per vessel per trip
3. 4 fish per person per trip
4. The 25 fish per vessel per trip from April 1 through November 15 would apply only to vessels that have a history of observer activity and in the area from St. Lucie Inlet, Florida to the Florida/Georgia border
5. Status quo - the possession limit remains at 2 fish per person per trip

SAFMC AP MEMBER REQUESTED A LIMIT ON NUMBER OF SHARK DRIFT NET VESSELS (6/06)

**New alternatives to consider payback of any overage:**

Alternative 9. Commercial payback of any overage.

Sub-alternative a. Payback regardless of stock status.

Sub-alternative b. Payback only if overfished.

Alternative 10. Recreational payback of any overage from one year to the next.

Sub-alternative a. Payback regardless of stock status.

Sub-alternative b. Payback only if overfished.

**SA COMMITTEE MOTION: ACCEPT THE ALTERNATIVES AS MODIFIED FOR ACCOUNTABILITY MEASURES APPROVED BY COMMITTEE**

**SA COMMITTEE MOTION: ADD A NEW ALTERNATIVE THAT WOULD ALLOW ROLL-OVER OF UNDERAGES OF 100% AND OF 50% NOT TO EXCEED ABC APPROVED BY COMMITTEE**

**4.15 Action 15. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), and ACT levels for Atlantic Migratory Group Spanish mackerel**

**4.15.1 Maximum Sustainable Yield (MSY), Minimum Stock Size Threshold (MSST), and Maximum Fishing Mortality Threshold (MFMT)**

The Council has determined that the value for MSY is the value from the most recent stock assessment. Currently MSY = 10.4 million pounds. **Based on the SEDAR 17 assessment, MSY = 11.461 million pounds (Table 11).**

The Council has determined that the value for MSST is the value from the most recent stock assessment based on  $MSST = [(1-M) \text{ or } 0.5 \text{ whichever is greater}] * B_{MSY}$ . Currently MSST =  $0.85(B_{MSY})$  with no poundage estimated. **Based on the SEDAR 17 assessment, MSST = 8,085 metric tons (Table 11).**

The Council has determined that the value for MFMT is the value of  $F_{MSY}$  or proxy from the most recent stock assessment. Currently MFMT =  $F_{MSY} = F_{30\%SPR}$  with no poundage estimated. **Based on the SEDAR 17 assessment, MFMT =  $F_{MSY} = 0.371$  (Table 11).**

**4.15.2 Overfishing Level (OFL)**

The Scientific and Statistical Committee provided the following OFL recommendation at their April 2010 meeting: Since no estimate of MSY is available for Spanish mackerel, the SSC decided to develop ABC recommendations based on landings data. Based on the SEDAR 17 review panel recommendation that overfishing was not occurring, the SSC decided to bypass the OFL estimate and recommend ABC as the median of landings over the last 10 years.

**The Council will need to develop an OFL recommendation.**

**SA COMMITTEE: OFL = UNKNOWN  
APPROVED BY COMMITTEE**

**4.15.3 Allowable Biological Catch (ABC) Control Rule and ABC**

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group Spanish mackerel.

Alternative 2. **Establish ABC based on the SSC's Data Poor ABC control rule.**

**The Council is also considering the following non-SSC Control Rules:**

Alternative 3. Establish an ABC Control Rule where ABC equals OFL.

Alternative 4. Establish an ABC Control Rule where ABC equals a percentage of OFL.

Alternative 4a. ABC=65% OFL

Alternative 4b. ABC=75% OFL



Alternative 4c.  $ABC=85\%OFL$

Alternative 5. Establish an ABC Control Rule where ABC equals a percentage of the yield at MFMT.

Alternative 5a.  $ABC=yield\ at\ 65\%MFMT$

Alternative 5b.  $ABC=yield\ at\ 75\%MFMT$

Alternative 5c.  $ABC=yield\ at\ 85\%MFMT$

Alternative 6. Establish an ABC Control Rule where ABC is a percentage of OFL. The percentage is based upon the level of risk of overfishing ( $P^*$ ).

Alternative 6a.  $ABC=X\%$  of OFL. The X% is based upon  $P^*$  equals .20.

Alternative 6b.  $ABC=X\%$  of OFL. The X% is based upon  $P^*$  equals .30.

Alternative 6c.  $ABC=X\%$  of OFL. The X% is based upon  $P^*$  equals .40.

Alternative 6d.  $ABC=X\%$  of OFL. The X% is based upon  $P^*$  equals .50.

#### **4.15.4 Optimum Yield (OY)**

Currently  $OY =$  the yield from fishing at a fishing mortality rate equal to 40% Spawning Potential Ratio; however, a value was not previously estimated. Based on the SEDAR 17 assessment and the Council's actions on other species, the following options are likely (Table 11).

Alternative 1. No action. Currently  $OY =$  yield at  $F_{40\%SPR}$  with no poundage estimated. Based on the SEDAR 17 assessment, the yield at  $F_{40\%SPR}$  is 11,458,000 pounds.

Alternative 2.  $OY = 65\%$  of the yield at  $F_{MSY} = 10.608$  million pounds.

Alternative 3.  $OY = 75\%$  of the yield at  $F_{MSY} = 11.051$  million pounds.

Alternative 4.  $OY = 85\%$  of the yield at  $F_{MSY} = 11.320$  million pounds.

The following alternative is added for consideration:

Alternative 5.  $OY =$  the yield at  $F_{30\%SPR} = 10.565$  million pounds.

Alternative 6.  $OY =$  the yield at  $F_{max} = 6.598$  million pounds.

#### **4.15.5 Annual Catch Limit (ACL)**

Alternative 1. No action. Currently  $TAC$  or  $ACL = 7.04$  million pounds based on an ABC of 5.7 – 9.0 million pounds.

Alternative 2.  $ACL = ABC = 4.91$  million pounds which is the ABC recommended by the SSC.

Alternative 3.  $ACL = X\%$  of  $ABC =$  \_\_\_\_\_ million pounds.

#### **4.15.6 Annual Catch Target (ACT)**

##### **Action 15a. Commercial Sector ACT**

Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group Spanish mackerel.

Alternative 2. The commercial sector ACT equals the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 4. The commercial sector ACT equals 80% of the commercial sector ACL.

##### **Action 15b. Recreational Sector ACT**

Alternative 1 (no action). Do not specify recreational sector ACTs for Atlantic migratory group Spanish mackerel.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

#### **4.16 Action 16. Specify Accountability Measures (AMs) for Atlantic Migratory Group Spanish mackerel**

The Councils may specify multiple preferred from among the following:

Alternative 1 (Status Quo). The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.

Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Implement Accountability Measures (AMs) for the recreational sector for this stock. If the recreational sector ACL is exceeded, the Regional Administrator shall publish a notice to **reduce the length of the following fishing year** by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use three-year running average.

Alternative 3. Bag Limits:

MOTION: DELETE OPTION A.

APPROVED BY SAFMC COMMITTEE (6/04)

APPROVED BY GMFMC COMMITTEE (6/04)

SAFMC AP AND COMMITTEE BY CONSENSU RECOMMENDED INCLUDING OPTION A FOR SCOPING (6/06).

Sub-Alternative 3a. ~~Option a. Reduce the individual bag limit to 10 NY-FL (Note: this was the previous bag limit).~~

AP MOTION #11 (2009): SUGGEST OPTIONS B & C.  
[TABLED UNTIL TOMORROW]  
UNTABLED  
[INTENT THAT THIS NOT APPLY TO HEADBOATS]  
APPROVED BY AP

Sub-Alternative 3b. Option b. Set a maximum bag limit of 60 Spanish mackerel per boat for charter boats.

Sub-Alternative 3c. Option c. Set the individual bag limit at 15 per person with a maximum of 60 per boat.

Sub-Alternative 3d. Option d. Status Quo - Individual Bag limit for Atlantic group Spanish mackerel remains at 15 NY-FL. (Note: This bag limit was approved at the June 1999 Council meeting, published as a final rule on July 3, 2000, and effective August 2, 2000.)

Sub-Alternative 3e. Option e. Reduce the individual bag limit at from 15 to 10 per person.

**Alternative 4. Prohibit bag limit sales of Atlantic migratory group Spanish mackerel.**

AP MOTION #12 (2009): PROHIBIT SALE OF RECREATIONALLY CAUGHT SPANISH MACKEREL  
APPROVED BY AP 6 TO 2

Alternative 5. Trip Limits:  
MOTION: KEEP FOR SCOPING  
APPROVED BY SAFMC COMMITTEE (6/04)  
APPROVED BY GMFMC COMMITTEE (6/04)

Sub-Alternative 5a. Option a. Status Quo - The possession limits are as follows:

1. April 1 - November 30 -- 3,500 pounds per vessel per day.
2. December 1 until 75% of the adjusted allocation is taken:  
Monday - Friday Unlimited  
Other days 1,500 pounds

(Vessel fishing days begin at 6:00 a.m. and extend until 6:00 a.m. the following day, and vessels must be unloaded by 6:00 p.m. of that following day.)

3. After 75% of the adjusted allocation is taken 1,500 pounds per vessel per day for all days.

4. When 100% of the adjusted allocation is reached: 500 pounds per vessel per day to the end of the fishing year (March 31). Adjusted allocation compensates for estimated catches of 500 pounds per vessel per day to the end of the season.

Sub-Alternative 5b. Option b. Change the unlimited opening from December 1 to November 1<sup>st</sup> or 15<sup>th</sup>.

SAFMC AP would like to see this changed to November 14<sup>th</sup>. (6/04)

MOTION: KEEP SPANISH MACKEREL TRIP LIMITS STATUS QUO BUT CHANGE THE START DATE TO TRACK THE FISHING YEAR (MARCH 1)

APPROVE BY SAFMC AP (6/06)

SAFMC AP SUGGESTED AN OPTION TO TRACK FLORIDA STATE REGULATIONS (3,500 POUNDS MONDAY THROUGH FRIDAY AND THEN 1,500 POUNDS ON SATURDAY AND SUNDAY) BE INCLUDED IN THE SCOPING DOCUMENT (6/06).

Alternative 6. Moratorium & Limited Entry

~~ACTION 15. CONSIDER OPTIONS TO ESTABLISH A MORATORIUM ON ATLANTIC MIGRATORY GROUP SPANISH MACKEREL AND A LIMITED ENTRY PROGRAM.~~

Note: A control date of June 15, 2004 has been established for the Spanish mackerel fishery north of the Dade/Monroe county line on the Florida east coast. Should the Council decide to establish a limited entry program, fishermen obtaining a permit after June 15, 2004 are not guaranteed to be included in the limited entry program.

Note: A letter from Ben Hartig outlining proposed measures for the Atlantic Spanish Mackerel fishery is also attached.

Committee Action: Pick a preferred action.

Option 1. No action.

Option 2. Instruct staff to develop alternatives to address this action.

Option 3. Others??

MOTION: DELETE THIS ACTION; INCLUDE IN APPENDIX AS CONSIDERED BUT REJECTED.

APPROVED BY SAFMC COMMITTEE (6/04)

APPROVED BY GMFMC COMMITTEE (6/04)

SAFMC AP MOTION: REQUEST THE STATE OF FLORIDA MAKE SPANISH MACKEREL PERMIT A REQUISITE TO HARVEST SPANISH MACKEREL COMMERCIALY IN STATE WATERS IN FLORIDA.

APPROVED BY SAFMC AP (6/04)

SAMFC AP MOTION: SET A CONTROL DATE OF 6/15/04 FOR ATLANTIC SPANISH MACKEREL

APPROVED BY SAFMC AP (6/04)

SAFMC COMMITTEE: REQUEST THE STATE OF FLORIDA MAKE SPANISH MACKEREL PERMIT A REQUISITE TO HARVEST SPANISH MACKEREL COMMERCIALY IN STATE WATERS IN FLORIDA  
MOTION WITHDRAWN (6/04)

SAFMC COMMITTEE MOTION: SET A NEW CONTROL DATE OF 6/15/04 FOR SPANISH MACKEREL.  
APPROVED BY SAFMC COMMITTEE (6/04)  
APPROVED BY SAFMC COUNCIL (6/04)

SAFMC COMMITTEE DIRECTED STAFF TO INCLUDE ALTERNATIVES THAT WERE SUGGESTED IN THE LETTER FROM BEN HARTIG AND THAT WERE SUGGESTED AT THE PUBLIC COMMENT PERIOD ON TUESDAY (6/06).

Spanish Mackerel Gillnet Endorsement (provided by an AP member)

Implement a transferable Spanish mackerel gillnet endorsement for those vessels harvesting Spanish mackerel by gillnet in the EEZ:

1. Off Florida - The bulk of the harvest occurs off Florida therefore there is a justification for the Florida only option.
2. Within the management area of the South Atlantic Council, or
3. Throughout the range of the species.

Purpose and Need: In the past several years, Spanish mackerel have become more available in Federal waters. There is increased effort by new entrants into the gillnet fishery for Spanish mackerel. There has been a traditional gillnet fishery in Federal waters since the net ban. The most significant effort on Spanish mackerel occurs in State waters. There has been a good balance between Federal and State water Spanish mackerel harvest in the past. Accommodating new entrants into the gillnet fishery will disrupt the traditional balance that has occurred between State and Federal water fisheries.

The fishing power of gillnets is much greater than the cast net fishery, the predominant gear in State waters. The quota is already being reached. Introduction of new entrants into the gillnet fishery will cause the quota to be reached faster. And if the trend continues, more and more effort will be directed into the gillnet fishery.

All of the traditional net fishermen polled support a gillnet endorsement. A gillnet endorsement, depending on the qualifying criteria, would limit the number of gillnet permit to more traditional gillnet fishermen. Many of these fishermen were severely impacted by the net ban.

**New alternatives to consider payback of any overage:**

Alternative 7. Commercial payback of any overage.

Sub-alternative a. Payback regardless of stock status.

Sub-alternative b. Payback only if overfished.

Alternative 8. Recreational payback of any overage from one year to the next.  
Sub-alternative a. Payback regardless of stock status.  
Sub-alternative b. Payback only if overfished.

**4.17 Action 17. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), Allocations, and ACT levels for Atlantic migratory group cobia**

**4.17.1 Maximum Sustainable Yield (MSY), Minimum Stock Size Threshold (MSST), and Maximum Fishing Mortality Threshold (MFMT)**

The Council has determined that the value for MSY is the value from the most recent stock assessment. **Currently MSY is unknown.**

The Council has determined that the value for MSST is the value from the most recent stock assessment based on  $MSST = [(1-M) \text{ or } 0.5 \text{ whichever is greater}] * B_{MSY}$ . **Currently MSST is unknown.**

The Council has determined that the value for MFMT is the value of  $F_{MSY}$  or proxy from the most recent stock assessment. **Currently MFMT is unknown.**

**The Council will need to develop alternatives for MSY, MSST and MFMT.**

**4.17.2 Overfishing Level (OFL)**

The Scientific and Statistical Committee provided the following OFL at their April 2010 meeting: “Since no estimate of MSY is available for cobia the SSC decided to estimate OFL as the median of landings data for the period 1986-2008. **Therefore, OFL = 857,714 pounds.**”

**4.17.3 Allowable Biological Catch (ABC) Control Rule and ABC**

ABC is recommended by the Scientific and Statistical Committee and specified by the Council.

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group cobia.

Alternative 2. **Establish ABC based on the SSC’s Data Poor ABC control rule.**

The SSC decided to develop OFL for each species based on median of landings for 1999 to 2008. From there, they will apply the ABC control rule for all the species together for each species grouping to develop the ABC reduction level. The results of the ABC control rule will be multiplied by the OFL to determine the reduction to the OFL for the grouping to each individual species. Each ABC would start at 35% (0% for unknown depletion, 15% because not forage or habitat, \_\_\_% the appropriate PSA score, 20% out of 25% for certainty of OFL level) of OFL. The variability in the ABC will be that they will have to use the PSA for each species and add the

appropriate percent to the ABC that will come up with the appropriate level. The range of ABC for each data poor species will be 35% to 55% of OFL. This approach will be revisited species by species as more data become available. This is considered the “Triage Approach” for the snapper grouper data poor species. Current species exceptions are golden tilefish, yellow tail snapper, wreckfish, and amberjack. Since the Council is following the red porgy rebuilding plan, they won’t be included in this data poor snapper grouper analysis.

Since no estimate of MSY is available for cobia the SSC decided to estimate OFL as the median of landings data for the period 1986-2008. Therefore, OFL = 857,714 pounds. Application of the data-poor control rule generated the following adjustments (Tier 1: +0%, Tier 2: +15%, Tier 3: +20%, Tier 4: +20%), so ABC will be set at 55% of OFL. **Therefore, ABC for cobia = 471,743 pounds.**

**The Council is also considering the following non-SSC Control Rules:**

Alternative 3. Establish an ABC Control Rule where ABC equals OFL.

Alternative 4. Establish an ABC Control Rule where ABC equals a percentage of OFL.

Alternative 4a.  $ABC=65\%OFL$

Alternative 4b.  $ABC=75\%OFL$

Alternative 4c.  $ABC=85\%OFL$

Alternative 5. Establish an ABC Control Rule where ABC equals a percentage of the yield at MFMT.

Alternative 5a.  $ABC=\text{yield at }65\%MFMT$

Alternative 5b.  $ABC=\text{yield at }75\%MFMT$

Alternative 5c.  $ABC=\text{yield at }85\%MFMT$

Alternative 6. Establish an ABC Control Rule where ABC is a percentage of OFL. The percentage is based upon the level of risk of overfishing ( $P^*$ ).

Alternative 6a.  $ABC=X\%$  of OFL. The  $X\%$  is based upon  $P^*$  equals .20.

Alternative 6b.  $ABC=X\%$  of OFL. The  $X\%$  is based upon  $P^*$  equals .30.

Alternative 6c.  $ABC=X\%$  of OFL. The  $X\%$  is based upon  $P^*$  equals .40.

Alternative 6d.  $ABC=X\%$  of OFL. The  $X\%$  is based upon  $P^*$  equals .50.

#### 4.17.4 Optimum Yield (OY)

Currently OY = the yield from fishing at a fishing mortality rate equal to 40% Spawning Potential Ratio; however, a value was not previously estimated.

Alternative 1. No action. Currently OY = yield at  $F_{40\%SPR}$  with no poundage estimated.

Alternative 2. OY =  $65\%F_{MSY}$  = ?????? million pounds.

Alternative 3. OY =  $75\%F_{MSY}$  = ?????? million pounds.

Alternative 4. OY =  $85\%F_{MSY}$  = ?????? million pounds.

#### 4.17.5 Allocations

Alternative 1. No action. Currently there are no allocations for cobia.

Alternative 2. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on landings from the years 2007-2009. The allocation would be xx% commercial and y% recreational. Beginning in 2011, the commercial allocation would be xxxxxx lbs gutted weight and the recreational allocation would be xxxxx fish (yyyyyy lbs gutted weight). The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.

Alternative 3. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on the following formula for each sector:

Sector apportionment =  $(50\% * \text{average of long catch range (lbs) 1986-2009??}) + (50\% * \text{average of recent catch trend (lbs) 2007-2009??})$ . The allocation would be xx% commercial and yy% recreational. Beginning in 2011, the commercial allocation would be xxxxxx lbs gutted weight and the recreational allocation would be yyyy fish (xxxxx lbs gutted weight). The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.

Alternative 4. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on the following formula for each sector:

Sector apportionment =  $(50\% * \text{average of long catch range (lbs) 1986(or 1999)-2008}) + (50\% * \text{average of recent catch trend (lbs) 2006-2008})$ . The allocation would be xx% commercial, yy% for-hire, and zz% private recreational. Beginning in 2011, the commercial allocation would be \_\_\_\_\_ lbs gutted weight, the for-hire allocation would be \_\_\_\_\_ fish (\_\_\_\_\_ lbs gutted weight), and the private recreational allocation would be \_\_\_\_\_ fish (\_\_\_\_\_ lbs gutted weight). The commercial, for-hire, and private recreational allocations specified for 2011 would remain in effect beyond 2011 until modified.



Alternative 5. Split the allocations for Atlantic migratory group cobia equally among the two sectors. The allocation would be 50% commercial and 50% recreational. Beginning in 2011, the commercial allocation would be xxxxx lbs gutted weight and the recreational allocation would be yyyyy fish (xxxxx lbs gutted weight). The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.

#### **4.17.6 Annual Catch Limit (ACL)**

The ACL is equivalent to TAC as used in the past.

Alternative 1. No action. Currently there is no TAC or ACL for cobia.

Alternative 2. ACL = ???? thousand pounds based on the SSC recommendation.

Alternative 3. ACL = X% of ABC = ???? thousand pounds.

#### **4.17.7 Annual Catch Target (ACT)**

Action 17a. Commercial Sector ACT

Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group cobia.

Alternative 2. The commercial sector ACT equals the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 4. The commercial sector ACT equals 80% of the commercial sector ACL.

Action 17b. Recreational Sector ACT

Alternative 1 (no action). Do not specify recreational sector ACTs for Atlantic migratory group cobia.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

#### **4.18 Action 18. Specify Accountability Measures (AMs) for Atlantic Migratory Group cobia**

The Councils may specify multiple preferred from among the following:

Alternative 1 (Status Quo). There is no quota for cobia and there are no AMs in place for cobia. This would retain the following regulations that apply to both recreational and commercial fishermen: (a) 33" fork length minimum size limit, (b) 2 per person bag limit (Note: Florida state regulations only allow 1 per person), (c) one day possession limit, (d) must be landed with heads and fins intact, and (d) charter/headboats require a permit for Coastal Migratory Pelagics.

Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.

Alternative 3. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Implement Accountability Measures (AMs) for the recreational sector for this stock. If the ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use three-year running average.

Alternative 4. Reduce the bag limit to 1 per person.

**Alternative 5. Prohibit bag limit sales of Atlantic migratory group cobia.**

Alternative 6. Specify a commercial trip limit.

Sub-Alternative 6a. Status Quo. Currently the commercial sector is included under the bag limit of 1 per person.

Sub-Alternative 6b. Specify a commercial trip limit of 1 cobia per person.

Alternative 7. Establish a spawning season closure: April-September or April-June or some other time period (Council to specify).

Alternative 8. Establish a spawning season area closure: April-September or April-June or some other time period (Council to specify).

Alternative 9. Establish a boat limit of 1 per boat/vessel during: April-September or April-June or some other time period (Council to specify).

New alternatives to consider payback of any overage:

Alternative 10. Commercial payback of any overage.

Sub-alternative a. Payback regardless of stock status.

Sub-alternative b. Payback only if overfished.

Alternative 11. Recreational payback of any overage from one year to the next.

Sub-alternative a. Payback regardless of stock status.

Sub-alternative b. Payback only if overfished.



# South Atlantic Fishery Management Council

## News Release

FOR IMMEDIATE RELEASE  
June 18, 2010

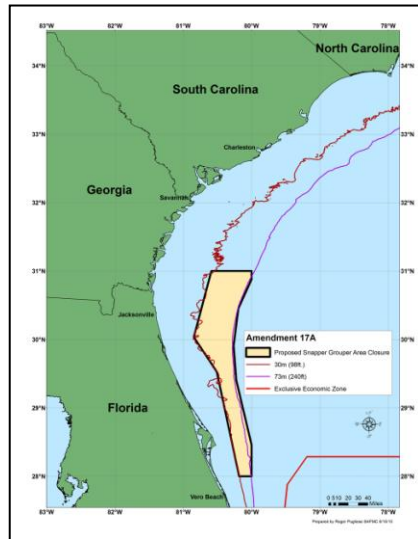
CONTACT: Kim Iverson  
Public Information Officer  
Toll Free 866/SAFMC-10 or 843/571-4366

### Red Snapper Fishery Remains Closed in South Atlantic

*Additional regulations to end overfishing and restore stock approved for review by Secretary of Commerce*

The red snapper fishery remains closed to both commercial and recreational fishermen throughout federal waters (3 to 200 miles offshore) in the South Atlantic region. Measures taken by the South Atlantic Fishery Management Council during its meeting in Orlando, Florida this past week may determine how long the closure stays in place as well as other regulations impacting fishermen who target the 73 species that make up the snapper grouper management complex. The additional regulations could be implemented by December of this year.

Members of the Council, in a 9-4 vote, approved Amendment 17A to the Snapper Grouper Fishery Management Plan to end overfishing of red snapper and rebuild the South Atlantic stock during its meeting in Orlando. The amendment is designed to meet the Congressional mandates of the reauthorized Magnuson-Stevens Act and must be approved by the Secretary of Commerce before regulations become effective.



An area closure for all snapper grouper species (98' to 240') is included in Amendment 17A to further reduce the bycatch of red snapper. The area closure targets areas where red snapper landings are highest. The amendment would also continue the red snapper closure currently in place in federal waters in the South Atlantic. The new measures could be implemented by December 2010.

assessment for red snapper is underway and the results will be available to the Council during its December 6-10, 2010 meeting in New Bern, NC. Restrictions may be modified, depending on the results of the new assessment. Fishermen are hoping the new assessment reflects their observations of increases in the number and sizes of red snapper, and less stringent regulations will be adopted by the Council.

Management measures that may be implemented later this year through Amendment 17A include 1) a continuation of the closure of the red snapper fishery; 2) a new area closure off of northeastern Florida and southern Georgia, where fishing for all snapper grouper species in water depths of 98 - 240 feet would be prohibited (with the exception of spearfishing and use of black sea bass pots); 3) a requirement for the use non-stainless steel circle hooks when fishing for snapper grouper species north of 28 degrees N. latitude; and 4) the development of a fishery-independent monitoring program to help track the rebuilding and recovery of red snapper.

In addition to the red snapper closure, the area closure is necessary to reduce harvest of red snapper by 76%, including the estimated number of fish that die even when released. The area closure has been a highly controversial issue and the Council has discussed its size and configuration over the past year in an effort to meet the mandates of the Act and minimize negative economic and social impacts. The Council reduced the size of the area, eliminating more than 1200 square miles off the coast of Georgia, after modifying the biological parameters and considering other variables such as enforcement compliance and effort shifts in the fishery.

However, if regulations in Amendment 17A are implemented in December, those regulations could quickly change. A new stock

(Continued)

### **Red Snapper Fishery (*Continued*)**

More than 200 fishermen crowded into the Council's public comment session during the meeting in Orlando to express their concerns about the impacts of the continued closure of the red snapper fishery and the regulations proposed in Amendment 17A. A series of public hearings held by the Council in November 2009 was also well attended, with fishermen from the Cape Canaveral and Jacksonville, Florida area particularly concerned about the possibility of an area closure. Many fishermen, primarily those involved in the commercial king mackerel fishery, also spoke out against the use of catch share programs. The Council's Mackerel Committee met jointly with the Gulf of Mexico Fishery Management Council's Committee to determine alternatives for addressing annual catch limits, accountability measures, and other mandates of the reauthorized Magnuson-Stevens Act. The Gulf Council is forming an advisory panel of fishermen to consider catch shares in the Gulf, and fishermen from the South Atlantic will also serve on the AP. There are currently no plans in place to implement catch shares for the king mackerel fishery in the South Atlantic.

Spiny lobster fishermen from both the Gulf and South Atlantic Council's advisory panels also met with committee members to discuss alternatives for annual catch limits and other mandates of the Magnuson-Stevens Act. A stock assessment for spiny lobster is underway this year. Both spiny lobster and king mackerel are managed jointly by the two councils.

The South Atlantic Council is developing a Comprehensive Annual Catch Limit Amendment to address the reauthorized Magnuson-Stevens Act mandates, and public hearings will be held later this year. The Council will meet again September 13-17, 2010 in Charleston, South Carolina. Meeting information, including Summary motions from the June meeting in Orlando, will be posted on the Council's Web site at [www.safmc.net](http://www.safmc.net) as it becomes available.

**The South Atlantic Fishery Management Council, one of eight regional councils, conserves and manages fish stocks from three to 200 miles offshore of North Carolina, South Carolina, Georgia and east Florida.**

NOAA FISHERIES  
Office of Law Enforcement

NORTHEAST ENFORCEMENT DIVISION

MAFMC  
COUNCIL REPORT



August 2010

To report fisheries violations,  
call our National Hotline at 1-800-853-1964.

NORTHEAST ENFORCEMENT DIVISION

- 1) Enforcement activity summary
- 2) Northeast vessel monitoring system (VMS) program
- 3) Seizure actions
- 4) Northeast Observer program report

#### ENFORCEMENT ACTIVITY SUMMARY

Defendant Thomas George, the chief executive officer of Sterling Seafood Corporation located in Cresskill, N.J. pleaded guilty to importing falsely labeled fish from Vietnam and evading over \$60 million in federal tariffs, as well as selling over \$500,000 in similarly misbranded fish purchased from another importer (Virginia Star Seafood). Ignacia S. Moreno, Assistant Attorney General for the Justice Department's Environment and Natural Resources Division, said "This case is an example of effective coordination among federal law enforcement agencies to investigate illegal activity that hurts economic markets, defrauds consumers and masks the depletion of fishery resources by substituting a lower value farmed species for one being depleted in the wild." George was sentenced to 22 months in prison. In addition to the prison term, George was sentenced to a year of supervised release and was ordered to pay restitution in the amount of \$64,173,839. George also paid a \$50,000 community service payment to the National Fish and Wildlife Foundation to be expressly earmarked for research into the identification of fish and other marine organisms.

NED Agents received information from Virginia Maine Police regarding a dead Loggerhead sea turtle entangled in a gill net in Virginia state waters. The net was large mesh (12") and under the Bottlenose Dolphin Take Reduction Plan (BNTRP) the fisherman could be no further than .5 nm from his net at any time the net is deployed. The fisherman admitted to being home for several days prior to the incident.

NED Agents are working with the Delaware DNR Police on a case involving a vessel that was boarded after returning from an EEZ black sea bass trip and did not have a valid permit as required. The owner allegedly stated to the boarding officer that he did not need to show them anything and that he's been doing this for his whole life and he has more rights out there than the DE officers do. He stated that there is corruption out there and it starts with them.

NED Agents conducted a pulse operation in southern New England and boarded 20 federally permitted vessels and 4 state permitted vessels. No violations were detected. In general, the fishermen

were all cooperative and supportive of NOAA's function. Many multispecies and scallop fisherman expressed satisfaction with the current fishing climate from both the stock and regulatory perspective. A common theme regarding over abundant dogfish continued to be shared by the gillnetters. A recent increase in limits to this fishery has been described as helpful, but not enough to address this problem. Several fisherman expressed satisfaction with the VMS call-in back-up system when hailing their catch from sea. This has been an area of concern for this Sector and they were pleased about a backup option if necessary. Other fishermen expressed a desire to have a drop-down menu in their VMS declarations for their designated landing ports.

NED Agents are looking into multiple complaints involving potential violations with permits, possession limits and chartering of Atlantic bluefin tuna trips.

#### **VMS REPORT**

The NE VMS Team is currently monitoring 1,171 NE-permitted vessels, including 628 with Boatrac units, 510 with SkyMate units and 29 with GMPCS units. This is a reduction since the last report due to vessels placed in 'inactive' status as they no longer hold current VMS-mandatory NE permits.

#### **SEIZURE ACTIONS**

##### Montauk, NY

Agents assisted by New York DEC officers seized a scallop overage, 181 lbs. of in-shell scallops, 125 lbs. of shucked scallop meats, and 72 lbs. of yellowtail flounder, valued at \$1,181.75 from the FV Lady Leah. Other allegations included improper trawl gear; failure to accurately fill out FVTR prior to landing; false statements; and interference with the inspection of a vessel.

##### Hampton Bays, NY

Agents assisted by New York DEC officers seized four yellow fin tuna totaling 147 lbs., from the FV Total Return for retaining/possessing HMS without a permit. The tuna was abandoned and to donated to Long Island Cares, Inc.

##### Virginia Beach, VA

Agents assisted by Virginia Marine Officers seized one Atlantic bluefin tuna and one skipjack tuna during a VA Beach Tuna Tournament. FV Reel Partners exceeded the recreational ABT limit and the tuna was abandoned to York County Fire Department



by VRMC.

Cape May, NJ

Agents seized two yellow fin tuna at an annual HMS Tournament. FV Hands Off was fishing without the appropriate valid vessel permit. The abandoned fish were donated to the US Coast Guard Chief's Association Food Bank.

Boothbay Harbor, ME

Agents assisted by Maine Marine Patrol seized 200 lbs. of chunked/quartered thresher shark pieces and one whole gutted Atlantic wolffish. FV Ella and Sadie illegally possessed Atlantic wolffish, and failed to maintain a shark in its proper form.

**NORTHEAST OBSERVER PROGRAM**

During this period thirty five (35) complaints were received from the Northeast Fisheries Observer Program. The following summary indicates the status of the investigations into the complaints.

**Observer Refusal Investigations**

Thirteen observer refusal complaints were received. Two complaints were closed as unfounded, two were closed due to lack of evidence, one was closed under COPPS, five are ongoing, and three are being documented as violations.

**Observer Harassment/Intimidation Investigations**

Four observer harassment/intimidation complaints were received. One was closed due to lack of evidence, two were closed with a verbal warning, and one is ongoing.

**Observer Interference Investigations**

Three observer interference complaints were received. One was closed with a verbal warning and two are ongoing.

**Observer Safety Investigations**

Five observer safety complaints were received. Four were closed under COPPS and one ongoing.

**Observer Gear/Sample Tampering**

One gear tampering complaint was received and is ongoing.

**Observer Program Notification**

Nine observer program notification complaints were received. Two were closed as unfounded and seven are ongoing.

## Mid-Atlantic Fishery Management Council Specifications

(as of August 6, 2010)

Fishery Management Plans	2009				2010				2011			
	Council Approved	Specs Package Submitted	NMFS Proposed Rule	NMFS Final Rule	Council Approved	Specs Package Submitted	NMFS Proposed Rule	NMFS Final Rule	Council Approved	Specs Package Submitted	NMFS Proposed Rule	NMFS Final Rule
Summer Flounder, Scup, Black Sea Bass <ul style="list-style-type: none"> <li>• Commercial</li> <li>• Recreational</li> </ul>	08/06/08 12/09/08	09/15/08 01/23/09	10/28/08 04/01/09	01/02/09 06/24/09	08/05/09 12/08/09	09/16/09 02/23/10	11/04/09 04/27/10	12/22/09 07/08/10				
Squid, Mackerel, Butterfish	06/11/08	08/02/08	11/17/08	02/06/09	06/10/09	08/06/09	11/12/09	02/03/10	06/09/10			
Dogfish	12/10/08	01/22/09	03/19/09	05/01/09	12/08/09	02/01/10	04/02/10	06/24/10				
Bluefish	08/06/08	12/02/08	03/02/09	05/04/09	08/05/09	12/17/09	03/08/10	05/14/10				
Surfclam, Ocean Quahog	01/04/08 <sup>b</sup>								06/09/10			
Tilefish <sup>a</sup> (NMFS Final Rule 10/22/02)												

<sup>a</sup> Owing to uncertainties regarding the 2005 stock assessment and concerns expressed by the NEFSC, the proposed rule to increase TAL from 1,995,000 pounds to 2,176,000 pounds was withdrawn. Fishery will continue at a TAL of 1,995,000 until new stock assessment is conducted.

<sup>b</sup> Final rule applies for fishing years 2008, 2009, and 2010.

**Mid-Atlantic Fishery Management Council**  
**Status of FMPs, Amendments and Frameworks**  
(as of August 6, 2010)

FMP/Amendment	Date Approved by Council	Lapse	Date submitted to NMFS/NERO	Lapse	FR Notice of Plan Availability	Lapse	Proposed Rule Publication Date	Lapse	Plan Approval/Disapproval Letter	Lapse	Final Rule Publication Date
Squid, Mackerel, Butterfish Amendment 10	10/16/08	14	10/30/08	257	07/14/09	50	09/03/09	34	10/07/09	155	03/11/10
Squid, Mackerel, Butterfish Amendment 11											
Squid, Mackerel, Butterfish Amendment 14											
Summer Flounder, Scup, Black Sea Bass Amendment 17	<b>SUSPENDED</b>										
Surfclam and Ocean Quahog Amendment 15											
Tilefish Amendment 1	04/10/08	64	06/13/08 *12/18/08	326	05/04/09	14	05/18/09	74	07/31/09	24	08/24/09
Dogfish Amendment 3											
Bluefish Amendment 4											
Omnibus Amendment (ACL/AM)											

Framework	First Framework Meeting	Lapse	Second Framework Meeting	Lapse	Date Submitted to NMFS/NERO	Lapse	Proposed Rule Publication Date	Lapse	Final Rule Publication Date
Spiny Dogfish Framework 2	08/07/08	69	10/15/08	47	12/01/08	92	03/03/09	113	06/24/09

\* Clarified GRA for Tilefish Amendment 1.

"Lapse" is the amount of time in days from Council approval to column-heading action.

**2010 - MAFMC ANNUAL WORK PLAN / SCHEDULE OF ACTIVITIES**  
(As of August 6, 2010)

**January**

1	New Year's Day
8	SSC and Black Sea Bass Monitoring Committee Meeting, via Webinar at MAFMC Office, Dover, DE
13 - 14	Council Coordination Committee, Washington, DC
18	Martin Luther King Day
25-29	Transboundary Resources Assessment Committee Meeting, Woods Hole, MA
26-28	NEFMC Council Meeting - Portsmouth, NH
27	VA Sea Grant Project Participants Symposium, Richmond, VA
27	Summer Flounder, Scup, Black Sea Bass Technical Committee Meeting, Baltimore, MD

**February**

1-4	ASMFC Meeting - Alexandria, VA
2-4	Atlantic Scientific Review Group Meeting, Baton Rouge, LA
9-11	MAFMC Council Meeting - Cambridge, MD <ul style="list-style-type: none"> <li>• Review and approve Amendment 11 to Squid, Mackerel, Butterfish for Secretarial Submission (Moved to April)</li> <li>• Review and adopt DEIS and PHD for Amendment 3 to Dogfish FMP (Moved to April)</li> <li>• RSA Workshop to receive Programmatic Review Report and comments</li> <li>• Receive SAW and 49<sup>th</sup> SARC Reports on butterfish and surfclams</li> <li>• 1<sup>st</sup> Public hearing on Amendment 11 to Squid, Mackerel, Butterfish FMP</li> </ul> Public hearing on Amendment 5 to Monkfish FMP
15	President's Day (observed)
16	<del>SSC Meeting, Baltimore, MD (POSTPONED TO MARCH 9)</del>
16-18	Public hearings on Amendment 11 to Squid, Mackerel, Butterfish FMP

**March**

2	<del>Meeting with Clam Industry to discuss imports, Easton, MD (Cancelled)</del>
8	Monkfish Public Hearing, Riverhead, NY
9	Monkfish Public Hearing, Lakewood, NJ
9	SSC Meeting, Baltimore, MD
9	<del>Squid, Mackerel, Butterfish Committee Meeting (Amd 11 - review comments, make edits, select Preferred Alternatives), TBD</del>
12	NRCC ACL/ AM Working Group, Providence, RI
13	Fishing Buddies of America, Manhattan, NY
46	<del>Joint Dogfish Committee Meeting, Williamsburg, VA (Cancelled)</del>
16-18	Catch Shares Workshop, Williamsburg, VA
24	Joint Dogfish Committee Meeting on Amendment 3, Mansfield, MA
25	Monkfish Committee Meeting with Advisors, Mansfield, MA

## April

1-2	NEFMC Habitat Committee, AP, and PDT Meeting, Boston, MA
2	NY Summer Flounder Lawsuit - Oral Arguments, Brooklyn, NY
4	Easter
6	Interspecies Committee Meeting, Boston, MA
7-9	ICCAT Advisory Committee Meeting, Silver Spring, MD
9	Dogfish TRAC Assessment, Woods Hole, MA (via Webinar)
13-15	<p>MAFMC Council Meeting - Duck, NC</p> <ul style="list-style-type: none"> <li>• Review and adopt DEIS and public hearing document for ACL/AM Omnibus Amendment</li> <li>• <del>Select preferred alternatives for Amendment 3 to Spiny Dogfish FMP (June)</del></li> <li>• <del>Review and adopt DEIS and public hearing document for Amd 15 to SC/OQ FMP</del></li> <li>• <del>Approve Amendment 11 to Squid, Mackerel, Butterfish FMP for Secretarial submission (June)</del></li> <li>• Approve Amendment 14 to Squid, Mackerel, Butterfish FMP Scoping Document</li> <li>• Approve final measures for Monkfish Amendment 5</li> </ul>
16-17	Recreational Summit, Alexandria, VA
20	DE Sea Grant Meeting, Newark, DE
21	VA Sea Grant Pre-Proposal Review, Lewes, DE
21	Spiny Dogfish Amendment 3 FMAT, Foxboro, MA
27-29	NEFMC Council Meeting - Mystic, CT
28	SSC and Monitoring Committee Pre-decisional Briefing (via Webinar)

## May

3	ACL/AM Omnibus Amendment Public Hearing, Alexandria, VA
3-6	ASMFC Meeting - Alexandria, VA
6	Meeting with AA and MAF Council Chairmen, Silver Spring, MD
9	Mother's Day
10	ACL/AM Omnibus Amendment Public Hearing, Newport News, VA
10	Executive Director Search Committee Meeting for Interviews, Norfolk, VA
10-14	<del>Public hearings for Spiny Dogfish Amendment 3</del>
11-12	SSC and Monitoring Committee meetings for Atlantic mackerel, Loligo and Illex squid, butterfish, Surfclam and ocean quahog for 2011 quota specifications, Baltimore, MD
12	ACL/AM Omnibus Amendment Public Hearing, East Setauket, NY
13-14	NRCC Meeting, Baltimore, MD
17-20	National Habitat Assessment Workshop, St. Petersburg, FL
17-21	Council Coordination Committee, Anchorage, AK
17-21	<del>Scoping hearings on Amendment 14 to Squid, Mackerel, Butterfish FMP</del> (moved to June)
18	ACL/AM Omnibus Amendment Public Hearing, Pomona, NJ
26	Squid, Mackerel, Butterfish Committee Meeting w/ Advisors and Amd 11 FMAT, Baltimore, MD
27	CLOSED Special Council Meeting for Executive Director Search, Baltimore, MD
31	Memorial Day

## June

2	Protected Resources Committee w/ Advisors (via Webinar)
3	Joint Spiny Dogfish Committee w/ Advisors (via Webinar)
8-10	MAFMC Council Meeting - New York City, NY <ul style="list-style-type: none"> <li>• Adopt Squid, Mackerel, Butterfish Specifications for 2011</li> <li>• Adopt Surfclam/Ocean Quahog Specifications for 2011, 2012, 2013</li> <li>• Provide RSA award recommendations for 2011</li> <li>• Approve Amendment 11 to Squid, Mackerel, Butterfish FMP for Secretarial submission</li> </ul> Select preferred alternatives for Amendment 3 to Spiny Dogfish FMP
10-12	Southeast Fisheries Association Annual Meeting, Orlando, FL
14	Scoping Hearing on Amendment 14 to Squid, Mackerel, Butterfish FMP, Warwick, RI
15	Scoping Hearing on Amendment 14 to Squid, Mackerel, Butterfish FMP, Riverhead, NY
17	Scoping Hearing on Amendment 14 to Squid, Mackerel, Butterfish FMP, Cape May, NJ
20	Father's Day
21-23	Coastal Habitat Conservation in a Changing Climate, Wilmington, DE
22-24	NEFMC Council Meeting - Portland, ME
23	Scoping Hearing on Amendment 14 to Squid, Mackerel, Butterfish FMP, Newport News, VA

## July

1	Blue Ribbon Panel Meeting, Washington, DC
5	Independence Day (observed)
12-16	Public Hearings for Amendment 3 to Spiny Dogfish FMP
13	SSC and Monitoring Committee, SF/SC/BSB/Bluefish Specs (via Webinar)
19-23	Public hearings for Amendment 15 to Surfclam/Ocean Quahog FMP
22	MRIP Logbook Project Outreach, Panama City, FL
26-27	Plan Development Team Meeting (EFH), Boston, MA
27-28	NEFMC Herring Oversight Committee Meeting (regarding river herring), Portland, ME
28-29	SSC review for August Commercial Specification Cycle for summer flounder, scup, black sea bass, and bluefish, Philadelphia, PA
30	Monitoring Committee Meetings for August Commercial Specification Cycle for summer flounder, scup, black sea bass, and bluefish, Philadelphia, PA

## August

2-5	ASMFC Meeting - Alexandria, VA
3	NOAA National Enforcement Summit, Washington, DC
11	NRCC Observer Funding Working Group, Gloucester, MA
12-13	ACL/AM Working Group Workshop, Woods Hole, MA
17-19	MAFMC Council Meeting - Philadelphia, PA <ul style="list-style-type: none"> <li>• Swearing in of New and Reappointed Council members</li> <li>• Election of Officers</li> <li>• Adopt Summer Flounder, Scup, Black Sea Bass Specifications for 2011, 2012, 2013</li> <li>• Adopt Bluefish Specifications for 2011</li> <li>• <del>Approve SSC's multi-year research priority recommendations (Moved to Oct)</del></li> <li>• Approve RSA Mission Statement and Priorities List for 2012 (and beyond if warranted)</li> <li>• Review and approve ACL/AM Omnibus Amendment for Secretarial Submission</li> </ul>
22-25	Pacific States Marine Fisheries Commission Annual Meeting, Girdwood, AK

## September

6	Labor Day
7	SSC Pre-decisional Briefing (via Webinar) for Spiny Dogfish
9	Visioning Project Committee Meeting, Baltimore, MD
15	Ecosystems Approach to Marine Fisheries Science and Management Symposium, Pittsburgh, PA
21-22	SSC and Monitoring Committee Meetings for Spiny Dogfish Specification Cycle
21-23	HMS Advisory Panel, Silver Spring, MD
28	Squid, Mackerel, Butterfish Meeting for Amendment 14 (non-decisional information)
28-30	NEFMC Council Meeting, Newport, RI

## October

11	Columbus Day
12-14	MAFMC Council Meeting - Cape May, NJ <ul style="list-style-type: none"><li>• Adopt Dogfish Specifications for 2011-2012</li><li>• Approve SSC's multi-year research priority recommendations</li><li>• <del>Review and approve Amendment 15 to Surfclam/Ocean Quahog FMP for Secretarial Submission</del></li><li>• Review and approve Amendment 3 to Spiny Dogfish FMP for Secretarial Submission</li></ul>
19-21	National SSC Workshop, Charleston, SC
26-28	2010 American Sportfishing Association Summit, Ft. Lauderdale, FL
27-28	NRCC Meeting, Providence, RI

## November

8-12	ASMFC 69 <sup>th</sup> Annual Meeting - Charleston, SC
11	Veterans Day
14-17	Energy Use in Fisheries, Seattle, WA
16-18	NEFMC Council Meeting - Brewster, MA
23	Monitoring Committee and Industry Advisors Meetings for Summer Flounder, Scup, Black Sea Bass Recreational Specifications
25	Thanksgiving

## December

14-16	MAFMC Council Meeting - Virginia Beach, VA <ul style="list-style-type: none"><li>• Adopt Summer Flounder, Scup, Black Sea Bass recreational specs for 2011</li><li>• Squid, Mackerel, Butterfish Committee w/Advisors (identify preliminary alternative set)</li><li>• <del>Review and adopt DEIS and public hearing document for Amendment 14 to Squid, Mackerel, Butterfish FMP</del></li></ul>
25	Christmas Day

### Likely FMP Amendments/Frameworks for 2010:

- \* Amendment 11 to Squid, Mackerel, Butterfish FMP [SS-Oct]
- \* Omnibus Amendment to incorporate Annual Catch Limits (ACL) and Accountability Measures (AM) into all Council FMPs. [SS-Aug]
- \* ~~Amendment 15 to Surfclam/Ocean Quahog FMP~~
- \* Amendment 3 to Spiny Dogfish FMP [SS-Oct]
- \* Amendment 14 to Squid, Mackerel, Butterfish FMP
- \* Amendment 4 to Bluefish FMP [under development]
- \* Amendment 17 to Summer Flounder, Scup, and Black Sea Bass FMP [suspended pending ACL/AM resolution]

NOTE: Numbering convention for Council Amendments changed due to incorporation of SBRM and ACL/AM Omnibus Amendments into numbering system.

### FMPs with Outstanding SFA Disapprovals Requiring Corrective Action:

- \* Amendment 1 to Bluefish FMP - EFH gear impacts, port descriptions, *de minimus* status





**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Marine Fisheries Service  
One Blackburn Drive  
Gloucester, MA 01930-2298

June 24, 2010

## **2010 Spiny Dogfish Commercial Quota & Possession Limits Effective July 26, 2010**

Dear Spiny Dogfish Permit Holder:

The National Marine Fisheries Service (NOAA Fisheries Service) announces spiny dogfish specifications and management measures for the 2010 fishing year (May 1, 2010 -April 30, 2011). Any vessel issued a Federal permit for spiny dogfish is required to comply with these measures, whether fishing in state or Federal waters. If a Federal spiny dogfish measure and a state measure differ, the vessel must comply with the more restrictive requirement. For example, if a state has a possession limit that is lower than the Federal possession limit, the vessel must comply with the state limit when it is within state waters or landing spiny dogfish in that state.

### **QUOTA ALLOCATION AND POSSESSION LIMITS**

The 2010 quota is 15,000,000 lb, allocated to two quota periods as shown below (Period 1 is May 1-October 31 and Period 2 is November 1-April 30). The possession limit is 3,000 lb per trip. Vessels are prohibited from landing more than one trip in any one calendar day.

<b>2009 Spiny Dogfish Quota &amp; Possession Limits</b>		
<b>Quota Period</b>	<b>Allocation (lb)</b>	<b>Possession Limit (lb)</b>
Period 1 (May 1–Oct 31)	8,685,000	3,000
Period 2 (Nov 1–Apr 30)	6,315,000	3,000

Landings updates can be found at: [www.nero.noaa.gov](http://www.nero.noaa.gov)

### **MONITORING**

All spiny dogfish landed for sale in the states from Maine through Florida will be counted toward the commercial quota, regardless of where the spiny dogfish are harvested. When landings reports, state data, and other available information indicate that the quota for either of the quota periods will be attained, vessels and dealers issued Federal dogfish permits will be notified of the date on which the fishery will close.

**NOTIFICATION OF FISHERY ACTIONS/CLOSURES**

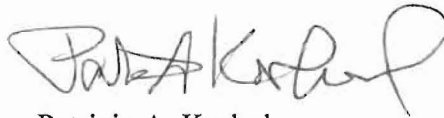
During a closure, no vessel issued a Federal spiny dogfish permit may fish for, possess, or land spiny dogfish. In addition, no one may purchase spiny dogfish from a vessel issued a Federal spiny dogfish vessel permit during a fishery closure.

**REMINDER**

This letter is only a summary of the regulations. You may obtain a complete copy of the regulations by calling (978) 281-9315, or by accessing the Northeast Regional Office's website: <http://www.nero.noaa.gov>.

*You may also receive permit holder letters, including closure notices, by e-mail by clicking on "Permit Holder Letters" on our website at <http://www.nero.noaa.gov>; or via fax by providing a fax number through a written request to the above address, or by faxing your request to 978-281-9135.*

Sincerely,



Patricia A. Kurkul  
Regional Administrator

*This small entity compliance guide complies with section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996.*



UNITED STATES DEPARTMENT OF COMMERCE  
*National Oceanic and Atmospheric Administration*  
National Marine Fisheries Service  
Northeast Region  
55 Great Republic Drive  
Gloucester, MA 01930-2276  
[www.nero.noaa.gov](http://www.nero.noaa.gov)



## **Changes to Gear Requirements in the *Loligo* Squid Fishery June 21, 2010**

This letter is a reminder of upcoming changes to mesh size requirements in the *Loligo* squid fishery that were implemented in the 2010 Atlantic Mackerel, Squid, and Butterfish (MSB) Specifications and Amendment 10 to the Fishery Management Plan. These changes were previously noted in the small entity compliance guides sent on February 18 and March 10, 2010.

Effective **August 3, 2010**, the minimum mesh requirement for net strengtheners will increase from 4.5 inches to 5 inches. Trawl vessels possessing *Loligo* squid may use net strengtheners, splitting straps, and/or bull ropes or wire around the entire circumference of the codend, provided they do not have a mesh opening of less than 5 inches.

Effective **September 13, 2010**, the minimum codend mesh size for the *Loligo* fishery will increase to 2-1/8 inches during Trimester I (January to April) and Trimester III (September to December), in order to decrease finfish bycatch in the *Loligo* fishery. The minimum mesh size of 1-7/8 inches remains in effect for Trimester II (May to August).

In addition, this letter reminds you of the mesh requirements for butterfish in § 648.23(a)(2): Trawl vessels possessing 1,000 lb (0.45 mt) or more of butterfish may only fish with nets having a minimum codend mesh of 3 inches (76 mm) diamond mesh, inside stretch measure, applied throughout the codend for at least 100 continuous meshes forward of the terminus of the net, or for codends with less than 100 meshes, the minimum mesh size codend shall be a minimum of one-third of the net, measured from the terminus of the codend to the headrope.

### **Additional Information**

The information provided with this letter is not a substitute for the complete regulations. All Federal permit holders and federally permitted dealers are encouraged to obtain a copy of the complete, official regulations by phoning the National Marine Fisheries Service at 978-281-9315 or by visiting our website (address provided above).

You may also receive permit holder letters by e-mail, including closure notices, by visiting our website and clicking on "Permit Holder Letters."

*This small entity compliance guide complies with section 212 of the Small Business Regulatory Enforcement and Fairness Act of 1996. This notice is authorized by the Regional Administrator of the National Marine Fisheries Service, Northeast Region.*



UNITED STATES DEPARTMENT OF COMMERCE  
*National Oceanic and Atmospheric Administration*  
 National Marine Fisheries Service  
 Northeast Region  
 55 Great Republic Drive  
 Gloucester, MA 01930-2276  
[www.nero.noaa.gov](http://www.nero.noaa.gov)



## Notification of Adjustment to the 2010 Trimester 2 and 3 *Loligo* Squid Quotas June 29, 2010

This letter is to inform you that NOAA’s National Marine Fisheries Service (NMFS) has adjusted the 2010 fishing year (FY) Trimester 2 and 3 *Loligo* squid quotas due to an under harvest in Trimester 1.

2010 *Loligo* Trimester 1 Quota: 17,696,509 lb  
 2010 *Loligo* Trimester 1 Landings: - 3,133,110 lb  
 2010 *Loligo* Trimester 1 Underage: 14,563,399 lb

Consistent with the FY 2010 Specifications and Management Measures, because the underage for Trimester 1 is greater than 25 percent of the Trimester 1 quota, the underage is divided in half, with one half applied to Trimester 2, and the other half applied to Trimester 3. The revised quotas for Trimesters 2 and 3 are as follows:

	<i>Initial Quota</i>	<i>Revised Quota</i>
<i>Trimester 2</i>	6,995,269 lb	<b>14,276,968 lb</b>
<i>Trimester 3</i>	16,461,920 lb	<b>23,743,619 lb</b>

### **Additional Information**

The information provided with this letter is not a substitute for the complete regulations. All Federal permit holders and federally permitted dealers are encouraged to obtain a copy of the complete, official regulations by phoning the National Marine Fisheries Service at 978-281-9315 or by visiting our website (address provided above).

You may also receive permit holder letters by e-mail, including closure notices, by visiting our website and clicking on “Permit Holder Letters.”

*This small entity compliance guide complies with section 212 of the Small Business Regulatory Enforcement and Fairness Act of 1996. This notice is authorized by the Regional Administrator of the National Marine Fisheries Service, Northeast Region.*



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
55 Great Republic Drive  
Gloucester, MA 01930-2276

July 7, 2010

## **SMALL ENTITY COMPLIANCE GUIDE**

Dear Charter/Party Vessel Permit Holder:

This letter is to inform you that NOAA's National Marine Fisheries Service (NMFS) has approved the final 2010 management measures for the summer flounder, scup, and black sea bass recreational fisheries. The final rule implementing these measures will be published in the Federal Register on July 8, 2010, and will remain in effect until further notification.

The tables on the reverse summarize the minimum fish size, possession limit, and fishing season for these fisheries. For the summer flounder fishery, the final rule implements conservation equivalency, as described in the proposed rule and Framework Adjustment 2 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. Under conservation equivalency, each vessel is required to abide by the regulations approved by the Atlantic States Marine Fisheries Commission (Commission) for the state in which it lands summer flounder (see Table 1).

The recreational measures for scup are in Table 2. Scup measures will differ in state waters, as the Commission is utilizing a conservation equivalency approach for the scup fishery in the state waters of New York, Connecticut, Rhode Island, and Massachusetts. In cases where state recreational measures for scup and black sea bass are different from those listed in Table 2, federally permitted party/charter vessels are required to abide by the more restrictive state or Federal measure. For example, if a state has adopted a possession limit of 45 fish for scup, a federally permitted party/charter vessel is required to abide by the 10-fish per person possession limit when landing recreationally caught fish in that state.

You may also receive permit holder letters, and find supporting documentation for these management measures, on our web site at <http://www.nero.noaa.gov/nero/>. If you have questions, please contact the Sustainable Fisheries Division at (978) 281-9315.

This small entity compliance guide complies with section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996.

Sincerely,

for Patricia A. Kurkul  
Regional Administrator



**Table 1 - 2010 Commission Approved State-by-State Conservation Equivalent Recreational Management Measures for Summer Flounder**

State	Minimum Fish Size (inches)	Possession Limit (number of fish)	Fishing Season
MA	18.5	5	May 22-September 6
RI	19.5	6	May 1-December 31
CT	19.5	3	May 15-August 25
NY	21.0	2	May 15-September 6
NJ	18.0	6	May 29-September 6
DE	18.5	4	January 1-October 13
MD	19.0	3	April 17-November 22
VA	18.5	4	January 1-December 31
NC <sup>1</sup>	15.0	8	January 1-December 31

<sup>1</sup> *Pamlico Sound, NC* - No person may possess flounder less than 14.0 in (35.56 cm) total length (TL) taken from internal waters for recreational purposes west of a line beginning at a point on Point of Marsh in Carteret County at 35°04.6166' N lat.-76°27.8000' W long., then running northeasterly to a point at Bluff Point in Hyde County at 35°19.7000' N lat.-76°09.8500' W long. In Core and Clubfoot creeks, the Highway 101 Bridge constitutes the boundary north of which flounder must be at least 14.0 in (35.56 cm) TL.

*Albemarle Sound, NC* - No person may possess flounder less than 14.0 in (35.56 cm) TL taken from internal waters for recreational purposes west of a line beginning at a point 35°57.3950' N lat.- 76°00.8166' W long. on Long Shoal Point; running easterly to a point 35°56.7316' N lat.-75°59.3000' W long. near Marker "5" in Alligator River; running northeasterly along the Intracoastal Waterway to a point 36°09.3033' N lat.-75° 53.4916' W long. near Marker "171" at the mouth of North River; running northwesterly to a point 36°09.9093' N lat.-75 54.6601' W long. on Camden Point.

*Browns Inlet South, NC* - No person may possess flounder less than 14.0 in (35.56 cm) TL in internal and Atlantic Ocean fishing waters for recreational purposes west and south of a line beginning at a point 34°37.0000' N lat.-77°15.000' W long.; running southeasterly to a point 34°32.0000' N lat.-77°10.0000' W long.

**Table 2 - 2010 Recreational Management Measures for Scup and Black Sea Bass**

Fishery	Minimum Fish Size (Inches)	Possession Limit (Number of fish)	Fishing Season
Scup	10.5	10	June 6 through September 26
Black Sea Bass	12.5	25	May 22-October 11 and November 1-December 31



## Atlantic Swordfish Landings Update: Commercial and Recreational 2010 Fishing Year

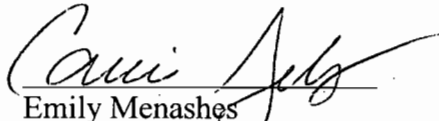
The table below provides preliminary landings estimates and remaining quotas as of May 31, 2010, in pounds (lb) and metric tons (mt) dressed weight (dw) for the Atlantic swordfish fisheries for the 2010 fishing year. Landings are estimated using commercial dealer reports and reports by anglers in the HMS Non-Tournament Recreational Swordfish and Billfish Landings Database and the Recreational Billfish Survey. Please note that these estimates are subject to late reporting and do not include discards. As specified in § 635.27(c)(i)(B), all recreational landings are counted against the incidental quota. The 2010 annual directed landings quota seen below has not been adjusted for 2009 underharvests. On June 22, 2010, NMFS published a proposed rule (75 FR 35432) to adjust the 2010 base quota for these underharvests. The comment period for the proposed rule closes on July 22, 2010.

	Quota mt dw		Landings	Remaining Quota	Percent of Quota Taken
			mt dw (lb dw)	mt dw (lb dw)	
<b>NORTH ATLANTIC SWORDFISH</b>					
Directed Fishery First Season (Jan 1, 2010 – June 30, 2010)	1,094.8	Commercial Landings	556.5 (1,226,904)	538.3 (1,186,692)	50.8%
Directed Fishery Second Season (July 1, 2010 - Dec 31, 2010)	1,094.8	Commercial Landings	0.0 (0)	1,094.8 (2,413,596)	0.0%
Incidental Fishery (annual quota)	300	Commercial Landings	0.2 (385)	294.7 (649,724)	1.8%
		Recreational Landings	5.1 (11,271)		
<b>Total</b>	<b>2,937.6*</b>		<b>561.8 (1,238,560)</b>	<b>2,375.8 (5,237,673)</b>	<b>19.1%</b>
<b>SOUTH ATLANTIC SWORDFISH</b>					
Directed Fishery (annual quota)	75.2	Commercial Landings	0.2 (400)	75.0 (165,386)	0.3%

\*Includes 448.1 mt dw allocated to the reserve; 150.4 mt dw North Atlantic swordfish quota may be caught between 5 degrees North latitude and 5 degrees South latitude



This notice is a courtesy to Atlantic swordfish fishery interests to keep you informed about your fishery. Official notice of federal fishery actions is made through filing such notice with the Office of the Federal Register. To view catch statistics from previous months, please visit [http://www.nmfs.noaa.gov/sfa/hms/hmsdocument\\_files/SWORDFISH.htm#Landings](http://www.nmfs.noaa.gov/sfa/hms/hmsdocument_files/SWORDFISH.htm#Landings) or contact Steve Durkee at (301) 713-2347.



Emily Menashes  
Acting Director, Office of Sustainable Fisheries

7/7/10  
Date

**SIGN UP FOR ATLANTIC HMS NEWS**

-- An electronic newsletter informing you of the latest HMS-related actions --

<http://www.nmfs.noaa.gov/sfa/hms/newslist/>



Commercial North Atlantic Swordfish landings in dressed weight (pounds) for fish from North of 35N and South of 35N. All Swordfish are from North of 5N.

Area	Month	Directed						Incidental			Monthly Total
		Longline	Harpoon	Hand Line	Rod & Reel	Buoy Gear	Total	OtterTrawl	Other	Total	
N of 35N	Jan-10	8,593	0	0	0	0	8,593	0	0	0	8,593
N of 35N	Feb-10	0	0	0	0	0	0	0	0	0	0
N of 35N	Mar-10	2,067	0	0	0	0	2,067	127	0	127	2,194
N of 35N	Apr-10	4,139	0	0	0	0	4,139	0	0	0	4,139
N of 35N	May-10	27,901	0	0	0	0	27,901	0	0	0	27,901
N of 35N	Jun-10						0			0	0
S of 35N	Jan-10	170,933	0	0	1,659	16,961	189,553	0	0	0	189,553
S of 35N	Feb-10	244,133	0	0	533	8,932	253,598	0	128	128	253,726
S of 35N	Mar-10	256,621	0	0	1,506	5,192	263,319	0	0	0	263,319
S of 35N	Apr-10	256,513	0	0	3,146	5,750	265,409	0	130	130	265,539
S of 35N	May-10	206,846	0	0	2,467	3,012	212,325	0	0	0	212,325
S of 35N	Jun-10						0			0	0
Gear Total		1,177,746	0	0	9,311	39,847	1,226,904	127	258	385	1,227,289
											Six Month Total

Area	Month	Directed						Incidental			Monthly Total
		Longline	Harpoon	Hand Line	Rod & Reel	Buoy Gear	Total	Otter Trawl	Other	Total	
N of 35N	Jul-10						0			0	0
N of 35N	Aug-10						0			0	0
N of 35N	Sep-10						0			0	0
N of 35N	Oct-10						0			0	0
N of 35N	Nov-10						0			0	0
N of 35N	Dec-10						0			0	0
S of 35N	Jul-10						0			0	0
S of 35N	Aug-10						0			0	0
S of 35N	Sep-10						0			0	0
S of 35N	Oct-10						0			0	0
S of 35N	Nov-10						0			0	0
S of 35N	Dec-10						0			0	0
Gear Total		0	0	0	0	0	0	0	0	0	0
											Six Month Total

1,226,904
Yearly Directed

385	1,227,289
Yearly Incidental	Yearly Total

Commercial South Atlantic Swordfish landings in dressed weight (pounds). All Swordfish are from South of 5N.

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
Directed	0	0	0	400	0							

400
Yearly Total

Unadjusted 2010 Fishing Year Quota (unadjusted for underharvest in 2009)

North Atlantic Swordfish Directed Quota:	1 Jan, 2010 -30 June, 2010	2,351,316
	1 July, 2010 - 31 Dec, 2010	2,351,316
	Annual Total	4,702,632
North Atlantic Swordfish Incidental Quota:	Annual Total	661,380
South Atlantic Swordfish Directed Quota:	Annual Total	165,786



## COMMERCIAL LANDINGS OF BLUEFIN TUNA As of June 30, 2010

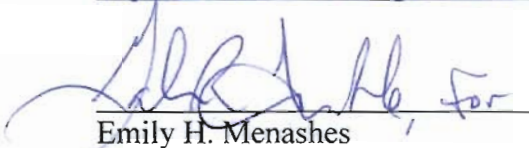
Atlantic Bluefin Tuna Landing Data between 01/01/2010 and 06/30/2010.

Category	Sub Category	Current Year 2010				Previous Year 2009		
		Count of Fish	Avg Weight (lb)	Gross Weight (mt)	Quota_Final (mt)	Count of Fish	Avg Weight (lb)	Gross Weight (mt)
General		191	241.8	21	538.9	290	310.5	40.9
	Handline							
	Harpoon	45	219.7	4.5		78	279.7	9.9
	Rod and Reel	146	248.6	16.5		212	321.9	31.0
Harpoon		70	257.9	8.2	44.6	139	258.0	16.3
Longline		211	513.6	49.2		278	520.1	65.6
	North	49	408.0	9.1	55.0	81	360.7	13.3
	South	162	545.6	40.1	45.0	197	585.7	52.3
Trap					1.1			
Purse Seine					212.8			
	Giant							
	Large Medium							
Reserve					70.3			
Total:		472	366.2	78.4	967.7	707	382.9	122.8

**NOTE**

- This report SHOULD NOT be considered useful for real time catch monitoring purposes. It only includes landings reported to NMFS to date.
- These numbers are considered preliminary and are subject to change.

This notice is a courtesy to Atlantic tuna fisheries interests to keep you informed about your fishery. Official notice of Federal fishery actions is made through filing such notice with the Office of the Federal Register. To view catch statistics from previous months, please visit <http://www.nmfs.noaa.gov/sfa/hms/Tuna.htm> or contact Brad McHale at (978) 281-9260.

  
 Emily H. Menashes  
 Acting Director, Office of Sustainable Fisheries

7/14/10  
 Date





## Atlantic Shark Commercial Fishery Update

Below are the preliminary landings estimates in metric tons (mt) and pounds (lb) dressed weight (dw) for the Atlantic Shark commercial fisheries from **January 1, 2010, through June 30, 2010**. Most of these preliminary landings estimates include landing reports received through June 30, 2010; some estimates include landing reports received through July 15, 2010. The landings presented below are total landings reported through the Pelagic Dealer Compliance (PDC), and the Accumulated Landings System (ALS). Landings within the shark research fishery were determined from trip tickets provided to the National Marine Fisheries Service (NMFS) by scientific observers. The estimates include landings by state-only permitted vessels, federally permitted vessels, and the 2010 shark research fishery participants. Due to the privacy regulations of North Carolina (NC), NMFS is unable to remove all instances where NC dealers report in both the PDC and ALS. As a result, some NC landings may be inflated. **NMFS encourages fishermen to avoid blacknose shark catch in order to keep the non-blacknose SCS fishery open as long as possible.**

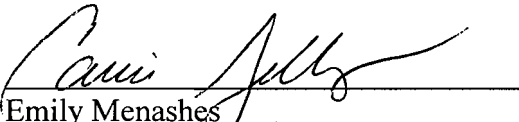
Species Group	Region	Season Opening Dates	2010 Quota	Estimated Landings	% of Quota
Non-Sandbar Large Coastal Sharks	Gulf of Mexico	February 4 (Closed: Mar 17) †	390.5 mt dw (860,896 lb dw)	407.6 mt dw (898,619 lb dw)	104.4%
	Atlantic	July 15	169.7 mt dw (374,121 lb dw)	1.3 mt dw (2,935 lb dw)	<1%
Shark Research Fishery Quota (Non-Sandbar LCS)	No regional quotas	January 5	37.5 mt dw (82,673 lb dw)	17.2 mt dw (37,927 lb dw)	46%
Shark Research Fishery Quota (Sandbar only)		January 5	87.9 mt dw (193,784 lb dw)	Inside SRF 34.9 mt dw (76,916 lb dw)  Outside SRF * 0 mt dw (0 lb dw)	40%
Non-Blacknose Small Coastal Sharks	No regional quotas	June 1	221.6 mt dw (488,539 lb dw)	21 mt dw (46,277 lb dw)	9.5%
Blacknose Sharks		June 1	19.9 mt dw (43,872 lb dw)	4.0 mt dw (8,819 lb dw)	20%
Blue Sharks	No regional quotas	January 5	273 mt dw (601,856 lb dw)	3.4 mt dw (7,388 lb dw)	1.2%
Porbeagle Sharks		January 5	1.5 mt dw (3,307 lb dw)	0.7 mt dw (1,546 lb dw)	47%
Pelagic Sharks Other Than Porbeagle or Blue		January 5	488 mt dw (1,075,856 lb dw)	80.7 mt dw (177,910 lb dw)	16.5%

† Fishery closed at 11:30 p.m. local time on March 17, 2010 (7 FR 12700).

\* These landings are from state landings and/or unclassified sharks.



This notice is a courtesy to the HMS fishery participants to help keep you informed about your fishery. For further information on this landings update or the closure, contact Karyl Brewster-Geisz or Guý DuBeck at 301-713-2347. The information will also be posted on the HMS website at: <http://www.nmfs.noaa.gov/sfa/hms>.

  
Emily Menashes  
Acting Director, Office of Sustainable Fisheries

7/20/10  
Date

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## MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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

### M E M O R A N D U M

**DATE:** August 2, 2010  
**TO:** Richard B. Robins, Jr., Chairman, Mid-Atlantic Fishery Management Council  
**FROM:** John Boreman, Ph.D., Chairman, MAFMC Scientific and Statistical Committee  
**Subject:** Report of July 2010 Meeting of the MAFMC Scientific and Statistical Committee

The Scientific and Statistical Committee (SSC) of the Mid-Atlantic Fishery Management Council (MAFMC) met on 28-29 July 2010 to review stock assessment information and develop acceptable biological catch (ABC) recommendations for four species under the management purview of the MAFMC: scup, black sea bass, summer flounder, and bluefish. A total of 9 of the 16 SSC members were in attendance, which represented a quorum as defined by the SSC standard operating procedures. Also in attendance were representatives of the MAFMC, MAFMC staff, Northeast Fisheries Science Center, (NEFSC), ASMFC, and the public (see the attendance list, Attachment 1). The SSC discussed committee membership. SSC member Rob Latour has been granted a leave-of-absence from the SSC until January 2011 while he is on research leave from VIMS. SSC member Chris Moore has resigned from the SSC because he is now executive director of the MAFMC. Finally, this was the last SSC meeting for Scott Crosson, who has taken a position with the Southeast Fisheries Science Center in Miami, FL. The SSC will be providing the MAFMC with recommendations for replacements for Chris and Scott.

We followed the same approach to setting the ABC for each species. Initially, the MAFMC staff lead for a given species described the assessment history, the most recent survey and landings information, and the basis for the most recent quota set by the MAFMC. The species lead for the SSC then provided additional comment, including a summary of the issues identified in the joint SSC/Monitoring Committee pre-decisional conference call. Finally, the public was then invited to comment, but only on scientific uncertainty issues for the species. Following this comment period, the SSC species lead led the SSC discussion on selection of an ABC for the 2011 fishing year. Once the discussion was completed, the SSC developed a consensus recommendation in response to the terms of reference provided by the MAFMC. The terms of reference were the same for each of the four species. The SSC also determined which of the four levels best described the status of assessment information for each species, based on the ABC control rule in the proposed omnibus amendment currently in development.

The following represents the consensus responses by the SSC to the ABC terms of reference provided by the MAFMC for each of the four species considered in the 28-29 July 2010 meeting.

## Scup

### ***1) The materials considered in reaching its recommendation;***

- Terceiro, M. 2010. Stock assessment for scup 2010. U. S. Department of Commerce, Northeast Fisheries Science Center Reference Document 10-16; 86 p.
- Terceiro, M. 2009. Stock assessment for scup for 2009. U. S. Department of Commerce, Northeast Fisheries Science Center Reference Document 09-18; 82 p.
- Miller, T. J., R. Muller, R. O'Boyle and A. A. Rosenberg. 2009. Report of the Review Panel for the Northeast Data Poor Stocks Working Group. January 2007. 34 p.
- Northeast Data Poor Stocks Working Group. 2009. The Northeast Data Poor Stocks Working Group Report, December 8-12, 2008 Meeting. Part A. Skate species complex, deep sea red crab, Atlantic wolffish, scup, and black sea bass. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 09-02; 496 p.
- MAFMC Staff Memo dated 30 June 2010: Scup Management Measures for 2011

### ***2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;***

Derived directly from the stock assessment, the OFL is based on an  $F_{MSY}$  proxy of  $F_{40\%} = 0.177$ ; the OFL is specified at 67.53 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{40\%} = 0.177$ ).

### ***3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard 1 Guidelines;***

The SSC recommends an ABC based on 75% of  $F_{msy}$  ( $F = 0.133$ ), and results in an ABC of 51.7 million pounds. This catch level is based on the 50<sup>th</sup> percentile of catch at  $F = 0.133$  and has associated landings of 42.9 million pounds. The SSC unanimously supported the DPSWG panel's concerns about rapid increases in quota to meet the revised MSY.

### ***4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);***

It is not possible for the SSC to provide the probability distribution function (pdf) associated with the OFL since significant sources of uncertainty were not taken into account in the assessment. The ABC is roughly equivalent to a  $P^* = 40^{\text{th}}$  percentile, based on an assumed lognormal OFL distribution that has a  $CV = 100\%$ . That  $CV$  of 100% is considered a reasonable characterization of uncertainty for the OFL distribution.

### **5) *The most significant sources of scientific uncertainty associated with determination of OFL and ABC;***

The estimates of biomass and fishing mortality from the scup stock assessment are likely to be non-robust because the assessment model contains very little information on the abundance of old age classes. It is the SSC's understanding that the assessment model only includes indices of abundance for the first two age classes, and the effective sample size for the age composition of the fishery catch appears to be low, which means that the model will have little ability to determine if the build-up of old individuals is actually occurring or if it is only an artifact of the model. The scup stock assessment predicts that the abundance of age 7+ scup has increased substantially since the early 2000s. This increase of old individuals has a very large effect on the estimated spawning stock biomass (SSB), overall biomass, and fishing mortality. Because of this behavior the model is likely to continue to predict increases in abundance of 7+ individuals with subsequent increases in biomass and SSB, and updated assessments with the current model will not be able to resolve the issue. The current model, because of its reliance on indices of abundance for the first two age classes, is much more sensitive to changes in recruitment than changes in SSB. The available data on the age-composition of the fishery catches and surveys do not show a pattern of increasing abundance in the age 7+ categories. Thus, use of the assessment estimates of SSB and biomass rely on this build-up of old fish, which are not corroborated by the available data.

Other significant sources of uncertainty associated with the scup assessment:

- While older age scup (age 3+) are represented in the catch used in the assessment model, ages 3+ are not represented in the survey data that were used as input to the model. As a result, the dynamics of the older ages of scup are driven solely by catches and inferences regarding year class strength.
- Commercial discard estimates are imprecise and represent a considerable portion of the total catch.
- Uncertainty exists with respect to the estimate of natural mortality (M) used in the assessment.
- Uncertainty in the stock status due to uncertainties in the estimates of both the stock's biomass and biological reference points as a proxy was used for  $F_{MSY}$ .
- The assessment does not contain a characterization of uncertainty for the OFL and other biological reference points;
- Recruitment appears high in recent years, but it is unclear how these recent high levels would compare to historical levels of recruitment;
- Survey indices are particularly sensitive to scup availability, which results in high inter-annual variability; and
- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment.



**6) A certification that the recommendations provided by the SSC represents the best scientific information available.**

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

**Assessment Level Specification**

Level 3 (see attachment 2 for assessment level specification criteria)

**Special Comments**

Because of the uncertainty with the stock assessment, the SSC would recommend scup be considered for a peer-reviewed benchmark.

**Black Sea Bass**

**1) The materials considered in reaching its recommendation;**

- Shepherd, G. R. and J. Nieland. 2010. Black sea bass 2010 stock assessment update. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 10-13; 25 p.
- Shepherd GR. 2009. Black sea bass 2009 stock assessment update. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 09-16; 30 p.
- Miller, T. J., R. Muller, R. O'Boyle and A. A. Rosenberg. 2009. Report of the Review Panel for the Northeast Data Poor Stocks Working Group. January 2007. 34 p.
- Northeast Data Poor Stocks Working Group. 2009. The Northeast Data Poor Stocks Working Group Report, December 8-12, 2008 Meeting. Part A. Skate species complex, deep sea red crab, Atlantic wolffish, scup, and black sea bass. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 09-02; 496 p.
- MAFMC Staff Memo dated 30 June 2010: Black Sea Bass Management Measures for 2011

**2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;**

Derived directly from the stock assessment, the OFL would be based on an  $F_{MSY}$  proxy of  $F_{40\%} = 0.42$ , and the OFL is specified at 7.64 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{40\%} = 0.42$ ). However, the SSC is concerned about the high uncertainty in the OFL that is not well characterized in the assessment. There are large uncertainties related to the stock structure, life history, and stock assessment, including the lack of uncertainty characterizations for the model output and biological reference points.

**3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard 1 Guidelines;**

The SSC recommends an ABC of 4.5 million pounds, which is based on catch history rather than on  $F$ , when compared to the OFL and  $F_{MSY}$ . The recommendation of a constant catch reflects the SSC's concerns about the reliability of the assessment results, the strong retrospective pattern in biomass, the deviation of survey estimates of stock biomass and model-predicted biomass in recent years, the potential for stock structure within the management unit, and intra-model comparisons which may not adequately characterize the uncertainty. The SSC used this approach in developing its final recommendations to the MAFMC for the 2010 fishing year. Following the approach adopted by the SSC after remand from the MAFMC to the SSC for black sea bass in December 2009, the constant catch level is based upon the catch level in 2008 because of concerns raised by the Monitoring Committee over the impact of conservation measures in 2009.

**4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);**

The assessment did not provide a pdf associated with the OFL, and significant sources of uncertainty were not taken into account. For example, sensitivity analyses of  $M$  and an evaluation of sex-specific  $M$ s, and their potential contribution to the uncertainty in the assessment results would be worthwhile. The ABC of 4.5 million pounds would be the 28<sup>th</sup> percentile of the OFL, assuming a  $CV = 100\%$  for a lognormal distribution of the pdf associated with the OFL.

**5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;**

- Atypical life history strategy (protogynous hermaphrodite);
- Strong annual retrospective pattern in biomass evident for the last 3 years;
- Uncertainty in stock status because of the lack of uncertainty estimation for the biological reference points (proxy used for  $F_{MSY}$ ) and model output;
- Assessment assumes a completely mixed stock, while tagging analyses suggest otherwise;
- Uncertainty exists with respect to  $M$  — because of the unusual life history strategy the current assumption of a constant  $M$  in the model for both sexes may not adequately capture the dynamics in  $M$ ;
- No uncertainty characterization for the OFL; and
- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment.

**6) A certification that the recommendations provided by the SSC represents the best scientific information available.**

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

**Assessment Level Specification**

Level 4 (see Attachment 2 for assessment level specification criteria)

**Summer Flounder (Fluke)**

**1) The materials considered in reaching its recommendation;**

- Terceiro, M. 2010. Stock assessment of summer flounder for 2010. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 10-14; 133 p.
- Terceiro, M. 2009. Stock assessment of summer flounder for 2009. US Department of Commerce, Northeast Fisheries Science Center Reference Document 09-17; 132 p.
- Northeast Fisheries Science Center. 2008. 47th Northeast Regional Stock Assessment Workshop (47th SAW) Assessment Report. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 08-12a; 335 p.
- Northeast Fisheries Science Center. 2008. 47th Northeast Regional Stock Assessment Workshop (47th SAW) Assessment Summary Report. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 08-11; 22 p.
- MAFMC Staff Memo dated 30 June 2010: Summer Flounder Management Measures for 2011

**2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;**

Derived directly from the stock assessment, based on an  $F_{MSY}$  proxy of  $F_{35\%} = 0.310$ , the OFL is specified at 40.4 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{35\%} = 0.310$ ).

**3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard 1 Guidelines;**

The SSC recommends an ABC based on  $F_{TARGET}$ ,  $F_{40\%}$ , which is  $F = 0.255$ , and results in an ABC of 33.95 million pounds. This catch level is based on the 50<sup>th</sup> percentile of catches at  $F = 0.255$ , and has associated landings of 29.48 million pounds. The SSC expressed concern about the retrospective pattern in recruitment, and the implication of this pattern on the apparently large 2009 year class, which in turn may have a strong influence on the projected rebuilding horizon. The SSC used AGEPRO to examine the potential implication of this pattern on projected SSB if the observed recruitment retrospective

continued, thereby resulting in a realized 2009 age class reduced by half in subsequent assessments. The annual retrospective pattern over the last three years has resulted in overestimation of recruitment ranging from 54% to 80%; thus, the halving of the 2009 year class does not represent an overly conservative assumption. Halving of the 2009 year class indicated the stock would still be expected to rebuild by January 1, 2013 (based on November 1, 2012 SSB calculation) under the proposed ABC.

***4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);***

It is not possible to provide a pdf associated with the OFL since significant sources of uncertainty were not taken into account in the assessment. The ABC is roughly equivalent to a  $P^* = 40^{\text{th}}$  percentile, based on an assumed lognormal OFL distribution that has a  $CV = 100\%$ . That CV of 100% is considered a reasonable characterization of uncertainty for the OFL distribution.

***5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;***

- Strong annual retrospective pattern in recruitment evident for the last three years;
- Uncertainty in stock status because of lack of uncertainty estimation for the biological reference points (proxy used for  $F_{MSY}$ );
- Uncertainty exists with respect to the estimate of  $M$ ;
- No uncertainty characterization for the OFL;
- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment.

***6) A certification that the recommendations provided by the SSC represents the best scientific information available.***

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

**Assessment Level Specification**

Level 3 (see Attachment 2 for assessment level specification criteria)

**Bluefish**

***1) The materials considered in reaching its recommendation;***

- Northeast Fisheries Science Center. 2005. 41st Northeast Regional Stock Assessment Workshop (41st SAW). 41st SAW assessment report. US Department of Commerce, Northeast Fisheries Science Center Reference Document. 05-14; 237 p.

- Atlantic States Marine Fisheries Commission. 2010. Bluefish assessment summary. Atlantic States Marine Fisheries Commission Bluefish SASC, June 2010. 16 p.
- MAFMC Staff Memo dated 30 June 2010: Bluefish Management Measures for 2011

**2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;**

Derived directly from the stock assessment, based on an  $F_{MSY} = 0.19$ , the OFL is specified at 39.621 million pounds for 2011 (derived as the 50<sup>th</sup> percentile of yield at  $F_{35\%} = 0.19$ ).

**3) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP and to reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit in line with the intent of the Act and the National Standard I Guidelines;**

The SSC recommends an ABC based on  $F_{REBUILD}$ ,  $F = 0.15$ , and results in an ABC of 31.744 million pounds. This catch level is based on the 50<sup>th</sup> percentile of catches at  $F = 0.15$ .

**4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);**

It is not possible to provide a pdf associated with the OFL since significant sources of uncertainty were not taken into account in the assessment. Based on the values provided in the assessment document, there is a low probability of exceeding the OFL when constraining the fishery to the ABC. However, the SSC notes that the values of uncertainty provided in the assessment document incorporate uncertainties in only a few elements of the assessment and do not include the impact of significant uncertainties, such as the bimodal selectivity curve, missing elements in the age-length keys, and the highly seasonal nature of the commercial and recreational fisheries.

**5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;**

- There is a significant level of missing data involved in the age-length keys (ALKs), which are critical for development of the catch at age matrix.
- Concern about the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) that are being used for the first year, and their influence on the selectivity pattern and results of the assessment. Also, some near shore areas previously sampled by the ALBATROSS IV are unavailable for sampling by the BIGELOW.
- Commercial discards are assumed to be insignificant, which may not be the case.
- Much of population biomass (~40%) is in the aggregated 6+ age group for which there is relatively little information.
- Weight at age is assumed to be constant for the period 2004+. This has potentially substantial implications for estimates of population biomass, especially biomass relative to  $B_{msy}$ .
- Questions have been raised about the uncertainty in the MRFSS estimates in general, and are particularly relevant here given the highly episodic nature of bluefish catches in the recreational fisheries coast wide.

- The basis for the unusual bimodal selectivity curve used in the ASAP model is not well understood.

***6) A certification that the recommendations provided by the SSC represents the best scientific information available.***

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

### **Assessment Level Specification**

Level 3 (see Attachment 2 for assessment level specification criteria)

Attachments

cc:

Members, MAFMC SSC, R. Seagraves, J. Coakley, J. Armstrong, Lee Anderson

**ATTENDANCE****28 July 2010**

Rich Seagraves  
 Jessica Coakley  
 Lee Anderson  
 Rick Robins  
 John Boreman  
 Tom Miller  
 Mike Wilberg  
 Mike Frisk  
 Scott Crosson  
 Cynthia Jones  
 Jason Link  
 Edward Houde  
 Doug Lipton  
 Yan Jiao  
 Fred Serchuk  
 Mike Ruccio  
 Greg DiDomenico  
 Adam Nowalsky  
 Kristen Cervoli  
 Toni Kearns

MAFMC Staff  
 MAFMC Staff  
 MAFMC Vice Chair  
 MAFMC Chair  
 SSC Chair – NCSU  
 SSC Vice-chair, UMCES  
 SSC Member, UMCES  
 SSC Member, Stony Brook Univ  
 SSC Member, NC DMF  
 SSC Member, Old Dominion Univ  
 SSC Member, NMFS/NEFSC  
 SSC Member, UMCES  
 SSC Member, UMCP  
 SSC Member, Va Tech  
 SSC Liaison, NMFS/NEFSC  
 NMFS/NER  
 GSSA  
 RFA  
 Pew Foundation  
 ASMFC

**29 July 2010**

Same attendees as 28 July, plus  
 Jim Armstrong  
 Kate Taylor

MAFMC Staff  
 ASMFC

## Assessment Level Specification Criteria

The levels of stock assessments, their characteristics, and procedures for determining ABCs are defined as follows:

**Level 1:** Level 1 represents the highest level to which an assessment can be assigned. Assignment of a stock to this level implies that all important sources of uncertainty are fully and formally captured in the stock assessment model and the probability distribution of the OFL calculated within the assessment provides an adequate description of uncertainty of OFL. Accordingly, the OFL distribution will be estimated directly from the stock assessment. In addition, for a stock assessment to be assigned to Level 1, the SSC must determine that the OFL probability distribution represents best available science. Examples of attributes of the stock assessment that would lead to inclusion in Level 1 are:

- Assessment model structure and any treatment of the data prior to inclusion in the model includes appropriate and necessary details of the biology of the stock, the fisheries that exploit the stock, and the data collection methods;
- Estimation of stock status and reference points integrated in the same framework such that the OFL calculations promulgate all uncertainties (stock status and reference points) throughout estimation and forecasting;
- Assessment estimates relevant quantities including  $F_{MSY}$ <sup>1</sup>, OFL, biomass reference points, stock status, and their respective uncertainties; and
- No substantial retrospective patterns in the estimates of fishing mortality (F), biomass (B), and recruitment (R) are present in the stock assessment estimates.

The important part of Level 1 is that the precision estimated using a purely statistical routine will define the OFL probability distribution. Thus, all of the important sources of uncertainty are formally captured in the stock assessment model. When a Level 1 assessment is achieved, the assessment results are likely unbiased and fully consider uncertainty in the precision of estimates. Under Level 1, the ABC will be determined solely on the basis of an acceptable probability of overfishing (P\*), determined by the Council's risk policy (see alternatives in section 5.2.2), and the probability distribution of the OFL.

**Level 2:** Level 2 indicates that an assessment has greater uncertainty than Level 1. Specifically, the estimation of the probability distribution of the OFL directly from the stock assessment model fails to include some important sources of uncertainty, necessitating expert judgment during the preparation of the stock assessment, and the OFL probability distribution is deemed best available science by the SSC. Examples of attributes of the stock assessment that would lead to inclusion in Level 2 are:

- Key features of the biology of the stock, the fisheries that exploit it, or the data collection methods are missing from the stock assessment;
- Assessment estimates relevant quantities, including reference points (which may be proxies) and stock status, together with their respective uncertainties, but the uncertainty is not fully promulgated through the model or some important sources may be lacking;
- Estimates of the precision of biomass, fishing mortality rates, and their respective reference points are provided in the stock assessment; and
- Accuracy of the MFMT and future biomass is estimated in the stock assessment by using *ad hoc* methods.

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<sup>1</sup> With justification,  $F_{MSY}$  may be replaced with an alternative maximum fishing mortality threshold to define the OFL.



In this level, ABC will be determined by using the Council's risk policy (see alternatives in section 5.2.2), as with a Level 1 assessment, but with the OFL probability distribution based on the specified distribution in the stock assessment.

**Level 3:** Attributes of a stock assessment that would lead to inclusion in Level 3 are the same as Level 2, except that

- The assessment does not contain estimates of the probability distribution of the OFL or the probability distribution provided is not considered best available science by the SSC.

Assessments in this level are judged to over- or underestimate the accuracy of the OFL. The SSC will adjust the distribution of the OFL and develop an ABC recommendation by applying the Council's risk policy (see alternatives in section 5.2.2) to the modified OFL probability distribution. The SSC will develop a set of default levels of uncertainty in the OFL probability distribution for this level based on literature review and a planned evaluation of ABC control rules. A control rule of 75% of  $F_{MSY}$  may be applied as a default if an OFL distribution cannot be developed.

**Level 4:** Stock assessments in Level 4 are deemed to have reliable estimates of trends in abundance and catch, but absolute abundance, fishing mortality rates, and reference points are suspect or absent. Additionally, there are limited circumstances that may not fit the standard approaches to specification of reference points and management measures set forth in these guidelines (i.e., ABC determination). In these circumstances, the SSC may propose alternative approaches for satisfying the NS1 requirements of the Magnuson-Stevens Act than those set forth in the NS1 guidelines. In particular, stocks in this level do not have point estimates of the OFL or probability distributions of the OFL that are considered best available science. In most cases, stock assessments that fail peer review or are deemed highly uncertain by the SSC will be assigned to this level. Examples of potential attributes for inclusion in this category are:

- Assessment approach is missing essential features of the biology of the stock, characteristics of data collection, and the fisheries that exploit it;
- Stock status and reference points are estimated, but are not considered reliable;
- Assessment may estimate some relevant quantities including biomass, fishing mortality or relative abundance, but only trends are deemed reliable;
- Large retrospective patterns usually present; and
- Uncertainty may or may not be considered, but estimates of uncertainty are probably substantially underestimated.

In this level, a simple control rule will be used based on biomass and catch history and the Council's risk policy.

**MID-ATLANTIC FISHERY MANAGEMENT COUNCIL**

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Chairman

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

**Lee G. Anderson**  
Vice Chairman

**DATE:** August 5, 2010

**TO:** Council



**FROM:** Jason Didden

**SUBJECT:** Anadromous FMP

Following the addition of the agenda item "Address Request for Initiation of an Anadromous FMP" (Continuing and New Business) staff inquired if Council Member Chris Zeman wanted to include any background materials on the subject. Following this cover page please find an email and spreadsheet on the subject.

## Didden, Jason T.

---

**From:** Christopher Zeman [christopher.zeman@zurichna.com]  
**Sent:** Thursday, August 05, 2010 11:40 AM  
**To:** Didden, Jason T.  
**Cc:** Zeman, Christopher  
**Subject:** Summary Evaluation of Benefits of Anadromous FMP

**Attachments:** Anadromous FMP evaluation cz 080510.xls



Anadromous FMP  
evaluation cz 0...

Hi Jason,  
Per our discussion, I put together a short table comparison of the conservation and management measures that are required to be provided to river herring and shad by creation of an Anadromous FMP versus Council action through creation of FMP amendments to other existing FMPs. Please include this in the MAFMC Briefing Book for the August Council meeting under New Business.

Please call me to discuss if you have any questions.

(See attached file: Anadromous FMP evaluation cz 080510.xls)

Christopher Zeman  
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Cell: 617-461-3212  
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**SUMMARY OF CONSERVATION AND MANAGEMENT MEASURES PROVIDED TO RIVER HERRING, SHAD AND OTHER ANADROMOUS SPECIES BY CREATION OF ANADROMOUS FMP VS. CREATION OF FMP AMENDMENT(S) IN OTHER EXISTING FMPS**

<b>Conservation and Management Measures Available under Federal Magnuson-Stevens Act</b>	<b>Provided by FMP Amendment in Herring FMP</b>	<b>Provided by FMP Amendment in SMB FMP</b>	<b>Provided by Creation of Anadromous FMP</b>
Creation of species-specific Advisory Panel and Committee	NO	NO	YES
Routine stock assessments conducted by NOAA and NEFSC	NO	NO	YES
Description of the commercial and recreational fisheries in the fishery	LIMITED (focus on certain fisheries)	LIMITED(focus on certain fisheries)	YES
Designation of Essential Fish Habitat and NOAA consultation authority	NO	NO	YES
Creation of Objective Criteria to Identify and Prevent Overfishing, and to Rebuild Overfished Species	NO	NO	YES
Mandatory Inclusion in NOAA's Annual Standardized Bycatch Reporting Methodology Assessment (SBRM)	NO	NO	YES
Mandatory NOAA Requirement to Set Observer Coverage Levels consistent with SBRM assessment	NO	NO	YES
Measures to Minimize Bycatch	YES	YES	YES

Table provided by C. Zeman on 8/5/10