MID-ATLANTIC FISHERY MANAGEMENT COUNCIL
MEETING AGENDA
June 8-10, 2010
Radisson Martinique on Broadway, 49 West 32nd Street, New York City, NY 10001
Telephone 212-736-3800

Tuesday, June 8

8:30 - 11:00 a.m. **Surfclam, Ocean Quahog and Tilefish Committee with Advisors (Tab 1)**

Anderson, Himchak, Berg, deFur, Gilmore, Simns [Hoff / Montanez]

Advisors: Alspach, Garvilla, Wallace, Lacotte, LaVecchia, Miles, Alexander, Stockwell, Richardson

- Review SSC and staff recommendations and advice for 2011-2013 quota specifications and associated management measures for surfclams and ocean quahogs
- Develop 2011 - 2013 quota specifications and associated management measures for Council consideration and action
- Receive presentation on Climate Change and Responses in a Coupled Marine System; the Mid-Atlantic surfclam (MASC) model is being developed as part of a multi-disciplinary study looking at adaptation to climate change in a human-natural coupled system

11:00 - 12:30 p.m. **Research Set-Aside (RSA) Committee (Tab 2)**

Pate, deFur, Berg, Cole, Gilmore, Himchak, King, Kray, Miko, Speir, O'Shea, [Collins]

- Review Mid-Atlantic RSA program performance and develop a mission statement to emphasize ways to improve program coordination with other cooperative research efforts

12:30 - 2:00 p.m. **Lunch**

2:00 - 5:00 p.m. **Squid, Mackerel, Butterfish Committee with Advisors (Tab 3)**

Berg, King, Anderson, deFur, Gilmore, Himchak, McMurray, Pate, Wheatly, O'Shea, [Seagraves]

Advisors: Ascoli, Axelsson, Reichle, Calamo, Ellenton, Moore, Kaelin, Lackner, Monsen

- Review SSC and Monitoring Committee's recommendations and SSC advice for 2011 quota levels and associated management measures
- Develop 2011 quota specifications and associated management measures for Council consideration and action
- Address Amendment 11's outstanding issue - Cap capacity via a mackerel limited entry system
- Ratify earlier approved purposes / actions included in Amendment 11

Wednesday, June 9

8:00 - 9:30 a.m. **Ecosystems and Ocean Planning Committee (Tab 4)**

Kray, McMurray Anderson, Augustine, deFur, Miko, Munden, Schafer, Speir, Travelstead, Zeman, [Hoff]

- Receive annual presentation regarding NMFS' NERO's habitat initiatives and programs

9:30 a.m. **Council Convenes**

9:30 - 10:00 a.m. **Presentation on outcome of recent TRAC (Transboundry Resource Assessment Committee) Assessment of Mackerel (Tab 5)**

10:00 - 12:00 p.m. **Business Session**

- Approve April Council meeting minutes

Organizational Reports (Tab 6)

- NMFS Regional Administrator
- NMFS NEFSC Director
- NOAA Office of General Counsel
- Federal Enforcement (NMFS and USCG)
- Atlantic States Marine Fisheries Commission (ASMFC)

Council Liaison Reports (Tab 7)

- New England Council actions from April 27 - 29 meeting

Executive Director's Report - Mr. Furlong (Tab 8)

- Review Actions from April Council meeting

Status of MAFMC FMPs - Rich Seagraves (Tab 9)

12:00 - 1:30 p.m. **Lunch**

1:30 - 3:00 p.m. **Surfclam and Ocean Quahog Specifications (Tab 1)**

- Review Committee's recommendations for 2011 - 2013 quota specifications and associated management measures for surfclams and ocean quahogs
- Develop and adopt 2011 - 2013 quota specifications and associated management measures for surfclams and ocean quahogs

3:00 - 4:30 p.m. **Squid, Mackerel, Butterfish Specifications (Tab 3)**

- Review committee's recommendations for 2011 quota specifications and associated management measures
- Develop and adopt 2011 quota specifications and associated management measures for Atlantic mackerel, squids and butterfish

4:30 - 5:30 p.m. **Executive Committee (Tab 10)**

Robins, Anderson, Augustine, Berg, King, Kray, Kurkul, McMurray, Munden, Pate, Travelstead [Furlong]

- Review highlights of May NRCC meeting
- Review highlights of May CCC meeting
- Discuss framework and process to move forward with the "Visioning" project suggested at the end of the Catch Share Workshop
- Review and discuss Advisory Panel input in specification setting process
- Discuss status of proposed surf clam excessive share analysis

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7:00 - 9:00 p.m. **FAREWELL TO LARRY SIMNS AND DAN FURLONG AT JACK DEMPSEY'S RESTAURANT 36 WEST 33rd STREET**

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Thursday, June 10

8:30 a.m. **Council Convenes**

8:30 - 11:00 a.m. **Omnibus ACL /AM Amendment (Tab 11)**

- Review Public Hearing and written comments on Amendment
- Review Tilefish trip analysis
- Address S, M, B Amendment 11 allocation action and implications for ACLs / AMs
- Address means to make future modifications to ACL / AM Amendment
- Discuss integration of ACL / AM Amendment with Atlantic States Marine Fisheries Commission regarding annual specification setting processes
- Discuss mechanics of August 2010 joint specification setting process with Commission

11:00 - 12:30 p.m. **Council Committee Reports (Tab 12)**

- Highly Migratory Species
- Protected Resources
- Joint Spiny Dogfish - Amendment 3 actions
- Scientific and Statistical Committee
- Squid, Mackerel, Butterfish - Possible adoption of Amendment 11 or parts thereof
- Research Set-Aside
- Ecosystems and Ocean Planning
- Executive

Continuing and New Business (Tab 13)

- Discuss Squid, Mackerel, and Butterfish Amendment 14 scoping schedule and proposed management actions contained therein

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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MEMO TO: SC/OQ Committee (Anderson, Himchak, Berg, deFur, Gilmore, Simns) Clam Advisors (Wallace, Alspach, Garvilla, Alexander, Richardson, Stockwell, LaVecchia, Lacotte, and Miles), Cardiasmenos, Powell and McCay.

MEMO FROM: Tom Hoff (TBH) and José Montañez (JIM)

DATE: May 27, 2010

SUBJECT: Committee meeting on June 8, 2010

At the June Council meeting, our Committee will be meeting from 8:30 am to 11:00 am Tuesday. We have one major agenda item – quota recommendations for 2011, 2012, and 2013 and one ancillary presentation from researchers at Rutgers.

Recall that Amendment 13 created the ability to recommend multi-year quotas. In 2008 the Science Center conducted the clam survey and stock assessments for these two species were performed in 2009. Currently, the 2010 quotas are: surfclams = 3.4 million bushels, ocean quahogs = 5.333 million bushels, Maine ocean quahogs = 100,000 Maine bushels. Staff recommends the Council consider maintaining these quotas for 2011, 2012, and 2013. Staff also suggests that the Council recommends the continuation of the suspension of the surfclam minimum size limit, as it has been since implementation of Amendment 8 in 1990. Recommendations on these 4 issues are needed from the Committee to the Council and then from the Council to the Regional Administrator.

The Science Center is scheduled to conduct another clam survey on the *RV Delaware II* in the summer of 2011 with associated stock assessments in 2012 that will form the basis for quota recommendations for 2014, 2015, and 2016.

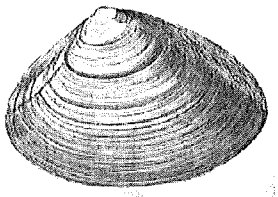
The Council's SSC reviewed the stock assessments and draft staff quota recommendation paper on May 11. Please see the SSC report behind tab 12, pages 1 through 4 for their deliberations on surfclams and pages 4 and 5 for ocean quahogs. Their ABC recommendations for surfclams and ocean quahogs are higher than the staff recommendations which are at or near the maximum quotas allowed by the FMP.

Behind the staff recommendation paper please find: 1) a letter from the State of Maine, 2) emails from the majority of Advisors that support continuation of the current quotas, and 3) a letter from Thomas Dameron advocating reductions in the quotas.

Finally, Drs. Eric Powell and Bonnie McCay will present their research on climate change and responses in a coupled marine system using the surfclam as an example.

ADVISORS – MAFMC will pay for one full day of meals, one night of lodging, and travel.

Overview of the Surfclam and Ocean Quahog Fisheries and Quota Considerations for 2011, 2012, and 2013



May 2010

Mid-Atlantic Fishery Management Council

in cooperation with the

National Marine Fisheries Service

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Last Revised: May 27, 2010

I. Introduction

This document provides a summary of relevant information for the purpose of specifying quotas for surfclams (*Spisula solidissima*) and ocean quahogs (*Arctica islandica*) in federal waters. Management responsibility for these two species resides with the Mid-Atlantic Fishery Management Council, based in Dover, Delaware. The management regime is detailed in the *Fishery Management Plan (FMP) for the Atlantic Surfclam and Ocean Quahog Fishery* and subsequent Amendments to the Plan. Amendment 8 (MAFMC 1988) provided the most substantial change in the management regime through introduction of Individual Transferable Quotas (ITQs), which replaced a complex system of time and effort restrictions.

The primary tool in the management of surfclams and ocean quahogs in federal waters is the specification of annual quotas, which are allocated to the holders of allocation shares at the beginning of each calendar year. With implementation of Amendment 13 (MAFMC 2003), the Council received the authority to recommend multi-year quotas to the Secretary of Commerce that span the upcoming three years. In June of 2004 the Council recommended it's first series of multi-year quotas for 2005, 2006, and 2007. The Secretary reviewed and accepted them. Staff continues to produce the annual quota recommendation papers and when there are no changes from the three year recommendations, there is no need for any Council activity (as was the case for the 2007 and 2008 quotas); however when the Council decides to change its recommendations from the initial three year recommendations (as was the case for the 2006 ocean quahog quota), the Council needs to recommend those specific changes to the Secretary. In June of 2007 the Council recommended its second set of three-year quotas which were for 2008, 2009, and 2010. The Secretary reviewed and also accepted them. In June of 2010, the Council will be recommending it third multi-year quotas for 2011, 2012, and 2013.

Quota Specifications for 2005, 2006, and 2007			
Year	2005	2006	2007
Surfclams	3.400 mil. bu.	3.400 mil. bu.	3.400 mil. bu.
Ocean Quahogs	5.333 mil. bu.	5.333 mil. bu.	5.333 mil. bu.
Maine Ocean Quahogs	100,000 ME bu.	100,000 ME bu.	100,000 ME bu.

Quota Specifications for 2008, 2009, and 2010			
Year	2008	2009	2010
Surfclams	3.400 mil. bu.	3.400 mil. bu.	3.400 mil. bu.
Ocean Quahogs	5.333 mil. bu.	5.333 mil. bu.	5.333 mil. bu.
Maine Ocean Quahogs	100,000 ME bu.	100,000 ME bu.	100,000 ME bu.

A. Staff Recommendations for 2011, 2012, and 2013

Quota Recommendations for 2011, 2012, and 2013			
Year	2011	2012	2013
Surfclams	3.400 mil. bu.	3.400 mil. bu.	3.400 mil. bu.
Ocean Quahogs	5.333 mil. bu.	5.333 mil. bu.	5.333 mil. bu.
Maine Ocean Quahogs	100,000 ME bu.	100,000 ME bu.	100,000 ME bu.

B. FMP Objectives and Management Unit

The following four objectives were implemented with Amendment 8 (1988) and have not been changed at all during the 20 plus years of management under the ITQ system.

1. Conserve and rebuild Atlantic surfclam and ocean quahog resources by stabilizing annual harvest rates throughout the management unit in a way that minimizes short term economic dislocations.

2. Simplify to the maximum extent the regulatory requirement of surfclam and ocean quahog management to minimize the government and private cost of administering and complying with regulatory, reporting, enforcement, and research requirements of surfclam and ocean quahog management.

3. Provide the opportunity for industry to operate efficiently, consistent with the conservation of surfclam and ocean quahog resources, which will bring harvesting capacity in balance with processing and biological capacity and allow industry participants to achieve economic efficiency including efficient utilization of capital resources by the industry.

4. Provide a management regime and regulatory framework which is flexible and adaptive to unanticipated short term events or circumstances and consistent with overall plan objectives and long term industry planning and investment needs.

The management unit is all Atlantic surfclams (*Spisula solidissima*) and ocean quahogs (*Arctica islandica*) in the Atlantic EEZ. In 1988 the American Malacological Union officially changed the common name of "surf clam" to the one word name "surfclam". This was published in the American Fisheries Society special publication 16 entitled *Common and Scientific Names of Aquatic Invertebrates from the United States and Canada: Mollusks* (American Fisheries Society 1988). The ocean quahogs managed in this FMP include a small-scale fishery in eastern Maine that harvests small ocean quahogs which are generally sold for the half-shell market. Locally these small ocean quahogs off the coast of Maine are known as "mahogany quahogs" and have been under Council management since implementation of Amendment 10 (MAFMC 1998).

A southern subspecies of surfclam, *Spisula solidissima similis*, occurs south of Cape Hatteras (Walker and Heffernan 1994). Another species, *Spisula raveneli*, occurs in the southern part of the range of *S. solidissima*. This species distinction, based on distribution and morphology (Porter and Schwartz 1981), is controversial (Vecchione and Griffis 1996).

This document summarizes information currently available as of April 2010, and will be used as a basis for evaluating any quotas for 2011, 2012, and 2013.

II. Surfclam Resource and Fisheries

A. Surfclam Life History and Distribution

Surfclams are bivalve mollusks which are distributed in the western North Atlantic from the southern Gulf of St. Lawrence to Cape Hatteras. Commercial fisheries have generally concentrated on the populations of surfclams which have flourished in the high-energy, sandy ocean sediments off the coast of New Jersey and the Delmarva peninsula. Growth rates are relatively rapid, with clams reaching the preferred harvest size (approximately 5 inches) in about six years. Maximum size is about 9 inches in length, though individuals larger than 8 inches are rare. They have a longevity of approximately 35 years, and while some individuals reach sexual maturity within three months, most spawn by the end of their second year.

In the mid-Atlantic region, surfclams are found in the relatively shallow waters from the beach zone to a depth of about 150 feet. Substantial fisheries have been present in the 3-mile jurisdictions of the States of New Jersey and New York.

Traditionally, surfclams' dominant use has been in the "strip market" to produce fried clams. In recent years, however, they have increasingly been used in chopped or ground form for other products, such as high-quality soups and chowders.

B. Stock Status

The Atlantic surfclam stock in the US EEZ is not overfished and overfishing is not occurring (USDC 2009b and Surfclam Assessment Summary). Estimated fishable stock biomass in 2008 (survey year, 4.75 inch shell length) was 1.93 billion pounds of meats which is above the management target of ½ the 1999 biomass level of 1.19 billion pounds of meats (see Table below). Estimated fishing mortality in 2008 was 0.027, which is below the management threshold of 0.15. These SAW estimates are for the entire EEZ stock, including the portion of the EEZ stock on Georges Bank which is not currently available because of Paralytic Shellfish Poison (PSP).

The most important development in the surfclam resource over the past several years has been the dramatic reduction in biomass evident in the New Jersey inshore area, and off the coast of the Delmarva peninsula. The loss of the biomass in the southern end of the species range was identified in the 2003 SARC and was the impetus for a NEFSC and industry sponsored research effort in the summer of 2004 (USDC 2005). This joint survey (only on the portion of the surfclam resource south of Hudson Canyon) documented the large decline in the portion of the resource off of Delmarva (DMV) but found more biomass off northern New Jersey (NNJ) than was estimated from the 2002 NEFSC survey. In fact, the 2004 survey indicated that the biomass level in NNJ was similar to what was found there by the 1997 and 1999 surveys. Strong recruitment occurred recently in the two NNJ mid-depth strata, but not in shallower strata of NNJ or DMV (USDC 2005).

Recruitment has been below average since 1999 (Surfclam Assessment Summary). The last strong year classes on GBK, NJ, and DMV occurred in 1999, 1992, and 1993 respectively. The full assessment report describes factors that may have reduced recent recruitments in the DMV and NJ regions.

The surfclam stock biomass is declining from record-high levels during the late 1990s toward lower levels similar to the early 1980s. High biomass during the late 1990s was due to relatively high recruitment and relatively fast growth rates in the southern region in the past. Fishable biomass in 2008 was 1.93 billion pounds of meats, which has declined about 3% per year since the late 1990s.

Reference Point	Basis	Estimated Value
Surfclams		
Biomass Target	½ Current (1999) Biomass (proxy for B_{MSY})	1.19 billion pounds
Biomass Threshold	½ Proxy for B_{MSY}	599 million pounds
Fishing Mortality Target	$F_{target} < F_{threshold}$	Set by Council selected quota
Fishing Mortality Threshold	F = M	0.15
Current F		0.027
Ocean Quahogs		
Biomass Target	½ Virgin Biomass	3.94 billion pounds
Biomass Threshold	1/4 Virgin Biomass	1.97 billion pounds
Fishing Mortality Target	$F_{0.1}$	0.028
Fishing Mortality Threshold	$F_{25\%MSP}$	0.052
Amend. 15 Biomass Threshold (proposed)	40% Virgin Biomass	3.16 billion pounds
Amend. 15 Fishing Target (proposed)	$F_{target} < F_{threshold}$	Set by Council selected quota
Amend. 15 Fishing Threshold (proposed)	$F_{45\%MSP}$	0.022
Current F, exploited areas		0.010

The decline is surfclam biomass since the late 1990s can be explained by negative surplus production caused by lower recruitment and slower growth rates in the NJ and DMV regions. The fishery appears to have been a secondary factor. When surplus production is negative, stock biomass will decline, even when no fishing occurs. When fishing occurs, stock biomass will decline whenever catch exceeds surplus production.

Regions with the highest fishable biomass shifted from the south to the north during 1982-2008 (Surfclam Assessment Summary). During 1982, Delmarva held the largest fraction of fishable surfclam biomass. The fraction of total biomass in Delmarva increased through the late-1980s and then declined to the current relatively low level. New Jersey held the largest share of surfclam biomass during 1994-2002. During 2008, the largest share of surfclam biomass was in the Georges Bank area due to declining biomass in DMV and NJ. This has been a huge change where in 1986 DMV and SVA had 55% of the biomass and now in 2008 only has 5% while Georges Bank in 1986 had 5% and now has 48%. New Jersey has maintained its share of the biomass in that it had 32% in 1986 and 22 years later it still has 30%.

The SARC summary (USDC 2009b) produces projections and provides decision table analyses (Surfclam Assessment Summary). Biological reference points for biomass and fishing mortality were required by the Sustainable Fisheries Act (SFA) of 1996 and proposed by the Council in 1999 under Amendment 12 (MAFMC 1999). The 1999 reference points for biomass were rejected by the Agency because they were for the New Jersey portion of the resource only. New and approved biomass reference targets and thresholds for the entire surfclam resource were the focus of Amendment 13 (2003 and identified in section II B).

This quota recommendation paper is for 2011, 2012 and 2013 only. Amendment 13 allowed the Council to set multi-year quotas for three years based on a new survey and assessment every three years. There is a desire, with the *RV Delaware II* being decommissioned soon to move the survey to an industry platform. Initially, that could have delayed the completion of a new assessment in 2012. The desired plan now is do conduct one more survey in 2011 on the *Delaware II* and maintain the three year schedule. MAFMC staff was anticipating a potential delay and requested five year projections and that is why projections are run through 2015 rather than simply three years through 2013.

Forecast results (USDC 2009b) indicate that surfclam biomass will continue to decline slowly through 2015. In all cases, this occurs because surplus production has been negative and is likely to remain negative due to poor recruitment and slow growth in the more southern regions.

Fishing mortality at the proxy for MSY times the current biomass would yield a catch of 251.3 million pounds of meats (14.8 million bushels, Table on page 13 of the Surfclam Assessment Summary). Surfclams were overfished in the mid 1970s (prior to management) when 75 to 90 million pounds of meats were landed for a couple of years. The Council has a specified OY range in the FMP (since the early 1980s) of 31.5 to 57.8 million pounds (1.85 to 3.4 million bushels). A plan Amendment would be required to change this OY range.

The probability of overfishing and overfished status for this stock appears low under all of the states of nature considered (Surfclam Assessment Summary Table A1). Projections for decision table analysis included three values for natural mortality (low (0.1), medium (0.15) and high (0.2) levels) and three survey dredge catchabilities as "states of nature".

C. The New Jersey Inshore Resource and Fishery

The surfclam resource within New Jersey State waters is the most closely monitored of any on the East Coast. State officials estimate the biomass declined from 17.4 million bushels in 1997 to 1.71 million bushels in 2008. The New Jersey quota was reduced from 600,000 bushels in the 2002/2003 season to 275,000 bushels in the 2003/2004 and had been reduced to the 10%

minimum biomass figure of 198,000 bushels for 2007/2008. The quota for 2008/2009 was set at a very conservative level of 58,368 bushels and the 2009/2010 quota was reduced even further to 55,296 bushels. Fishermen were unable to harvest even these reduced amounts, and in the previous four fishing seasons (2005/2006, 2006/2007, 2007/2008 and 2008/2009) the fishery was virtually non-existent, while during this current season only 1,152 bushels have been landed of inshore New Jersey surfclams.

New Jersey conducts a survey every summer and produces a surfclam resource report every three to five years. The total surfclam standing stock for New Jersey territorial waters from Shark River Inlet to Cape May in the summer of 2009 was 1.81 million bushels. Survey work in 2010 will be completed in August (Normant pers comm). Annually, the state surveys about 330 stations. The biomass of inshore New Jersey surfclams has fallen precipitously and continuously from the high in 1997 of 17.4 million bushels. The overall length-frequency distributions of the surfclam resource has not changed dramatically, but the mean shell lengths have been steadily increasing since 1993. The mean shell length of surfclams found in 1993 was 3.9 inches and has steadily increased to a mean shell length of 5.5 inches in 2009. The number of clams per bushel has also decreased (from the increase in the mean size) from 202 clams per bushel in 1995 to 85 clams per bushel in 2009. This points out that while the volume (biomass) is down, the actual number of individuals is down even further. The most notable difference recently has been the lack of clams collected that were less than 2.7 inches in the last several years. During the past ten completed surveys, there have been less than 450 total clams collected that were less than the 2.7 inches, whereas during the early to mid-1990s there were thousands of small clams collected in each individual survey (Normant pers comm).

New Jersey establishes an annual quota for its inshore surfclam fishery with a minimum constraint that the quota can not exceed 10% of the estimated standing stock or a maximum of a million bushels. A constant annual quota of 600,000 bushels had been maintained for years until the 1999/2000 season. New Jersey is unique in defining a season which begins in October of one calendar year and closes at the end of May in the next.

The quota was increased to 700,000 bushels for the 1999/2000 season based on the very high biomass estimated from the 1999 survey. With the lack of recruitment, the State of New Jersey lowered the quota back to 600,000 bushels for the 2002/2003 season. The quota has been reduced consistently since then.

Stock biomass continued to decline, obliging the State to dramatically cut the quota for 2003/2004 to only 275,000 bushels. The industry found the sparse beds uneconomical to fish, and left 28% of the quota unharvested. Harvests have continued to decline every year since, and in the 2005/2006 season, the 2006/2007 season, the 2007/2008 season and the 2008/2009season, the commercial fishery was virtually shut down. Though the State published a quota of 237,000 bushels (2005/2006) and a quota of 240,000 (2006/2007), a mere 480 bushels was taken in late January of 2006 and even less (448) in 2007. No landings occurred between October 2007 and mid-May 2008. No landings were reported for 2008/2009 and the quota was a mere 58,368 bushels. There was 1,152 bushels landed through mid-April 2010 of the 55,296 bushel quota.

There is a limited (around 50,000 bushels/year) surfclam "bait" fishery that occurs in contaminated waters of northern New Jersey.

New Jersey Annual Surfclam Fishery Quota and Landings (Bushels).				
Season (Oct - May)	Quota (bu)	Landings (bu)	Bushels Unharvested	Percent Unharvested
FY 95/96	600,000	566,120	33,880	6%
FY 96/97	600,000	468,377	131,623	22%
FY 97/98	600,000	467,569	132,431	22%
FY 98/99	600,000	570,852	29,148	5%
FY 99/00	700,000	699,649	351	.05%
FY 00/01	700.000	700,256	(256)	(0.04%)
FY 01/02	700,000	702,257	(2,257)	(0.3%)
FY 02/03	600,000	601,056	(1,056)	(0.2%)
FY 03/04	275,000	197,152	77,848	28%
FY 04/05	350,000	60,600	289,400	83%
FY 05/06	237,000	480	236,520	99.8%
FY 06/07	240,000	448	239,552	99.8%
FY 07/08	198,000	0	198,000	100%
FY 08/09	58,368	0	58,368	100%
FY 09/10*	55,296	1,152	54,144	97.9%
* Landings for 2009/2010 not final.				
Source: New Jersey Division of Fish and Wildlife				

There are 54 licenses for the inshore New Jersey surfclam fishery. Up to three licenses can be combined onto one vessel. Each license receives an equal share of the annual quota, and those fishermen can fish their quota whenever it is appropriate for them to fish.

D. The New York Inshore Fishery for Surfclams

New York inshore waters are divided into two segments: Long Island Sound and the Atlantic Ocean (state territorial waters out to three miles). The annual harvest limit for Long Island Sound is 50,000 bushels (this pertains to only those surfclams taken by mechanical means, hydraulic dredge or patent tongs) but, landings have been less than 5,000 bushels annually in years prior to 2003. Landings greatly increased in 2003, to 57,000 bushels and the fishery was closed in May of that year. In 2004, nearly 63,000 bushels were taken by hydraulic dredge before the fishery was closed again in March. Another 61,000 bushels were taken by hand (raking) for a total of over 124,000 bushels harvested from Long Island Sound. In 2005 the market for surfclams from Long Island Sound dropped; only 45,000 bushels were taken by dredge and none by hand, and by 2006 only 448 bushels were harvested. Harvests increased

slightly in 2007 to 705 bushels, and then increased substantially in 2008 to 3,798 bushels. In 2009 there were 5,317 bushels harvested from Long Island Sound, so markets for surfclams taken from the Sound have improved somewhat, though these harvests are mainly attributable to the efforts of a single vessel (Dahl pers comm).

Most of the harvest from New York state waters is from the Atlantic Ocean. Currently there are 15 vessels harvesting surfclams by mechanical means (Dahl pers comm).

New York State Quotas and Landings of Surfclams from the Ocean

Year	Quota (bu)	Harvest (bu)	Percent Over or Under Quota
1990	(none)	720,473	
1991	(none)	713,019	
1992	(none)	719,351	
1993	(none)	856,366	
1994	500,000	494,489	1 % under
1995	500,000	410,137	18 % under
1996	500,000	447,780	10 % under
1997	500,000	388,829	22 % under
1998	500,000	233,902	53% under
1999	500,000	269,867	46% under
2000	500,000	339,142	32% under
2001	500,000	443,859	11% under
2002	500,000	501,290	0.3% over
2003	500,000	494,051	1.2% under
2004	930,000	882,969	5.0% under
2005	500,000	489,046	2.2% under
2006	500,000	407,254	19% under
2007	400,000	376,510	6% under
2008	400,000	347,612	13.1% under
2009	300,000	294,921	1.7% under

Source: NYS Dept. of Environmental Conservation

The average catch from New York waters was approximately 173,000 bushels annually for the 20-year period spanning the 1970s and 1980s. Catches soared in 1990 with implementation of ITQ management in the federal fishery, as surplus vessels from the federal fishery sought alternative areas to fish.

Harvests peaked in 1993 at just over 850,000 bushels, then trended downward through 1998, when the market for surfclams began shrinking in the mid-1990s and the black, lower-yielding resource from New York's State waters in the Atlantic was less desirable. From 1999 through 2004, landings increased steadily and reached a maximum of 883,000 bushels in 2004. The market again began to shrink and landings fell to 489,046 in 2005 and then to only 407,254 bushels in 2006. This downward trend in landings is evident for 2007, 2008 and 2009 as well, with 376,510 bushels, 347,612 bushels, and 294,921bushels harvested, respectively, though the reduced catch was due in part to reduction in quota as a result of data from the 2006 population assessment.

The New York State Department of Environmental Conservation (DEC) staffer who headed their surfclam program until recently was Maureen Davidson. In a May 2005 contact she stated that landings had been increasing steadily for the past five years, and were no longer below the annual quota. Landings were typically restricted by a vessel limit of 21 cages per week. At times the weekly limit has been reduced to 14 cages to prevent landings from exceeding the quarterly and annual harvest limits. In the first quarter of 2003, boats were allowed 21 cages initially, but as it became apparent that landings would exceed the quarterly limit, they were reduced to 14 cages per boat per week. In 2004, with the nearly doubling of the annual harvest limit, boats were allowed to catch 28 cages per week. In 2005 boats were allowed to catch 21 cages per week for the first quarter and were then reduced to 14 cages per week for the remainder of the year. The weekly harvest limit continued at 14 cages for the first three quarters of 2006, and then increased to 21 cages for the last few weeks of the year. In 2007 the harvest limit remained at 14 cages per week for the entire year, except for the last few weeks of the year when the limit was again increased to 21 cages. The 14 cage limit was re-instated early in 2008 and has remained at this limit to the present (Dahl pers comm).

New York Surfclam Population Estimates in the Territorial Sea	
Year	Bushels
1996	12.2 million
1999	12.8 million
2002	18.6 million
2005	10.2 million
2006	9.5 million
2008	6.8 million

Surfclam population assessment surveys are conducted by DEC personnel on board a chartered commercial fishing vessel. The 1996 survey estimated that there were 12.2 million bushels of surfclams in the 180 square nautical mile area that is New York's state waters in the territorial sea (Davidson pers comm). The 1999 survey showed a slight increase to 12.8 million bushels. The 2002 population estimate for New York state waters of the Atlantic Ocean was 18.6 million bushels of surfclams. Further analysis of the data showed an estimated population of 3.3 billion individual clams. The 2005 population estimate was 10.2 million bushels, a startling 45% decline from the 2002 survey estimate. This result is also reflected in the drop in the estimated number of individual clams to 1.1 billion. In the face of the 2005 results, DEC decided to keep the annual harvest limit at 500,000 bushels for 2006 and to conduct another survey during the

summer of 2006. The results of that survey showed that the population had again declined, although not statistically significantly, to 9.5 million bushels, or approximately 1 billion individual clams. The proportion of clams smaller than the legal size limit of 4 inches (101 mm) has also declined in past years, from approximately 34% in 2002 to 1.6% in 2006. This indicates a large decline in recruitment of the resource. In light of the declining population and recruitment, the 2009 annual harvest limit was set at 300,000 bushels (Dahl pers comm).

The most recent population assessment survey was completed in the last quarter of 2008 and revealed that the status of the surfclam resource is not improving. In fact, population biomass has decreased by 28% since the 2006 survey, equating a reduction of 2.7 million bushels of clams to the current population estimate of 6.8 million bushels. In terms of individual clams, numbers have dwindled to 780 million, representing a 26% decline since the last survey in 2006. Given the continual decline of these surfclam population indices, the 2009 annual harvest limit was further reduced from that in 2007 and 2008, to 300,000 bushels. Though these data present a bleak outlook on the overall status of New York's surfclam population, and its ability to support a sustainable fishery, a ten-fold increase in the overall percentage of seed clams offers some hope for the future. While the percentage of the population consisting of sub-legal clams under 4 inches shell length was reported at 1.9% and 1.7% for the 2005 and 2006 surveys, respectively, the 2008 survey results indicate these young clams accounted for 10.3% of the population – an indication of some improvement in recruitment.

In 2003 there were 19 vessels participating in the fishery, followed by 20 in 2004. In both 2005 and 2006 the total increased to 22 vessels. In 2007 and 2008 less than 20 vessels were active, and that has continued to be the case where only 15 vessels fished in 2009. At the start of 2010 the New York State government moved this fishery to an Individual Fishing Quota (IFQ) system.

New York State continues to operate a limited surfclam fishery for bait from a specific area off the Rockaways.

E. Fisheries

Industry Under Stress Leads to Increased Consolidation

The past several years have been extremely difficult for the East Coast clam industry. As will be discussed in greater detail in the following sections, in 2005 a 'perfect storm' of conditions combined to result in a substantial portion of the industrial fleet leaving the clam fishery and greatly reduced operations at the second-largest processor in the clam industry. Eastern Shore Seafood Products of Mappsville, Virginia was a vertically-integrated company operating both vessels and a processing plant. In 2005 a deal was struck in which ownership of the plant and vessels were given over to an entity including the Truex, Meyers, Truex Group, and the Sea Watch management team. A number of employees were let go, and the processing lines that shucked and canned clams were closed, leaving only the fried clam strip line in operation.

In May 2008 the Mappsville plant ceased operations altogether, and moved the processing work to other Sea Watch plants in Easton, Maryland and Milford, Delaware (Vaughn 2008).

A myriad of factors have contributed to the difficulties in the clam industry. Major users of clam meats have reduced their purchases from industry and stopped advertizing products like clam chowder in the media. Industry members reported in 2005 that imported meat from Canada and

Vietnam contributed to an oversupply of clam meats in the marketplace. The costs to vessels harvesting clams has increased significantly, with the greatest component the cost of diesel fuel. Trips harvesting surfclams have also increased in length as catch rates have declined steadily.

All of these factors and more have resulted in clam-related businesses becoming less profitable in recent years. By 2008 the industry had experienced layoffs and shed 22 percent of the industrial fleet. In 2004 there were 50 vessels participating in the surfclam and ocean quahog fisheries apart from Maine. In 2009 there were 43 vessels operating in the surfclam fishery. Consolidation and concentration in the industry has grown as the businesses in the strongest financial condition assimilate those in the weakest position.

The Federal Surfclam Fishery

- In 2009 the industry reported harvesting a total of 2.594 million bushels of surfclams based on vessel logbook reports, a decrease of 11.2% from the prior year. Contributing factors likely include the soaring price of fuel in recent years, the economic downturn, and falling catch rates.

- Industry has experienced difficulty utilizing increases in both the federal surfclam and ocean quahog quotas that were implemented in 2004. In 2009 the unharvested portion of the surfclam quota equaled 24% of the 3.4 million bushel total.

- The most worrisome trend in the surfclam fishery continues to be the relentless decline in the productivity of effort. The average number of bushels harvested in an hour of fishing is an important indicator of both the abundance of clams in the beds being fished, as well as the costs of fishing operations. Increases in fishing time from working on sparser beds translates directly into higher fuel costs.

- A fleet-wide calculation of surfclam Landings Per Unit of Effort (LPUE) has declined by an average of almost 10% each year between 2000 and 2009, from 129 to 52 bushels per hour (Appendix Table 1 and Appendix Figure 1). Appendix Figure 1 illustrates the decline as almost a straight line.

- The increased costs associated with longer fishing trips are magnified by the fuel price increases of the past several years. Industry members have mentioned that clam vessels operating hydraulic dredges have the additional expense of supplying fuel to the dredge pump engine.

- The need to maintain product freshness places an upper bound on how long vessels may remain at sea. In 2008 the average trip took 32.7 hours dock-to-dock; an increase of 4.8% over the prior year.

- The average ex-vessel price of a bushel of surfclams increased $0.05 to $11.96 in 2009. Price competition among purchasers may have lessened somewhat with the consolidation occurring in the industry, and reported ex-vessel prices may have less meaning from vertically-integrated firms that own both vessels and processing plants.

Federal Surfclam & Ocean Quahog Quotas and Landings: 1979 - 2010

Surfclams (Thou Bushels)

* Georges Bank first closed for PSP in 1990

Year	Landings	Quota	% Harvested
1979	1,674	1,800	93%
1980	1,924	1,825	105%
1981	1,976	1,825	108%
1982	2,003	2,400	83%
1983	2,412	2,450	98%
1984	2,967	2,750	108%
1985	2,909	3,150	92%
1986	3,181	3,225	99%
1987	2,820	3,120	90%
1988	3,032	3,385	90%
1989	2,838	3,266	87%
1990*	3,114	2,850	109%
1991	2,673	2,850	94%
1992	2,812	2,850	99%
1993	2,835	2,850	99%
1994	2,847	2,850	100%
1995	2,545	2,565	99%
1996	2,569	2,565	100%
1997	2,414	2,565	94%
1998	2,365	2,565	92%
1999	2,538	2,565	99%
2000	2,561	2,565	100%
2001	2,855	2,850	100%
2002	3,113	3,135	99%
2003	3,244	3,250	100%
2004	3,138	3,400	92%
2005	2,744	3,400	81%
2006	3,057	3,400	90%
2007	3,231	3,400	95%
2008	2,920	3,400	86%
2009	2,594	3,400	76%
2010	n/a	3,400	---

Ocean Quahogs (Thou. Bushels)

* Maine ocean quahog fishery excluded 1991 - 2009

Year	Landings	Quota	% Harvested
1979	3,035	3,000	101%
1980	2,962	3,500	85%
1981	2,888	4,000	72%
1982	3,241	4,000	81%
1983	3,216	4,000	80%
1984	3,963	4,000	99%
1985	4,570	4,900	93%
1986	4,167	6,000	69%
1987	4,743	6,000	79%
1988	4,469	6,000	74%
1989	4,930	5,200	95%
1990	4,622	5,300	87%
1991*	4,840	5,300	91%
1992*	4,939	5,300	93%
1993*	4,812	5,400	89%
1994*	4,611	5,400	85%
1995*	4,628	4,900	94%
1996*	4,391	4,450	99%
1997*	4,279	4,317	99%
1998*	3,897	4,000	97%
1999*	3,770	4,500	84%
2000*	3,161	4,500	70%
2001*	3,691	4,500	82%
2002*	3,871	4,500	86%
2003*	4,069	4,500	90%
2004*	3,823	5,000	77%
2005*	2,940	5,333	55%
2006*	3,066	5,333	57%
2007*	3,366	5,333	63%
2008*	3,246	5,333	64%
2009*	3,434	5,333	64%
2010*	n/a	**5,333**	---

Source: NMFS Clam Vessel Logbook Reports, Woods Hole, MA

- The total ex-vessel value of the 2009 federal harvest was approximately $30.2 million, down 14.6% from 2008. [Note that price and value statistics presented in this document are those reported by industry processors and dealers. Prior documents relied on values reported by vessels.]

- Unlike the ocean quahog fishery, the surfclam fishery has been unable to find large, dense beds of high-yield surfclams to replace those that have been the mainstay of the fleet for many years. The high catch rates that were reported off eastern Nantucket Island have dropped substantially from the 200+ bushels per hour experienced when the dense beds were first discovered in 2004. The industry continues to depend most heavily on a single degree square off New Jersey: # 3973. It supplied 55% of the 2009 federal harvest, down from 57% in 2008. (Appendix Table 3). Average catch rates in that square declined 9% in 2009, from 59 to 54 bushels per hour.

- A modest fishery for surfclams does persist at the southern end of its range, in the deeper waters off the coast of Maryland and Virginia. Degree square 3874 supplied 10% of the 2009 harvest at approximately 260,000 bushels (Appendix Table 3).

III. Ocean Quahog Resource and Fisheries

A. Ocean Quahog Life History and Distribution

Ocean quahogs are found in the colder, deeper waters of the shelf on both sides of the North Atlantic. Off the United States and Canada, they range from Newfoundland to Cape Hatteras at depths from 25 feet to 750 feet. As one progresses northward, ocean quahogs inhabit waters closer to shore, such that the State of Maine has a small commercial fishery which includes beds within the State's Territorial Sea, however these beds are as deep as 300 feet.

Ocean quahogs are one of the longest-living, slowest growing marine bivalves in the world. Under normal circumstances, they live to more than 100 years old. Ocean quahogs have been aged in excess of 200 years. They require roughly twenty years to grow to the sizes currently harvested by the industry (approximately 3 inches), and reach sexual maturity between ages 5 and 15.

B. Stock Status

The ocean quahog stock in the US EEZ is not overfished and overfishing is not occurring (USDC 2009a and Ocean Quahog Assessment Summary). Estimated fishable stock biomass during 2008 (survey year) was 6.4 billion pounds of meats, which is above the management target of ½ the virgin (1978 pre-fishery) biomass level of 3.9 billion pounds of meats (see table in section II B). Estimated fishing mortality during 2008 for the exploited region (all areas except Georges Bank) was 0.010, which is significantly below the current approved management threshold of 0.05 (MAFMC 1999) and still less than half the SARC (USDC 2009b) recommended and Council approved definition proposed for Amendment 15 that is under development. These estimates for ocean quahogs in the US EEZ do not include Maine waters, which were assessed separately (see below). However, biomass and landings for Maine waters are minor and would have no appreciable effect on estimates for the whole stock (Ocean Quahog Assessment Summary).

Mean annual recruitment to the whole stock was small (less than 1% per year). A pulse of recruitment in Long Island has finished growing to fishable size, based on survey data collected during 2008. Survey size frequency data in 2008 indicate an increasing number of pre-recruits in pars of Southern New England and GBK. Recruitment of these individuals to the fishable stock is expected to occur over the next decade.

The fishable stock biomass in 2008 was 6.4 billion pounds of meats (Ocean Quahog Assessment Summary). Estimated virgin biomass in 1978 was 7.9 billion pounds of meats. The ocean quahog population is a relatively unproductive stock that is being fished down from its virgin state towards the B_{msy} reference point. After several decades of relatively low fishing mortality, the stock is still at 81% of the pre-fishing level.

Based on NEFSC survey data, LPUE data and biomass estimates for 1977-2008, declines in stock biomass are most pronounced in southern regions. In particular, stock biomass is below the one-half virgin level in the Southern Virginia, Delmarva, and New Jersey regions (Ocean Quahog Assessment Summary).

An increasingly large fraction of the stock (84% during 2008 compared to 67% during 1978) now occurs in the northern regions (Long Island, Southern New England, and Georges Bank). The Georges Bank region is of particular importance because it contained 33% of total biomass in 1978 and 45% of total biomass in 2008. Georges Bank has been closed to fishing since 1990 because of PSP, but may be opened to fishing later this summer.

The SARC summary (USDC 2009a) produces projections and provides decision table analyses (Ocean Quahog Assessment Summary). Biological reference points for biomass and fishing mortality were required by the SFA of 1996 and proposed by the Council in 1999 under Amendment 12 (MAFMC 1999) and approved by the Secretary (see table in section II B). New, more conservative biological reference points were recommended by the 2009 SARC for biomass threshold, fishing mortality threshold, and fishing mortality target (see table in section II B). These proposed reference points were endorsed by the FMAT in August 2009 and approved by the Council (October 2009) for inclusion in Amendment 15.

Based on a review of F_{MSY} reference points of long-lived West Coast groundfish species the 2009 SARC recommended $F_{threshold}$ is $F_{45\%} = 0.0219$. The new SARC recommended biomass threshold of 3.2 billion pounds of meats is 40% of the 1978 pre-fishery biomass. This recommended biomass threshold is *ad hoc,* but it is probably better than the current biomass reference point both in relation to $F_{45\%}$ and in maintaining a productive stock for the long term (Ocean Quahog Assessment Summary).

This quota recommendation paper is for 2011, 2012 and 2013 only. Amendment 13 allowed the Council to set multi-year quotas for three years based on a new survey and assessment every three years. There is a desire, with the *RV Delaware II* being decommissioned soon to move the survey to an industry platform. Initially, that could have delayed the completion of a new assessment in 2012. The desired plan now is do conduct one more survey in 2011 on the *Delaware II* and maintain the three year schedule. MAFMC staff was anticipating a potential delay and requested five year projections and that is why projections are run through 2015 rather than simply three years through 2013.

Projection results indicate that overfished (low biomass) stock conditions are not likely to occur by 2015 under any of the states of nature or management policies considered in projections. Overfishing (F too high) is unlikely to occur in 2015 at status-quo or at the current FMP OY minimum (Ocean Quahog Assessment Summary). However, there is some probability of overfishing in 2015 for landings as high as the current quota or the maximum OY allowed by the FMP if the F is calculated for just the "exploited" stock. The Amendment 12 (MAFMC 1999) argued that the fishing mortality reference points should be compared to only the proportion of the stock that is exploitable and not the biomass that is not available due to area closures (i.e., Georges Bank). The Regional Office is currently developing an Environmental Assessment for opening Georges Bank to fishing for the first time in two decades which is expected to be available for public comment in June/July (Cardiasmenos pers comm). Should Georges Bank be available to fishing, the entire biomass will then used as a comparison for the reference points which will bring in the 45% of the resource that is on Georges Bank. There is then no probability of overfishing for the entire stock even at the maximum level of 6 million bushels allowed by the FMP.

The $F_{45\%}$ recommended new threshold times the current biomass would yield a catch of 140.5 million pounds of meats (14.0 million bushels, Table B1 of the Ocean Quahog Assessment Summary). Ocean quahogs have never been overfished since the inception of the fishery in the late 1970s. The Council has a specified OY range in the FMP (since the early 1980s) of 40.0 to 60.0 million pounds (4 to 6 million bushels). A plan Amendment would be required to change this OY range.

The probability of overfishing and overfished status for this stock appears low under all of the range of catches allowed by the FMP and states of nature considered (Table B27 stock assessment). Projections for decision table analysis included three values for natural mortality (low (0.015), medium (0.020) and high (0.025) levels).

C. Maine Resource and Fishery

Landings, surveys carried out by the State of Maine, and survey dredge efficiency estimates were used to estimate biomass and fishing mortality of ocean quahogs in Maine waters during 2005 through 2008. The estimates for Maine apply only to the area surveyed, which includes the primary fishing grounds.

In 2005 and 2008 Maine conducted its own stock assessment, complete with dredge efficiency estimates, which was peer-reviewed as part of the ocean quahog SARC (Ocean Quahog Assessment Summary). The majority of the following two paragraphs come from that peer-review.

There are two principal fishing grounds for ocean quahogs in Maine waters, the east bed and the west bed, which together cover about 60 nautical square miles. Landing peaked in 2002 at nearly 129,000 bushels and then declined in the following years until rebounding in 2006 (Appendix Table 2). The most productive eastern fishing grounds were reopened by the State of Maine in late 2005 after three years of closure due to PSP contamination.

Fishing effort in Maine waters peaked during 2004 at about 19,000 hours per year and then declined to about 11,000 hours in 2008. Ocean quahogs harvested from Maine waters are small in size compared to those harvested in the EEZ. Ocean quahogs in the Maine fishery range from

1.4 to 2.8 inches, and are marketed in the fresh and half-shell market at relatively high prices.

The small-scale fishery for ocean quahogs in Maine provides a stark contrast to the industrial fishery that occurs off the coast of the mid-Atlantic States up to Massachusetts. Small vessels in the 35-45 ft range actively target smaller ocean quahogs for the fresh, half shell market in Maine. Most of the catch is trucked directly out of Maine and brings an ex-vessel price that ranges from $24 - $40 per Maine bushel.

Fishable biomass in Maine waters in 2005 was estimated to be 36.5 million pounds or 3.3 million Maine bushels. The Maine fishery is small, relative to the rest of the EEZ, and unique. In particular, the Maine fishery exploits relatively small ocean quahogs at a rate where F = 0.02. That fishing mortality is more than double that on the remainder of the exploitable stock.

In 2009 the Maine ocean quahog fleet harvested a total of 55,649 Maine bushels, a 17% decrease from the 66,964 bushels harvested in 2008 (Appendix Table 2). Of the total 2009 harvest, 51,109 bushels were taken from the 100,000 bushel quota for Maine, and 4,540 bushels were leased from the industrial ITQ fishery to the south. Average catch rates have declined from a recent peak of 8.1 bushels per hour in 2006 to 5.7 bushels in 2009. In early 2010 the average increased to over 6 bushels per hour.

Finally, average prices have declined substantially over the past 5 years. In 2003 there were very few trips that sold for less than $37.00 per Maine bushel, and the mean price was $40.66. Aggressive price cutting by one company has driven prices down such that many trips in 2008 and 2009 sold for $28.00, with the mean price for all trips equaling $33.31 per bushel in 2008. With fuel prices soaring in mid-2008, the number of vessels participating in the fishery fell to a total of 22 vessels. In 2009, the mean price was $32.91 per Maine bushel and a total of 19 vessels participated in the fishery; the lowest level of vessels on record in the current data series extending back to 1991.

The value of the 2009 harvest reported by the purchasing dealers totaled $1.924 million, a drop of 15% from the prior year.

The Maine ocean quahog quota has been 100,000 bushels since implementation of Amendment 10 in 1999.

D. Fisheries

- Landings of ocean quahogs totaled 3.434 million bushels in 2009 based on vessel logbook reports, an increase of only 0.2% over 2008. The 2005 harvest of 2.940 million bushels was the lowest level experienced in the past 24 years. The ocean quahog fishery has been affected by the same market forces that reduced the harvests of surfclams, however the impact was more severe because their value is roughly half that of surfclams.

- Landings had been on a declining trend from 1992 to the year 2000, when the harvest of ocean quahogs was at its lowest level in two decades. Fully 30% of the 2000 federal quota was left unharvested, as declining catch rates and higher fuel prices had reduced the profitability of harvesting ocean quahogs.

- In 2001 new life was breathed into the ocean quahog fishery, sparked by a sharp increase in ex-vessel prices and the improved efficiency of large, newly constructed vessels. Landings jumped approximately 17%, followed by a 5% increase in both 2002 and 2003.

- In 2004 the ocean quahog fishery started into another decline as the effects of the coming glut in the market for clam meats started to be felt. As mentioned previously, industry elected to reduce production of the lower-valued ocean quahogs first, and followed with surfclam production cutbacks only when it became clear there was no other choice.

- In 2005 the impacts of the crisis were most strongly felt. The federal quota had been newly increased to 5.333 million bushels, however at year's end, 45% had been left unharvested on the ocean floor. This was the largest percentage surplus on record, going back as far as 1979 when vessel logbook data started becoming comprehensive.

- A total of 15 vessels participated in the ocean quahog fishery in 2009, a decrease of three vessels from 2008, and far below the 29 vessels that participated in 2004. The consolidation of the fishery into fewer hands is evident when one notes that just 4 large vessels accounted for over 50% of the federal ocean quahog harvest in each of the past several years.

- Of the 5.333 million bushel quota for 2009, 4,540 bushels were leased to the Maine fishery, and 3.434 million harvested by the industrial fishery outside of Maine.

- The average ex-vessel price of ocean quahogs reported by processors increased a modest 2.3% from $6.61 to $6.76 per bushel in 2009. A large portion of the increase was due to the skyrocketing price of diesel fuel in recent years. The total ex-vessel value of the 2009 federal harvest outside of Maine was approximately $22.7 million or <1% decrease from the prior year.

- Fleet performance statistics suggest that production continues to shift to large vessels fishing longer trips. For example, the average number of ocean quahog trips taken per vessel in 2008 declined from 75 to 66 trips. However the average number of hours captains reported fishing on each trip increased over 10%, from 19 hours to 21. The average number of bushels harvested per trip increased from approximately 83 cages to 88. (Each cage holds 32 bushels.)

- A fleet-wide calculation of LPUE showed that the average number of bushels harvested per hour of fishing decreased from 135 in 2008 to 141 in 2009 (Appendix Table 2). In early 2010 the average increased to almost 144 again, though this may be reflecting the fact that only the larger vessels would be able to fish the dense offshore beds in the winter months of January and February (Appendix Figure 2).

- Examination of ocean quahog LPUE over the past 20 years looks something like a roller coaster ride, with many peaks and valleys (Appendix Figure 2). Each 'hill' illustrates the pattern of improving productivity as the fleet moves to a new area of virgin biomass, and each valley the decline in productivity as that area is fished down.

- Harvests of ocean quahogs remained concentrated on the high-yielding degree square off eastern Long Island (4072). Fully 74% of the coastwide harvest was taken from this square in 2006. In 2008 and 2009 the percentage had decreased to 68 and 45% of the total harvest,

respectively. The next most heavily fished areas are the adjacent squares to the east (4071) and southwest off New Jersey (3973) - (Appendix Table 4 and Appendix Figure 4).

- Obtaining the highest catch rate can require traveling a substantial distance offshore, as evidenced by the darkest-colored squares on a map of ocean quahog catch rates by ten-minute square (Appendix Figure 4). Limits on further movement of the fleet to the east were imposed by the closure of surfclam and ocean quahog beds east of the 69° line since 1990, due to the presence of PSP toxin.

- Some fishing for ocean quahogs does persist in the southern waters off Delmarva (3873 and 3874), though catch rates are generally between 50 to 100 bushels per hour. (Appendix Table 4).

IV. Other Relevant Information

A. Paralytic Shellfish Poisoning

During nearly every summer since the Council began managing the Maine ocean quahog resource (1999), some of the principal fishing grounds in Maine have been closed due to the presence of PSP. These closures have been important in preventing the quotas from being exceeded because they generally occur when the demand for the resource is highest. The eastern-most beds between Petit Manan Point and Long Point were reopened in October 2005 (Stockwell pers com) for the first time in three years and contributed greatly to the recent increase in LPUE. The commercially active Maine beds were sufficiently free of PSP to remain completely open for all of 2006 and in August 2007 there was one short PSP closure that had minimal impact on the fishery. In both 2008 and 2009 there were significant closures due to PSP in Maine waters (Couture pers comm).

Contamination from PSP has also had a huge impact on the fledgling fisheries for surfclams and ocean quahogs on Georges Bank. These resources were initially closed in 1990 when PSP was found and have remained closed. This area has continued to increase its relative percentage of the biomass for each species and now comprises over 45 percent of both surfclam and ocean quahog total EEZ biomass. The amount of resources on Georges Band is very important, as LPUE for surfclams continues to decline in the areas to the west and south of Georges Bank. Both industry and government have been trying to figure a way that these Georges Bank resources can be safely harvested in the future.

The National Ocean Service (NOS) has provided a grant to the Food & Drug Administration (FDA), the States of Maine, New Hampshire, and Massachusetts as well as a clam industry representative to collect water and shellfish samples from federal waters off of southern New England, Gulf of Maine, and Georges Bank. This multi-year project monitors *Alexandrium spp* cell counts in the water column and PSP levels in shellfish along the New England coast and on Georges Bank. Research vessels collect water samples, along with fish and shellfish taken from the ocean floor. A clam vessel collects water and shellfish samples from Nantucket Shoals, Stellwagen Bank, and Georges Bank. The FDA designed the sampling protocol and defined the locations where shellfish samples will be taken.

The FDA's shellfish PSP Protocol has been revised from its original 1995 requirements to incorporate the latest scientific understanding and technology. The FDA and the Interstate

Shellfish Sanitation Commission have ratified the Protocol to be tested in a pilot project. The pilot project was implemented in the spring of 2008. The data from both projects will be used to monitor and better understand the spread of PSP in New England waters.

As of mid-April 2010 the Regional Office of NMFS is developing an Environmental Assessment for the reopening of the Georges Bank fisheries for surfclams and ocean quahogs (Cardiasmenos pers comm). After completion and filing of the EA there will be at least a 30 day comment period followed by possible proposed rulemaking. It is possible that the area could be reopened in mid to late-summer, depending on whether or not a large *Alexandrium* bloom occurred prior to any proposed openings. *Alexandrium* blooms generally occur in May through July.

B. Federal Fleet Profile

As described in other portions of this document, the total number of vessels participating in the surfclam and ocean quahog fisheries outside the State of Maine has experienced a dramatic decline as the fisheries moved beyond a market crisis in 2005. The 50 or so vessels that reported landings during 2004 & 2005 was slashed and coast-wide harvests consolidated on to approximately 40 vessels in the subsequent years. The Maine ocean quahog fleet numbers started to decline substantially in 2006 and totaled 19 in 2009.

Federal Fleet Profile, 1997 through 2009

Non-Maine Vessels	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Harvests BOTH surfclams & ocean quahogs	14	14	8	11	12	14	16	11	14	12	9	9	8	8
Harvests only surfclams	20	19	23	22	19	21	23	23	21	24	20	24	24	28
Harvests only ocean quahogs	22	17	16	12	17	16	15	16	15	12	9	8	10	7
Total Non-Maine Vessels	56	50	47	45	48	51	54	50	50	48	38	41	42	43
Maine Ocean Quahog Vessels	25	34	39	38	34	31	35	35	34	32	25	24	22	19

Source: NMFS Clam Vessel Logbooks

C. Surfclam & Ocean Quahog Processing Plants

In 2009 there were a total of 10 companies reporting purchases of surfclams or ocean quahogs from the industrial fisheries outside of Maine. Council staff is aware of 12 processing facilities operated by these companies. The following is a list of their names and the species they processed, arrayed from north to south.

Massachusetts
- Blount Seafood (Fall River) Surfclams & ocean quahogs
- Fair Tide Shellfish (New Bedford) Surfclams only; hand-shucked
- Intershell Seafood (Gloucester) Surfclams only
- Sea Watch (New Bedford) Surfclams & ocean quahogs

(Harbor Blue Seafood (Fairhaven) - Offloading of surfclams only - no processing)

Rhode Island
- Blount Seafood (Warren) Surfclams & ocean quahogs
- Galilean Seafood (Bristol) Surfclams only; hand-shucked. Owned by Atlantic Cape Fisheries.

New Jersey
- Atlantic Capes Fisheries (Point Pleasant Beach) Surfclams only; hand-shucked. Offices in Cape May.
- La Monica Fine Foods (Millville) Surfclams only; hand-shucked
- Surfside Products (Port Norris) Primarily ocean quahogs, some surfclams

Delaware
- Sea Watch (Milford) Surfclams & ocean quahogs

Maryland
- Sea Watch (Easton) - Secondary processing

Virginia
- J H Miles & Company (Norfolk) Surfclams & ocean quahogs

V. Summary

A. Key Aspects of the Surfclam and Ocean Quahog Fisheries

There are a number of important aspects of the surfclam and ocean quahog fisheries that distinguish them from most other fisheries in the US, and around the world. In many ways, participants in the clam fisheries are fortunate in their ability to conduct their business operations efficiently and profitably, without many of the complications and liabilities experienced by most other fisheries.

- **Single Species Fisheries with No Significant Bycatch** Industry is able to target both surfclams and ocean quahogs individually, with no significant bycatch of any other species. This greatly simplifies management and reduces the need for gear restrictions to reduce the harvest of non-target species.

- **No Interactions with Protected Species** The hydraulic dredge is not known to have any impacts on marine mammals, turtles, seabirds or other species protected by law. Nearly all protected resources are able to move faster than a clam dredge which also does not fish in depths where deep water coral would occur.

- **No Significant Gear Conflicts** There have been no reports of gear conflicts in federal waters between clam fishermen utilizing hydraulic dredges and other types of fishing gear, whether mobile or stationary.

- **Impacts to Essential Fish Habitat (EFH) are Minimal and Temporary** The prime habitat of surfclams and ocean quahogs consists of shallow sandy substrates with no vegetation or benthic 'structures' that could be damaged by the passing of a hydraulic dredge. In these 'high energy' environments, it is thought that the recovery time following passage of a clam dredge is relatively short. Additionally, the overall area impacted by the clam fisheries is relatively small (approximately 100 square nautical miles), compared to the large

area of high energy sand on the continental shelf. Any impacts to EFH are considered temporary and minimal (MAFMC 2003).

- **No Recreational Fisheries** There are no recreational fisheries for either Atlantic surfclams or ocean quahogs. Management efforts focus solely on commercial harvests.

- **ITQ Management Promotes Efficiency and Profitability** Managing surfclams and ocean quahogs with tradeable shares of the annual quota has provided industry with greater flexibility and removed incentives for derby fishing. Vessel owners can readily plan to harvest their quota at any time throughout the year. Supply disruptions are eliminated when fishermen are no longer faced with closures imposed to prevent a seasonal, group quota from being exceeded. Profitability and efficiency are dramatically enhanced when unneeded vessels can be sold out of a fishery that has adopted ITQ management.

- **Reduced Enforcement Costs** A number of benefits were realized in the area of enforcement following the transition to ITQ management in 1990. Major cost savings resulted when enforcement activity shifted from watching vessels at sea with expensive Coast Guard cutters and aircraft to monitoring clam transportation containers on land. Incentives for cheating were drastically reduced once allocation holders were faced with the prospect of forfeiting the allocation itself for repeated violations. Additionally, the improved efficiency derived from ITQ management has improved the profitability of the clam industry as a whole. Consequently, is it less likely that industry members feel compelled to break the law due to financial stress in their business operations.

B. Sources of Uncertainties

This is a new section for this quota recommendation paper that is designed to assist the SSC in their deliberations on the ABC for these two species. Certainly, as far as staff is concerned the major source of uncertainty facing industry, management, and possibly the SSC is the availability of the Georges Bank portion of the surfclam and ocean quahog resources. Fully 48% of the surfclam and 45% of the ocean quahog resources were on Georges Bank in 2008 and which was closed due to PSP. Industry and the government have worked hard to figure out a way to allow fishing on Georges in the future which could occur as early as mid- to late summer of 2010.

In addition to the availability of the resources on Georges Bank, staff is also concerned with uncertainties about the environmental factors that could be limiting the southern and inshore distribution of the surfclam resource, the declining surfclam LPUE, and the long-term sustainability of the ocean quahog resource. Staff has also searched the word "uncertainty" in the large stock assessment documents for surfclams (SARC 49) and ocean quahogs (SARC 48) in order to assist the SSC. The following two sections merely have topic sentences with the word uncertainty or uncertainties identified with the associated report page number. The uncertainties mentioned in the TORs are not included in this section.

1. Surfclam

Bootstrap and delta method CVs for biomass, fishing mortality and recruitment estimates were < 25% indicating that estimates were reasonably precise (Figure A62). CVs calculated by the delta method were generally larger than CVs from bootstrapping, particularly after 1989 and

for recent years. The delta method CV values seem more realistic because they imply greater uncertainty. Therefore, delta methods CVs were used in this assessment to characterize variability in model estimates. The model did not completely converge during a substantial fraction of bootstrap runs (the Hessian matrix was not invertible in roughly 26% of the 2000 bootstrap runs), due to uncertainty in estimated recruitments. In other words, a range of recruitment patterns probably explained the bootstrap survey data equally well. (pages 40 and 41)

Scientific adequacy of reference points - - The proxy for $F_{MSY}=M=0.15$, but there is substantial uncertainty about natural mortality in surfclams, which likely varies temporally and spatially. (page 43)

Term of Reference 7: Projection and decision table analysis
Projections were used for two purposes in the surfclam stock assessment: 1) to forecast future stock conditions assuming that the basecase model was valid, while accounting for uncertainties in the basecase model (entire stock, DMV only and NJ only); and 2) for decision table analyses for the entire stock in which the relative performance of a range of realistic management policies (quota levels) was evaluated over a range of possible states of nature. Projections of both types were for 2009-2015 and were initialed assuming bootstrap estimates of 2008 stock conditions to help account for uncertainty. There was one projection per bootstrap iteration in all cases. (page 47)

Term of Reference 8: Research recommendations
v) Consider using a sensor that tracks dredge position, rather than the ships position, during surveys and depletion studies. *No progress. However, simulation results of Patch model performance indicate that uncertainty in dredge position has relatively minor effects on survey dredge efficiency estimates.* (page 50)

xii) Test the Patch model for depletion experiments with simulations focusing on potential effects of uncertainty about position data and including all effects of cell size and smoothing. (page 51)

To use q-ratio information in the KLAMZ model, the user must identify two surveys, a target value for the ratio of their Q values, and a CV for differences between the models estimated q-ratio and the target value. For example, if the user believes that the scaling parameters for abundance index 1 and abundance index 3 is 0.5, with a CV=0.25 for uncertainty in the prior information then the model's estimate of the q-ratio is $\rho=Q_1/Q_3$. (page 211)

Uncertainty
The AD Model Builder version of the KLAMZ model automatically calculates variances for parameters and quantities of interest (e.g. R_t, F_t, B_t, F_{MSY}, B_{MSY}, $_{cent}F_{Re}$, $_{cent}B_{Re}$, $_{cent\,MSY}F / F_{Re}$, $_{cent\,MSY}B / B_{Re}$, etc.) by the delta method using exact derivatives. If the objective function is the log of a proper posterior distribution, then Markov Chain Monte Carlo (MCMC) techniques implemented in AD Model Builder libraries can be used estimate posterior distributions representing uncertainty in the same parameters and quantities. (page 213)

Model configuration
Based on previous assessments, SS3 model runs assumed that 50% of age zero

and 100% of older individuals were sexually mature. Common biological reference points based on egg production or mature spawning biomass are calculated in SS3 but not useful for surfclam at this time because of uncertainty about maturity and egg production as a function of shell length. The KLAMZ model does not estimate spawning biomass or related reference points so no assumptions about maturity are necessary. (pages 217 and 218)

Additionally, there is uncertainty as to both the mechanism and seasonal timing associated with annulus formation. In particular, the interpretation of the last annual mark may depend on latitude as well as sample date. (page 242)

Natural mortality is an important uncertainty for surfclams. (page 248)

Figures A57 and A58 as well as Appendix 5 Figures 12 and 13 mention uncertainties.

2. Ocean Quahogs

Recruitment patterns in ocean quahog at reduced biomass levels after fishing are a major uncertainty (NEFSC 2007a). (page 188)

Step-wise linear models were fit to the DE2FV data to refine estimates and produce variances that characterize uncertainty in estimated pump and cable effects. (page 201)

Uncertainty and sensitivity (pages 205 and 206)

Uncertainty in ESB and mortality estimates (page 207)

Despite this high degree of consistency, 95% confidences intervals from the model for the exploited stock were wide (e.g. 1513 to 3981 thousand mt in 1978 and 1056-2195 thousand mt in 2008) indicating considerable uncertainty in estimated biomass (Figure B55). (page 213)

Uncertainty in biological reference points (page 216)

Uncertainties about productivity are closely related to choice of accurate *FMSY* and *BMSY* proxies and to other decisions that affect sustainability and fishery profitability. (pages 217 and 218)

Projection methods (page 218)

1. The backup pressure (depth) data for each station was used to estimate times the dredge was on or off bottom. The resolution of the backup pressure data is 5 meters and the apparent trajectory of the dredge during the tow is noisy. In particular, a small change in depth can appear to be a large change. This adds uncertainty to the estimates of time on/off bottom. (page 382)

For example, if the user believes that the scaling parameters for abundance index 1 and abundance index 3 is 0.5, with a CV=0.25 for uncertainty in the prior information then the model's estimate of the q-ratio is $\varphi = Q1/Q3$. (page 420)

Uncertainty (page 422)

Table B-20 and Figures 52 and 53 also focus on uncertainties.

C. Recommendations

The staff recommendation is to maintain the status quo quotas from 2010 for 2011, 2012, and 2013. These will be the same quotas that have been in place since the Council was able to provide multi-year quota recommendations in 2005.

Proposed Quota Specifications for 2011, 2012, and 2013			
Year	2011	2012	2013
Surfclams	3.400 mil. bu.	3.400 mil. bu.	3.400 mil. bu.
Ocean Quahogs	5.333 mil. bu.	5.333 mil. bu.	5.333 mil. bu.
Maine Ocean Quahogs	100,000 ME bu.	100,000 ME bu.	100,000 ME bu.

The Mid-Atlantic Council is required to review the status of each fishery on an annual basis, but it need not take any action in years two and three if it determines that the existing specifications made for a 3-year quota interval are still appropriate.

The following tables specify potential quota alternatives for 2011, 2012, and 2013 the Council may wish to consider while performing its annual review in June of 2010.

Quota Alternatives for 2011, 2012, and 2013 ITQ Fisheries.		
Surfclams		
	Description	2011, 2012, and 2013 Quota (bu)
Alt. S1	Min. Allowable	1.850 million
Alt. S2	Decrease (12%)	3.000 million
Alt. S3	Slight Decrease (4.4%)	3.250 million
Alt. S4	Max Allowable / Status Quo*	3.400 million
Ocean Quahogs		
	Description	2011, 2012, and 2013 Quota (bu)
Alt. Q1	Min. Allowable	4.000 million
Alt. Q2	Slight Decrease	5.000 million
Alt. Q3	Status Quo*	5.333 million
Alt. Q4	Max. Allowable	6.000 million
* Staff recommended alternative from April 2010		

Quota Alternatives for 2011, 2012, and 2013 Maine Ocean Quahog Fishery		
	Description	2011, 2012, and 2013 Quota (bu)
Alt. M1	50% of Max. Quota	50,000 Maine
Alt. M2	Slight Decrease	90,000 Maine
Alt. M3*	Max Allowable - Status Quo*	100,000 Maine
* Staff recommended alternative from April 2010		

1. Surfclam ITQ Quota Considerations for 2011, 2012, and 2013

The Council will be in the first year of the three year quota cycle and staff is recommending the status quo. Council staff identified four potential quota alternatives for the Council to consider for the federal surfclam fishery. Alternatives S1 and S4 correspond to the current minimum and maximum allowable quota levels within the FMP of 1.850 and 3.400 million bushels, respectively Alternatives S2 (3.000 million bushels) and S3 (3.250 million bushels) represent two modest levels of reduction that the Council may wish to consider in response to recent events.

First, catch rates have been declining steadily in the federal surfclam fishery over the past decade on their traditional fishing grounds. Collectively, the fleet has experienced an average drop in LPUE of almost 10% each year since the year 2000, from 129 to 52 bushels per hour. In early 2010 it had fallen to 42 bushels per hour.

Second, substantial declines in surfclam biomass are evident off Delmarva, inshore New Jersey, and most recently off New York. A paucity of new recruits has been noted in inshore New Jersey. The most frequently mentioned theory to date is increased ocean temperatures that may be impacting the survival of young surfclams and keeping them from later recruiting into the population and the fishery. There is some encouragement recently from the 2008 New York inshore survey that the situation may not be as dire as previously believed. Within the New York survey area there was nearly a ten fold increase in small clams.

The federal EEZ harvest zone is much larger than the inshore waters of New Jersey and New York, and the latest stock assessment indicates that the federal resource is not overfished and overfishing is not occurring. However areas that the industry has depended on for decades are fast approaching a state in which they will no longer be economically profitable to fish. The trend toward greater vertical integration in the clam industry may be of particular importance for the surfclam fishery in the years ahead: harvesting operations that are operating at a loss could at least temporarily be subsidized from profits in the processing arm of the company.

The greatest 'wild card' in the calculation is the status of the Georges Bank resource. Closed since 1990 due to the presence of PSP, the resource there should effectively be in a virgin state. Management officials would certainly wish to encourage industry to take advantage of that resource if at all possible, which would also serve to take some of the pressure off traditional areas in the mid-Atlantic that are being depleted.

As described in earlier sections, a protocol has been developed to allow experimental fishing on Georges Bank with the aid of an at-sea rapid testing kit. The Regional Office is currently developing an Environmental Assessment to examine the opening of Georges Bank to surfclam and ocean quahog harvesting. It is possible that commercial fisheries may occur there as early as the late summer of 2010.

2. Ocean Quahog ITQ Quota Considerations for 2011, 2012, and 2013

The Council will be in the first year of the three year quota cycle and staff is recommending the status quo. The staff has identified four alternative ocean quahog quotas for the Council to consider for 2011, 2012, and 2013. As with surfclams, the first and last correspond to the minimum and maximum allowable under the current FMP.

Alternative Q3 corresponds to the status quo of 5.333 million bushels.

Alternative Q2 corresponds to a moderate decrease in the quota, and would allow the Council to respond to the large quota surplus that currently exists in the ocean quahog fishery.

At issue with the large quota surpluses is the potential economic impacts of federal quotas that are set in excess of what the industry is able to utilize in an ITQ fishery. Annual quota allocations are distributed to allocation owners each year that rise and fall with the annual quota, with bushel amounts equal to their percentage share of the total quota.

When 100% of the total quota is able to find a market, then all allocation holders will be able to find a buyer for his/her shares. However in years when markets are tight and not all of the quota can be sold, companies which are vertically integrated and have better access to markets may find that the quota allocation they hold is sufficient to fill their orders, and have no need to purchase or lease quota from other holders.

In other words, those companies with greater market access benefit from a reduction in costs because they no longer need to buy the allocation held by others. Correspondingly, those entities left without a market for their allocation suffer a loss in income since their holdings cannot be sold. What is unusual is that in the case of the ocean quahog fishery, there has always been surplus quota. The variable has simply been in how large the surplus is in any given year. When such a fishery is managed by an ITQ, then the owners of the surplus quota might be seen as shareholders in a company whose shares pay no dividend. Since the ocean quahog quota was raised to 5.333 million bushels in 2005, the 'shares that paid no dividend' ranged between 36% and 45%.

The Council is required to consider the economic impacts its actions may have on the public. This type of scenario would fall under the category of a 'distributive impact,' since it deals primarily with the distribution of costs and benefits among stakeholders. Equity concerns are raised when an action taken is found to have preferentially benefitted one group at the expense of another, without any mitigating circumstances that can justify the action as necessary.

On the surface, raising quota levels in an ITQ fishery that can biologically sustain the increase would appear to benefit all allocation holders equally, since they are all receiving a proportionally larger 'piece of the quota pie.' It is only in the unusual circumstance of large

quota surpluses that distributive impacts occur. This is the issue that the Council may wish to consider as it recommends an ocean quahog quota for 2011, 2012 and 2013.

3. Maine Ocean Quahog Quota Considerations for 2011, 2012, and 2013

The staff is recommending that the Council leave the current quotas of 100,000 Maine bushels in place for 2011, 2012, and 2013 as requested by the Maine industry and state representatives.

The Council staff has identified 3 potential quota levels for the Maine ocean quahog fishery. They correspond to the current maximum of 100,000 Maine bushels, a slight reduction to 90,000 bushels, and 50,000 bushels.

4. Surfclam Size Limit Suspension

The Council staff is recommending that the current exemption from the minimum size limit on surfclams be maintained for 2011, 2012, and 2013 as it has been since implementation of Amendment 8 (MAFMC 1988). Current assessment information indicates that the stock is composed primarily of larger, adult clams in most areas. Reinstating a minimum size under these conditions would result in greater harm than benefit, as it would require the industry to use "sorting" machines which often damage/destroy undersized clams as it routes them back overboard.

VI. References

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Appendix Table 1. Surfclam Fishery in the EEZ: Number of Vessels, Trips, Hours at Sea, Hours Fishing, Landings (bushels), Landings per Unit Effort (bu/hour fishing), and Average Landings per Vessel

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Surfclam Landings	LPUE*	Ave. Bu. per Boat
1979	1	26	584	9,080	5,787	103,665	17	3,987
	2	61	1,992	39,369	22,670	484,151	21	7,937
	3	75	2,622	59,298	34,326	1,086,393	32	14,485
	All	162	5,198	107,747	62,783	1,674,209	26	10,335
1980	1	14	406	5,674	3,650	79,621	19	5,687
	2	54	2,164	38,743	23,996	597,646	24	11,068
	3	59	2,323	53,098	31,153	1,246,766	40	21,132
	All	127	4,893	97,515	58,799	1,924,033	32	15,150
1981	1	16	328	4,701	2,927	64,942	22	4,059
	2	48	1,502	25,029	14,507	572,063	37	11,918
	3	59	2,198	47,664	23,555	1,339,433	56	22,702
	All	123	4,028	77,394	40,989	1,976,438	47	16,069
1982	1	15	511	7,535	4,908	97,833	20	6,522
	2	47	2,037	32,906	20,916	614,069	28	13,065
	3	53	2,734	55,855	29,721	1,290,928	42	24,357
	All	115	5,282	96,296	55,545	2,002,830	35	17,416
1983	1	14	408	6,323	4,025	113,753	28	8,125
	2	48	2,035	30,354	19,302	818,966	40	17,062
	3	55	2,341	48,934	25,279	1,479,221	58	26,895
	All	117	4,784	85,611	48,606	2,411,940	48	20,615
1984	1	15	319	4,897	3,142	126,421	40	8,428
	2	50	1,763	27,341	16,755	1,152,763	66	23,055
	3	54	1,638	34,893	16,499	1,687,842	96	31,256
	All	119	3,720	67,131	36,396	2,967,026	77	24,933
1985	1	13	217	2,075	1,089	87,791	78	6,753
	2	49	1,307	15,986	7,415	962,313	122	19,639
	3	68	1,582	32,533	11,840	1,859,226	149	27,342
	All	130	3,106	50,594	20,344	2,909,330	135	22,379
1986	1	13	164	1,986	984	81,895	83	6,300
	2	54	1,037	14,679	6,094	964,583	143	17,863
	3	77	1,540	34,724	10,676	2,134,164	189	27,716
	All	144	2,741	51,389	17,754	3,180,642	167	22,088
1987	1	11	159	2,709	1,234	68,006	55	6,182
	2	54	1,143	17,432	7,771	923,127	113	17,095
	3	77	1,433	31,303	8,840	1,828,686	199	23,749
	All	142	2,735	51,444	17,845	2,819,819	151	19,858
1988	1	10	207	3,466	1,895	93,740	49	9,374
	2	51	1,304	19,392	8,743	1,023,364	106	20,066
	3	73	1,527	33,221	9,487	1,914,577	196	26,227
	All	134	3,038	56,079	20,125	3,031,681	143	22,624

(Continued next page)

Appendix Table 1. (continued)

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Surfclam Landings	LPUE*	Ave Bu/Boat
1989	1	9	185	3,148	1,904	87,151	44	9,683
	2	50	1,186	15,481	7,357	947,092	117	18,942
	3	76	1,508	26,324	9,610	1,804,165	182	23,739
	All	135	2,879	44,953	18,871	2,838,408	143	21,025
1990	1	8	237	3,931	2,470	69,376	28	8,672
	2	45	1,086	12,450	6,233	961,195	138	21,360
	3	75	1,636	25,067	11,043	2,083,405	184	27,779
	All	128	2,959	41,448	19,746	3,113,976	150	24,328
1991	1&2	25	971	13,853	6,300	808,893	120	32,356
	3	50	1,470	24,942	12,765	1,864,520	144	37,290
	All	75	2,441	38,795	19,065	2,673,413	136	35,646
1992	1&2	19	834	10,682	4,873	738,640	142	38,876
	3	40	1,747	29,874	17,521	2,073,630	117	51,841
	All	59	2,581	40,556	22,394	2,812,270	123	47,666
1993	1&2	17	770	9,294	4,713	778,766	164	45,810
	3	36	1,697	28,538	16,333	2,055,951	126	57,110
	All	53	2,467	37,832	21,046	2,834,717	134	53,485
1994	1&2	15	808	9,778	5,597	826,366	148	55,091
	3	32	1,668	30,844	17,980	2,020,304	112	63,135
	All	47	2,476	40,622	23,577	2,846,670	121	60,567
1995	1&2	13	793	10,800	5,739	810,125	141	62,317
	3	24	1,453	26,169	15,622	1,735,180	111	72,299
	All	37	2,246	36,969	21,361	2,545,305	119	68,792
1996	1&2	12	892	12,821	7,482	958,937	128	79,911
	3	22	1,286	24,570	15,551	1,610,382	104	73,199
	All	34	2,178	37,391	23,033	2,569,319	112	75,568
1997	1&2	11	803	11,509	6,509	837,198	129	76,109
	3	22	1,316	24,643	15,220	1,576,377	104	71,654
	All	33	2,119	36,152	21,729	2,413,575	111	73,139
1998	1&2	11	736	10,558	5,633	764,551	136	69,505
	3	20	1,340	24,810	15,390	1,600,823	104	80,041
	All	31	2,076	35,368	21,023	2,365,374	113	76,302
1999	1&2	10	671	9,857	4,737	766,833	162	76,683
	3	23	1,484	26,019	15,214	1,771,046	116	77,002
	All	33	2,155	35,876	19,951	2,537,879	127	76,905
2000	1	3	57	979	392	15,869	40	5,290
	2	8	743	11,845	6,155	985,248	160	123,156
	3	20	1,241	21,755	13,360	1,559,904	117	77,995
	All	31	2,041	34,579	19,907	2,561,021	129	82,614

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Appendix Table 1. (continued)

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Surfclam Landings	LPUE*	Ave Bu/Boat
2001	1&2	10	806	12,756	7,181	1,005,617	140	100,562
	3	25	1,584	28,233	17,694	1,849,549	105	73,982
	All	35	2,390	40,989	24,875	2,855,166	115	81,576
2002	1&2	9	850	14,782	8,813	1,055,835	120	117,315
	3	30	1,742	32,349	20,791	2,057,241	99	68,575
	All	39	2,592	47,131	29,604	3,113,076	105	79,822
2003	1&2	7	822	16,465	10,561	1,019,904	97	145,701
	3	27	1,721	36,664	22,962	2,224,344	97	82,383
	All	34	2,543	53,129	33,523	3,244,248	97	95,419
2004	1&2	8	631	15,100	9,105	773,472	85	96,684
	3	27	1,678	41,259	26,220	2,364,384	90	87,570
	All	35	2,309	56,359	35,325	3,137,856	89	89,653
2005	1&2	7	514	11,779	7,674	585,088	76	83,584
	3	29	1,389	38,549	25,435	2,159,304	85	74,459
	All	36	1,903	50,328	33,109	2,744,392	83	76,233
2006	1&2	8	518	13,806	9,827	617,824	63	77,228
	3	21	1,326	41,756	29,659	2,439,100	82	116,148
	All	29	1,844	55,562	39,486	3,056,924	77	105,411
2007	1&2	10	695	19,064	13,726	814,080	59	81,408
	3	23	1,459	48,125	35,971	2,411,808	67	104,861
	All	33	2,154	67,189	49,697	3,225,888	65	97,754
2008	1&2	11	690	19,674	14,784	733,786	50	66,708
	3	21	1,386	48,116	36,564	2,180,640	60	103,840
	All	32	2,076	67,790	51,348	2,914,426	57	91,076
2009	1&2	11	714	21,803	15,485	722,817	47	65,711
	3	25	1,228	45,774	34,420	1,871,329	54	74,853
	All	36	1,942	67,577	49,905	2,594,146	52	72,060

* LPUE values are computed from only those trips which have both Hours Fished and Landings data reported. The Hours Fished and Landings values displayed in this table are gross reported totals, and hence may not be divided to calculate LPUE. Hours Fished values are thought to be under-reported in the Northern New Jersey region between 1986 and 1990, due to strict limits on surfclam fishing time in the management regime prior to Amendment #8.
Source: NMFS Clam Vessel Logbook Files.

Appendix Table 2. Ocean Quahog Fishery in the EEZ: Number of Vessels, Trips, Hours at Sea, Hours Fishing, Landings (bushels), Landings per Unit Effort (bu/hour fishing), and Average Landings per Vessel

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Quahog Landings	LPUE*	Ave Bu. per Boat
1979	1 & 2	22	735	10,325	4,333	477,346	109	21,698
	3	37	1,966	35,635	19,545	2,557,350	127	69,118
	All	59	2,701	45,960	23,878	3,034,696	124	51,436
1980	1 & 2	19	561	7,836	3,528	354,110	95	18,637
	3	33	1,950	39,488	22,025	2,607,679	114	79,021
	All	52	2,511	47,324	25,553	2,961,789	111	56,957
1981	1 & 2	12	399	5,965	2,793	248,498	88	20,708
	3	35	2,011	37,914	20,859	2,639,789	125	75,423
	All	47	2,410	43,879	23,652	2,888,287	121	61,453
1982	1 & 2	12	274	4,414	2,391	187,447	77	15,621
	3	31	2,146	39,956	21,515	3,053,328	136	98,494
	All	43	2,420	44,370	23,906	3,240,775	130	75,367
1983	1 & 2	8	225	3,561	1,936	159,214	81	19,902
	3	29	2,243	40,718	21,072	3,056,426	142	105,394
	All	37	2,468	44,279	23,008	3,215,640	137	86,909
1984	1 & 2	16	467	7,266	3,873	369,529	92	23,096
	3	41	2,738	51,563	26,845	3,593,438	129	87,645
	All	57	3,205	58,829	30,718	3,962,967	124	69,526
1985	1 & 2	17	611	9,352	4,756	483,004	99	28,412
	3	47	3,101	58,462	28,988	4,086,505	138	86,947
	All	64	3,712	67,814	33,744	4,569,509	133	71,399
1986	1 & 2	16	471	8,795	4,159	441,192	103	27,575
	3	56	2,714	51,648	25,292	3,726,013	146	66,536
	All	72	3,185	60,443	29,451	4,167,205	140	57,878
1987	1 & 2	16	333	7,359	3,405	359,042	105	22,440
	3	55	2,995	59,220	29,482	4,383,983	146	79,709
	All	71	3,328	66,579	32,887	4,743,025	142	66,803
1988	1 & 2	11	221	4,555	2,088	251,674	114	22,879
	3	51	2,818	60,554	31,213	4,217,699	133	82,700
	All	62	3,039	65,109	33,301	4,469,373	132	72,087
1989	1 & 2	13	540	9,823	4,945	650,059	124	50,005
	3	56	3,055	66,364	34,671	4,280,221	121	76,433
	All	69	3,595	76,187	39,616	4,930,280	122	71,453
1990	1 & 2	14	496	11,002	6,470	623,346	96	44,525
	3	42	2,753	62,569	34,614	3,999,071	115	95,216
	All	56	3,249	73,571	41,084	4,622,417	112	82,543
1991 - Excludes Maine Fishery								
	1&2	11	545	11,889	6,343	731,634	115	66,512
	3	38	2,824	68,002	39,531	4,108,190	103	108,110
	All	49	3,369	79,911	45,874	4,839,824	104	98,772

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Appendix Table 2. Continued

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Quahog Landings	LPUE*	Ave. Bu. per Boat
1992 - Excludes Maine Fishery								
	1&2	9	527	11,267	5,464	693,971	127	77,108
	3	34	2,563	61,914	31,678	4,244,729	132	124,845
	All	43	3,090	73,181	37,142	4,938,700	131	114,853
1993 - Excludes Maine Fishery								
	1&2	8	535	12,764	6,442	720,702	112	90,088
	3	28	2,655	67,549	38,860	4,091,239	105	146,116
	All	36	3,190	80,313	45,302	4,811,941	106	133,665
1994 - Excludes Maine Fishery								
	1&2	7	444	10,748	5,580	580,198	104	82,885
	3	29	2,683	65,734	38,764	4,031,197	104	139,007
	All	36	3,127	76,482	44,344	4,611,395	104	128,094
1995 - Excludes Maine Fishery								
	1&2	6	480	12,168	7,116	692,491	97	115,415
	3	30	2,496	60,216	32,752	3,935,832	120	131,194
	All	36	2,976	72,384	39,868	4,628,323	116	128,565
1996 - Excludes Maine Fishery								
	1&2	5	429	11,439	6,026	678,804	113	135,761
	3	31	2,116	52,328	27,104	3,712,624	137	119,762
	All	36	2,545	63,767	33,130	4,391,428	133	121,984
1997 - Excludes Maine Fishery								
	1&2	6	413	12,570	6,860	684,684	100	114,114
	3	25	1,881	52,535	27,154	3,594,375	132	143,775
	All	31	2,294	65,105	34,014	4,279,059	126	138,034
1998 - Excludes Maine Fishery								
	1&2	5	375	11,491	6,371	587,228	92	117,446
	3	19	1,582	49,236	25,331	3,310,259	131	174,224
	All	24	1,957	60,727	31,702	3,897,487	123	162,395
1999 - Excludes Maine Fishery								
	1&2	5	382	10,817	5,952	559,200	94	111,840
	3	18	1,696	50,612	25,748	3,211,088	125	178,394
	All	23	2,078	61,429	31,700	3,770,288	119	163,926
2000 - Excludes Maine Fishery								
	1&2	6	270	7,933	4,330	429,686	99	71,614
	3	23	1,541	48,369	24,110	2,730,963	113	118,738
	All	29	1,811	56,302	28,440	3,160,649	111	108,988
2001 - Excludes Maine Fishery								
	1&2	6	454	13,588	7,183	778,469	108	129,745
	3	24	1,654	51,637	26,702	2,912,538	109	121,356
	All	30	2,108	65,225	33,885	3,691,007	109	123,034
2002 - Excludes Maine Fishery								
	1&2	6	428	12,589	6,644	712,243	107	118,707
	3	25	1,559	49,424	23,979	3,158,407	132	126,336
	All	31	1,987	62,013	30,623	3,870,650	126	124,860

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Appendix Table 2. Continued

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Quahog Landings	LPUE*	Ave. Bu. per Boat
2003 - Excludes Maine Fishery								
	1&2	6	472	15,132	8,633	801,440	93	133,573
	3	21	1,469	50,793	25,717	3,267,308	127	155,586
	All	27	1,941	65,925	34,350	4,068,748	118	150,694
2004 - Excludes Maine Fishery								
	1&2	6	380	12,100	7,070	633,888	90	105,648
	3	23	1,386	48,888	24,659	3,189,600	129	138,678
	All	29	1,766	60,988	31,729	3,823,488	121	131,844
2005 - Excludes Maine Fishery								
	1&2	5	149	4,521	2,076	170,752	82	34,150
	3	19	1,061	36,508	19,959	2,768,864	139	145,730
	All	24	1,210	41,029	22,035	2,939,616	133	122,484
2006 - Excludes Maine Fishery								
	1&2	4	206	5,316	2,338	283,072	121	70,768
	3	14	974	34,339	18,798	2,783,264	148	198,805
	All	18	1,180	39,655	21,136	3,066,336	145	170,352
2007 - Excludes Maine Fishery								
	1&2	4	215	6,124	3,266	312,672	96	78,168
	3	13	1,057	38,656	20,786	3,053,120	147	234,855
	All	17	1,272	44,780	24,052	3,365,792	140	197,988
2008 - Excludes Maine Fishery								
	1&2	3	85	2,659	1,493	148,576	100	49,525
	3	15	1,108	40,752	23,485	3,225,088	137	215,006
	All	18	1,193	43,411	24,978	3,373,664	135	187,426
2009 - Excludes Maine Fishery								
	All	15	1,124	41,445	24,426	3,433,869	141	228,925

Maine Ocean Quahog Fishery

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Quahog Landings	LPUE*	Ave. Bu. per Boat
1991	All	45	2,221	23,465	17,162	36,679	2.0	815
1992	All	53	1,677	17,711	13,469	24,839	1.8	469
1993	All	33	685	9,732	5,748	17,144	3.0	520
1994	All	30	792	7,189	5,102	21,480	4.2	716
1995	All	30	1,052	8,233	5,747	37,912	6.6	1,264
1996	All	25	1,374	11,811	8,483	47,025	5.5	1,881
1997	All	34	1,945	16,285	11,829	72,706	6.1	2,138
1998	All	39	1,820	18,452	11,777	72,466	6.2	1,858

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Appendix Table 2. Continued

Year	Class	Vessels	Trips	Hours at Sea	Hours Fishing	Quahog Landings	LPUE*	Ave. Bu. per Boat
1999	All	38	1,998	16,188	11,455	93,938	8.2	2,472
2000	All	34	2,197	18,015	12,739	120,767	9.5	3,552
2001	All	31	2,040	18,250	13,350	108,500	8.1	3,500
2002	All	35	2,604	23,724	16,967	128,574	7.6	3,674
2003	All	35	2,674	24,383	17,853	119,675	6.7	3,419
2004	All	34	2,568	25,777	19,022	102,187	5.4	3,006
2005	All	32	2,306	22,794	17,063	100,115	5.9	3,129
2006	All	25	2,177	20,202	14,902	121,373	8.1	4,855
2007	All	24	1,930	18,768	14,018	102,006	7.3	4,250
2008	All	22	1,371	14,251	10,795	66,946	6.2	3,043
2009	All	19	1,237	12,838	9,705	55,649	5.7	2,929

NOTE 1: This table includes ocean quahog landings records from the Clam logbooks ONLY, and does NOT include landings submitted in the Multispecies logbooks until 1998.

NOTE 2. The bushel unit used in the Maine fishery measures 1.2445 cubic feet. The standard bushel unit used in the industrial ITQ fishery outside Maine is 1.88 cubic feet.

* LPUE values are computed from only those trips which have both Hours Fished and Landings data reported. The Hours Fished and Landings values displayed in this table are gross reported totals, and hence may not be divided to calculate LPUE.

Source: NMFS Clam Vessel Logbook Files

Appendix Table 3. 2009 vs. 2008 Surfclam Landings by Degree Square

Partially-Audited Data - Includes all trips reported as of 4/12/2010

Degree Square	2008 Surfclam Bushels	2009 Surfclam Bushels	% Change	2008 LPUE	2009 LPUE	% Change	2009 % of Catch	2009 Landings Ranking
3774	448	10,880	2329%	25	81	226%	0.4%	
3873	4,704	6,368		47	40		0.2%	
3874	**431,930**	**259,744**	**-40%**	**51**	**44**	**-13%**	**10.0%**	**#3**
3972		3,040			46		0.1%	
3973	**1,679,072**	**1,425,825**	**-15%**	**59**	**54**	**-9%**	**55.0%**	**#1**
3974	**321,280**	**202,784**	**-37%**	**55**	**45**	**-18%**	**7.8%**	**#4**
4069								
4070								
4071								
4072	1,728	40,800	2261%	75	53	-30%	1.6%	
4073	**420,416**	**466,372**	**11%**	**54**	**48**	**-11%**	**18.0%**	**#2**
4168		1,440			120		0.1%	
4169	54,848	174,141	217%	101	83	-18%	6.7%	
4170		2,752			81		0.1%	
Total	**2,914,426**	**2,594,146**	**-11%**	**57**	**52**	**-8%**	**100.0%**	

Appendix Table 4. 2009 vs. 2008 Ocean Quahog Landings by Degree Square

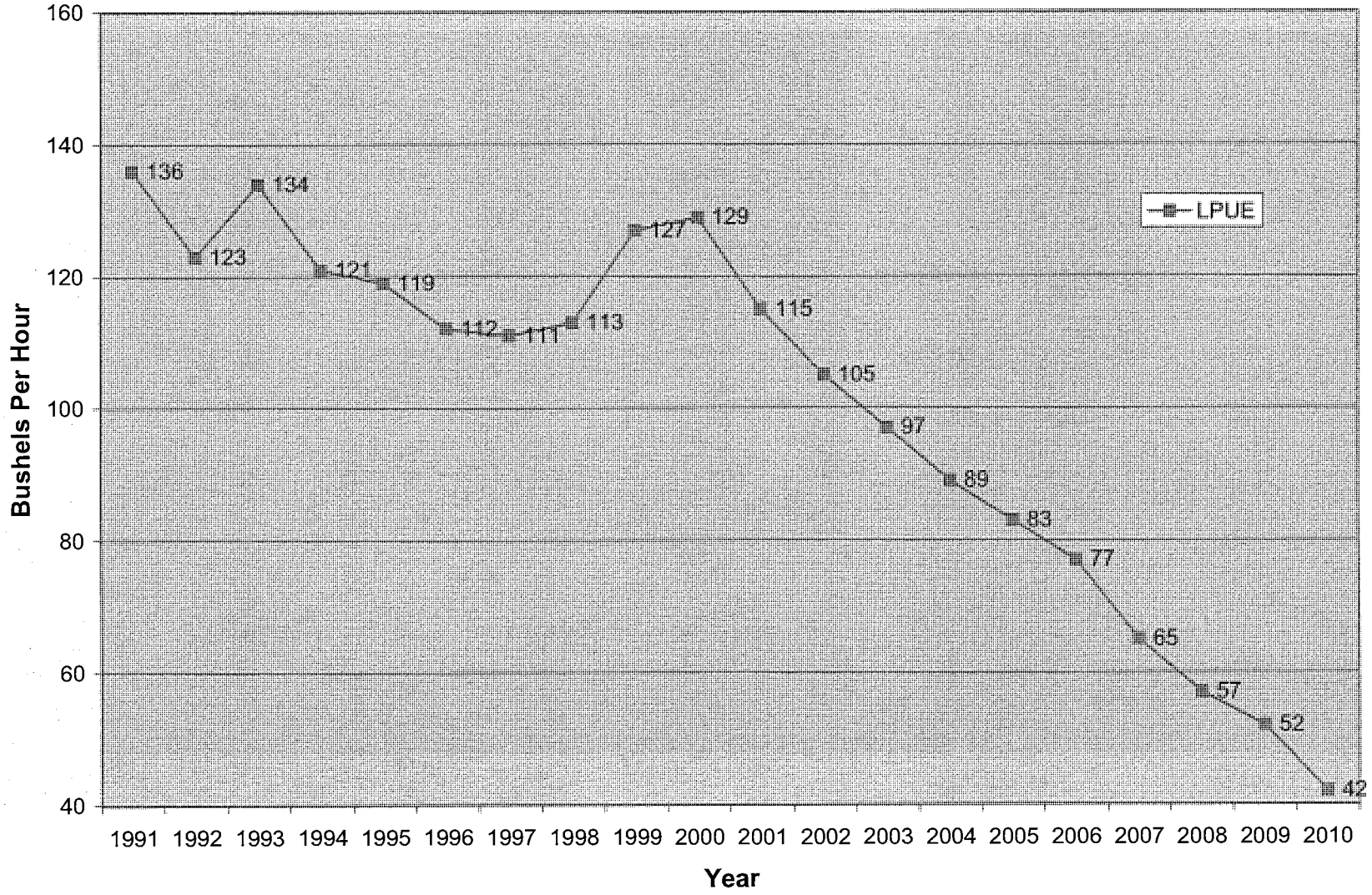
Partially-Audited Data - Includes all trips reported as of 4/12/2010

Excludes Maine Fishery

Degree Square	2008 Quahog Bushels	2009 Quahog Bushels	% Change	2008 LPUE	2009 LPUE	% Change	2009 % of Catch	2009 Landings Ranking
3774	22,560	17,888	-21%	66	57	-13%	0.5%	
3873	87,712	116,160	32%	67	76	13%	3.4%	
3874	33,856	24,800	-27%	64	56	-12%	0.7%	
3972	56,064	270,400	382%	123	155	25%	7.9%	
3973	**264,224**	**342,506**	**30%**	**83**	**106**	**28%**	**10.0%**	**#3**
3974	2,624	5,952	127%	58	73	24%	0.2%	
4069								
4070	8,992	36,096	301%	111	169	52%	1.1%	
4071	**367,296**	**789,190**	**115%**	**116**	**148**	**27%**	**23.0%**	**#2**
4072	**2,296,288**	**1,534,366**	**-33%**	**163**	**172**	**5%**	**44.7%**	**#1**
4073	43,712	19,456	-55%	117	89	-24%	0.6%	
4168		3,808			127		0.1%	
4169								
4170	**187,008**	**148,990**	**-20%**	**137**	**151**	**11%**	**4.3%**	**#4**
4171	3,328	124,257	3634%	67	92	38%	3.6%	
4172								
Total	**3,373,664**	**3,433,869**	**2%**	**135**	**141**	**4%**	**100.0%**	

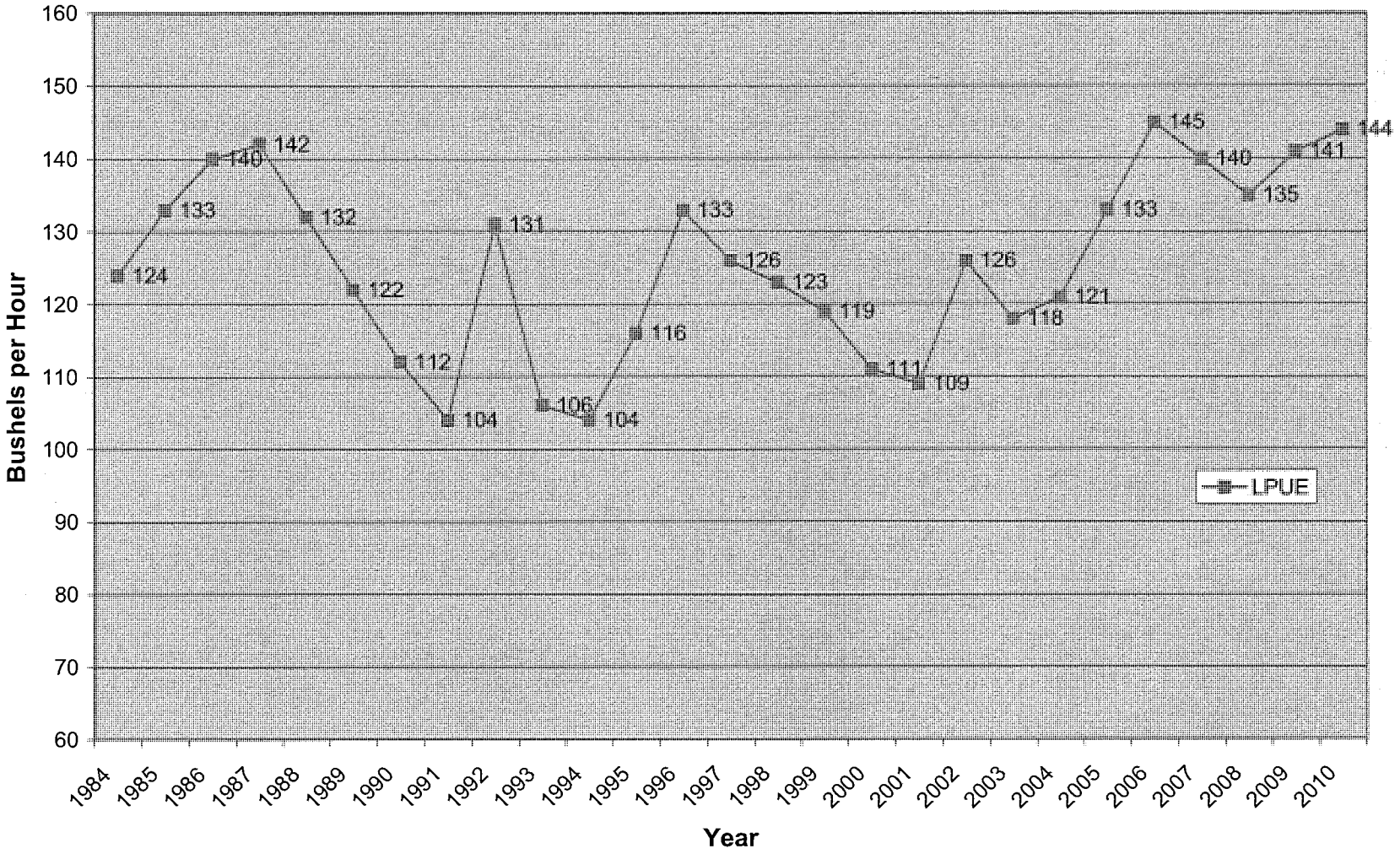
Appendix Figure 1: Surfclam Landings Per Unit of Effort: 1991 - 2010*

All Vessel Classes - *2010 Trips Reported Through 4/12/10 Only

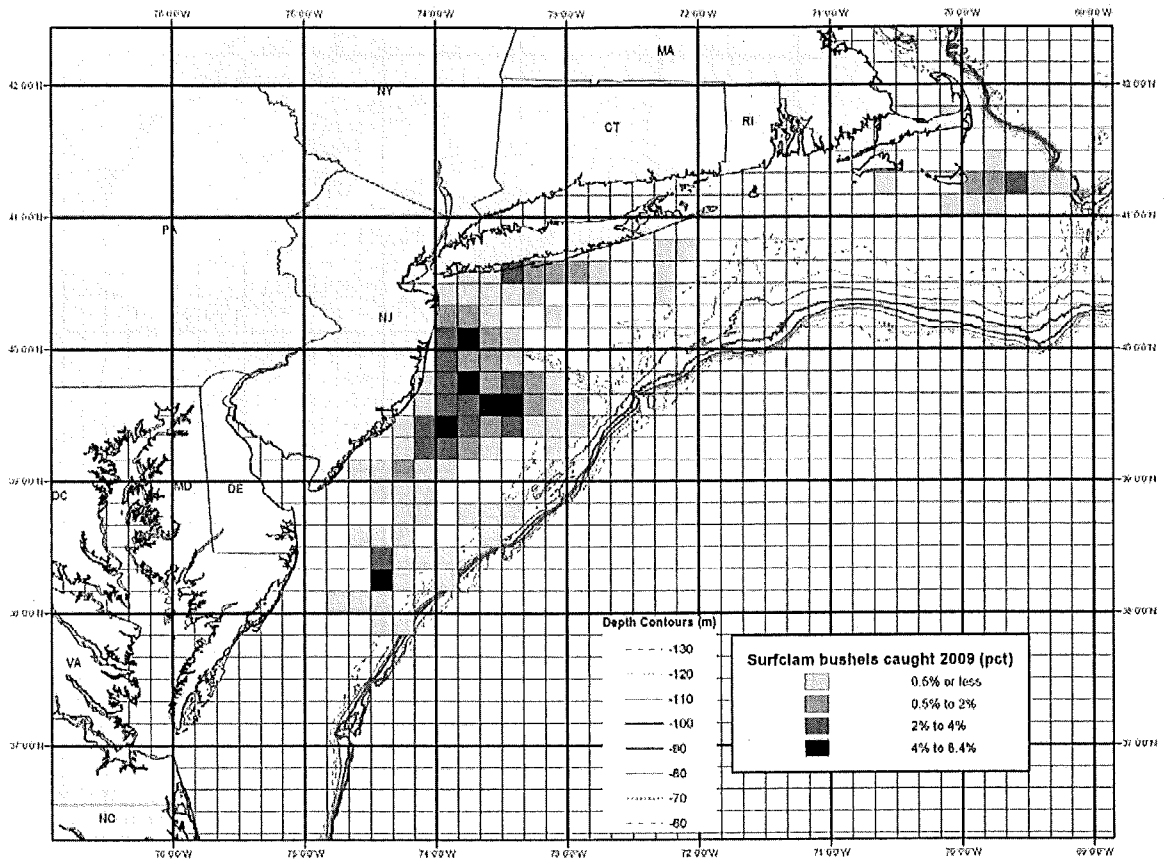


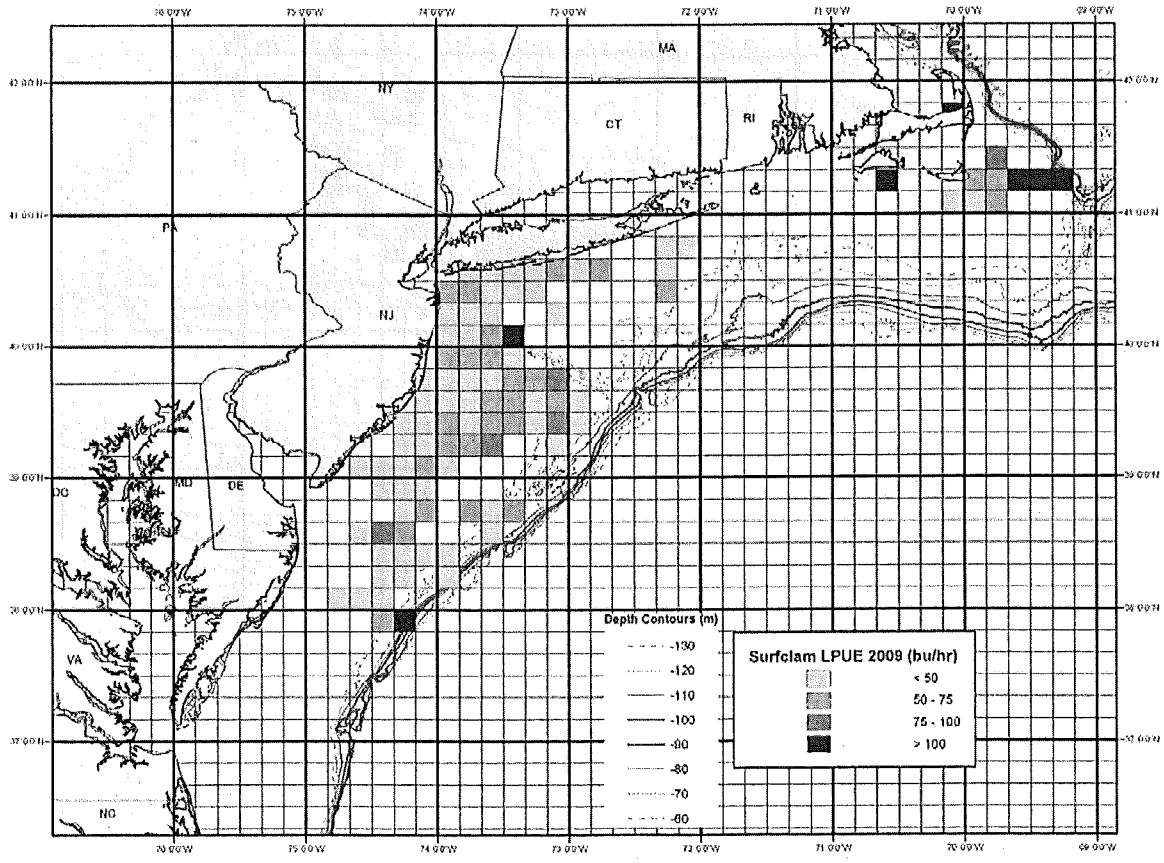
App. Figure 2: Ocean Quahog Landings per Unit of Effort: 1984 - 2010*

All Vessel Classes - Excludes Maine Fishery - *2010 Trips reported through 4/12/10 only

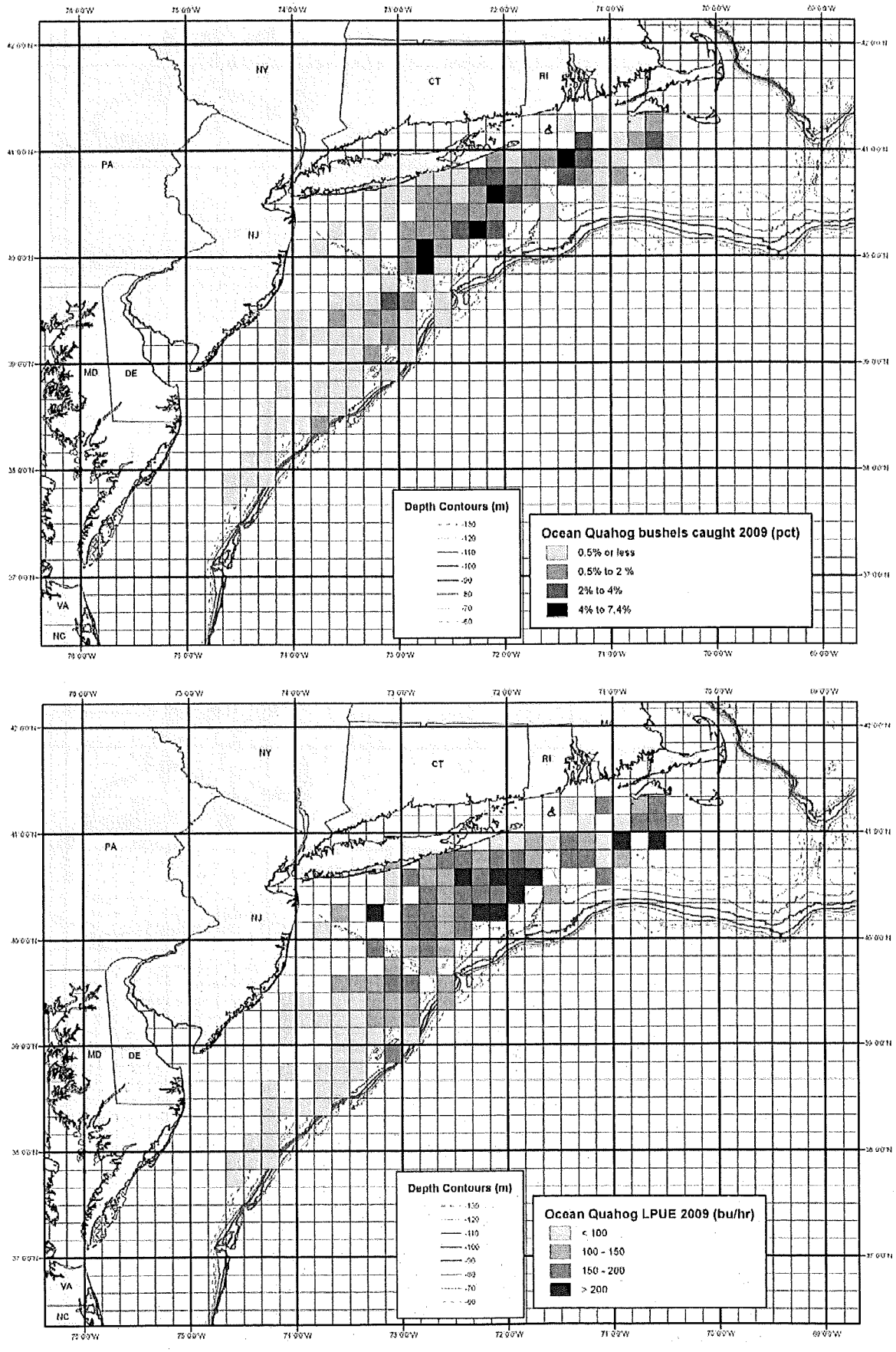


App. Figure 3. 2009 Surfclam Harvests (upper) and LPUE (lower) by 10 Minute Square





App. Figure 4. 2009 Ocean Quahog Harvests (upper) & LPUE (lower) by 10 Minute Square



A. ATLANTIC SURFCLAM ASSESSMENT SUMMARY FOR 2009

State of Stock

The Atlantic surfclam stock in the US EEZ (Exclusive Economic Zone, 3 to 200 nm from shore, Figure A1), is not overfished and overfishing is not occurring. Surfclam biomass varies with latitude. Relative to historic conditions, in the southern regions (DMV and NJ) recruitment, growth rate, and biomass have declined. In contrast, surfclam biomass and recruitment have increased on Georges Bank and the Long Island region. Estimated stock biomass during 2008 (120+ mm shell length, SL) was 878 thousand mt meats, which is above the biomass target (B_{Target} = ½ 1999 biomass = 543 thousand mt meats) and above the biomass threshold ($B_{Threshold}$ = ½ B_{Target} = 272 thousand mt meats) (Figure A2). Estimated fishing mortality during 2008 was F= 0.027 y^{-1}, which is below the overfishing threshold ($F_{Threshold} = M = 0.15\ y^{-1}$) (Figure A3). These estimates are for the EEZ stock only, exclude state waters, and include the portion of the EEZ stock on Georges Bank where no fishing occurred between 1990 and 2008.

Landings and Status Table: Atlantic surfclam (EEZ only, 1000 mt) [4]

Year:	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Min[1]	Max[1]	Mean[1]
Quota	19.8	19.8	22	24.2	25.1	26.2	26.2	26.2	26.2	26.2	13.8	26.2	21.4
Landings:[2,3,4]	19.6	19.7	22	24	25	24.2	21.2	23.6	24.9	22.5	6.4	33.8	20.1
Biomass:[4,5]	1086	1074	1059	1037	1012	984	955	931	905	878	831	1092	995
Fishing mortality:[3,4]	0.019	0.019	0.022	0.025	0.026	0.026	0.023	0.027	0.029	0.027	0.018	0.031	0.024
Recruitment:	98	95	94	89	87	84	82	82	81	80	80	112	99

[1] Min, max and mean for 1965-2008 (landings), 1978-2008 (quota), 1981-2008 (biomass and fishing mortality), or 1982-2008 (recruitment).
[2] Landings not adjusted for incidental mortality, which is assumed to be ≤12% of landings. Discards have been very low since 1992.
[3] Fishing mortality is an annual rate assuming that incidental mortality was 12% of landings.
[4] See assessment for regional estimates.
[5] For shell lengths 120mm+.

Projections

Projections were used for two purposes: 1) to forecast future stock conditions and 2) for decision table analyses in which the relative performance of a range of realistic management policies (harvest levels) was evaluated. Projections of both types were for 2009-2015. For projections, landings in 2009 were estimated in October of 2009 based on available data. Catches in simulation analyses included a 12% allowance for incidental mortality.

Projections of both types examined four plausible harvest strategies during 2010-2015 (see table below). The "FMP minimum" management strategy assumed that landings during 2010-2015 would be at the minimum quota level specified in the Fishery Management Plan (FMP). The "Industry estimated" strategy assumed landings anticipated by industry representatives who participated on the Working Group. The "FMP maximum" strategy assumed landings at the maximum quota level specified in the FMP. The "F_{MSY} proxy" policy assumed catches at the fishing mortality rate threshold (F=M=0.15 y^{-1}). Additional details are given in the SARC49 assessment report.

Management strategies used in projection analyses, expressed in terms of total catch.

Year	FMP minimum	Industry estimate	FMP maximum	F_{MSY} proxy
Assumed catch in 1000 mt (landings + 12% incidental mortality allowance)				
2008	25.2	25.2	25.2	25.2
2009	20.7	20.7	20.7	20.7
2010	16.0	21.6	29.4	129.3
2011	16.0	23.3	29.4	114.0
2012	16.0	25.0	29.4	102.3
2013	16.0	25.9	29.4	93.4
2014	16.0	25.9	29.4	86.8
2015	16.0	25.9	29.4	73.5

Forecast projections

Forecast results (Figure A4) indicate that surfclam biomass will continue to decline slowly through 2015. In all cases, this occurs because surplus production has been negative and is likely to remain negative due to poor recruitment and slow growth in the more southern regions.

Decision table analysis

Projections for decision table analysis (Table A1) included three values for natural mortality (low, medium and high levels of natural mortality with M=0.1, 0.15 and 0.2 per year) and three survey dredge catchabilities as "states of nature". The states of nature were considered in combination and assigned subjective probabilities. The probability of overfishing and overfished status for this stock appears low under all of the states of nature considered. Overfishing and overfished status are more likely if target fishing mortality rates rise to the threshold level F_{MSY} proxy = 0.15. Additional details are given in the SARC49 assessment report.

Stock Distribution and Identification

The US Atlantic surfclam stock is distributed from Maine to North Carolina at depths ranging from the sub-tidal zone in state waters to about 50 m in the EEZ. Atlantic surfclams in the EEZ are assessed and managed as a single unit stock, although there are differences between regions in biological characteristics, fishing activity and population dynamics. From north to south, regions of interest are: Georges Bank (GBK), Southern New England (SNE), Long Island (LI), New Jersey (NJ), Delmarva (DMV) and southern Virginia (SVA) (Figure A1).

Catches

Catch is assumed to be 12% larger than landings in stock assessment calculations to adjust for incidental mortality during fishing. The 12% incidental mortality estimate is considered to be an upper bound. Incidental mortality may occur when surfclams contact fishing equipment (i.e. dredge and sorting equipment) but are not landed.

Discarding reached substantial levels (33% by weight of the total catch in the NJ region) in the late 1970s because of minimum size limits, declined through the mid- to late-1980s, and has been near zero since 1992 following the suspension of minimum size limits in 1990.

Annual landings from the EEZ were variable prior to 1979 (Figure A5). In particular, landings decreased from 15 thousand mt meats during 1965 to a record low of 6 thousand mt during 1970. Landings increased to a record high of 34 thousand mt during 1974. Landings stabilized by 1983 due to quota management and varied between 19 and 25 thousand mt per year in later years. Landings in 2008 were 22 thousand mt. The EEZ quota and landings are generally similar, although landings have been less than the quota during 2004-2008 due to market demand.

Since 1979, 85-100% of landings have been taken from the Mid-Atlantic Bight (SVA, DMV and NJ). Areas of highest landings have shifted north from DMV to NJ over time (Figure A6). After 1983, the importance of DMV declined and NJ has supplied the bulk of landings since 1985. About 8% of landings were taken from SNE and LI since 2005.

The regional distribution of fishing effort (Figure A7) is similar to that of landings (Figure A6) although fishing effort in DMV has increased in recent years. Declining LPUE trends (Figures A8) reflect stock conditions for regions where clam fishing occurred (excluding Georges Bank) but overstate declines in biomass for the stock as a whole (including GBK, Figure A10).

Data and Assessment

The updated assessment is similar to the previous SAW-44 assessment. Improvements include updated estimates of survey gear efficiency, survey gear size selectivity, growth curves and shell length-meat weight relationships based on fresh (unfrozen) samples. Age composition data from the 1982 to 2008 NEFSC clam surveys were utilized more fully than in previous assessments. An updated KLAMZ model was used to assess fishable biomass and fishing mortality during 1981-2008 for the entire stock and for the DMV and NJ regions. Also, efficiency corrected swept area biomass was calculated for all regions based on survey data for 1997-2008. New discard estimates for 1976-1981 were incorporated.

Biological Reference Points

The current proxy for F_{MSY} is $F = M = 0.15$ y^{-1} (Figure A3). The proxy for B_{MSY} is one-half of the estimated fishable biomass during 1999 (Figure A2). The 1999 biomass and related biological reference points were re-estimated in this assessment. The original and revised reference point values are shown in the table below.

By definition, overfishing occurs whenever the fishing mortality rate on the entire stock is larger than F_{MSY} proxy. The stock would be considered overfished if total biomass fell below $B_{Threshold}$ (estimated as ½ B_{MSY} proxy). When stock biomass is less than the biomass threshold, the fishing mortality rate threshold is reduced from F_{MSY} to zero in a linear manner.

Reference Point	Last assessment	Revised
F_{MSY}	M=0.15 y^{-1}	Same
B_{1999}	1,460 thousand mt meats	1086 thousand mt meats
B_{MSY} =½B_{1999} (target)	730 thousand mt meats	543 thousand mt meats
$B_{Threshold}$ = ½ B_{MSY}	365 thousand mt meats	272 thousand mt meats

Revised biomass reference points are lower than previous values primarily because of new information about the shell length and meat weight relationships, and about the efficiency and size selectivity of the dredge used in NEFSC clam surveys.

Fishing Mortality

Based on the KLAMZ model for the entire stock, fishing mortality for surfclams during 2008 was $F = 0.027$ (CV = 0.16, Figure A9). Fishing mortality rates are near zero in the north and at the highest levels estimated in the assessment for 1982-2008 in the south ($F = 0.07$ [CV = 0.16] in DMV, and approximately $F = 0.1$ [CV = 0.16] in NJ during 2008). Fishing mortality for the whole stock began increasing in 1997 to current levels that are close to the peak levels estimated for the mid-1980s. Landings have been relatively constant during recent years (Figure A6) and the increase in fishing mortality since 1997 can be explained by the decline in biomass (Figure A10) and increase in fishing effort (Figure A7).

Recruitment

Recruitment has been below average since 1999 (Figure A11). The last strong year classes on GBK, NJ and DMV occurred in 1999, 1992 and 1993, respectively. The assessment report describes factors that may have reduced recent surfclam recruitments in the DMV and NJ regions.

Stock Biomass

Biomass of the total Atlantic surfclam stock (120+ mm shell length [SL]) is declining from high levels during the late 1990s to current levels which are similar to the levels during 1981-1992 (Figure A10). High stock biomass (120+ mm SL) during the late 1990s was due to good recruitment (Figure A11) and relatively faster growth rates in southern regions in the past. Total biomass increased to peak levels during the late 1990's (Figure A10) and then declined at about 3% per year afterwards. Stock biomass during 2008 was 878 (CV = 0.16) thousand mt.

The decline in surfclam biomass since the late 1990s (Figure A10) can be explained by negative surplus production caused by lower recruitment and slower growth rates in the NJ and DMV regions (Figures A11, A12 and A13).

The distribution of surfclam biomass has shifted to the north during 1982-2008 (Figures A14 and A15). NJ held the largest fraction of surfclam biomass during 1994-2002. During 2008, the largest fraction of surfclam biomass was in GBK (Figure A15) due to declining biomass in DMV and NJ, and increasing biomass on GBK.

Special Comments

Although the total surfclam stock is above the biomass threshold, biomass varies from north to south with the southern DMV resource in relatively poor condition, the NJ region (where the fishery is concentrated) in fair condition, and the SNE, LI and GBK regions in nearly virginal condition. DMV and NJ are experiencing poor recruitment and reduced growth rates.

An alternative stock structure should be considered in the next surfclam assessment because of biological and fishery differences among regions.

Commercial LPUE data were not used in the assessment model because LPUE does not necessarily represent total stock biomass. Nevertheless, declining trends in LPUE for DMV, NJ, and LI correspond with declining surfclam trends in the NEFSC survey data for these regions (Figure A8).

The Georges Bank (GBK) region currently contains approximately 48% of the stock biomass. GBK has been closed to fishing for many years due to the threat of Paralytic Shellfish Poisoning (PSP). The FDA recently reopened GBK to fishing for surfclams contingent on continued testing for and absence of PSP.

Agency, academic and industry personnel have made progress in estimating the efficiency of NEFSC and commercial clam survey dredges. Collaborative studies to measure dredge efficiency should continue.

The "dome-shaped" size-selectivity of the NEFSC survey dredge was characterized based on cooperative field work in 2008. As this information had a substantial effect on the current stock assessment, it would be advisable to repeat the field experiment.

Given past issues with the *Delaware II* NEFSC clam survey dredge gear, including low and variable capture efficiency as well as "dome-shaped" size selectivity, these aspects of the surfclam survey could be improved by using a commercial clam dredge, preferably with a liner and other modifications to increases catches of small surfclams.

A constant M (0.15 y^{-1}) was assumed in the assessment, but that value is uncertain and should be re-evaluated in the next assessment. Reductions in biomass in inshore southern regions are due partly to changes in environmental conditions and likely increasing natural mortality in those areas.

The current biomass reference points were based on the observation that the stock was at a high biomass level in 1999. Biomass reference points might be reviewed, given potential climate related shifts in distribution and the *ad-hoc* basis of the reference points.

The current proxy for F_{MSY} is $M = 0.15$. This reference point should be reviewed in the next assessment. The productivity of the stock appears low for a species with $M = 0.15$, and geographic variation in natural mortality rate is likely.

Growth curves fit to survey age data, and used in stock assessment modeling, indicate that growth rates have declined in the southern regions (DMV and NJ). These changes should have a substantial effect on potential fishery yield in some regions. The proportion of the stock in the south has declined. The northern region now contains most of the stock biomass, and the growth rate there is unchanged. For the entire stock, growth rate of has been relatively stable.

The bulk of fishing effort takes place in the southern DMV and NJ regions where regional fishing mortality rates were 7% and 10% per year during 2008. The long term performance of the fishery at these mortality rates is uncertain because these levels of regional fishing mortality are relatively high from a historical perspective.

Model results indicate that surplus production for the stock as a whole and particularly in the southern regions (NJ, DMV) has been negative indicating that biomass would have declined even in the absence of fishing.

Under current FMP specifications, the surfclam resource is not "vulnerable" to becoming overfished or likely to experience overfishing by 2015. Total stock biomass is relatively high, total fishing mortality rates are low (3% per year according to KLAMZ models), and the FMP restricts harvest to levels far below the F_{MSY} proxy harvest level. The relatively low biomass, slow growth and poor recruitment of stock in the south (DMV and NJ) are offset by better conditions in the north.

Although the current KLAMZ stock assessment model is performing well, it assumes a smooth trend in recruitment from year to year that is not supported by survey age composition data.

A preliminary stock synthesis assessment model (SS3) for the entire surfclam stock was developed for review and potential use as the main model in the next assessment. It is not intended for use by managers in this assessment cycle because of a variety of issues that were not fully resolved.

In the early 1970s surfclams were landed off Chesapeake Bay, but were fished down rapidly. The fishery then returned to traditional grounds off DMV and NJ. NEFSC surveys in the 1970s and 1980s extended to Cape Hatteras. With low survey catches and no commercial fishery south of DMV, this area has been surveyed less intensively since the late 1990s.

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1 Available at: http://www.nefsc.noaa.gov/nefsc/publications/crd/crd0710/.

2 Available at http://www.nefsc.noaa.gov/nefsc/publications/crd/crd0703/

3 Available at: http http://www.nefsc.noaa.gov/femad/ecosurvey/mainpage/

Tables

Table A1. Decision table showing probabilities of a simulated surfclam stock with total biomass (120+ mm) at or lower than the target level (B_{Target}=B_{1999}/2), at or lower than the threshold level ($B_{Threshold}$=B_{Target}/2), and with fishing mortality rates at or higher than the threshold level ($F_{Threshold}$=M) during 2015. The analysis examines nine states of nature and four possible management approaches. Probabilities for states of nature are described as Low, Medium or High. The column "Pattern ID for dredge efficiency" is to help readers make comparisons among rows.

States of nature			Management actions				
Natural mortality	Survey dredge efficiency	Probability for state of nature	FMP minimum	Industry estimate	FMP maximum	F_{MSY} proxy	Pattern ID for dredge efficiency
Probability of stock biomass below B_{MSY} proxy target level in 2015							
Low	Low	Low	0	0	0	0.612	
Low	Medium	Medium	0	0	0	0.982	
Low	High	Low	0	0	0.004	1	
Medium	Low	Medium	0	0	0	0.91	
Medium	Medium	High	0	0	0.002	0.952	
Medium	High	Medium	0.006	0.012	0.014	0.998	
High	Low	Low	0	0	0	0.618	
High	Medium	Medium	0	0.002	0.002	0.924	
High	High	Low	0	0.002	0.018	0.984	
Probability of stock biomass below $B_{Threshold}$ level in 2015							
Low	Low	Low	0	0	0	0	
Low	Medium	Medium	0	0	0	0	
Low	High	Low	0	0	0	0.894	
Medium	Low	Medium	0	0	0	0	
Medium	Medium	High	0	0	0	0.002	
Medium	High	Medium	0	0	0	0.268	
High	Low	Low	0	0	0	0	
High	Medium	Medium	0	0	0	0	
High	High	Low	0	0	0	0.294	
Probability of overfishing in 2015							
Low	Low	Low	0	0	0	0.908	
Low	Medium	Medium	0	0	0	1	
Low	High	Low	0	0	0	1	
Medium	Low	Medium	0	0	0	0.312	
Medium	Medium	High	0	0	0	0.948	
Medium	High	Medium	0	0	0	1	
High	Low	Low	0	0	0	0.002	
High	Medium	Medium	0	0	0	0.196	
High	High	Low	0	0	0	0.996	

Figures

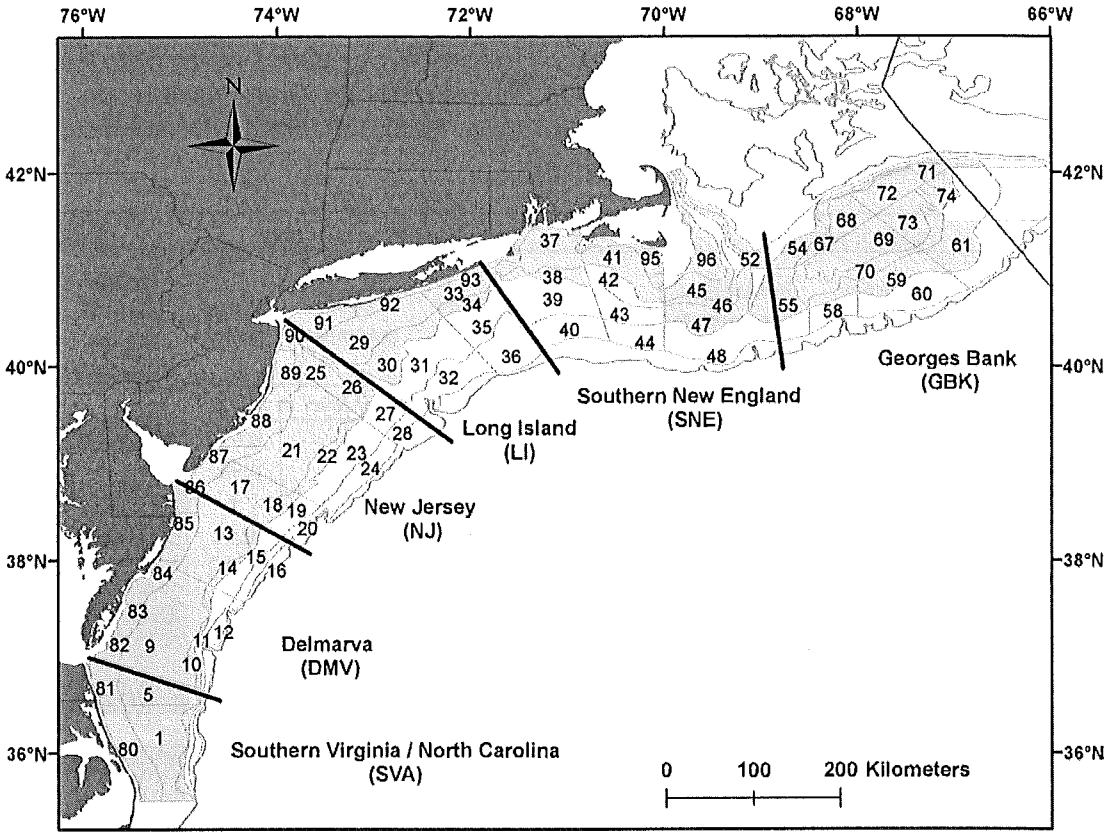


Figure A1. Assessment regions for the Atlantic surfclam stock in the US Exclusive Economic Zone (EEZ). NEFSC shellfish strata with potential surfclam habitat are shown in grey and identified by stratum ID numbers.

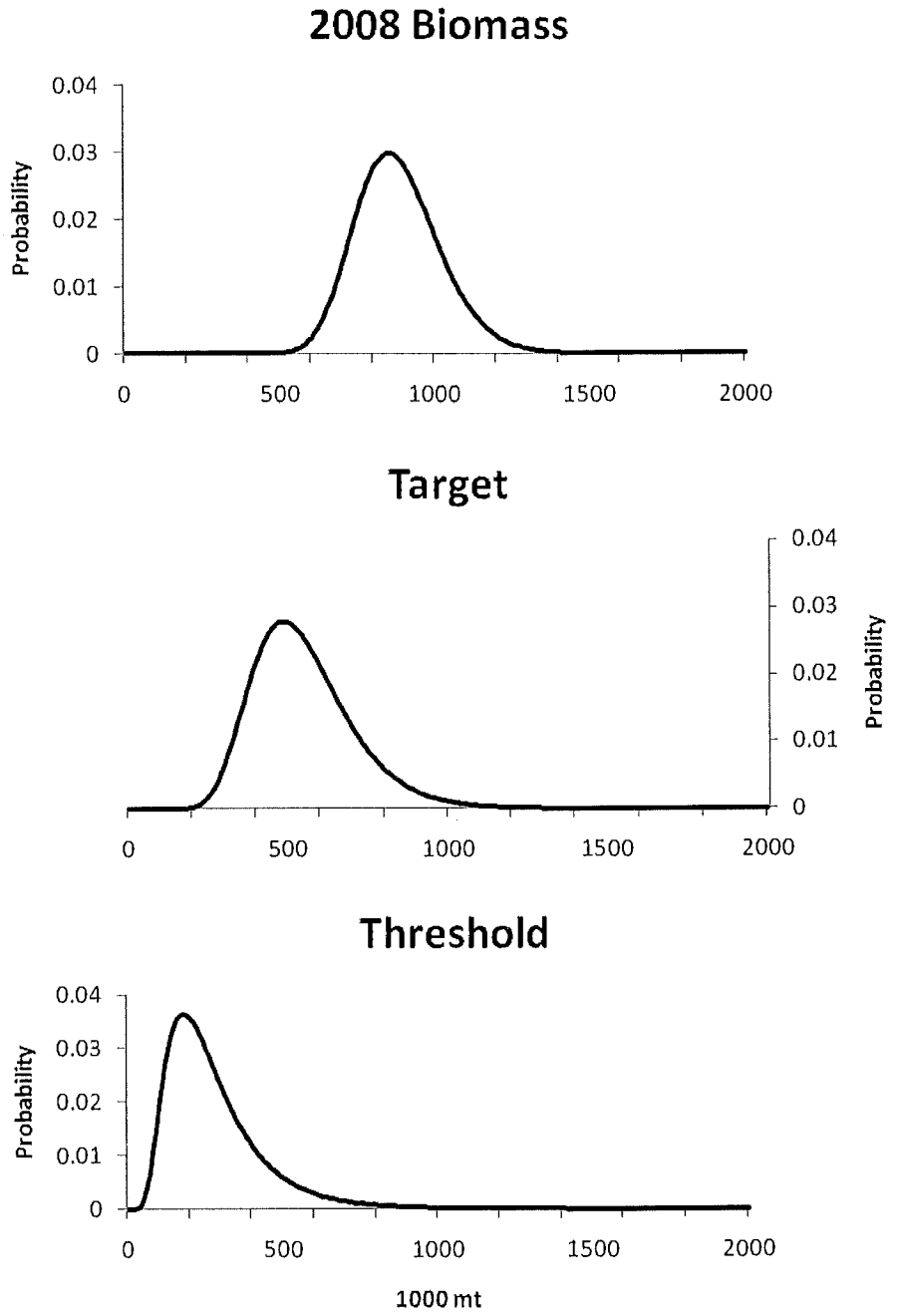


Figure A2. Probability density functions for estimated stock biomass (120+ mm SL) of surfclams during 2008, the estimated biomass target and the estimated biomass threshold.

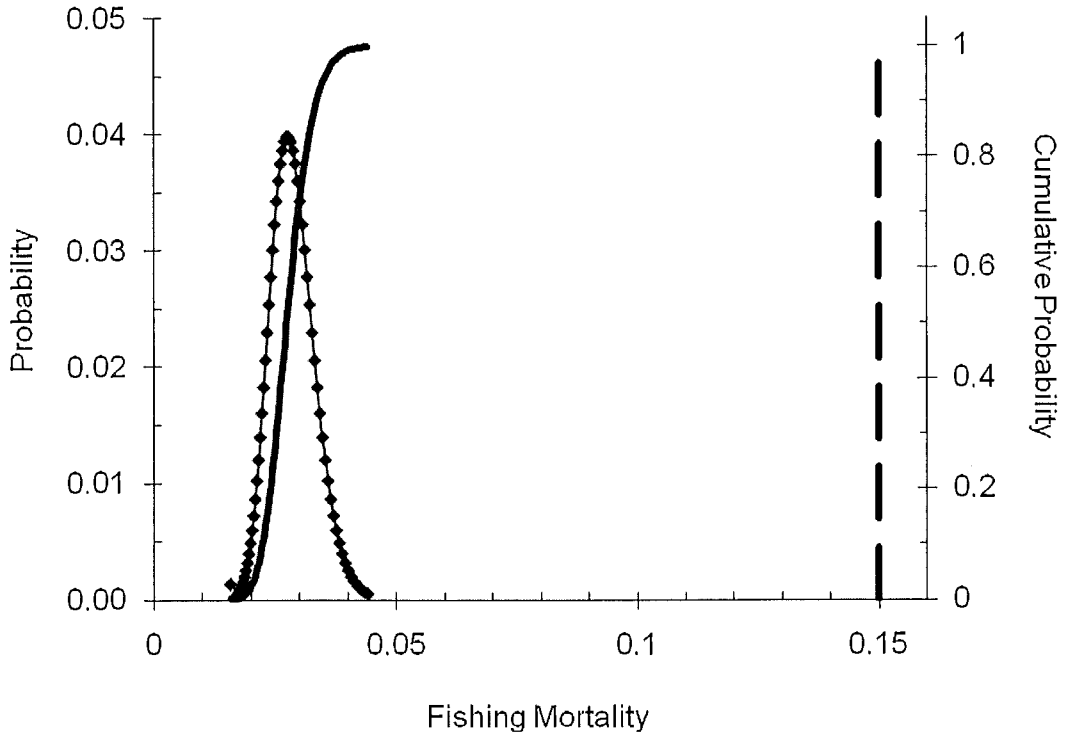


Figure A3. Estimated surfclam fishing mortality rate and confidence interval for 2008. The vertical line shows the fishing mortality threshold ($F_{Threshold}$ = M = 0.15) for comparison.

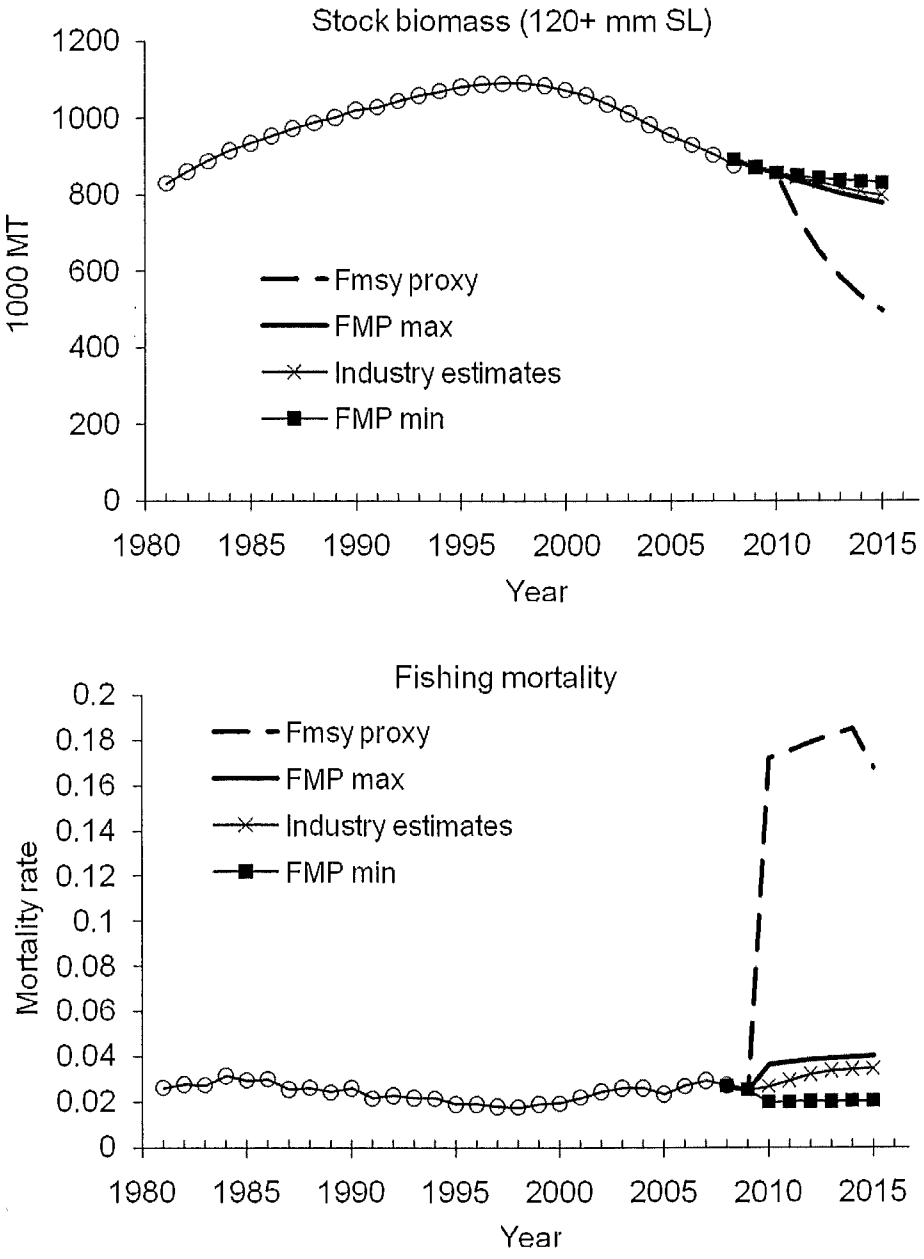


Figure A4. Basecase biomass and fishing mortality estimates for 1982-2008 from the KLAMZ model for the entire stock of surfclams, with projections for 2009-2015 assuming four harvest policies.

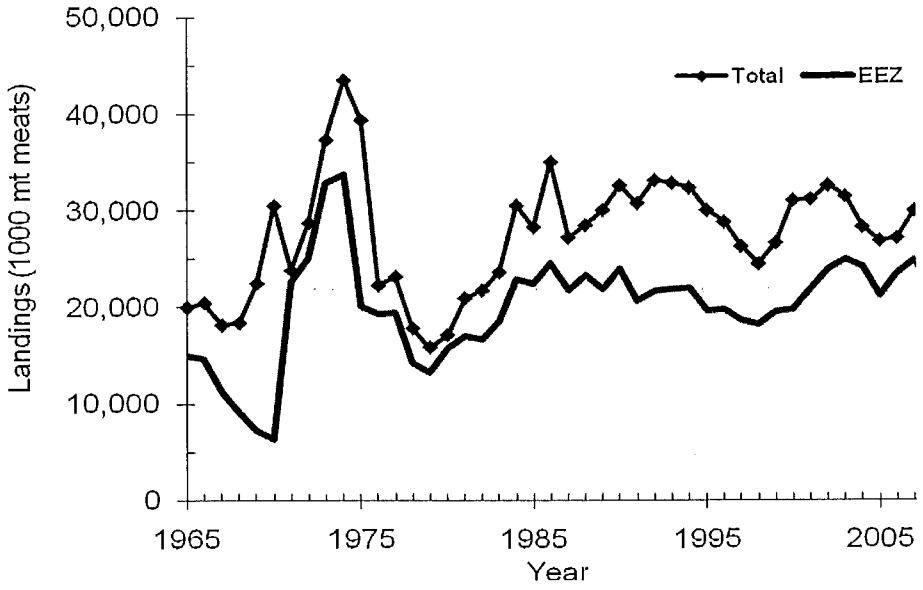


Figure A5. Surfclam landings (total and EEZ) during 1965-2008.

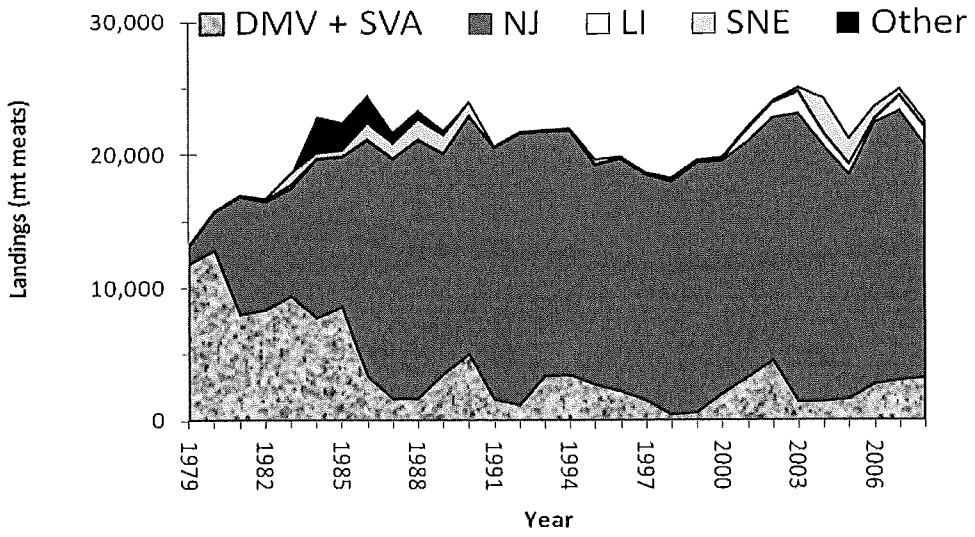


Figure A6. Surfclam landings from during 1979-2008 by stock assessment region.

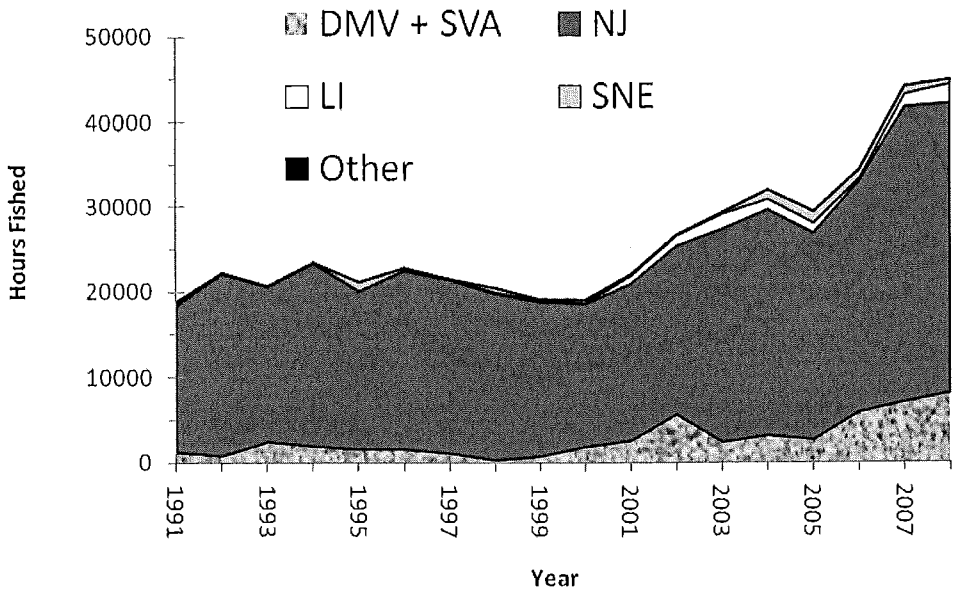


Figure A7. Total fishing effort (hours fished during all trips by all vessels) for surfclam during 1991-2008 in the US EEZ, by stock assessment region.

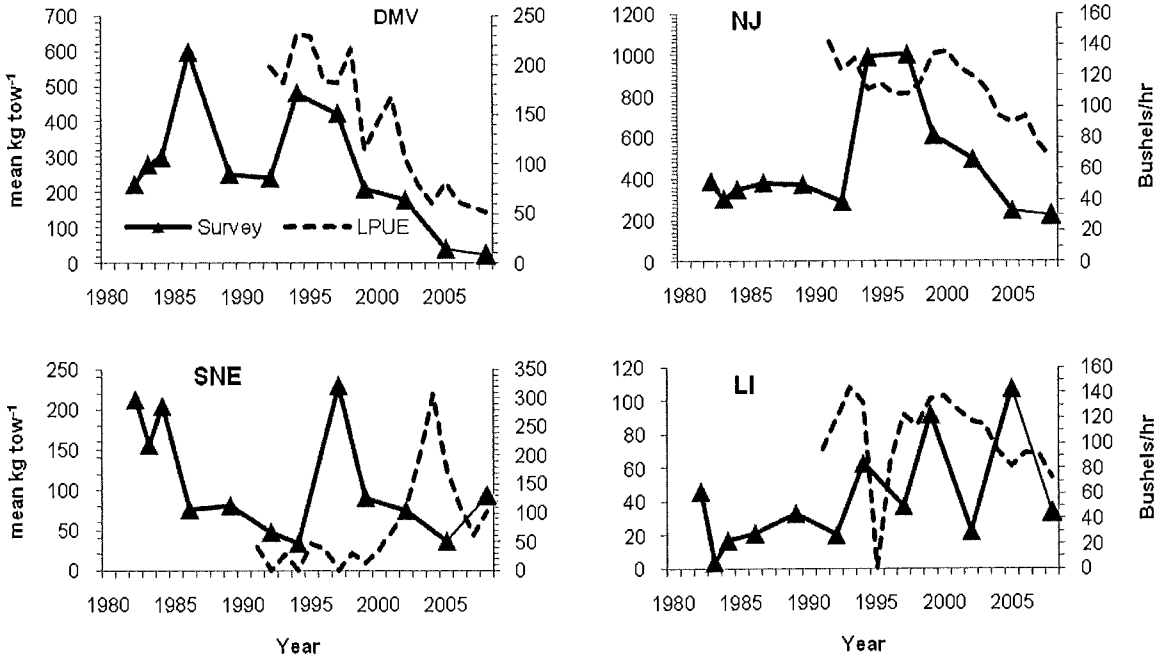


Figure A8. Trends in stock biomass for surfclams (120+ mm SL) based on the NEFSC clam survey and commercial LPUE from logbooks.

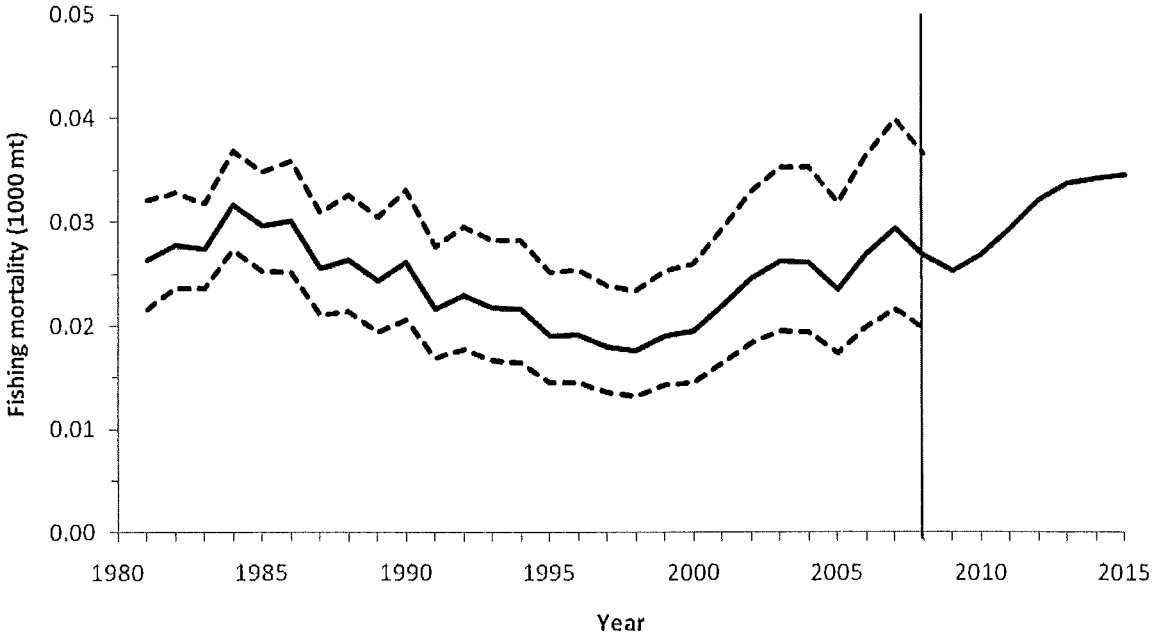


Figure A9. Fishing mortality estimates for surfclam with approximate 80% confidence intervals with projections through 2015 based on industry estimates for landings.

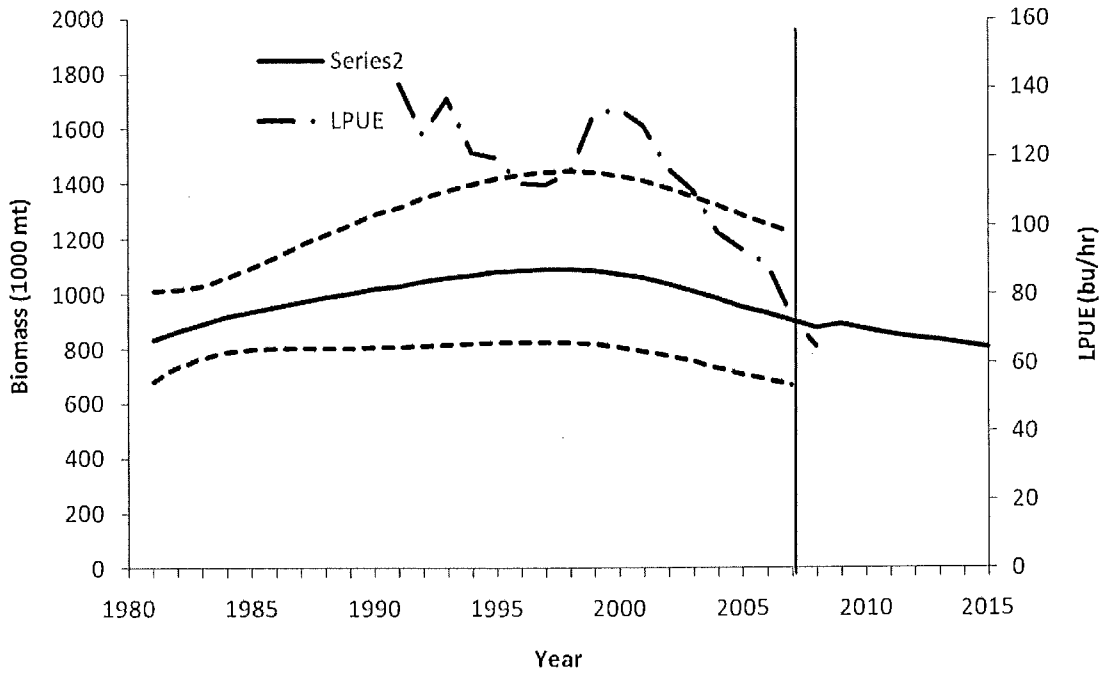


Figure A10. Surfclam biomass estimates (labeled "Series2") with approximate 80% confidence intervals. Nominal commercial LPUE from logbooks (total reported landings / total reported hours fished, all vessels and all trips) for the entire fishery (not including GBK where fishing did not occur) are shown for comparison. LPUE data were not used in estimating biomass. Projections to 2015, based on industry estimates of landings, are also shown.

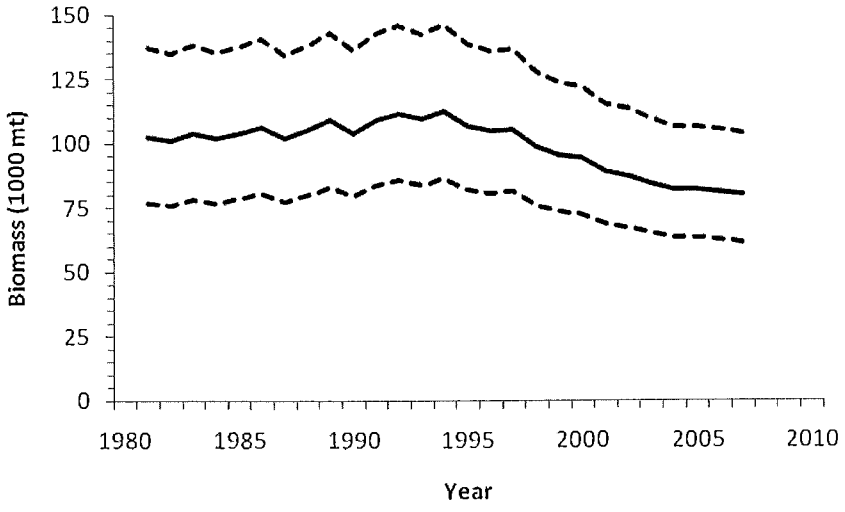


Figure A11. Surfclam recruit biomass estimates with approximate 80% confidence intervals.

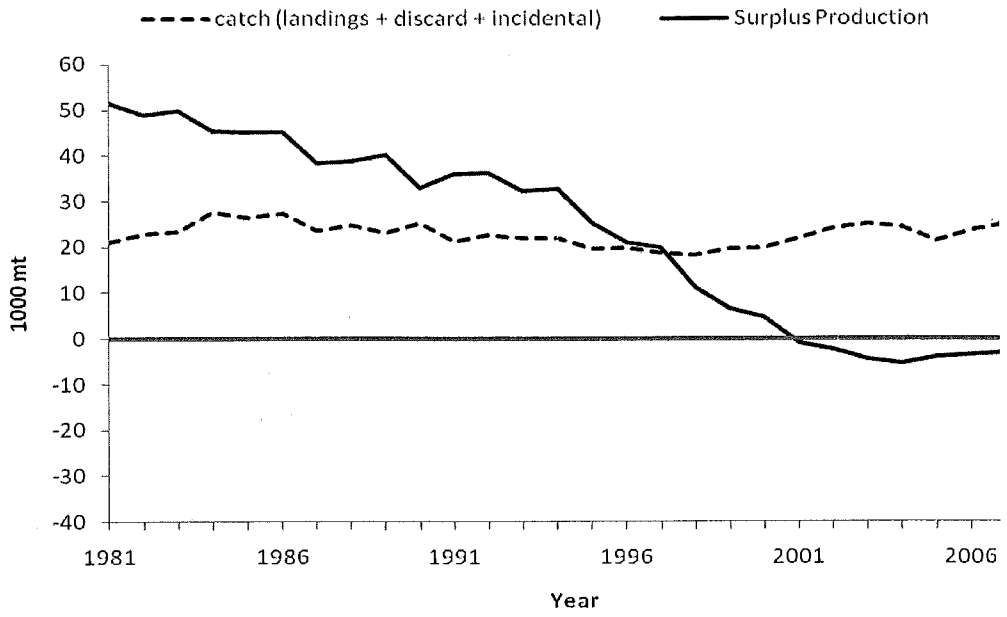


Figure A12. Estimated surfclam catch and surplus production by year.

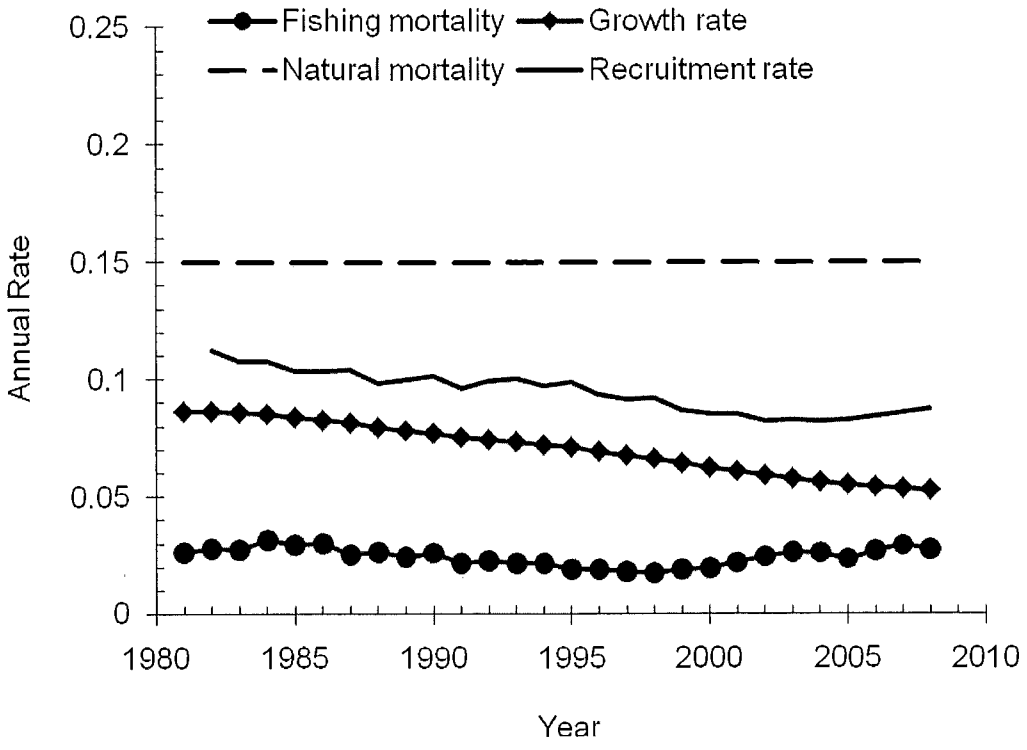


Figure A13. Estimated annual rates (e.g. the recruitment rate is based on the ratio of recruitment and stock biomass) of gain and loss for surfclam during 1982-2008.

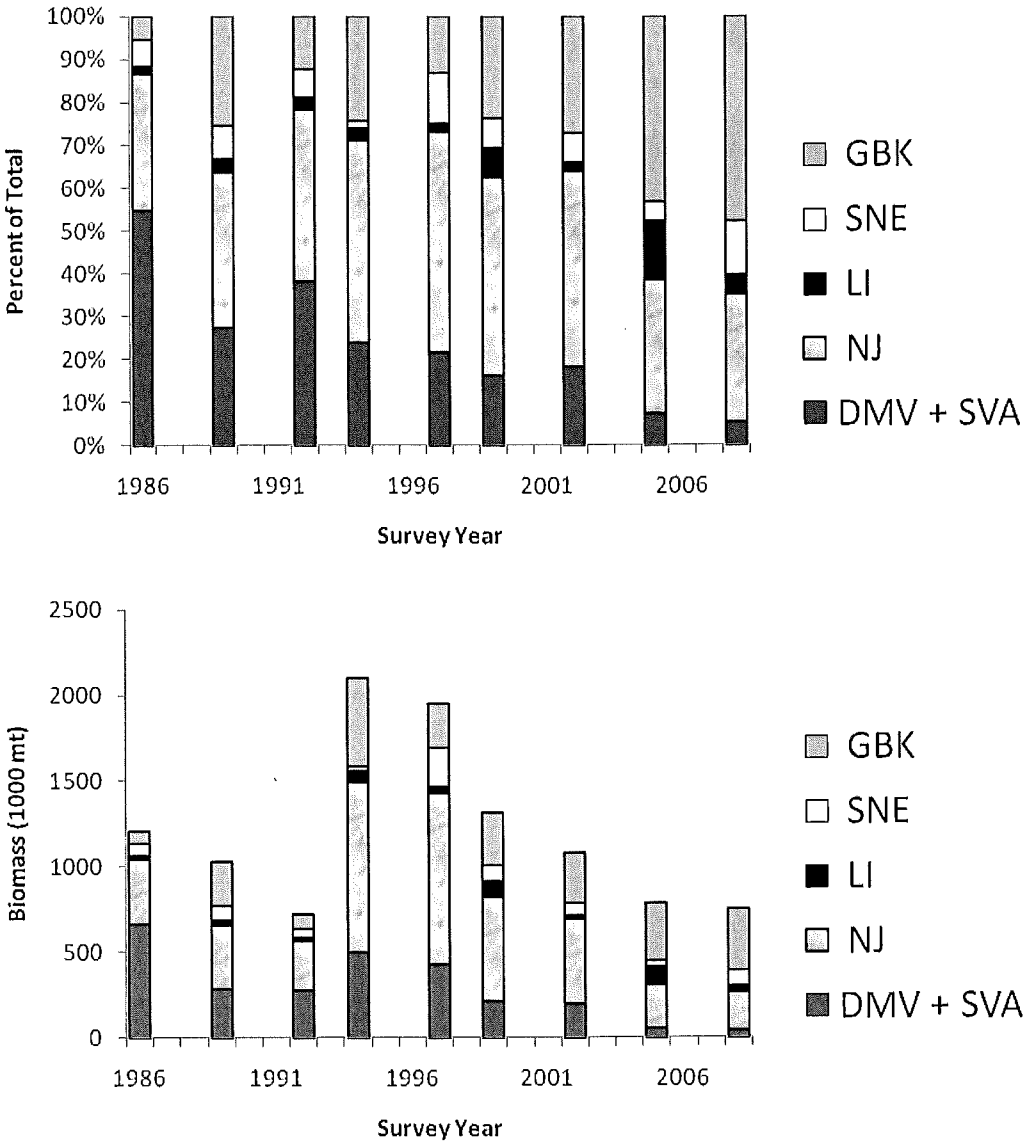


Figure A14. Efficiency corrected swept area biomass estimates for surfclams (120+ mm SL), by region, during years with NEFSC clam surveys.

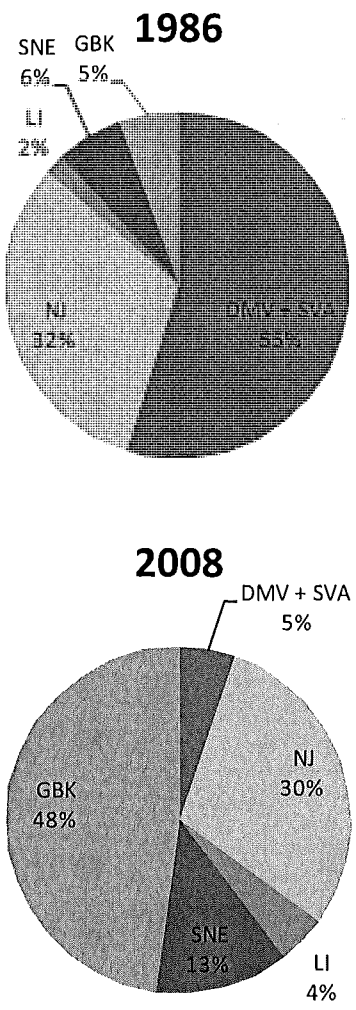


Figure A15. Percentage of efficiency corrected swept area biomass, by region, for surfclams (120+ mm SL) during 1986 and 2008.

B. OCEAN QUAHOG ASSESSMENT SUMMARY FOR 2009

State of the Stock:

The ocean quahog stock is not overfished and overfishing is not occurring (Figure B4). Estimated fishable (based on fishery selectivity curve) whole stock biomass during 2008 was 2.905 million mt of meats, which is above the SARC48 recommended management target of ½ of the 1978 pre-fishery biomass = 1.790 million mt. Estimated fishing mortality during 2008 for the exploited region (all areas but Georges Bank, Figure B1) was $F = 0.0102\ y^{-1}$, and for the whole stock $F = 0.0056\ y^{-1}$. Both F estimates are less than the new SARC48 recommended fishing mortality threshold ($F_{45\%} = 0.0219\ y^{-1}$) and the current fishing mortality threshold ($F_{25\%} = 0.0517\ y^{-1}$). These estimates for ocean quahog in the US Exclusive Economic Zone (EEZ) do not include the Maine fishing grounds, which were assessed separately (see below). However, biomass and landings for Maine waters are minor and would have no appreciable effect on estimates for the stock as a whole.

In this report, "fishable" quahogs are large enough to be available to the commercial fishery, based on a size selectivity curve for commercial fishing gear. The "exploited region" is used to describe the geographic area over which the fishery currently takes place and is a portion of the "whole stock". The whole stock is not currently exploited, as the Georges Bank area (which contains an estimated 45% of the quahogs in the EEZ) has been closed to ocean quahog fishing due to PSP concerns. At this time the exploited region consists of the Southern Virginia/North Carolina, Delmarva, New Jersey, Long Island and Southern New England areas (Figure B1). Currently, the fishing mortality reference points are compared to the fishing mortality levels in the exploited region only (see Special Comments). Industry sources report that fishing may occur on Georges Bank in the future (see Special Comments).

Projections:

Table B1 shows a summary of stochastic projection results for ocean quahog stock biomass and fishing mortality in 2015 assuming natural mortality M=0.02 and a variety of harvest policies. Projection results indicate that overfished (low biomass) stock conditions are not likely to occur by 2015 under any of the states of nature or management policies considered in projections. Overfishing (F too high) is unlikely to occur in 2015 at status-quo (3.8 million bu) or at the current FMP minimum (4 million bu) landings levels. However, there is some probability of overfishing in 2015 for landings as high as the current quota (5.33 million bu) or current FMP maximum level (6 million bu, Table B1), particularly when F is calculated for just the exploited stock. The probability of overfishing occurring in 2015 is high under many of the policies where constant quotas are based on an initial F, including the current target $F = F_{0.1}$ (Table B1).

More generally, KLAMZ model projections were run with varying "states of nature" that include a range of possible values for natural mortality (M=0.015, 0.02 and 0.025) and a distribution of possible 2008 biomass levels. The projections included runs with four landings-based policies (status quo landings, FMP minimum quota level, FMP maximum quota level, and FMP current quota) and five policies where the constant quota was based on an initial fishing mortality rate ($F_{0.1}$, $F_{25\%}$, $F_{40\%}$, $F_{45\%}$ and $F_{50\%}$). Both stochastic and deterministic projections were carried out (deterministic projections are not shown but approximate median values from stochastic projections). In Table B1 (bottom 6 rows), constant annual quotas from 2010-2015 were determined from particular F's applied to the 2008 biomass estimate. The results are

presented for both the exploited region and for the whole stock.

Catch and Status Table: Ocean Quahog

Year:	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Min[1]	Max[1]	Mean[1]
Quotas:[2]													
EEZ	20.4	20.4	20.4	20.4	20.4	22.7	24.2	24.2	24.2	24.2	13.6	27.2	21.5
Maine	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Landings:[2,5]													
Maine	0.28	0.36	0.33	0.39	0.36	0.31	0.30	0.37	0.31	0.2	0.003	0.39	0.21
EEZ	17.4	14.7	17.1	17.9	18.8	17.7	13.6	14.3	15.6	15.5	10.4	22.4	18.0
Total	17.7	15.1	17.4	18.3	19.2	18.0	13.9	14.7	15.9	15.7	10.4	22.5	18.1
Biomass:[3,5]	3,209	3,173	3,141	3,107	3,071	3,035	3,000	2,969	2,938	2,905	2,905	3,580	3,343
Fishing mortality (exploited stock)[5]:	0.0094	0.0081	0.0096	0.0103	0.0110	0.0106	0.0083	0.0089	0.0100	0.0102	0.0045	0.0110	0.0090
Fishing mortality (whole stock)[5]:	0.0056	0.0048	0.0056	0.0060	0.0063	0.0060	0.0047	0.0049	0.0055	0.0056	0.0031	0.0068	0.0056
Recruitment:[4,5]	16.1 (all years)												

[1] Min, max and means for 1978-2008 (EEZ landings, biomass and fishing mortality), 1979-2008 (EEZ quota), 1990-2008 (Maine landings and quota.

[2] Landings and quotas (1000 mt meats) not adjusted for incidental mortality, which is assumed to be 5% of landings. Discards are very low.

[3] Biomass (1000 mt meats) for entire stock.

[4] Recruitment (1000 mt meats per year) is an estimated average assuming zero recruitment in SVA and DMV.

[5] See assessment for regional estimates.

Stock Distribution and Identification:

Ocean quahogs occur in the eastern Atlantic Ocean from Spain to Norway, intermittently across the North Atlantic, around Iceland, and down the North American coast to Cape Hatteras. Commercial concentrations occur in US waters on the continental shelf off the coast of Maine and from Georges Bank and the Delmarva Peninsula (Figure B1) relatively cool water from 25 to 95 meters in depth.

All ocean quahogs in US waters are assessed and managed as a single stock. The EEZ portion of the ocean quahog stock includes federal waters (between 3 and 200 nm from shore) off southern Virginia, Delmarva, New Jersey, Long Island, Southern New England, and on Georges Bank (excluding Maine). The EEZ is used to characterize the condition of the ocean quahog stock as a whole because almost all of the stock (>99% of fishable biomass) is in EEZ waters.

Catches:

EEZ quotas have been set on an annual basis since 1979. EEZ landings (Figure B2) increased from 0 in 1975 to about 14,000 mt of meats in 1979, peaked at 22,000 mt in 1992, declined to about 15,000 mt during 2000, and have averaged about 16,000 mt since 2000. EEZ landings account for about 95% of total US landings on average. The EEZ quota has not been filled in recent years due to low market demand, according to Industry sources. Ocean quahogs landed in the EEZ range from 50 to120 mm SL and are marketed primarily as meats for use in the manufacture of commercial chowders and sauces.

Catch is assumed to be 5% greater than landings in stock assessment calculations for ocean quahogs in EEZ and Maine waters to account for incidental mortality during fishing. Incidental mortality may occur when ocean quahogs contact fishing equipment (i.e. dredge and

sorting equipment) without being landed.

Fishing effort for ocean quahogs in the EEZ increased from about 23,000 mt during 1983 to a peak of about 46,000 hours during 1991 and then declined to about 25,000 hours in 2008 (Figure B3). Fishing effort in the EEZ shifted offshore and north during the last two decades as traditional fishing grounds in the south were fished down, catch rates dropped, and as processing plants were relocated to the north (Figure B3). The fishery was concentrated off Delmarva and Southern New Jersey from the 1970s to mid-1980s. During the late 1980s and early 1990s, the fishery expanded northward into the Northern New Jersey and Long Island regions. In 1995, it expanded to the Southern New England region which accounted for the bulk of landings during 1997. Since then the fishery has been concentrated mostly off Long Island.

There are two principal fishing grounds for ocean quahogs in Maine waters, the east bed and the west bed, which cover about 60 nm^2 in total. Total annual landings in Maine waters reached a peak of 387 mt in 2002, since then landings have declined to 201 mt in 2008. Fishing effort in Maine waters peaked during 2004 at about 19,000 hours per year and then declined to about 11,000 hours per year during 2008. Ocean quahogs harvested from Maine waters are small in size compared to those harvested in the EEZ. Ocean quahogs in the Maine fishery range from 35 to 70 mm SL, and are marketed in the fresh and half-shell market at relatively high prices.

Data and Assessment:

Ocean quahogs were last assessed in 2006 (SAW-44), after the 2005 NEFSC clam survey (NEFSC 2007). The 2009 assessment uses new data from the 2008 NEFSC and cooperative Industry clam surveys. A new survey of the Maine fishing grounds by the Maine Department of Natural Resources was also conducted in 2008 and also used in this assessment.

EEZ:

NEFSC clam survey data for 1982-2008, fishery data for 1978-2008, and new information about survey dredge efficiency from cooperative depletion studies were used to estimate fishable biomass during 1978-2008. Estimates for most regions (all but Southern Virginia) were from a delay-difference model (KLAMZ). A cumulative catch ("VPA") model was used in place of KLAMZ to estimate biomass and fishing mortality for Southern Virginia because data were insufficient for complicated approaches.

Maine:

Landings, surveys carried out by the State of Maine, and survey dredge efficiency estimates were used to estimate biomass and fishing mortality of ocean quahogs in Maine waters during 2005 through 2008. The estimates for Maine apply only to the area surveyed, which includes the primary fishing grounds.

Biological Reference Points:

Target and threshold reference points were reconsidered during this assessment because of the unique life history of ocean quahogs. The previously accepted (i.e. current) management targets are B_{MSY} = one-half of virgin biomass and the F_{MSY} proxy $F_{0.1} = 0.0277\ y^{-1}$ in the exploited region, which excludes Georges Bank. The previously accepted (i.e. current) management thresholds are $B_{Threshold} = 25\%$ of virgin biomass (1/2 B_{MSY}) for the whole stock, and $F_{Threshold} = F_{25\%}$ ($0.0517\ y^{-1}$) in the exploited region only.

Based on a review of F_{MSY} reference points of long-lived West Coast groundfish species, the new SARC48 recommended $F_{Threshold}$ is $F_{45\%} = 0.0219\ y^{-1}$ (see Special Comments). The new recommended reference points are not referred to as MSY reference points because the potential productivity of the ocean quahog stock under fishing is unknown (see Special Comments). The new SARC48 recommended biomass target of 1.790 million mt is one-half of the 1978 pre-fishery biomass (virgin biomass is not used because it probably fluctuated and is hard to estimate). The new SARC48 recommended $B_{Threshold}$ is 40% of the 1978 pre-fishery biomass (1.432 million mt). This recommended $B_{threshold}$ is *ad hoc*, but it is probably better than the current biomass reference point both in relation to $F_{45\%}$ and in maintaining a productive stock for the long term.

Fishing Mortality:

$F = 0.0100\ y^{-1}$ during 2008 for the exploited region of the EEZ (excluding GBK). For the whole stock during 2008, $F=0.0056\ y^{-1}$ (Figures B4 and B5).

Recruitment:

Mean annual recruitment to the fishable stock was low (<1% per year during 2008). A pulse of recruitment in LI has finished growing to fishable size, based on survey data collected during 2008. Survey size frequency data in 2008 indicate an increasing number of pre-recruits in parts of SNE and GBK. Recruitment of these individuals to the fishable stock is expected to occur over the next decade.

Stock Biomass:

Fishable stock biomass during 2008 was 2.905 million mt of meats for the whole stock. Estimated fishable biomass in 1978 was 3.580 million mt. The ocean quahog population is an unproductive stock that is being fished down from its pre-fishery level. After several decades of relatively low fishing mortality, the stock is still above the current and newly recommended biomass target reference points (Figure B4).

Based on current survey data, LPUE data and biomass estimates from 1977-2008, declines in stock biomass are most pronounced in southern regions (Figures B6 and B7). In particular, stock biomass is below one-half of the 1978 level in the Southern Virginia, Delmarva, and New Jersey regions.

The LI, SNE and GBK regions in the north contained about 67% of total fishable biomass during 1978 and contained about 84% of the total fishable biomass during 2008. The GBK region, which is currently not fished due to risk of PSP contamination, contained about 33% of total fishable biomass during 1978 and about 45% during 2008. The proportion of the stock resident in high density areas has been reduced over time by fishing. Density levels are highest on GBK, where no fishing is currently allowed and lowest in southern areas (DMV and NJ) where the fishery began in the 1980s (Figure B6).

Fishable biomass in Maine waters was estimated to be 16,574 mt and fishing mortality was estimated to be $F=0.021\ y^{-1}$ during 2004. Logbook data show that fishing effort has declined since the peak of 19,000 hrs in 2002 to about 11,000 hours in 2008. Since 2000, LPUE for Maine waters has fluctuated without an overall trend (Figure B8).

Special Comments:

* Industry sources report progress in developing reliable, inexpensive and quick tests for possible PSP contamination and are negotiating with the Food and Drug Administration to potentially begin fishing on Georges Bank, possibly beginning in 2009.
* Ocean quahogs (including Georges Bank) may or may not have the potential for supporting sustainable catches in the long term. Some recruitment and growth occurs each year but at low levels. Much depends on the response of the stock on Georges Bank to fishing, where growth and potential recruitment rates are relatively high. It is probably not possible to maintain a sustainable fishery on the currently exploited region where recruitment and growth rates are very low.
* It is technically valid and probably constructive to view the ocean quahog fishery and fishing on Georges Bank is as an adaptive management experiment. The stock (including Georges Bank) may or may not support a sustainable fishery. The answer to the question of sustainability might be determined after a decade or two of fishing on Georges Bank, and managers should be prepared to react in either case. Policy and management actions in the event the fishery is not sustainable should be considered carefully beforehand. One obvious option would be to discontinue fishing, for ocean quahogs, potentially for a decade or more, if stock biomass reaches its biomass threshold.
* In conducting the adaptive management experiment, it is important that removal rates are low enough to provide one or two decades for increased recruitment following fishing because the lag time between spawning and recruitment to the fishery is relatively long. At high fishing mortality rates, it would be theoretically be possible to eliminate the spawning biomass before recruitment has a chance to occur.
* Academic, industry and NEFSC personnel have devoted considerable effort to estimating efficiency of the NEFSC clam survey dredge during the 1997-2008 surveys. Considerable progress was made since the last assessment but survey dredge efficiency remains a chief source of uncertainty. Collaborative depletion studies designed to measure dredge efficiency should continue to be part of each clam survey.
* The current fishing mortality thresholds are compared to the fishable stock which excludes GBK. The assessment makes no recommendation as to whether the recommended fishing mortality threshold should be compared to the fishable stock or the whole stock because this is a policy question. However, from a technical point of view, mortality rates calculated for the whole stock including Georges Bank do not describe conditions on either the exploited portion or unexploited portions of the stock. In particular, fishing mortality may be higher than desired on the exploited portion (resulting in foregone yield and relatively low biomass conditions) and zero on the unexploited portion (resulting in foregone yield). Levels of sustainable catch are lower than MSY for stocks with large areas where no fishing occurs. Regardless of stock structure, regional and spatially explicit management practices will tend to maximize yield and maintain adequate stock biomass levels for sessile stocks like ocean quahogs.
* Information about indirect mortality due to fishing (currently assumed to be 5% of landings) is uncertain. Indirect mortality may be significant in Maine waters where fishing effort levels per unit area are high.
* This species is potentially vulnerable to overfishing due to its low productivity. Due to its low productivity and slow dynamics, the response in recruitment to current (and historical) fishing pressure will not be detectable for at least several decades.
* At current catch levels (which are <70% of the quota) there is a low probability that the

fishing mortality would exceed the SARC48 recommended $F_{Threshold}$ by 2015 for the exploited portion or whole stock and low probability that whole stock biomass would fall below the recommended $B_{Threshold}$. At other fishing mortality levels, such as the current F_{Target} ($= F_{0.1}$), there is a high probability of overfishing in the currently exploited stock by 2015. Some of the policies considered in simulations (e.g. the current $F_{Threshold} = F_{25\%}$) virtually guarantee that fishing mortality for the exploited and whole stock would exceed the recommended $F_{Threshold}$ by 2015.

References:

Dahlgren T, Weinberg J, Halanych K. 2002. Phylogeography of the ocean quahog (*Arctica islandica*): influences of paleoclimate on genetic diversity and species range. Mar Biol. 137: 487-495.

Murawski SA, Ropes JW, Serchuk FM. 1982. Growth of the ocean quahog, (*Arctica islandica)*, in the Middle Atlantic Bight. Fish Bull. 80: 21-34.

NEFSC. 2007. Ocean quahog assessment. *In*: 44th Northeast Regional Stock Assessment Workshop (44th SAW): 44th SAW assessment report. NEFSC Ref Doc. 07-10. (Available online at : http://www.nefsc.noaa.gov/nefsc/publications/crd/crd0710/)

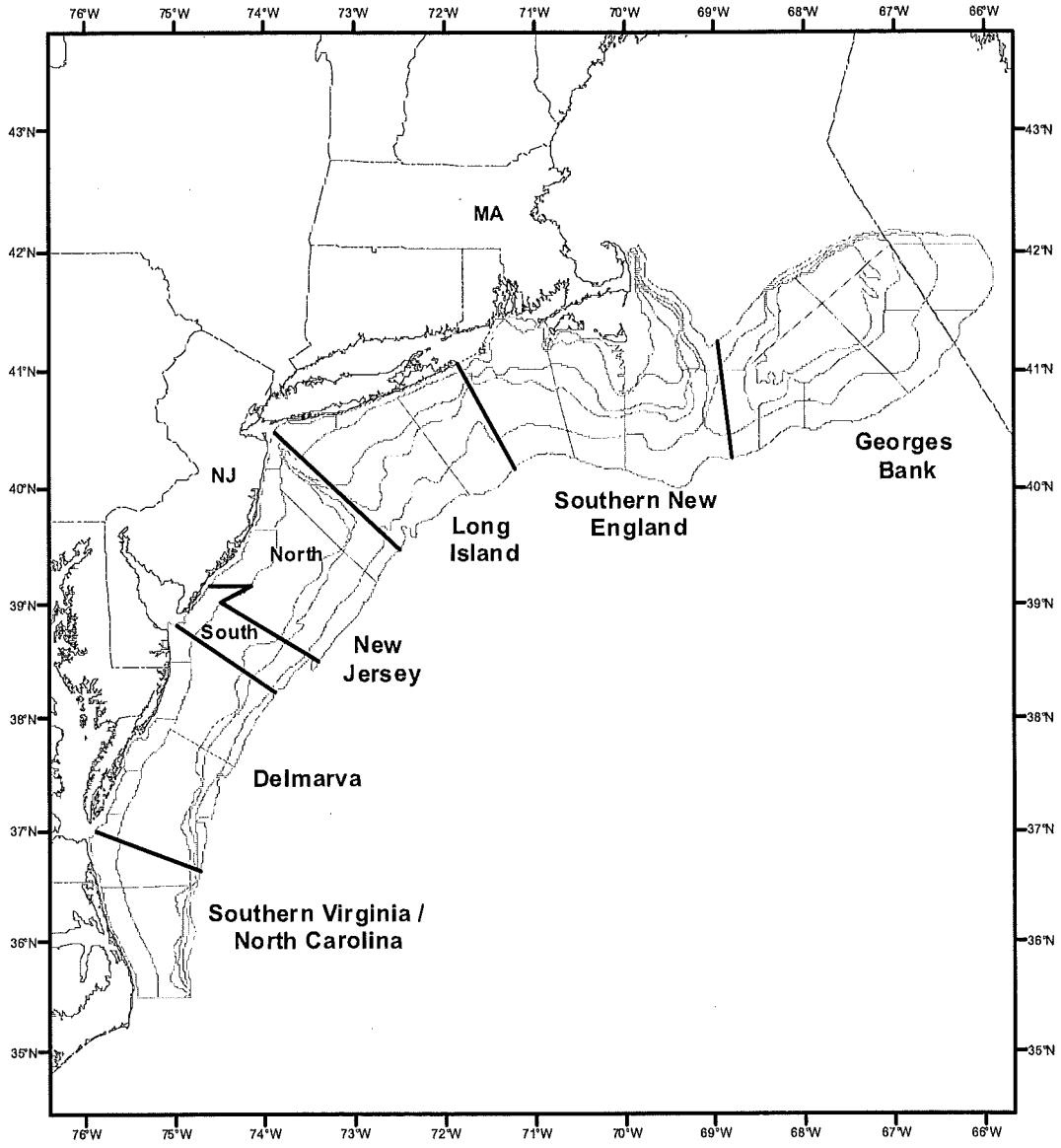
Powell E, Mann R. 2005. Evidence of recent recruitment in the ocean quahog (*Arctica islandica*) in the Mid-Atlantic Bight. J Shellfish Res. 24: 517-530.

Tables

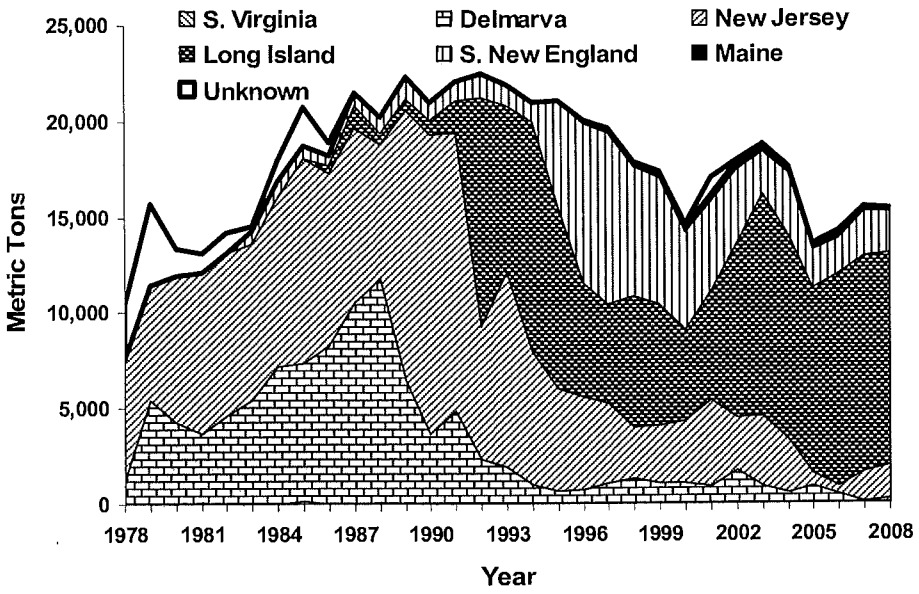
Table B1. Stochastic projection results for ocean quahogs in 2015 with natural mortality M=0.02 under various constant annual quotas during 2010-2015. Starting biomass levels in 2008 are from a bootstrap analysis with the KLAMZ model for ocean quahogs in the exploited area. Biomass on GBK was assumed constant at the 2008 estimate. Actual landings were used in simulations for 2008 and expected landings (3.8 million bushels or 17.2 mt meats) were used for 2009. For 2010-2015, there is a constant level of annual landings (quota) for each harvest policy, calculated by multiplying the target fishing mortality times the current best estimate of biomass during 2008, where the biomass estimate is for either the exploited or entire stock area. Simulated catches were equal to the quota plus 5% to account for incidental mortality. Probabilities of overfished stock conditions ($B_{2015} \leq$ the recommended $B_{Threshold}$) and probabilities of overfishing ($F_{2015} \geq$ the recommended fishing mortality threshold $F_{45\%}$) in 2015 are shown in the last three columns. The probability of overfishing is for either the exploited stock (F_{2015} for exploited stock $\geq F_{45\%}$) or the entire stock (F_{2015} for entire stock $\geq F_{45\%}$).

How are the landings calculated? (alternative management actions, under constant annual removal)	Annual landings 2010-2015 (million bushels)	Annual landings 2010-2015 (1000 mt meats)	Probability overfished in 2015 ($B_{2015} \leq B_{Threshold}$)	Probability of overfishing for exploited stock in 2015 (F_{2015} for exploited stock $\geq F_{45\%}$)	Probability of overfishing for entire stock in 2015 (F_{2015} for entire stock $\geq F_{45\%}$)
Status quo landings	3.8	17.2	0	0.00	0.00
Current quota	5.3	24.2	0	0.19	0.00
FMP min landings	4.0	18.1	0	0.00	0.00
FMP max landings	6.0	27.2	0	0.54	0.00
Recommended F threshold ($F_{45\%}$) x 2008 biomass in exploited area	7.7	34.8	0	0.90	0.00
Current F target ($F_{0.1}$) x 2008 biomass in exploited area	9.7	44.0	0	0.99	0.00
Current F threshold ($F_{25\%}$) x 2008 biomass in exploited area	18.1	82.2	0	1.00	1.00
Recommended F threshold ($F_{45\%}$) x biomass in entire area	14.0	63.7	0	1.00	0.97
Current F target ($F_{0.1}$) x biomass in entire area	17.8	80.6	0	1.00	1.00
Current F threshold ($F_{25\%}$) x biomass in entire area	33.1	150.4	0	1.00	1.00

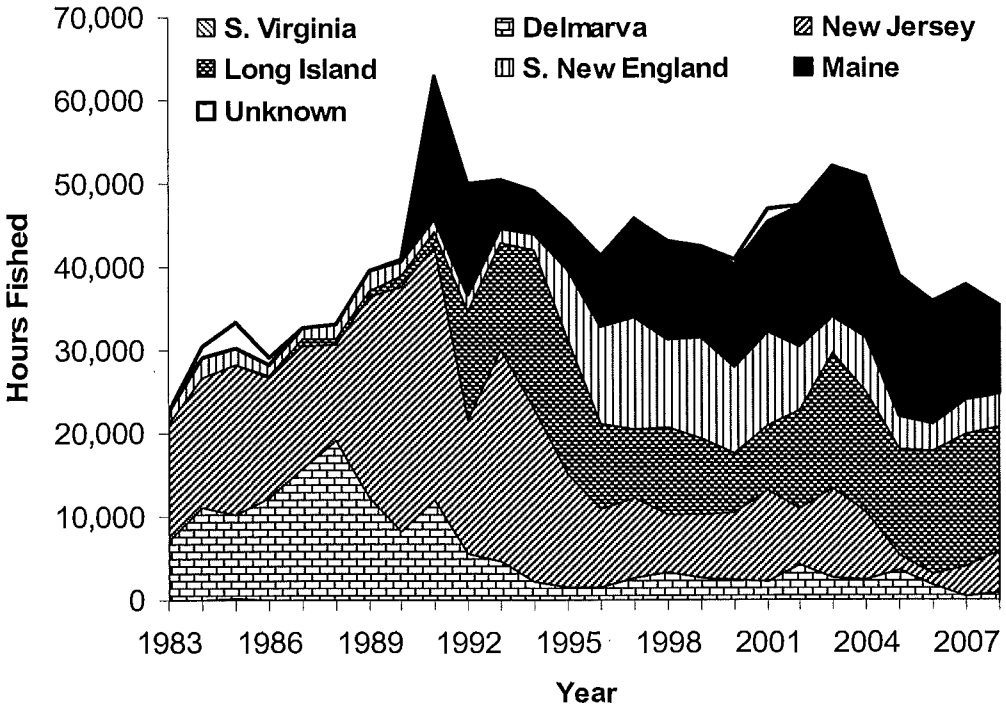
Figures



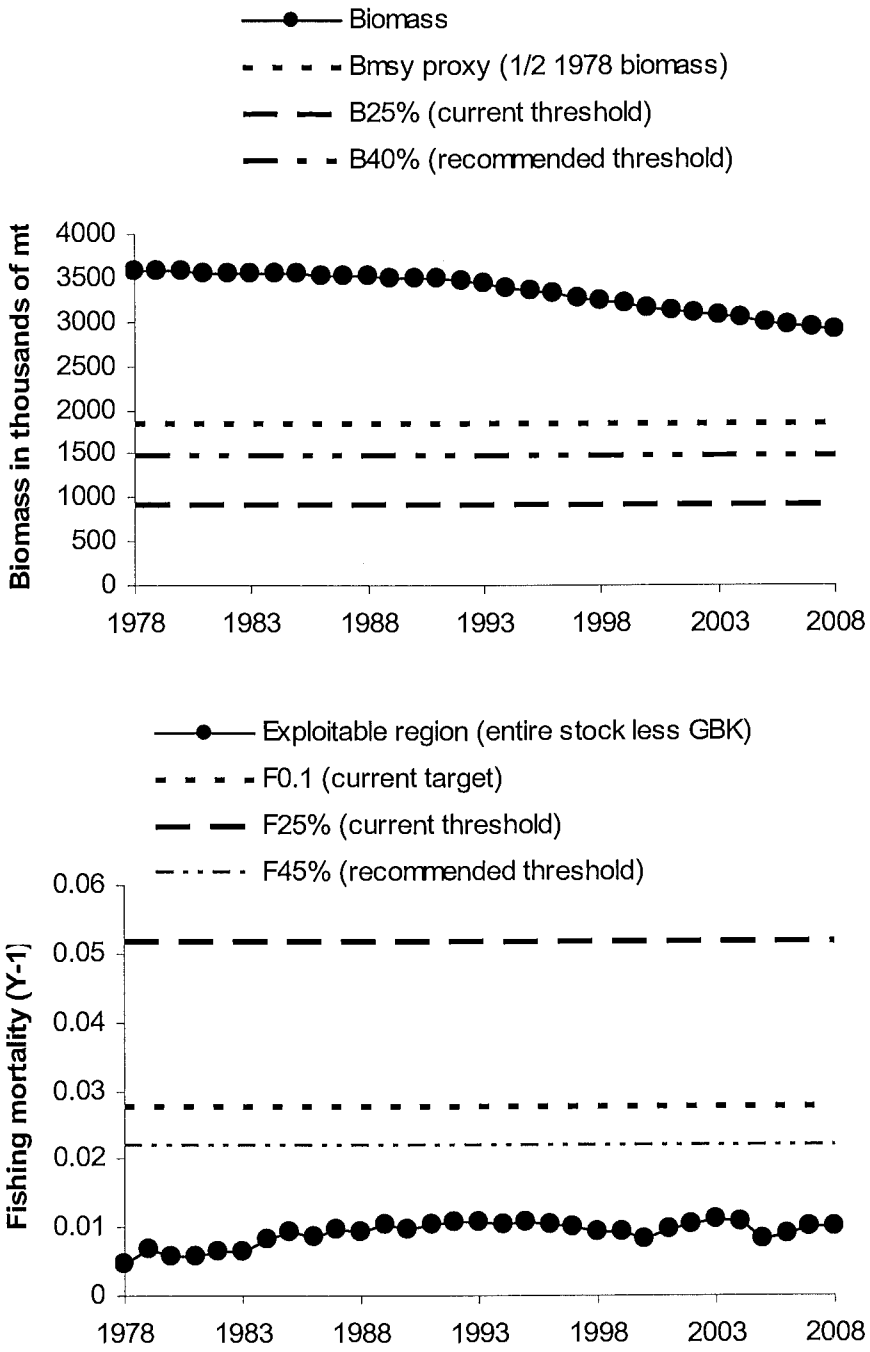
B1. Stock assessment regions for ocean quahogs in the US EEZ, with survey strata and stock assessment regions. For ocean quahogs, the southern and northern portions of the New Jersey region are combined. The Maine fishing area is off the Maine coast north of 43° 50' N.



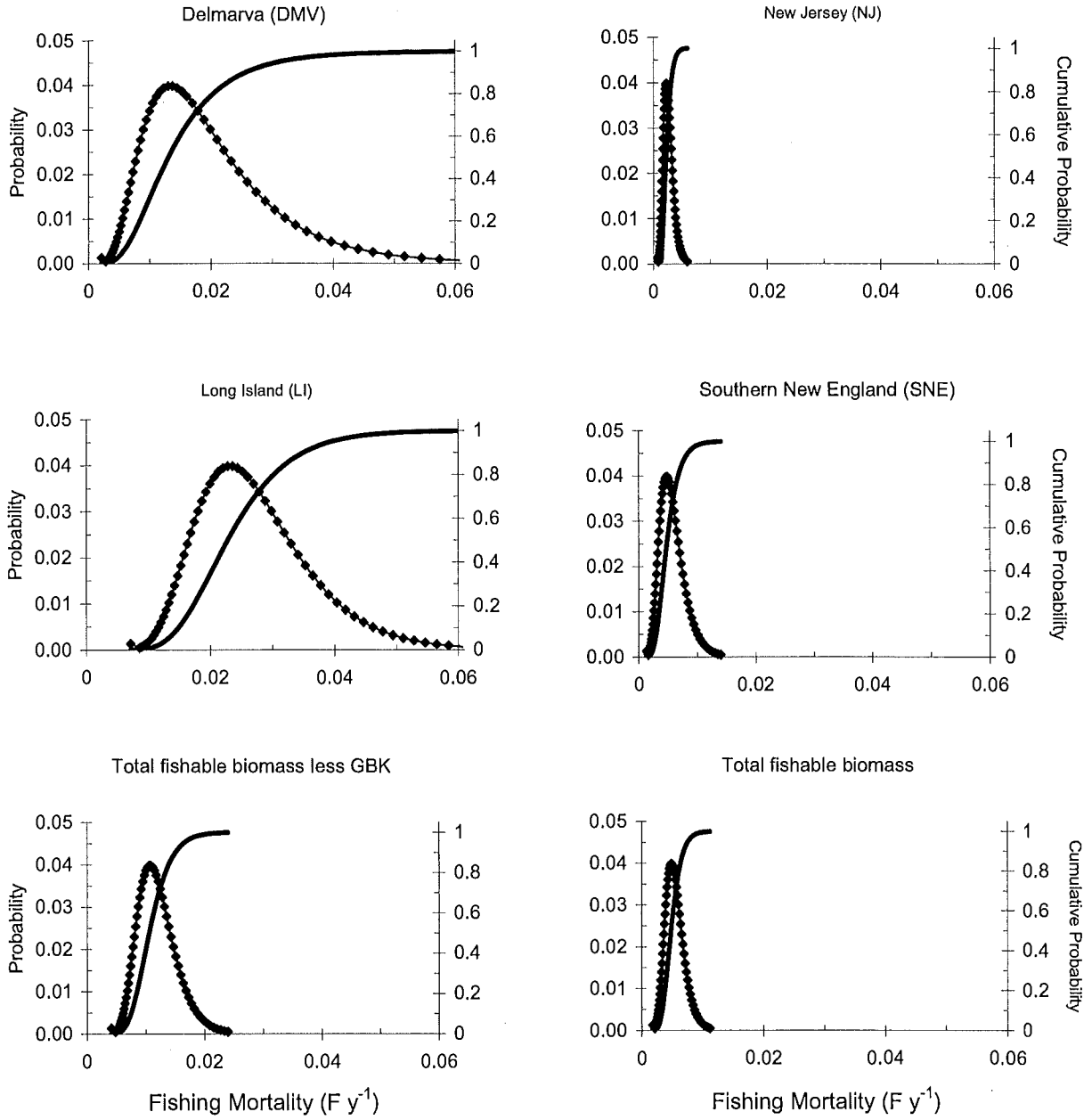
B2. Ocean quahog landings (mt meats) in the EEZ by region during 1978-2008. Figures for SVA are near zero and do not show clearly in plots.



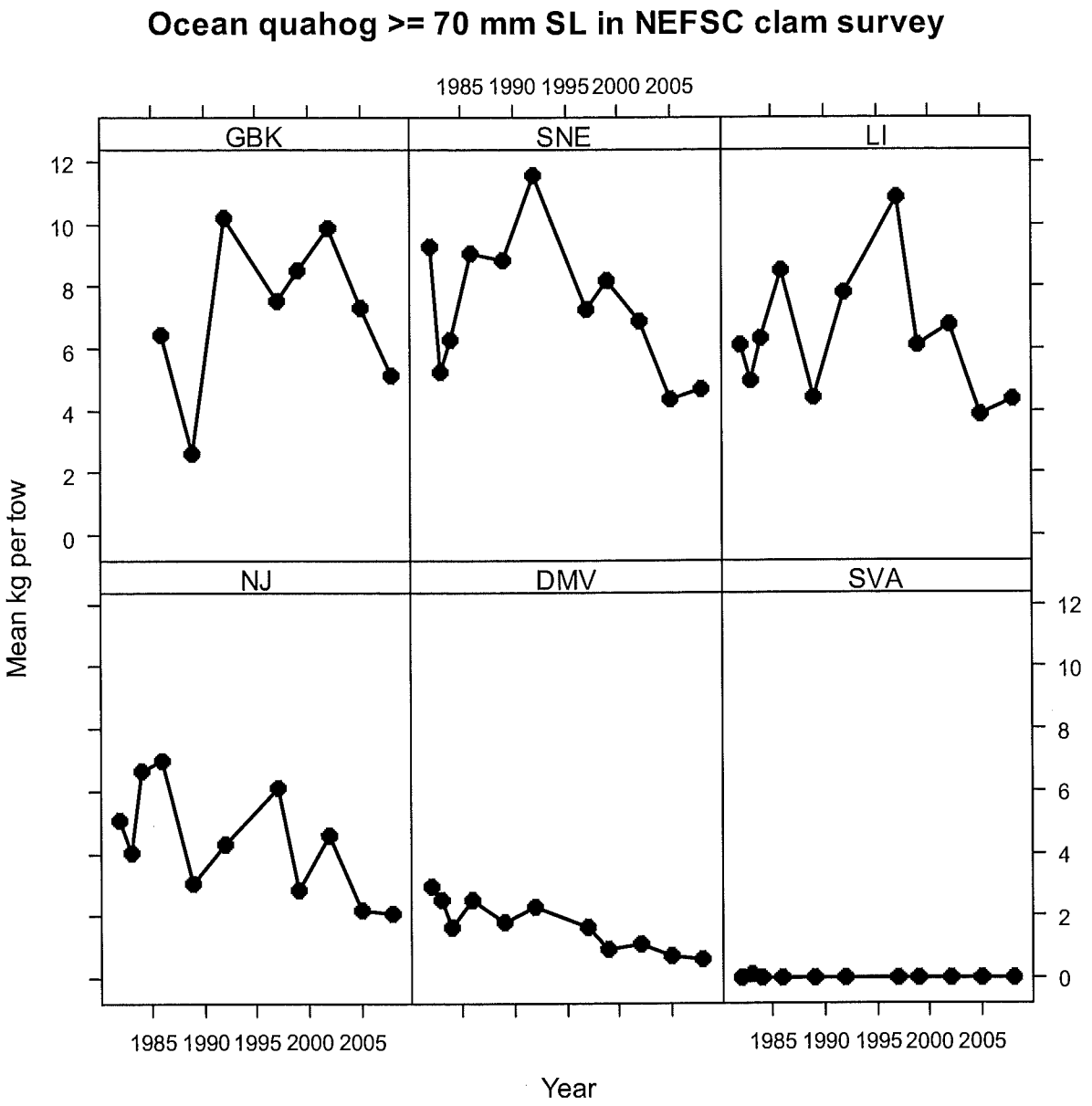
B3.Fishing effort (hours fished per year) for ocean quahog in EEZ and Maine waters during 1983-2008 calculated from mandatory logbook data. Figures for SVA are near zero and do not show clearly in plots.



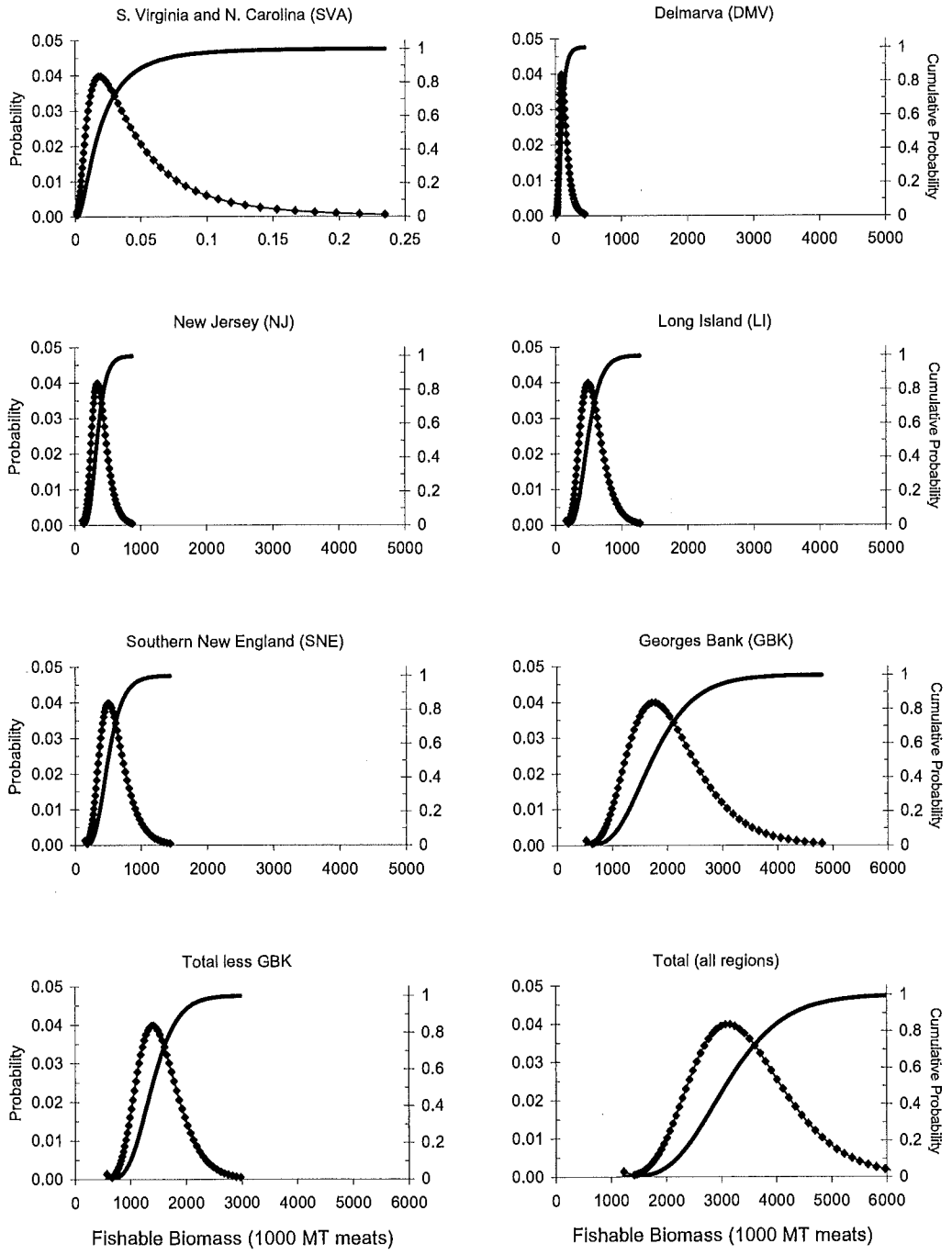
B4. Top: Estimated ocean quahog fishable biomass since 1978, based on sum of "best" regional estimates. Bottom: Estimated fishing mortality on the exploited portion of the stock since 1978. Both current and new SARC48 recommended reference points are shown as horizontal lines.



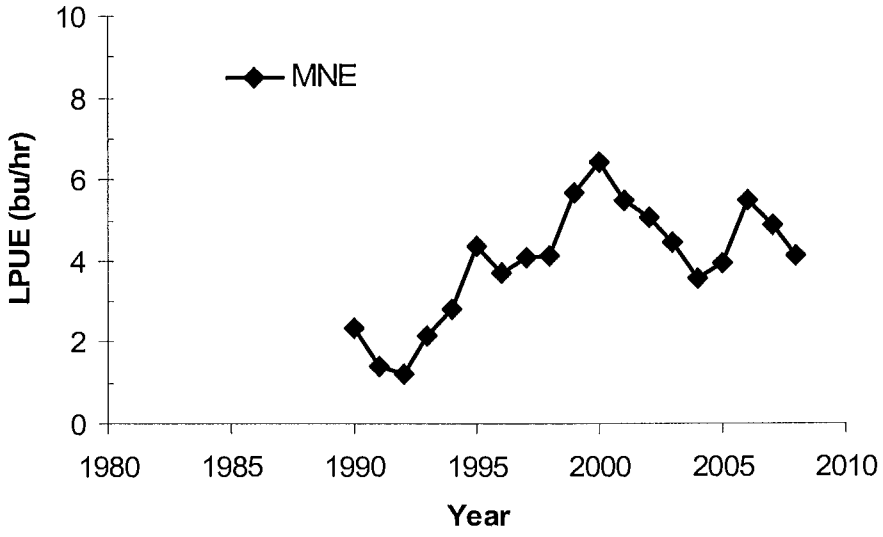
B5. Uncertainty in fishing mortality estimates for ocean quahog by region during 2008 based on catch data and efficiency corrected swept-area biomass. X-axes are scaled to the same maximum to facilitate comparisons.



B6. Trends in survey mean biomass per tow for large (≥70 mm SL) ocean quahogs, 1982-2008. Data from the 1994 survey are not shown because of voltage problems that affected catchability of the survey dredge. Sampling was relatively poor and estimate are less reliable for GBK during 1982-1984, 1989, 2002 and 2005; SNE during 1984 and 2005; LI during 1984; NJ during 1984; DMV during 2008; and in SVA during 1999 and 2008.



B7. Uncertainty in efficiency corrected swept area biomass (ESB) estimates by region for fishable ocean quahogs during 2008. Note that the x-axis differs in the panel for SVA but is the same in all other panels to facilitate comparisons.



B8. Ocean quahog LPUE (kg meats hr^{-1}) in Maine waters during 1990-2008.

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

JOHN ELIAS BALDACCI
GOVERNOR

GEORGE D. LAPOINTE
COMMISSIONER

May 26, 2010

Mr. Rick Robins, Chairman
Mid-Atlantic Fishery Management Council
Suite 201
800 N. State St
Dover, DE 19901

Dear Rick,

I am aware that the Ocean Quahog Committee and advisors will be discussing the three year specifications for the ocean quahog quota at the upcoming MAFMC meeting on June 8th. I'm writing to provide you with the State of Maine's comments concerning the Maine Mahogany Quahog Fishery.

After reviewing the most recent stock assessment and the recent landings data, the State of Maine sees no reason to change the Maine Mahogany Quahog quota at this time. I am requesting that the MAFMC renew the 100,000 bushel Maine Mahogany Quahog quota for the upcoming three year specifications. The current landings are in line with the assessment, and the additional data points from this year's survey will allow for more accurate future projections and subsequent adjustments as needed.

Thank you for allowing me the opportunity to comment and as always please contact me if you have any questions.

Regards,

Terry Stockwell
Director of External Affairs

cc: Daniel Furlong
Dr. Thomas Hoff

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PHONE: (207) 624-6550 TTY: (207) 287-4474 http://www.maine.gov/dmr FAX: (207) 624-6024

Hoff, Thomas B.

From: George Richardson [grrclam@juno.com]
Sent: Tuesday, April 20, 2010 9:54 AM
To: Hoff, Thomas B.
Cc: Advisors - Clam; Anderson, Lee; Montanez, Jose L.; Himchak, Peter
Subject: Re: FW: Solicitation of advise on quotas

Hi Tom,

Thanks for your reports and the chance for us to interact at this early stage of the process. My recommendation is to leave the quota the same given the very strong overall condition of the biomass and the fact that they are not overfished and overfishing is not occurring. The reduction in LPUE is concerning to industry but should not affect the quota considerations in as much as the catch rate will become economically unprofitable long before the beds biologically compromised. The experimental fishery on George's Banks holds promise to exploit that resource as well.

Thanks,

George

On Tue, 20 Apr 2010 08:39:32 -0400 "Hoff, Thomas B." <thoff@mafmc.org> writes:

> Good morning folks.
>
> When I sent out the following message yesterday, I also meant to solicit you advice on the quotas. Of course you will have an opportunity to inform the Clam Committee and the Council at the June meeting, but if industry is either supportive or opposed to staff's recommendations, I would like to carry that to the SSC. Your advice is always welcomed but if you could provide it by next Tuesday, April 27 that would be most helpful as we have a conference call with the SSC on that Wednesday. Thank you.
>
> Tom
>
> ---
>
> **From:** Hoff, Thomas B.
> **Sent:** Monday, April 19, 2010 6:15 PM
> **To:** Advisors - Clam
> **Cc:** Clam_Interested; Clam_FMAT; Anderson, Lee G.; Himchak, Peter; Montanez, Jose L.; Powell, Eric; Hoff, Thomas B.
> **Subject:** FW:
>
> Good afternoon everyone. Staff went out this afternoon to our SSC with our quota papers for SC/OQ and SMB. I am forwarding you all the information that the SSC received. The SSC will be recommending the ABC for clams on Tuesday May 11. Staff will then take their ABC recommendation and make recommendations to the Council at the June NYC meeting. I envision the Advisors will be brought in for that meeting in June (8 to 10).
>
> Tom
>
> ---
>
> **From:** Seagraves, Richard J.
> **Sent:** Monday, April 19, 2010 4:20 PM
> **To:** COM - S&S (MAFMC)

Cc: Furlong, Daniel T.; Robins, Rick; Hoff, Thomas B.; Montanez, Jose L.; Didden, Jason T.; Weinberg, James
Subject:

Dear SSC Members,

Attached please find two quota papers which provide background information as well as staff analysis for 2011-2013 OFL/ABC deliberations for surfclams, ocean quahogs and 2011 OFL/ABC deliberations for *Loligo* and *Illex* squid, butterfish and Atlantic mackerel by the SSC on May 11-12, 2010 in Baltimore, MD. The first paper "Overview of the Surfclam and Ocean Quahog Fisheries and Quota Considerations for 2011, 2012, and 2013" was authored by Tom Hoff, Jose Montanez and Clay Heaton. The second paper, "2011 Atlantic Mackerel, *Loligo* and *Illex* Squid and Butterfish - Staff ABC White Paper" was authored by Jason Didden and myself.

Also attached please find the draft agenda and terms of reference for the meeting. Due to the physical size of the files which form the background information for these deliberations (i.e., stock assessment documents), the files were sent to you on a CD via FEDEX for your convenience (you will receive them tomorrow). In addition, all supporting assessment materials can be accessed immediately via the MAFMC website (visit www.mafmc.org home page and follow the link for May11-12, 2010 SSC meeting). The stock assessment documents are arranged by species. **Please note that the mackerel TRAC working papers as well as the TSR document for mackerel are draft works in progress (not final documents) and not for citation.** In addition, Larry Jacobson will be providing you with pdfs for the OFLs for surfclams and ocean quahogs as soon as they are available (hopefully by this Friday).

Please note that today is the deadline for making room reservations for the meeting. The room block is released today so you may not be guaranteed room availability after today. The call in number for reservations is 800-368-7764.

Finally, I will send the pertinent information relative to accessing the Webinar to be held from 9 a.m. - 1 p.m. on April 28, 2010 (next Wednesday) to you tomorrow. Thanks and please call if you have any questions.

Rich

Hoff, Thomas B.

From: Thomas T. Alspach [talspach@goeaston.net]
Sent: Tuesday, April 20, 2010 2:07 PM
To: Hoff, Thomas B.; Richardson, George
Cc: Advisors - Clam; Anderson, Lee; Montanez, Jose L.; Himchak, Peter
Subject: Re: FW: Solicitation of advise on quotas

Good Afternoon Tom –

I entirely concur with George Richardson's statements in his e-mail.

In fact, as I recall, the SARC reports on both species rendered within the past year indicated that current quotas actually could be doubled or more before we would reach the overfishing threshold. So we certainly are building in a very significant precautionary margin of error by leaving the quotas where they currently stand.

Further, from industry's business point of view, it is extremely troubling to our major customers when there are quota reductions as these are interpreted as indicators that there will be supply problems for them in the future. This affects their willingness to advertise and to support our products. Therefore, we hope to avoid such reductions unless absolutely required for biological/sustainability reasons (which we do not have here).

We look forward to participating in this process with the SSC, and we thank you for the opportunity to comment in advance.

TTA

> ----- Original Message -----
> **From:** George Richardson
> **To:** thoff@mafmc.org
> **Cc:** Advisors-Clam@mafmc.org ; lgafish@udel.edu ; jmontanez@mafmc.org ; peter.himchak@dep.state.nj.us
> **Sent:** Tuesday, April 20, 2010 9:54 AM
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Sent: Wednesday, April 21, 2010 7:55 PM
To: Alspach, Tom; Hoff, Thomas B.; Richardson, George
Cc: Advisors - Clam; Anderson, Lee; Montanez, Jose L.; Himchak, Peter
Subject: Re: Solicitation of advise on quotas

All:

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Sent: Tue, Apr 20, 2010 2:07 pm
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> **Sent:** Monday, April 19, 2010 4:20 PM
> **To:** COM - S&S (MAFMC)
> **Cc:** Furlong, Daniel T.; Robins, Rick; Hoff, Thomas B.; Montanez, Jose L.; Didden, Jason T.; Weinberg, James
> **Subject:**
>
> Dear SSC Members,
>
> Attached please find two quota papers which provide background information as well as staff analysis for 2011-2013 OFL/ABC deliberations for surfclams, ocean quahogs and 2011 OFL/ABC deliberations for *Loligo* and *Illex* squid, butterfish and Atlantic mackerel by the SSC on May 11-12, 2010 in Baltimore, MD. The first paper "Overview of the Surfclam and Ocean Quahog Fisheries and Quota Considerations for 2011, 2012, and 2013" was authored by Tom Hoff, Jose Montanez and Clay Heaton. The second paper, "2011 Atlantic Mackerel, *Loligo* and *Illex* Squid and Butterfish - Staff ABC White Paper" was authored by Jason Didden and myself.
> Also attached please find the draft agenda and terms of reference for the meeting. Due to the physical size of the files which form the background information for these deliberations (i.e., stock assessment documents), the files were sent to you on a CD via FEDEX for your

Hoff, Thomas B.

From: Jack R Miles [jmiles@jhmiles.com]
Sent: Thursday, April 22, 2010 10:05 AM
To: Wallace, Dave; Alspach, Tom; Hoff, Thomas B.; Richardson, George
Cc: Advisors - Clam; Anderson, Lee; Montanez, Jose L.; Himchak, Peter
Subject: RE: Solicitation of advise on quotas

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the resource. I think the current quota's does just that.
Thanks for the opportunity to comment.

From: dhwallace@aol.com [mailto:dhwallace@aol.com]
Sent: Wednesday, April 21, 2010 7:55 PM
To: talspach@goeaston.net; thoff@mafmc.org; grrclam@juno.com
Cc: Advisors-Clam@mafmc.org; lgafish@udel.edu; jmontanez@mafmc.org; peter.himchak@dep.state.nj.us
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> **Subject:**

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From: Stockwell, Terry [Terry.Stockwell@maine.gov]
Sent: Thursday, April 22, 2010 12:22 PM
To: Miles, John; Wallace, Dave; Alspach, Tom; Hoff, Thomas B.; Richardson, George
Cc: Advisors - Clam; Anderson, Lee; Montanez, Jose L.; Himchak, Peter
Subject: RE: Solicitation of advise on quotas

Hello all. I concur with all the previous comments and support maintaining the current quotas. Terry

---

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(3)

Thomas Dameron
P.O. Box 671
Bridgeport, NJ 08014
(609) 876 – 0189
capttomd@gmail.com

Mid-Atlantic Fishery Management Council
Council Chairman Richard B. Robins, Jr.
300 S. New Street, Room 2115
Dover, DE 19904

Monday, May 24, 2010

Dear Council Members,

I would like to comment on the 2011, 2012 & 2013 Surfclam and Quahog quota specifications and associated management measures advanced for consideration and action. My resume concerning the industry consists of over twenty-six years in the surfclam and ocean quahog fishing beginning in 1983. I began my fishing career on the deck of an American Original vessel out of Chincoteague VA. Like the biomass, I have moved north from the mid-Atlantic Bight and find myself looking toward Georges Bank closed area to provide our clam fisheries the much needed mature shell stock. I have operated as captain on some of the largest and most technically advanced vessels in the industry, and have firsthand knowledge of mechanical / technological advancements for harvesting clams through my years of experience in the industry.

Currently, I am employed as operations manager for John Kelleher/20 Fathom, LLC, quahog fleet of three vessels fishing out of Point Pleasant, NJ. For the last several years I have captained the surfclam F/V Mary M and the quahog F/V ESS Pursuit.

As a knowledgeable participant and caring member of the surfclam / ocean quahog fisheries I am compelled to advise the Committee as follows:

- Reduce the surf clam and ocean quahog quotas by the maximum allowed 25% each
- Devise a process to divide and treat separately Georges Bank Quota from the remainder of the EEZ

- Develop and define conditions of juvenile clams which if discovered during surfclam surveys, would allow MAFMC to close areas off from harvesters.

- Contact New England State Fisheries Landing Officials regarding the problems associated in permitting clams from the Georges Bank closed area to be offloaded at their ports

{Reduce Surfclam Allocation by 25%}

"The most important development in the surfclam resource over the past several years has been the dramatic reduction in biomass evident in the New Jersey inshore area, and off the coast of Delmarva peninsula." {Overview of the Surfclam and Ocean Quahog Fisheries and Quota Considerations for 2011, 2012, and 2013, MAFMC April 2010 p. 5} {Overview} "The most worrisome trend in the surfclam fishery continues to be the relentless decline in the productivity of effort." {Overview p.11} Although the Georges Bank closed area holds tremendous potential for our fleets the fact remains that the area is presently considered 'permanently closed' because of the threat of PSP toxins. We cannot continue to rely on biomass targets for the 'whole stock' but only fish down a smaller portion (the exploited region). "The existing biomass target can be achieved by the biomass on GBK alone and hence does not provide protection for the stock elsewhere." {Final Report: Summary Report of the 49th Northeast Regional Stock Assessment Review Committee p.9} {FRSARC 49} This is because of the high percentage of the total biomass in that region (around 50%). "As noted by the Invertebrate Subcommittee, current spatial pattern in fishing dynamics would not likely ever support an overfishing/overfished determination because of the estimated high surfclam abundance on GBK and the whole stock assumption." {FRSARC 49 p.11}. Reducing the quota by the maximum allowed would act to protect the remaining stock outside the Georges Bank region. "Both the review panel and the Invertebrate Subcommittee expressed concern about the status of the surfclam resources in the DMV and NJ regions, particularly given their historical importance of supporting the bulk of the fishery." {FRSARC 49 p.6} "... areas that the industry has depended on for decades are fast approaching a state in which they will no longer be economically profitable to fish." {Overview p. 27,28} We are fast approaching a situation where we have a healthy stock but an unhealthy fishery.

A look at Appendix Figure 1: Surfclam Landings per Unit of Effort: 1991 – 2010 reported through 4/12/10 shows a steep decline in bushels caught per hour in the exploited region. It doesn't take a fisherman, scientist or chart reader to see where this chart indicates this fishery will end up. This decline is actually muted by the fact that it doesn't

account for the fishery technological advances, increased dredge width per vessel, increased H.P., and increased amounts of water that can be delivered to the bottom for clam jetting.

Fisheries management should lower the annual surfclam quota now, as it prepares to managed the surfclam stocks of the EEZ as two separate regions and close down areas of high concentrations of juvenile clams.

{Devise a scheme to divide and treat separately Georges Bank and Mid-Atlantic Surfclam Quota}

This is necessary for the MAFMC to adequately manage the Atlantic Surfclam stocks in the EEZ to ensure sustainable harvesting of the stock throughout its range. There are several distinct fleets of vessels fishing out of ports between Ocean City, MD and Gloucester, MA. Each of these fleets is important to the surrounding communities where their catch is offloaded and processed. The long term productive capability of certain localized stocks is being jeopardized under the current management plan while overfishing thresholds for the stock as a whole haven't been met. It is no longer practicable to manage this stock of fish as a single unit throughout its range. In order to realize the stated management objectives more efficiently and with less negative impact on local economies in the EEZ fisheries management should make use of the added flexibility of using separate individual transferable quota for Georges Bank and the Mid-Atlantic Surfclam Fishery. Two sets of tags. When management developed the current measures to attain management objectives it wasn't conceived that more than 50% of the EEZ biomass might be contained in an area that has been closed to fishing for nearly twenty years. New measures must be used to determine if overfishing is occurring within the separate regions. There is more than sufficient scientific evidence that these stocks have different growth, recruitment, and mortality rates and thus should be managed separately.

Because of the threat of PSPs the Georges Bank clams will need to always be treated differently by the industry. Protocols for the Harvesting and Processing of PSP threatened stock will have to be implemented. Clams taken from east of 69 degrees longitudinal must adhere to the strictest measures to assure the public isn't exposed to harmful shellfish. Industry and Government seem to be heading toward an opening of Georges Bank; the MAFMC could lead these efforts by

separating the Georges Bank and Mid-Atlantic surfclam fisheries. Because we have two distinct fisheries with two distinct risks to reward scenarios, industry could operate more efficiently separating the quota and letting the market determine the value of the separate stocks. The MAFMC should separate these stocks to further improve efficiency derived from ITQ management as well the profitability of the clam industry as a whole.

{The MAFMC should be ready to quickly close areas of high concentrations of juvenile Atlantic Surfclams}

There is some good news; I have spoken to several knowledgeable captains who indicate that in some areas off the New Jersey coast they are seeing numerous juvenile surfclams. The bad news is that CPUE in this area is so extremely low, with many vessels catching around 1 cage per hour. The Mid-Atlantic Fishery Management Council should be ready, willing and able to create surfclam closed areas when the scientific data identifies areas of juvenile surfclams in excess of predefined levels or ratios. This should have an immediate impact on maximizing the yield for a specific area as well as the stock as a whole.

{Reduce Ocean Quahog Allocation by 25%}

"The current perception is that the ocean quahog stock is not overfished and that overfishing is not occurring. This does not take into account the spatial pattern of serial depleation to below commercial break-even levels in southern parts of the range." {SARC 48: Tilefish, Ocean quahog, Weakfish Benchmark Stock Assessments, June 2009, Dr Michael C. Bell p. 3-4} {SARC 48 Bell} The existing specifications made for the 3-year quota are no longer appropriate. Georges Bank currently (2008) holds 45% of the Ocean Quahog resources but the area has been closed for twenty years. Sven Kupschus' stock assessment review confronts the question of including the closed area for the estimation of a biological reference point. "Lastly, the question of the closed area for the estimation of biological reference point is one that should be cleared up by the commission. Estimating F reference points on the basis of the whole stock (including the closed area) is conservative, yet futile. If half the stock is outside the closed area then fishing the stock down to zero in the open area (F50), although very expensive in terms of effort, is the recommended solution. Given

the spatial segregation and sporadic recruitment this is likely to have severe implications on the sustainability of the fishery (although not the stock). From a fishery sustainability point of view this should apply to the exploited part of the stock." {Report on the 2009 Tilefish, Ocean Quahog and Weakfish Benchmark Stock Assessment, Sven Kupschus p. 13} {Report 2009, Kupschus} When management developed the current measures to attain management objectives it wasn't conceived that more than 45% of the EEZ quahog biomass might be contained in an area that would be closed to fishing for nearly twenty years. As concerns the exploited region: "In particular, stock biomass is below the one-half virgin level in Southern Virginia, Delmarva, and New Jersey regions (Ocean Quahog Assessment Summary)." {Overview p.16} It is time to start to reduce the Quahog Quota and for management to start to deal with Georges Bank Quahogs separately from the remainder of the EEZ Quahog biomass.

"Based on NEFSC survey data and biomass estimates for 1977 – 2008, declines in stock biomass are most pronounced in southern regions. In particular, stock biomass is below the one-half virgin level in the Southern Virginia, Delmarva, and New Jersey Regions (Ocean Quahog Assessment Summary)." {Overview p.16} The Quota should be cut to the minimum allowed 4.0 million bushels. This change would not immediately negatively impact the amount of Quahogs harvested. The 4.0 million bushel quota would still exceed the clams harvested each year going back to 1998 with the exception of 2003 when 4.069 million bushels were harvested. {Overview, Appendix tables p. 34-37}

Separately reducing the quota would also have the consequence of reducing or eliminating the 'distributive impact' on some of the stakeholders. By reducing the quahog quota to the minimum allowed of 4.000 million bushels the large quota surplus would be eliminated allowing for a more efficient model for stakeholders. In the future it would be to the MAFMC benefit to have the means to lower quota in the Mid-Atlantic portion of the EEZ while increasing quota in the Georges Bank region. For the years of 2004 – 2009 the average % of harvested clams (thus quota fully utilized) averaged just 63.3%. The historical average of quota harvested from 1979 – 2003 had averaged almost 87%. {Federal Surfclam & Ocean Quahog Quotas and Landings: 1979 – 2009} This was before the quota was raised from 4.5 million bushels to 5.0 for 2004 and then 5.333 million bushels annually.

{Devise scheme to divide and treat separately Georges Bank and Mid-Atlantic Ocean Quahog Quota}

This is necessary for the MAFMC to adequately manage the Quahog stocks in the EEZ to ensure sustainable harvesting of the stock throughout its range. It is no longer practicable to manage this stock of fish as a single unit throughout its range. Just as with surf clams, because of the threat of PSPs the Georges Bank Quahogs will need to always be treated differently by the industry. Protocols for the harvesting and processing of PSP threatened quahog stock will have to be implemented. Clams taken from east of 69 degrees longitudinal must adhere to the strictest measures to assure the public isn't exposed to harmful shellfish. "Both industry and government have been trying to figure a way that these Georges Bank resources can be safely harvested in the future"; {Overview p. 20} The MAFMC could lead these efforts by separating the Georges Bank and Mid-Atlantic Quahog fisheries.

The technological advances in the quahog fishery have been substantial and fascinating to watch. This trend is highlighted: "just 4 large vessels accounted for over 50% of the federal ocean quahog harvest in each of the last several years." {Overview p. 19} These aren't your granddad's clam boats! Modern vessels carry between 9 and 14 tractor trailer loads each. Their dredges cover between 150" and 300" of bottom per tow and are capable of sending massive amounts of water to the bottom for harvesting quahogs. These vessels will soon run out of virgin bottom to fish outside the Georges Bank closed area, as they fish and move, fish and move, hitting the last un-fished areas west of the closed area. Because this stock has extremely low recruitment and a slow growth rate we are exceeding what the exploited portion of the stock can sustain. "If GBK is not reopened soon, then the fishery will likely become economically unviable in the not too distant future." {Report 2009, Kupschus p.15} "In addition to the availability of the resource on Georges bank, staff is also concerned with .....and the long-term sustainability of the ocean quahog resource." {Overview p.23} Separating the Georges Bank biomass from the remainder of the Quahog biomass of the EEZ will provide MAFMC with additional flexibility for managing the entire stock and enhance efficiencies and profitability for the industry,

{Contact New England State Fisheries Landing Officials in regards to allowing clams from the Georges Bank closed area to be offloaded at their ports after approved PSP testing protocol is performed}

Massachusetts and Rhode Island currently do not allow surfclams caught in the Georges Bank closed area to be offloaded in the state. There is currently a commercial vessel that fishes the Georges Bank closed area under a scientific research permit but must travel as far as New Jersey to offload. The MAFMC should encourage all states to allow offloading of catch, under fishery permit or scientific research permit, for stocks managed by MAFMC. It is public record that the Commercial Fishing Industry Vessel Safety Advisory Committee has identified the forcing of a fishing vessel to travel to more distant ports to offload catch as a Fishery Management measure that can have unintended adverse effects on vessel and crew safety.

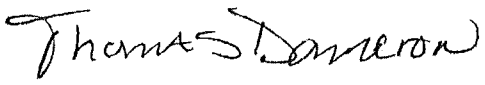
In closing I must strongly recommend that the MAFMC must start to manage the surfclam and ocean quahog fisheries of the EEZ recognizing that there are two separate and distinct stock complexes of each species. There is a strong scientific basis for this move. There is strong evidence that our fisheries outside the GBK region will face economic extinction long before an 'overfishing' threshold is reached. The Mid-Atlantic Fisheries Management should immediately:

- Reduce the surfclam and ocean quahog quota by the maximum allowed.
- Amend the FMP to re-classify this quota as being for the portion outside the GBK region.
- Amend the FMP so to issue a new class of surfclam and ocean quahog quota for use in the GBK region exclusively. Ownership shares can mirror those currently in place for the EEZ stock as a whole.
- Amend the FMP with the objective to keep quota close to actual harvest levels so as to have maximum leverage if the council needs to use quota levels to shift fishing efforts away overfished areas.

- Develop and define conditions of juvenile clams which if discovered during surfclam surveys, would allow MAFMC to close areas off from harvesters.
- Work with the states of the Mid-Atlantic and New England to ensure that fisheries participants are able to utilize facilities in all states to offload fisheries product from the EEZ.

Thank you for your consideration of my comments,

Thomas Dameron



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.

CORE PRINCIPLES: fisheries research funded under the RSA Program shall:

1. Directly address identified management issues and/or deficiencies in the information necessary for improved management

2. Where possible, be conducted cooperatively between the scientific community and the fishing industry

3. Be of sufficient scientific/technical merit to meet the requirements of National Standard 2 of the Magnuson Stevens Act

4. Be conducted in a cost effective and timely manner.

Research Set-Aside Committee Meeting

April 13, 2010

3:30PM: Committee Convenes

Discussion of NY recreational RSA issue

Review and discussion of comments and recommendations from the RSA Workshop (not listed in order of priority)

- Should we develop a clear and updated Mission Statement?
- Strengthen Council review of project proposals to insure consistency with research priorities
- Institute requirement for peer review of project design and results (could improve use of results in management)
- Should the program continue to be grants based? What are the alternatives?
- Need to improve accountability of the project's principal investigator.
- How can we set up a program to allocate money instead of pounds of fish?
- Can we change the existing annual cycle to raise the money one year and approve the grants using that money the following year?
- Grants should be longer than one year.
- We need a review of program history to determine which projects have resulted in information that has been applied to management. Such review should determine why the information/recommendations were not used. This would help determine how the research value and compensation value compare.
- How can we better involve ASMFC?
- An estimate of administrative costs of the program to NOAA and the states is necessary to properly evaluate total program costs.

5:00PM Adjourn

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Richard B. Robins, Jr.
Chairman

Lee G. Anderson
Vice Chairman

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Daniel T. Furlong
Executive Director

DATE: May 25, 2010

TO: SMB Committee, AP

FROM: Jason Didden

SUBJECT: Tab 3a: 2011 SMB specifications briefing documents

The SMB Committee will meet Tuesday June 8, 2010 at 2pm to develop recommendations for 2011 quota specifications and associated management measures. The following briefing documents are included:

(page numbers refer to larger underlined page numbers in bottom-right corner)

Note: The summary of the SSC meeting is included separately in the briefing book. See Tab 12, Committee Reports.

2011 Atlantic Mackerel, *Loligo* and *Illex* Squid and Butterfish

Staff ABC White Paper

April 2010

Introduction

This document summarizes the biology and fisheries for species in the Atlantic Mackerel, Squid, and Butterfish (MSB) Fishery Management Plan (FMP) to inform the specification of Acceptable Biological Catches (ABCs). The subject management unit is all Atlantic mackerel, *Loligo pealei*, *Illex illecebrosus*, and Atlantic butterfish under US jurisdiction. The relevant stock assessment documents have also been made available to the SSC. There is also a spreadsheet that accompanies this document that has all of the landings and/or catches in tables.

The individual MSB FMPs were adopted by the Council in 1978 and were subsequently approved by NMFS in 1979. The MAFMC began work to merge the mackerel, squid, and butterfish Plans into a single FMP in 1980. The merged MSB FMP was implemented by emergency interim regulation in 1983. Since then the FMP has been amended 10 times as described in Table 1.

The objectives of the MSB FMP are:

1. Enhance the probability of successful (i.e., the historical average) recruitment to the fisheries.
2. Promote the growth of the U.S. commercial fishery, including the fishery for export.
3. Provide the greatest degree of freedom and flexibility to all harvesters of these resources consistent with the attainment of the other objectives of this FMP.
4. Provide marine recreational fishing opportunities, recognizing the contribution of recreational fishing to the national economy.
5. Increase the understanding of the conditions of the stocks and fisheries.
6. Minimize harvesting conflicts among US commercial, US recreational and foreign fishermen.

Table 1. History of the Atlantic Mackerel, Squid and Butterfish FMP

Date	Document	Management Action
1978, 1979	Original FMPs (3)	• Established management of Atlantic mackerel, squid, and butterfish fisheries
1983	Merged FMP	• Consolidated management of Atlantic mackerel, squid, and butterfish fisheries under a single FMP
1984	Amendment 1	• Implemented squid OY adjustment mechanism • Revise Atlantic mackerel mortality rate
1986	Amendment 2	• Equated fishing year with calendar year • Revised squid bycatch TALFF allowances • Implemented framework adjustment process • Converted expiration of fishing permits from indefinite to annual
1991	Amendment 3	• Established overfishing definitions for all four species
1991	Amendment 4	• Limited the activity of directed foreign fishing and joint venture transfers to foreign vessels • Allowed for specification of OY for Atlantic mackerel for up to three years
1996	Amendment 5	• Adjusted *Loligo* MSY • Eliminated directed foreign fisheries for *Loligo*, *Illex*, and butterfish • Instituted a dealer and vessel reporting system • Instituted an operator permitting system • Implemented a limited access system for *Loligo*, *Illex* and butterfish • Expanded the management unit to include all Atlantic mackerel, *Loligo*, *Illex*, and butterfish under U.S. jurisdiction.
1997	Amendment 6	• Revised the overfishing definitions for *Loligo*, *Illex*, and butterfish • Established seasonal management of the *Illex* fishery
1997	Amendment 7	• Established consistency among FMPs in the NE region RE: vessel permitting, replacement and upgrades
1998	Amendment 8	• Brought the FMP into compliance with new and revised National Standards and other required provisions of the Sustainable Fisheries Act • Added a framework adjustment procedure
2008	Amendment 12	• Standardized bycatch reporting methodology (Omnibus)
2009	Amendment 9	• Allowed multi-year specifications for MSB FMP species • Maintained the moratorium on entry into *Illex* fishery • Revised the biological reference points for *Loligo* • Designated EFH for *Loligo pealeii* eggs • Reduced gear impacts to EFH

2010	Amendment 10	• Will reduce general bycatch to the extent practicable • Will rebuild butterfish stock
2001	Framework 1	• Created a quota set-aside for scientific research
2002	Framework 2	• Extended the moratorium on entry to the *Illex* fishery for an additional year • Established previous year specifications apply if new specifications are not published prior to the start of the fishing year (excluding TALFF) • Allowed for the specification of management measures for *Loligo* for a period of up to three years
2003	Framework 3	• Extended the moratorium on entry to the *Illex* fishery
2004	Framework 4	• Extended the moratorium on entry to *Illex* fishery for an additional five years

The Council is developing Amendments 11, 13, and 14 to the Atlantic Mackerel, Squid and Butterfish FMP. Amendment 11 is being developed primarily to cap capacity in the Atlantic mackerel fishery and is intended to limit additional entry in that fishery. Amendment 13 will implement Annual Catch Limits (ACLs) and Accountability Measures (AMs). Amendment 14 will consider catch shares for the squid fisheries as well as bycatch of river herrings and shads in the MSB fisheries.

Loligo pealei

Biology and Distribution

Loligo are distributed in continental shelf and slope waters of the northwest Atlantic Ocean from Newfoundland, Canada to the Gulf of Venezuela (Summers, 1983; Dawe et al. 1990). However, the stock is most abundant between Cape Cod, MA and Cape Hatteras, NC (Jacobson 2005). *Loligo* undergo seasonal migrations to shallow inshore waters in spring to spawn where they remain until late fall when the species migrates offshore to overwinter along the edge of the continental shelf (Summers, 1969; Serchuk and Rathjen, 1974).

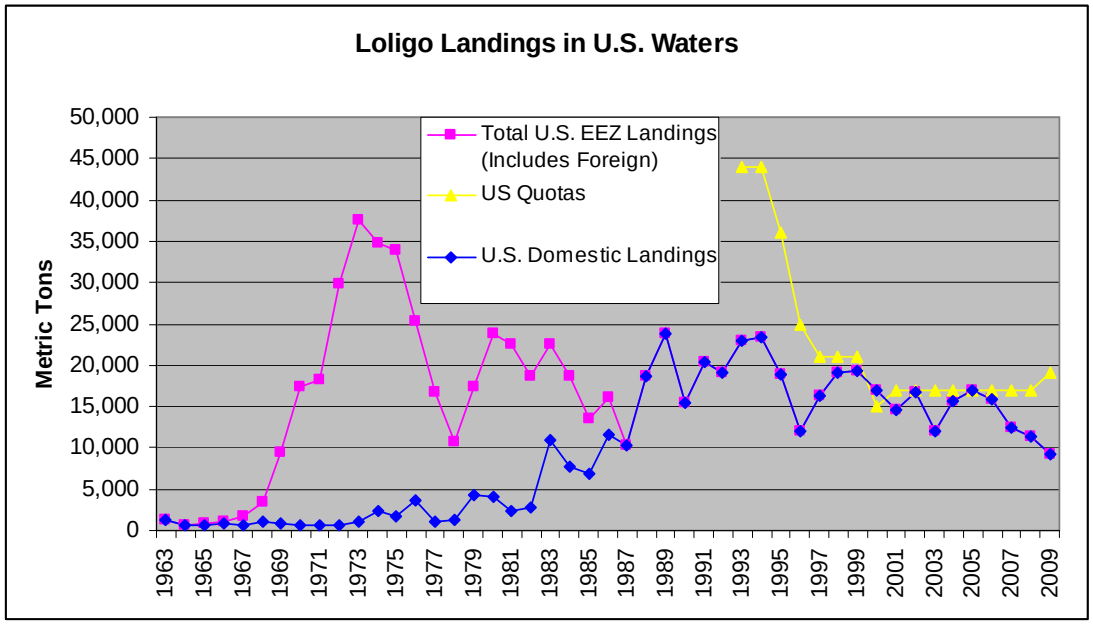
Statolith ageing of *Loligo pealeii* suggests a life span of less than one year (Macy 1992), as now appears typical of most squid species (Jereb *et al.* 1991). Spawning occurs throughout the year, but it is primarily summer-hatched squid that support the winter, offshore fishery and vice versa for the inshore fishery (Brodziak and Macy 1996; Macy and Brodziak 2001).

Description of the Fishery

During 1928-1966, the *Loligo* fishery was solely domestic and occurred seasonally in inshore waters, where landings totaled 1,000-2,000 mt per year (Lange 1980). In 1967, foreign fishing began in offshore U.S. waters by USSR and Japanese vessels. During 1967- 1984, total landings were predominately from the foreign fleets. Total landings peaked at 37,600 mt in 1973 and averaged 34,000 mt for the period 1972-1975 (NEFSC 2002). During 1974-1977, the squid fisheries were managed by ICNAF (now NAFO). An annual TAC of 44,000 mt was established for *L. pealeii* in 1976 (Lange and Sissenwine 1980). Beginning in 1977, the US managed the *Loligo* stock, and in addition to TACs, regulations restricted foreign vessels fishing for squid to certain offshore areas and times ("foreign fishing windows") and a minimum codend mesh size of 60 mm (inside stretched mesh), primarily to reduce spatial conflicts with domestic fixed gear fishermen and minimize bycatch of non-target species. The result of these restrictions was an immediate reduction in the foreign landings of *Loligo* from 21,700 mt in 1976 to 9,400 mt in 1978 (NEFSC 2002). Foreign landings fell below 5,000 mt by 1986, to 2 mt in 1987 and finally to zero in 1990. Total landings have been dominated by the year-round domestic fishery since 1986. Domestic landings peaked at 23,700 mt in 1989. Since 1998 landings have been primarily restricted by annual quotas (1998 was the first year the quota was approached), with one moderate overage in 2000. Total landings have declined from 17,000 mt in 2005 to 9,243 mt in 2009 (Figure 1). In 2009, about half (49%) of the *Loligo* quota of 19,000 mt was harvested (9,243 mt).

Since 2001, the annual quota has been allocated by trimester to ensure that fishing mortality is spread out throughout the year. The annual quota is allocated as 43% in Trimester 1, 17% in Trimester 2, and 40% in Trimester 3. Currently there are roll-overs of underages (Trimester 1 to Trimesters 2 and 3; Trimester 2 to Trimester 3) and overages (Trimesters 1 and 2 to Trimester 3).

Figure 1. *Loligo* landings and annual quotas during 1963-2009[1].



[1] Landings during 1963-1978 were not reported by species, but are proration-based estimates by Lange and Sissenwine (1980). The gap between total and domestic landings is the foreign fishery.

Status of the Stock Relative to Overfishing Definition

Major sources of uncertainty to keep in mind regarding status information and/or reference points:

-Surveys cover unknown portion of entire range (variable availability).
-Poor precision of U.S. discard estimates.
- Using a bottom trawl survey gear for a semi-pelagic species may induce variation in the indices of abundance and obscure the signal
-Erratic survey trends.
-High, and highly variable natural mortality.
-Extremely short life-span (less than 1 year) and unknown but likely high impact of environmental factors on recruitment.
-No biomass reference points as per SARC34 advice (only fishing mortality)

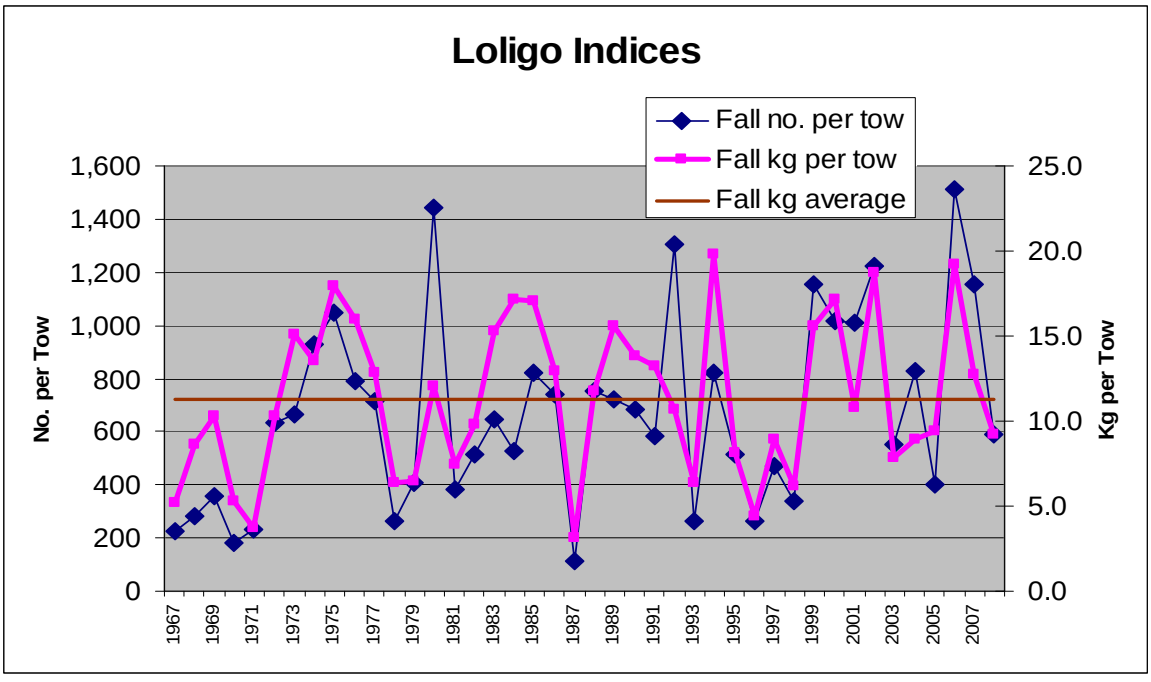
The general overfishing definition for *Loligo* was revised in Amendment 8 to comply with the SFA. Overfishing for *Loligo* is defined to occur when the catch associated with F_{MSY} (or a proxy thereof) is exceeded. F_{target} is defined as 75% of F_{msy} when biomass is greater than B_{msy}, and decreases linearly to zero at 50% of B_{MSY}. Maximum OY is specified as the catch associated with F_{MSY}. The *Loligo* stock was most recently assessed in 2002 by the 34th Northeast Regional Stock Assessment Committee (SARC 34). New analyses of survey data indicated that *Loligo* stock biomass, during 1967-2001, has fluctuated without trend and has supported annual catches around 20,000 mt (NEFSC 2002). Results from a new surplus production model suggested that biomass fluctuated between 14,000 and 27,000 mt during 1987-2000 and quarterly F values fluctuated between 0.06 and 0.6 with a mean of 0.24. Use of the 2001 estimates was not

recommended for management use because they were highly imprecise. Scaled catch-survey estimates of fishing mortality (i.e., fall catch/NEFSC fall survey biomass) were also computed for 1987-2001 and the maximum feasible quarterly F estimates ranged between 0.11 and 0.49 with an average of 0.30.

SARC 34 concluded that it was unlikely that overfishing was occurring in 2001 because the maximum feasible scaled catch-survey estimate of F for 2001 (= 0.17 per quarter) was less than the revised F_{MSY} proxy (= 0.32 per quarter) (NEFSC 2002). Additionally, the quarterly F estimates from the production model (0.14-0.31) were also less than 0.32. SARC 34 also concluded that it was unlikely that the *Loligo* stock was overfished in 2001 because the minimum most likely biomass estimate from the surplus production model, for 2000 (= 78,000 mt) was greater than the annual $B_{threshold}$ of 40,000 mt. SARC 34 recommended that the Council maintain a catch not to exceed about 20,000 mt (including landings and discards of 6%). Relative abundance and biomass indices for NEFSC fall bottom trawl surveys are included below in Figure 2. The 2009 survey indices are not yet available.

Proxies for F_{target} and $F_{threshold}$ were revised in Amendment 9 (MAFMC 2009) to those recommended at SAW 34 (NEFSC 2002). The revised annual F_{target} = 0.96 and $F_{threshold}$ = 1.24. The F_{target} represents the quarterly mean of the scaled catch-survey F estimates during 1987-2001 and the $F_{threshold}$ represents the 75th percentile of the Fs estimated for this time period. Under the current trimester-based quota allocation scheme, each trimester's F_{target} = 0.32 and $F_{threshold}$ = 0.41. The previous B_{MSY} proxy was deemed inappropriate at SARC34 and a revised estimate could not be produced (NEFSC 2002).

Figure 2. *Loligo* relative abundance and biomass indices from NEFSC fall surveys, 1967-2008.



Loligo distribution and relative abundance is influenced by environmental conditions (Dawe *et a*l. 2007) and survey indices are therefore highly variable from year-to-year (Figure 2). Although imprecisely estimated, the catchability (*q*) of *Loligo*, based on data from the NEFSC fall surveys during 1987-2000, was estimated during SARC34 as 0.45. The 2003-2007 average biomass index from the fall surveys is 11.6 kg per tow and is similar to the long-term (1967-2007) median of the fall survey indices (= 11.2 kg per tow). Division of the 2003-2007 average fall survey biomass index by the fall survey estimate of *q* results in an absolute biomass estimate of 25,778 mt. The *Loligo* quota associated with the Amendment 9 F_{target} can be computed by applying the annual F_{target} (= 0.96) to the 2003-2007 average fall survey biomass estimate, resulting in a catch of 24,747 mt, which when discounted by the average annual *Loligo* discard rate of 6% (Cadrin and Hatfield 1999) results in a quota estimate of 23,000 mt. The *Loligo* fleet has the capacity to harvest 23,000 mt and has done so during years when the quota was greater than 23,000 mt in 1989, 1993, and 1994. The revised F threshold value is 1.24 per year, which equates to a Maximum Optimum Yield (Max OY) estimate of 32,000 mt when applied to the 2003-2007 average fall survey biomass estimate.

While application of the Ftarget (mean of the 1987-2001 F estimates, or 0.96, to account for scientific uncertainty according to the current FMP) would indicate a quota of 23,000 mt, given the additional advice from SARC34, to keep total removals (including discards) to 20,000 mt, the SSC recommended and the Council adopted an ABC of 19,000 mt for the 2010 fishing year.

The status quo ABC would be 19,000 mt. This was based on a SARC 34 recommendation to keep total catch below 20,000 mt and used available information on discards (6%) to specify landings. Given that ABC should include total catch, if the SSC decides status quo is appropriate, it may make sense to specify a 20,000 mt ABC, and then the Council will account for discards in the specification setting process. Functionally, this would be would be a status-quo quota, simply correcting for the fact that discards were already removed from the ABC last year. Staff notes that landings have been substantially below the quotas established for 2007-2009.

OFL: 32,000 (Fmax)

ABC Options:

1. **24,747 MT (Ftarget - 75% Fmsy)**
2. **20,000 MT (SARC 34 Recommendation)**
3. **19,000 MT (Status Quo)**

Table 2. Summary of recent specifications and landings (mt) for *Loligo*[2].

	2007	2008	2009	2010
Max OY	26,000	26,000	32,000	32,000
ABC	17,000	17,000	19,000	19,000
IOY	17,000	17,000	19,000	19,000
DAH	17,000	17,000	19,000	19,000
DAP	17,000	17,000	19,000	19,000
JVP	0	0	0	0
TALFF	0	0	0	0
Landings (mt)	12,343	11,409	9,243	NA

[2] If quota set-aside research projects are approved, up to 3% of the quota (DAH) may be set-aside for scientific research.

Illex illecebrosus

Biology and Distribution

The northern shortfin squid, *Illex illecebrosus*, inhabits the shelf and slope waters of the Northwest Atlantic Ocean and is distributed from Newfoundland, Canada to Florida, USA. The *Illex illecebrosus* population is assumed to constitute a unit stock throughout its range of exploitation from Cape Hatteras to Newfoundland (Dawe and Hendrickson 1998; Hendrickson and Holmes 2004). Species distribution and abundance are strongly influenced by oceanographic factors (Dawe and Warren 1993; Dawe *et al*. 2007). The species migrates onto the USA shelf during spring (Hendrickson 2004) and in shore Newfoundland waters during summer. In late fall, the species migrates south and into offshore slope waters.

The species is semelparous and spawning occurs throughout the year (Dawe and Beck 1997; Hendrickson 2004) resulting in overlapping microcohorts. The winter cohort spawns in the Mid-Atlantic Bight during late May (Hendrickson 2004) and sexually mature females collected from the landings indicate that spawning occurs on the US fishing grounds (Hendrickson and Hart 2006). Spawning may also occur offshore in the Gulf Stream/Slope Water frontal zone, where *Illex* sp. paralarvae have been collected and south of Cape Hatteras, during winter, where *Illex* sp. hatchlings have been collected (Hendrickson and Holmes 2004).

The age and growth of *Illex* has been well-studied relative to other squid species, being one of the few for which increments deposited in the statoliths have been validated as daily growth rings (Dawe *et al.* 1985; Hurley *et al*. 1985). Counts of daily statolith growth increments indicate a subannual lifespan (Dawe *et al.* 1985). The lifespan of the winter cohort in U.S. waters ranges from 115 to 215 days (Hendrickson 2004).

Description of the Fishery

Because the geographical range of the stock extends well beyond the US EEZ, the northern stock component has historically been subject to heavy exploitation in waters outside of US jurisdiction. Total landings (i.e., northern stock component in NAFO Subareas 3+4 plus southern stock component in Subareas 5 and 6 in USA waters) increased rapidly during the 1970s, from 1,600 mt in 1969 to a peak of 179,300 mt in 1979 (Figure 4a), and were mostly from the northern stock component (Hendrickson and Showell 2006). After reaching a peak of 162,100 mt in 1979, landings from the northern stock component (Subareas 3+4) declined rapidly to 400 mt in 1983. During 1998-2005, landings from Subareas 3+4 remained at low levels, ranging between 60 mt and 2,300 mt (Hendrickson and Showell 2006). Since 1982, landings from the U.S. domestic fishery have comprised the majority of the total stock landings.

During 1968-1982, U.S. EEZ landings of *I. illecebrosus* were taken primarily by foreign fleets and reached a peak of 24,900 mt in 1976 (NEFSC 2006). During 1973-1982, foreign landings of *Illex* in US waters averaged about 18,000 mt, while US fisherman averaged only slightly more than 1,100 mt per year (Figure 4b). Foreign fishing for *Illex* in US waters has been prohibited since 1987, and since 1982, U.S. EEZ landings have been predominantly from the domestic fleet. U.S. landings increased from 2,000 mt in 1988 to 18,400 mt in 1994. Landings of 23,600 mt in

1998 resulted in a fishery closure because the TAC (19,000 mt) was exceeded. After 1998, landings declined to 2,700 mt in 2002. In 2004, landings increased to a record high of 26,100 mt, leading to a second fishery closure because the quota (24,000 mt) was reached (reporting problems led to an overage once data was verified). During 2005-2009, landings ranged between 9,000 mt and 18,400 mt. Analyses presented in Amendment 9 determined that the moratorium *Illex* vessels as a whole have more than enough capacity to harvest current quota levels (MAFMC 2009).

In 2009, about 77% (18,419 mt) of the *Illex* quota (24,000 mt) was harvested. *Illex* fishing is reported by the fishing industry to be heavily influenced by availability and international *Illex* prices. In years when *Illex* fleets in other parts of the world (Falklands) have lower catches, prices rise and this stimulates additional U.S. fleet effort if the U.S. *Illex* are available (e.g., 2004). If high prices coincide with high availability, landings are relatively higher, and relatively lower otherwise.

Observer data for 2003-2007 indicate that discarding of *Illex* occurs primarily in the *Illex* and offshore *Loligo* fisheries and is higher in the latter (NEFSC 2006). Directed *Illex* trips (i.e., trips with ≥ 50% *Illex* landings by weight) discarded 1% of the *Illex* they caught and directed *Loligo* trips discarded 90% of the *Illex* they caught.

Figure 3. NAFO Convention Areas.

Figure 4a. *Illex* Commercial Landings.

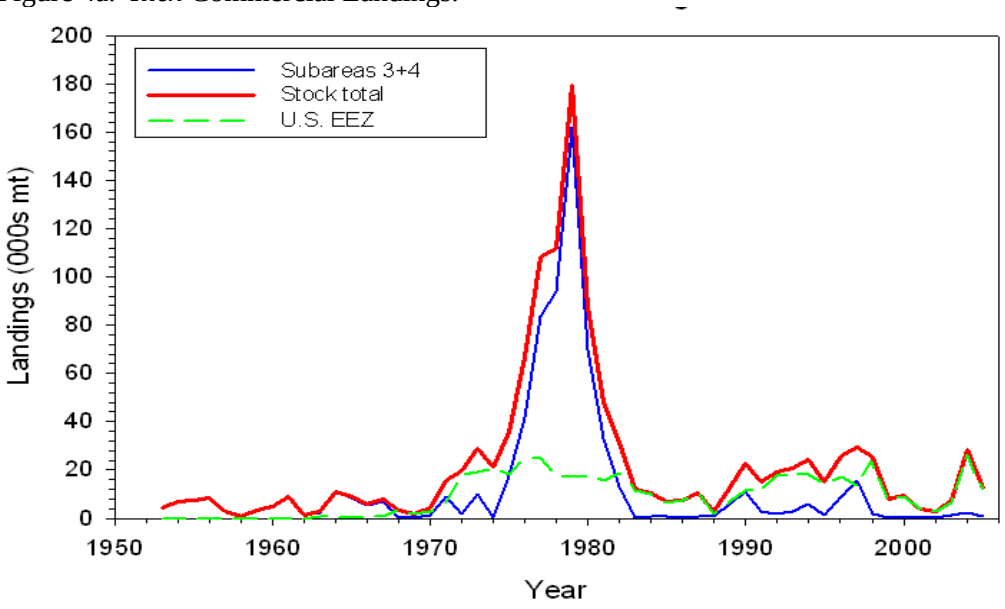
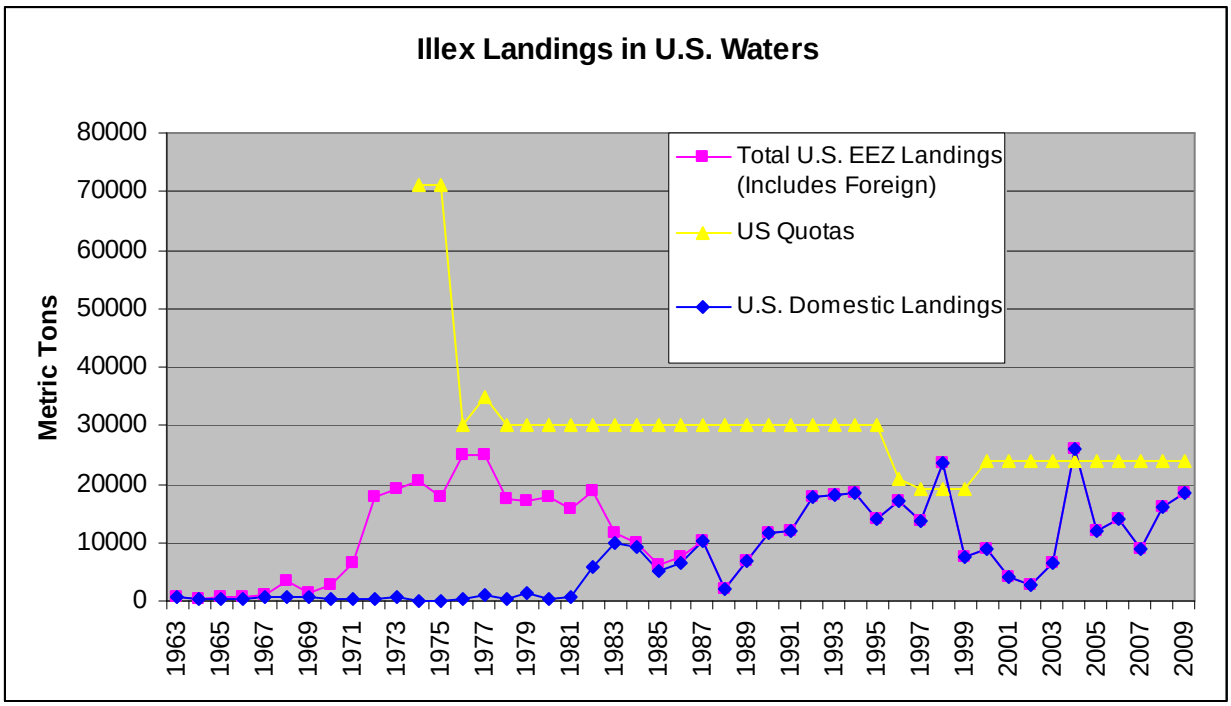


Figure 4b. *Illex* Landings 1963-2008 U.S. waters.



Status of the Stock Relative to Overfishing Definition

Major sources of uncertainty to keep in mind regarding status information and/or reference points:

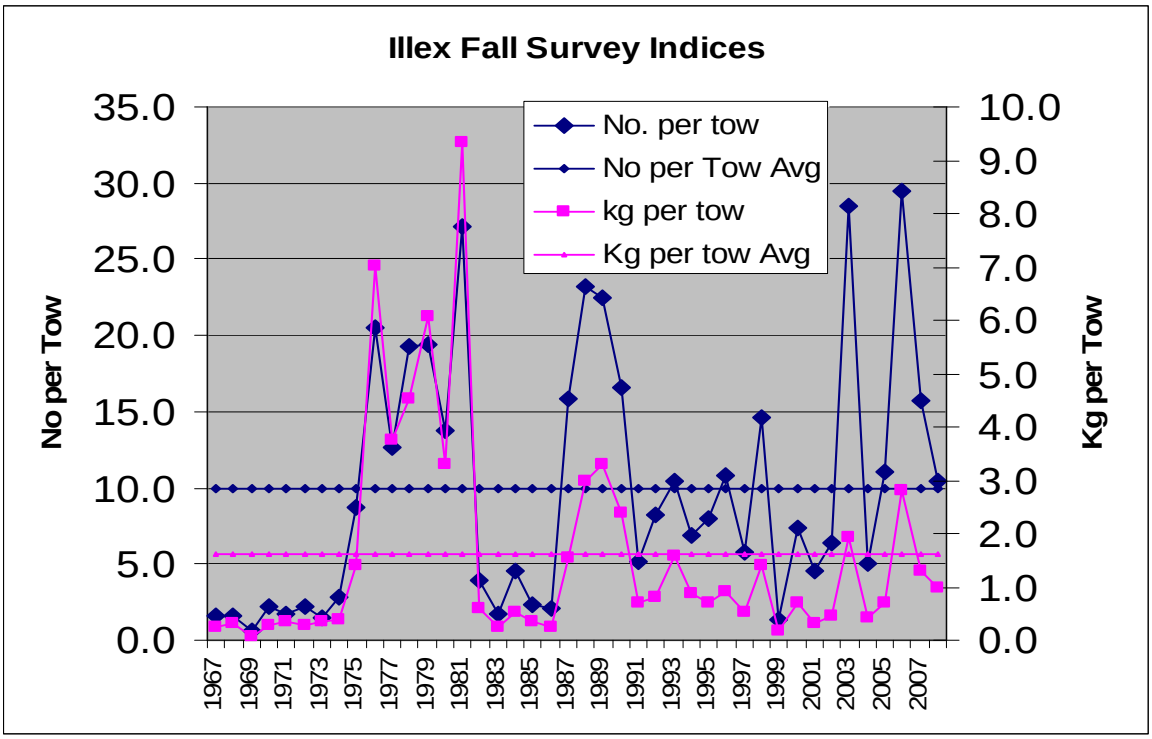
-Surveys cover small portion of entire range (variable availability).
-Poor precision of U.S. discard estimates.
- Using a bottom trawl survey gear for a semi-pelagic species may induce variation in the indices of abundance and obscure the signal
-No reliable research survey indices for *Illex*
-LPUEs sensitive to availability
-High, and highly variable natural mortality.
-Extremely short life-span (less than 1 year) and unknown but likely high impact of environmental factors on recruitment.
-Current reference points are from 1996 (SAW-21)
-No direct estimates of F and B available from last assessment

The overfishing definition for *Illex* was revised in Amendment 8 to comply with the SFA as follows: overfishing for *Illex* will be defined to occur when the catch associated with a threshold fishing mortality rate of F_{MSY} is exceeded. Annual quotas will correspond to a target fishing mortality rate of 75% of F_{MSY}. Maximum OY will be specified as the catch associated with a fishing mortality rate of F_{MSY}. In addition, the biomass target is specified to equal B_{MSY}. The minimum biomass threshold is specified as ½ B_{MSY}. The current reference point estimates are based on the results of a biomass dynamics model that incorporated data from 1982 to 1993 (Fmsy = 1.23, Yield = 24,000 mt) (SAW 21 - NEFSC 1996).

At the most recent stock assessment, in 2005, an in-season assessment and weekly per-recruit models were considered preliminary due to the lack of important seasonal maturity and age data for one of the two primary cohorts. As a result, the 2004 estimates of stock biomass and fishing mortality rate as well as revised biological reference points were considered unreliable (NEFSC 2006). In addition, both the SAW42 and SAW37 advisory reports noted that the current reference points do not account for the semelparous life history of the species, and that rather than yield, reference points should be designed to provide for adequate spawner escapement in order to prevent recruitment overfishing.

Illex is a subannual species and stock size projections beyond the terminal year of the assessment have not been possible. However, the NEFSC autumn bottom trawl survey occurs primarily after the U.S. *Illex* fishery is over, and therefore, could be considered to provide a relative index of spawner escapement (NEFSC 2006). The fall survey indices are highly variable depending on environmental conditions (Figure 5). Relative abundance and biomass indices from the 2009 fall survey are not yet available.

Figure 5. *Illex* relative abundance and biomass indices from NEFSC Fall surveys during 1967-2008.



The Council and SSC have previously recommended that the specification of MAX OY and ABC be specified at 24,000 mt (yield associated with F_{msy}). This value comes from SAW21 (NEFSC 1996). As noted above, assessments since SAW21 have not produced usable reference points. Under this management approach (the status quo), the directed fishery for *Illex* closes when 95% of ABC is taken (22,800 mt) and a 10,000 pound trip limit will remain in effect for the remainder of the fishing year. This value of 22,800 mt is also the yield at 75% Fmsy, and since minimal landings are expected after the fishery closes, the assumption has been that closing at 95% of MSY would be the equivalent of utilizing a 75% Fmsy target. Essentially the management measures were set so that the final harvest would likely be at or below the 75% F target that is currently designed to account for scientific uncertainty. This implicitly assumes near zero management uncertainty.

Some explanation of the derivation of the current reference points may be helpful. The value of 24,000 mt is the point estimate of long-term potential yield from SAW21, which was actually 24,272 mt and was derived from application of the monthly threshold fishing mortality rate ($F_{20\%}$ = 0.28), which equates to an annual rate of 1.23. This is further described on pages 51-52 of the SAW21 consensus summary report (NEFSC 1996). The value of 21,325 mt in the SAW21 advisory report also described as long-term potential yield comes from the SAW21 median from bootstrap estimates. Per the FMP, MSY has been specified as 24,000 mt, the point estimate. While the "targets" described in SAW21 are based on $F_{50\%}$, the FMP uses a target yield as calculated by applying 75% of Fmsy (point estimate = 0.92) as recommended by the 1998 Overfishing Definition Review Panel (Applegate *et al*. 1998). This calculation results in the 22,800 mt value noted in the preceding paragraph.

Last year the SSC noted that they were uncomfortable with the *Illex* ABC recommendation. Essentially the Council had been using an assumption of zero management uncertainty in conjunction with the 95% closure threshhold to implicitly address scientific uncertainty. While preliminary discussions with NERO quota monitoring staff suggest this was not unreasonable, it may be more consistent procedurally for the SSC to specify an ABC that accounts explicitly for scientific uncertainty and then let the Council explicitly account for management uncertainty (with recommendations from the Monitoring Committee). The 24,000 mt quota resulted from the SAW 21 biomass dynamics model calculation of Bmsy associated with an annual Fmsy = 1.23. Under the current FMP's method of accounting for scientific uncertainty (75% of Fmsy) the target F equals 0.92 with an associated annual equilibrium yield of 22,800.

OFL: 24,000 (Fmsy SAW-21)

ABC Options:

1. **24,000 MT (Status Quo)**
2. **22,800 MT (Ftarget - 75% Fmsy)**

Table 3. Summary of recent specifications and landings for *Illex* (mt).

	2007	2008	2009	2010
Max OY	24,000	24,000	24,000	24,000
ABC	24,000	24,000	24,000	24,000
IOY	24,000	24,000	24,000	24,000
DAH	24,000	24,000	24,000	24,000
DAP	24,000	24,000	24,000	24,000
JVP	0	0	0	0
TALFF	0	0	0	0
Landings (mt)	9,022	15,901	18,419	NA

Atlantic mackerel

Biology and Distribution

Atlantic mackerel, *Scomber scombrus*, in the Northwest Atlantic are distributed from Labrador to North Carolina. Sette (1950) first hypothesized the existence of two spawning components, a southern group which spawns primarily in the Mid-Atlantic Bight during April-May and a northern group which spawns in the Gulf of St. Lawrence in early summer. Even though there appears to be two spawning groups, both groups overwinter and are subject to fishing in the same vicinity (shelf waters south of Georges Bank). As a result, Atlantic mackerel in the Northwest Atlantic have been considered a unit stock since 1975 (Anderson 1982).

All Atlantic mackerel are sexually mature by age 3, while about 50% of the age 2 fish are mature. Eggs are buoyant and incubate for about one week. Growth is very rapid with fish reaching 20 cm (7.9 in) by their first autumn (Anderson and Paciorkowski 1978). The maximum age observed is 17 years (Pentilla and Anderson 1976).

Description of the Fishery

Commercial Fishery

Significant Mackerel landings commenced in 1967 with foreign fishing in U.S. waters, peaking at 385,000 mt in 1972. The Magnuson Act of 1976 established control of the portion of the Atlantic mackerel fishery occurring in US waters (NAFO Subareas 5-6) under the auspices of the MAFMC. Reported foreign landings in US waters declined to less than 400 mt from 1978-1980 under Magnuson (the foreign Atlantic mackerel fishery was restricted by NOAA Foreign Fishing regulations to certain areas or "windows"). Foreign Atlantic mackerel catches were permitted to increase gradually to 15,000 mt in 1984 and then to a peak of almost 43,000 mt in 1988. US management policy combined with political and economic changes in Eastern Europe resulted in a decline in foreign landings to 0 by 1992. Landings of U.S. waters Atlantic mackerel 1960-2009 are graphed below in Figure 6a. U.S Commercial and Total landings nearly merge in 1992 when foreign fishing was eliminated (recreational catches have been relatively low). In 2009, ~21% of the U.S. IOY was harvested (23,846 mt). Preliminary 2010 landings suggest total 2010 landings may be around 10,000 mt. Canadian landings are also significant and averaged 43,000 mt 2006-2009 (see Figure 6b and/or Table 4).

Recreational Fishery

The Atlantic mackerel is seasonally important to the recreational fisheries of the Mid-Atlantic and New England regions. They can be available to recreational anglers in the Mid-Atlantic primarily during the spring migration. As a result, the annual recreational catch of Atlantic mackerel appears to be sensitive to changes in their migration and subsequent distribution pattern (Overholtz *et al.* 1989). Over the last 10 years, recreational Atlantic mackerel landings have varied from roughly 530 mt in 2004 to 1,633 in 2006. 2009 catch data is not yet finalized (wave 5 estimates are pending) but should be about 715 mt. Highest catches occur from New Jersey to Massachusetts.

Figure 6a. Atlantic Mackerel Landings 1960-2009 in U.S. waters (No Canadian Landings)

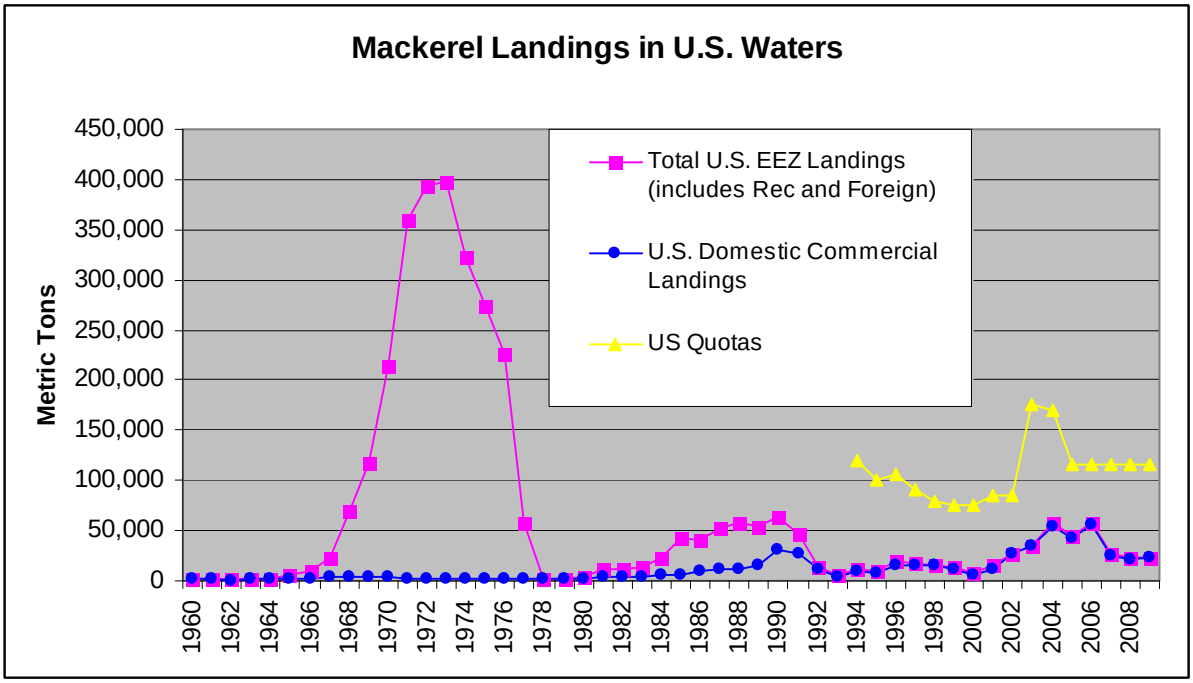
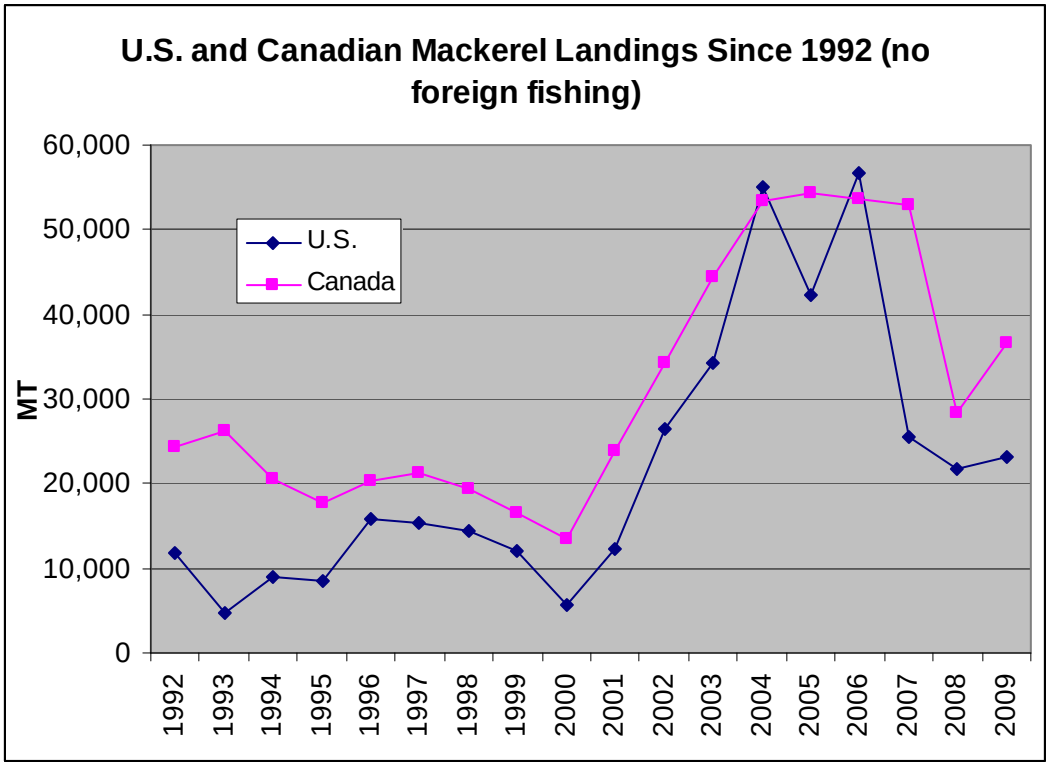


Figure 6b. U.S. and Canadian Commercial Landings Since 1992.



Status of the Stock Relative to Overfishing Definition

Major sources of uncertainty to keep in mind regarding status information and/or reference points:

-Surveys cover unknown portion of entire range (variable availability).
-No Canadian discard information, poor precision of U.S. discard and recreational estimates.
- Using a bottom trawl survey gear for a semi-pelagic species may induce variation in the indices of abundance and obscure the signal
-Apparent but not fully explainable changes in survey catchability.

The mackerel stock was assessed via a Transboundary Resource Assessment Committee (TRAC) in early 2010, which was the first official joint assessment of Atlantic mackerel by the U.S. and Canada. Given the uncertainty in the assessment results, the TRAC agreed that characterization of stock status relative to model output reference points would not be appropriate at this time. Given current indications of reduced productivity and lack of older fish in the survey and catch, the TRAC recommended that annual total catches not exceed the average total landings (80,000 mt) over the last three years (2006-2008) until such time that new information suggests that a different amount is appropriate (2010 Atlantic Mackerel TRAC Summary Report). Survey index trends are plotted in Figures 7a-c. Updates for 2009 are not yet available.

Figure 7a. NEFSC Spring Survey Atlantic Mackerel Index All Ages

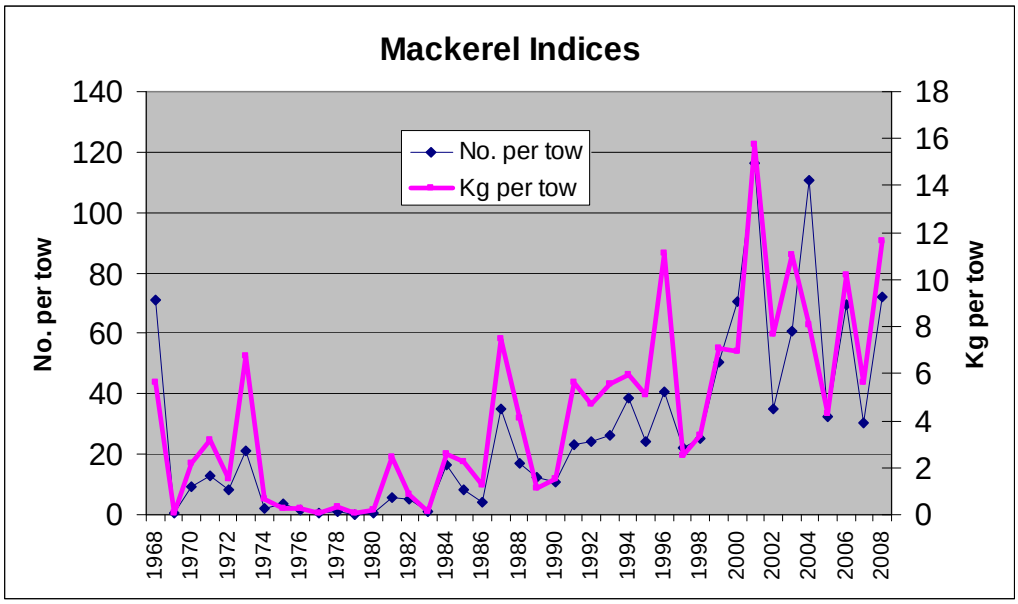


Figure 7b. NEFSC Spring Survey Atlantic Mackerel Index Age 1-4s

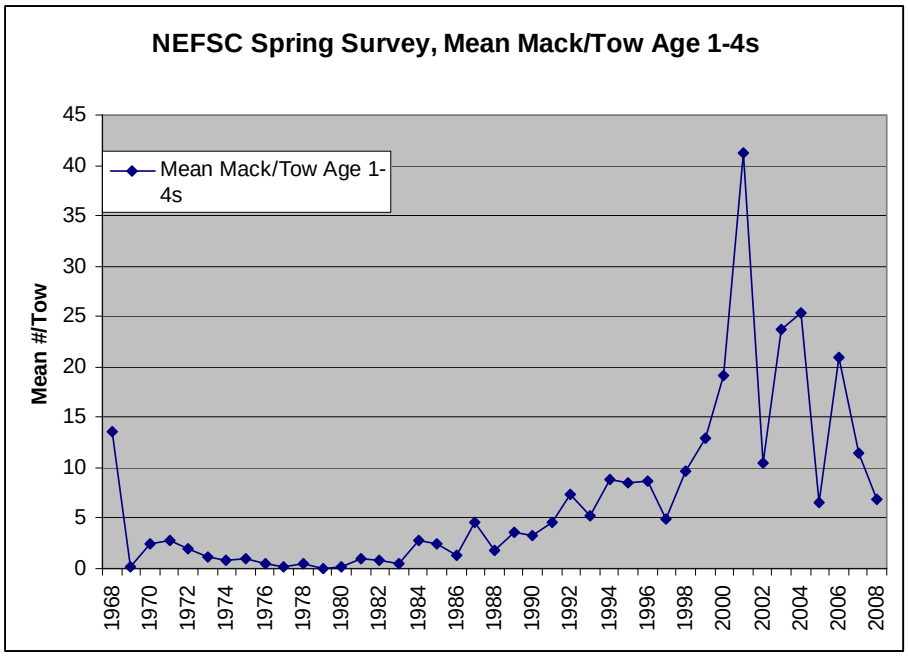
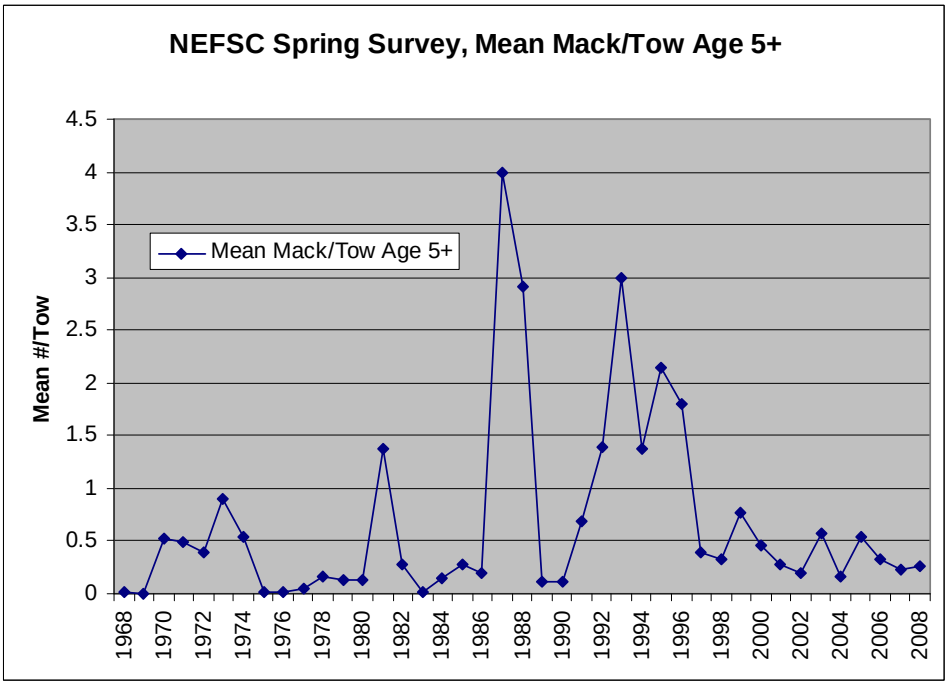


Figure 7c. NEFSC Spring Survey Atlantic Mackerel Index Ages 5+



The 80,000 MT TRAC recommendation from the TRAC was based on the 2006-2008 total U.S. + Canadian average landings. This could potentially form the basis of an OFL specification. The 2006-2009 four year average is 75,711 MT and the 2007-2009 three year average is 63,567 MT. The TRAC chose the years 2006-2008 primarily because the TRAC did not want to go too far back where the average would be significantly higher and therefore potentially less representative of the productivity of the stock in recent years.

OFL = Yield at Fmsy (from FMP)

Previous reference points from SARC 42 were rejected by recent Atlantic mackerel TRAC. This will require the SSC to adopt proxies for the OFL as well as ABC since ABC has been determined by OFL.

The TRAC said: "Given current indications of reduced productivity and lack of older fish in the survey and catch, it is recommended that annual total catches not exceed the average total landings (80,000 mt) over the last three years (2006-2008) until such time that new information suggests that a different amount is appropriate."

If one interprets this to mean they have already considered scientific uncertainty then the 80,000 would equate to an ABC. Another interpretation would be that 80,000 should be an OFL and the ABC should be some fraction thereof to account for scientific uncertainty.

OFL Options:

80,000 MT (TRAC recommendation - 06-08 annual average)
Something higher than 80,000 MT??

ABC Options:

1. 211,000 MT (Status quo US 156,000 = 211,000-55,000 for Canada)
2. 80,000 MT (TRAC recommendation - 06-08 annual average landings)
3. 75,711 MT (2006-2009 annual average landings)
4. 63,567 MT (2007-2009 annual average landings)

Table 4. Summary of specifications and landings for Atlantic Mackerel (mt).

	2006	2007	2008	2009	2010
ABC[1]	335,000	186,000	156,000	156,000	156,000
IOY	115,000	115,000	115,000	115,000	115,000
DAH[2]	115,000	115,000	115,000	115,000	115,000
DAP	100,000	100,000	100,000	100,000	100,000
JVP	0	0	0	0	0
TALFF	0	0	0	0	0
US Commercial	56,860	25,547	21,748	23,131	NA
US Recreational	1,634	884	691	715	NA
Total US	58,494	26,431	22,439	23,846	NA
Canadian	53,649	53,016	28,245	36,723	NA
Grand Total	112,144	79,447	50,684	60,569	NA

[1] ABC = F_{target} - estimated Canadian landings. [2] Includes recreational allocation of 15,000 mt.

Atlantic Butterfish

Biology and Distribution

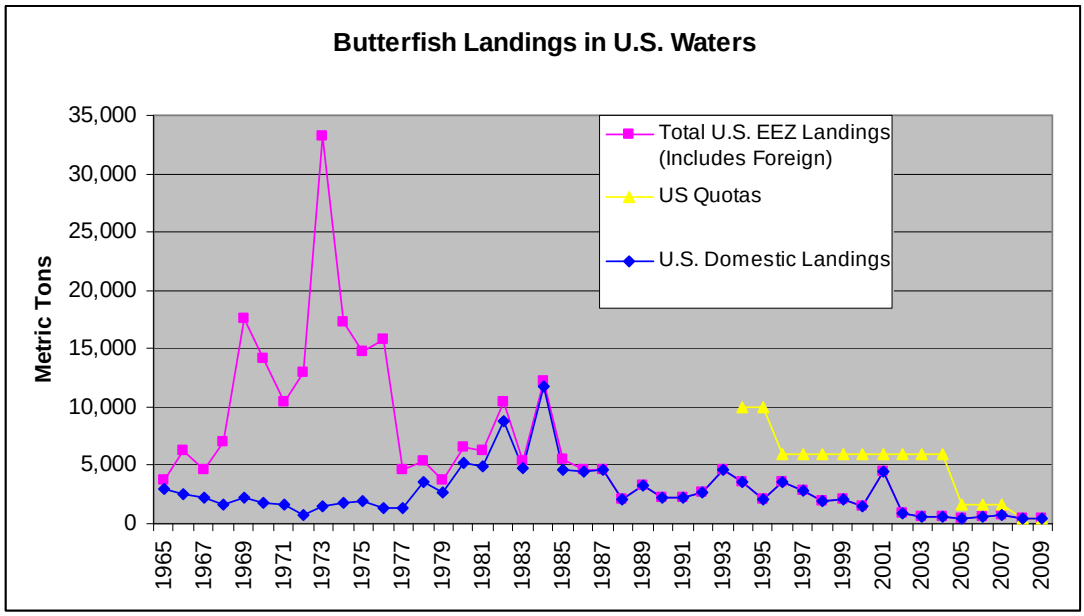
Atlantic butterfish, *Peprilus triacanthus*, are distributed along the Atlantic coast of North America from Newfoundland to Florida and are found in commercially exploitable concentrations from Southern New England south to Cape Hatteras. During the winter months, butterfish are found in deep waters (ca. 200 m) along the edge of the continental shelf. During late spring and summer, butterfish move inshore and northward.

Butterfish are partially recruited to the spawning stock by the end of their first year, and essentially all individuals are mature by age two (Hildebrand and Schroeder 1928; Murawski *et al*. 1978). Spawning occurs from May-July in near-shore coastal waters, with chief egg production in June. Growth of butterfish is rapid with a maximum size of 30 cm being achieved in six years, however few fish are observed which are greater than 20 cm or three years of age (Bigelow and Schroeder 1953, Hildebrand and Schroeder 1928, Murawski *et al*. 1978, Murawski and Waring 1977).

Description of the Fishery

Beginning in 1963, foreign vessels began to exploit butterfish along the edge of the continental shelf during the winter. With extended jurisdiction in US waters, foreign landings declined sharply from 10,353 mt in 1976 to 1,326 mt in 1978. Total landings and U.S. commercial landings merge in 1987 as foreign landings were phased out by 1987. Domestic landings declined from 1994 until a moderate uptick in 2001. Landings declined 2001-2007 to very low levels. Trip limit and mesh requirement limits imposed in 2008 make reestablishment of a directed fishery unlikely. In 2009, ~87% of the Butterfish landings quota was harvested (434 mt). The fishery closed in November when 80% of the quota was expected to be reached. The low post-closure incidental trip limits performed as expected, effectively keeping landings below the 500mt quota. While very imprecise (CV's averaged .74 and ranged from .21 to 1.68), SAW/SARC 49 estimated that 1999-2008, 29% of butterfish caught has been landed and 71% has been discarded.

Figure 8. Butterfish Landings 1965-2009.



Status of the Stock Relative to Overfishing Definition

Major sources of uncertainty to keep in mind regarding status information and/or reference points:

-Surveys cover unknown portion of entire range especially for spring survey.
-Poor precision of U.S. discard estimates.
- Using a bottom trawl survey gear for a semi-pelagic species may induce variation in the indices of abundance and obscure the signal
-Divergent fall and spring survey trends.
-High, and highly variable natural mortality.
-Short life-span and unknown but likely high impact of environmental factors on recruitment.

In 2009 the 49th SAW/SARC reviewed butterfish assessment models. Ultimately, the SARC review panel accepted the biomass and F estimates from the new assessment only from the perspective that they seem to reflect the appropriate trends. Biomass and fishing mortality appear to have declined over most of the time-series and fishing mortality is very low in recent years (consistent with the lack of a directed fishery). The review panel recommended that actual point estimates of biomass and F (summarized below) be interpreted with caution.

From the final model evaluated by SARC 49, the median equilibrium yield at F40% (the most conservative candidate reference point, =0.52) was 29,166 mt and the median equilibrium spawning biomass was 34,191 mt. The estimate of 2008 spawning biomass was 45,000 mt so in 2008 according to the model we were above the median equilibrium spawning biomass associated with F40%. However, the trend information that the SARC focused on and found most believable was a long term decreasing trend, with recent biomass estimates among the

lowest in the time series (see figure 10). NEFSC indices for fall and spring surveys are included below in Figures 9a and 9b respectively. Only the Fall survey was used in the assessment because the SAW concluded that the fall survey provided good coverage of the butterfish stock compared to the spring survey, which might be sampling a relatively small portion of the butterfish stock and would therefore be more susceptible to signaling changes in distribution rather than signaling changes in overall abundance. 2009 updates are not yet available.

Figure 9a NEFSC fall trawl aggregate survey indices (#/tow and kg/tow) for butterfish, 1975-2008

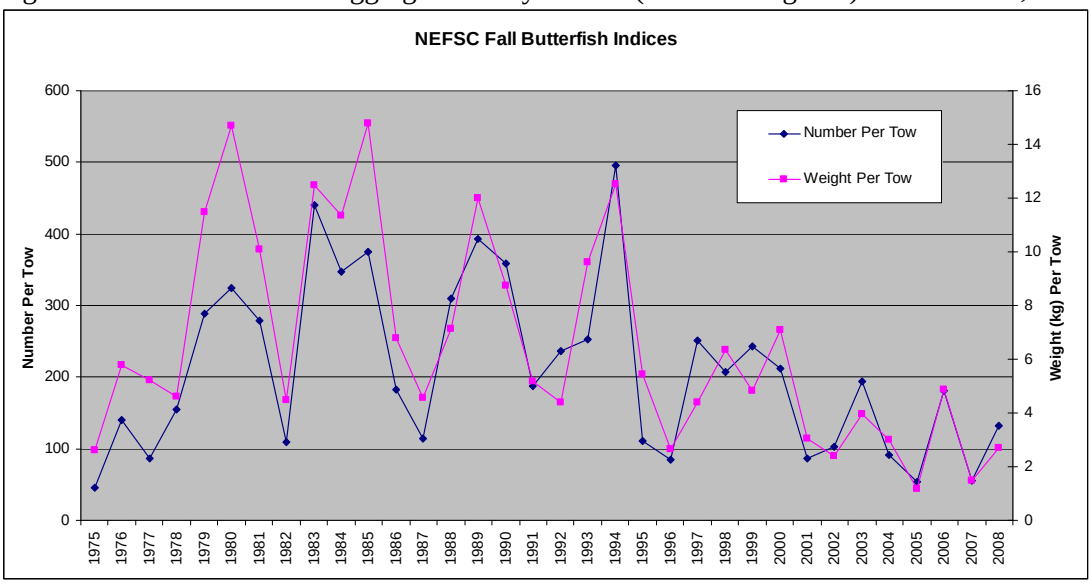


Figure 9b. NEFSC spring trawl aggregate survey indices (#/tow and kg/tow) for butterfish, 1968-2008

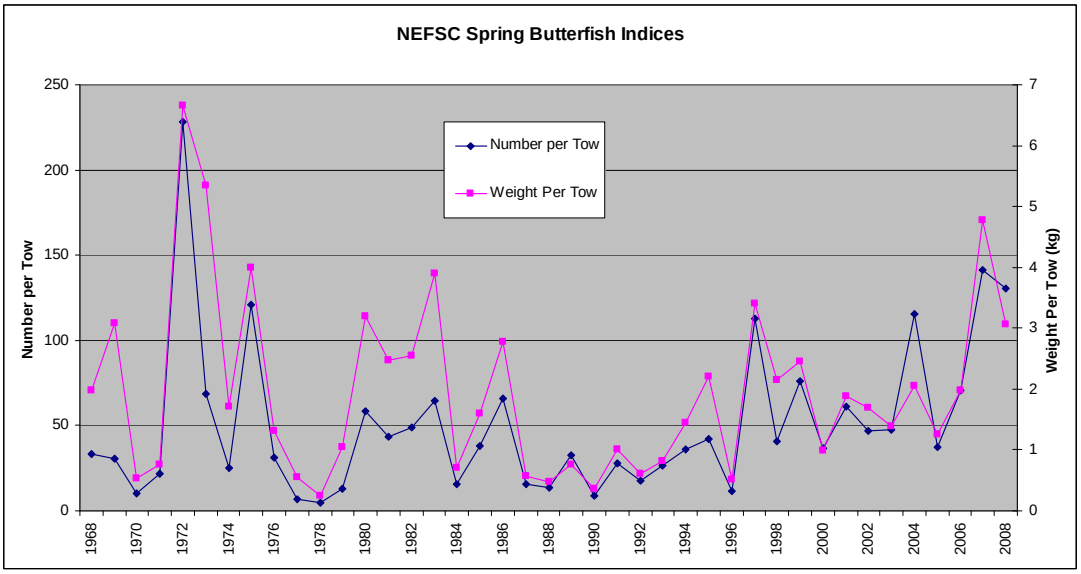
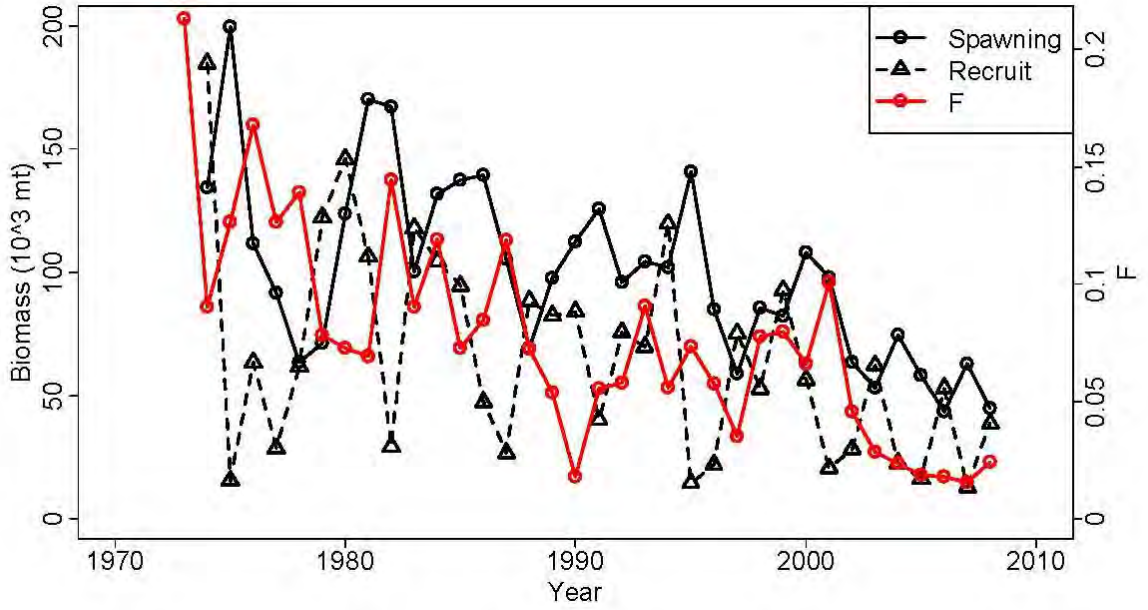


Figure 10. Trends in Butterfish recruitment and Biomass. SAW/SARC 49.



The FMP specifies that Maximum OY shall be specified as the catch associated with F_{msy} and that the target is the catch associated with 75% Fmsy. However, the SARC did not accept the adequacy of the redefined BRPs or the BRPs used for stock status determination in the 2004 butterfish assessment. Staff examined the SARC comments and concluded that two points especially might be useful for specifying an ABC: 1) trend information from the new assessment is informative and 2) the fall survey provides the most believable indication of butterfish abundance. Related to these two points, the following observations may be useful:

1) Based on the final model, F=0.1 with 1999-2008 average recruitment (short term average used because recent productivity has been consistently low) would be projected to lead to no trend in biomass (SSB would stay at 45,000 MT). The yield associated with this (6000mt), or some portion thereof, could serve as a proxy OFL specification.

2) Staff attempted to examine both how the fall survey numbers used in the assessment changed over time and the intervening catches. Given the fall survey takes place over a few months and given the discard estimates are only available by calendar year, one can not exactly parse out the catches that occur between fall surveys. However, since the fall survey takes place toward the end of the year, considering 2008 catch as the intervening catch between the 2007 fall survey and the 2008 fall survey may be a reasonable proxy. Examining such trends since 1996 (when catches have occurred in the current low-recruitment regime) revealed that years when the fall survey number of fish per tow increased were associated with an average catch of 3953 MT. Years when the fall survey went down were associated with an average catch of 4911 MT. 3953 MT or some portion thereof could serve as an ABC specification. Based on the most recent years' discard estimates, a 3953 MT ABC might not be binding upon the *Loligo* fishery.

However, once a good recruitment event occurs, such an ABC could likely be binding and would help conserve that successful recruitment. Staff drew up a list of 9 possible ABC candidates - see below. The general goal that informed development of these ABCs was to determine an ABC that is relatively likely to facilitate a positive trend in the butterfish stock given likely environmental conditions, without causing unnecessary adverse economic impacts to the fisheries. Staff notes that given current restrictions on landings, most landings are likely retention of incidental catch - lowering the landings quota will likely lead to increased discarding. Due to the uncertainty regarding both the butterfish stock size and how it might respond to fishing pressure, there is a very wide range of possible ABCs (green highlights).

#1: Use information from most conservative (lowest yield, highest equilibrium SSB) candidate reference point from assessment: F40%:

"…the review panel did not accept the adequacy of the redefined BRPs or the BRPs used for stock status determination in the 2004 butterfish assessment…The review panel recommended that actual point estimates of biomass and F be interpreted with caution…"

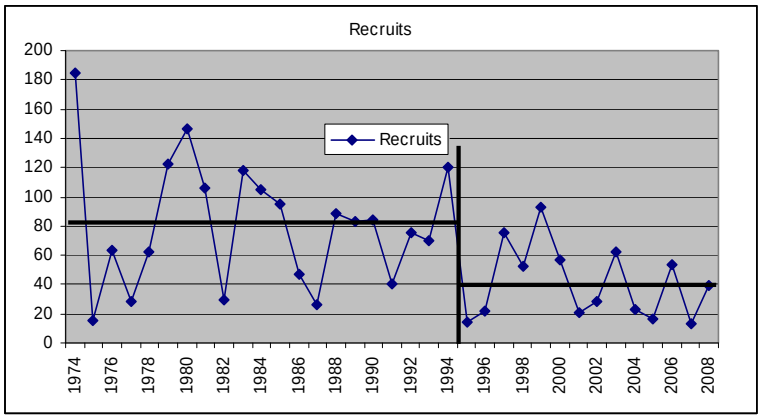
Median equilibrium yield at F40%=0.52 was 29,166 mt and the median equilibrium spawning biomass was 34,191 mt. The estimate of 2008 spawning biomass was 45,000 mt so in 2008 according to the model we were above the median equilibrium spawning biomass associated with F40% and expected to increase given continued low mortality. 75% of 0.52 = 0.39. An F of 0.39 applied to the 45,000 mt stock would produce a yield of about 25,000 mt.

#2: Use long term average catch: 9,700 MT (1974-2008)

#3: Use the equilibrium yield from a projection (long term average recruitment) based on F=0.1. This would be 9,500 MT. Equilibrium SSB at F=0.1 is about 73,000 MT (i.e. with long term average recruitment you'd expect stock size to go up from where it is now).

#4: Use the equilibrium yield from a projection (short term average recruitment 1999-2008) based on F=0.1. This would be about 6,000 MT. Equilibrium SSB at F=0.1 is about 45,000 MT (lower than #3 because lower avg. recruitment). Appears that at F=0.1 you would not expect significant change of stock compared to 2008 estimate from assessment even with recent low average recruitment.

#5: Use average catch from a more recent time period. It seems like it would make more sense to use a time period that appears to reflect the current state of nature (which is leading to low recruitments). It might make sense to use 1994/1995 as a split for different states of nature because 1995 was really when we started getting a long series of low recruitments. Also, there's not much trend within the two time periods and the average of the earlier time period is just about double the average since 1995. But don't use catches until 1996 because the 1995 catch was likely relatively high because it had the help of the still-strong 1994 recruitment. Average catch 1996-2008 was 4,445 MT.



Recruits from SAW/SARC 49. Y-axis is Recruits, 1000s of MT.

#6: Use trends in Fall survey numbers (from SAW/SARC 49) from 1996 on - what kind of catches are associated with a higher or lower index number the next year in this apparently lower recruitment regime? For example, one would have the 1997 fall survey toward the end of the year, then most of the 1998 catch, then the 1998 fall survey. Current discard estimates are annual so one can't break catch down beyond a calendar year. The fall survey takes place on several cruises spanning September through Mid November so there is overlap but there is no apparent way to eliminate this issue.

When did Fall #s go down?
1997-1998 (most affected by 1998 catch)
1999-2000 (most affected by 2000 catch)
2000-2001 (most affected by 2001 catch)
2003-2004 (most affected by 2004 catch)
2004-2005 (most affected by 2005 catch)
2006-2007 (most affected by 2007 catch)

When did Fall #s go up?
1996-1997 (most affected by 1997 catch)
1998-1999 (most affected by 1999 catch)
2001-2002 (most affected by 2002 catch)
2002-2003 (most affected by 2003 catch)
2005-2006 (most affected by 2006 catch)
2007-2008 (most affected by 2008 catch)

Catch when Index #s went up…	Catch when Index #s went down…
3953 MT	4911 MT

#7: 2008 catch: 1629 MT

#8: Status Quo: 1500 MT

#9: Recent (2004-2008) 5-year average of catches: 1362 MT

OFL = Yield at Fmsy (from FMP)

Newly proposed and previous reference points from SARC 38 were rejected by recent SARC. This will require the SSC to adopt proxies for the OFL as well as ABC since ABC has been determined by OFL.

OFL and ABC Options:

See options list above. Range is 25,000 mt to 1362 mt.

Table 5. Summary of specifications and landings for butterfish (mt).

	2007	2008	2009	2010
Max OY	12,175	12,175	12,175	12,175
ABC	4,545	1,500	1,500	1,500
IOY	1,681	500	500	500
DAH	1,681	500	500	500
DAP	1,681	500	500	500
JVP	0	0	0	0
TALFF[2]	0	0	0	0
Landings (mt)	674	451	434	NA

[1] If quota set-aside research projects are approved, up to 3% of quotas may be set-aside for scientific research.

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2011 Atlantic Mackerel, Squid and Butterfish Specifications

MC Review
May 13, 2010
Dover, DE (and Webinar)


New Roles

- Scientific Uncertainty: SSC
- Management Uncertainty: Councils
- MC used to provide recommendations on both of these to the Councils

2

Scientific Uncertainty

- Scientific uncertainty includes uncertainty around the estimate of a stock's biomass, fishing mortality, and biological reference points.

3

Management Uncertainty

- Management uncertainty occurs because of the lack of sufficient information about catch (e.g., late reporting, underreporting, misreporting, imprecise estimation, database errors, data analysis errors).
- Landings/discards
- General performance of management measures and likely results operationally

4

New Roles

- Many of the MC's previous recommendations centered on management uncertainty issues
  - Closure thresholds, post-closure trip limits, etc.
- This is a transition year but I propose the MC proceed as normal but exclude comments on scientific uncertainty (SSC)

5

Definitions

- Max OY – Maximum Optimum Yield (Fmsy)
- ABC – Allowable Bio. Catch (SSC)
- IOY – Initial Optimum Yield
- DAH – Domestic Annual Harvest
- DAP – Domestic Annual Processing

6

Definitions

- IOY – Initial Optimum Yield

OY = prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factor

7

Atlantic butterfish

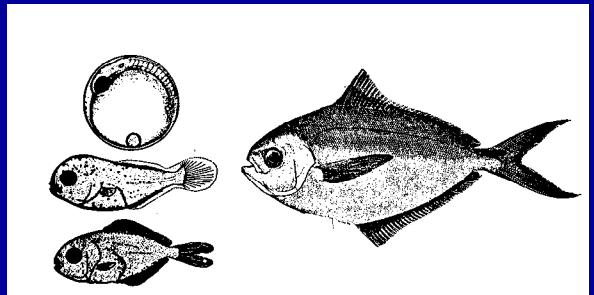

Figure 1. Life history stages of the butterfish, P. triacanthus; A - egg, B - larva 6 mm, C - fry 15 mm, D - adult, (adapted from Bigelow and Schroeder 1953).

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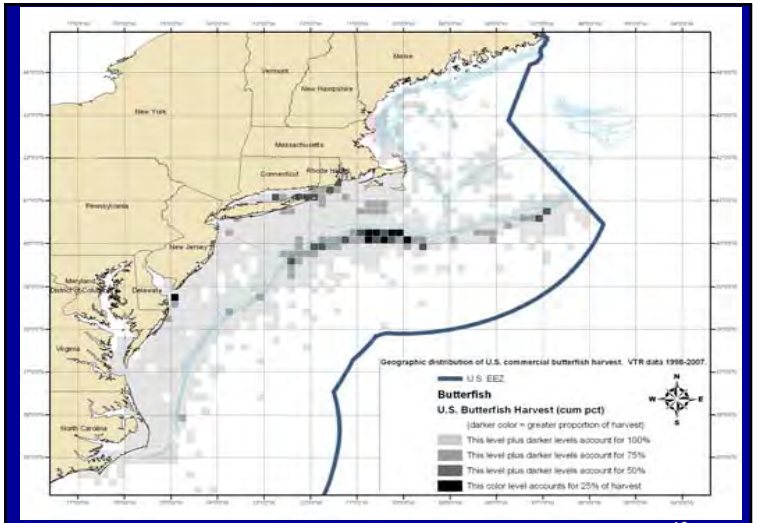

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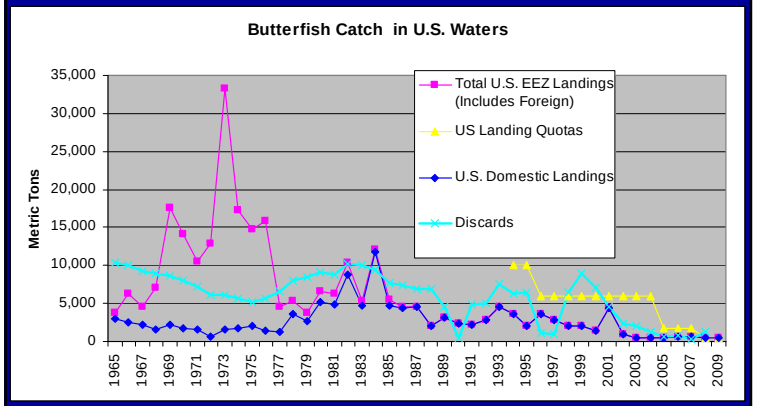
Butterfish Catches U.S. Waters



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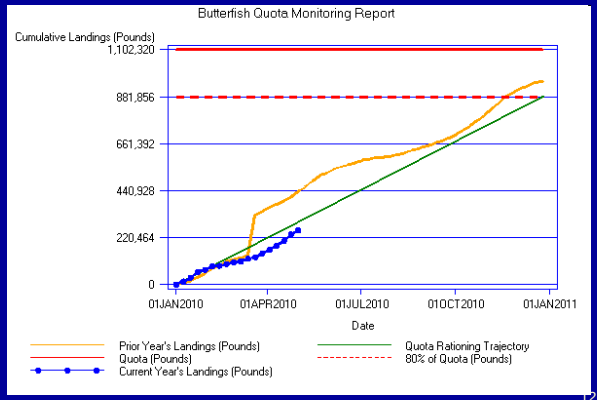

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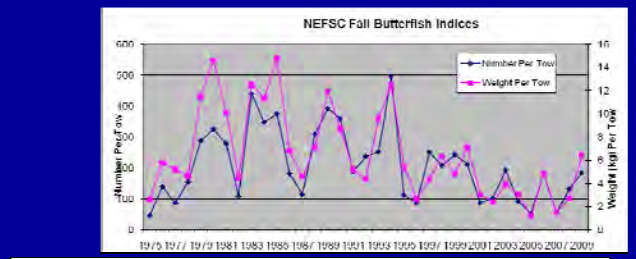
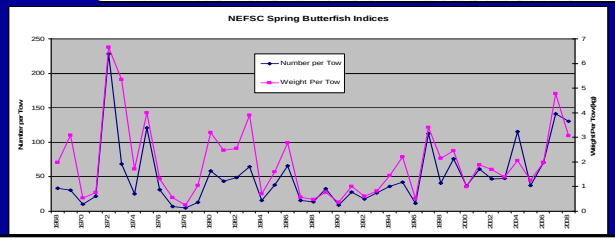
NEFSC Trawl Survey Indices





13

Butterfish Reference Points

Overfishing definition (Am 8 - 1998):

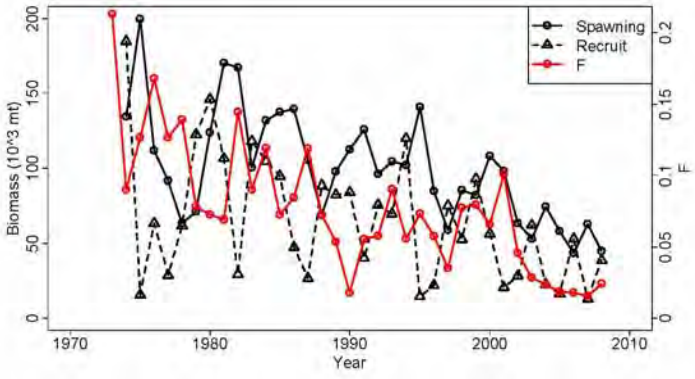
- Overfishing: F > Fmsy.
- Overfished: biomass < 50% Bmsy.
- Target F = 75% Fmsy = ABC (Allowable)

14

Status of Butterfish Stock

- SARC 49 (2010) - Data through 2008
- Unknown: absolute biomass estimates unreliable
- Low mortality from fishing but still declining trend (2008 among lowest in series)
- Environmental processes and low recruitment

15



16

SSC ABC

- Status Quo ABC, 1500 mt.
- Assessment reports that abundance trends are in decline and at historically low levels. However F appears very low.
- SSC concluded that maintaining ABC levels at this time is warranted.
- Available information suggests stock improvement at 1500 MT ABC, if environmental conditions improve.

17

Quota/IOY

- Currently at 500 MT
- 1/3 of ABC
- Generally Supported by Assessment

18

Quota/IOY

- Generally Supported by Assessment
- But note 2009 Index…
- Council may want to lower landings

19

Quota/IOY

- Relatively low management uncertainty regarding landings.
- Relatively high management uncertainty regarding discards.
- But upcoming butterfish cap for Loligo fishery should reduce uncertainty.

20

Quota/IOY

- Maintain status quo. If Council gets information from AP that reducing landings will not purely increase discards, may want to reduce trip limits
- If under landings quota, could be used in future years as rationale to allocate more of ABC to Loligo/butterfish cap

21

Closure of Butterfish Fishery: Status Quo

- If 80% of quota reached prior to Oct 1, a 250 lb daily trip limit.
- If 80% of quota reached on/after Oct 1, a 600 lb daily trip limit.
- Incidental limits: 600 lb, reduced to 250 lb if directed fishery closes before Oct 1.

22

Other Limits – Status Quo

- 5000 lb trip limit for moratorium permits
- 3 inch minimum mesh required to possess 1,000 lbs or more butterfish

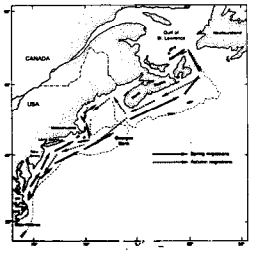
23

Quota

- Max OY (OFL) = unknown;
- ABC= 1,500 mt
- DAH (landings) and DAP=500 mt

24

Atlantic mackerel
Scomber scombrus



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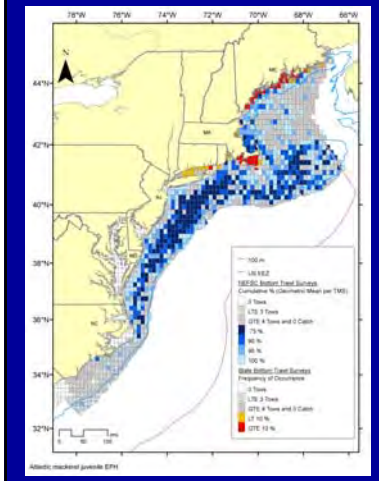

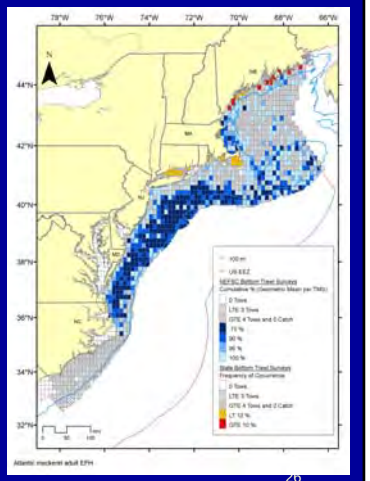

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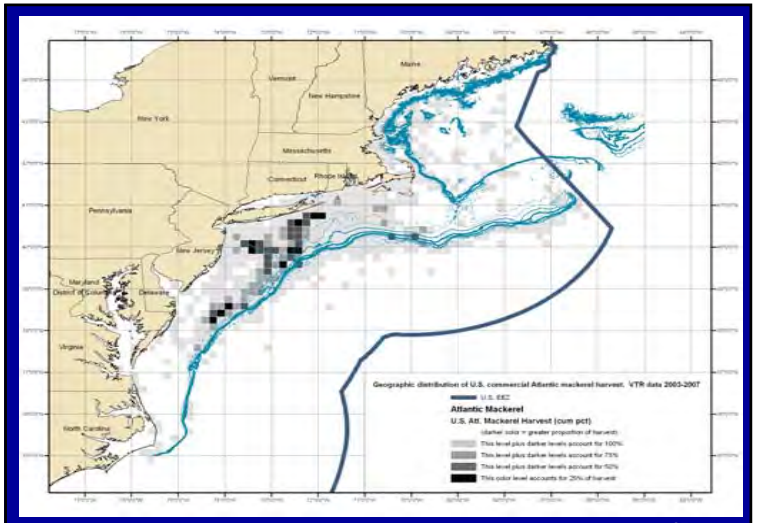

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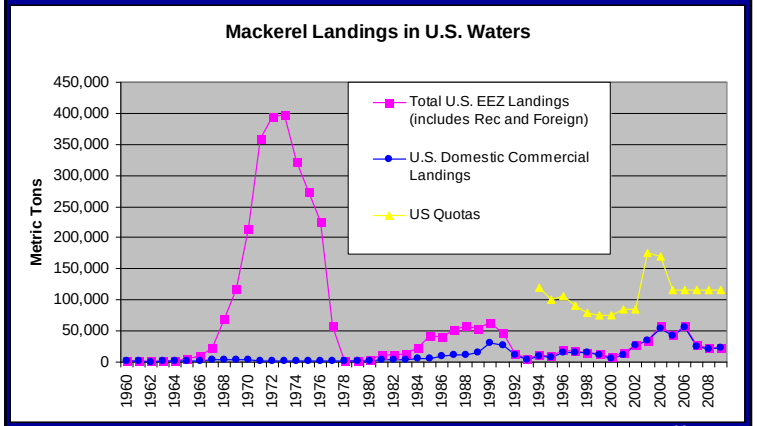

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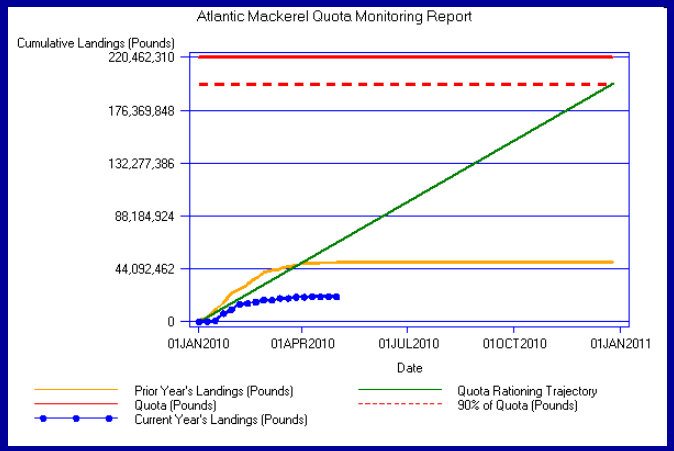
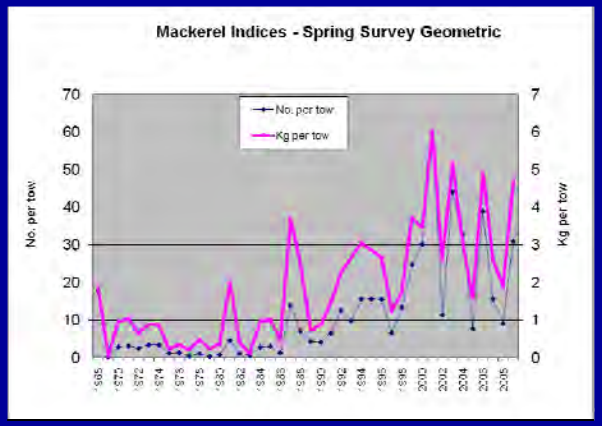


29

NEFSC Trawl Survey Indices



Mackerel Reference Points

Overfishing definition (adopted in Am 8 - 1998):

- Overfishing: F > Fmsy.
- Overfished: biomass < 50% Bmsy.
- Target F = 75% Fmsy = ABC (Allowable)
  - Uncertainty in BRP estimation
  - Decreases if SSB < SSBmsy

31

Recall Precautionary notes from SAW 42

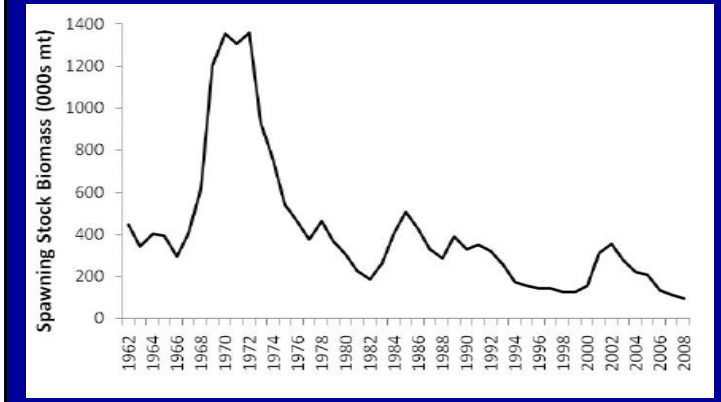
- Retrospective bias from ASAP tends to overestimate biomass and underestimate fishing mortality in recent years
- Relative lack of older fish
- Projections are short term yields (MSY point estimate = 89,000)

32

Status of Mackerel Stock

- TRAC TSR 2010/01 - Data through 2008
- Unknown: absolute biomass estimates unreliable
- Indications of low recruitment/productivity
- Lack of older fish in the survey and catch

33



34

TRAC Quota Recommendation

- Given current indications of reduced productivity and lack of older fish in the survey and catch, it is recommended that annual total catches not exceed the average total landings (80,000 mt) over the last three years (2006-2008) until such time that new information suggests that a different amount is appropriate.

35

SSC ABC

- 80,000.
- SSC accepts TRAC recommendation.
- SSC decided that 2009 landings and survey index in and of themselves were not sufficient information to deviate from the TRAC recommendation.

36

QUOTA / IOY

- ABC = 80,000
- ABC – Discards (1.3%) = 79,000
- US ABC = Total – Expected Canadian Catch

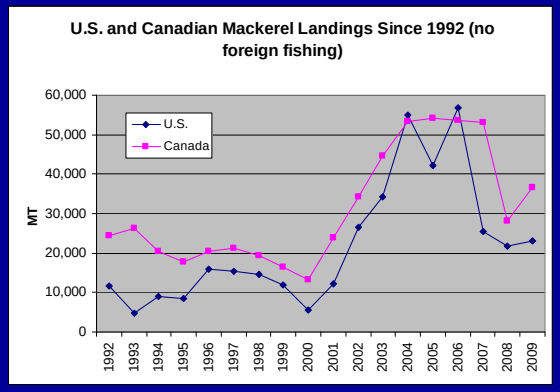
37

QUOTA / IOY

- Expected Canadian Catch
- Previous: Highest in last 5 years: 55,000 MT (54,279)
- Context: Increasing/Stable high Canadian Catch

38

QUOTA / IOY



39

QUOTA / IOY

- Canadian Catches no longer ramping up/stable high.
- Recent average may be a better predictor.

40

QUOTA / IOY

- 2006-2008 Canadian average: 45,000 MT
- 2006-2009 Canadian average: 42,900 MT
- 2007-2009 Canadian average: 39,300 MT

41

QUOTA / IOY / DAH

- 79,000 - 36,723 = 42,277 MT
- MC found that the correlation was higher between yr and yr-2 data compared to yr and the average of (yr-2, yr-3, and yr-4).
- This suggests looking at 2009 vs the average of 2007-2009 to estimate 2011 Canadian landings.

42

QUOTA / IOY / DAH

- Note: public suggested that if the US set a quota, for example 50,000 mt then Canada should constrain themselves to 30,000 mt (if the U.S. actually caught 50,000 mt).
- MC concluded that without full co-management this may not be likely.

43

QUOTA / IOY

- Recreational Assignment
- 15,000 MT

44

Closure of Mackerel Fishery: Status Quo

- Close primary directed fishery at 90% of DAH
- 20,000 pound trip limit if before June 1
- 50,000 pound trip limit if on/after June 1
  - – Allows incidental & small scale mackerel fishery to continue, unlikely to exceed quota.

45

DAP

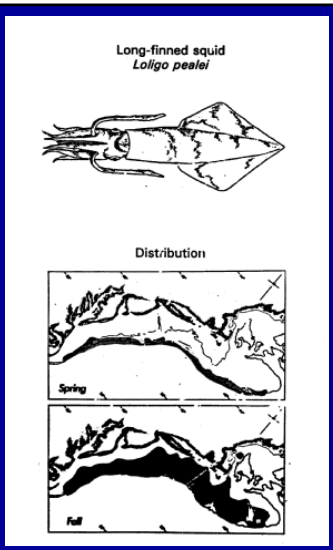
- DAH = **42,277**
- Commercial fishery closes at 90% of DAH… 38,049
- 4,200 Buffer – 1000 (Rec) = 3,200

46

DAP

- Note: Public requested that MC explore Canadian landings by week and area in the future.

47



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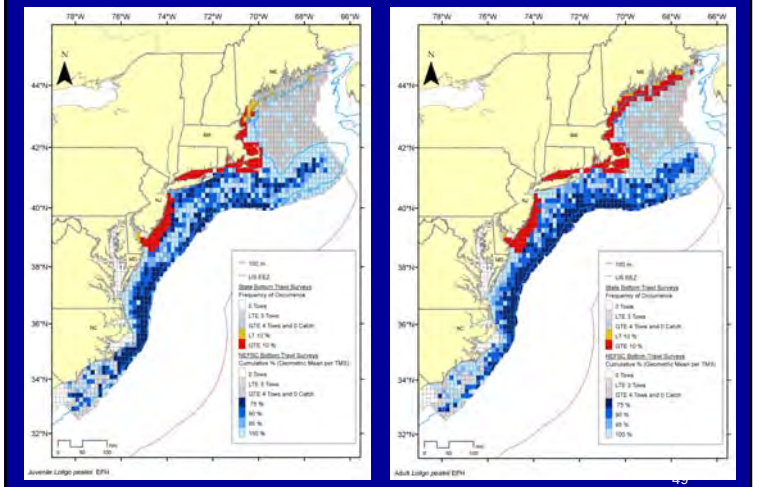
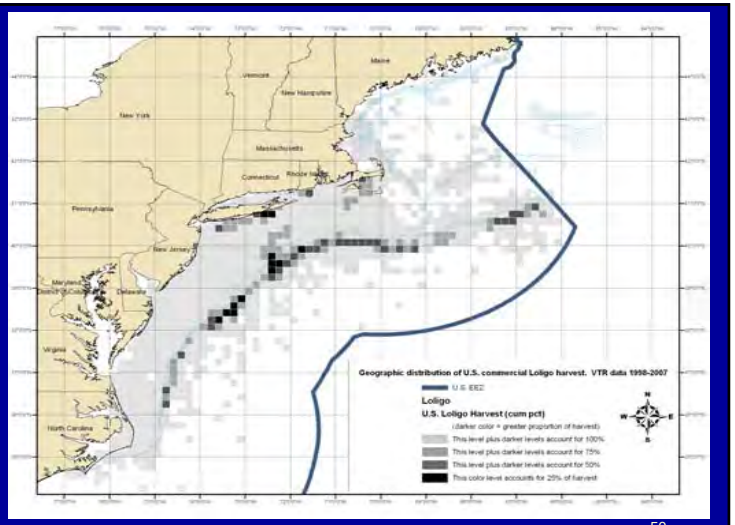
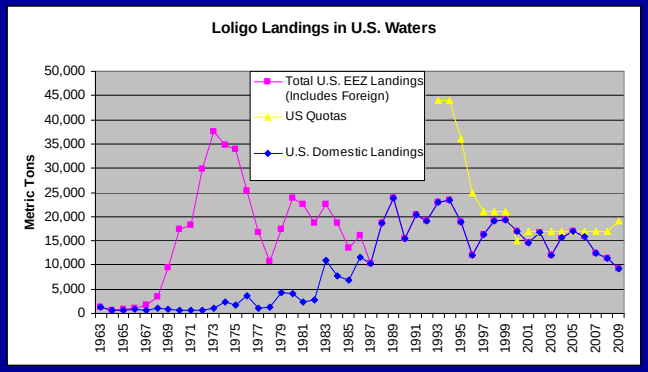




50

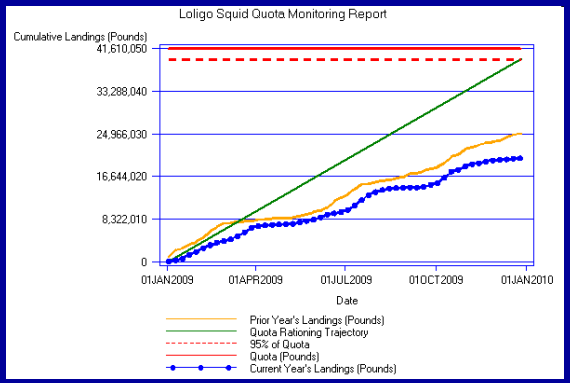
Loligo Landings, U.S. Waters

1963-2009 U.S. waters



51

Loligo Landings, U.S. Waters



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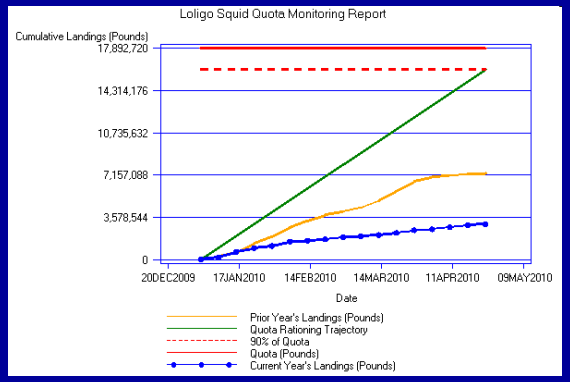
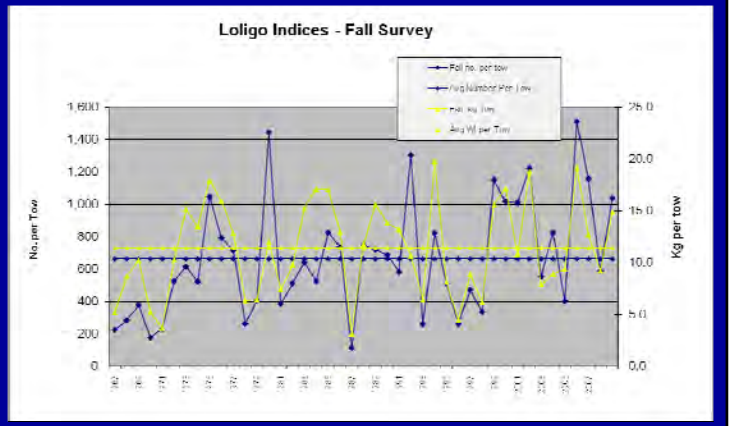
Loligo Landings, U.S. Waters



53

Loligo Indices from NEFSC Fall survey.



54

Loligo Periods

- Prior to 2007: Quarters
- 2007 to Present: Trimesters
  - T1: 43%; T2: 17% ; T3: 40% (+/- rollover)

Quota			
	2007	2008	2009
T1	7,091	7,300	8,116
T2	2,803	2,886	3,209
T3	6,596	6,791	7,550

Percent of Quota Harvested			
	2007	2008	2009
T1	99%	52%	41%
T2	54%	127%	99%
T3	73%	67%	50%

55

Loligo Reference Points

Overfishing definition (revised in Am 9 - 2008):

- Overfishing: F > Fthreshold.
- Overfished: biomass < 50% Bmsy.

56

Status of Loligo Stock

- SARC 34 (2002), Data = 2000
- SARC 34: unlikely that overfishing is occurring.
  unlikely that the stock is overfished.
- Am 9 application of SARC F advice:
  - The revised F threshold = 1.24 (75th) (1987-2000)
  - The revised F target = 0.96 (mean) (1987-2000)
  - Rates achieved when biomass appeared fairly resilient (1987 - 2000). (SARC 34)

57

Application of SARC 34 Advice

- Threshold = 32,000 MT
- Revised F_{target} applied to the 2003-2007 average biomass estimate = 24,747 mt.
- When discounted by discard rate of 6% (Cadrin and Hatfield 1999) produces: **23,000 mt.**
- But other SARC 34 recommendation: 20,000 MT, after discards = 19,000 MT.

58

SSC ABC

- 24,000 MT - 75% Catch assoc w/ Fthreshold, which is also close to catch derived from SARC 34 recommended methodology (24,700 mt).
- Lowering 24,000 for 6% discarding (highly uncertain) would result in a landings quota of 22,560 MT

59

Quota/IOY

- Quota was 17,000 in 2008. MC recommended in 2009 for 2010 increasing only to 19,000.
- Precautionary and a dramatic increase could impact butterfish (discarding).

60

Quota/IOY

- Given there is relatively high uncertainty about *Loligo* discards, about the performance of the butterfish cap and its impact on Loligo fishery, recommend continued gradual step-up in Loligo quota: 5% increase
- 20,000 MT

61

Closure of *Loligo* Fishery:

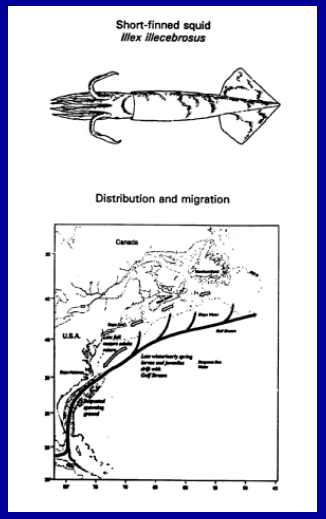
- Trimesters 1/2 : 90% of Trimester quota
- Trimester 3: 95% of annual quota
  - Underages from Tri. 1 to 2/3
  - Overages from 1 to 3
  - Rollovers from 2 to 3
- 2,500 lb daily catch limit for incidental permits and also for directed permits during closures

62

Mesh Requirements

- Upcoming Changes:
- Strengthener 4.5 to 5 on 8/3/2010
- Codend 1 7/8 to 2 1/8 on 9/1/2010 (Trimesters 1&3)

63



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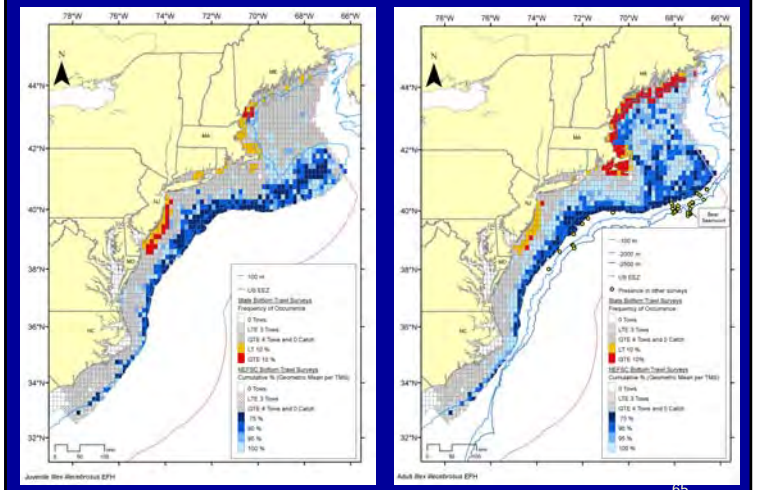

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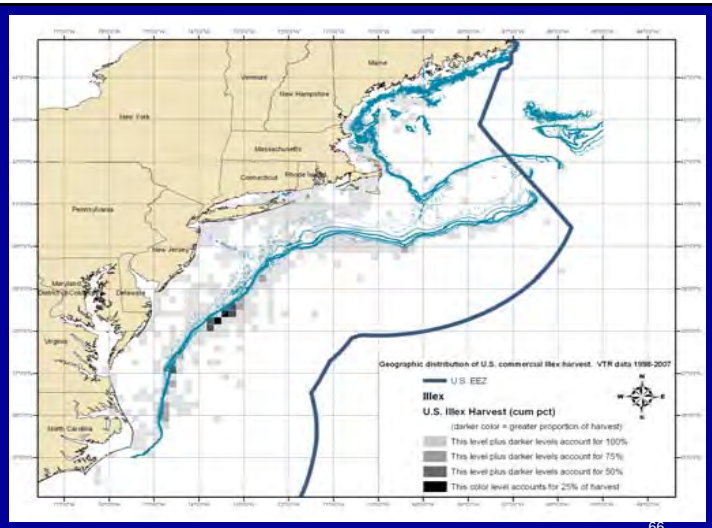
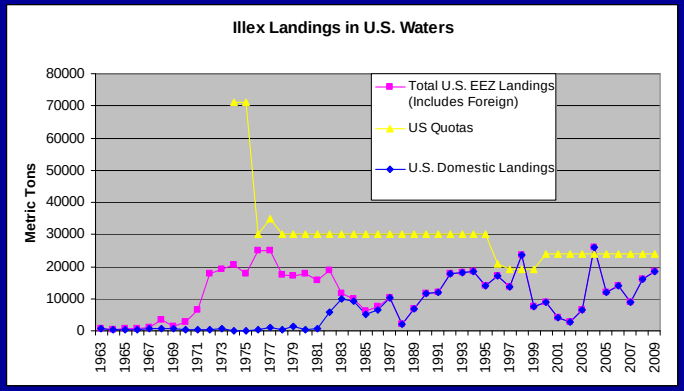


66

Illex Landings U.S. Waters



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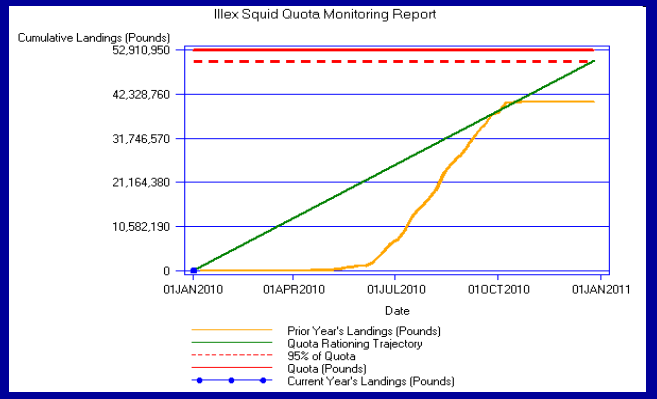
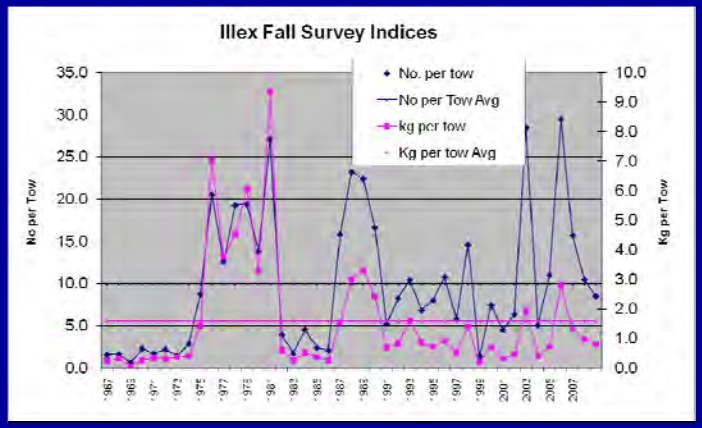


68

Illex Indices from NEFSC Fall survey.



69

Illex Reference Points

- Overfishing definition (adopted in Amendment 8 to comply with SFA):
- Overfishing occurs when F exceeds Fmsy.
  Max OY = 24,000 mt (SAW 21 – 1996)
- Stock is overfished when biomass is less than 50% Bmsy.

70

Status of *Illex* Stock

- SAW 37 (2003): unable to determine biomass & stock status; concluded it was unlikely that overfishing was occurring 1999-2002. Under current stock conditions the nominal TAC of 24,000 mt, which assumes a stock at BMSY, may not be sufficient to prevent overfishing.
- SAW 42 (2006): Fishing mortality and stock size could not be estimated. The overfishing definition currently in place for this stock, Fmsy, addresses yield rather than ensuring adequate spawning escapement
- Current absolute stock size is unknown and no stock projections were done in SAW 37 or SAW 42.

71

SSC ABC

- Post SAW 21 Assessments found the SAW 21 methodology to be inappropriate.
- 24,000 MT: not an assessment-based ABC.
- Even though trawl survey CPUE and landings have varied, there do not appear to be any long term trends.
- There is no available evidence that landings of 24,000-26,000 MT have caused harm to the Illex stock.
- Changes in landings could be the result of changes in abundance, availability, and/or market conditions.

72

Quota/IOY

- SSC ABC: 24,000 MT
- Discard estimates from last assessment: 2.8% - highly uncertain
- 23,328 MT

73

Closure of *Illex* Fishery: Status Quo

- Current regulations close fishery at 95%
- 10,000 lb daily catch limit for incidental permits and also for directed permits during closures
- May be able to close at 100%, but 5% buffer would account for uncertainty in this as well as uncertainty in discard estimate.

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MSB Monitoring Committee Meeting Draft Notes-- May 13, 2010

Described below are the results of the Mid-Atlantic Fishery Management Council's (MAFMC) Squid Mackerel Butterfish (SMB) Monitoring Committee (MC) Meeting (via Webinar) - 5/13/2010. The SMB MC met to review the Acceptable Biological Catch (ABC) recommendations from the MAFMC's Scientific and Statistical Committee (SSC) and to provide recommendations for the MAFMC regarding 2011 specifications for the SMB fisheries. The recommendations described below are designed to consider management uncertainty such that actual annual catch is unlikely to exceed the ABC specified by the SSC. SMB MC members present (via Webinar) included:

Jason Didden (JD) (MAFMC), Carrie Nordeen (CN) (NMFS NERO), Jon Deroba (NEFSC), Tim Miller (NEFSC). Note: Rich Seagraves and Lisa Hendrickson are on the monitoring committee but were unable to attend. L. Hendrickson later provided comments on this document and generally concurred with the findings.

Other individuals in attendance (via Webinar):
Greg DiDomenico, Peter Moore (SMB Advisory Panel (AP) member), Dave Ellenton (SMB AP), Geir Monsen (SMB AP), Mary Beth Tooley (SMB Committee Member, New England Fishery Management Council Member)

Summary Table (The DAH is the effective commercial quota against which landings are monitored):

Proposed 2011 Specifications for Atlantic Mackerel, Squid, and Butterfish				
Specifications	***Loligo* Squid (mt)**	***Illex* Squid (mt)**	**Mackerel (mt)**	**Butterfish (mt)**
Max OY	*32,000*	*Unknown*	*Unknown*	*Unknown*
ABC	*24,000*	*24,000*	*42,277*[1]	*1,500*
IOY	*22,560 - 20,000*[2]	*23,328*[3]	*42,277*	*500*[4]
DAH	*22,560 - 20,000*	*23,328*	*42,277*	*500*
DAP	*22,560 - 20,000*	*23,328*	*27,277*[5]	*500*
JVP	*0*	*0*	*0*	*0*
TALFF	*0*	*0*	*0*	*0*
1 - Reduced from 80,000mt (SSC recommendation) to 79,000 mt to account for discards(U.S. and Canada) and reduced to 42,277 mt to account for expected Canadian landings (36,723 mt); 2 - Reduced to 22,560 mt to account for discards or reduced to 20,000 mt to account for discards and discard and butterfish mortality cap uncertainties; 3 - Reduced to account for discards; 4 - Reduced to account for discards; 5 - Reduced to account for 15,000 mt of Atlantic mackerel recreational harvest				
Maximum Optimum Yield (Max OY), Allowable Biological Catch (ABC), Initial Optimum Yield (IOY), Domestic Annual Harvest (DAH), and Domestic Annual Processing (DAP), Joint Venture Processing (JVP), Total Allowable Foreign Fishing (TALFF)				

Butterfish

An overview of the available information on biology, distribution, catches, and abundance was presented. The SSC ABC recommendation, which is based on the best available scientific information and accounts for scientific uncertainty regarding stock status and biological reference points, is 1500 mt. The SSC meeting summary will be posted to the Council website once completed.

The MC reviewed the discard information from the last assessment and concluded that maintaining a 500 mt DAH is warranted at the current time. Analysis of the discard data from the last assessment suggests that on average in recent years approximately 1/3 of catch is landed and 2/3 of catch is discarded. Therefore, the MC recommended IOY/DAH is reduced from the SSC recommended ABC (1,500 mt) to account for discards. Implementation of the butterfish mortality cap in 2011 may affect butterfish catches in the *Loligo* fishery, and therefore the MC will review such affects of the butterfish mortality cap on the *Loligo* fishery in future years and recommend changes if appropriate. The SSC will also be reviewing the performance of the butterfish mortality cap annually in the future.

The MC noted that if landings were reduced, it is possible that in future years the Council could potentially increase the ratio of the ABC used in setting the butterfish cap for the *Loligo* fishery, but only if doing so did not just result in increased discarding by trips targeting *Loligo*. There is no additional information to suggest that any changes to trip limits or closure thresholds are necessary. The MC noted that uncertainty regarding landings data and the ability to constrain landings to a given amount appears relatively low given recent fishery performance. Uncertainty regarding discards is relatively high but the impending butterfish mortality cap on the *Loligo* fishery should reduce uncertainty regarding discards. Given these conditions, and that landings will be constrained to 1/3 of the ABC, the MC recommended status quo regarding the management of butterfish landings and associated management measures.

The MC noted that it could be useful to provide additional description of how the butterfish mortality cap on the *Loligo* fishery will operate in terms of constraining both butterfish landings and discards, as well as potential impacts on the *Loligo* fishery. This description is included in the *Loligo* section below.

The MC also noted that the specifications will need to account for any butterfish mortality that could occur as a result of *Loligo* Research Set-Aside (RSA) landings (i.e., an allocation of up to 3% of the DAH). In lieu of requiring fishery observers on RSA trips or some other accounting, a method to quantify and account for associated butterfish catches could consist of awarding *Loligo* RSA landings quotas with an accompanying butterfish bycatch allotment based on ratio of discarded butterfish to landed *Loligo*. For example, observer data suggest that trips with at least 50% Loligo for landings (2004-2008) discarded about 1 pound of butterfish for every 22 pounds of *Loligo* landed (data from Environmental Assessment for 2010 Atlantic Mackerel, Squid, and Butterfish Specifications). Since only 15 mt of RSA butterfish could be available (RSA can be up to 3% of DAH), this would effectively limit available RSA *Loligo* to 330 mt (15mt*22).

For the above reasons, the MC recommends the following specifications for butterfish:

- ABC of 1,500 mt;
- IOY of 500 mt;
- DAH of 500 mt;
- DAP of 500 mt;
- JVP of zero; and
- TALFF of zero.

Closure of the butterfish fishery would occur when 80 percent of the butterfish DAH is projected to be harvested. If 80% of DAH is reached prior to Oct 1, a 250-lb daily trip limit applies to moratorium permits. If 80% of DAH is reached on/after Oct 1, a 600-lb daily trip limit applies to moratorium permits. Incidental permit daily trip limits are 600 lbs, reduced to 250 lbs if the directed fishery closes before Oct 1.

Trawl vessels possessing 1,000 lbs or more of butterfish may only fish with nets having a minimum codend mesh size of 3 inches, and a vessel issued a butterfish moratorium permit may not fish for, possess, or land more than 5,000 lbs of butterfish per trip and/or per calendar day.

Mackerel

An overview of the available information on biology, distribution, catches, and abundance was presented. The SSC ABC recommendation, which is based on the best available scientific information and accounts for scientific uncertainty regarding stock status and biological reference points, is 80,000 mt for the whole stock, which is fished on by both the U.S. and Canada. The SSC meeting summary will be posted to the Council website once completed.

U.S. Discards 2004-2008 (most recent 5 years of discards) averaged 1.3% of U.S. landings. Thus the MC recommended initially reducing the U.S. ABC to 79,000 mt to account for discards. No information is available regarding Canadian discarding so U.S. discard information was used as a best available proxy for total discarding.

The MC then discussed how best to account for expected Canadian landings per the requirements of the FMP. Previously, because Canadian landings were increasing, the highest Canadian landings in the most recent 5 years of data (e.g., 2004-2008) had been used to estimate Canadian landings for the next year (e.g., 2010). Since Canadian landings appear to no longer be increasing, averages of recent years were considered. Additional analysis revealed that the most recent year of data (e.g., 2007) was more strongly correlated than an average of the most recent 3 years of data (e.g. 2005-2007) to the next year's actual Canadian landings (e.g. 2009) when the entire time series was examined (1960-2009). Thus the MC suggests using the 2009 Canadian landings (36,723 mt) when calculating the U.S ABC. Like any assumption made about Canadian landings, this could result in an under or over estimate of actual Canadian landings. Using a relatively higher number for expected Canadian landings would be less likely to result in an overage relative to the overall ABC, but it is not possible to calculate the overall risk.

80,000 mt - 1,000 mt (discards) = 79,000 mt. 79,000 - 36,723 mt (Can landings) = 42,277 mt.

D. Ellenton suggested that if the U.S. sets a DAH, for example 50,000 mt, then Canada should constrain themselves to 30,000 mt (if the U.S. actually caught 50,000 mt) given the TRAC recommendations.

This would suggest that the U.S. could set any DAH up to 80,000 and the total ABC would not be exceeded. The MC concluded that without full co-management of the mackerel resource with Canada expecting Canada to limit catch to 80,000 mt minus the U.S. catch is not likely. Instead, consistent with the FMP, the MC recommends 42,277 mt for a U.S. ABC. Responding to a question from the public, the MC responded that they would check on U.S. efforts to engage Canada on resource sharing for mackerel and how other resource sharing agreements have occurred and provide an update at the June Council meeting.

The FMP specifies that 15,000 mt is designated for the recreational fishery but that the commercial fishery closes when a percentage of the DAH is projected to be harvested. This means DAP = 42,277 mt -15,000 mt = 27,277 mt, but that the commercial fishery closes based on a percentage of 42,277 mt. This peculiar situation is expected to be resolved in Amendment 11.

The closure threshold for the mackerel fishery (currently 90% of DAH) received considerable discussion. Since the DAH is significantly lower this year (2010 DAH is 115,000), the closure threshold buffer is smaller as well. 10% of 115,000 mt is 11,500mt, while 10% of 42,277 mt is only 4,227.7 mt. Because of the peculiar situation with recreational landings, in practice this buffer must also account for recreational catch. Despite these issues, since recreational catches have been relatively low in recent years (approximately 1,000 mt), since landings post-closure are expected to be minimal, and since the commercial fishery operates fairly consistently week-to-week when landings are high (allowing relatively accurate closure projections), the MC concluded that the 10% closure threshold is sufficient. There are no indications that changes to incidental trip limits are warranted. Since the directed mackerel fishery has never been closed and the incidental trip limits have never been implemented, there is uncertainty about how these management measures will perform. If a closure occurs, the MC may make recommendations in the future about changing related management measures based on how the closure threshold and incidental trip limits perform relative to the DAH.

A member of the public also requested that the MC explore Canadian landings by week and area in the future. The MC will examine what data is available regarding this issue.

For the above reasons, the MC recommends the following specifications for mackerel:

- U.S. ABC of 42,277 mt;
- IOY of 42,277 mt;
- DAH of 42,277 mt;
- DAP of 27,277 mt;
- JVP of zero; and
- TALFF of zero.

Closure of the mackerel fishery would occur when 90 percent of the mackerel DAH is projected to be harvested. During a closure of the mackerel fishery, vessels may not fish for, possess, or land more than 20,000 lb of mackerel per day (defined as the 24–hour period beginning at 0001 hours and ending at 2400 hours), unless the fishery closes on/after June 1, in which case a 50,000-lb per day mackerel possession limit would be in effect for the remainder of the year.

Loligo

An overview of the available information on biology, distribution, catches, and abundance was presented. The SSC ABC recommendation, which is based on the best available scientific information and accounts for scientific uncertainty regarding stock status and biological reference points, is 24,000 mt. The SSC meeting summary will be posted to the Council website once completed.

The most recent *Loligo* assessment suggested that discards account for about 6% of catch. Thus, the MC recommended reducing the ABC by 6%, to account for discards, resulting in an IOY/DAH of 22,560 mt as an upper bound. The MC also discussed 20,000 mt as a potential option based on management uncertainty regarding the discard estimate and the management uncertainty regarding the operation of the *Loligo* fishery in 2011 given the impending implementation of the butterfish catch cap for the *Loligo* fishery. For these reasons the Council may want to consider a gradual increase from the status quo IOY/DAH, which is 19,000 mt. For example, a 5% increase in IOY/DAH would result in approximately a 20,000 mt DAH. As an example of how a substantial *Loligo* DAH increase could cause unintended consequences, consider the fact that Trimester II will not close based on butterfish bycatch (as per Amendment 10); rather the Trimester II butterfish bycatch will only be tracked and then applied to Trimester III. Substantially increasing the annual *Loligo* DAH means there will be a greater likelihood that the Trimester II butterfish bycatch could impact Trimester III (e.g., more *Loligo* fishing in Trimester II equates to more butterfish bycatch in Trimester II).

An additional issue was raised by the MC following the May 13 conference call. This issue is related to the concerns about the Trimester 2 *Loligo* quota discussed in the above paragraph and was addressed by the MC via email. Currently, Trimester I *Loligo* underages greater than 25% of the Trimester I quota are rolled over, in equal percentages, to both Trimester II and Trimester III. The butterfish mortality cap on the *Loligo* fishery could result in substantial *Loligo* underages if the *Loligo* fishery is closed early because the butterfish catch cap is reached. Under current management, this could result in a large roll-over of *Loligo* quota to Trimester II, when the butterfish catch cap cannot close the fishery. To avoid a situation where a much larger than anticipated amount of *Loligo* quota could be harvested in Trimester II, the Council may want to specify a maximum amount/percentage of Trimester I underage that can roll over to Trimester II. For example, with a 20,000 mt annual DAH, Trimester II would be allocated 3,400 mt (17%). If the maximum roll-over amount was half of the initial Trimester II quota (3,400/2 = 1,700 mt), then that would still allow a 50% increase in the Trimester II quota but reduce the uncertainty about how big the Trimester II quota could end up being (and therefore somewhat reduce uncertainty about how the butterfish catch cap performs overall). Alternatively given the uncertainty regarding the operation of the butterfish mortality cap the Council may want to return to the procedure used in 2009 where Trimester 1 underages (and overages) are only applied to Trimester 3. An additional concern about effort increases in Trimester II relates to the fact that the *Loligo* fishery during Trimester II occurs on spawners and their eggs, which are attached to the substrate and vegetation, as discussed in Amendment 11.

As mentioned above, the MC also discussed that the Council may want to consider further reductions in butterfish DAH if it believes that doing so will not result in converting such landings to discards. If such management measures lead to substantially lower landings than the DAH, this information could be used in the future to increase the percentage of the butterfish ABC that determines the butterfish catch cap for the *Loligo* fishery.

A member of the public, Greg DiDomenico suggested that NMFS and the Council should conduct additional outreach regarding new mesh sizes that become effective later in 2010.

For the above reasons, the MC recommends the following specifications for Loligo:

- MaxOY of 32,000 mt;
- ABC of 24,000 mt;
- IOY of 20,000-22,560 mt;
- DAH of 20,000-22,560 mt;
- DAP of 20,000-22,560 mt;
- JVP of zero; and
- TALFF of zero.

Trimester Quotas and Fishery Closures:

The *Loligo* DAH is divided into trimester periods as follows: Trimester I (January - April), 43 percent; Trimester II (May - August), 17 percent; and Trimester III (September - December), 40 percent. NMFS would close the *Loligo* fishery when 90 percent of the DAH is projected to be harvested in Trimesters I and II, and when 95 percent of the DAH is projected to be harvested in Trimester III. Quota underages from Trimester I will be applied equally to the quotas for Trimesters II and III, provided the underage is greater than 25% of the Trimester I quota (**but the Trimester II quota will be increased by a maximum of 50%??**). If the underage is less than 25% of the Trimester I quota, the underage will be applied to the Trimester III quota. Quota overages from Trimesters I and II will be subtracted from the Trimester III quota.

For vessels that have been issued a *Loligo* incidental catch permit, or during a closure of the fishery, vessels may not fish for, possess, or land more than 2,500 lbs of *Loligo* per day (defined as the 24–hour period beginning at 0001 hours and ending at 2400 hours).

Gear:

The minimum codend mesh size is 2-1/8 inches during Trimester I (January 1 through April) and Trimester III (September 1 through December). A minimum mesh size of 1-7/8 inches will be in effect for Trimester II (May to August).

Trawl vessels possessing *Loligo* squid may also 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.

Butterfish Mortality Cap:

The butterfish mortality cap will equal 75% of the butterfish ABC. The remaining 25% of the butterfish ABC will account for butterfish catches in other fisheries, including trips landing less than 2,500 lb of *Loligo*. These ratios were derived from NMFS observer data as discussed in Amendment 10.

The butterfish mortality cap will be allocated by trimester: Trimester I – 65 percent; Trimester II – 3.3 percent; Trimester III – 31.7 percent. The directed *Loligo* fishery will close if the butterfish mortality cap is harvested during Trimesters I and III. The butterfish cap will be tracked during Trimester II, but catch overages or underages will be applied to Trimester III, such that 35% (3.3% plus 31.7%) of the total butterfish mortality cap will be tracked during Trimester III. Overages and underages from the Trimester I butterfish catch cap will apply to Trimester III. The directed *Loligo* fishery will close if 80% of the Trimester I butterfish mortality cap is projected to be harvested, and/or if 90% of the butterfish cap is projected to be harvested in Trimester III.

In order for a vessel to possess more than 2,500 lbs of *Loligo*, a vessel representative must phone NMFS to request an observer at least 72 hours prior to embarking on a fishing trip. If a vessel representative does not make the required trip notification to NMFS, the vessel is prohibited from possessing or landing more than 2,500 lbs of *Loligo*. If a vessel is selected to carry an observer, the vessel must carry an observer or is prohibited from landing more than 2,500 lbs of *Loligo*. If a trip is cancelled, the vessel representative must notify NMFS of the cancelled trip, even if the vessel is not selected to carry an observer. If a vessel representative cancels a trip after its vessel was selected to carry an observer, that vessel will be assigned an observer on the next trip. Subsequent to the Webinar MC staff discussed industry requests that Day-Trip vessels be allowed to make weekly reporting calls. This issue is being investigated and will be reported on before or during the Council meeting.

The tracking of the butterfish catch against the butterfish mortality cap and the butterfish DAH will occur simultaneously. If a *Loligo* trip retains butterfish, those butterfish will count against the butterfish DAH, for the purpose of tracking landings, and against the butterfish mortality cap, for the purpose of tracking butterfish catch in the *Loligo* fishery. However, this does not constitute a "double counting" against any one quota since the butterfish DAH and the butterfish mortality cap start with two totals as well. If landings tracked against the butterfish DAH close the butterfish fishery, the *Loligo* fishery would remain open until butterfish catch from *Loligo* trips reach the butterfish mortality cap or until the seasonal *Loligo* quota is harvested. If a closure of the butterfish fishery occurs, all trawl vessels, including those participating in the *Loligo* fishery, would be subject to the incidental butterfish trip limit described previously.

Illex

An overview of the available information on biology, distribution, catches, and abundance was presented. The SSC ABC recommendation, which is based on the best available scientific information and accounts for scientific uncertainty regarding stock status and biological reference points, is 24,000 mt. The SSC meeting summary will be posted to the Council website once completed.

The most recent *Illex* assessment suggested that discards account for about 2.8% of total catch. Thus the MC recommended reducing the total available IOY/DAH to 23,328 mt to account for discards.

There was discussion about the appropriate closure threshold for *Illex*. While Council staff's discussions with NMFS quota monitoring staff suggested that very precise closure of the *Illex* fishery may be possible, the MC concluded that without additional quantitative analysis, increasing the closure threshold from the current 95% level is not recommended. In 2004, the *Illex* fishery had an overage of 9% and while this overage was likely a one-time occurrence related to reporting issues unique to that year, it still illustrates the imperfect procedure for monitoring and closing high-volume fisheries. Industry members present on the webinar offered to explore if changes to reporting procedures could allow a reduction in the closure threshold (e.g., from 5% to something less than 5%). The MC will consider this issue in the future. The 95% closure threshold also provides some buffer against the uncertainty in discard estimates. No changes to incidental trip limits were considered necessary.

G. Monsen (Seafreeze Ltd) asked what happened to the data that was collected in the past in an attempt to move toward real-time management. Council staff followed up with Northeast Fishery Science Center (NEFSC) staff regarding this question. The data were utilized in the two most recent stock assessments. However, the extensive data collection and management infrastructure required to implement real-time management is currently not available. Such infrastructure would likely include, but is not limited to, substantial increases in observer coverage; tow-based, daily catch reporting by vessels via Boatracs; additional NEFSC staff to process samples during the fishing season; and a pre-fishery survey to estimate stock size. NEFSC staff noted that *Illex* length and weight data continue to be collected from Seafreeze and are used in *Illex* assessments. NEFSC staff also noted that obtaining similar data from other processors would be desirable for use in the next *Illex* assessment (not currently scheduled)..

For the above reasons, the MC recommends the following specifications for Illex:

- ABC of 24,000 mt;
- IOY of 23,328 mt;
- DAH of 23,328 mt;
- DAP of 23,328 mt;
- JVP of zero; and
- TALFF of zero.

NMFS would close the *Illex* fishery when 95 percent of the DAH is projected to be harvested.

For vessels that have been issued an *Illex* incidental catch permit, or during a closure of the fishery, vessels may not fish for, possess, or land more than 10,000 lb of *Illex* per day (defined as the 24–hour period beginning at 0001 hours and ending at 2400 hours).

Didden, Jason T.

From: Geir Monsen [geir@seafreezeltd.com]

Sent: Sunday, May 23, 2010 1:54 PM

To: Didden, Jason T.

Subject: comments regarding the quota setting process

COMMENTS REGARDING THE QUOTA SETTING PROCESS

After having listened in on the SSC committee and the SMB monitoring committee deliberations I have a few comments.
The comments are not meant as criticism of any individual. They are meant as comments on the whole process and the information that goes in to making the recommendations.

I find that the information made available to the council is thin at best, and some cases totally lacking. I find it hard to understand in some cases how the council can make meaningful recommendations based on the available data. I also find it strange to observe how NMFS manipulate the process in order for the recommendations to come out the way they want them. I think that some times a good portion of old fashioned common sense is missing.

I find it strange that the NMFS survey data for 2009 is not made available when it clearly have been accumulated and recorded.

I took the time to look at the spring survey data for 2009 done by the FSV Henry B Bigelow from Cape Hatteras to The Golf Of Maine between February 27 and May 9, 2009, and it make for some strange reading. I like to list the total results of the survey starting with the highest catch:

FISH SPECIE	TOTAL LBS. ALL TOWS	% OF TOTAL CATCH
Spiny Dogfish	85,936	36.6
Other fish	47,030	20.1
Winter Skate	18,449	7.9
Little Skate	14,703	6.3
Redfish	10,174	4.3
Silver Hake	9,203	3.9
Atlantic Herring	8,804	3.8
Haddock	7,044	3.0
Atlantic Cod	6,221	2.7
Mackerel	4,583	2.0
Goosefish	2,739	1.2
Yellowtail Flounder	2,714	1.2
Loligo Squid	2,641	1.1
American Lobster	2,578	1.1
White Hake	2,211	0.9
Butterfish	2,100	0.9
Winter Flounder	1,865	0.8
Summer Flounder	1,259	0.5
American Plaice	1,170	0.5
Scup	820	0.3
Pollock	819	0.3
Witch Flounder	592	0.3
Windowpane Flounder	374	0.2
Illex squid	233	0.09
Black Seabass	126	0.05

I have some serious reservations about this type of survey for all types of fish. However, NMFS claim that this is the best invention since the wheel. If we take NMFS on their word and think this survey is a good indicator of the biomass that existed between Canada and Cape Hatteras in the spring of 2,009, it is testimony to gross mismanagement of the resources.

The four top categories in the survey total 71 %, and they are all of little or no commercial value. It appears from these numbers that the management objective is to have as many no value predator fish as possible so they can eat the rest of the fish and we do not need any commercial fishery. The story of lack of big female dogfish is absolutely pure nonsense. The days of Jesus are long gone.

Also if any commercial boat listed 20% of their catch as OTHER, they would be heavily fined and locked up in jail.

To recommend catch quotas for the two squid species based on survey results that are two or more years old is absolutely nonsense. That is survey data that is two or more generations old. If we applied the same thought process to Surf Clams we would be using survey data that was sixty or more years old, and if anybody tried that they would be laughed out of the meeting room. Why is that not the case with squids? The only way of managing squid resources is with some kind of in season model. Anything else is the equivalent of throwing darts.

When I listen to discussions about mackerel I feel like I am in the middle of the fairy tale "The Emperors New Cloths". If any body have not read this fairy tale, I absolutely recommend it before they talk any more about mackerel. I think many people talking about Mackerel also believe in Santa Claus, and if they just talk enough about mackerel Santa will just bring it to them from nowhere.

A number of fishermen that spend a lot of time at sea every year have told NMFS for the last 25 years that their stock assessment for mackerel was much too high, but nobody would listen to mere stupid fishermen.

Since the implementation of our 200 mile EEZ, we have never even gotten close to catching the mackerel quota. The last decade we have seen a huge increase in catching and processing capacity. This resulted in a couple of years when the catches were going up. Since year 2,000 the size of the mackerel caught have been very small with all or most of the fish not sexually mature. This means that we have severe problems with recruitment. The last couple of years the catches of mackerel fallen off a cliff. In 2,010 the total landings were only 21 million Lbs. If all recently active mackerel catchers filled their holds 1.3 times that is equal to the total landings. In a year with good abundance that would only take 3-5 days to do. Mackerel prices are at an all time high, and even the smallest fish can be sold at a profitable price, so the incentive to produce is absolutely there.

It has always been claimed that The Canadian and U.S. stock of mackerel is the same. I have never seen any proof of this being the case. To the contrary there are a lot of evidence that this is not the fact. A tiny portion of The Canadian mackerel catch are done around Nova Scotia, and I think it is possible this is same stock as the U.S. catch. The vast majority of The Canadian catch are done West and North of Newfoundland. The mackerel catch in Canada have not started yet this year. The catches in Newfoundland up through 2,009 contained individual fish all of a much larger size than what was caught in the U.S. the following January.

When I can be convinced that mackerel shrink in size when it is swimming south, I will believe that the two stocks are the same.

The last few years there have been a lot of talk about the butterfish stock being in dire shape. This is not the observation of fishermen out on water every day. Also it does not seem to be the case in the 2009 spring survey listed above. I think the reported increase in by catch is a result of large biomass that it is impossible to stay clear of. Since the landings of butterfish have been so low for so long there is only a small fresh market for the fish left. The frozen market for butterfish have totally vanished. If the quota for butterfish were increased in increments it would be possible to slowly get the frozen market back.

Regards Geir Monsen
Seafreeze Ltd.

Amendment 11 - Mackerel Limited Access

The SMB Committee, the SMB Advisory Panel (AP), and the Amendment 11 FMAT met on May 26, 2010. The purpose of the meeting was to resolve outstanding issues with Amendment 11, principally the tension between providing access to historical vessels and effectively capping capacity. The meeting took place the day before the June mail-out so Council staff is including this brief preliminary summary and additional details can be provided at the June Council meeting. The Committee and AP will be meeting in June to address 2011 specifications as well as Amendment 11 and may clarify staff's summary - there was not time to circulate this summary to the committee/AP/FMAT prior to mail-out.

The Committee received substantial comments from the SMB advisory panel that they thought that the ranges of vessels in Tiers 1 and 2 proposed so far were generally reasonable and that having fewer vessels could impede harvesting of quotas even in the range of 42,000 mt. The Committee also received input from the FMAT on issues related to the current alternatives in terms of capacity and data issues.

To summarize perspectives on mackerel limited access, Council staff requested input on two possible scenarios. The first scenario would be a small fleet, perhaps 18 vessels that had directed access, and that during a "good" mackerel year might harvest mackerel January through April. The second would be a larger fleet like those discussed in the current document (Tiers 1 and 2) that during a "good" mackerel year, if most actually fished, might harvest the quota relatively quickly and perhaps only fish January-February. The AP panel was unanimously in favor of the second scenario. The AP panel felt such early closures would likely happen relatively rarely in peak abundance years and that it was better to have more vessels able to search and fish for mackerel in the majority of years when mackerel availability was not near its peak.

The participants also discussed ways to allow historical vessels a degree of participation without relying on old (pre-3/1/1994) landings data. The approach for addressing this issue involves simplifying the system to three Tiers, with the higher Tiers requiring the most recent data and then having a Tier 3 that would consist of all other vessels (about 2,500) with permits on 3/21/2007. This Tier would have a 100,000 pound trip limit and would close to a low-level trip limit (staff will be provide a range in June for the Committee to consider) once it reaches a certain cap, perhaps 1%-5% of the quota. While such a cap might only allow about forty 100,000 pound trips total for the 2,500+ Tier 3 vessels under anticipated near-future quotas, the Committee and AP concluded that this option would address providing some access for historical and latent vessels as well as capping the number of vessels that have access to the principal directed fishery. The committee made the following motions related to the above-described approach:

Motion that the Committee recommend to the Council to take the following alternatives out for additional public comment:

Alternative B (simplified 1C)
T1: 1,000,000 1997-2007
T2: 100,000 1997-2007
T3: 3/21/2007 Permit

Alternative C (simplified 1D)
T1: 400,000 1997-2005
T2: 100,000 1994-2005
T3: 3/21/2007 Permit

-And include a cap on Tier 3 based on historic percentages of (1988-2007) commercial landings: Minimum, Average, Maximum percents.
-Indicate "C" (simplified 1D) as preferred.
-No allocation between Tiers.
Tooley/Pate (9/0/0) Motion Passes

Note: Record reflects that AP agreed by consensus with motion(unanimous).
Note: Committee further clarified that 3/21/2007 permit would apply to all Tiers.
Note: Committee further clarified that there would be an-open access group with low trip limits and that staff would develop a range of alternatives.

Motion that the trip limits associated with new alternative for Tier 2 be 135,000 pounds and Tier 3 be 100,000 pounds.
Tooley/Pate (9/0/0)
Record reflects that AP agreed by consensus with motion (unanimous)

It is likely that consideration of these alternatives will require a supplement to the Amendment's draft EIS be published and an additional written comment period. Also, the addition may require substantial editing of the Amendment's final EIS. Staff will investigate and report on the relevant procedural issues at the June Council meeting. Staff will also summarize any additional outstanding issues pertaining to Amendment 11.

Conserving Ocean Fish and Their Environment
Since 1973

May 20, 2010

Richard B. Robins, Jr., Chairman
Mid-Atlantic Fishery Management Council
Suite 201
800 N. State St
Dover, DE 19901

Re: Amendment 11 Meeting to Discuss Cap Capacity Alternatives

Dear Mr. Robins,

Thank you for the opportunity to provide input for the meeting on Amendment 11 alternatives to cap capacity in the Atlantic mackerel fishery that will take place on May 26th in Baltimore, MD. The 2010 Atlantic mackerel TRAC,[1] published in April, revealed declining trends in spawning stock biomass and productivity and an alarming drop in the numbers of mature mackerel in surveys and catch, leaving many unanswered questions regarding mackerel distribution and availability. These findings raise serious concerns regarding reduced long-term yield to the U.S. mackerel fishery, and it would be imprudent for the Council to proceed with any of the limited access program tier alternatives (options 1B-1J), developed from the higher yield projections contained in the 2006 mackerel assessment,[2] that could potentially lock in overcapacity. In addition, the Council has expressed interest in a mackerel catch shares program in the future with this limited access program laying the foundation. Until reliable estimates of long-term yield are available, the Council should steer away from any limited access system that implies future quota allocations to specific vessels and gear types. While the vast majority of U.S. landings are currently attributed to high-volume mid-water trawl gear, just a decade ago, most of the catch was landed by bottom otter trawls.[3] Reduced quota and/or changes in mackerel distribution may lead to a shift back to this traditional gear type and smaller volume vessels, which could be excluded through the proposed tier alternatives.

With over 2600 mackerel permits issued in the 2007 fishing year,[4] NCMC strongly supports the Amendment 11 objective to "cap capacity", but we believe this goal can be achieved through a greatly simplified limited access program that does not establish tiers. Specifically, the Council should limit access to the mackerel fishery using the published March 21, 2007 control

[1] TRAC. 2010. Atlantic Mackerel in the Northwest Atlantic. TRAC Status Report 2010/01.
[2] 42nd Northeast Regional Stock Assessment Workshop (42nd SAW): 42nd SAW assessment summary report. US Dep Commer, Northeast Fish Sci Cent Ref Doc. 06-01; 61 p.
[3] MAFMC. 2010. Amendment 10 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan including Final Supplemental Environmental Impact Statement. March 2010.
[4] Amendment 11, p. 9.

date (i.e., any new permits issued after that date should not be renewed). Capacity could then be effectively capped through alternatives to:

- Require vessels to submit a verified fish hold measure in order to participate in the directed fishery (Alternative 4C);
- Establish vessel baselines and restrict vessel upgrades that could lead to increased capacity (Alternative 4B5-4B8);
- Eliminate latent capacity by requiring permits to be renewed annually or forfeited (Alternative 4B11); and,
- Prohibit the splitting of permits and mackerel history in order to qualify additional vessels for limited access (Alternatives 4B2 & 4B10).

The Council has also discussed the possibility of moving the "cap capacity" alternatives to Amendment 14 and adding mackerel catch shares to the Amendment 14 scope. Amendment 14 objectives already include catch shares programs for the *Illex* and *Loligo* fisheries as well as a strategy for monitoring and/or reducing bycatch of imperiled river herring. Unlike the squid resources that are deemed stable,[5] the mackerel resource and fishery are clearly in a state of flux, and we urge the Council not to pursue mackerel catch shares until it is confident that a sustainable fishery model exists. The next mackerel assessment has not been scheduled, and it is unlikely that the questions raised in the 2010 TRAC will be adequately answered during Amendment 14 development. In addition, with its current objectives, Amendment 14 is already estimated to be a 2-3 year process. We oppose adding objectives that are likely to further delay action to address river herring bycatch, which the Council has recognized as an urgent need.[6]

Thank you for your consideration.

Sincerely,

Pam Lyons Gromen
Executive Director

[5] Meeting of the Mid-Atlantic Fishery Management Council's Scientific and Statistical Committee. May 11-22, 2010.
[6] MAFMC. Letter to the Secretary of Commerce. 24 June 2009.

Northeast Regional Office Staff's Proposed
Atlantic Mackerel Limited Access Alternative
Baltimore, Maryland
May 26, 2010

Objective: Create a limited access mackerel fleet with a harvesting capacity that is consistent with the available mackerel harvest by allowing fleet size to expand and contract with the U.S. mackerel allowable biological catch (ABC).

Description: This alternative proposes a tiered, limited access program with fishery participation determined by the size of the U.S. mackerel ABC. Dealer data would demonstrate landings from qualification periods. Tier participation would vary with U.S. mackerel ABC and would be announced in specifications.

> Tier 1 -- This tier would be comprised of current and recent participants in the mackerel fishery and would always have access to mackerel harvest. Qualification requirements could include both a permit (March 21, 2007) and recent landings (qualification years to be determined). Capacity would be equal to reasonably expected mackerel yield.
>
> Tier 2 -- This tier would be comprised of recent and historical participants in the mackerel fishery and would have access to mackerel harvest when the U.S. mackerel ABC was above a certain level. Qualification requirements could include a permit requirement (March 21, 2007). Harvest could be limited by Tier 2 quota and/or possession limits.
>
> Open Access -- Harvest could be limited by possession limits.

This alternative could provide economic stability to current fishery participants that rely on mackerel harvest when the U.S. mackerel ABC is low, while providing fishery access to historical fishery participants that may not otherwise qualify for limited access when the U.S. mackerel ABC is high. This alternative could also address the Northeast Regional Office's concerns that current limited access alternatives create a mackerel fleet with harvesting capacity in excess of mackerel long-term yield and contain qualification periods pre-dating mandatory dealer reporting requirements.

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Richard B. Robins, Jr.
Chairman

Lee G. Anderson
Vice Chairman

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Daniel T. Furlong
Executive Director

MEMO TO: Ecosystems and Ocean Planning Committee (Kray, McMurray, Anderson, Augustine, deFur, Miko, Munden, Schafer, Speir, Travelstead, Zeman) and Gorski and Greene

MEMO FROM: Tom Hoff

DATE: May 27, 2010

SUBJECT: Committee meeting

The Ecosystems and Ocean Planning Committee will meet on Wednesday June 9, 2010 at the beginning of the Council's second day of meetings. We are scheduled from 8:00 until 9:30 am.

Mr. Stan Gorski and Ms. Karen Greene of the Regional Offices' Habitat Division will brief the Committee on the ongoing activities of their Division as they relate to our Council. Their draft PowerPoint present follows this memo.

Attached is a February 26, 2010 letter from Dr. Lubchenco responding to our letter on coastal and marine spatial planning (CMSP). I have also attached a MACOORA email on the latest information on the Gulf oil spill and ocean observations update. Finally, please find an announcement and website for the NOAA new aquaculture policy.

I look forward to seeing everyone at the Committee meeting.

Energy Issue Update

NMFS Habitat Conservation Division

Presentation to:

Mid-Atlantic Fisheries Management Council

June 9, 2010

Types of projects in the Mid-Atlantic

- Wind Power
- Liquefied Natural Gas (LNG)
- Nuclear Generating Facilities
- Fossil Fueled Power Plants
- Pipelines
- Electric Cables
- Non-traditional Hydroelectric

Wind Power

- Proposals for offshore renewable energy projects
  - Maine
  - Massachusetts
  - Rhode Island
  - New York
  - New Jersey
  - Delaware
  - Maryland
  - Virginia
  - South Carolina
  - Georgia
  - Florida

From Minerals Management Service
www.mms.gov/offshore/RenewableEnergy/stateactivities.htm

Minerals Management Service Renewable Energy Program

- The Interior Department completed the Final Renewable Energy Framework or rulemaking process to govern management of the MMS Renewable Energy Program in April 2009.
- The rule establishes a program to grant leases, easements, and rights-of-way for orderly, safe, and environmentally responsible renewable energy development activities, such as the sitting and construction of offshore wind farms on the OCS as well as other forms of renewable energy such as wave, current, and solar.
- Coordination through task forces established with state, local and tribal governments;
- Lease and grant issuance including competitive and non-competitive leasing as well as commercial and limited leases;
- MMS has offered to meet with NMFS to discuss how NMFS consultations under the MSA and ESA fit into the leasing process. A meeting date has not yet been determined
- For projects in Federal Waters only. Outside 3 miles.

Maine

- There are several initiatives for developing offshore renewable energy especially in state waters.
- State-level initiatives include meteorological evaluations and testing of deepwater, offshore wind technologies.
- Recently, the state passed legislation streamlining the permitting process for companies wanting to test new offshore wind technologies all along Maine's coastline.
- In December 2009, Maine announced the selection of the following three offshore wind power test sites: Boon Island, Damariscove Island and Monhegan Island.
- These sites were selected by a consortium of government and private agencies and are in state waters. The sites will be used to test new technology that generates electricity from waves.

Massachusetts

- Massachusetts released its comprehensive ocean management plan in January 2010.
- The Plan identifies sites in state and federal waters for commercial-scale wind development.
- The MMS is working to coordinate through a task force with the federal, state, local and tribal governments.
- The first meeting was held to introduce the purpose of the task force and the intergovernmental members, explain the MMS renewable energy leasing and environmental review process, as well as introduce the Request for Interest
- A second meeting was held to present and discuss the draft Request for Interest.
- The Cape Wind Project : The MMS received a request from Cape Wind Associates LLC for a lease, easement or right-of-way to construct and operate an offshore wind facility located in Federal waters 4.7 miles offshore Cape Cod, Massachusetts, on Horseshoe Shoal in Nantucket Sound. Landfall for the transmission cable would be in Yarmouth.
  - The MMS published the Cape Wind draft EIS in January 2008 and the final EIS on January 2009. On April 28, 2010, Department of Interior Secretary Salazar announced the availability of the Record of Decision (ROD) for the Cape Wind Project. The ROD documented the bureau's decision to select the Preferred Alternative at Horseshoe Shoal in Nantucket Sound described in the final EIS.
  - The MMS will offer a commercial lease to CWA in response to CWA's application. CWA's rights to construct and operate the project pursuant to the lease are subject to construction and operation approvals from MMS.

New York

- A collaborative of private and public (state and city) entities is led by the Long Island Power Administration (LIPA) and Consolidated Edison Company (ConEd). The collaborative is considering wind power development on the OCS at a site 13 miles off the Rockaway Peninsula.
- On June 30, 2009, the collaborative issued a Request for Information from developers, equipment manufacturers, and other interested parties. The comment period closed on August 31.
- The MMS is working with the New York Department of State (DOS) and other interested parties to convene an inter-governmental task force to consider the collaborative's proposed project and other potential renewable energy activities on the OCS off New York.

New Jersey

- The MMS issued three interim policy leases; one to Deepwater Wind LLC, one to Bluewater Wind New Jersey Energy LLC and Fishermen's Energy of New Jersey LLC in November 2009. MMS is awaiting the submission of project plans from the applicants.
- The MMS is working to coordinate through a task force with the federal, state, local and tribal governments. The goal of the task force is to facilitate intergovernmental communications regarding OCS renewable energy activities.
- The MMS received an unsolicited application for a commercial lease in January 2010.
- The New Jersey Department of Environmental Protection (NJDEP), Division of Science, Research & Technology (DSRT) is undertaking Ocean/Wind Power Ecological Baseline Study as recommended by the State of New Jersey Blue Ribbon Panel on Development of Wind Turbine Facilities in Coastal Waters. The objective of this study is to conduct baseline studies in waters off New Jersey's coast to determine the current distribution and usage of this area by ecological resources. The scope of work includes the collection of data on the distribution, abundance and migratory patterns of avian, marine mammal, sea turtle and other species in the study area over an 18-month period. The final report is expected to be released at the end of June.
- An informational meeting on the report will be held on June 18, 2010 in Trenton.
- NJ has one application for a six turbine pilot facility in State waters offshore of Atlantic City.

Delaware

- The MMS offered one interim policy limited lease to Bluewater Wind Delaware LLC in June 2009 for the installation of a meteorological tower.
- The Delaware Request for Interest was published in the Federal Register on April 26, 2010 under Docket ID: MMS–2010–OMM–0017. Comments on the FRN are due June 26, 2010.
- The MMS is working to coordinate through the task force with the federal, state, local and tribal governments. The goal of the task force is to facilitate intergovernmental communications regarding OCS renewable energy activities.

Maryland

- The State of Maryland has issued a Request for Expressions of Interest and Information (RFI) with regard to the potential for offshore wind energy development.
- The purpose of the RFI was to assist the State and the Maryland Energy Administration to assess the State's options for offshore development of its wind resources. The deadline for responses closed on March 1, 2010.
- The MMS held its first task force meeting with the federal, state, local and tribal governments. The goal of the task force is to facilitate intergovernmental communications regarding OCS renewable energy activities.

Virginia

- The MMS has received two unsolicited applications for projects offshore Virginia.
- The MMS is working to coordinate through the task force with the federal, state, local and tribal governments. The goal of the task force is to facilitate intergovernmental communications regarding OCS renewable energy activities.
- The second MMS Virginia State Task Force Meeting was held in Williamsburg, VA on April 27, 2010.

South Carolina

- The MMS's Gulf of Mexico OCS region is participating on the South Carolina Regulatory Task Force for Coastal Clean Energy. The task force is looking primarily at state waters. Some of the major recommendations of the task force include the need for a statewide policy supporting renewable energy activities, the need for one stop shopping for offshore wind projects and the need to develop a leasing framework for renewable energy.
-
- The MMS is working to coordinate through a task force with the federal, state, local and tribal governments. The goal of the task force is to facilitate intergovernmental communications regarding OCS renewable energy activities.

- The South Carolina Energy Office is conducting a renewable energy workshop in late March 2010. The purpose of this workshop is to share experiences from other states, the private sector, and military, as well as state regulators.

Georgia and Florida

- In Georgian, Southern Company has issued a Request for Proposals for environmental consultants to work on an interim policy project off of Savannah. No leases have been assigned at this time.
- The MMS expects to receive an application from them during first quarter 2010.
- In Florida, the MMS is working with three potential hydrokinetic (ocean current) energy generation developers. The projects in question are under MMS's "Interim Policy". These are not commercial and are limited in scope.
- No leases have been assigned at this time. Potential leases under Interim Policy are only for data collection and technology testing.
- The MMS is working to coordinate through a task force with the federal, state, local and tribal governments.

These are not commercial and are limited in scope. MMS is working

Liquefied Natural Gas (LNG)

- Offshore LNG under the Deepwater Port Act
  - Administered by Maritime Administration/US Coast Guard
  - Three proposed off NJ
    - Atlantic Sea Island Group's Safe Harbor Energy Deepwater Port
      - Created 60 acre island 19 miles off Sandy Hook and 13 miles from Long Island
      - Deepwater Port Act license application is complete
      - Draft Environmental Impact Statement due out this year.
    - Blue Ocean Energy- ExxonMobil project
      - Floating LNG terminal 20 miles off Monmouth Co., NJ and 30 miles off NY
      - Will connect to shore via new subsea pipeline that will connect to new and existing onshore pipeline systems.
      - Application not yet complete
    - Liberty Natural Gas/Excalibur Energy USA
      - Submerged turret buoy system
      - 15 miles offshore Asbury Park, NJ
      - New subsea pipeline proposed to connect to Linden, NJ
      - Application not yet complete

INSHORE LNG

- Facilities proposed inshore under Federal Energy Regulatory Commission (FERC) Jurisdiction
  - BP/Crown Landing LNG, Logan Twp. Gloucester Co, NJ and New Castle Co, DE
    - FEIS issued in 2006 approving the project
    - Involves pier construction and dredging in Delaware River
    - NJ issued permits and CZM consistency determination
    - Delaware denied CZM consistency and 401 water quality certifications
    - US Supreme court upheld DE's right to regulate area
    - Hess Crown Landing LP purchased project from BP in late 2009 –could be reactivated
    - Potential Atlantic sturgeon spawning area.
  - AES Sparrows Point, Baltimore, Maryland
    - FERC approved in January 2009
    - Involves pier construction and dredging
    - Maryland denied CZM consistency and 401 water quality certifications
    - Denial upheld by US Appeals Court in January 2010

Nuclear Generating Facilities

- Expansion of Existing Facilities
  - Calvert Cliffs NGS, Maryland
  - Salem and Hope Creek NGS, New Jersey
    - Hope Creek has closed loop cooling system
    - Salem has open loop system
    - Expansion will use close loop cooling
- State Issued Discharge permits
  - Draft NJ Discharge permit pending for Oyster Creek NGS, Ocean Co. NJ
    - Uses open loop cooling system
    - Draft permit requires installation of cooling towers
    - NMFS has recommended the use of cooling towers at facility since mid 1970's
- 316 reviews/ License Renewals

Coal Fired Power Plants

- Two proposed
  - James River, VA
  - Arthur Kill, NJ
    - PurGen One/SCS Energy
      - integrated gasification combined cycle or IGCC converts coal to gas
      - Proposed offshore carbon sequestration
      - Requires new subsea pipeline from Linden to 70 miles offshore Seaside Heights, NJ
      - Requires cable from shore to sequestration site.

Pipelines and Cables

- Several proposed in association with other projects
  - LNG, carbon sequestration, electric cables from wind farms
  - Potential impacts to shellfish, mud dump site, fishing grounds
  - Impacts to fishing access, trawlers
- Spectra Energy NY/NJ Expansion
  - Crosses Hudson River
- Mid-Atlantic Power Pathway
  - From VA to NJ
  - Primarily upgrade to existing
  - Crosses Chesapeake Bay and tributaries, Indian River, and Delaware River

Non-traditional Hydroelectric Projects in-stream turbines

- FERC regulates if connected to grid
- Army Corps of Engineers permit structures, has lead if not connected to grid
  - Verdant Power – Roosevelt Island Tidal Power
    - East River, NY
  - Natural Current Energy Services
    - Wills Hole Thorofare Tidal Energy, Manasquan River, NJ
    - Long Island Sound Tidal Energy, Long Island sound, NY
    - Wards Island Tidal Energy, East River, NY
    - Cape Cod Tidal Energy, Cape Cod Canal, MA
  - UEK Delaware
    - Indian River Inlet, DE
- Fish passage issues – catadromous species.

Non-traditional hydroelectric projects
wave energy

- Regulated by MMS if in Federal Waters
- Several proposed in coastal Maine
  - Tideworks
  - Damarisotta
- Potential project in New York Bight
- Potential interactions with fisheries, requires new subsea electric cables

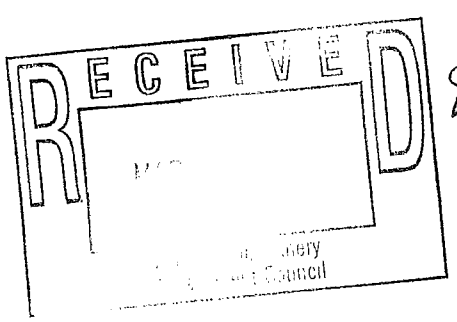
Transportation Projects

- Several major transportation projects are planned in the region
  - Bridges
    - Tappan-Zee, Goethels, Route 72 (NJ)
  - Airports
    - Philadelphia Airport expansion
      - 25 acres of fill in Delaware River
  - Port Facilities
    - Delaware Deepening
    - Potential future deepenings in NY Harbor
    - New facilities at Paulsboro, NJ – SAV impacts

UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary of Commerce
for Oceans and Atmosphere
Washington, D.C. 20230

Jon
BRIEFING
BOOK

FEB 26 2010



3/11/10

Mr. Daniel T. Furlong
Executive Director
Mid-Atlantic Fishery Management Council
Suite 2115 Federal Building
300 S. New Street
Dover, DE 19904-6726

Dear Mr. Furlong:

Thank you for the comments from the Council Coordination Committee on the Interim Framework for Effective Coastal and Marine Spatial Planning (Framework). I have been very active in the Ocean Policy Task Force process and can assure you that the National Oceanic and Atmospheric Administration (NOAA) is committed to deliver a coastal and marine spatial planning framework which will enable governments at all levels to optimize both use and protection of marine ecosystems for the maximum benefit of the Nation.

Coastal and Marine Spatial Planning (CMSP) is intended to result in significant economic, environmental, and social benefits for the Nation, and will build upon and significantly improve existing federal, state, tribal, local, and regional decision-making and planning processes. We fully expect that NOAA would continue to interact with and engage the fishery management councils through its existing structure as it participates in the development and implementation of CMSP.

Your input will be considered as the Ocean Policy Task Force works to finalize the Framework document. As we continue to work together on issues such as CMSP, our collective effort will move us forward with a comprehensive management approach that reduces human use and ecosystem conflicts, while still promoting economic activity and maintenance of critical ecosystem services.

Sincerely,

Jane Lubchenco, Ph.D.
Under Secretary of Commerce
for Oceans and Atmosphere

THE ADMINISTRATOR

Saunders, Jan

From: Hoff, Thomas B.
Sent: Thursday, May 27, 2010 1:42 PM
To: Saunders, Jan
Subject: FW: Oil Spill and Ocean Observations Update
Attachments: ATT34169.jpg

Jan, I don't have the Lubechenco letter electronically. Sorry.

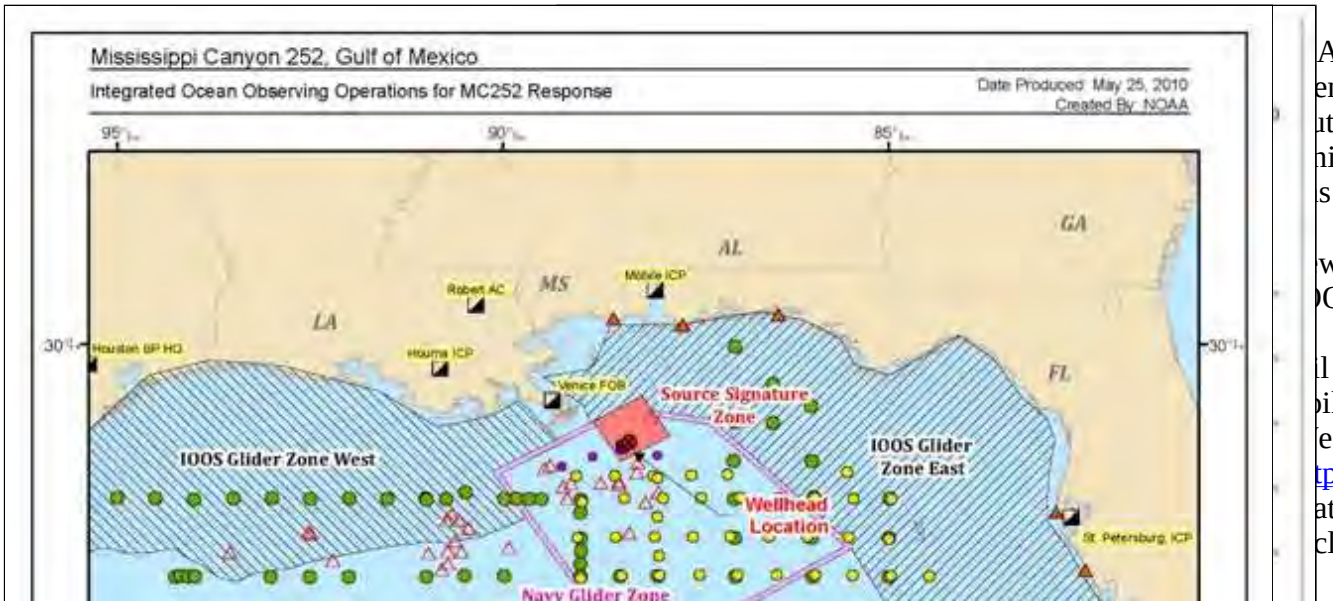
From: MACOORA [mailto:info@macoora.org]
Sent: Thursday, May 27, 2010 12:51 PM
To: MACOORA
Subject: Oil Spill and Ocean Observations Update

MACOORA
Ocean Information for a Changing World

To: Friends of MACOORA and its operating arm, MARCOOS
From: Judith T. Krauthamer, Executive Director
Mid-Atlantic Coastal Ocean Observing Regional Association
Mid-Atlantic Region Coastal Ocean Observing System
Date: May 27, 2010
Regarding: Ocean Observing Updates

The Deepwater Horizon Oil Spill catastrophe has galvanized the entire ocean community. From Buoy Deployer to waterfowl washer, a vast swathe of disciplines has been called to action.
The Ocean Observations community is responding to the call. Below please find resources and updates that might be of use.

Oil Spill and Ocean Observations Resources:



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with daily updates of assets in the water. "*May 25: It has been a busy day in the Gulf. Many teams are joining the effort, and the effort represents the largest and most distributed ocean glider effort in history. While there is a lot of effort, the highest priority is remain outside the operations of BP as it tries sealing the leak tomorrow… Also received input that NAVO has launched 2 Seagliders and drifters in the last few days. We also received an update from Breck Owens (WHOI) and Dan Rudnick (Scripps) are joining the effort... The second Rutgers glider and the University of Delaware glider should be shipped out tomorrow to the Mote team for deployment. We also got a late day update from the Mote team where the glider "Waldo" was launched late today and the data will be flowing the web sites. Data updates to follow tomorrow. For the Rutgers IOOS glider it continues heading offhsore. The two layer system shows a highly stratfied system. Interestingly we see chlorophyll increasing in the offshore bottom waters.7* "[sic]

The website also provides Google Earth KMZs – gliders, satellites, hf-radar, models. For example see the HYCOM Forecast of SSH, SST, Surface Salinity and Density with Currents – Data Provided Courtesy of the HYCOM Consortium

ODU has a new Oil Spill Website: http://www.ccpo.odu.edu/~atkinson/VAMDSpill/

Florida's has a new tracking website: http://oilspill.fsu.edu/trackingspill.php

An overview of the efforts BP is putting into the killing of the well can be found here.

SECOORA has developed A Plan to Map Out the Vertical and Horizontal Disposition of the Submerged Oil Plumes Arising From the Deep Water Horizon Spill. The basic objective of this plan is to prove and execute a methodology for mapping out the disposition of submerged oil both in the near vicinity of the DWH wellhead and at various distances from the wellhead. Once an initial mapping of the plume is accomplished circulation models can be used to forecast plume growth and movement. Neutral buoyancy floats can be used to seed the plume in select locations to provide regular tracking.

The NOAA Ship Thomas Jefferson is underway on a mission to deploy a variety of U.S. Navy ocean monitoring instruments in the vicinity of the BP Deepwater Horizon oil spill. The floats, drifters and autonomous underwater vehicles will aid researchers in monitoring the surface and deep currents that are distributing the oil. Of particular interest is the Loop Current and its potential to spread the oil to a much wider area.

Oil Spill and the East Coast

In an article by Scott Harper, The Virginian-Pilot, "Scientists are increasingly worried that spilled oil from the Gulf of Mexico may get sucked into the Gulf Stream and make its way up the Atlantic coast to Virginia and North Carolina, perhaps within two or three weeks. The same scientists say it is unlikely that any oil would reach shore and spoil beaches in either state, though offshore fishing and sea turtle migration off the coast of both states would likely suffer. If the massive spill that resulted from an oil rig explosion off Louisiana "keeps going, and they don't stop it, we might start to see small tar balls on the edges of the Gulf Stream" off Virginia and North Carolina, said Larry Atkinson, an oceanographer at Old Dominion University in Norfolk, and MACOORA Board Director. He said it would take unusual and sustained northerly winds to blow oil from the Gulf Stream onto beaches in Virginia and North Carolina, "but stranger things have happened." Cape Hatteras on North Carolina's Outer Banks is especially vulnerable, given the way it juts into the ocean and is only 10 to 15 miles from the Gulf Stream.In Virginia, this same offshore belt of warm moving water, rich in fish and marine mammals, is about 20 to 30 miles from beaches."We are concerned, definitely concerned," said Harvey Seim, a marine science professor at the University of North Carolina in Chapel Hill, President of SECOORA and MACOORA

Principal. We know silt and debris can move along the coast in this way, which is why we're watching this oil so closely,"

In an interview elsewhere, Seim is quoted, "Out over a year, I would say there's almost a 100 percent chance that some part of the oil will show up off-shore in North Carolina. Once it's in the Loop Current, it can take one to two months to get to the Georgia, South Carolina, North Carolina off-shore region." But once oil reaches the state's off-shore area, Seim says it would still need wind from the right direction to bring it onto the beach. "I think enough time goes by, the sea weed will have tar balls in it." Tar balls on a beach may not require an emergency response, but the state says they are planning for them." Listen to the interview here.

In a letter to President Obama, the Florida delegation wrote “We are fortunate to have some of the best researchers participating in the Southeast Coast Ocean Observing Regional Association. SECOORA scientists believe that the highest research priority should be to characterize the nature of the subsurface threat, monitor its movement, determine the effects of dispersants being applied underwater at the wellhead, and determine if there are any effective measures that could be taken before it approaches our Florida and east coast ecosystems. The members of the Florida delegation agree with their assessment." Read the letter, here.

On May 25, New Jersey Department of Environmental Protection Commissioner Bob Martin announced the formation of a "gulf spill team" to monitor the situation daily, create a scientific model of how the oil could reach New Jersey, and develop a plan of action. "Right now, we are optimistic the oil will not reach New Jersey and will not affect fishing nor the summer beach season. However, we are keeping a close watch on this situation." The department is spending "virtually no money" on the effort, using in-house staff and the help of scientists from MACOORA member Rutgers University and MACOORA member, the Center for Marine Systems at the Stevens Institute of Technology in Hoboken.

ROFFS™ has been mapping the distribution and movements of the oil from the Deepwater Horizon spill from satellites since the explosion, using a host of U.S. (NOAA and NASA) and European (ESA) satellites with a variety of spectral (infrared, near infra-red, visible, RGB and synthetic aperture radar) and spatial resolutions (300 meter to 1 KM) to see and map the location of the oil.

MACOORA Weekly Teleconferences
Members, Directors and Principal Investigators of MACOORA/MARCOOS participate in weekly teleconferences on the oil spill. We are currently investigating a sampling regime for the coast off of Cape Hatteras; integrating data into the GNOME model; and assisting in current Gulf operations. For more information, contact info@maccora.org.

Oil Spill-related Legislation
On May 12, Representative Corrine Brown (D-FL) introduced the East Coast and Gulf Coast Ocean Protection Act of 2010 (H.R. 5287). This act would amend the Outer Continental Shelf Lands Act to permanently prohibit offshore drilling on the Outer Continental Shelf in the Atlantic Ocean and Gulf of Mexico. The bill has been referred to the Committee on Natural Resources.

Don't be left out!
MACOORA's membership is growing, and we want you to be a part of it. Join Today, and be heard.

Questions, comments or concerns? Let us know: info@macoora.org
If you have received this email in error, or do not wish to receive this enewsletter, please email info@macoora.org, and put 'remove from list' in the subject line. We apologize in advance for any inconvenience.

NOAA FISHERIES SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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NOAA to Develop New Aquaculture Policy

On September 3, 2009, Dr. Jane Lubchenco, Under Secretary of Commerce for Oceans and Atmosphere, announced plans to develop a new National Oceanic and Atmospheric Administration (NOAA) Aquaculture Policy. The policy will provide a foundation for sustainable aquaculture that will create employment and business opportunities in coastal communities; provide safe, sustainable seafood; and complement NOAA's comprehensive strategy to maintain healthy and productive marine populations, species, and ecosystems and vibrant coastal communities.

As a first step, NOAA is currently seeking broad input on the components of a draft aquaculture policy from interested stakeholders including communities, state and local governments, tribes, businesses, associations, the aquaculture industry, commercial and recreational fishermen, the seafood industry, non-governmental organizations, and the general public. Stakeholders can participate in three ways - by participating in a listening session, by submitting a comment online, or by participating in a national call-in. The details for all of these options are listed below. The public input period began on April 6 and has been extended to midnight (EDT) on May 28, 2010.

After the listening sessions are over, NOAA will analyze the public input and develop a draft national policy for review and public comment. Once that process is complete, the agency will issue a new NOAA Aquaculture Policy.

Aquaculture Listening Sessions and National Call-in

Discussion Questions

Submit a Comment Online

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Commenting Guidelines

Background Materials

For More Information

Aquaculture Listening Sessions and National Call-in

Between April 14 and May 21, 2010, NOAA held seven public listening sessions to gather input on a new NOAA Aquaculture Policy. The sessions were an open forum for the public to make recommendations to NOAA officials regarding a new policy that will address all forms of marine aquaculture. NOAA held in-person regional sessions in Rhode Island, Louisiana, Washington State, Hawaii, California, and Alaska . NOAA also hosted a national call-in for those who could not make the regional sessions. A total of 352 people participated in the seven sessions, while others contributed their comments online. Summaries of the listening sessions and the expert presentations from the listening sessions will be available below. To view the comments submitted online click here.

- • **Narragansett, Rhode Island (April 14)**
  - Summary of the Listening Session
  - Expert presentation - this links to the expert presentation by Dr. Barry Costa-Pierce of the University of Rhode Island
- **New Orleans, Louisiana (April 19)**
  - Summary of the Listening Session
  - Expert presentation - this links to the expert presentation by Dr. Barry Costa-Pierce of the University of Rhode Island
- **Seattle, Washington (April 22)**
  - Summary of the Listening Session
  - Expert presentation - this links to the expert presentation by Dr. Chris Langdon of the Oregon State University's Hatfield Marine Science Center
- **Honolulu, Hawaii (April 27)**
  - Summary of the Listening Session
  - Expert presentation - this links to the expert presentation by Dr. Jo-Ann Leong of the Hawaii Institute of Marine Biology
- **Menlo Park, California (April 29)**
  - Summary of the Listening Session
  - Expert presentation - this links to the expert presentation by Dr. Chris Langdon of the Oregon State University's Hatfield Marine Science Center
- **National call-in hosted by NOAA (May 6)**
  - Summary of the Listening Session
- **Anchorage, Alaska (May 21)**
  - Summary of the Listening Session

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Discussion Questions

NOAA is currently seeking public input to help shape the scope and objectives of a draft policy. We are particularly interested in hearing ideas about how the policy can most effectively guide and support science; provide clear regulations; support outreach, education, and innovation; and define the U.S. role in this international industry. Below are questions that can guide discussion at the public listening sessions and comments submitted online or via the national call-in.

1. What opportunities exist for developing sustainable marine aquaculture nationwide? What are the major impediments?
2. What are the most important environmental considerations, and how can these be addressed?
3. Which social and economic consequences or outcomes will be the most important in the next 5 years or in the next 20 years?
4. How can NOAA best support essential research and innovation? What should be the goals of NOAA-funded research related to aquaculture?
5. How can NOAA best communicate with the industry and public on aquaculture issues? What are the opportunities for partnerships?
6. What role should NOAA play with respect to aquaculture issues and initiatives at the international level?
7. What other considerations need to be addressed in NOAA's aquaculture policy?

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Submit a Comment

You may type your comment into the form on our website or upload a separate document. Supporting documents, links, etc., are welcome as long as they are pertinent to the process. The public input period began on April 6 and has been extended to midnight (EDT) on May 28, 2010. Click here to submit a comment. Also note the Discussion Questions listed above and the Commenting Guidelines listed below.

Submit a Comment

View Comments

Comments may also be submitted:

- Via fax: (301) 713-9108 (Attn: Aquaculture Program).
- Via mail: NOAA Aquaculture Program, Attn: Public Comment, 1315 East-West Highway, SSMC#3-13th Floor, Mail Code: F, Silver Spring, MD 20910.

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Commenting Guidelines

In accordance with NOAA's Online Privacy Policy, we treat your name, city, state, and any comments you provide as public information. You may enter a comment as 'anonymous' if you do not want this information available to the public. Also, supporting documents, links, etc., are welcome as long as they are pertinent to the process. However, the appearance of external links, advertisements, political opinions, or other comments do not constitute endorsement or that of the U.S. Government.

While this is a public process, NOAA will review all comments before they are posted. NOAA will not post content that meets the following criteria:

- Contains vulgar language, personal attacks of any kind, threats, obscenity, or offensive terms that target specific ethnic or racial groups;
- Promotes services or products (non-commercial links that are relevant to the comment are acceptable);
- Are far off-topic (i.e., not within the scope of the policy development process); or
- Make unsupported accusations.

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Background Materials

Aquaculture supplies almost half of the world's seafood and a significant portion of future increases in the global seafood supply are expected to come from aquaculture. The United States is a major consumer of aquaculture products, but a minor producer. Currently, 84 percent of the nation's seafood is imported, and half of that is from aquaculture. U.S. aquaculture supplies about five percent of U.S. seafood. Aquaculture techniques are also widely used in the United States to help restore valuable wild fisheries and habitat, including oysters.

For purposes of this policy, aquaculture is defined as the propagation and rearing of aquatic marine organisms in controlled or selected aquatic environments for any commercial, recreational, or public purpose. This definition covers all production of finfish, shellfish, and other marine organisms, excluding marine mammals, for:

- Human consumption and other commercial uses;
- Wild stock replenishment;
- Rebuilding populations of threatened or endangered species; and
- Restoration of marine habitat (e.g., oyster reefs).

The following documents provide background materials and context for this effort.

- NOAA Aquaculture Program Backgrounder **(pdf)**
- NOAA 10-Year Plan for Marine Aquaculture
- 1999 U.S. Department of Commerce Aquaculture Policy **(pdf)**

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For More Information

To contact the NOAA Aquaculture Program, send an e-mail to: NOAA.Aquaculture@noaa.gov.

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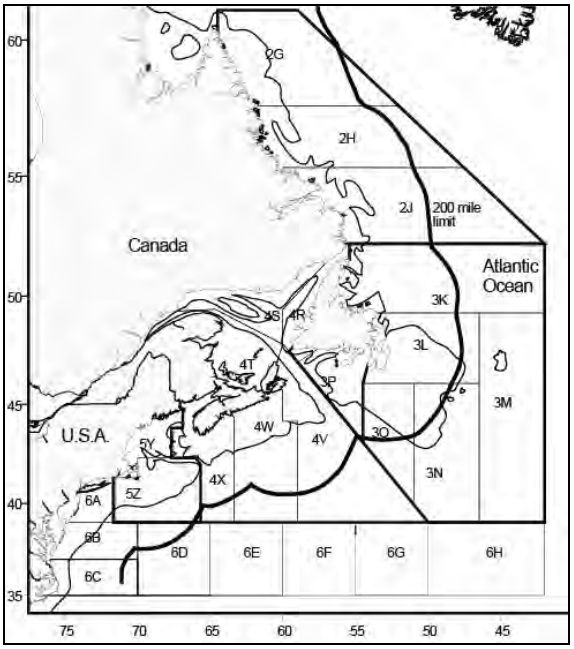
NOAA FISHERIES NATIONAL MARINE FISHERIES SERVICE

Transboundary Resources Assessment Committee

Status Report 2010/01

ATLANTIC MACKEREL IN THE NORTHWEST ATLANTIC

[NAFO Subareas 2 - 6]



Summary

- Combined Canada and USA catches for the 2008 calendar year were 50,685 metric tons (mt).

- A number of different models and model formulations were evaluated. A VPA-ADAPT model including variable natural mortality at age, the spring Northeast Fisheries Science Center (NEFSC) survey index split in 1984-1985 and 1992-1993, a commercial bottom trawl CPUE index split in 1988-1989, and a mid-water trawl CPUE index with no split, was selected as the best available model at the time of the assessment.

- Given the uncertainty in the assessment results, the TRAC agreed that short term projections and characterization of stock status relative to estimated reference points would not be an appropriate basis for management advice at this time.

- Given current indications of reduced productivity and lack of older fish in the survey and catch, it is recommended that annual total catches not exceed the average total landings (80,000 mt) over the last three years (2006-2008) until such time that new information suggests that a different amount is appropriate.

Ce document est disponible sur l'Internet à : This document is available on the Internet at :
http://www.mar.dfo-mpo.gc.ca/science/TRAC/trac.html

Canada

April 2010

Landings (mt), Biomass (mt), Recruits (thousands of fish)

		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Avg[1]	Min[1]	Max[1]
Canada	**Commercial**	16,561	13,383	23,950	34,309	44,475	53,365	54,279	53,649	53,016	28,245	27,524	13,383	54,279
USA	**Commercial**	12,031	5,649	12,340	26,530	34,298	54,990	42,187	56,640	25,547	21,749	16,371	1,605	56,640
	Recreational	1,335	1,448	1,536	1,294	770	530	1,033	1,633	884	691	1,748	284	4,223
	US Total	13,366	7,097	13,876	27,824	35,068	55,520	43,220	58,273	26,430	22,440	17,949	1,605	58,273
Total	**Landings**	29,927	20,480	37,826	62,133	79,543	108,885	97,499	111,922	79,446	50,685	53,744[2]	20,480	111,923
Values Below are Indicative of Trend Only														
Total Biomass			752,000	640,000	520,000	460,000	532,000	404,000	368,000	246,000	200,000			
Spawning Stock Biomass (SSB)			155,000	313,000	354,000	280,000	222,000	209,000	136,000	113,000	154,000[3]			
Age 1 Recruits (000s)			2,989,000	382,000	280,000	711,000	1,192,000	377,000	746,000	210,000	376,000			
Fishing mortality (4-6)[4]			0.17	0.18	0.23	0.32	0.53	0.52	1.11	0.98	0.51			

[1] commercial, 1978-2008; recreational, 1981-2008
[2] includes foreign landings
[3] adjusted for retrospective [using 7-year peel]
[4] age-varying M precludes exploitation rate estimation

Stock Distribution and Identification

Northwest Atlantic Mackerel (Northwest Atlantic Fisheries Organization, NAFO, Subareas 2-6) are assessed as a single stock that ranges from North Carolina to Labrador, with northern and southern spawning contingents. This transboundary stock is migratory and seasonal distribution patterns are influenced by water temperature.

Fishery

Prior to 2001, the Canadian quota was 100,000 mt. From 2001-2008, it was reduced to 75,000 mt following the low biomass estimates from the southern Gulf of St. Lawrence egg survey (DFO 2008). USA quotas, which vary annually based on biomass and other factors, are reduced by anticipated Canadian landings. USA Allowable/Acceptable Biological Catches (ABCs) have declined from 383,000 mt in 1999 to 156,000 mt in 2008, as new information from stock assessments and Canadian catches have been incorporated.

Canadian and USA quotas and USA Allowable/Acceptable Biological Catch (ABC).

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Canadian Quota	100,000	100,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
US ABC	383,000	347,000	347,000	347,000	347,000	347,000	335,000	335,000	186,000	156,000
US Quota	75,000	75,000	85,000	85,000	175,000	170,000	115,000	115,000	115,000	115,000

Atlantic mackerel were heavily exploited by foreign fleets during the 1970s. **Total landings** in NAFO Subareas 2-6 peaked at an average of 347,000 mt during 1970-1976 (Figure 1), but were less than 50,000 mt annually during 1978-1984. During 1985-1991, total landings averaged 76,000 mt per year, but averaged only 32,501 mt from 1992-2001. Total landings averaged 72,047 mt from 2002-2008. In 2008, total landings were 50,685 mt.

USA commercial landings averaged 2,368 mt from 1960 to 1983, but peaked at 31,261 mt in 1990 before declining to 4,666 mt in 1993. Annual commercial landings averaged 23,673 mt during 1994-2008, with a record-high of 56,640 mt in 2006. Landings from 2005-2008 averaged 37,000 mt. Commercial discards have been estimated since 1989, and constitute a small fraction of the catch. **USA recreational catches** have been estimated since 1981 (Figure 1). The recreational catches average 1,748 mt over the time series, with a high of 4,223 mt in 1986 and a low of 284 mt in 1992.

Canadian commercial landings were relatively stable at approximately 20,000 mt per year during 1968-2000 (Figure 1). Canadian commercial landings increased to a peak of 54,279 mt in 2005, remained over 50,000 mt in 2006 and 2007, and were 28,245 mt in 2008. The Canadian bait and recreational catches of mackerel are not known. Due to lack of data availability, discards of mackerel in Canadian commercial fisheries have not been estimated.

Harvest Strategy and Biological Reference Points

The Atlantic mackerel 2010 TRAC recommends that a strategy be adopted to maintain a low to neutral (less than 50%) risk of exceeding the fishing mortality (F) limit reference point ($F_{40\%}$). The TRAC further recommends that when stock conditions are poor, fishing mortality rates should be further reduced to promote rebuilding. Deterministic per recruit reference points (proxies for F_{msy}) were estimated as: $F_{0.1}$=0.29 and $F_{40\%}$=0.25.

Projections, with stochastic sampling of recruits from 1985-2008, produced an estimate of $SSB_{40\%}$ (proxy for SSB_{msy}) of 194,000 mt (10^{th}-90^{th} percentiles of 143,500 mt and 296,600 mt). This implies a Maximum Sustainable Yield (MSY) proxy (yield at $F_{40\%}$) of 37,200 mt (10^{th}-90^{th} percentiles of 27,400 mt and 55,300 mt,). Confidence intervals provided here incorporate only a fraction of the uncertainty. **As the estimates of $SSB_{40\%}$ and $MSY_{40\%}$ are dependent on the model results and both estimates are also highly uncertain, the TRAC does not recommend their adoption.**

Projections were also done using the 1962-2008 recruitment series, which generated an estimate of $SSB_{40\%}$ of 441,000 mt; however, evidence for recent reductions in productivity suggests the use of the 1985-2008 recruitment period may be more appropriate. A methodology to adjust recruitment estimates prior to the terminal year relative to Mohn's rho (retrospective adjustment) has not yet been developed. This creates an inconsistency when comparing Mohn's rho adjusted estimates of 2008 SSB to biomass reference points derived using unadjusted recruitment estimates.

State of Resource

Atlantic mackerel was last assessed in 2005 in the USA (NEFSC 2006) and in 2008 in Canada (DFO 2008). The 2005 USA assessment was based on an ASAP model, tuned using the NEFSC spring survey, split in 1984-1985 (and the assessment also included Canadian landings). The 2008 Canadian assessment was based on spawning stock biomass estimates derived from the southern Gulf of St. Lawrence egg survey (but the

assessment did not include USA landings). Given that Atlantic mackerel is a transboundary stock, the first joint Canada/US TRAC assessment was conducted. To develop a joint assessment approach, two benchmark review meetings were held during which a number of different models and model formulations were evaluated.

The benchmark review agreed to use the NEFSC spring survey index and two commercial catch per unit effort (CPUE) indices (bottom-trawl and mid-water trawl) as tuning indices for the TRAC assessment. A VPA-ADAPT model was selected with (a) the spring NEFSC survey index split in 1984-1985 and 1992-1993; (b) the bottom trawl CPUE index split in 1988-1989 and the mid-water trawl CPUE index with no split and (c) using a variable natural mortality (M) at age (from the ASAP model) to account for predation. The VPA-ADAPT model exhibits a strong retrospective pattern (Figure 2), with the terminal year population estimates uncertain (high coefficients of variation) and perhaps biased.

The assessment model was faced with resolving disparate trends between the NEFSC spring survey and CPUE indices and total landings. Despite very large annual catches in the 1970s, there was very little change in the spring survey index during these years. Later in the assessment time series, a generally increasing trend in the survey index was co-incident with a rapid disappearance of older age classes in both the survey catches and the commercial landings. This situation contributed to a large retrospective pattern (aliasing survey catchability with the two opposing trends).

The retrospective patterns in the model were addressed by applying a survey split in 1984-1985 (which was used in the 2005 USA assessment), as well as applying an additional split in 1992-1993. The 1984-1985 split is justified by a change in survey trawl door at this time, as well as indications in the survey of changing mackerel distribution from deeper to shallower water. The mechanism for the 1992-1993 split has not yet been established; however, this split improved model diagnostics. In both instances, the splits may be aliasing other factors. Simulations presented at previous USA groundfish assessments indicated that assessments that exhibit strong retrospective pattern provided more reliable catch advice (i.e., closer to F_{ref} in the simulated population) by splitting the surveys, regardless of the cause of the retrospective pattern (GARM 2008).

Estimated fishing mortality for Atlantic mackerel (F; averaged over ages 4-6) increased from 0.17 in 2000 to a peak of 1.11 in 2006 (the highest in the time series), but decreased to 0.51 in 2008 (Figure 3A). The 10^{th} and 90^{th} percentiles of F in 2008, obtained from bootstrap runs of the selected VPA model, were estimated as 0.33 and 1.91, respectively. Retrospective analysis showed that, for a given year, F estimates generally declined with each additional year of data (Figures 2A and 2B).

Estimated SSB declined from 1,359,003 mt in 1972 to 96,968 mt (unadjusted for retrospective) in 2008 (Figure 3). The 10^{th} and 90^{th} percentiles of SSB in 2008 from bootstrap runs of the selected VPA were 71,710 mt and 141,196 mt, respectively. Retrospective analysis showed that, for a given year, SSB estimates generally increased with each additional year of data (Figures 2C and 2D).

Estimated recruitment (age 1) was characterized by occasional large year classes, especially the 1967, 1982, and 1999 cohorts (Figure 3). However, in recent years, recruitment has generally been lower, averaging 566 million age 1 fish during 1985-2009. By comparison, recruitment averaged 2.1 billion fish at age 1 during 1962-1984, and 1.3 billion age 1 fish over the entire assessment time series. Retrospective analysis showed that, for a given year, recruitment estimates generally increased with each additional year of data (Figure 4).

The large magnitude of the retrospective pattern warranted application of Mohn's Rho (the average of the relative difference between the terminal value and the previous 7 years) to the terminal year estimates of F, SSB and recruitment. For F, the Mohn's Rho value was 1.81, which resulted in the 2008 F being adjusted from 0.51 to 0.18. For SSB, Mohn's Rho was -0.35, which resulted in adjusting the 2008 SSB from 96,968 mt to 153,100 mt. For recruitment, Mohn's Rho was -0.20, which resulted in adjusting the size of the 2007 year class at age 1 in 2008 from 376 million to 467 million fish.

Productivity

The relatively low estimated recruitment after the 1982 year class suggests that the productive potential of the stock may be less than previously believed. The lack of older fish since the late 1990s in the NEFSC spring survey and also in the USA and Canadian commercial catches may be an indication of low stock productivity and high mortality. The Canadian egg survey in the southern Gulf of St. Lawrence has been low for several years; the Scotian Shelf was surveyed for mackerel eggs in 2009 and densities were extremely low. Mackerel in Canadian waters appear to have been maturing at smaller length since 2000, and, in USA waters, mackerel appear to have been maturing at younger ages since 1995. However, no trend is evident in mackerel mean weights at age over the time series.

Outlook

Given the uncertainty in the assessment results, the TRAC agreed that short term projections and characterization of stock status relative to estimated reference points would not be an appropriate basis for management advice at this time. Given current indications of reduced productivity and lack of older fish in the survey and catch, the TRAC recommended that total annual catches not exceed the average total landings (80,000 mt) over the last three years (2006-2008) until such time that new information suggests that a different amount is appropriate.

Special Considerations

Results of the current TRAC assessment differ substantially from those in the 2005 USA assessment (using an ASAP model), which indicated an increasing trend in SSB, although the 2005 assessment had a severe retrospective pattern that was not taken into account. A comparison of the 2005 retrospective pattern with the comparable ASAP

model updated to 2008 and with the current VPA model is shown in Figures 5 and 6, respectively. These comparisons indicate that the marked change in estimates of F and SSB between the 2005 USA assessment and the current TRAC assessment can be explained by the magnitude of the retrospective patterns (that is, if the 2005 assessment results had been adjusted for the retrospective pattern, the adjusted results would have been similar to the current assessment results). Previous reference points generated from the 2005 USA assessment were: F_{MSY} = 0.16; $F_{40\%}$ = 0.24; SSB_{MSY} = 644,000 mt; and MSY = 89,000 mt. However, given the significant retrospective pattern in the 2005 USA assessment, these reference points are now considered to be inappropriate.

The current TRAC assessment results are consistent with the decreasing trend in SSB estimates in the Gulf of St. Lawrence during the past decade as derived from the egg surveys reported in the 2008 Canadian mackerel assessment (DFO 2008).

The distribution of the USA mackerel fishery is currently inshore relative to the historical foreign fishery. Exploration further offshore (e.g., deeper than 200 m) may help to provide a better understanding of the stock dynamics of mackerel.

For the purposes of status determination under the *USA Magnuson-Stevens Fishery Conservation and Management Act*, the TRAC considers the status of Atlantic mackerel to be 'unknown'.

Source Documents

Deroba, J., G. Shepherd, F. Gregoire, J. Nieland, and P. Rago. 2010. Stock Assessment of Atlantic Mackerel in the Northwest Atlantic for 2010. TRAC Ref. Doc. 2010/01.

DFO. 2008. Assessment of the Atlantic Mackerel Stock for the Northwest Atlantic (Subareas 3 and 4) in 2007. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2008/041.

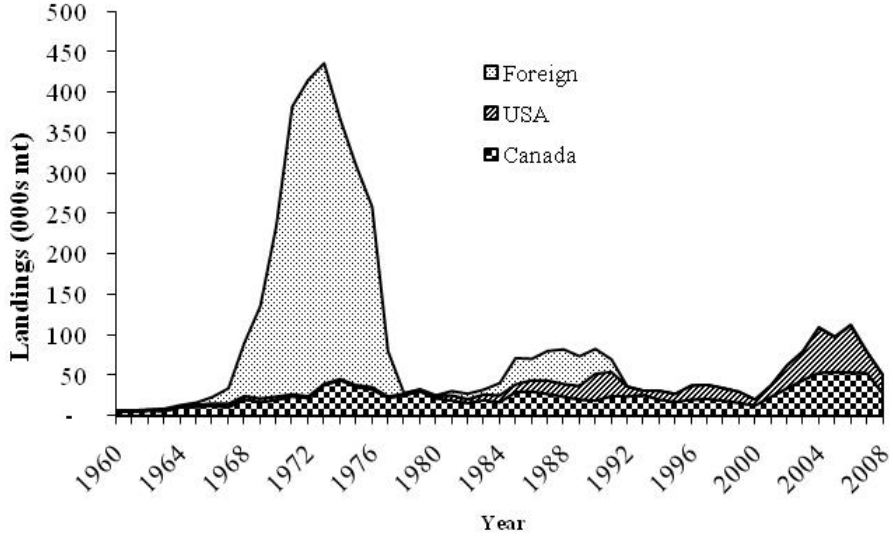
GARM. 2008. Report of the Retrospective Working Group. A Working Paper in Support of Term of Reference 4. Working Paper 4.1 GARM 2008 Methods Meeting Woods Hole, MA; 25-29 February 2008. http://www.nefsc.noaa.gov/GARM-Public/2.%20Models%20Meeting/for%20review/TOR4%20Retrospective%20Patt/

NEFSC. 2006. 42nd Northeast Regional Stock Assessment Workshop (42nd SAW): 42nd SAW Assessment Summary Report. US Dep. Commer., Northeast Fish. Sci. Cent. Ref. Doc. 06-01; 61 p.

Correct Citation

TRAC. 2010. Atlantic Mackerel in the Northwest Atlantic. TRAC Status Report 2010/01.

(A)



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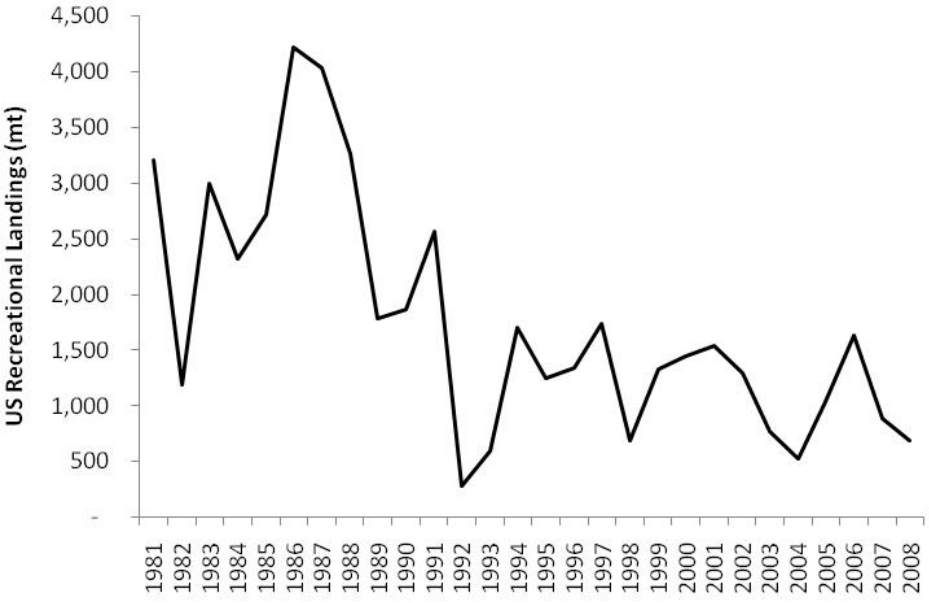

Figure 1. Commercial (A) and recreational (B) landings in the Northwest Atlantic since 1960.

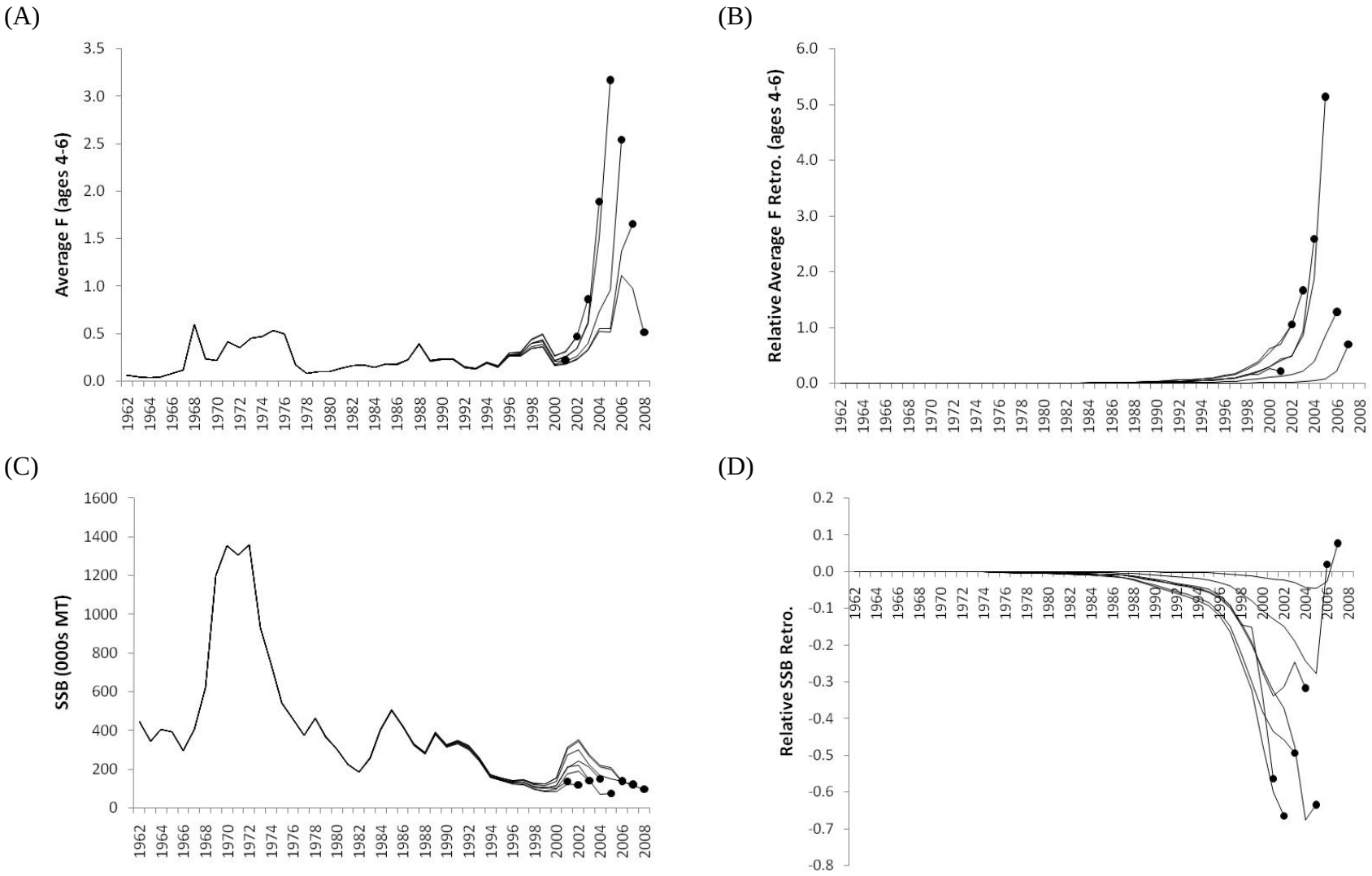

Figure 2. Retrospective patterns in average fishing mortality rate (ages 4-6) (A and B) and spawning stock biomass (C-D) from the final VPA model selected by the TRAC.

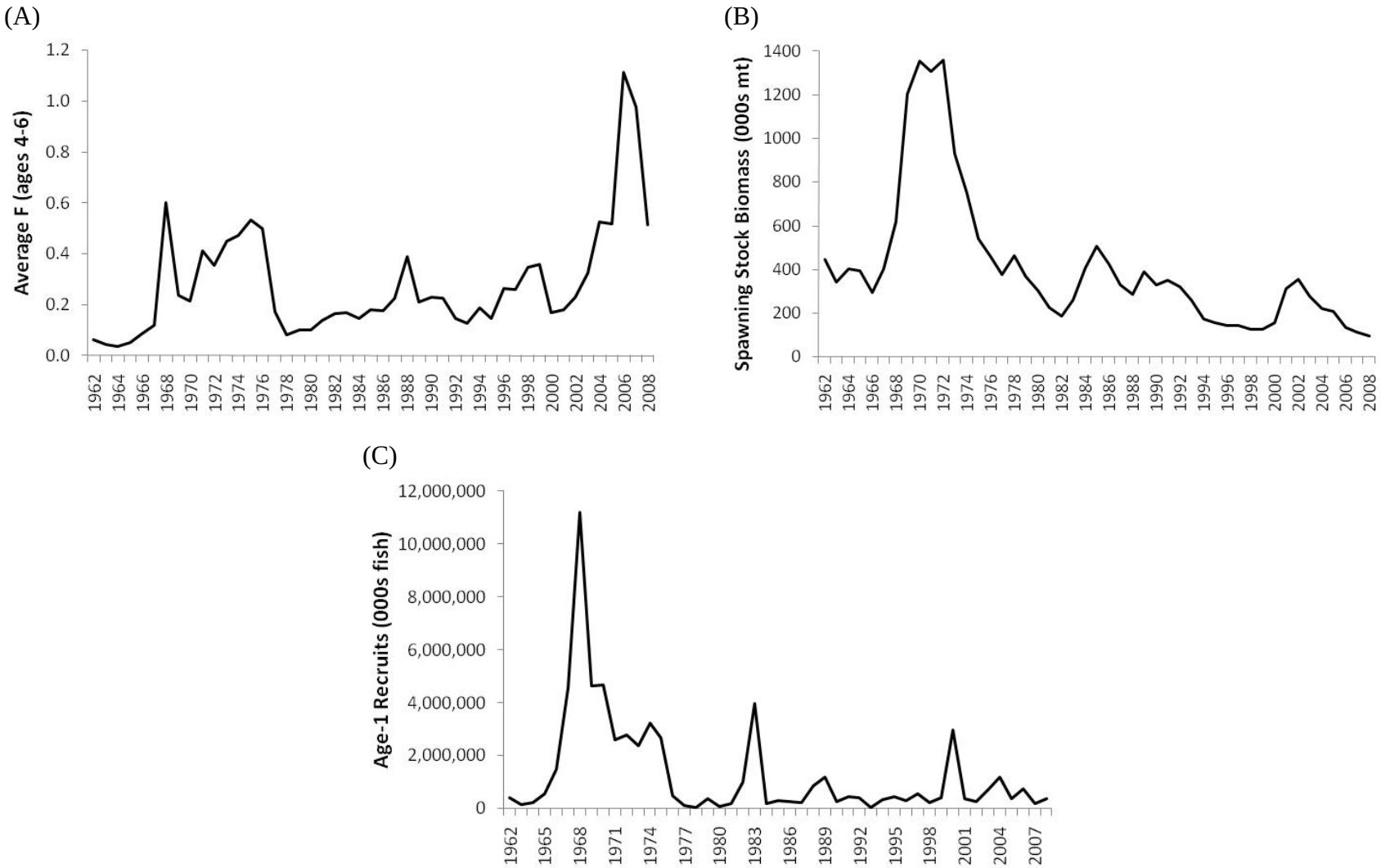

Figure 3. Average fishing mortality rate (ages 4-6) (A), spawning stock biomass (B), and age 1 recruitment (C) from the final VPA model selected by the TRAC.

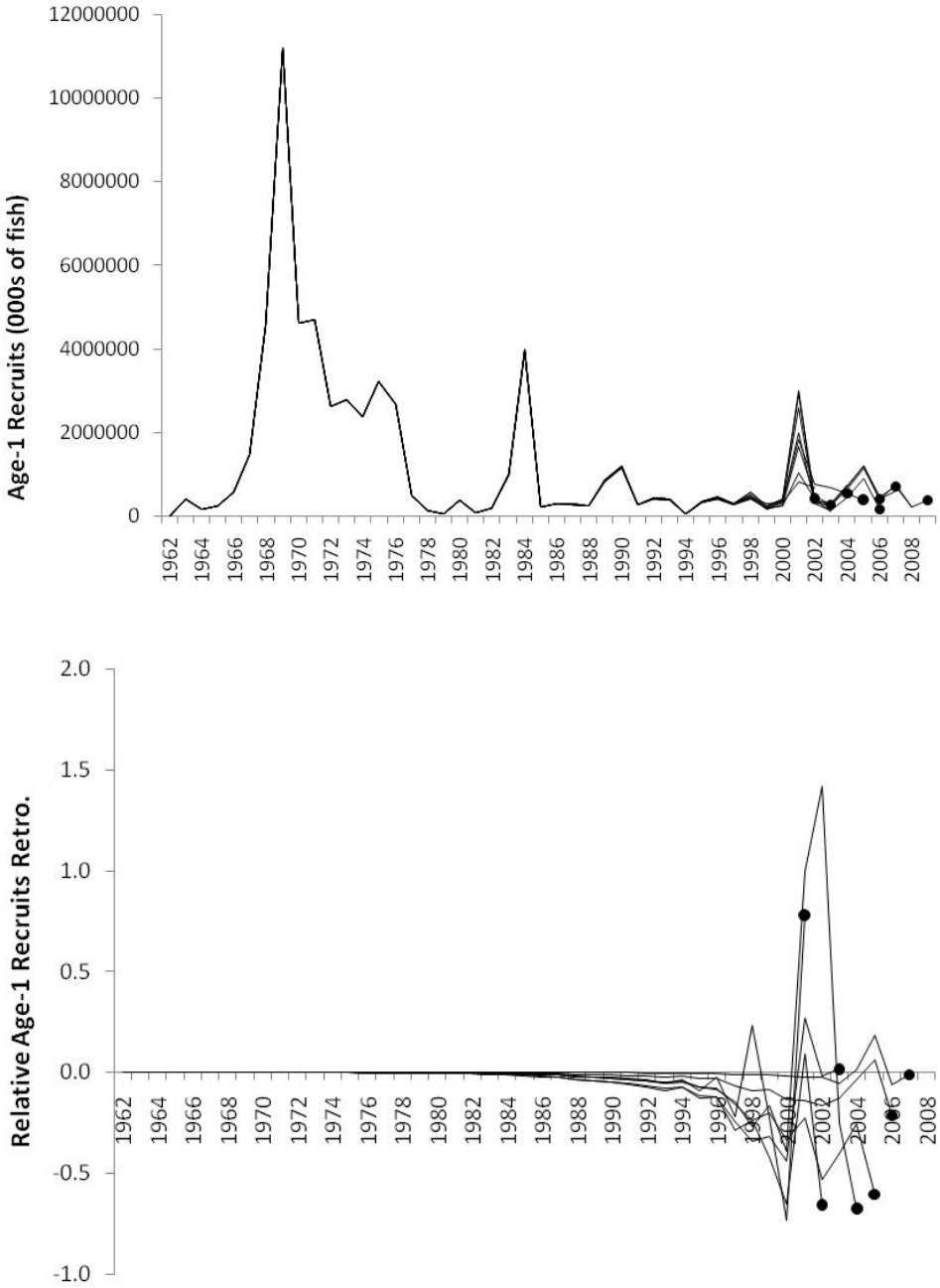

Figure 4. Retrospective pattern in age-1 recruits from the final VPA model selected by the TRAC.

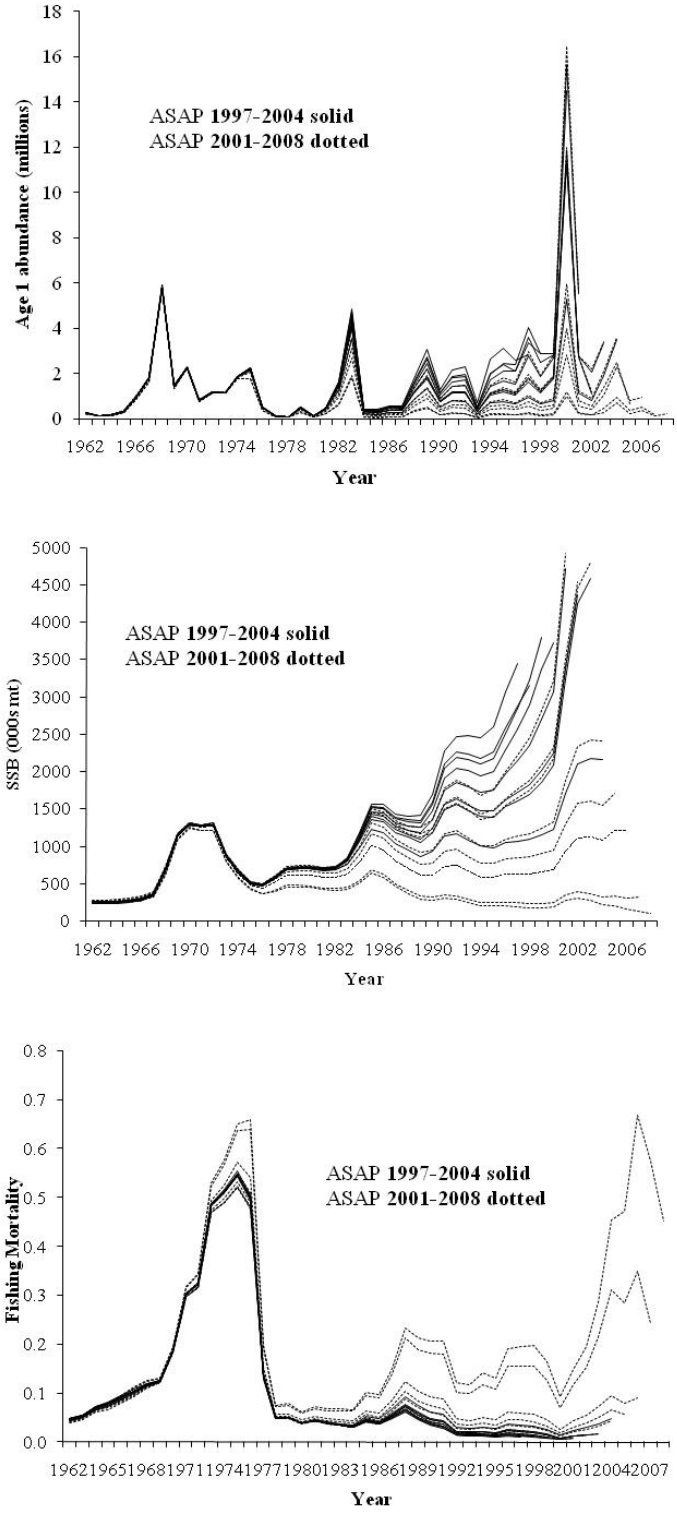

Figure 5. Comparison of the retrospective patterns between the 2005 ASAP assessment model and that same model updated through 2008.

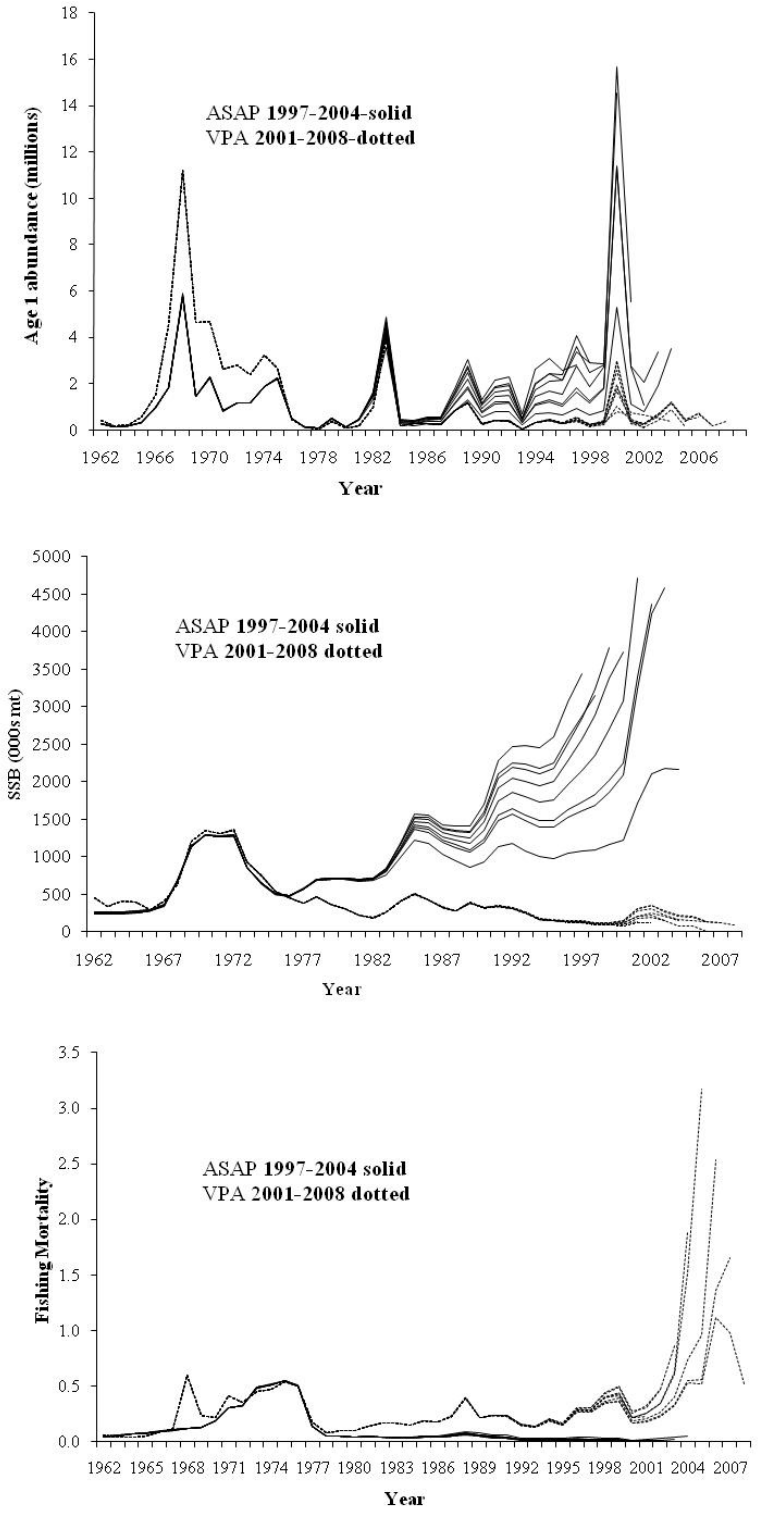

Figure 6. Comparison of the retrospective patterns between the 2005 ASAP assessment model and the selected 2010 VPA assessment model.

NOAA FISHERIES
Office of Law Enforcement

NORTHEAST ENFORCEMENT DIVISION

MAFMC
COUNCIL REPORT

June 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."**

Defendant Charles Manghis of Nantucket was found guilty in US District Court in the district of Massachusetts on one count of Conspiracy to smuggle wildlife, six counts of smuggling wildlife and two counts of false statements to federal agents after a four day bench trial. The investigation involved the illegal smuggling of sperm whale teeth from the Ukraine. Manghis is due to be sentenced on May 6, 2010.

Defendant Christopher Jacques was convicted of two criminal counts of violating the Marine Mammal Protection Act in the District of Massachusetts. Jacques knowingly struck two humpback whales with his vessel inside Stellwagen Bank National Marine Sanctuary while fishing for tuna. The incident was documented per a program created and instituted in the Northeast Region that provides a streamlined and objective reporting mechanism for whale watch naturalists to report potential violations they observe.

Agents arrested international fugitive Andriy Mikhalyov at Seattle International Airport. The arrest was the result of a three year undercover operation in which NOAA agents purchased Endangered Species parts. Mikhalyov's arrest is instrumental in three pending US prosecutions.

Agents submitted a case package on a Nova Scotia company that imported 95 short, 22 v-notch and 4 egg bearing lobsters through

the Calais, ME Port of Entry. There are twenty three more cases to be processed resulting from the December Border Operation.

Agents and the Maine Marine Patrol are cooperating with a local police department in an investigation of a NH individual who burglarized a federally permitted lobster dealer and stole thousands of dollars in live lobsters and lobster meat. The individual claims he sold the stolen seafood at a Route 95 rest area in Massachusetts.

Agents conducted a joint right whale operation with Massachusetts Environmental Police in the Cape Cod Bay Critical Habitat. Thirty lobster traps were hauled and seized for multiple ALWTRP violations. Both state and federal violations are pending. The majority of the lobster gear belonged to three lobstermen who have an extended history of non-compliance with the ALWTRP regulations.

COPPS/OUTREACH

Agents, NH Fish & Game and staff from the NOAA Highly Migratory Species Division in Gloucester, MA conducted an outreach presentation for 200+ Atlantic bluefin tuna fishers at the Fifth Annual Tuna Mania Seminar in Newington, NH.

Agents and the Maine Marine Patrol worked with the owner/operator of the FV POCOHONTAS to address an issue involving the temporary use of a second vessel to tend lobster traps while the vessel is broken down.

Agents closed out an observer refusal case on a fishing vessel with a verbal warning due to tragic personal circumstances.

Agents provided regulatory assistance to several fishermen regarding VMS codes, possession limits and restricted areas.

Agents contacted two federally permitted party boat owner/operators from New York who were operating without federal operators permit. Incident resolved through COPPS after providing education on the regulation requirements and permit office contact numbers so they could obtain the permit and be in compliance.

Agents interviewed the operator of a small stern trawler operating out of New Bedford, MA. The operator admitted to refusing to allow an observer to photograph and sample a bottlenose dolphin that was caught in the vessel’s net. Due to

the operator’s cooperation, the incident was closed with a verbal warning.

Agents received numerous calls from the industry complaining about the pending implementation of sector management, Amendment 16 and Framework 44. Some vessel owners/operators stated the felt slighted by the NMFS & NE Fisheries Management Council because they opted not to [direct] fish on certain species of concern. They reportedly fished on other species and are now being penalized [based on their allocation] for their conservation efforts.

Agents educated several fishermen concerning the new Maine DMR tagging requirements for halibut being landed by federally permitted vessels in the state of Maine.

Agents educated several callers and received investigative referrals involving seals on Long Island. All of the referrals were dealt with using the COPPS and education approach. No major violations were reported.

Agents provided training at the Boston Seafood Show for the staff of the Canadian Consulate and several Canadian seafood dealers. This is part of an effort to facilitate seafood inspections at Maine/New Brunswick border. Agents were assisted by the Seafood Inspection Lab and DFO Atlantic Maritimes.

Agents met with members of the Stellwagen Bank National Marine Sanctuary and members of NOAA’s Protected Resources Division to formulate a joint program regarding the right whale speed reduction rule.

Agents received a complaint that a Point Judith, RI based gillnet vessel was not using danforth style anchors as required by the ALWTRP. The vessel owner was contacted and stated he was using a combination of danforth style anchors and dead weight anchors (this was confirmed by observer data). The vessel owner stated he would ensure that his nets would be anchored with the required number of danforth anchors and he agreed to “spread the word” about the danforth anchor requirement to his colleagues in the fishing industry. The vessel owner was also put on notice regarding the possibility of at-sea gear inspections. Closed by COPPS

VMS REPORT

The NE VMS Team is currently monitoring 1,350 NE-permitted vessels, including 680 with Boatracs units, 631 with SkyMate units and 39 with Thrane units.

The National VMS Program Manager, Jon Pinkerton, has left the NOAA Fisheries Service to work for another government agency. His deputy, Kelly Spalding, is currently the acting National Program Manager until a replacement is identified.

SEIZURE ACTIONS

New Bedford, MA
Agents assisted by New Bedford MEP officers seized a scallop overage that exceeded the Atlantic sea scallop incidental trip limit. A 100% seizure of 383 lbs. of Atlantic sea scallops valued at $2,106.50 was seized from the FV Sea Explorer.

Lubec, ME
Agents assisted by the Maine Marine Patrol officers seized 207 lbs. of scallops valued at $1,190.25 during TAC Closure. The FV Mary Ellen was operating with an LGC IFQ Category A permit.

Boston, MA
Agents seized only the overage of 545 lbs. of Northeast Multispecies (cod) valued at $850.20 from the FV Flight One, for exceeding the cod possession limit. This was a self-reported violation by the captain and the catch was abandoned.

New Bedford, MA
Agents seized only the overage of 2,750 lbs of Georges Bank Yellowtail Flounder valued at $5,087.50 from the FV John & Nicholas for exceeding the yellowtail flounder limit.

NORTHEAST OBSERVER PROGRAM

During this period fourteen complaints were received from the Northeast Fisheries Observer Program. The following summary indicates the status of the investigations into the complaints.

Observer Refusal Investigations
Four observer refusal complaints were received. One complaint was closed under COPPS, one was closed with a Verbal Warning, and two are ongoing.

Observer Harassment/Intimidation Investigations

One observer harassment/intimidation complaint was received and then closed due to lack of evidence.

Observer Interference Investigations

Two observer interference complaints were received. One was closed under COPPS, and one was closed with a Verbal Warning.

Observer Safety Investigations

Five observer safety complaints were received. Four were resolved utilizing the COPPS approach and one was closed due to lack of evidence.

Observer Gear/Sample Tampering

No complaints were received.

Observer Program Notification

Two complaints were received and both are ongoing.

Atlantic States Marine Fisheries Commission

2010 Spring Meeting Summary

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

2010 Spring Meeting
Alexandria, Virginia
May 3 - 6, 2010

For more information, please contact the identified individual, Robert Beal, ISFMP, or Tina Berger, Public Affairs

202/289-6400

Meeting Summaries, Press Releases and Motions

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AMERICAN LOBSTER MANAGEMENT BOARD (May 3, 2010)

Press Release

ASMFC American Lobster Board Approves Addendum XVI
Addendum Establishes New Reference Points for 3 Stock Units

Alexandria, VA – The Commission's American Lobster Management Board has approved Addendum XVI to Amendment 3 to the Interstate Fishery Management Plan for American Lobster. The Addendum establishes new reference points for the three lobster stocks and modifies procedures for adopting and implementing new reference points.

Addendum XVI establishes a four-tiered approach to define abundance reference points in the Gulf of Maine (GOM) and Georges Bank (GBK), a four-tiered approach to define exploitation reference points for all three stock units, and a three-tiered approach to define abundance reference points for Southern New England (SNE). The Board set the SNE abundance reference points to a lower target level than the GOM and GBK stocks because it believes the SNE stock has limited ability to rebuild to higher historical levels. Members of the Board believe that environmental and ecosystem changes have reduced the resource's ability to rebuild to historical levels.

Based on these new reference points, GOM abundance is in favorable condition and exploitation falls in the middle of the range. GBK abundance and exploitation are in favorable condition. The SNE abundance estimate is below the reference point limit and requires Board action to rebuild the stock.

The Addendum also broadens definitions for status determination criteria for the three stock units, allowing for greater flexibility in incorporating changes to the reference point definitions as science and assessment methodologies evolve. Changes to reference points may now be made through Board action (versus addendum) following a peer-reviewed stock assessment. A more detailed overview of the Addendum's new reference points and stock status by assessment area will be available on the Commission's website under Breaking News by May 21.

In response to the condition of the SNE stock, the Board initiated the development of a draft addendum to address stock declines, including a range of alternatives from no action to a moratorium. The Board intends to meet in SNE area in July to review the document and consider sending it out for public comment. A subsequent press release will be issued once the details of the July Board meeting have been set. For more information, please contact Toni Kerns, Senior Fishery Management Plan Coordinator for Management, at tkerns@asmfc.org or at (202) 289-6400.

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PR10-09

Meeting Summary

The American Lobster Board also reviewed a report from the Technical Committee (TC) on differing measures in state and federal waters in the Outer Cape Cod Lobster Conservation Management Area (OCC LCMA). The report responded to two Board questions: (1) How much reduction in fishing mortality and brood stock protection does the Outer Cape trap reduction plan

(enacted in 2004) provide? (2) Is this equal to, greater than, or less than the gains provided by the 1/8" V-notch possession standard and the adoption of a 6-3/4 maximum gauge? The TC found that although a 20% trap reduction was achieved, there has been no responding reduction in fishing mortality as intended by the trap reduction. In fact, there is evidence that there has been a 40% increase in fishing mortality since 2002 in the OCC LCMA. The industry has increased its efficiency to compensate for the loss of traps. The OCC fishery has lost more egg production by harvesting sexually mature v-notched lobster (8%), than has been gained by the increase in minimum size (increase to 3 3/8" from 3 ¼") (1%). In light of the increases in fishing mortality and the increase in harvest rate of less than ¼" v-notch lobster, the TC reported that the OCC LCMA trap reduction plan does not provide equivalent levels of brood protection that a 1/8" v-notch definition and 6 3/4" maximum gauge would provide.

The Area 3 Lobster Conservation Management Team had requested to remove the requirement to increase the circular and rectangular vent that corresponded with the 3 ½" gauge size. The vent increase was delayed for two years in 2008. The Board reviewed the TC to report on vent size with corresponding gauge sizes. Based The TC did not recommend removing the vent because there would be conservation loss. The Board did not remove the change in vent scheduled for July1, 2010 in LCMA 3. The Board approved *de minimis* requests from the states of North Carolina, Virginia, Maryland, and Delaware.

For more information, please contact Toni Kerns, Senior Fishery Management Plan Coordinator for Management, at tkerns@asmfc.org or at (202) 289-6400.

Motions

Tabled Motion: Move to adopt in Addendum XVI the 25th percentile for the threshold abundance level and the 75th percentile for the threshold exploitation level, based on the reference period as described in the assessment (GOM/GBK 1982-2003; SNE 1984-2003).
Motion made by Mr. P. White, second by Mr. R. White.

Move to adopt in Addendum XVI the 25th percentile for the threshold abundance level and the 75th percentile for the threshold exploitation level, based on the reference period as described in the assessment (GOM/GBK 1982-2003; SNE 1984-2003).
Motion withdrawn.

Move adoption of the TC recommended (TC Memo 10-34) quartile-based abundance and exploitation rate reference points modified that the 25th percentile of abundance as the "limit reference point" (LRP) and the 50th percentile or median as the interim "target reference point" (TRP) for the SNE stock area, leaving Georges Bank and Gulf of Maine reference points at the 75th percentile.
Motion made by Mr. Simpson, second by Mr. Grout. Motion carries.

Move to adopt Option 2 for Section 4.2 in Addendum XVI.
Motion made by Mr. Lapointe, second by Mr. Grout. Motion carries.

Move to approve Addendum XVI as amended today.
Motion made by Mr. Lapointe, second by Rep. Abbott. Motion carries.

Move to initiate an Addendum to the Lobster FMP to address the stock condition in SNE. The addendum will include a range of alternatives from no action to a moratorium.
Motion made by Mr. Lapointe, second by Mr. Augustine. Motion carries.

Move to initiate a new Addendum if the Commonwealth of Massachusetts does not amend its regulations prior to July 1, 2010 that would extend biological measures to Outer Cape Cod that were approved by the Board in Addendum XI for Area 3. These changes would create a 6 ¾" maximum size for male and female lobster and a 1/8" v-notch (with or without setal hairs) possession standard for female lobster in the Outer Cape Cod LCMA to complement federal measures. If the Commonwealth promulgates regulations prior to July1, 2010 then those regulations would be added to the next ASMFC addendum to have the ASMFC Lobster FMP consistent with the Commonwealth's regulations.
Motion made by Mr. P. White, second by Mr. Ross. Motion fails.

Move to approve *de minimis* status for DE, MD, VA, and NC.
Motion made by Mr. Lapointe, second by Mr. Augustine. Motion approved.

ATLANTIC HERRING SECTION (May 3, 2010)

Meeting Summary
The Atlantic Herring Section (Section) met to review input and take final action on Draft Addenda II & III. Draft Addendum II proposed to adjust the specification definitions and administrative process to set the specifications, and establish payback measures for quota overages. The proposed measures were developed to achieve consistency with the New England Fishery Management Council's (NEFMC) Amendment 4. Staff presented a review of the document, public hearing and written comment summary, and representatives from the Technical Committee (TC), Advisory Panel (AP), and Law Enforcement Committee (LEC) presented input from their respective groups. Public comment unanimously supported moving forward with Addendum II. The TC and AP were supportive of Draft Addendum II and the LEC found no enforcement issues with the proposed measures. The Section voted to adjust specification definitions for consistency with the most recent draft of Amendment 4, establish a complementary process to set the specification, and establish annual accountability measure paybacks. The Section postponed finalizing Addendum II until the November since the final rule for Amendment 4 will not be available until late 2010 and delaying final action allows the Section to review the final Amendment 4 language and adjust Addendum II if necessary.

The Section discussed Draft Addendum III, which proposed measures to grant small mesh bottom trawl (SMBT) vessels higher possession limits and/or additional landing days and included seasonal, area, and quota restrictions for the proposed measures. Staff presented public input, which was mixed. Proponents of Addendum III measures noted that SMBT vessels cannot fish for more than 1 day per landing while larger vessels can fish for several days. Opponents were concerned that the addendum could allow for an increase in SMBT landings and is inappropriate given a 46% reduction in the Area 1A TAC. The TC reported a potential that the measures could lead to an increase in SMBT landings. The AP was concerned that Addendum III will attract new fishermen and result in a significant increase in SMBT landings. The LEC

reported that the measures in Draft Addendum III are enforceable but complicated. After extensive deliberations, a motion to move forward with exemptions in Draft Addendum III failed.

For more information, please contact Christopher Vonderweidt, at (202) 289-6400 or cvonderweidt@asmfc.org.

Motions

Addendum II

Main Motion:

Move to adopt Option 3 of Issue 1, consistent with table 5 on page 23 (specifications consistent with NEFMC Amendment 4 including the removal of JVPt, JVP, IWP, TALFF, and the Reserve).

Motion made by Mr. Grout, second by Mr. Stockwell. Motion amended.

Motion to Amend:

Motion to amend Option 3 of Issue 1, consistent with Council Amendment 4 with table 5 on page 23 (specifications consistent with NEFMC Amendment 4 including the removal of JVPt, JVP, IWP, TALFF, and the Reserve).

Motion made by Dr. Pierce, second by Dr. Macinko. Motion carries (7 in favor, 0 opposed).

Main Motion as Amended:

Move to adopt Option 3 of Issue 1, consistent with Council Amendment 4, with table 5 on page 23 (specifications consistent with NEFMC Amendment 4 including the removal of JVPt, JVP, IWP, TALFF, and the Reserve).

Motion made by Mr. Grout, second by Mr. Stockwell. Motion carries (8 in favor, 0 opposed).

Move to adopt Option 3 of Issue 2, to establish a specification setting process that is complementary with the NEFMC's Amendment 4.

Motion made by Mr. Grout, second by Mr. Adler. Motion carries.

Move to adopt Option 2 of Issue 3, requiring annual payback of TAC/ACL overages.

Motion made by Mr. Grout, second by Mr. Stockwell. Motion carries (6 in favor, 0 opposed).

Move to postpone approving Addendum II as modified today until the ASMFC Annual Meeting week in November 2010.

Motion made by Mr. Grout, second by Mr. Stockwell. Motion carries (6 in favor, 0 opposed).

Addendum III

Move to amend by including Option 3 for ISSUE 2.

Motion made by Dr. Pierce, second by Mr. Stockwell. No objections.

Move to adopt the following options: Issue 1 Option 3 modified to allow SMBT's holding a C permit a maximum possession limit of 10,000 pounds and SMBT vessels holding a D permit a maximum possession limit of 3 metric tons per landing day. SMBT vessels may not land in excess of the 2,000 pound bycatch allowance on a no landing day, Issue 2 Option

3 (may include different landing days for SMBT + 1 additional landing day), Issue 3 Option 1 (status quo), Issue 4 Option 1 (status quo), and Issue 5 Option 1 (status quo).
Motion made by Mr. Grout, second by Dr. Pierce. Motion fails (3 in favor, 3 opposed).

SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS MANAGEMENT BOARD (May 4, 2010)

Press Release

ASMFC Summer Flounder, Scup and Black Sea Bass Board
Expands Recreational Black Sea Bass Season

Alexandria, VA – The Commission's Summer Flounder, Scup and Black Sea Bass Management Board has modified the 2010 season length for the black sea bass recreational fishery. The season will now run from May 22 to October 11, 2010 and from November 1 to December 31, 2010.

The season represents an extension from what was originally planned. When the original season was developed, the Board only had 2009 harvest estimates for January through June. Harvest estimates for July through December 2009 were projected using previous years' data to calculate a total harvest estimate. Based on these preliminary projections, the original season was developed with the intent of reducing recreational harvest by 44% from 2009 levels.

Final 2009 harvest estimates were made available at the end of April. The estimate indicates that harvest is less than previously projected and only a 21.4% reduction is required for the 2010 recreational season. The newly approved season is anticipated to achieve a 26% reduction and allows for a reasonable conservation buffer to account for uncertainty in the harvest estimates and the effectiveness of regulations. The season was further expanded into November and December to allow for increased access by party/charter boats and private boat/shore-based anglers that did not have a late fall/early winter season last year.

For more information, please contact Toni Kerns, Senior Fishery Management Plan Coordinator for Management, at tkerns@asmfc.org or (202) 289-6400.

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PR10-11

Meeting Summary
The Summer Flounder, Scup, and Black Sea Bass Board reviewed the Mid-Atlantic Fishery Management Council's draft Omnibus Amendment, which proposes options that will impact the Commission FMP and management of the three species. The Omnibus proposes a framework for annual catch limits and accountability measures. The Council is holding public hearings in the month of May in Virginia, New Jersey and New York. For meeting details see http://www.mafmc.org/comments/comments.htm. For more information, please contact Toni Kerns, Senior Fishery Management Plan Coordinator for Management, at (202) 289-6400 or tkerns@asmfc.org.

Motions

Motion to amend the Commission recreational BSB season to be open from May 22 – October 11 and November 1 to December 31 (26% reduction).
Motion made by Mr. Travelstead, second by Mr. Augustine. Motion carries (9 in favor, 2 abstentions).

Move that the Board request the MAFMC to provide flowcharts for SF, Scup and BSB using actual data, the different council risk policy alternatives, and likely assessment levels for the ABC control rule framework.
Motion made by Dr. Pierce, second by Mr. Simpson. Motion fails (5 in favor, 6 opposed).

LAW ENFORCEMENT COMMITTEE (May 4, 2010)

Meeting Summary

The Law Enforcement Committee (LEC) met to review and discuss a number of issues. President Stephen Adams of Georgia called the 15-member meeting to order.

States in the Northeast began catch share implementation last week, causing implementation issues and requiring extensive training for the law enforcement community. NOAA's Office of Law Enforcement (OLE) will be hiring eight uniformed positions and one technician, in line with the Inspector General's report on NOAA Law Enforcement, to monitor some 700 catch share registrants from New Jersey to Maine. The states are working with federal counterparts to institute work plans for this new activity, and the Joint Enforcement Agreements (JEAs) will be used to assist states' enforcement efforts.

LEC discussed last year's exclusive economic zone (EEZ) enforcement of striped bass regulations. The Mid-Atlantic states used all available resources last year in an effort to curb the continuing blatant illegal fishing for striped bass in the EEZ, and a renewed coordinated effort will continue this fall and winter.

Area management of the lobster fishery, including inconsistency in v-notch definitions, continues to be problematic for law enforcement. New federal regulations differ from state regulations, causing confusion and further complicating enforcement effectiveness.

The Sportfish Registry has begun to be implemented through state fishing licenses in every state. LEC encourages states to use a portion of license funds to support future enforcement activities, since licensing will increase the required time and effort spent by field officers. LEC is requesting JEA funding for these additional enforcement efforts. A meeting on JEAs will occur next week in Miami.

The continued Potomac River Striped Bass investigation has lead to new cases in the Chesapeake Bay region and other coastal states. JEAs continue to assist state law enforcement efforts with funding for equipment, which in several cases, can mean the difference between obtaining the necessary equipment or doing without.

LEC concluded a discussion on evaluating compliance with a consensus that, at this time, it is too difficult and time consuming to undergo such a task without appropriate technical help and financial assistance. The current data collection on violations between states lacks consistency and is not compatible with information needed by fishery managers.

Motions

Move to encourage states to allocate a portion of funds from their new fishing license sales to their respective State's law enforcement unit.

Motion made by Kurt Blanchard, second by John Tulik. Motion passes unanimously.

ATLANTIC STRIPED BASS MANAGEMENT BOARD (May 4, 2010)

Press Release

ASMFC Striped Bass Board Approves Draft Addendum II for Public Comment

Alexandria, VA – The Commission's Atlantic Striped Bass Management Board has approved Draft Addendum II to Amendment 6 to the Interstate Fishery Management Plan for Atlantic Striped Bass for public comment. The Draft Addendum proposes two changes to the striped bass management program: (1) an increase in the coastal commercial quota, and (2) revising the definition of recruitment failure based on Technical Committee advice.

The proposal to increase the coastal commercial quota is intended to improve equality between the commercial and recreational fishery sectors. Although Amendment 6 established management programs for both fisheries based on the same target fishing mortality rate, the implementation of state-specific quotas for coastal commercial harvest (and not for recreational harvest) has prevented the commercial and recreational fisheries from responding equally to changes in striped bass population size. Since 2004, coastal commercial harvest has decreased by 3.6 percent, while recreational harvest has increased by 13.7 percent. Under the option, the Board would select a percent increase to be applied to the coastal commercial allocations assigned in Amendment 6.

The Management Board voted to include a second issue in the Draft Addendum based on information presented at the meeting. As part of its review of the juvenile abundance indices, the Striped Bass Technical Committee recommended to the Management Board a revision to how striped bass recruitment failure is defined. Juvenile abundance indices are an important component of the striped bass monitoring program and are used to determine periods of recruitment failure which can trigger management action under Amendment 6. Adopting the proposed recommendation would result in a fixed value to determine recruitment failure in each surveyed area rather than a value that changes from year to year. Use of either the Amendment 6 definition or the Technical Committee recommendation for recruitment failure does not result in any necessary changes to the current management program.

It is anticipated that the majority of states will be conducting public hearings on the Draft Addendum. A press release will be issued once the details of the hearings have been finalized and the Draft Addendum is available for public comment. For more information, please contact

Nichola Meserve, Fishery Management Plan Coordinator at (202) 289-6400 or nmeserve@asmfc.org.

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PR10-13

Meeting Summary

The Atlantic Striped Bass Management Board met to consider a proposal for alternative recreational management from New Jersey, review a Technical Committee report on the juvenile abundance indices, consider approval of Draft Addendum II for public comment, review a progress report on estimating striped bass poaching, and approve several committee nominations.

New Jersey submitted a proposal to implement the following recreational regulations: a two fish creel limit, with a minimum size limit of 24 inches for one fish and a minimum size limit of 32 inches for the other fish. The Technical Committee deemed the proposed regulations to be conservationally equivalent (in terms of the effect on the stock's spawning potential) to the Amendment 6 standard of a two fish creel limit and 28 inch minimum size for both fish. The Advisory Panel members were mostly supportive of the proposal, but did not reach a consensus agreement. The Law Enforcement Committee indicated the proposed regulations were enforceable. The Management Board approved the proposal with the requirement that the Technical Committee reevaluate whether the alternative measures are still conservationally equivalent three years following implementation. This review will be in addition to the one year review that the Plan Review Team regularly undertakes of any alternative management measures implemented. As part of the discussion, the Management Board also tasked the Technical Committee to review and consider updating the method(s) for determining conservationally equivalent management measures.

With some modifications, the Management Board approved Draft Addendum II for public comment. See the above press release for additional information. As part of the discussion, the Management Board tasked the Technical Committee with providing advice on how conservation equivalency proposals including an exchange between the recreational and commercial fisheries could potentially occur and be analyzed.

The nominations of Robert O'Reilly (Virginia Marine Resources Commission) to the Plan Development Team and John Clark (Delaware Division of Fish and Wildlife) to the Technical Committee were unanimously approved. For more information, please contact Nichola Meserve, Fishery Management Plan Coordinator, at (202)289-6400 or nmeserve@asmfc.org.

Motions

Main Motion:

Move to accept New Jersey's recreational striped bass proposal for one fish at 24" or greater and a second fish at 32" or greater which has been approved by the Striped Bass Technical Committee as being conservationally equivalent to the management plan standard of 2 fish at 28" or greater.

Motion made by Mr. McCloy, second by Dr. Daniel. Motion amended.

Motion to Amend:
Move to amend to require that conservation equivalency will be re-evaluated 3 years after implementation.
Motion made by Mr. R. White, second by Mr. Stockwell. Motion carries (14 in favor, 2 opposed).

Main Motion as Amended:
Move to accept New Jersey's recreational striped bass proposal for the possession limit of a one fish at 24" or greater and a second fish at 32" or greater which has been approved by the Striped Bass Technical Committee as being conservationally equivalent to the management plan standard of 2 fish at 28" or greater. Conservation equivalency will be re-evaluated 3 years after implementation.
Motion made by Mr. McCloy, second by Dr. Daniel. Motion carries (15 in favor, 1 opposed).

Main Motion:
Move to add the TC recommended definition to Addendum II as a second Issue.
Motion made by Mr. Diodati, second by Mr. Gibson. Motion passes by consent.

Move to remove Option 3 from the document.
Motion made by Mr. Augustine, second by Dr. Daniel.

Motion to Substitute:
Move to substitute to include the concept of Option 3 into Option 1.
Motion made by Mr. O'Connell, second by Dr. Daniel. Motion carries (10 in favor, 6 opposed).

Main Motion as Substituted:
Move to include the concept of Option 3 into Option 1.
Motion made by Mr. Augustine, second by Dr. Daniel. Motion passes by consent.

Move to approve the draft addendum for public comment with the changes as noted.
Motion made by Mr. Augustine, second by Mr. Johnson. Motion carries (Roll Call Vote: In favor – RI, CT, NY, DE, MD, DC, PRFC, VA, NC, USFWS; Opposed – ME, NH, MA, NJ, PA, NMFS).

Move to nominate John Clark to the Technical Committee.
Motion made by Mr. Shirey, second by Mr. Augustine. Motion passes by consent.

Move to nominate Rob O'Reilly to the PDT.
Motion made by Mr. Schick, second by Mr. Augustine. Motion passes by consent.

WEAKFISH MANAGEMENT BOARD (May 4, 2010)

Meeting Summary
The Weakfish Management Board approved a proposal from Florida to revise its weakfish management area to include: 1) the St. Mary's River and the inland waters of Nassau County

east of Highway 17, north of State Highway 200A, and north of the Shave Bridge on the Amelia River; and 2) state waters from the Florida-Georgia border south to the tip of Amelia Island. Inside this area, all weakfish-like fish (weakfish, sand seatrout, and their hybrids) will be considered weakfish and state weakfish regulations will apply. Outside of this area, state regulations for sand seatrout will be enforced. Florida's previously approved proposal to enforce weakfish regulations in the two most northeastern counties (Nassau and Duval) did not solve the state's enforcement issue resulting from identification confusion. The newly approved proposal provides law enforcement officers clear, precise guidelines for when to enforce weakfish regulations. The Technical Committee advised that it did not believe the proposal would likely have any significant effect on the weakfish stock; Florida's landings are low and the state is granted *de minimis* status. Florida will continue to report on all weakfish landed in the two-county area in its annual report to the Commission. Recent genetic information indicates that pure weakfish do not inhabit waters south of St. Johns River in Duval and St. Johns counties.

The Management Board also reviewed the status of state implementation of Addendum IV to Amendment 4. Six states did not adopt the requirements (one fish recreational bag limit, 100 lb. commercial trip limit, 100 lb. commercial bycatch limit, and 100 undersized fish allowance for finfish trawls) by the May 1 deadline. Five of those states (Massachusetts, New York, South Carolina, Georgia, and Florida) have their regulatory or legislative process underway to adopt the requirements by July 15 or before. The remaining state of North Carolina did not implement the requirements by May 1, and instead submitted a proposal for alternative management. A motion to approve the proposal did not garner a second from the Management Board, which instead voted in support of a non-compliance finding for North Carolina. A press release will be issued with additional information. The Technical Committee will be reviewing the proposal to address the bycatch of weakfish in fisheries targeting other species in advance of the Management Board's next meeting.

For more information, please contact Nichola Meserve, Fishery Management Plan Coordinator, at (202)289-6400 or <nmeserve@asmfc.org>.

Motions

Move to accept the Florida modified weakfish measures as presented and reviewed by the Technical Committee.

Motion made by Mr. Boyles, second by Mr. Gilmore. Motion approved (15 in favor).

Move to approve an alternate plan for NC compliance with Addendum IV to Amendment 4 to include all the measures in the Addendum but replace the 100 pound trip limit with a 25% bycatch allowance.

Motion made by Dr. Daniel. Motion fails for a lack of a second.

Move that the Weakfish Management Board recommend to the ISFMP Policy Board that the State of North Carolina be found out of compliance for not fully and effectively implementing and enforcing Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish. North Carolina has not implemented the regulations required by Addendum IV. The implementation of these regulations is necessary to achieve the conservation goals and objectives of the FMP to rebuild the depleted weakfish stock. In

order to come back into compliance the State of North Carolina must implement all measures contained in Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish.
Motion made by Mr. Augustine, second by Mr. Simpson. Motion carries (Roll Call Vote: In favor – MA, CT, NY, NJ, DE, MD, PRFC, VA, SC, GA, FL, USFWS; Opposed – RI, NC; Abstention – NMFS).

MANAGEMENT & SCIENCE COMMITTEE (May 4, 2010)

Meeting Summary
The Management and Science Committee met to discuss a number of issues and receive updates on subcommittee projects. MSC received a presentation on Marine Recreational Information Program implementation plan projects towards addressing NRC recommendations for the Marine Recreational Fishery Statistics Survey. It also continued discussion on how to incorporate forage fish into the Commission's process, reviewing a weakfish forage summary developed as a case study. MSC recommends presenting forage information to the Weakfish and Policy Boards in August to seek guidance on incorporating this information, possibly into the Weakfish FMP. MSC was updated on activities of the team tasked with developing a strategy for Ecosystem-based Fisheries Management (EBFM), who will present a strategy to the Policy Board in November, along with information on EBFM strategies elsewhere. The group also reviewed the issue of hybridization between weakfish and sand seatrout in northern Florida.

MSC discussed the issue of technical committee workload from tasks given by management boards, and will review technical committee workload schedules at its next meeting. MSC members shared activities in their agency or state regarding climate change. MSC was also updated on progress on an aging manual for Commission species, and also the development of a tagging database to catalog tagging programs coastwide. Finally, MSC received heard updates from the Assessment Science Committee (including the stock assessment peer review schedule), Atlantic Coastal Fish Habitat Partnership, and the Habitat Committee. For more information, please contact Melissa Paine, Scientific Committee Coordinator, at (202) 289-6400 or mpaine@asmfc.org.

HORSESHOE CRAB MANAGEMENT BOARD (May 4, 2010)

Meeting Summary
The Board received reports from the Shorebird and Horseshoe Crab Technical Committees, and a joint report from both committees. In addition, a representative of the Advisory Panel presented the group's findings and recommendations. The Board decided to send Draft Addendum VI out for public comment. Draft Addendum VI contains options for a Delaware Bay region management program after the current program expires on October 31, 2010. The draft document and public hearing schedule will be released by May 28, 2010.

Addendum II to the Horseshoe Crab FMP allows voluntary transfers of quota from one state to another. North Carolina requested a transfer of 11,655 crabs from Georgia to cover harvest

overages in 2008 and 2009. Following the recommendations of the Technical Committee and Advisory Panel, the Board approved North Carolina's request.

The Board decided to change and formalize its advisory committee structure to address its informational needs as it continues development of the Adaptive Resource Management (ARM) Framework. The Board will establish a Shorebird Advisory Panel and Delaware Bay Ecosystem Technical Committee (DBETC) to provide value-based and technical inputs to the ARM Framework. Both groups will report and provide recommendations directly to the Board. In addition, the Board adopted the ARM Work Group as a subcommittee of the DBETC.

The Board elected David Simpson from Connecticut as Vice Chair. For more information, please contact Braddock Spear, Senior Fishery Management Plan Coordinator for Policy, at (202) 289-6400 or bspear@asmfc.org.

Motions

Move to nominate Dave Simpson as Vice Chair of the Horseshoe Crab Management Board.
Motion made by Mr. Travelstead, second by Mr. Augustine. Motion passes.

Move to approve Draft Addendum VI for public comment.
Motion made by Mr. Adler, second by Mr. Augustine. Motion carries (16 in favor).

Move to approve North Carolina's quota transfer request of 11,655 crabs from Georgia.
Motion made by Mr. Augustine, second by Mr. Travelstead. Motion approved.

Move to accept of the recommendations of the Shorebird Informational Needs Work Group including Option 1 of recommendation 2.
Motion made by Mr. Augustine, second by Dr. Geiger. Motion carries.

Move to accept the FMP Review and State Compliance Report, including *de minimis* status for Maine, New Hampshire, Potomac River Fisheries Commission, South Carolina, Georgia, and Florida.
Motion made by Mr. Augustine, second by Mr. Adler. Motion carries.

ANNUAL AWARDS OF EXCELLENCE (May 4, 2010)

Press Release

ASMFC Presents Annual Awards of Excellence

Alexandria, VA – Mr. Vito Calomo, Dr. Mark Terceiro, and Ms. Kim McKown were presented the Commission's Annual Awards of Excellence at its Spring Meeting in Alexandria, Virginia for their contributions to the success of fisheries management along the Atlantic coast. Mr. Calomo received an award in the Legislative category, while Dr. Terceirco and Ms. McKown received awards in the Scientific, Technical, and Advisory category.

"Every year a great many people contribute to the success of fisheries management along the Atlantic coast. The Commission's Annual Awards of Excellence recognize outstanding efforts by professionals who have made a difference in the way we manage and conserve our fisheries," said ASMFC Chair, Robert H. Boyles, Jr., of South Carolina. "Today, we honor several outstanding individuals for their contributions to the management and conservation of Atlantic coast fisheries."

AAE Recipients (from left): Vito Calomo, Kim McKown, and Mark Terceiro

Legislative

Mr. Vito Calomo has been involved in New England fisheries management issues for nearly half a century. He began his career working in various capacities for the fishing industry, from organizing and managing longshoremen crew for a fleet of vessels, to trawling for groundfish and northern shrimp, to purse seining for Atlantic herring. For the last 15 years, he has been a dedicated and passionate advocate for New England commercial fishermen at the state, interstate and federal levels. He brought his extensive fisheries experience to the Commission process first as an industry advisor on the Commission's Atlantic Herring and Northern Shrimp Advisory Panels and later as proxy to Massachusetts' Legislative Appointee, Representative Anthony Verga. He actively participated on all the management boards for which Massachusetts had an interest, fervently promoting positions beneficial to New England's commercial fishermen. Mr. Calomo also chaired the Commission's Legislative Committee for four years, ensuring their views and concerns were fully integrated in the Commission's decision-making processes. Outside of formal meetings, he was instrumental in bringing Commissioners, staff, and scientists together, providing opportunities to meet one another personally to informally discuss issues and exchange ideas. A lifelong proponent for New England fishermen and the fishing community, Mr. Calomo's efforts improved communication among various participants in the Commission's process, enhancing the involvement of the fishing industry in the management process.

Scientific, Technical, and Advisory

Through his scientific analyses and technical committee involvement, **Dr. Mark Terceiro** of the National Marine Fisheries Service Northeast Fisheries Science Center has ensured that the best available scientific information has been provided to support management decisions programs for scup and summer flounder. For nearly two decades, he has played an active role on the Commission's Summer Flounder, Scup, and Black Sea Bass Technical Committee, the Mid-Atlantic Fishery Management Council's Summer Flounder, Scup, and Black Sea Bass Monitoring Committees, and the National Marine Fisheries Service's Southern Demersal Working Group. He was the lead biologist for the Data Poor Working Group scup stock assessment that was peer reviewed and accepted, a major accomplishment given that scup stocks have not had an acceptable analytical assessment for many years. As a result of his efforts,

managers have been able to incorporate stronger scientific advice into their management decisions. For many years, Dr. Terceiro has successfully performed and defended the benchmark assessments and annual stock assessment updates for summer flounder. His rigorous and thorough analyses have consistently produced strong, defensible assessments and lent considerable credibility to the scientific foundation of our management decisions for this very important and controversial Mid-Atlantic species. Dr. Terceiro's impressive contributions, coupled with his dedication and devotion to his work, make him an extremely valuable asset to the fisheries management process.

Ms. Kim McKown, Senior Fisheries Biologist with the New York State Department of Conservation (NYSDEC), has been involved in fisheries research and monitoring activities for 25 years and in the Commission's science activities for almost two decades. Her early work focused on oversight of NYSDEC's sampling programs for striped bass and Atlantic sturgeon. Today, she leads research and monitoring activities for American lobster, horseshoe crab, and other crustacea in New York's coastal waters. Over the years, Ms. McKown has been a contributor on several ASMFC committees, including the Atlantic Striped Bass Technical and Tagging Committees, the Horseshoe Crab Technical and Stock Assessment Committees, and the Atlantic Sturgeon Stock Assessment Subcommittee and Plan Review Team. For the last two years, she chaired the Lobster Stock Assessment Subcommittee, instrumental in the completion and approval of the 2009 benchmark stock assessment by peer review, which will provide the foundation for lobster management actions over the next few years. She also serves as Vice Chair of the Assessment Science Committee, the Commission's oversight body for all stock assessment and peer review activities. This past March, Ms. McKown chaired the peer review panels for both the Atlantic croaker and Atlantic menhaden benchmark stock assessments. Ms. McKown has added the strength and credibility to the Commission's science process through her impressive work ethic, high leadership skills, and strong adherence to high scientific standards.

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PR10-12

AMERICAN EEL MANAGEMENT BOARD (May 5, 2010)

Meeting Summary

The American Eel Management Board received a presentation on the status of the American eel stock assessment, which is expected to be completed in Fall 2011. Additionally, the Technical Committee and Stock Assessment Subcommittee modified the terms of reference of the stock assessment so that the scope of the assessment was only within the Unites States. The original terms of reference were approved by the Board in February 2009. The Board approved the updated terms of reference.

New Hampshire, Massachusetts, Pennsylvania, the District of Columbia, South Carolina, Georgia and Florida requested and were granted *de minimis* status by the Board for the 2010 commercial and recreational American eel fisheries. The *de minimis* requirement is met when the average state reported commercial landings for the preceding two years is less than 1% of the average coastwide commercial landings for the same two-year period.

Marius Bouw was approved as a new representative for North Carolina on the American Eel Advisory Panel. Terry Stockwell (ME) was approved as the American Eel Vice-Chair. Dr. Geiger (USFWS) informed the Board that the Council for Endangered Species Act Reliability (CESAR) filed a petition with USFWS and NMFS to list American eel on the Endangered Species List. For more information, please contact Kate Taylor at (202) 289-6400 or ktaylor@asmfc.org.

Motions

Move to approve the updated terms of references for the American eel stock assessment.
Motion made by Mr. Stockwell, second by Mr. Ewing. Motion carries (17 in favor).

Move to accept the 2009 FMP Review for American Eel and grant de minimis to the states of New Hampshire, Massachusetts, Pennsylvania, the District of Columbia, South Carolina, Georgia and Florida.
Motion made by Mr. Adler, second by Dr. Daniel. Motion passes by consensus.

Move to approve Marius Bouw to the American Eel Advisory Panel.
Motion made by Dr. Daniel, second by Rep. Abbott. Motion approved by consensus.

Move to approve Terry Stockwell as Vice Chair of the American Eel Board.
Motion made by Rep. Abbott, second by Dr. Rhodes. Motion passes by consensus.

SOUTH ATLANTIC STATE-FEDERAL FISHERIES MANAGEMENT BOARD (MAY 5, 2010)

Meeting Summary

The South Atlantic Management Board met to receive the results of the 2010 Atlantic Croaker Benchmark Stock Assessment and Peer Review. The results are not presented here because the Management Board postponed its approval for management use until the next meeting when it will receive an additional report on the assessment from the Technical Committee. It is anticipated that this report will correct several issues raised by the Review Panel that precluded it from supporting some of the assessment's findings and from making a more certain stock status determination. The final results of the assessment and peer review will be reported once approved by the Management Board.

The Spot Plan Review Team presented reports on spot life history information and stock trends. The Life History Report indicated that the available life history information is likely adequate for less complex stock assessment methods, but that several tasks should be completed prior to initiating a stock assessment. The Stock Monitoring Report indicated that the Plan Review Team has enough concern about the spot population based on trends in available relative abundance indices that it would recommend initiating a spot stock assessment if more and better bycatch and discard data were available. Instead, the Plan Review Team supported the Management Board's intent to develop a management trigger based on an annual review of spot data for inclusion in the Draft Omnibus Amendment for Spanish mackerel, spot, and spotted seatrout.

For more information, please contact Nichola Meserve, Fishery Management Plan Coordinator, at (202) 289-6400 or nmeserve@asmfc.org.

Motions

Move that the issues brought forward by the review panel be addressed by the technical committee and be resubmitted to a subset of the peer review panel and be brought back to the Commission at the next meeting.

Motion made by Mr. Carpenter, second by Mr. Ewing. Motion carries without objection.

ATLANTIC MENHADEN MANAGEMENT BOARD (May 5, 2010)

Press Release

Atlantic Menhaden Benchmark Assessment Indicates
Stock is Not Overfished but Shows Signs of Concern
Board Tasks its Technical Committee to Develop Alternative Reference Points

Alexandria, VA – In its report to the Commission's Atlantic Menhaden Management Board, an independent panel of scientists endorsed the use of the 2010 Atlantic menhaden benchmark stock assessment for management use. The panel also urged the Board to examine alternative reference points to provide more protection to the spawning stock biomass.

Based on the current reference points, the coastwide Atlantic menhaden stock is not overfished nor is it experiencing overfishing. The fishing mortality rate (F) is close to the threshold or the maximum rate at which fishing can occur and still allow the population to replace itself. Population fecundity is slightly below the target, meaning that the spawning stock in 2008 appears to be adequate to produce the target number of eggs. However, the number of young fish in the population has been consistently low in recent decades, indicating that high egg production may not be translating into high survival of young menhaden.

The assessment shows the population has undergone several periods of both high and low abundance over the time series (1955 – 2008). Abundance has declined steadily since the peak observed in the early 1980s and recruitment (age-0 fish) has been relatively low. As a result of these findings and recommendations by the peer review panel, the Board took action to task its technical committee with developing new reference points to increase protection to the spawning stock. In addition, the technical committee will consider alternative reference points that account for predation on menhaden.

A more detailed overview of the Atlantic menhaden stock assessment is available on the Commission website (www.asmfc.org) under Breaking News. It was developed with the intent of aiding media and interested stakeholders in better understanding the Commission's stock assessment results and process. Copies of the Atlantic Menhaden Stock Assessment Report and Assessment Peer Review Report are also available on the Commission website. For more information, please contact Brad Spear, Senior Fishery Management Coordinator for Policy, at (202) 289-6400.

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PR10-14

Motions

Move to elect Louis Daniel as Vice Chair.
Motion made by Mr. Duren, second by Mr. White. Motion passes by consent.

Move to accept the 2010 Atlantic Menhaden Stock Assessment and Peer Review Report for use in management.
Motion made by Mr. Grout, second by Dr. Geiger. Motion passes by consent.

Move the Menhaden Technical Committee develop alternative biological reference points – if possible for the August 2010 meeting. These reference points should include protection for SSB or population fecundity relative to the unfished level and a reference point associated with abundance. The TC should present to the Board a range of potential reference points that preserve varying levels of SSB. These levels of SSB should be placed in context with those that are currently employed for other stocks of clupeids and pelagic forage fishes. The TC should develop a range of management strategies to achieve the reference points with, if possible, expected outcomes for yield and stock health. Request for the Policy Board to task the Multi – Species Committee to work with the Menhaden TC to account for predation in the alternative reference points.
Motion made by Mr. White, second by Mr. Meyers. Motion passes by consent.

SPINY DOGFISH & COASTAL SHARK MANAGEMENT BOARD (May 6, 2010)

Meeting Summary

The Spiny Dogfish & Coastal Sharks Management Board met to review a blacktip shark recreational conservation equivalency proposal, state implementation of coastal sharks regulations, and the Final Environmental Impact Statement (FEIS) for Amendment 3 to the Consolidated Highly Migratory Species Fishery Management Plan (Amendment 3); discuss spiny dogfish quota allocation; and consider two Plan Review Team (PRT) and Plan Development Team (PDT) nominations.

Florida submitted a conservation equivalency proposal requesting an exemption from the 54" recreational fork length for blacktip sharks for conservation gained through recreational possession limits for commercial fishermen, gillnet and longline prohibitions, and implementing regulations consistent with the FMP on both the Gulf of Mexico and Atlantic side of the state. A representative from the Coastal Sharks Technical Committee (TC) reported that the TC agrees that prohibiting gillnets and longlines in state waters is likely to conserve an equal or greater biomass of blacktip sharks as the Florida state waters recreational fishery is likely to catch. Upon review of the TC recommendations, the Board approved the Florida conservation equivalency proposal.

The Board discussed the need to initiate an addendum proposing state allocations of the spiny dogfish quota to allow states to manage their fishery as best meets states individual needs. Board members were generally supportive of the idea of state shares, with some questions surrounding the allocation for states with low historical landings. The Board postponed initiating an addendum but initiated the development of a white paper to include quota allocation and trip

limit options. Board members will submit quota and trip limit options for staff to compile and present at the Commission's Summer Meeting during the first week of August 2010.

The Board reviewed the FEIS to Federal Amendment 3. The FEIS proposes to establish a 19.9 and 221.6 metric ton commercial quota for blacknose and small coastal sharks respectively and establish a 715 metric ton quota for smooth dogfish beginning in 2012.

The Board approved the nomination of Brian Frazier from South Carolina and Aaron Podey from Florida to the Coastal Sharks PRT and PDT.

The Board received a brief update of revised spiny dogfish reference points under other business. The new reference points include updates of key model parameters and revised estimates of spawning stock biomass. A Northeast Fisheries Science Center (NEFSC) Reference Document containing the updated reference point values should be available by the Commission's Summer Meeting when the Board will receive a full update from NEFSC staff. For more information, please contact Christopher Vonderweidt, Fishery Management Plan Coordinator, at cvonderweidt@asmfc.org or (202) 289-6400.

Motions

Move to approve the Florida conservation equivalency proposal and exempt Florida from the 54" minimum fork length recreational size limit for blacktip sharks.
Motion made by Ms. McCawley, second by Mr. Woodward. Motion carries.

Move to begin development of an addendum to the spiny dogfish management plan that would establish state quotas in the North and South regions. Quota alternatives will reflect:

(1) Catch/landings history including some or all of the options described in the October 2008 proposed Addendum III and

(2) An intent for some within-region re-distribution of quotas for this rebuilt stock. The 58:42 North-South region allocation will not change.

Motion made by Dr. Pierce, second by Mr. Simpson.

Move to postpone until the Summer 2010 Meeting.
Motion made by Mr. Stockwell, second by Mr. Augustine. Motion carries.

Move to approve the nomination of Aaron Podey to the Coastal Sharks Plan Development and Plan Review Teams.
Motion made by Ms. McCawley, second by Mr. Boyles. Motion carries.

Move to approve the nomination of Bryan Frazier to the Coastal Sharks Plan Development and Plan Review Teams.
Motion made by Mr. Boyles, second by Dr. Laney. Motion carries.

ISFMP POLICY BOARD (May 6, 2010)

Meeting Summary

The Interstate Fisheries Management Program Policy Board met during the Commission's Spring Meeting to discuss a number of issues. The Policy Board received updates from the Assessment Science Committee, Management and Science Committee, and the Law Enforcement Committee. Based on the recommendation of the Assessment Science Committee the Policy Board approved the 5-year stock assessment and peer review schedule.

The Policy Board reviewed a non-compliance recommendation from the Weakfish Management Board regarding North Carolina's implementation of Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish. The Policy Board concurred with this recommendation and forwarded a recommendation to the full Commission for consideration.

The Policy Board reviewed the activities of the Quota Working Group (QWG). The QWG commented on the proposed NMFS Catch Shares Policy. The QWG also developed documents summarizing the Commission's existing quota programs. The Commonwealth of Virginia presented a summary of its black sea bass catch share program. Maryland and Delaware also commented on their existing catch share programs. The QWG will be meeting prior to the Commission's Summer Meeting to continue its discussions.

The Policy Board received an update on the ASMFC research priorities and the development of a review on the Cooperative Winter Tagging Cruise.

Under other business the Policy Board approved the Multispecies Committee working with the Menhaden Technical Committee on the development of updated biological reference points for Atlantic menhaden. The Board was also updated on the action taken by the Northern Shrimp Section to close the fishery early due to landings occurring faster than expected.

For more information, please contact Robert Beal, ISFMP Director, at (202) 289-6400 or rbeal@asmfc.org.

Motions

Move to approve the 5 year peer review for the stock assessment peer schedule.
Motion made by Mr. Augustine, second by Mr. Lapointe. Motion passes.

On Behalf of the Weakfish Management Board move that the ISFMP Policy Board recommend to the full Commission that the State of North Carolina be found out of compliance for not fully and effectively implementing and enforcing Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish. North Carolina has not implemented the regulations required by Addendum IV. The implementation of these regulations is necessary to achieve the conservation goals and objectives of the FMP to rebuild the depleted weakfish stock. In order to come back into compliance the State of North Carolina must implement all measures contained in Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish.

Motion made by Mr. Miller on behalf of the Weakfish Management Board. Motion passes (15 in favor, 1 opposed, 2 abstentions).

Move that the Policy Board request that the Weakfish Management Board direct the Weakfish Technical Committee to review the NC proposal.
Motion made by Dr. Daniel, second by Mr. Diodati. Motion passes (18 in favor).

BUSINESS SESSION (May 4 & 6, 2010)

Meeting Summary
The Commission reviewed a noncompliance recommendation from the ISFMP Policy Board. The Commission concurred with Policy Board recommendation and found the State of North Carolina out of compliance with Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish. The Commission will be notifying the Secretaries of Commerce and the Interior of the noncompliance finding.

The Commissioners reviewed the results of a self evaluation survey on progress toward the ASMFC Vision and Goals. The Commissioners asked staff to work with the Administrative Oversight Committee to develop actionable steps to improve areas that received a low score in the survey. For more information, please contact Robert Beal, ISFMP Director, at (202) 289-6400 or rbeal@asmfc.org.

Motions
On behalf of the ISFMP Policy Board move that the full Commission find the State of North Carolina out of compliance for not fully and effectively implementing and enforcing Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish. North Carolina has not implemented the regulations required by Addendum IV. The implementation of these regulations is necessary to achieve the conservation goals and objectives of the FMP to rebuild the depleted weakfish stock. In order to come back into compliance the State of North Carolina must implement all measures contained in Addendum IV to Amendment 4 to the Interstate Fishery Management Plan for Weakfish.
Motion made by Mr. Diodati on behalf of the ISFMP Policy Board. Motion passes (13 in favor, 1 opposed).

Council Report

An update published by the New England Fishery Management Council – April/May, 2010

The Council Report summarizes major issues voted on or discussed at each regularly scheduled NEFMC meeting. The Council met most recently on April 27-29, in Mystic, CT.

At its April meeting, the Council addressed issues related to skates, monkfish, groundfish, interspecies, red crab, essential fish habitat and herring. It also received a report from its Scientific and Statistical Committee concerning revised skate and red crab ABCs.

Northeast Skate Complex

Council revises Amendment 3 specs, increases wing fishery possession limit for 2010-2011

At its April meeting, the New England Fishery Management Council approved a request to the National Marine Fisheries Service Regional Administrator asking her to raise the skate complex Allowable Biological Catch (ABC) by 34% to 41,080 metric tons and the Total Allowable Landings (TAL) by 51% to 14,277 metric tons. The ABC increase was justified based on a 78 percent increase in the winter skate biomass. Clearnose and little skate biomass also increased by 63 and 37 percent, respectively. The TAL increase was greater than the ABC because skate discards declined in 2008 and more of the limit could be allocated to landings.

Importantly, more restrictive management measures that were scheduled to be on the books soon would be superseded by those agreed to by the Council in April. If approved by NMFS, the new possession limit for skate wings, the larger of the two components of the fishery, would increase from 1,900 to 5,000 pounds of wings per trip, based on an analysis conducted by the PDT using 2009 fishery catch and survey data. The Regional Administrator is authorized to reduce the skate wing possession limit to 500 pounds per trip for the remainder of the fishing year when that fishery lands 80 percent or more of the TAL. Managed through seasonal quotas, bait fishery landings will be raised by 52 percent.

The regulations that implement Amendment 3 will be delayed for a few weeks to allow NMFS time to consider the Council's request. The Council proposed Amendment 3 to rebuild overfished smooth and thorny skates, while setting catch limits at sustainable levels for the other five skate species in the complex, including little and winter skates which are targeted by the fishery.

Monkfish

Amendment 5 measures approved, new alternative to be analyzed and considered in June

Following the recommendations of its Monkfish Committee and Advisory Panel, as well as the actions taken by the Mid-Atlantic Council earlier this month, the NEFMC voted to approve final measures to be submitted to NMFS as part of Amendment 5 to the Monkfish Fishery Management Plan (FMP). The FMP is a joint plan which requires that both Councils approve the management measures before they can be submitted to NMFS for final approval.

The approved measures include new biological and management reference points to bring the plan into compliance with the Magnuson-Steven Reauthorization Act and new National Standard 1

Guidelines, such as Allowable Biological Catch (ABC), Annual Catch Limits (ACLs), and Accountability Measures (AMs). The Councils also approved the specifications for trip limits and days-at-sea (DAS) allocations for the 2011-2013 fishing years, and several other administrative measures.

The Councils rejected three proposals based on public comment and the recommendations of the committee and its advisory panel. One of those proposals would have allowed monkfish vessels with groundfish DAS to choose when to declare that the vessel is fishing on a combination groundfish/monkfish DAS, or on a monkfish-only DAS only. The current rules, which will remain in place, require such vessels to use the combination DAS first, until the allocation of groundfish DAS is exhausted, at which point, if a vessel has allocated monkfish DAS remaining, it may fish them as monkfish-only DAS.

A second proposal rejected by the Councils would have relieved those same vessels from having to use any of their groundfish DAS if they fish in a groundfish sector (under the newly adopted Amendment 16 to the Multispecies FMP). Instead, they will have to use an allocated groundfish DAS when on a monkfish DAS, even though they are not required to do so under their sector rules.

The third rejected proposal would have required all monkfish limited access vessels to have a Vessel Monitoring System (VMS) onboard, with a provision that the VMS could be powered-down when it is not fishing on a monkfish DAS. This proposal would have affected only vessels (permit categories A, B and H) that are not already required to have VMS under the groundfish or scallop regulations.

The Council also directed the staff to analyze a new catch target option, also known as a pro-active accountability measure, for the Northern Management Area (NMA) that would set the target at 80 percent of the ACL. This proposal would result in an increase in the NMA target from 10,750 metric tons to 13,988 metric tons. The analysis will include projections of catch and its impact on the exploitation rate and biomass of the northern stock component, as well as the trip limits and DAS allocations associated with that catch target.

The Council will review that analysis at its June meeting prior to final approval of Amendment 5 measures. If the Council rejects the increased target proposal, it has approved a default catch target and associated trip limits and DAS allocations for final submission.

Groundfish

Yellowtail flounder, winter flounder and pollock actions identified; party-charter control date discussion moved to June

A number of issues were discussed relative to a groundfish framework adjustment that will be submitted in late 2010 for implementation in fishing year 2011. The Council voted to consider the following options for changing the Georges Bank yellowtail flounder rebuilding strategy: No Action (rebuild by 2014 with a 75 percent probability), and rebuild by 2016 with a 50, 60, or 75 percent probability.

New sector applications will be included in the framework. New applications were due at the Council office before May 1, 2010, for sectors that intend to begin operating May 1, 2011. The framework will consider an exemption that will allow General Category scallop vessels to fish in the Great South Channel in the spring with an end result of opening the area during closure periods.

Several groundfish-related issues raised in April will be discussed at the June 22-24 Council meeting in Portland, Maine:

- Consider re-affirming the control date (March 30, 2006) for party/charter fishing vessels. The Council considered doing so at this meeting but decided that this should be a specific item on the agenda before taking action.
- Discuss asking NMFS to initiate a zero possession limit for Gulf of Maine (GOM) winter flounder, and no allocation to sectors. The intent would be to treat GOM winter flounder similar to Southern New England/Mid-Atlantic winter flounder.

Finally, and of great interest to many, the NMFS Regional Administrator announced the agency is preparing to adjust the pollock catch levels if the June stock assessment results support a change.

Council staff briefed the Council on Magnuson-Stevens Reauthorization Act (MSRA) buyback regulations. Members followed up by voting to send a letter to the Secretary of Commerce stating that the NEFMC recognizes the need for a permit buyback. A second letter to NMFS will request continued groundfish sector monitoring funds.

Joint Groundfish/Scallops

Development of solutions will continue

The Council voted to continue the development of a joint groundfish/scallop amendment that will address mechanisms that facilitate the harvest of optimum yield from the two fisheries. Efforts will focus on examining the potential constraints of the groundfish stock allocations and reducing the bycatch of groundfish by scallops vessels.

Interspecies

Allocative effects and excessive shares of fishing privileges to be examined

The Council voted unanimously to support an Interspecies Committee recommendation to pursue consolidation of the Northeast Multispecies (Groundfish), Skate and Monkfish Fishery Management Plans in order to streamline management, given the large degree of overlap in these fisheries. The FMP consolidation exercise was considered by many Council members to be a "trial" process.

Acting on a second Interspecies Committee recommendation, the Council again voted unanimously, this time directing the Groundfish Committee to address the allocative effects and excessive control of fishing privileges by persons that hold ownership in permits, or by a sector as a result of its Annual Catch Entitlement, or ACE. Emphasis was placed on consistency with the social and economic objectives of the fishery management plan, the Council's sector management policy, the national policy on catch share management and requirements of National Standard 4 in the MSRA.

Council staff was also directed to develop a white paper that will provide definitions of fleet diversity used in other fisheries, including examining the results of the Northwest Atlantic Marine Alliance's Fleet Vision Project, outline baselines and potential measures for the multispecies fishery, and provide an analysis of the potential outcomes of accumulation limits. The white paper is meant to support and enhance discussions about allocative effects and excessive shares of catch in the groundfish fishery.

Red Crab

ABC revised

The Council's SSC reported to the Council that after reviewing new information from the Red Crab

Plan Development Team, the red crab acceptable biological catch (ABC) should be increased to 1,775 metric tons. This was a substantial increase from the SSC's previous ABC recommendation of 1,284 metric tons recommended last September. The Council adopted the revised ABC and passed a motion requesting that the NMFS Regional Administrator make in-season adjustments to red crab management measures that would be consistent with an increase in the new ABC.

Habitat

Update on the Omnibus Amendment

The Habitat Committee Chair and Council staff gave an update on Essential Fish Habitat Omnibus Amendment 2. At a recent joint meeting, the committee, along with its advisory panel, and Plan Development Team met to review the Swept Area Seabed Impact model and applications to the development of management alternatives to minimize the adverse effects of fishing on EFH.

At that meeting, the committee tasked the PDT with developing recommendations for new or modified vulnerable habitat areas that might be candidates for management measures and the development of practicability metrics that will guide the Council in weighing the tradeoffs between habitat protection and fishery production. The committee also solicited recommendations for new or modified Habitat Areas of Particular Concern (HAPCs) and deep-sea coral protection zones. At the Council meeting, there was some discussion of the relationship between HAPCs and emerging non-fishing uses of the marine environment, particularly as the marine spatial planning efforts gain traction.

Herring

Herring stock assessment scheduled for 2012; ASMFC coordination requested

The Council agreed with the Northeast Fisheries Science Center that the comprehensive herring "benchmark" assessment should occur in June 2012. Convincing arguments included the incorporation of new and more robust information and the exploration of new assessment models that may help resolve previous issues associated with providing management with accurate estimates of biomass and other information.

The Council also agreed to send a letter to the Atlantic States Marine Fisheries Commission concerning Addendum III to the states' Atlantic herring plan. At issue is an ASMFC action that would allocate additional access to small mesh bottom trawl fishermen (Category C and D) through differential effort controls or the allocation of a percentage of the Total Allowable Catch in Herring Management Area 1A --- which is set by the Council. While the Council expressed its support for ASMFC efforts to develop complementary measures for the species, Council members were concerned about creating incentives for increased participation in the fishery. The NEFMC maintained that the management of federal fisheries, including allocations of catch, must be developed by the regional Councils in accordance with the Magnuson-Stevens Act National Standards.

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. Audio files of the full meeting discussions are posted at http://www.nefmc.org/actions/index.html.

Next Council Meeting –June 22-24, 2010. Eastland Park Hotel, Hotel, Portland, ME

Furlong, Daniel T.

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 1:17 PM
To: Seagraves, Richard J.; Didden, Jason T.
Subject: April '10 Council Meeting Follow Ups

The Council passed the following motions regarding Amendment 11 at the subject meeting:

*** Move that the Squid, Mackerel, Butterfish Committee delay selection of a preferred action under Amendment 11, [regarding] purpose A: Cap Capacity, until the FMAT, the AP, and the SMB Committee meet to participate and resolve historical participation issues.

*** Move to adopt alternative 5C [EFH Designations], with the adjustment that species with unknown [stock] status would also be designated at the 95% threshold for Amendment 11.

*** Move to adopt alternative 6C [Recreational / Commercial Allocation] for Amendment 11.

*** Move to adopt alternative 7A [At-sea processor limitations] for Amendment 11.

It was / is somewhat unclear to me what all this means. The first motion is understandable enough, i.e., back to the drawing boards, but the remaining motions mean what? Are they the Council's positions in terms of what it wants to submit to the Secretary as Amendment 11? I assume so, but please clarify this for me. Assuming we get an "answer" for the capacity action at the FMAT et al meeting will you be positioned for the June meeting to ratify the other actions, adopt the "answer" and then have the Council approve Amendment 11 for Secretarial review? If the FMAT et al cannot craft an "answer", do we just press on at the June meeting to finalize 11 for Secretarial submission, and roll the mackerel cap capacity issue to Amendment 14?

As for 14, here are the relevant motions for that amendment's scoping document:

*** Move to add American and Hickory shads to ~~be added to~~ the scoping document for consideration in Amendment 14.

*** Move to adopt Amendment 14 scoping document [for meeting purposes].

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XW35

Mid-Atlantic Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The Mid-Atlantic Fishery Management Council's (MAFMC) Squid, Mackerel, and Butterfish Committee will hold a public meeting that also includes the Squid, Mackerel, and Butterfish Advisory Panel as well as the Amendment 11 Fishery Management Action Team (FMAT).

DATES: The meeting will be held on Wednesday, May 26, 2010, from 10 a.m. to 6 p.m.

ADDRESSES: The meeting will be held at the Courtyard Baltimore BWI Airport Hotel, 1671 West Nursery Road, Linthicum, MD 21090; telephone: (410) 859–8855.

Council address: Mid-Atlantic Fishery Management Council, 800 N. State Street, Suite 201, Dover, DE 19901; telephone: (302) 674–2331.

FOR FURTHER INFORMATION CONTACT: Daniel T. Furlong, Executive Director, Mid-Atlantic Fishery Management Council, 800 N. State Street, Suite 201, Dover, DE 19901; telephone: (302) 526–5255.

SUPPLEMENTARY INFORMATION: The purpose of this meeting is to address outstanding issues within Amendment 11 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. At the April 2010 MAFMC Council meeting, the SMB Committee requested that the Amendment 11 Fishery Management Action Team (FMAT), the SMB Advisory Panel, and the SMB Committee meet regarding mackerel limited access to resolve ongoing historical participation issues. These participation issues led the Committee to recommend delaying adoption of Amendment 11's alternatives regarding mackerel limited access. The Committee will recommend further action pending the results of the May 26, 2010 meeting and the Council may take action on Amendment 11 at its June 2010 Council meeting in New York, NY.

Although non-emergency issues not contained in this agenda may come before this group for discussion, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), those issues may not be the subject of formal action during this meeting. Actions will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under Section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

The meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to M. Jan Saunders at the Mid-Atlantic Council Office, (302) 526–5251, at least 5 days prior to the meeting date.

Dated: May 5, 2010.

Tracey L. Thompson,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2010–10966 Filed 5–7–10; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XT64

Notice of Public Review and Comment Period on NOAA's Arctic Vision and Strategy

AGENCY: National Oceanic and Atmospheric Administration.

ACTION: Request for comments.

SUMMARY: The Arctic has profound significance for climate and functioning of ecosystems around the globe. The region is particularly vulnerable and prone to rapid change. Increasing air and ocean temperatures, thawing permafrost, loss of sea ice, and shifts in ecosystems are evidence of widespread and dramatic ongoing change. As a result, critical environmental, economic, and national security issues are emerging, many of which have significant impacts for human lives, livelihoods, and coastal communities. Though NOAA has numerous and diverse capabilities that support these emerging issues, a strategic approach that leverages NOAA's existing priorities and strengths, as well as those of our national and international partners, is needed. This document provides a high-level framework and six strategic goals to address NOAA's highest priorities in the region. It is based upon assumptions that the region will: continue to experience dramatic change; become more accessible to human activities; and, be a focus of increasing global strategic interest.

DATES: Comments must be submitted by June 10, 2010.

ADDRESSES: Submit comments by one of the following methods–

- Electronic Submissions: strategic.planning@noaa.gov
- Mail: National Oceanic and Atmospheric Administration, Office of Program Planning and Integration, 1315 East-West Highway, Room 15749, Silver Spring, Maryland 20910

FOR FURTHER INFORMATION CONTACT: Tracy Rouleau, Office of Program Planning and Integration, at *strategic.planning@noaa.gov* or (301) 713–1622 x187.

SUPPLEMENTARY INFORMATION: To view the document, go to *http://www.arctic.noaa.gov/*.

I. Summary of the Strategy

NOAA envisions an Arctic where decisions and actions related to conservation, management, and use are based on sound science and support healthy, productive, and resilient communities and ecosystems. The agency seeks a future where the global implications of Arctic change are better understood and predicted.

NOAA will focus its efforts on the following six priority goals needed to realize this vision:

(1) Forecast Sea Ice

(2) Strengthen Foundational Science to Understand and Detect Arctic Climate and Ecosystem Changes

(3) Improve Weather and Water Forecasts and Warning

(4) Enhance International and National Partnerships

(5) Improve Stewardship and Management of Ocean and Coastal Resources in the Arctic

(6) Advance Resilient and Healthy Arctic Communities and Economies

These goals were selected because they represent areas where NOAA can address urgent and timely issues that meet two key criteria: providing the information, knowledge, and policies to meet NOAA mandates and stewardship responsibilities, and providing the information, knowledge, and services to enable others to live and operate safely in the Arctic.

Each goal also fulfills international goals and establishes, enhances, or leverages partnerships with other Arctic nations, international organizations, government agencies, and non-governmental organizations, academia, and local communities. The goals are also geared towards generating large societal benefits relative to the resources required and strengthening NOAA's

Furlong, Daniel T.

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 1:21 PM
To: Sollazzo, Carol H.
Cc: Seagraves, Richard J.
Subject: April '10 Council Meeting Follow Ups

The Council passed the following motion regarding SOPPs at the subject meeting:

*** Move to accept modification (in section B2) to SOPPS.

Please get with me next week to review what needs to be done. Thanks!

Furlong, Daniel T.

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 3:59 PM
To: Sollazzo, Carol H.
Subject: FW: April '10 Council Meeting Follow Ups
Attachments: SOPPs Final Approved _04_15_2010.doc

Next week.

From: Seagraves, Richard J.
Sent: Friday, April 16, 2010 3:39 PM
To: Furlong, Daniel T.
Subject: RE: April '10 Council Meeting Follow Ups

Here you go.

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 2:13 PM
To: Seagraves, Richard J.
Subject: FW: April '10 Council Meeting Follow Ups

Do you have a clean copy of the SSC SOPP items to be inserted in that document?

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 1:21 PM
To: Sollazzo, Carol H.
Cc: Seagraves, Richard J.
Subject: April '10 Council Meeting Follow Ups

The Council passed the following motion regarding SOPPs at the subject meeting:

*** Move to accept modification (in section B2) to SOPPS.

Please get with me next week to review what needs to be done. Thanks!

Department of Commerce

National Oceanic and Atmospheric Administration

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

STATEMENT OF ORGANIZATION PRACTICES AND PROCEDURES

As Adopted by Council 3 August 1989
Revised by Council 1 November 1990
Approved by NMFS 22 January 1991 (56 FR 2164)
Revised by Council 9 January 1992
Revised by Council 2 April 1992
Revised by Council 24 June 1992
Approved by NMFS 29 July 1992 (57 FR 33494)
Revised by Council 14 July 1993.
Revised by Council 4 November 1993.
Revised by Council 4 April 1996
Revised by Council 19 September 1996
Revised by Council 20 February 1997
Revised by Council 29 January 1998
Revised by Council on 14 October 1999
Revised by Council on 12 December 2002
Revised by Council on 7 October 2004
Revised by Council on 20 January 2005
Revised by Council on 1 February 2008
Revised by Council on 12 June 2008
Revised by Council April 15, 2010

D. ADVISORY GROUPS.

1. Scientific and Statistical Committee. The Council will establish a Scientific and Statistical Committee, which shall focus on the scientific merit of actions referred to it by the Council and on the setting of ABCs.

(A) Objectives and Duties.

(1) The Committee shall:

a. Assist the Council in the development, collection, evaluation, and peer review of such statistical, biological, economical, social and other scientific information as is relevant to the Council's development and amendment of any fishery management plan;

b. Provide the Council ongoing scientific advice for fishery management decisions, including recommendations for acceptable biological catch, preventing overfishing, maximum sustainable yield, and achieving rebuilding targets, and reports on stock status and health, bycatch, habitat status, social and economic impacts of management measures, and sustainability of fishing practices. Specifically in order to allow the Council to fulfill its obligations under Section 302 (h)(6), the Committee shall, based on current stock conditions, the status determination criteria specified in the FMPs, and consistent with the National Standard 1 Guidelines, provide the "fishing level recommendation" in terms of harvest for each of the Council's managed species.

c. Assist the Council in determining what statistical, biological, economical, social or other scientific information is needed for the development of a management plan that meets the requirements of the Act; and shall advise the Council as to the best way of obtaining this information, including identifying entities with ongoing research programs that may be able to develop the needed information.

d. The Committee will not provide another peer review of the SAW/SARC or TRAC results.

e. The Committee will provide scientific advice within the terms of reference provided by the Council for each management action.

(2) When requested by the Council, through the Council Chair or the Chair's designee, the Committee shall:

a. Provide expert scientific and technical advice to the Council on the development of fishery management policy, on establishing the goals and objectives of fishery management plans or amendments thereto, and on the preparation of such plans or amendments thereto;

b. Advise the Council on preparing comments on any fishery management plan or amendments thereto prepared by the Secretary or Secretary's delegate which are transmitted to the Council pursuant to Section 304(c)(2) of the Act;

c. Comment on any proposed regulations which the Council deems necessary to implement any fishery management plan or amendment to a fishery management plan which is prepared by the Council;

d. Assist the Council in establishing criteria for judging plan effectiveness;

e. Perform such other necessary and appropriate duties as may be required by the Council to carry out its functions under the Act; and

f. Shall attend Council meetings as requested by the Council Chair. Members of the Committee may be tasked to serve as Chair or member of the Northeast Stock Assessment Review Committee (SARC) when requested by the Northeast Fisheries Science Center (NEFSC).

(B) Development of ABCs

(1) Section 302(g)(1)(B) of the Act provides that the Committee shall provide recommendations for acceptable biological catch (ABC) that prevent overfishing.

(2) The Council Chairman, in consultation with Executive Director and the Chair of the Species Committee that has responsibility for a stock under consideration, shall develop a set of terms of reference based on the relevant ABC control rule that will guide the work of the Committee in developing ABC recommendations for that stock. The terms of reference will specify a date by which all material to be considered by the Committee will be provided. This date shall be at least 15 working days prior to the Committee meeting. The Committee is not obligated to consider any material submitted after this date.

(3) Any Committee member who has a financial conflict of interest in providing advice on the species under consideration shall recuse him/herself from discussion and voting.

(4) Only those Committee members present at the meeting may participate in developing the ABC recommendation. At least 50% of the members have to be present to establish a quorum for ABC recommendations.

(5) The Committee Chair may request oral presentations or comments from analysts and/or interested stakeholders during the meeting.

(6) On the basis of the submitted material, the Committee shall provide an ABC recommendation for the upcoming fishing year(s) that follows the ABC control rule adopted by the Council for a given species (stock). The recommended ABC will reflect the level of scientific uncertainty inherent in the assessment of stock status and the Council's risk policy, such that the recommended ABC is less than or equal to the overfishing limit in line with the Act and the National Standard 1 Guidelines to the Act. The Committee recommendation will be provided to the Council in the form of a written report that clearly identifies the: (a) materials considered in developing the ABC; (b) the overfishing limit; (c) the magnitude and sources of uncertainty in the overfishing limit that were considered by the Committee; and (d) the level of risk adopted in the ABC control rule recommended by the Committee following the Council's risk policy.

(7) The ABC report shall include a statement in writing to accompany any scientific advice provided to the Council that the advice is based on the best scientific information available, as defined in National Standard 2 Guidelines to the Act.

(8) The Committee report shall be transmitted to Council staff within 10 working days following the Committee meeting.

(9) The Council may remand back to the Committee its ABC recommendation based on the following criteria: (a) failure of the Committee to follow the terms of reference provided to it by the Council; (b) an error, in fact or omission, in the materials provided to the Committee; (c) an error in fact in the calculations, if any, undertaken by the Committee in developing its ABC recommendation; and (d) failure of the Committee to follow its standard operating procedures.

(10) These criteria do not limit the ability of the Council to seek clarification of the foundation for the Committee recommendation.

(11) The Committee Chair, or designee, shall present the Committee's ABC recommendation at a subsequent Council meeting.

(C) Members and Chair

(1) The Committee shall have up to 20 members, all of whom shall be nominated for membership on the Committee by Council members, shall be appointed to the Committee by a majority vote of the Council. The Committee may be composed of Federal employees, State employees, academicians, or independent experts, and each shall have strong scientific and/or technical credentials and experience in the biological, statistical, economical, social, and other relevant disciplines. The goal will be to structure the committee such that there is a balance in both home bases and expertise of its members. Each member of this committee shall be treated as an affected individual for purposes of paragraphs (2), (3)(B), (4), and (5)(A) of subsection (j) of Section 302 of the Act. The Secretary shall keep disclosures made pursuant to this subparagraph on file.

(2) Members of the Committee will be appointed by the Council for a period of three years, and may be reappointed at the discretion of the Council. Appointments to the Committee will be staggered to allow overlap of membership. Vacancy appointments shall be for the remainder of the unexpired term of the vacancy. When vacancies arise the Committee shall provide the Council with a list of recommended candidates for consideration; the Council is not bound by the Committee's list of recommended nominees.

(3) In addition to the 20 members identified in (1) above, interim or special appointments to the Committee of limited duration (not to exceed one year) may also be made to add expertise in special topic areas being addressed by the Committee. These interim appointments have all the rights and privileges of regular Committee members.

(4) Committee members shall be notified of meetings at least 30 days in advance of each meeting. Committee members who cannot attend a scheduled meeting shall so advise the Executive Director. The terms of members who are absent for three consecutive SSC meetings without notifying the Executive Director in advance of the absence and without a reasonable excuse may be revoked. In addition, Committee members shall attend at least half of the meetings each year in person. Failure to do so may also lead to loss of membership on the Committee.

(5) From within the membership of the Committee, the Council Chair shall appoint a Chair of the SSC Committee.

(6) From among their membership, the Committee may elect a Vice-Chair. The Vice-Chair will be appointed for a term of three years. The Committee Vice-Chair assists the Committee Chair in running meetings, and may represent the Committee to the Council if requested.

(D) Administrative Provisions

(1) The Committee shall meet as a whole, or in part, at the call of the Committee Chair, with the approval of the Council Chair, as often as necessary to fulfill the Committee's responsibilities, taking into consideration time and budget constraints. To the extent practicable, the committee shall hold its meetings in conjunction with the meeting of the Council.

(2) The Council staff, in consultation with the Council Chair and SSC Committee Chair, shall be responsible for developing an agenda for Committee meetings.

(3) The Committee shall report to the Council Chair or the Chair's designee.

(4) The Executive Director of the Council shall, upon request of the Committee Chair, provide such staff and other support, as the Council considers necessary for Committee activities, within budgetary limitations.

(5) The Council shall pay the actual expenses of the Committee members, in accordance with controlling law, while engaged in the performance of Council business, and subject to the availability of appropriations, pay a stipend to members of the committee who are not employed by the Federal Government or a State marine fisheries agency.

(6) Meetings shall be open public meetings. Public comments may be received during the meeting at the discretion of the Committee Chair.

(7) Committee decisions shall be made by consensus whenever possible. The Committee chair retains the right to call for a vote if it becomes apparent that a consensus cannot be reached on decision that is considered vital. All voting will be anonymous and not by roll call. Proxy votes will not be allowed.

(8) Minutes of each meeting of the Committee shall be kept and posted on the Council website. The minutes shall contain a record of the persons present, a description of matters discussed, and conclusions reached. ABC reports will also be posted on the Council website.

(9) The Committee can establish subcommittees or working groups to address specific issues and provide feedback to the general SSC membership for action.

Furlong, Daniel T.

From: Furlong, Daniel T.

Sent: Friday, April 16, 2010 1:40 PM

To: Armstrong, James L.

Subject: April '10 Council Meeting Follow Ups

The Council passed the following motions regarding Monkfish Amendment 5 at the subject meeting:

*** In Section 3.1, Biological and Management Reference Points, move to recommend for adoption Alternative 2.

*** Move in Section 3.2, [that] the MAFMC supports the action to be taken by the NEFMC for final adoption of a preferred option for the NMA.

*** In Section 3.2, Annual Catch Limits and Accountability Measures, move to recommend for adoption Alternative 2, Option 2 for the Southern Fishery Management Area.

*** For the MAFMC it is moved to adopt under Section 3.2 reactive AMs, the options to deduct ACL overage weight from ACT; adjust management measures in second year after overage year; if Councils do not take appropriate action, RA will use formulaic approach to adjust DAS and trip limits and implement by notice action. ACL=ABC.

*** Move in Section 3.3.1, DAS and trip limits, the MAFMC supports the action to be taken by the NEFMC for final adoption of a preferred option for the NMA.

*** In Section 3.3.1, Specifications of Days-at-Sea and Trip Limits, move to recommend for adoption Alternative 2 SMA, specify Option 2B.

*** In Section 3.3.2.1, Automatic Adjustments for Trip Limit Overage, move to recommend for adoption Alternative 2, Option 3.

*** In Section 3.3.2.2, Permit Category C & D Groundfish DAS Usage, move to recommend for adoption Alternative 1.

*** In Section 3.3.2.3, Monkfish Vessels in Groundfish Sectors-Groundfish DAS Usage, move to recommend for adoption Alternative 1.

*** In Section 3.4.2, Allow Changes to RSA Program by Framework Adjustment, move to recommend for adoption Alternative 2.

*** In Section 3.5, Mandatory VMS, move to recommend for adoption Alternative 1.

*** In Section 3.6, Allow Landing of Monkfish Heads, move to recommend for adoption Alternative 2

Please work with the New England Council to communicate our Council's positions on Amendment 5 and draft a brief transmittal letter for Rick's signature informing that Council of this Council's actions. Thanks!

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
Fax 302-674-5399
www.mafmc.org

Daniel T. Furlong
Executive Director

April 23, 2010

Mr. John Pappalardo, Chairman
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950

Dear Chairman Pappalardo:

This letter is to inform you that at its April 2010 meeting in Duck, NC, the Mid-Atlantic Fishery Management Council passed the following motions regarding Amendment 5 to the Monkfish FMP:

In Section 3.1, Biological and Management Reference Points, move to recommend for adoption Alternative 2.

Move in Section 3.2, [that] the MAFMC supports the action to be taken by the NEFMC for final adoption of a preferred option for the NMA.

In Section 3.2, Annual Catch Limits and Accountability Measures, move to recommend for adoption Alternative 2, Option 2 for the Southern Fishery Management Area.

For the MAFMC it is moved to adopt under Section 3.2 reactive AMs, the options to deduct ACL overage weight from ACT; adjust management measures in second year after overage year; if Councils do not take appropriate action, RA will use formulaic approach to adjust DAS and trip limits and implement by notice action. ACL=ABC.

Move in Section 3.3.1, DAS and trip limits, the MAFMC supports the action to be taken by the NEFMC for final adoption of a preferred option for the NMA.

In Section 3.3.1, Specifications of Days-at-Sea and Trip Limits, move to recommend for adoption Alternative 2 SMA, specify Option 2B.

In Section 3.3.2.1, Automatic Adjustments for Trip Limit Overage, move to recommend for adoption Alternative 2, Option 3.

In Section 3.3.2.2, Permit Category C & D Groundfish DAS Usage, move to recommend for adoption Alternative 1.

In Section 3.3.2.3, Monkfish Vessels in Groundfish Sectors-Groundfish DAS Usage, move to recommend for adoption Alternative 1.

In Section 3.4.2, Allow Changes to RSA Program by Framework Adjustment, move to recommend for adoption Alternative 2.

In Section 3.5, Mandatory VMS, move to recommend for adoption Alternative 1.

In Section 3.6, Allow Landing of Monkfish Heads, move to recommend for adoption Alternative 2

The Mid-Atlantic Council looks forward to final adoption of measures in Amendment 5 by the New England Council and further opportunities to work productively through this Joint FMP.

Sincerely,

Richard B. Robins, Jr.
Chairman

cc:
Anderson,
Berg,
Stockwell,
Haring

Furlong, Daniel T.

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 1:47 PM
To: Coakley, Jessica
Subject: April '10 Council Meeting Follow Ups

The Council passed the following motions regarding the ACL / AM Amendment at the subject meeting:

*** Move to substitute the continuous, reduced maximum probability, inflection at 1.0 alternative with alternative 2C, to add different inflection points.

*** Move to approve the public hearing document for the ACL/AM Omnibus Amendment with changes as discussed and to include a hearing in NJ.

Well, the second motion is clear enough (assuming you know what was discussed), but the first motion leaves a lot to be desired. I hope you took good notes. Let's get together to clarify what the Council wants in the PHD. Thanks!

PUBLIC HEARING DOCUMENT

OMNIBUS AMENDMENT

AMENDMENT 13 TO THE ATLANTIC MACKEREL, SQUIDS, AND BUTTERFISH MANAGEMENT PLAN

AMENDMENT 3 TO THE BLUEFISH MANAGEMENT PLAN

AMENDMENT 2 TO THE DOGFISH MANAGEMENT PLAN

AMENDMENT 15 TO THE SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN

AMENDMENT 16 TO THE SURFCLAM/OCEAN QUAHOG MANAGEMENT PLAN

AMENDMENT 3 TO THE TILEFISH MANAGEMENT PLAN

(PUBLIC HEARING DOCUMENT)

April 2010

Mid-Atlantic Fishery Management Council
in cooperation with
the National Marine Fisheries Service

Draft adopted by MAFMC: DD MONTH YYYY
Final adopted by MAFMC:
Final approved by NOAA:

A Publication of the Mid-Atlantic Fishery Management Council pursuant to National Oceanic and Atmospheric Administration Award No. NA57FC0002

PUBLIC HEARING DOCUMENT

This document will be available at all of the public hearings and is currently available via the Internet at: http://www.mafmc.org/comments/comments.htm

This document can also be obtained on request from the Council office at the address and telephone number below.

Schedule of Public Hearings

Atlantic States Marine Fisheries Commission Spring Meeting *May 3, 2010, 7:00 PM* Crowne Plaza Old Town Alexandria 901 N. Fairfax Street Alexandria, Virginia 22314 Contact: Peter Himchak (609) 748-2020	New York Department of Environmental Conservation *May 12, 2010, 7:00 PM* NYSDEC Marine Resources 205 N. Belle Mead Rd, Ste 1 East Setauket, NY 11733 Contact: Jim Gilmore (631) 444-0430
Virginia Marine Resources Commission *May 10, 2010, 7:00 PM* Marine Resources Commission 2600 Washington Avenue Newport News, Virginia 23607 Contact: Jack Travelstead (757) 247-2200	Richard Stockton College of New Jersey *May 18, 2010, 7:00 PM* Lakeside Center Lodge (Off Laurel Lane and Oak Pond Drive; follow campus signs to Lakeside Center) Pomona, NJ 08240 Contact: Peter Himchak (609) 748-2020

In addition to providing information and comments at the above public hearings, you may submit written comments on or before 5:00 p.m., EST, on May 21, 2010 to:

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

Telephone: (302) 674-2331
Fax: (302) 674-5399

Comments may also be sent via fax at the above fax number or by e-mail to info1@mafmc.org. Please note on your correspondence and in the subject line of e-mail comments the following identifier: "Omnibus ACL/AM Amendment Comments."

Furlong, Daniel T.

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 1:51 PM
To: Coakley, Jessica
Subject: FW: April '10 Council Meeting Follow Ups # 2

The Council passed the following motion regarding the soon-to-be-released proposed rule regarding recreational measures for BSB:

*** Move that MAFMC send a letter (upon receipt of proposed rule from NMFS) of recommendation to NMFS for their adoption of ASMFC black sea bass recreational measures for 2010.

Let's get together when the rule is published. Thanks!

Furlong, Daniel T.

From: Furlong, Daniel T.

Sent: Monday, May 03, 2010 3:32 PM

To: Coakley, Jessica

Subject: FW: April '10 Council Meeting Follow Ups

Now that the NMFS has published (April 27, 2010) its proposed rule for SF, S, and BSB we need to draft a brief letter covering the below motion:

"Move that MAFMC send a letter (upon receipt of proposed rule from NMFS) of recommendation to NMFS for their adoption of ASMFC black sea bass recreational measures for 2010."

Based on the NMFS proposal to implement the Council and Commission-recommended minimum fish size of 12.0 inches (31.75 cm), possession limit of 25 fish per person, and season starting date of May 22, 2010 the only measure not resolved is season. NMFS indicated in its proposal that the final season length will be determined by the updated analysis of final 2009 landings data and implemented in the final rule for this action, following analysis and public comment so it's best we get our comment / letter into NMFS prior to May 27.

From: Furlong, Daniel T.
Sent: Friday, April 16, 2010 1:47 PM
To: Coakley, Jessica
Subject: April '10 Council Meeting Follow Ups

The Council passed the following motions regarding the ACL / AM Amendment at the subject meeting:

*** Move to substitute the continuous, reduced maximum probability, inflection at 1.0 alternative with alternative 2C, to add different inflection points.

*** Move to approve the public hearing document for the ACL/AM Omnibus Amendment with changes as discussed and to include a hearing in NJ.

Well, the second motion is clear enough (assuming you know what was discussed), but the first motion leaves a lot to be desired. I hope you took good notes. Let's get together to clarify what the Council wants in the PHD. Thanks!

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
Fax 302-674-5399
www.mafmc.org

Daniel T. Furlong
Executive Director

May 11, 2010

Patricia Kurkul
NOAA Fisheries, Northeast Region
55 Great Republic Dr.
Gloucester, MA 01930-2276

Dear Pat:

At its April 2010 meeting the Mid-Atlantic Council (Council) passed the following motion:

"Move that the Council send a letter (upon receipt of the proposed rule from NMFS) of recommendation to NMFS for its adoption of the Atlantic States Marine Fisheries Commission's black sea bass recreational measures for 2010".

As the proposed rule for the 2010 fishing year regarding Recreational Management Measures for the Summer Flounder, Scup, and Black Sea Bass Fisheries was published on April 27, please be advised that this Council supports the Atlantic States Marine Fisheries Commission's (Commission) recently adopted black sea bass measure, i.e., a revised season that will now run from May 22 to October 11, 2010 and from November 1 to December 31, 2010. This Commission action regarding a new 2010 fishing season for black sea bass was adopted at its May meeting.

Both the Council and Commission previously recommended a 2010 black sea bass minimum fish size of 12.5 inches (31.75 cm) and a 25–fish bag limit, but we differed as to the season for the fishery. Originally, the Commission adopted a single season from May 22–September 12, and this Council recommended a split season with the first season to occur from May 22–August 8 and a second season to occur from September 4–October 4. Both sets of measures were designed to achieve a 44% reduction in black sea bass landings as required by the data that were available at the time of their original decisions. However, final 2009 harvest estimates were made available at the end of April. These estimates indicated that the 2009 black sea bass harvest was less than previously projected and only a 21% reduction would be required for the 2010 recreational season.

Given this updated information, the Commission adopted the new split season mentioned above which is designed to achieve a 26% reduction. This 26% reduction allows for a reasonable conservation buffer to account for uncertainty in the harvest estimates and the effectiveness of regulations for 2010. This Council is in full support of this proposed target reduction and the necessary size, season, and bag limits that will achieve it.

Thank you for the opportunity to provide this comment.

Sincerely,

Richard B. Robins, Jr.
Chairman

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
Fax 302-674-5399
www.mafmc.org

Daniel T. Furlong
Executive Director

April 29, 2010

Ms. LeAnn Southward Hogan
HMS Management Division
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Dear Ms. Hogan:

On April 13, 2010 the Mid-Atlantic and New England Fishery Management Councils' Joint Spiny Dogfish Committee discussed the continuing development of Amendment 3 to NMFS' Highly Migratory Species FMP as it relates to smooth dogfish. The Committee noted that in the FEIS for the amendment, Alternative F2 had been modified to "delay implementation until beginning of smooth dogfish fishing season in 2012". The Committee appreciates the additional time that is being allowed for the fishery to adapt to "fins attached requirements".

In considering the distinct nature of this fishery, the Committee believes that its forthcoming management could be further improved by a fin-to-carcass ratio that correctly recognizes species morphology. The current 5% (fins by weight) ratio is expected to result in enforcement difficulties if the natural weight composition of fins (processed after landing) is above 10%, as documented in our letter of September 24, 2009. It should be noted that even if smooth dogfish are landed in compliance with the fins attached as required by Amendment 3, if they are subsequently removed by the fisherman after landing and sold to the dealer, the dealer's reported purchases from the fisherman will reflect a percentage higher than 5%, which could raise questions under the rebuttable presumption clause applicable to Section 307 (1)(P) of the Magnuson-Stevens Act. In the interest of preventing potentially significant law enforcement problems before they occur, the Committee requests that NMFS initiate or endorse a study protocol to provide an empirical basis for the appropriate fin-to-carcass ratio for smooth dogfish. The findings from such an activity could then be used to ensure that management of smooth dogfish is consistent with National Standard 3. The Joint Committee and the Council as a whole appreciate the opportunity to communicate their thoughts on this matter and look forward to continued partnership with NMFS HMS Division in the management of this unique fishery.

I encourage NMFS to work closely with the Councils to resolve and clarify any regulatory and legal questions related to the smooth dogfish fishery under Section 307 (1)(P) of the

Magnuson-Stevens Act so that the fishery can operate with a clear understanding of the regulations and statutes governing the smooth dogfish fishery. The Committee indicated that a simple study of the fin to carcass ratio would provide NMFS with an empirical basis for clarifying these important issues related to the unique morphology of the species.

Sincerely,

Richard B. Robins, Jr., Chairman

cc: Eric Schwaab
John Pappalardo
Red Munden
John McMurray
Pat Kurkul
Joel MacDonald

Mid-Atlantic Fishery Management Council

PRESS RELEASE

FOR IMMEDIATE RELEASE
April 19, 2010

PRESS CONTACT: Kathy Collins
(302) 674-2331 x253

Squid, Mackerel, Butterfish Amendment 11 Delayed
ACL/AM Omnibus Amendment Approved for Public Hearings

The Mid-Atlantic Fishery Management Council (Council) and four of its Committees met in Duck, North Carolina from April 13 until April 15, 2010. Submission of Amendment 11 to the Squid, Mackerel, and Butterfish (SMB) Fishery Management Plan (FMP) for Secretarial approval was delayed. The Public Hearing Document for the Omnibus Annual Catch Limits (ACL) and Accountability Measures (AM) Amendment was approved by the Council.

The SMB Committee reviewed public comments and recommended adoption of Amendment 11 alternatives concerning Essential Fish Habitat (EFH), a recreational/commercial mackerel allocation, and at-sea mackerel processing restrictions. The Committee requested that the Amendment 11 Fishery Management Action Team (FMAT), the SMB Advisory Panel, and the SMB Committee meet again regarding mackerel limited access to resolve ongoing historical participation issues. Participation issues led the Committee to recommend delaying adoption of Amendment 11's alternative regarding mackerel limited access. The Committee will recommend further action pending the results of the above requested meeting. The SMB Committee also approved a Scoping Document for Amendment 14 which may address implementation of catch share systems for *Loligo* and *Illex* squid fisheries as well as bycatch of river herring (blueback and alewife) and shad (American and Hickory) in the SMB fisheries. Scoping meetings will be announced once scheduled. The Council subsequently adopted motions consistent with all the SMB Committee's recommendations.

The Council voted to approve the Omnibus ACL/AM Public Hearing Document. This Amendment addresses the Magnuson-Stevens Act (MSA) requirements for ACLs and AMs. Management issues include the development of control rules as described in National Standard 1 guidelines to specify acceptable biological catch, a formal Council risk policy, and ACLs and AMs. This action would amend the Atlantic Mackerel, Squid, and Butterfish FMP, the Bluefish FMP, the Dogfish FMP, the Summer Flounder, Scup, and Black Sea Bass FMP, the Tilefish FMP, and the Surfclam and Ocean Quahog FMP. This Amendment will affect all Council managed species except *Loligo* and *Illex* squids which are exempted by the MSA. There will be four public hearings held to receive public input on the document (see Council website www.mafmc.org for more information). The hearings will be held May 3 at the Atlantic States Marine Fisheries Commission (ASMFC) meeting in Alexandria, VA; May 10, at the Virginia Marine Resource Commission in Newport News, VA; May 12 at New York Department of Environmental Conservation in East Setauket, NY; and, May18 at Stockton College, Lakeside Lodge, Pomona, NJ. All hearings will begin at 7 p.m.

The Council also approved final measures for Amendment 5 to the Joint Monkfish FMP which will be forwarded to the New England Fishery Management Council (NEFMC). Amendment 5 would bring the Monkfish FMP into compliance with National Standard 1 guidance for ACLs and AMs; establish management reference points in accordance with the revised guidelines; adopt multi-year catch targets; specify trip limits and days-at-sea for the directed fishery; and make adjustments to the Research Set-Aside (RSA) Program.

The Joint Spiny Dogfish Committee met to review the updated Transboundary Resource Assessment Committee's (TRAC) assessment which was presented by Dr. Paul Rago of National Marine Fisheries Service's (NMFS) Northeast Fisheries Science Center. The final TRAC report will provide a biomass target for the federal FMP and is expected to indicate that the biomass of spiny dogfish stock is above that target. The Council will send a comment letter to the Regional Administrator recommending that the rebuilt status of the stock be considered in the final rule establishing the commercial quota for 2010. The Committee also discussed NMFS management of smooth dogfish under Amendment 3 to the Highly Migratory Species (HMS) FMP. The Council will send a letter to NMFS requesting that a study be initiated to analyze the fin to carcass ratio for smooth dogfish such that an appropriate ratio can be established for harvest regulations.

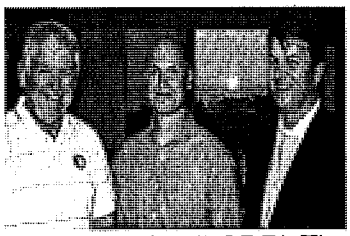
As a follow-up to the RSA Workshop held at the February 2010 meeting in Cambridge, MD, the RSA Committee met to discuss possible ways to improve the RSA program. The Workshop was held to bring the Council up to date on the program and request ways the program could be improved. Enforcement of award conditions and monitoring of catch appear to be the biggest problems associated with the Council's RSA program. The Committee agreed to update its mission statement to address these problems as well as issues such as grant administration, long term funding of NEAMAP, and quality control measures of projects.

The Executive Committee met to review and consider the Scientific and Statistical Committee's (SSC) recommended changes to the Council's Statement of Operating Practices and Procedures (SOPPs). Dr. John Boreman, Chairman of SSC, presented the Council with suggested changes to the operating procedures for the SSC. The Committee also discussed the Draft Summary of the Catch Share Workshop held in March. It was agreed that an ad hoc committee would be established to review interjurisdictional issues related to catch shares and a visioning process would be initiated by the Council to survey stakeholders to identify management challenges and opportunities within the Council's managed fisheries.

The Council voted to send a letter to NMFS, upon receipt of NMFS' black sea bass proposed rule, to support adoption of the ASMFC 2010 Black Sea Bass recreational measures of a 3.7 million pound total allowable landings (TAL), a12.5" minimum fish size, a 25 fish possession limit, and a season of May 22 through September 12.

The Council received an update from Jim Lecky, NMFS, Director of Office of Protected Resources, regarding NMFS' proposed change in the listing status for loggerhead sea turtles, i.e., from threatened to endangered, under the Endangered Species Act (ESA).

Council SSC member Dr. Rob Latour summarized the recent butterfish assessment. Dr. Latour chaired the Peer-Review Committee for the assessment (SAW/SARC 49: http://www.nefsc.noaa.gov/saw/), which concluded that the butterfish stock status is unknown but likely in some state of decline. The assessment suggested that fishing mortality (landings and discards) has been low and that other factors may be primarily contributing to the decline of butterfish.



Pictured Left: Dan Furlong, Executive Director (*left*), LCDR Tim Brown (*center*), and Rick Robins, Council Chairman (*right*)

Lieutenant Commander (LCDR) Tim Brown has been reassigned from the 5th Coast Guard District to the 9th District and will be relocating to Michigan. Lieutenant Kevin Saunders, Deputy Enforcement Chief and Fisheries Law Enforcement Officer, will be replacing LCDR Brown and representing the 5th Coast Guard District for Rear Admiral Wayne Justice starting at the June Council meeting in New York.

And in the end
The love you take
Is equal to the love you make

Thank you for the privilege of serving as this Council's third Executive Director

And in the end
The love you take
Is equal to the love you make

Mid-Atlantic Fishery Management Council Specifications

(as of May 27, 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 • Commercial • Recreational	**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**				
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**				
Dogfish	**12/10/08**	**01/22/09**	**03/19/09**	**05/01/09**	**12/08/09**	**02/01/10**	**04/02/10**					
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**[b]											
Tilefish[a] (NMFS Final Rule 10/22/02)												

[a] 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.

[b] Final rule applies for fishing years 2008, 2009, and 2010.

Mid-Atlantic Fishery Management Council
Status of FMPs, Amendments and Frameworks
(as of May 27, 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	**SUSPENDED**										
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 May 27, 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 • ~~Review and approve Amendment 11 to Squid, Mackerel, Butterfish for Secretarial Submission~~ (Moved to April) • ~~Review and adopt DEIS and PHD for Amendment 3 to Dogfish FMP~~ (Moved to April) • RSA Workshop to receive Programmatic Review Report and comments • Receive SAW and 49th SARC Reports on butterfish and surfclams • 1st Public hearing on Amendment 11 to Squid, Mackerel, Butterfish FMP Public hearing on Amendment 5 to Monkfish FMP
15	President's Day (observed)
16	~~SSC Meeting, Baltimore, MD~~ (POSTPONED TO MARCH 9)
16-18	Public hearings on Amendment 11 to Squid, Mackerel, Butterfish FMP

March

~~2~~	~~Meeting with Clam Industry to discuss imports, Easton, MD~~ (Cancelled)
8	Monkfish Public Hearing, Riverhead, NY
9	Monkfish Public Hearing, Lakewood, NJ
9	SSC Meeting, Baltimore, MD
~~9~~	~~Squid, Mackerel, Butterfish Committee Meeting (Amd 11 - review comments, make edits, select Preferred Alternatives), TBD~~
12	NRCC ACL/ AM Working Group, Providence, RI
13	Fishing Buddies of America, Manhattan, NY
~~16~~	~~Joint Dogfish Committee Meeting, Williamsburg, VA~~ (Cancelled)
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	MAFMC Council Meeting - Duck, NC • Review and adopt DEIS and public hearing document for ACL/AM Omnibus Amendment • ~~Select preferred alternatives for Amendment 3 to Spiny Dogfish FMP~~ (June) • ~~Review and adopt DEIS and public hearing document for Amd 15 to SC/OQ FMP~~ • ~~Approve Amendment 11 to Squid, Mackerel, Butterfish FMP for Secretarial submission~~ (June) • Approve Amendment 14 to Squid, Mackerel, Butterfish FMP Scoping Document • Approve final measures for Monkfish Amendment 5
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~~	~~Public hearings for Spiny Dogfish Amendment 3~~
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~~	~~Scoping hearings on Amendment 14 to Squid, Mackerel, Butterfish FMP~~ (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 • Adopt Squid, Mackerel, Butterfish Specifications for 2011 • Adopt Surfclam/Ocean Quahog Specifications for 2011, 2012, 2013 • Provide RSA award recommendations for 2011 • Approve Amendment 11 to Squid, Mackerel, Butterfish FMP for Secretarial submission 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
22-24	NEFMC Council Meeting - Portland, ME
23	Scoping Hearing on Amendment 14 to Squid, Mackerel, Butterfish FMP, Newport News, VA

July

5	Independence Day (observed)
12 - 16	Public Hearings for Amendment 3 to Spiny Dogfish FMP
13	SSC and Monitoring Committee (via Webinar)
19 - 23	Public hearings for Amendment 15 to Surfclam/Ocean Quahog FMP
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
17-19	MAFMC Council Meeting - Philadelphia, PA • Adopt Summer Flounder, Scup, Black Sea Bass Specifications for 2011, 2012, 2013 • Adopt Bluefish Specifications for 2011 • Approve SSC's multi-year research priority recommendations • Approve RSA priorities for 2012 (and beyond if warranted) • Review and approve ACL/AM Omnibus Amendment for Secretarial Submission

September

6	Labor Day
7	SSC Pre-decisional Briefing (via Webinar)
21-22	SSC and Monitoring Committee Meetings for Spiny Dogfish Specification Cycle
28-30	NEFMC Council Meeting, Newport, RI

October

11	Columbus Day
12-14	MAFMC Council Meeting - Cape May, NJ • Swearing in of New and Reappointed Council members • Election of Officers • Adopt Dogfish Specifications for 2011-2012 • Review and approve Amendment 15 to Surfclam/Ocean Quahog FMP for Secretarial Submission • Review and approve Amendment 3 to Spiny Dogfish FMP for Secretarial Submission
18-21	National SSC Workshop, Charleston, SC
27-28	NRCC Meeting, Providence, RI

November

8-12	ASMFC 69th Annual Meeting - Charleston, SC
11	Veterans Day
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 • Review and adopt Summer Flounder, Scup, Black Sea Bass recreational specs for 2011 • Review and adopt DEIS and public hearing document for Amendment 14 to Squid, Mackerel, Butterfish FMP
25	Christmas Day

Likely FMP Amendments/Frameworks for 2010:

* Amendment 11 to Squid, Mackerel, Butterfish FMP [SS-June]
* 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 [SS-Oct]
* 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
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

MAY 13 2010

SMALL ENTITY COMPLIANCE GUIDE

2010 ATLANTIC BLUEFISH FINAL SPECIFICATIONS

Dear Atlantic Bluefish Permit Holder:

NOAA's National Marine Fisheries Service (NMFS) has approved the 2010 final specifications for the Atlantic bluefish fishery, including coastwide and state commercial quotas, and recreational harvest and possession limits. The specifications will be effective June 14, 2010.

The 2010 Atlantic bluefish total allowable landings are 29.264 million lb. After transferring 5.387 million lb from the recreational to the commercial sector, and deducting the research set-aside quota of 419,750 lb, the final 2010 specifications are as follows:

- **Commercial quota equals 10,213,222 lb**
- **Recreational harvest limit equals 18,630,842 lb**
- **Recreational possession limit is 15 bluefish per person**

The final state commercial allocations for the 2010 commercial quota are shown in the attached table and are based on the percentages specified in the Atlantic Bluefish Fishery Management Plan. Based on updated landings information through December 31, 2009, no commercial bluefish quota overages occurred in 2009.

This letter does not contain all the regulatory provisions that pertain to the Atlantic bluefish fishery, and consequently, has no legal force or effect. A copy of the regulations can be obtained through NOAA Fisheries Service Northeast Regional Office web site: http://www.nero.noaa.gov. Please contact your state fisheries agency for any additional Atlantic bluefish regulations that may apply.

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

2010 Final Atlantic Bluefish State Commercial Allocations

State	Percent Share	Final State Quotas (lb) (including RSA deductions)	Final State Quotas (kg) (including RSA deductions)
ME	0.6685	68,275	30,969
NH	0.4145	42,334	19,202
MA	6.7167	685,991	311,161
RI	6.8081	695,326	315,395
CT	1.2663	129,330	58,663
NY	10.3851	1,060,653	481,104
NJ	14.8162	1,513,211	686,381
DE	1.8782	191,825	87,010
MD	3.0018	306,580	139,063
VA	11.8795	1,213,280	550,334
NC	32.0608	3,274,441	1,485,261
SC	0.0352	3,595	1,631
GA	0.0095	970	440
FL	10.0597	1,027,419	466,030
Total	**100.0001**	**10,213,222**	**4,632,644**

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

MAY - 1 2010

2010 Spiny Dogfish Fishery

Dear Spiny Dogfish Permit Holder:

NOAA's National Marine Fisheries Service (NOAA Fisheries Service) clarifies that the 2010 spiny dogfish fishery opened on May 1, 2010, with a possession limit of 3,000 lb per trip. Vessels continue to be prohibited from landing more than one trip in any calendar day. The Federal commercial quota for the 2010 spiny dogfish fishery will be set after the May 1, 2010, start of the fishing year (FY). Therefore, FY 2010 began on May 1, 2010 without a specified Federal spiny dogfish quota. The proposed rule for the 2010 spiny dogfish specifications was published in the Federal Register on April 2, 2010, (75 FR 16716) and the comment period is open until May 3, 2010.

All landings of spiny dogfish, from both state and Federal waters accrued during the interim period between May 1, 2010, and the implementation of final FY 2010 specifications will be deducted from the Period 1 quota allocation. Vessels must still comply with state regulations and quota allocations. Please contact your local state fisheries office for more information on current state regulations and quota for the start of FY 2010.

For more information on spiny dogfish regulations call Sustainable Fisheries at (978) 281-9315 and refer to the spiny dogfish information sheet at http://www.nero.noaa.gov/nero/regs/infodocs/SpinyDogFactSheet.pdf

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.

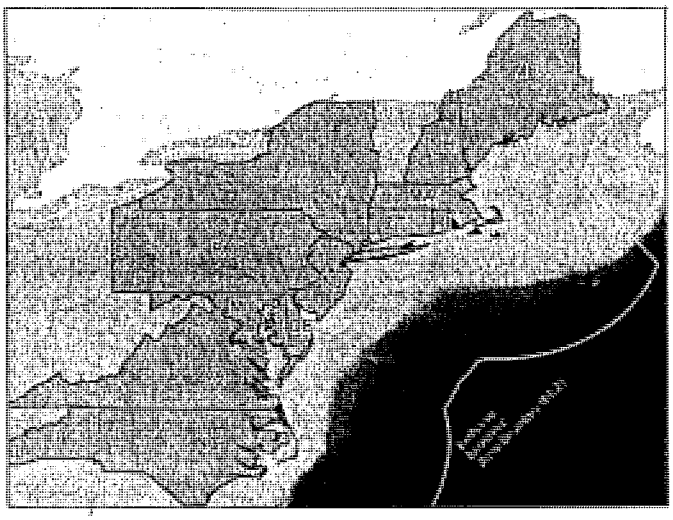
Sincerely,

for Patricia A. Kurkul
Regional Administrator

This small entity compliance guide complies with section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996.

NORTHEAST REGION COORDINATING COUNCIL

Spring 2010 Meeting
May 13-14, 2009
BWI Airport Marriott
Baltimore, Maryland



Meeting Briefing Book Table of Contents (*hyperlinked in .pdf format*)

Northeast Region Coordinating Council (NRCC) Spring Meeting Agenda
May 13-14, 2010
BWI Airport Marriott—Baltimore, Maryland

All times are approximate

THURSDAY MAY 13

12:30 NRCC CONVENES; REVIEW AND MODIFICATION OF AGENDA, INTRODUCTIONS AS NEEDED (5 MINUTES)

12:35 ACL/AM DATA NEEDS WORKING GROUP DISCUSSION-- *INCLUDING SSC CHAIRS CONNECTED BY TELEPHONE*

Update on Working Group progress and recommendations (Document to be provided). NRCC discussion on future Working Group tasking, assessment needs to support ACL management, 'signpost' applicability. (Weinberg, Kellogg, NRCC discussion)

T.B.D. SAW/SARC RELATED DISCUSSIONS—*INCLUDING SSC CHAIRS CONNECTED BY TELEPHONE*

a. Review and update on SAW/SARC/TRAC/DPSWG activities scheduled during the fall 2009 NRCC meeting, discussion as needed (WEINBERG)
b. Discuss public involvement in Terms of Reference (TOR) development (KELLOGG, NRCC DISCUSSION)

Determine if broader involvement, including public participation, for TOR development can be accommodated and if so, through what process and under what policies. Discussion should assign responsibilities if methods are agreed upon by NRCC.

c. Discuss NEFMC, MAFMC, and ASMFC feedback provided on SARC 51 TORs (hakes and *Loligo*) with NEFSC, determine if input can be accommodated or incorporated into TORs. (NRCC DISCUSSION WITH NEFSC)

2:45 BREAK

T.B.D. SSC RELATED DISCUSSIONS—*INCLUDING SSC CHAIRS CONNECTED BY TELEPHONE*

a. Discuss role of SSC as it relates to requesting information and analyses from plan development teams/monitoring committee/ NMFS that would typically go through a peer review. (NRCC DISCUSSION)
b. Discuss circumstances on when SSC could conduct peer review outside the SAW/SARC/TRAC processes and subsequently change overfishing definitions or other information (KELLOGG, NRCC DISCUSSION)
c. Fall meeting carryover item: Update on Council progress on ABC process/SSC integration.

Update and discussion on efforts to increase transparency of ABC-recommendation process, development of control rules, policy development for reconsidering recommendations, incorporation of more recent information, working relationships with Council staff, working groups, workload, and analytical responsibilities (if not resolved under a., above). (NRCC DISCUSSION)

5:00 CONCLUDE ANY UNFINISHED DISCUSSION; REVISE DAY 2 AGENDA AS NEEDED
ADJOURN FOR DAY

6:15-- *NRCC DINNER (OLIVE GROVE RESTAURANT - 705 NORTH HAMMONDS FERRY ROAD, LINTHICUM, MARYLAND)*

FRIDAY MAY 14

CONVENE AT 8:30: CONTINUE DAY 1 DISCUSSIONS OR PROCEEDE WITH REMAINING AGENDA ITEMS

T.B.D. DISCUSS UPDATED ACTION/PERSONNEL MATRICES (15 MINUTES; DARCY)

T.B.D. SBRM PRIORITIZATION DISCUSSION (30 MINUTES; THOMPSON, NRCC DISCUSSION)
Discussion on the NEFMC, MAFMC, NERO input to 2010 observer coverage prioritization and potential changes made by NEFSC.

T.B.D. DISCARD ESTIMATION PROCESS UPDATE (10 MINUTES)

T.B.D. DISCUSSION ON TIMING AND IMPLEMENTATION OF ACLS AND AMS (35 MINUTES; NRCC DISCUSSION)
Some NEFMC FMPs and the MAFMC Omnibus Amendment will likely be implemented mid-2011 or later; discuss plans for ensuring compliance with revised NS1 requirements to have in place for all nonexempt stocks, annual catch limits and accountability measures by 2011 for stocks not experiencing overfishing

10:00 BREAK

T.B.D. UPDATE AND DISCUSSION ON TRANSBOUNDARY MANAGEMENT (10 MINUTES; KURKUL, PAPPALARDO)
Brief update and discussion on any issues that arise in the May 10-11, 2010 US/Canada meeting.

T.B.D. OBSERVER WORKING GROUP ISSUES AND DISCUSSION (30 MINUTES; KURKUL, NRCC DISCUSSION)
Update on status of white paper and future tasking for observer working group

T.B.D. CORAL MANAGEMENT DISCUSSION (30 MINUTES; NRCC DISCUSSION)
Discuss recent action by NEFMC to protect corals, NMFS requirements and guidance for coral protected areas and management, jurisdictional issues

CONCLUDE ANY UNFINISHED NRCC BUISNESS BY 2:00 PM; REVIEW ACTION ITEMS
ADJOURN SPRING MEETING

REMINDER: Fall meeting dates: October 27-28, Host: [redacted], Location: T.B.D. by host

MID-TERM UPDATE—*Distributed January 22, 2010*
October 7-8, 2009 Meeting—Hilton Providence Hotel

Color code key:	
ASMFC	MAFMC
NEFMC	NEFSC
NERO	NRCC

Action Items from October 2009 Meeting:

1. Alternate Funding for Observers: Resolve internal NMFS review of observer white paper by end of October. Once internal discussion has occurred, complete white paper draft.

Responsible Party: NERO NEFSC
Timeframe: October 31, 2009
Status: Incomplete; Internal discussions ongoing.

2. Alternate Funding for Observers: Distribute observer white paper to working group and NRCC

Responsible Party: NERO NEFSC
Timeframe: November 25, 2009
Working Group membership previously identified in July 2009 mid-term update: NERO (R. Silva), NEFSC (A. VanAtten), MAFMC (J. Armstrong), NEFMC (L. Steele, C. Kellogg), ASMFC (B. Beal)
Status: Incomplete, behind schedule.

3. Alternate Funding for Observers: Meeting of observer alternate funding working group

Responsible Party: NERO
Timeframe: December 31, 2009
Status: Incomplete, behind schedule.

4. Alternate Funding for Observers: Observer alternate funding group reports back to NRCC 30 days prior to Spring meeting. NRCC discuss working group findings and recommendations at spring meeting

Responsible Party: NERO (working group chair) NRCC
Timeframe: white paper distributed 30 day prior to spring NRCC meeting; white paper discussion added as spring NRCC meeting agenda item.
Status: Behind schedule for completion of this action item.

5. Discard Estimation: Develop problem statement and agenda item for investigation and response regarding how trip discards are estimated.

Responsible Party: John Pappalardo
Timeframe: November 1, 2009
Status: Complete (see attached statement in Appendix).

6. Discard Estimation: Develop white paper or discussion document outlining current and possible discard estimation processes. Paper to include discussion of how process is done in other areas of the country and/or world.

Responsible Party: NEFSC NERO
Timeframe: Distribute prior to Spring NRCC meeting
Status: Not applicable for mid-term update.

7. Discard Estimation: Discuss discard extrapolation process information from Action Item 6 at the next NRCC meeting

Responsible Party: NRCC
Timeframe: Spring NRCC meeting
Status: Not applicable for mid-term update.

8. Transboundary Management: Feedback on 2010 US/Canada Groundfish TRAC Terms of Reference

Responsible Party: NEFMC
Timeframe: end of November
Status: Complete (see attached TORs in Appendix).

9. Transboundary Management: Discuss with Canada the issue of posting transboundary meeting summaries and other documents in a more timely fashion.

Responsible Party: Pat Kurkul
Timeframe: January intercessional meeting of transboundary partners
Status: January Intercessional cancelled; Action Item rescheduled for February 2010 teleconference between transboundary partners.

ABC Recommendation Process: Report at spring NRCC meeting on progress made on integrating SSC timing, process, guidance, and outreach into each Council's specification-setting process.
Responsible Party: MAFMC NEFMC
Timeframe: Spring NRCC meeting
Status: Not applicable for mid-term update.

10. ACL-AM Working Group: ACL-AM external working group discuss/address issues raised by NRCC and submit report and recommendations to NRCC.

Responsible Party: NEFMC MAFMC NERO ASFMC NEFSC
Timeframe: March 31, 2010
Previous WG appointees:
NEFMC staff: Chris Kellogg, Tom Nies.
NEFMC SSC: Steve Cadrin, Bob O'Boyle.
MAFMC staff: Rich Seagraves (backup - Jessica Coakley).
MAFMC SSC: John Boreman (backup - TBD).
NERO staff: Mike Ruccio (backup-Tom Warren).
NEFSC staff: Fred Serchuk, Eric Thunberg, Paul Rago, Jim Weinberg.
Status: Ongoing; Working Group meeting held on December 14, 2009, in Providence RI.

11. ACL-AM Working Group: NRCC to meet to take action on ACL-AM workgroup report and recommendations.

Responsible Party: NRCC
Timeframe: Spring 2010
Status: Not applicable for mid-term update.

12. Personnel Matrix: Submit changes in personnel or priorities matrices to George Darcy.

Responsible Party: NEFMC MAFMC NERO ASFMC NEFSC
Timeframe: December 1, 2009
Status: Completed; updated Matrices distributed by George Darcy in early December 2009.

13. NEPA Process: Draft agenda item including background for discussion of NEPA process at spring NRCC meeting.

Responsible Party: NEFMC
Timeframe: 45 days prior to spring NRCC meeting
Status: Not applicable for mid-term update.

14. Action Performance and Consequence Matrix: Complete "action performance and consequence matrix" used to compare the planned and actual completion and implementation plans of the NRCC. This matrix also attempts to quantify the effects of actions completed and implemented after their scheduled dates.

Responsible Party: Mike Ruccio
Timeframe: Fall 2010 NRCC meeting with document distributed with briefing materials
Status: Not applicable for mid-term update.

15. Enforcement Coordination: Schedule for a presentation of sector related enforcement and regulations to the ASMFC enforcement committee.

Responsible Party: NERO ASMFC
Timeframe: 2009 ASMFC annual meeting
Status: Completed as scheduled.

2010 NRCC meeting tentative dates:
Spring: May 13-14, MAFMC host; Fall: October 27-28, NEFSC
Meeting location and times to be determined.

Appendix of Completed Action Item Materials

Action Item 5: Pappalardo Discard Estimation Problem Statement (October 23, 2009 version)

How Should We Extrapolate?

Introduction: The successful transition of New England's fisheries to ACL/AM management is threatened by the inability to adequately account for all catch (landings and discards). Here, we outline the underlying flaw in the proposed extrapolation of *discard data* from observed trips to unobserved trips. Without the extrapolation of *catch-composition* data, rather than observed discard rates, fishing mortality of stocks will be consistently and grossly underestimated.

Problem: The transition to ACL/AM and Catch Share management is predicated on effective accountability and catch monitoring (landings and discards). This additional accountability is required, because quota management creates new and stronger incentives for discarding weak stocks on unobserved trips in order to continue targeting more abundant stocks. Thus, while vessels on *observed* trips will have predictably low discard rates (ex. only sub-legal sized fish), fishermen on *unobserved* trips will have economic reasons to discard limiting stocks without reporting.

Though the federal government has made substantial commitments to fund high levels of at-sea observer coverage/ catch monitoring for the entire fishery, the discard data from these observed trips will provide little to no insight into the discards on unobserved trips. This clearly creates a system in which estimates of overall fishing mortality on each stock will be dangerously mischaracterized. In short, future assessments may continue to show that unreported discarding limits the performance of our Fishery Manage Plan's.

Solution: To address this situation, the NMFS, NEFSC and NEFMC should:

- Consider abandoning current proposals/practices to extrapolate discard rates of observed trips to unobserved trips. Instead, observer/catch monitor-generated catch composition data should be extrapolated in near real-time across all trips within the appropriate gear-area strata. As there is

no acceptable reason that catch composition should differ significantly between observed and unobserved trips, it is both appropriate and necessary to make catch-composition the new standard of accountability for each Sector and for the Common Pool.
- Additionally, catch-estimates should be posted online weekly, to allow fishery stakeholders to track the progress of the fishery.

Conclusion: Without these revisions, a window of fish-and-pitch harvesting will undermine our FMP's and jeopardize the impact/ benefit of future management.

Action Item 8: US/Canada Groundfish TRAC Terms of Reference finalized December 21, 2009.

Transboundary Resources Assessment Committee
Assessment of Georges Bank Cod, Haddock and Yellowtail

July 19-23, 2010

NEFSC Woods Hole Laboratory
Stephen H. Clark Conference Room

TERMS OF REFERENCE

Context

The TRAC annually obtains requests for harvest advice on transboundary resources from the Transboundary Management Guidance Committee (TMGC).

For the following resources:
Eastern Georges Bank cod, Eastern Georges Bank haddock, Georges Bank yellowtail flounder

- Apply the benchmark assessments to report on the status of the stocks, updating results for the latest information from fisheries, including discard estimates, and research surveys, including recently estimated calibration coefficients for the NOAA FSV Bigelow and Albatross IV, and characterize the uncertainty of estimates.
- Given that the 2000 and 2003 year-classes of haddock will represent a larger component of the plus group than previous year classes, investigate how this impacts the calculation of fishing mortality. A workshop prior to the July TRAC may be required.
- Evaluate temperature and depth preference of yellowtail flounder on Georges Bank and any associated temporal and spatial trends.
- Describe any adjustments to benchmark assessment models applied during the TRAC including impacts on advice given to TMGC.
- For a range of total catch values in 2011, estimate the risk that the 2011 fishing mortality rate would exceed 0.18 (cod), 0.26 (haddock) and 0.25 (yellowtail flounder) respectively. Include a table showing the 2011 catches corresponding to low (25%), neutral (50%) and high (75%) probability that the F would exceed 0.18 (cod), 0.26 (haddock) and 0.25 (yellowtail flounder) respectively.
- If stock condition is poor, for a range of total catch values in 2011, estimate the risk that the biomass at the beginning of 2012 would not achieve a 0%, 10% or 20% increase compared to the beginning of 2011.

- Review the biomass distribution relative to the USA/Canada boundary, updating results with the 2009 survey information, and apply the allocation shares formula.
- Draft terms of reference for the 2011 TRAC assessment of cod, haddock and yellowtail.
- Other matters.

Outputs

TRAC Transboundary Status Reports the eastern Georges Bank cod and haddock, and Georges Bank yellowtail flounder management units.
TRAC Reference Documents for eastern Georges Bank cod and haddock, and Georges Bank yellowtail flounder management units.
TRAC Proceedings of meeting discussion

Participants

DFO Maritimes scientists and managers
NMFS Northeast Region scientists and managers
Canadian and US fishing industry
US State and Canadian Provincial representatives (NB and NS)
NEFMC representatives

Recommendations to NRCC from ACL-AM Working Group Meetings

(December 14, 2009 and March 12, 2010)

Background

A. NRCC Fall Meeting Action Items Pertaining to the ACL-AM Working Group

11. ACL-AM Working Group: ACL-AM external working group discuss/address issues raised by NRCC and submit report and recommendations to NRCC.
Responsible Party: NEFMC MAFMC NERO ASFMC NEFSC
Timeframe: March 31, 2010

12. ACL-AM Working Group: NRCC to meet to take action on ACL-AM workgroup report and recommendations. Responsible Party: NRCC
Timeframe: Spring 2010

B. Recent Background and Meetings

The ACL Working Group (workgroup) met on December 14, 2009 and March 12, 2009 (see attached meeting summaries) to address the above action items adopted by the NRCC on October 7-8, 2009. The NRCC had not accepted ACL/AM working group recommendations for using signposts instead of frequent assessment updates to adjust FMPs because of concerns over the usefulness and reliability of signposts. On the other hand, the committee did acknowledge the serious workload problems that would result from meeting MSRA requirements and which were identified in the October 2009 whitepaper. The recommendations below have been drawn from the recommendations at the December 14, 2009 meeting and the discussion at March 12, 2010 meeting. The workgroup did not formally adopt a set of recommendations at the second meeting; however, the workgroup thought the NRCC would benefit from a single set of recommendations from both meetings.

Recommendations

1. The extent of signpost utility and function remains unresolved. Managers will have to decide if, when, and how signposts may be useful to them, given that annual assessment updates will not be available for most stocks. One idea for further consideration was that signposts might be used to trigger benchmark assessments or assessment updates. If managers decide that signposts are not useful, there is little point in considering or adopting Recommendations 5 and 6 as well as parts of Recommendations 2 and 4 (below).
2. The management cycles for all 55 Northeast managed stocks should be mapped out; this would allow for better coordination with the schedule for delivery of science information. As well, this would minimize conflicts and improve timing issues, especially in cases where assessment-related information may be lacking. This exercise may also help inform which species or fishery management plans could utilize signposts for interim evaluations between benchmark assessments.
3. The Working Group discussion did not resolve how assessment priority would be determined but thought a more formal system of criteria for determining priorities would help the NRCC. Higher priority, and consequently more frequent assessments, might be designated for stocks: (a) under rebuilding or having other relevant stock status characteristics; (b) having high economic value; or (c) with a greater vulnerability to fishing. Stock assessments for lower priority species might be less frequent.

4. The Working Group discussed a potential meeting with staff from the two Council SSCs, personnel from ASMFC Technical Committees, and scientists from the NEFSC Population Dynamics (PopDy) Branch. This meeting would discuss several topics, including, but not limited to, the following issues: consistency of approaches that address and react to scientific uncertainty, analytical duties of PopDy/SSC/Council staff for performing calculations and projections, approaches for using signposts, generic assessment terms of reference, and other topics designed to improve understanding and coordination of the process to generate ABC recommendations for the Councils.
5. Lead stock assessment scientists from the PopDy Branch should, as soon as practicable, provide a list of what stock metrics provide the best indicator of stock status or overall stock health for their respective stocks. Descriptions of how these metrics would be used should also be provided. This effort augments the work already completed and described in the ACL Working Group's White Paper from October 2009.
6. Both SSCs should, as soon as practicable, review the list of stock specific metrics proposed by the PopDy Branch (above), develop alternative measures if appropriate, and discuss how the likely indicator signposts would be used in the ABC setting process, including the process used by the SSC to make its recommendations.
7. Various aspects of the management/regulatory process used in the North Pacific that enable science or assessment results to be more rapidly considered and integrated into management actions should be explored for their applicability in the Northeast.
8. The Working Group recommended that increases in funding to develop and implement management programs also should include comparable increases in research and assessment-related programs.

Scheduling Worksheet for Stock Assessments. **date: 5/7/10**

Basis for entries in Table: Fall 2009 NRCC meeting + Spring discussion

	SARC 48, June 2009	**SARC 49**, Nov 30 - Dec 3 2009 (11/30-12/3)
1	Ocean quahog	Atlantic surfclam
2	Tilefish	Butterfish
3	Weakfish	
4		
5	(Updates: Bluefish, BlkSeaBass, Scup, SMB, Fluke, Dog)	(TRAC - Mackerel - Data - Oct 22-23 '09)
6	(Vessel Calibration, Aug)	
7	(TRAC - EGBK Cod - Data - Jan)	
8	(TRAC - EGBK Cod - Modeling - April)	
9	(TRAC - (EGBK Cod, EGBK Hadd, GB YT), Herring - June)	
10	(TRAC - Dogfish - Data - April '09)	
11	(Wolffish Status Review - Jun '09)	

	SARC 50, June 1-4, 2010	**SARC 51**, Dec. 2010
1	Sea scallop	Loligo
2	Monkfish	Silver hake: 2 stocks
3	Pollock *(Note This SARC agenda too full)*	Red hake: 2 stocks
4		Offshore hake
5		
6	(TRAC - Dogfish - Benchmark - Jan 25-29 '10)	
7	(TRAC - Mackerel - Benchmark - Mar 1-5 '10)	*(Herring MSE meeting)*
8	(TRAC - EGB cod, EGB haddock, GB YT - Jul 19-23 '10)	*(Rebuilding times - support NRC review)*
9	(Updates: Bluefish, BlkSeaBass, Scup, Fluke, Butter, Dog)	(MSRA ABC support)

	SARC 52, June 2011	**SARC 53**, Dec. 2011
1	Summer flounder	Black sea bass
2	Winter flounder: Gulf of Maine	GOM Cod
3	Winter flounder: GBK	Analysis of ' Signposts '
4	Winter flounder: SNE *(Note: This SARC agenda too full)*	
5		
6	(Multisp. Groundfish catch and survey analyses - for biennial ACLs)	
7	(TRAC - EGB cod, EGB haddock, GB YT)	
8	(SBRM - 3yr report)	

	SARC 54, June 2012	**SARC 55**, Dec. 2012
1	Ocean quahog	Atlantic surfclam
2	SNE YT flounder *(Note. This SARC agenda too full)*	GB Cod
3	Herring	*Windowpane flounder -N*
4		*Windowpane flounder -S*
5		
6		
7	(TRAC - EGB cod, EGB haddock, GB YT)	

	SARC 56, June 2013	**SARC 57**, Dec. 2013
1		
2		
3		
4		
5		
6	(Multisp. Groundfish catch and survey analyses - for biennial ACLs)	
7	(TRAC - EGB cod, EGB haddock, GB YT)	

Italics = under consideration, but not officially scheduled.

"( )" = not in the SARC process.

~/sarc/boilerplate/Schedule-worksheet-assessments(date).xls 5-7-2010.

Assessment Terms of Reference for SAW/SARC51
(Review Meeting:11/29 – 12/3, 2010)

(file vers.: 4/23/2010, For Final NRCC approval)

and:

History of Steps to Set Assessment TORs:

Completed	Date	Step
X	2/18/2010	Start with Generic SAW/SARC TORs which were edited/approved by the SSCs in 2009
X	2/26/2010	Met with Chief of Pop. Dyn. Branch to edit TORs for each stock
X	3/5/2010	Met with lead Assessment Scientists and SAW WG Chairs for additional editing
X	3/10/2010	Sent draft TORs to NRCC to get comments from their orgs (deadline was 4/19 to accommodate NEFMC SSC schedule.
X	4/23/2010	SAW Chair and Pop Dy Chief revised draft TORs based on comments from NEFMC, MAFMC, ASMFC (via NRCC reps.)
X	5/7/2010	SAW Chair submits TORs to NRCC for final approval at upcoming meeting

A. Silver hake (2 Stocks: Northern and Southern)

For each stock or combined,

1. Estimate catch from all sources including landings, discards, and effort. Characterize the uncertainty in these sources of data, and estimate LPUE. Analyze and correct for any species mis-identification in these data.

2. Present the survey data being used in the assessment (e.g., regional indices of abundance, recruitment, state surveys, age-length data, etc.). Characterize the uncertainty and any bias in these sources of data.

3. Evaluate the validity of the current stock definition, and determine whether it should be changed. Take into account what is known about migration among stock areas.

4. Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series (integrating results from Silver hake TOR-5), and estimate their uncertainty. Include a historical retrospective analysis to allow a comparison with previous assessment results.

5. Evaluate the amount of silver hake consumed by other species as well as the amount due to cannibalism. Include estimates of uncertainty. Relate findings to the stock assessment model.

6. State the existing stock status definitions for "overfished" and "overfishing". Then update or redefine biological reference points (BRPs; estimates or proxies for B_{MSY}, $B_{THRESHOLD}$, and F_{MSY}; and estimates of their uncertainty). If analytic model-based estimates are unavailable, consider recommending alternative measurable proxies for BRPs. Comment on the scientific adequacy of existing BRPs and the "new" (i.e., updated, redefined, or alternative) BRPs.

7. Evaluate stock status (overfished and overfishing) with respect to the existing BRPs, as well as with respect to the "new" BRPs (from Silver hake TOR 6).

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).

   Provide numerical short-term projections (3 years). 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 about the most important uncertainties in the assessment (e.g., terminal year abundance, variability in recruitment). Comment on which projections seem most realistic, taking into consideration uncertainties in the assessment.

   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.

B. Red hake (2 Stocks: Northern and Southern)

For each stock or combined,

1. Estimate catch from all sources including landings, discards, and effort. Characterize the uncertainty in these sources of data, and estimate LPUE. Analyze and correct for any species mis-identification in these data.

2. Present the survey data that are being used in the assessment (e.g., regional indices of abundance, recruitment, state surveys, age-length data, etc.). Characterize the uncertainty in these sources of data.

3. Evaluate the validity of the current stock definition, and determine whether this should be changed. Take into account what is known about migration among stock areas.

4. Estimate measures of annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and characterize their uncertainty. Include a historical retrospective analysis to allow a comparison with previous assessment results.

5. State the existing stock status definitions for the terms "overfished" and "overfishing". Then update or redefine biological reference points (BRPs; estimates or proxies for B_{MSY}, $B_{THRESHOLD}$, and F_{MSY}; and estimates of their uncertainty). If analytic model-based estimates are unavailable, consider recommending alternative measurable proxies for BRPs. Comment on the scientific adequacy of existing BRPs and the "new" (i.e., updated, redefined, or alternative) BRPs.

6. Evaluate stock status (overfished and overfishing) with respect to the existing BRPs, as well as with respect to the "new" BRPs (from Red hake TOR 5).

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).

   Provide numerical short-term projections (3 years). 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 about the most important uncertainties in the assessment (e.g., terminal year abundance, variability in recruitment).

   Comment on which projections seem most realistic, taking into consideration uncertainties in the assessment.

   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.

C. Offshore hake

1. Use models to estimate the commercial catch. 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, age-length data, etc.). Describe the uncertainty in these sources of data.

3. Estimate measures of annual fishing mortality, recruitment and stock biomass for the time series, and characterize the uncertainty of those estimates.

4. State the existing stock status definitions for the terms "overfished" and "overfishing". Then update or redefine biological reference points (BRPs; estimates or proxies for B_{MSY}, $B_{THRESHOLD}$, and F_{MSY}; and estimates of their uncertainty). If analytic model-based estimates are unavailable, consider recommending alternative measurable proxies for BRPs. Comment on the scientific adequacy of existing BRPs and the "new" (i.e., updated, redefined, or alternative) BRPs.

5. Evaluate stock status (overfishing and overfished) with respect to the existing BRPs, as well as with respect to the "new" BRPs (from Offshore hake TOR 4).

6. If a model can be developed, conduct single and multi-year stock projections and for computing candidate ABCs (Acceptable Biological Catch; see Appendix to the TORs).

   Provide numerical short-term projections (3 years). 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 about the most important uncertainties in the assessment (e.g., terminal year abundance, variability in recruitment).

   Comment on which projections seem most realistic, taking into consideration uncertainties in the assessment.

   Describe this stock's vulnerability to becoming overfished, and how this could affect the choice of ABC.

7. Propose new research recommendations.

D. Longfin squid (*Loligo*)

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, age-length data, etc.). Describe the uncertainty in these sources of data.

3 Estimate annual fishing mortality, recruitment and stock biomass for the time series, and characterize the uncertainty of those estimates (consider *Loligo* TOR-4). Include a historical retrospective analysis to allow a comparison with previous assessment results.

4 Summarize what is known about consumptive removals of *Loligo* by predators and explore how this could influence estimates of natural mortality (M).

5 State the existing stock status definitions for the terms "overfished" and "overfishing". Then 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 BRPs and for the "new" (i.e., updated, redefined, or alternative) BRPs.

6 Evaluate stock status with respect to the existing BRPs, as well as with respect to the "new" BRPs (from *Loligo* TOR 5).

7 Develop approaches for computing candidate ABCs (Acceptable Biological Catch; see Appendix to the TORs), and comment on the ability to perform projections for this stock.

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.

Appendix to the SAW TORs:

Clarification of Terms used in the SAW/SARC Terms of Reference

(The text below is from DOC National Standard Guidelines, Federal Register, vol. 74, no. 11, January 16, 2009)

On "Acceptable Biological Catch":

Acceptable biological catch (ABC) is a level of a stock or stock complex's annual catch that accounts for the scientific uncertainty in the estimate of [overfishing limit] OFL and any other scientific uncertainty..." *(p. 3208) [In other words, OFL ≥ ABC.]*

ABC for overfished stocks. For overfished stocks and stock complexes, a rebuilding ABC must be set to reflect the annual catch that is consistent with the schedule of fishing mortality rates in the rebuilding plan. *(p. 3209)*

NMFS expects that in most cases ABC will be reduced from OFL to reduce the probability that overfishing might occur in a year. (p. 3180)

ABC refers to a level of ''catch'' that is ''acceptable'' given the ''biological'' characteristics of the stock or stock complex. As such, [optimal yield] OY does not equate with ABC. The specification of OY is required to consider a variety of factors, including social and economic factors, and the protection of marine ecosystems, which are not part of the ABC concept. (p. 3189)

On "Vulnerability":

"Vulnerability. A stock's vulnerability is a combination of its productivity, which depends upon its life history characteristics, and its susceptibility to the fishery. Productivity refers to the capacity of the stock to produce MSY and to recover if the population is depleted, and susceptibility is the potential for the stock to be impacted by the fishery, which includes direct captures, as well as indirect impacts to the fishery (e.g., loss of habitat quality)." (p. 3205)

NEFMC Comments on
DRAFT Assessment Terms of Reference for SAW/SARC51 (11/29 – 12/3, 2010)
(file vers.: 3/7/2010)

The NEFMC comments are in the form of editorial additions which are indicated by the underlined words or deletions.

A. Silver hake (2 Stocks: Northern and Southern)
For each stock or combined,

1. Characterize all sources of catch including landings, effort, ~~LPUE~~ and discards. Describe the uncertainty in these sources of data. Analyze and correct for misidentification of silver and offshore hake in landings and discard data.

2. Characterize the survey data being used in the assessment (e.g., regional indices of abundance, recruitment, state surveys, age-length data, etc.). Describe uncertainty in these sources of data. Include a historical retrospective analysis to allow a comparison with previous assessment results.

3. Evaluate the validity of the current stock definition, and determine whether it should be changed. Evaluate whether migration among stock areas and from areas outside the current stock boundaries is a significant factor in the assessment.

3a. Evaluate and analyze growth rates from available data.

4. Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series (consider Silver hake TOR-5), and characterize the uncertainty of those estimates. Account for all sources of bias in the estimates of stock size and fishing mortality. Include a historical retrospective analysis to allow a comparison with previous assessment results.

5. Evaluate trophic interactions of silver hake including consumption and cannibalism. Include estimates of uncertainty. Characterize the variability and uncertainty in these estimates as well as their potential effect on future biomass. Relate findings to the stock assessment model.

6. State the existing definitions for overfished and overfishing. Then update or redefine biological reference points (BRPs; estimates or proxies for B_{MSY}, $B_{THRESHOLD}$, and F_{MSY}; and estimates of their uncertainty). If analytic model-based estimates are unavailable, recommend other proxies from yield-per-recruit or other (e.g. %SPR) estimates as suitable MSY proxies which can be monitored using existing data and analyses. Comment on the scientific adequacy of existing and redefined BRPs to achieve MSY.

7. Evaluate stock status with respect to the existing overfishing definition, as well as with respect to ~~updated or redefined~~ alternative BRPs (from Silver hake TOR 6).

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 (3 years). Each projection should estimate and report annual probabilities of exceeding threshold BRPs for F, and probabilities of falling below threshold BRPs for biomass, given uncertainties in the terminal year abundance at age estimates and variability in recruitment. In carrying out projections, consider a range of assumptions about the most important uncertainties 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.

B. Red hake (2 Stocks: Northern and Southern)

For each stock or combined,

1. Characterize all sources of catch including landings, effort, ~~LPUE~~ and discards. Describe the uncertainty in these sources of data. Analyze and correct for misidentification of red hake and small white hake in landings and discard data.

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.

3. Evaluate the validity of the current stock definition, and determine whether this should be changed. Evaluate whether migration among stock areas and from areas outside the current stock boundaries is a significant factor in the assessment.

4. Estimate measures of annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and characterize the uncertainty of those estimates. Account for all sources of bias in the estimates of stock size and fishing mortality. Include a historical retrospective analysis to allow a comparison with previous assessment results.

5. State the existing definitions for overfished and overfishing. Then update or redefine biological reference points (BRPs; estimates or proxies for B_{MSY}, $B_{THRESHOLD}$, and F_{MSY}; and estimates of their uncertainty). If analytic model-based estimates are unavailable, recommend other proxies from yield-per-recruit or other (e.g. %SPR) estimates as suitable MSY proxies which can be monitored using existing data and analyses. Comment on the scientific adequacy of existing and redefined BRPs.

6. Evaluate stock status with respect to the existing overfishing definition, as well as with respect to updated or redefined BRPs (from Red hake TOR 5).

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 (3 years). Each projection should estimate and report annual probabilities of exceeding threshold BRPs for F, and probabilities of falling below threshold BRPs for biomass, given uncertainties in the terminal year abundance at age estimates and variability in recruitment. In carrying out projections, consider a range of assumptions about the most important uncertainties 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.

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.

C. Offshore hake

1. Use models to estimate the landings and discards of offshore hake. 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, age-length data, etc.). Describe the uncertainty in these sources of data. Account for all sources of bias in the estimates of stock size and fishing mortality.

3. Estimate measures of annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and characterize the uncertainty of those estimates.

4. State the current definitions for overfished and overfishing. Then update or redefine biological reference points (BRPs; estimates or proxies for B_{MSY}, $B_{THRESHOLD}$, and F_{MSY}; and estimates of their uncertainty). If analytic model-based estimates are unavailable, recommend other proxies from yield-per-recruit or other (e.g. %SPR) estimates as suitable MSY proxies which can be monitored using existing data and analyses . Comment on the scientific adequacy of existing and redefined BRPs.

5. Evaluate stock status with respect to the existing overfishing definition, as well as with respect to updated or redefined BRPs (from Offshore hake TOR 4).

6. If a model can be developed, conduct 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 (3 years). Each projection should estimate and report annual probabilities of exceeding threshold BRPs for F, and probabilities of falling below threshold BRPs for biomass, given uncertainties in the terminal year abundance at age estimates and variability in recruitment. In carrying out projections, consider a range of assumptions about the most important uncertainties 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. Propose new research recommendations.

D. Longfin squid (*Loligo*)

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, age-length data, etc.). Describe the uncertainty in these sources of data.

3. Estimate annual fishing mortality, recruitment and stock biomass for the time series, and characterize the uncertainty of those estimates (consider *Loligo* TOR-4). Account for all sources of bias in the estimates of stock size and fishing mortality. Include a historical retrospective analysis to allow a comparison with previous assessment results.

4. Summarize what is known about consumptive removals of *Loligo* by predators and explore how this could influence estimates of natural mortality (M).

5. State the existing definitions for overfished and overfishing. Then 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 *Loligo* TOR 5).

7. Develop approaches for computing candidate ABCs (Acceptable Biological Catch; see Appendix to the TORs), and comment on the ability to perform projections for this stock.

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.

NORTHEAST REGION COORDINATING COUNCIL

4.30.10

Consideration of Observer Program Funding Models

This summary document broadly identifies existing and potential observer program service funding models, and the primary factors that would affect implementing such models in the Northeast Region. It is based in large part on information contained in a congressional report compiled in 2000 by the NMFS National Observer Program titled: *Options for Funding a Fishery Observer Program for the West Coast Groundfish Fishery* (attached).

In general, observer program funds may be generated through government appropriations, industry, or a third party. The most prevalent delivery model is either through government appropriations, through industry, or some combination thereof.

Government-Funded Delivery Models

Observer programs can be funded fully or partially by the government. The government may hire at-sea observers directly as personnel (i.e., observers as NMFS staff), submit payment to an observer service provider operating under contract to NMFS, and/or approve observer service providers and certify observers. Observer service provider requirements are established through contracts with NMFS or detailed in regulation. The necessary funds can be procured in two primary ways: (1) Congressional appropriations; and (2) through the collection of fees that are reserved to fund observer coverage. Typically, observer program administrative and analytical costs are handled through appropriations, while the source of at-sea observer funds may come directly from appropriations or another source such as the fishing industry.

Fees collected by the government to fund observer coverage could be based on factors such as:

- permit fees;
- sector fees;
- landings tax; or
- proceeds from observer set-aside quota auctions.

Permit fees: Fishing vessel and/or seafood dealer permit holders submit a permit renewal fee to NMFS, which then uses these funds, either wholly or in part, to pay for observer program costs. NMFS currently has the authority to collect permit fees; however, due to the inability to direct permit fee proceeds to specific program needs, as described below, the implementation of this model would require changes to the law.

Sector Fees: NMFS charges each approved sector (as in the current groundfish sectors established in the FMP and subsequent framework adjustments) an annual fee in order to authorize the sector allocation of catch. This is based on factors such as projected observer program costs or landed product value. NMFS then uses these funds to fully or partially pay for observer program costs, either specifically for that sector, or for the overarching fishery of which the sector is a part. The implementation of this model would require changes to the law due to fee collection restrictions on NMFS.

Landings tax or cost recovery fee: Fishing vessel and/or seafood dealer permit holders submit a percentage or fixed amount of their fishing revenue to NMFS, which would then be used to pay for observer program costs. This tax applies to all federally permitted vessels, seafood dealers, or both. Additional factors that affect the tax include permit category and vessel capacity. Unless this fee is collected under a Limited Access Privilege Program (LAPP) cost recovery program, the implementation of this model would require changes to the law due to fee collection restrictions on NMFS.

Observer set-aside auction proceeds: A portion of an annual quota or fleet days-at-sea (DAS) allocation is set aside. Permit holders within a fishery are allowed to bid on set-aside quota or DAS. Auction winners are allowed to exceed effort controls (for example, trip limits) by the amount of quota or DAS that are purchased. Under this model, the agency can hold an auction for the set-aside quota/DAS, the proceeds from which would be used to fully or partially pay for observer program costs. This model would likely require changes to the law before it could be implemented due to fee collection restrictions on NMFS.

Section 208 of the Magnuson-Stevens Reauthorization Act (attached) stipulates that the Secretary of Commerce shall establish and maintain a Fisheries Conservation and Management Fund. Available funds would be disbursed by the Secretary for the purpose of addressing objectives defined under this provision, one of which includes improvements to harvest data collections. Potential sources for this fund include quota set-asides, appropriations, or other public, private, or non-profit organizations. Consequently, this new fund may allow NMFS to collect funds under a quota set-aside, or from one of the other listed resources, for the purposes of improving some types of harvest data collections. Further consideration is needed to determine the utility, if any, of this fund with respect to generating observer program funds.

Fee collection restrictions: A challenge in implementing government-funded service delivery models outside of budget appropriations is that NMFS is largely restricted in how it may collect and utilize fees such as those described above, as required by the Miscellaneous Receipts Act, which prevents Executive Branch agencies from bypassing the Congressional appropriations process by augmenting their budgets through other means. In most cases where collections are allowed, such as permit fees, collections must be deposited into the general treasury. With the exception of LAPP cost recovery fees, and the Fisheries Conservation and Management Fund, NMFS may not collect fees to supplement program needs. Under the Magnuson-Stevens Act, cost recovery fees cannot exceed three percent (3%) of the value of fish landed under a LAPP, and may only be used to cover additional administrative costs established by the LAPP, and not existing program needs. However, if a LAPP establishes new at-sea observer requirements, cost recovery fees could likely be used towards these costs. Limiting factors of the Fisheries Conservation and Management Fund include its general applicability to observer funding models, the provision that no region shall receive less than five percent (5%) of the fund in each allocation period, and the specific types of projects that may be funded.

Due to these limitations in collecting fees, government-funded delivery models for observer coverage are currently restricted primarily to congressional appropriations.

Industry-Funded Delivery Models

There are several industry-funded observer service delivery models in the United States. Industry-funded observer programs, whether mandated or voluntary, traditionally have some form of cost-sharing structure with the government, whereby the government assumes administrative and analytical costs,

and the industry covers at-sea observer costs. Due to the cost-sharing structure of industry-funded observer programs, new programs also create a financial burden on NMFS, which faces a larger administrative and analytical burden. A potential solution to this dilemma, although it clearly reduces NMFS's control over the program, is to shift some or all of the administrative and/or analytical burden to the observer service provider or other contracted third party.

The most basic industry-funded service delivery model is when each vessel assigned an observer is responsible for paying the entire cost of the at-sea observer expenses, without being compensated in extra quota/DAS in return. The following discussion on industry-funded service delivery models focuses on indirect payment models, as well as a variety of models to provide compensation to industry to offset paying for the observer coverage. The National Observer Program is currently preparing a paper that comprehensively describes U.S. industry-funded observer programs, and identifies both pros and cons of such programs. Concerns related to these types of programs are noted, particularly in regards to data quality and observer safety.

Under indirect payment models, the observer service provider or NMFS is paid through the transfer of funds from an account established exclusively for covering observer costs. This account is comprised of funds that are generated from a group of common stakeholders, such as a fishery, fishery sector, or regional fishery management organization. These funds are derived from a common expense, such as the following:

- sector fees;
- sale of regulatory discards;
- landings tax; or
- set-aside auction proceeds.

Sector Fees: All sector members are required to submit a sector membership fee that is managed by the sector or a contracted agent, which would be used to cover observer costs.

Sale of regulatory discards: Vessels are authorized to land regulatory discards, the proceeds of which are paid into an escrow-type account dedicated to paying for observer costs. This model has been discussed in numerous forums, where enforcement concerns are often raised.

Landings tax: A percentage or fixed amount of a vessel's landings revenue is paid into an escrow-type account. Observer service providers draw on this account, as needed, to cover observer expenses. This tax applies to all vessels with a Federal Northeast permit, or limited to certain fisheries only (e.g., by taxing landings of specific species). Additional factors affecting the tax include permit category and vessel capacity.

Observer set-aside auction proceeds: Permit holders within a fishery are allowed to bid on set-aside quota or DAS. Auction winners are allowed to exceed effort controls by the amount of quota that was purchased. Unlike the model described above, the proceeds from this auction is paid into an escrow-type account, which observer service providers draw on, as needed, to cover observer expenses.

An area of concern about industry-funded observer programs is the lack of or reduction in direct oversight by NMFS over the program, particularly related to maintaining adequate standards for data quality and observer safety. Observer service provider requirements can be developed through fishery management plans and implemented through fishery regulations, although some feel this to be an inefficient method to enforce program requirements. Without a contractual relationship between NMFS

and the observer service provider, NMFS lacks oversight of how funds are generated and spent, and over observer service provider performance. No-cost contracts between NMFS and the observer service provider might provide greater flexibility, standardization, and oversight over industry-funded programs. This tool has not yet been applied to the management of an observer program, but is being examined more closely by the National Observer Program and the Northeast Fisheries Observer Program.

Under direct-payment models, often referred to as "pay-as-you-go", the vessel owner is responsible for paying the observer service provider or NMFS following an observed trip and assumes the observer cost burden. The vessel owner may account for that cost as part of the business overhead or may take the costs out of that particular trip's share, thereby affecting the captain's and crew's payment for the trip. Vessel owners that are required to directly pay an observer service provider or NMFS for all or part of the cost to carry an observer may be compensated for this expense by reducing trip expenses or increasing trip profit.
Following are examples of compensation a vessel owner may receive for carrying an observer:

- reduced fees;
- set-aside compensation; or
- regulatory exemptions.

Reduced fees: A vessel owner is compensated for carrying an observer by reducing or eliminating permit fees or landing taxes. Such waivers are based on the vessel owner's overall observer costs, the number of observed trips, or simply whether the vessel incurred any observer costs that year.

Set-aside compensation: A vessel owner is compensated for carrying an observer by authorizing the observed vessel to exceed effort controls under a quota or DAS set-aside program. Such vessels may be authorized to fish longer than normally allowed, during closed seasons, or retain catch they otherwise could not, whether retained as target or non-target catch. Revenue generated from this extra fishing effort would provide compensation to offset the vessel owner's observer expenses.

Regulatory exemptions: A vessel owner could be compensated for carrying an observer by exempting a vessel from certain regulations such as an increased possession limit, which would allow a vessel to generate extra revenue or reduce operating costs. Exemptions that alter fishing behavior would likely be problematic. Observer effect, or changes in fishing behavior due to having an observer onboard, would have to be considered and evaluated closely.

Third Party Funding

An observer program may also be funded by a third party, such as an environmental advocacy organization, international development agency, international management authority, or a state agency. Under such a scenario, a third party may provide, or pay for, at-sea observers, and possibly other program expenses as well, such as administrative and analytical costs. These funding alternatives are being researched further as there has been some interest in this option.

West Coast Groundfish Fishery Observer Program

Although the congressional report developed for the West Coast groundfish fishery detailed several service delivery models, in the end, Federal appropriations were used to fund this program. These funds were made available following a successful lawsuit that was filed against NMFS. See the attached report for additional information on this program.

Example 2009 Funding Assessment

To illustrate some of the issues addressed in this paper, this section presents two example scenarios with respect to the 2009 SBRM specified number of observer days.

As a starting point for discussion, the following examples utilize the number of observer sea days specified by the SBRM to achieve a 30-percent CV for all the fishing modes (fleets) currently included in the SBRM. For 2009, the SBRM specified that 15,125 observer sea days would be necessary. NEFSC estimates that the total cost of each observer day is $1,200, which would mean that, to be fully funded, the SBRM target would cost approximately $18,150,000. The current estimate for the 2009 Northeast Fishery Observer Program (NEFOP) budget is $7,400,000, resulting in a program shortfall of $10,750,000, relative to the SBRM target.

The total program cost per observer sea day covers two primary elements: (1) Scalable internal administrative, training, and analytical costs borne by the NEFOP; and (2) funds paid to the contracted observer service provider. The former include all incremental NMFS costs to administer the observer program, train and certify new observers, monitor contractor performance, and perform data auditing and analyses. The latter include all fixed costs of the contractor (e.g., salaries, liability insurance, data transfer to NMFS), as well as potential variable costs (e.g., bonuses paid to observers, travel, meals). Because the principal administrative and analytical tasks are performed by NEFOP, funding sources for these activities are primarily restricted to appropriations. At-sea observer expenses are handled by contracted observer service providers, which allows greater flexibility in how these funds may be collected.

Scenario 1 – NEFOP budget for administrative costs. The purpose of this scenario is to consider the budget implications if the appropriated NEFOP budget is to be used first for all administrative costs (i.e., all costs associated with the administration and operation of the NEFOP that are borne by the NEFSC). All funds necessary for the full implementation of the observer program in excess of the appropriated NEFOP budget would be derived from one or more of the funding models described above. In this scenario, the target observer coverage level is established by the SBRM. For 2009, this requires 15,125 observer sea days; the total cost for this level of coverage is $18,150,000 (15,125 days * $1,200 per day). Therefore, the appropriate NEFOP budget would first be used to pay the administrative costs associated with 15,125 observer sea days. Any remaining budget funds could be used to fund a portion of the costs for the contracted observer sea days; the new funds would be generated to pay for the remaining contractor costs.

Assumption 1: NEFOP administrative costs per sea day = $250/day[1]
Assumption 2: At-sea observer coverage (contractor costs) = up to $950/sea day[2]
Calculation 1: Total NEFOP administrative costs = $3.8 million ($250 * 15,125 days)
Calculation 2: Available funding = $7.4 million (2009 appropriations level)
Calculation 3: Available NEFOP budget for at-sea coverage = $3.6 million
Calculation 4: NEFOP-funded at-sea coverage = 3,789 sea days ($3.6 million / $950/day)

[1] This is a preliminary figure and will be refined in the coming months. Also, this figure would be affected by the type(s) of funding model selected.

[2] As noted in the text, the contractor costs include variable costs such as travel, per diem, meals, etc., which vary from port to port and trip to trip. The contractor costs are not expected to be this high for all trips. However, this average cost is dependent on the specific contract between NMFS and the observer service provider, and the cost estimate could change with future contract extensions/modifications, and could also vary with the type of funding model used.

Calculation 5: Cost of remaining sea days (overall funding shortfall) = $10.75 million

Therefore, based on these assumptions and calculations, if the available appropriated NEFOP budget were first used to fully fund the administrative costs associated with the observer program (at the 15,125 sea day level), there would be a budget shortfall of $10.75 million to be generated through one or more of the funding models described above.

Option A – Supplemental funding generated through fees attached to the issuance of each Federal limited access or open access fishing permit issued by the Northeast Region.

In 2008, excluding lobster only, there were 4,176 permitted vessels and 39,812 separate permits issued (each vessel may have more than one permit). If the full funding shortfall ($10.75 million) were generated through permit fees, the cost of each permit would be $270. However, this may not be cost-effective for vessels with multiple permits, as each additional permit on a vessel would cost $270 (e.g., a vessel with five permits would be charged $1,350). Assessing fees at the vessel level, rather than the individual permit level, would result in an annual vessel permitting fee of approximately $2,575. More likely, a middle ground could be established such that the initial permit assigned to each vessel would cost more than $270, but each additional permit would be less (e.g., the initial permit would cost $1,500, and each additional permit $175).

Option B – Supplemental funding generated through a landings tax applied to all landings by federally permitted vessels in the Northeast Region.

From 2005-2008, the total ex-vessel value of all landings in the Northeast Region (excluding lobster and sea scallops) averaged $369.2 million. To generate the needed $10.75 million shortfall in Federal observer funding, a landings tax of 2.91 percent would be required. This tax would be assessed on all landings at the point and time of sale from the vessel to the dealer.

Option C – Supplemental funding generated through quota and/or DAS set-aside programs in certain fisheries.

The subject FMPs would be modified to authorize and establish quota and/or DAS set-aside programs to be used to generate funding for observer coverage, much like is currently done in several FMPs for research. NMFS or a contracted third party would hold an auction of the available set-aside, and the proceeds from the auction would supply the necessary funding for the observer program. To be most effective, observer set-aside funding would come from only a few of the high-value fisheries that are managed using strict effort- or quota-based controls. For example, a set-aside of 5 percent each of the annual summer flounder commercial quota and the annual monkfish target TAC could be expected to generate up to $2.9 million of the $10.75 million needed. Other fisheries could also be selected to generate the needed supplemental funding.

Scenario 2 – Allocate Center funding to "small margin" fisheries. The purpose of this scenario is to recognize that different fisheries, based on the value of the primary resource species and/or the management mechanisms employed to manage the fisheries, operate differently and that the economics of the fisheries vary in ways that can affect the effectiveness and appropriateness of funding models such as observer set-aside programs or landings taxes. For example, the economics of the bluefish fishery (relatively low value species, no Federal possession limits, rarely reach Federal coastwide quota) are quite different from the monkfish fishery (high value species, low Federal possession limits, DAS-

based effort controls) and these differences have implications for how an observer set-aside program or landings tax could be designed and how/whether it could be effective at generating funds necessary to supplement Center funding for the observer program. In this scenario, all Northeast Region fisheries would be analyzed to determine which fisheries are most appropriate as the basis for fishery-based revenue generation (such as an observer set-aside program or a landings tax), and which are not appropriate. The necessary observer coverage for those fisheries determined to not be appropriate for these programs would be funded through the appropriated NEFOP budget. Observer coverage for the remaining fisheries would be generated through some form of fishery-based source (set-aside program, landings tax, direct payment by vessels, sector fees, etc.).

In this scenario, the $7.4 million Center budget would be used to fully fund 6,100 observer sea days, creating a shortfall of $10.75 million to fund the remaining 8,900 observer sea days. The Center-funded 6,100 sea days would be allocated to fisheries such as the Mid-Atlantic and New England small-mesh otter trawl fisheries, and other fisheries determined through the evaluation described above to be inappropriate for fishery-based funding. The remaining 8,900 sea days would be allocated to and funded by programs established for the remaining fisheries (such as the existing observer set-aside program for the sea scallop fishery).

Discussion

It may appear, based on the above scenarios and examples, that in some respects the source of funding is irrelevant. In all cases identified above, the overall budget required to meet the SBRM level of observer coverage is $18.15 million, and if $7.4 million is provided through congressional appropriations, then the funding shortfall is $10.75 million. This is true regardless of whether the initial Center budget first funds the administrative costs associated with the full allocation of 15,125 sea days, or is initially used to fully fund the first 6,101 sea days. It is also true regardless of whether the supplemental funds are derived from permit fees, a landings tax, or an observer set-aside auction. However, there are a few situations where the specific structure of the supplemental funding program and/or the initial allocation of congressionally appropriated funds would affect the potential observer coverage levels.

The first would be a situation in which the available congressionally appropriate funds are insufficient to cover the administrative and operational costs of the Center. Note that in the above examples, the estimated administrative and operational costs of the Center for 15,125 observer sea days equals $3.8 million, and the available budget ($7.4 million) far exceeds this amount. If the congressional appropriation for observer coverage fell below this level, or if the basis for the Center's administrative and operational costs increased (substantially above $250/day), or the SBRM coverage level increased substantially above 15,125 sea days, it would be possible that there would be a budget shortfall at the outset that would prevent the Center from operating the observer program at the SBRM level. In this case, the source of supplemental funding may affect the coverage level outcome. If the source of supplemental funding was a permit fee or landings tax collected by the agency, with the ability to direct those funds to pay program costs, then while the level of funding needed would increase, the program could still be fully implemented. However, if the source of supplemental funding was one in which the industry paid observer service providers directly, as in the existing sea scallop industry-funded observer program, then the overall level of observer coverage would be capped at that which the Center's budget could support. For example, if the Center's congressionally appropriated budget was reduced to $3.0 million, then this budget would limit the Center to being able to administer and operate a maximum of 12,000 observer sea days.

The second would be a situation in which the Center's initial budget was used to fully fund observer sea days for either the highest priority coverage, or for the "small margin" fisheries as in scenario 2. In this situation, once the Center's budget was committed to fully fund a certain level of observer coverage, any supplemental funds intended to support additional observer coverage would be required to support both the funding for the observer service provider and the Center's administrative and operational functions. Otherwise, the available observer coverage would be constrained not by the availability of supplemental funding but by the Center's ability to operate the program at increased coverage levels. Therefore, in this situation, the only supplemental funding source that could work would be those that provide funds directly to NMFS that can serve as program funds. One caveat to this would be some form of fund match, whereby industry-based funding provided to observer service providers would be matched day for day with supplemental program funds from another source.

Resources

Archipelago Marine Research Ltd., Pacific Fisheries Management Incorporated: *Evaluation of Monitoring and Reporting Needs for Groundfish Sectors in New England Phase II Report* (2008)

Environmental Protection Agency: *Guidebook of Financial Tools: Paying for Environmental Systems.* (2008)

International Fisheries Observer and Monitoring Program: *Panel Discussion: Current and Future Observer Programs' Funding Mechanisms.* (2000)

National Marine Fisheries Service: *Fostering Industry Cooperation with Fishery Observer Programs: An Internal Response to the Office of the Inspector General 2004 Report on Fishery Observer Programs*

National Marine Fisheries Service: *Options for Funding a Fishery Observer Program for the West Coast Groundfish Fishery.* (2000)

Pacific Fisheries Management Incorporated, Archipelago Marine Research Ltd.: *Evaluation of Monitoring and Reporting Needs for Groundfish Sectors in New England Phase I Report* (2008)

Appendix

Northeast Region Coordinating Council (NRCC) Annual Catch Limit (ACL) Working Group (WG); December 14, 2009 Meeting. Hotel Providence, Providence R.I.

Attendees

Steve Cadrin, Chris Kellog, Tom Nies, Paul Rago, John Boreman, Bob Beal, Rich Seagraves, Fred Serchuk, Rich McBride, Jim Weinberg (Chair), and Mike Ruccio (Rapporteur).

List of Documents

Items 1-3 can be found in the Appendix, beginning page 6.
(1) Action Item X from the October NRCC Meeting (a.k.a. 'Ruccio Notes'); (2) ACL-AM Working Group NRCC Meeting Discussion Summary; (3) October 2009 NRCC Action Items; (4) Northeast Fisheries Science Center (NEFSC) Scheduling Worksheet for Stock Assessments; (5) Final White Paper provided to the NRCC in October 2009.

General Summary

The primary focus of the WG meeting was to discuss the outcome of the October NRCC meeting wherein the white paper[3] that evaluated scientific needs to support the ACL requirements of the reauthorized Magnuson-Stevens Fishery Conservation and Management Act was reviewed. The NRCC appreciated the work done by the 'internal' and 'external' WGs and provided high praise for the detail of the white paper, but was not wholly receptive of the large-scale changes as outlined in the document. The NRCC raised several issues that were remanded back to the WGs for additional consideration, development, and potential resolution. The NRCC-raised issues formed the basis for the December 14, 2009, WG discussion.

During the WG meeting, it became evident that a different approach was necessary in light of the NRCC response to the white paper recommendations. A better understanding of how fishery managers may envision the utility of signposts was identified as necessary by the WG. In addition, the WG recognized that the Scientific and Statistical Committees (SSCs) needed to be more engaged in crafting a transition from *status quo* to a new operating paradigm.

The WG recommended that the Councils provide information on how signposts could be used within each Council's respective management processes. The WG recognized that the two Councils have expressed a desire to proceed into ACL management in different ways: The Mid-Atlantic Council has expressed a desire to continue with a combination of annual and multi-year specifications depending on the species in question: while the New England Council has identified plans for biennial or multiple year ABC-setting and specifications. Discussions focused on how best to quantify the potential uncertainty associated with setting multiple year ABCs, if and how signposts could be utilized to adjust ABC specifications in intervening years, and what type of analyses could be used to evaluate the robustness of multiple year catch recommendations. Brief discussion occurred regarding how annual updates utilized for Mid-Atlantic Council species could be conducted in a simplified manner that would still provide sufficient stock information for ABC setting.

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[3] Northeast Fisheries Science Center (NEFSC) ACL Working Group, (October 2009). *An Evaluation of Scientific and Assessment Needs to Support Development of Acceptable Biological Catches (ABCs) and Annual Catch Limits (ACLs) for Managed Resources of the Northeast Region.* [White paper].

The WG also recommended engaging the SSCs to identify signposts and descriptions of their specific applications for managed stocks. The WG identified that lead stock assessment authors, as well as the SSCs, routinely employ a quasi-signpost approach as these persons with detailed knowledge of the stock assessment often inherently know what parameters are the most easily influenced by changes in the stock or provide the best quick reference to overall stock condition. The WG recommends that these 'quick reference-type' signposts should be documented by the assessment leads and SSCs before the fall 2010 NRCC meeting.

The WG discussed issues relating to providing age and growth information to the stock assessment process. The WG agreed that analysis of efficiencies within the aging process, relating to the number of samples needed to provide a representative sample of a given population's age distribution, should be completed. Additional discussion on age and growth information bottlenecks yielded no specific recommendations or solutions, but did clearly elucidate the magnitude of the issues.

The WG also discussed the quality versus the quantity of assessments. WG members raised that the discussion on signposts at the NRCC meeting did little to shed light on issues relating to data delivery, overall assessment capacity, and timing of assessments. The WG continued to discuss the possibility of Councils and the Regional Office changing their schedules to better meet the foreseeable data delivery time frames. In addition, the WG suggested that a more detailed examination of the science delivery and management processes timing as it relates for ABC setting for each Council and the Regional Office should be considered.

The WG agreed that Future should be conducted by one joint working group rather than the previous 'internal' and 'external' groups. The WG recognized that there may be need of technical analyses to be performed at a later date but for the foreseeable future, additional information on how Councils and SSCs may elect to utilize signposts precludes analytical work until such time that clearer policy direction for signpost application is completed. A new WG chairperson was appointed for the next phase of discussion and development. The WG discussed drafting a document containing revised recommendations and an outline of the anticipated second phase of necessary discussions and analyses to provide to the NRCC at its spring 2010 meeting.

Working Group Recommendations

1. Future work and discussion should be conducted by a single workgroup comprised of representation from the MAFMC, NEFMC, NEFSC, ASMFC, and NERO.
2. Chris Kellogg will serve as chairperson of the workgroup.
3. Both SSCs should, as soon as practicable, provide a list of what stock metrics are reviewed by stock as indicator signposts in the ABC setting process. Descriptions of how these metrics are utilized for such evaluations should be included.
4. NEFSC lead stock assessment scientists should, as soon as practicable, provide a list of what stock metrics provide the best indicator signpost of either changes in stock status or that provide the best snapshot of overall stock health for their respective species. Descriptions of how these metrics are utilized for such evaluations should be included.
5. Councils, through their management teams or technical staff, should provide discussion documents on if and how they would like to use signposts in each respective fishery management plan for any of the following: Intercessional evaluation or modification of multi-year ABCs; Signpost use in interim periods between benchmark or full assessment updates; or other methods contemplated in the WG white paper.

6. The MAFMC Monitoring Committees and SSC should hold discussions on simplified stock assessment updates for Mid-Atlantic species. These groups should discuss or analyze the tradeoff between potential increases in uncertainty and desired frequency of updated stock information.
7. An analysis of optimum number of age structures needed to provide effective stock age composition should be undertaken by the NEFSC as soon as practicable. Additional discussion and/or analysis may examine collection protocols per survey strata instead of survey station or other modification of sampling protocol to increase efficiency (e.g., decreased sampling frequency for younger age classes).
8. Discussions on additional resources, efficiencies, and funding for NEFSC and state age and growth programs should continue.

Detailed Meeting Summary

Update on NRCC Receipt of WG White Paper

To open the meeting, Dr. Jim Weinberg provided an overview of the NRCC reaction to the white paper that had been developed by the internal and external ACL WGs for the October NRCC meeting. Jim stated that the NRCC was highly complimentary of the work that had gone into the white paper and appreciated the detailed information that was conveyed in the document; however, the NRCC was not wholly receptive of the large-scale changes proposed by the white paper. Jim outlined that the principle recommendation of the white paper was utilization of signpost stock metrics to manage stocks in the intervening years between benchmark or stock assessment updates. Several additional points were raised by the white paper, such as complications in data delivery resulting from two additional weeks in the *FSV Bigelow* spring survey length, limitations on the amount of age and growth analysis that can occur in any given year, the ever increasing number of issues included in terms of reference for benchmark assessments which require extensive analyses and discussion, and other general complications in synchronizing the science and management process. The NRCC had good discussion about the many topics raised in the white paper. NRCC members raised several questions regarding the use and timing of signposts for management actions (see Appendix for additional information). Jim characterized the NRCC as being unconvinced that signposts would meet the member group's needs. The NRCC requested that the WGs continue work in 2010 to address some of their concerns (see Appendix for additional information).

Meeting Discussion

The WG initially focused its discussion on NRCC issues raised in response to the white paper. Jim Weinberg suggested that two working groups, one advisory and one technical, might be necessary to address the issues raised by the NRCC. It was stated that the NRCC needed to be convinced, through case-study analysis and examination of the management process timing, that signposts could be effective. The majority of the WG discussion was designed to respond to the specific issues outlined in Appendix (document page 6); however, as the meeting went on, it became clear that the WG was recommending a slightly different approach than contemplated at the fall NRCC meeting.

The WG spent some time discussing potential case studies and what analyses could be conducted before the NRCC March 31, 2010, deadline. Candidate signposts could be compared to historic assessment information to provide some comparison to the assessment-provided results. Concerns were raised that signposts would seldom reflect the full stock assessment-provided information. The justification for moving to signposts was not just a workload and resource limitation issue, but that the recommended changes in the white paper would potentially provide higher quality assessments. This point was made

again later in the meeting, that the current volume of work performed to conduct assessments yields a high quantity of information but that periodic errors do occur as a result. One of the objectives in the white paper was to increase the quality evaluations that assessments receive.

Some in the WG raised concerns that utilization of multiple year ABC specification would require increased buffers for uncertainty and potentially decrease yield in the latter years of the cycle. To that point, the WG discussed how signposts could be utilized within multiple year specifications to validate the ABCs for intervening years and/or to modify those ABCs, as needed. Concerns were raised about the practicability of modifying ABCs based on updated signposts, if Councils would or had the mechanisms to do so.

The schedule of data delivery and the subsequent management process, including ABC establishment and/or modification was discussed. The WG stated that more understanding of the management process, particularly how it would function under the new data delivery schedule, should be examined and discussed. It was recognized that the Councils and SSCs needed to be engaged on the information they would like to have provided and to specify the frequency of delivery for their evaluations and management processes. The concept of adjusting the management process to respond to the availability of science information as opposed to the science process being driven by the timing of management decisions and political drivers was discussed. It was also raised that Councils may have to discuss and modify their processes or priorities if assessment information is available less frequently.

The issue of how signposts should be utilized was the subject of lengthy discussion. Ultimately, the WG decided that Councils and SSCs should determine if signposts are useful and in what capacities (e.g., mechanisms for adjusting ABC based on signpost information). It was noted that the NRCC discussion focused so much on signposts that little discussion occurred on process and scheduling issues raised in the white paper. The WG agreed that the best approach would be for Councils to examine each fishery management plan individually and to determine the applicability of signpost use.

The WG discussed how previously conducted assessment updates could potentially be simplified by updating only catch, borrowing age-length keys, utilizing assumed recruitment, etc. The potential tradeoff in precision as a function of increased uncertainty in the resulting information was discussed without resolution. In the discussion of potential prioritization, the WG discussed relating prioritization to stock status. It was raised that the total capacity for annual analytical assessment development and products would be valuable to provide the Councils. NEFSC staff stated that the SARC schedule already provides that information. The WG discussed, without resolution, including terms of reference for the SARC to evaluate signposts. Additional discussion occurred on the frequency of assessments for key species such as cod and summer flounder and the infrequent schedule of non-priority species such as hakes and squids.

The WG concluded that it was premature to qualitatively evaluate the issues raised by the NRCC. Additional input from the SSCs and Councils, as outlined in the recommendations section, was discussed as the necessary first step in moving forward. The WG, with this aforementioned input, can then continue discussions on what issues are germane and what analyses are needed to demonstrate effectiveness of the Council and SSC identified signposts. The WG discussed the plan for responding to the NRCC by March, which includes development of the recommendations in this summary, follow up to those, and a status update for the NRCC, as needed.

APPENDIX—Documents Distributed at the December 14, 2009 NRCC ACL Working Group Meeting.

ACTION ITEM X: ACL Working Group, second phase
RESPONSIBLE PARTY: NEFSC (Lead); ACL working groups (Internal and External)
TIMING: Report on progress at Spring 2010 NRCC Meeting
-Discussion paper(s), power point presentation(s), or white paper(s) as appropriate
Specific issues raised by NRCC for further consideration, development, and/or resolution by the working groups:

1. Comparison of candidate signpost performance against recent 5-year benchmark and/or stock update-provided information.
2. Develop schedule and data delivery timing for benchmarks and signpost under proposed change in operations.
3. Discuss and develop science and management response strategies and timelines for when a signpost indicates ABC adjustment is warranted (i.e., check engine light is on).
4. Discuss and develop science and management response strategies and timelines for when a signpost indicates caution is warranted (i.e., yellow light or something clunking under the hood, but no check engine light).
5. Resolve how best to support the different Council approaches for catch limit establishment: MAFMC has stated a preference for annual specification, citing past performance (plans contain; NEFMC has indicated 2-3 year specifications are planned.
   -Would signposts be evaluated in intervening years of multiple year specifications (related to #3 and 4)
   -Quantify potential magnitude of decreased yield to buffer uncertainty in years 2 and 3 of multiple year specifications
6. Develop criteria for applying different approaches based on stock status (e.g., annual or other stock updates for rebuilding stocks, signposts for stocks at or near B_{MSY}).
7. Select candidate pilot species or fishery management plans for 2011 application?

Unresolved from discussion:

- Status of transition: Does the NRCC agree with white paper recommendations at this point? Does the 1-year clock start for moving to signposts supported by benchmark assessments every 3-5 years through an established SAW/SARC schedule?
- From the ABC recommendation/SSC process discussion: Is it desirable to have the working groups discuss how to incorporate external and/or new data outside SAW/SARC data workshop schedule

Summary of Northeast Region Coordinating Council Meeting
October 7-8, 2009
Hilton Providence Hotel, Providence RI

ACL AM White Paper Discussion
This discussion took place in two separate sessions on both days of the meeting. During the first session, Fred Serchuk and Jim Weinberg provided an overview of the white paper contents and working group recommendations. Topics highlighted included: The ability to continue to support business in the manner currently done is untenable; the Northeast region status of stocks has improved substantially in recent years; so-called "signposts" and other less complex stock assessment methods present a way forward to gauge stock

health on an annual basis; and short and long term objectives were recognized and reported on by the working group to the NRCC. It was also discussed that sending the lead stock assessment author to SSC meetings may be beneficial to answer technical questions, but that care must be exercised that the author not interpret Center for Independent Experts peer-review views or intent.

During the discussion, concerns were expressed on how annual catch limits could be set with signposts assessments and how management and/or science would react if a signpost assessment indicated unfavorable changes in stock condition. The group discussed the pros and cons of multiple year specifications, uncertainty in the most distant years of multiple year specifications, and synchronizing benchmark assessments to multiple year assessment management adjustment processes. The complexity of the current benchmark assessment process, including age and growth analysis, responding to terms of reference about uncertainty, and use of more analytical models was well characterized by the NEFSC staff. However, reservations remained about the potential whole-scale change proposed by the working group findings.

Some on the NRCC were interested in a compromise between the working group proposed approach and the *status quo*. Additional NRCC discussion indicated that further investigation is necessary and several items were remanded to the working group for further deliberation and development. Action Items 11 and 12 were created. It was clarified that ASMFC staff should formally be invited to be involved with the working group, as a communications breakdown had previously made ASMFC participation unclear.

NRCC Fall Meeting Action Items Pertaining to the ACL-AM Working Group:
11. ACL-AM Working Group: ACL-AM external working group discuss/address issues raised by NRCC and submit report and recommendations to NRCC.

Responsible Party: NEFMC MAFMC NERO ASFMC NEFSC
Timeframe: March 31, 2010
Previous WG appointees:
NEFMC staff: Chris Kellogg, Tom Nies. NEFMC SSC: Steve Cadrin, Bob O'Boyle. MAFMC staff: Rich Seagraves (backup - Jessica Coakley). MAFMC SSC: John Boreman (backup - TBD). NERO staff: Mike Ruccio (backup-Tom Warren). NEFSC staff: Fred Serchuk, Eric Thunberg, Paul Rago, Jim Weinberg.

12. ACL-AM Working Group: NRCC to meet to take action on ACL-AM workgroup report and recommendations.

Responsible Party: NRCC
Timeframe: Spring 2010

Northeast Region Coordinating Council (NRCC) Annual Catch Limit (ACL) Working Group (WG); March 12, 2009 Meeting. Hotel Providence, Providence R.I.

Attendees

Steve Cadrin, Chris Kellogg (Chair), Paul Rago, John Boreman, Bob Beal, Rich Seagraves (Co-Chair), Fred Serchuk, Jim Weinberg, and Mike Ruccio (Rapporteur).

Summary

The WG resumed discussion of assessment information necessary to support the Mid-Atlantic and New England Fishery Management Council activities under ACL and AMs. WG discussion indicated that the limitations on the current assessment processes have been well developed and documented in previous discussions and in the white paper[4] provided to the NRCC. The WG reasserted that assessment terms of reference have grown increasingly complex, assessment updates have become more similar to full benchmark assessments, and the current practices for providing assessment information are unsustainable. Yet ACL/AM new requirements put an even greater emphasis on the science that is necessary for the management process. The WG had previously discussed how so-called "signpost" indicators could be used instead of more extensive assessments to potentially provide inferences on stock status and possibly highlight the need of management adjustments.

Constraints on how the stock assessment information function with the management process was agreed upon by the WG to require further examination. Specifically, the WG discussed potential topics for further exploration by the Councils and NRCC including different management implementation strategies, interim specifications, and standardization of assessments designed to improve timing with assessment-related activities (i.e., data acquisition, analysis, and peer review). It was suggested that the management cycles for all 55 Northeast managed stocks should be mapped and then the optimal process for coordination with science information could be better discussed. The objective of the detailed examination would be used to better inform conflicts, timing issues, and potential shortages of assessment-related information. This would expand the exercise undertaken to schedule the Stock Assessment Workshop (SAW)/Stock Assessment Review Committee (SARC) beyond the three year horizon typically considered by the NRCC. This exercise may also help inform which species or fishery management plans could utilize signposts for interim evaluations between scheduled assessment updates or benchmarks. The WG discussion did not resolve how assessment priority could be determined. Suggestions included plans under rebuilding or other relevant stock status or profile of the species would be higher priority and occur on a more frequent basis. Lower priority species would have less frequent assessments and may fall into a 3-5 year schedule.

It was discussed at many points in the meeting that additional resources were clearly necessary. In particular, the was agreed that many of the recent increases in funding to support more complex management programs should also include equivalent increases in research and assessment funding to ensure that new programs are indeed effective. The WG discussed that while resources and funding were necessary, stock assessment scientists and persons with sufficient expertise are in short supply, require training, and could not be produced overnight even if money and resources were suddenly increased.

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[4] [4]Northeast Fisheries Science Center (NEFSC) ACL Working Group, (October 2009). *An Evaluation of Scientific and Assessment Needs to Support Development of Acceptable Biological Catches (ABCs) and Annual Catch Limits (ACLs) for Managed Resources of the Northeast Region.* [White paper].

The WG took a step backward during the discussion, contemplating if signposts had been conceptually accepted by the NRCC for further development or future use. It was stated that the extensive signpost system presented in the white paper, a comprehensive revision of the existing practices, did not seem acceptable to the NRCC. The WG discussed that signpost utility may be related to the frequency of updated and benchmark assessments as signpost may be valuable in intervening years. The discussion held by the WG contemplated using signposts for either adjustment of management measures or as a trigger for initiating a more extensive assessment or assessment-type evaluations. The WG discussed how signposts might function to mitigate the amount of uncertainty used in recommending ABCs, particularly in years when benchmarks or updated assessments are not available. The extent of signpost utility and function remained unresolved, and it was suggested that managers may need to comment further on if, when, and how signposts may be useful to them.

Concerns were raised that the complexity of benchmark assessments is now such that conducting six per year (3 in both the spring and winter SAW/SARC schedule) may not be feasible. The WG discussed how potential shortfalls in assessment data would be translated into management, if the SSCs could perform assessment updates in interim years, and if a greater level of uncertainty would occur if assessment-level information was available less frequently. Some minor discussion was held on revisiting the SAW/SARC process and its utility moving forward. There was no resolution on this particular point during the meeting.

WG representatives from the Northeast Fisheries Science Center (Center) spent some time relaying the results of recent discussions with the Alaska Fisheries Science Center (ASFC) on assessment and management processes. Within the Alaska process, some distinct differences where highlighted in both the science and management process but it was noted that many of the same assessment information and timing challenges being discussed in the Northeast are also occurring for ASFC studied species.

The concept of conducting a triage process for unacceptable West Coast assessments was discussed as a possibility in the Northeast Region. The WG highlighted timing challenges that already exist with the delivery of stock assessment information for management decisions. Any triage or 'mop-up' of unacceptable or highly uncertain assessments would add additional staff and SSC commitments, would further delay delivery of results for management use, and may require modification of the management process to either multiple year specifications or some type of interim measures while the mop-up is completed and reviewed. Peer review involvement for such a process was also discussed. Some time was spent discussing the impending use of calibration coefficients and establishment of a trawl survey time series under the *FSV Bigelow*.

The WG discussed a meeting between the two Council SSC's, Atlantic States Marine Fisheries Commission Technical Committee personnel, and the Center population dynamics (PopDy) branch personnel. This meeting would discuss several topics, including but not limited to the following: Consistency of approaches that address uncertainty, survey calibration issues, analytical duties of the SSC and PopDy for performing calculation and projections within peer review accepted assessment methods, approaches for signpost use, agreement on generic assessment terms of reference, and other topics designed to better improve understanding and coordination of the process to generate Acceptable Biological Catch (ABC) recommendations to the Councils.

Timing of assessment-related reports for SSC review and consideration was discussed by the WG. This discussion highlighted several potential issues: Final assessment reports often require time for

assembly, review, and distribution. The upcoming 2011 summer flounder assessment and specifications process was used as an example. The SAW/SARC would likely conclude in June, a summary report would be available in July, and the final assessment (i.e., the full assessment report) document would likely be available in August or September. The SSC will require information from the assessment for ABC recommendation in early to mid-July. The WG discussed that tradeoffs to further compress the schedule of assessment development, analysis, and reporting can lead to lower overall quality or a higher likelihood that mistakes could be made and not caught. Some concerns were expressed about working with preliminary or summary assessment reports for ABC recommendations. This discussion also contemplated the utility of summary reports, Stock Assessment and Fishery Evaluation (SAFE) documents, National Standard 2 requirements, and overall timing issues of the ABC process.

The WG spent time discussing the list of previous recommendations as a way of structuring a report for the May 2010 NRCC meeting. The discussion follows each enumerated WG recommendation from the December 2009 WG meeting.

9. Future work and discussion should be conducted by a single workgroup comprised of representation from the MAFMC, NEFMC, NEFSC, ASMFC, and NERO.
10. Chris Kellogg will serve as chairperson of the workgroup.

No discussion occurred on the first two topics. The WG has continued to meet as a single workgroup and Chris Kellogg took over as chair following the December 2009 meeting.

11. Both SSCs should, as soon as practicable, provide a list of what stock metrics are reviewed by stock as indicator signposts in the ABC setting process. Descriptions of how these metrics are utilized for such evaluations should be included.
12. NEFSC lead stock assessment scientists should, as soon as practicable, provide a list of what stock metrics provide the best indicator signpost of either changes in stock status or that provide the best snapshot of overall stock health for their respective species. Descriptions of how these metrics are utilized for such evaluations should be included.

The WG decided that further discussion of recommendations No. 4 and 5 should occur at the planned SSC/TC/PopDy meeting; however, the larger question of if signpost approaches are acceptable must first be decided. The WG discussed the merits of indicator species and other possible uses of signpost approaches as envisioned by these recommendations.

13. Councils, through their management teams or technical staff, should provide discussion documents on if and how they would like to use signposts in each respective fishery management plan for any of the following: Intercessional evaluation or modification of multi-year ABCs; Signpost use in interim periods between benchmark or full assessment updates; or other methods contemplated in the WG white paper.

The WG discussed that addressing recommendation No. 5 would help inform if the Councils were interested in utilizing signposts in some capacity moving forward. This was a key element repeated often in the WG discussion: If, when, and how Councils envisaged using signposts. This key feedback from managers would help determine how future development of signposts will occur. The WG discussed that if there is not acceptance or desire to use signposts moving forward that most of the remaining recommendations for consideration are rendered moot. The WG also discussed the potential mapping of management cycles in conjunction with this recommendation. This would better inform if

different management implementation strategies would be of benefit and highlight timing complications of identified signposts (if accepted for use).

14. The MAFMC Monitoring Committees and SSC should hold discussions on simplified stock assessment updates for Mid-Atlantic species. These groups should discuss or analyze the tradeoff between potential increases in uncertainty and desired frequency of updated stock information.

The majority of discussion on recommendation No. 6 pertained to perfecting the language to more accurately capture the intent of previous discussions. It was discussed that the current process for specifications is very much in flux and that the first sentence should reflect transitioning to signposts, not simplified stock assessment updates. Further, it was discussed that working groups such as the Southern Demersal Working Group, not the monitoring committees, would be a more appropriate group for discussions pertaining to potential signpost use.

15. An analysis of optimum number of age structures needed to provide effective stock age composition should be undertaken by the NEFSC as soon as practicable. Additional discussion and/or analysis may examine collection protocols per survey strata instead of survey station or other modification of sampling protocol to increase efficiency (e.g., decreased sampling frequency for younger age classes).

The WG had previously discussed so-called 'optimization' strategies for aging. During this meeting the WG, Center staff provided some information on discussions that have occurred designed to ensure adequate collection of age structures from surveys and options being utilized to ensure that optimization occurs.

16. Discussions on additional resources, efficiencies, and funding for NEFSC and state age and growth programs should continue.

The WG discussed that production aging is a finite resource and that additional aging could be accomplished through contracting, if additional funding were available. The WG reiterated its concern that increases in funding to develop and implement management programs should necessitate comparable increases in research and assessment related programs.

Northeast Region Assessment Reviews by Stock (page 1)

YEAR	1985	1986		1987		1988			1989		1990			1991			1992		1993		1994	
SARC #	1	2	3	4	5	6	7		8	9	10	11		12	13		14	15	16	17	18	19
Other Review								ASMFC					ASMFC			ASMFC						
BLACK SEA BASS	S				+	+				S		S			S							
BLUEFISH	S		S	S	S	S						S								S	S	
BUTTERFISH	S	S		S		S			S		S			S						S		
COD, GB	S		S				S					S			S			S			S	
COD, GOM	S		S				S							S				S				S
CUSK	S																					
EEL, American																						
FLDR, AM. PLAICE	S	S		S								S					S					
FLDR, SUMMER	S		S			S	+		+	S		S			S				S		S	
FLDR, WINDOWPANE, GOM/GB																						
FLDR, WINDOWPANE, SNE																						
FLDR, WINTER, Offshore	S		S																			
FLDR, WINTER, Inshore	S		S		+	+	+								S							
FLDR, WINTER, SNE																						
FLDR, WINTER, GOM																						
FLDR, WINTER, GB																						
FLDR, WITCH	S	S																			S	
FLDR, YELLOWTAIL, SNE	S	S					S							S						S		
FLDR, YELLOWTAIL, GB																					S	
FLDR, YELLOWTAIL, CC																						
GOOSEFISH																	S					
HADDOCK-GB	S	S		S											S							
HADDOCK-GOM	S	S																				
HAGFISH																						
HALIBUT, Atlantic																						
HERRING, Atlantic					S					S		S			S				S			
HORSESHOE CRAB																						
LOBSTER, American	S		S								S			S			S		S			
MACKEREL, Atlantic	S	S		S		S			S		S			S								
MENHADEN, Atlantic																						
OCEAN POUT	S											S										
OCEAN QUAHOG	S		S								S							S				S
OFFSHORE HAKE																						
POLLOCK	S		S							S	S								S			
RED CRAB, Deepsea																						
RED HAKE	S	S										S										
REDFISH	S	S																S				
RIV. HERRING/SHAD	S					S																
SALMON, ATLANTIC	S																					
SCALLOPS, SEA	S	S				S				S	S	S		S	S		S					
SCUP	S			S			S			S		S										S
SHAD, American								+					+									
SHRIMP, NORTHERN	S		S		S																	
SILVER HAKE	S	S		S							S	S								S		
SKATES	S																					
SPINY DOGFISH	S											S									S	
SQUID, ILLEX	S	S		S		S			S		S			S			S			S		
SQUID, LOLIGO	S	S		S		S			S		S			S			S			S		
STRIPED BASS	S																					
STURGEON, Atlantic																						
SURFCLAM, Atlantic	S		S				S			S								S				S
TAUTOG																						
TILEFISH	S																S		S			
WEAKFISH			+													+						
WHITE HAKE	S	S										S										S
WOLFFISH	S																					
ASMFC MSVPA-X MODEL																						

+ = No formal assessment review; research needs, working group or special topic report.

S	SARC review completed.	T	TRAC completed
S	SARC review planned.	T	TRAC planned
G	GARM completed	DP	- Data Poor WG
G	GARM planned	A	ASMFC External Review complete
		A	ASMFC External Review planned

Northeast Region Assessment Reviews by Stock (page 2)

YEAR	1995		1996		1997			1998				1999				2000				2001		
SARC #	20	21	22	23	24	25	26	27	28			29	30			31	32			33	34	
Other Review										TRAC	ASMFC			TRAC	ASMFC			TRAC	ASMFC			TRAC
BLACK SEA BASS	S					S		S														
BLUEFISH				S																		
BUTTERFISH																						
COD, GB		+			S			S		T				T				T				T
COD, GOM		+			S			S												S		
CUSK		+																				
EEL, American																						
FLDR, AM. PLAICE		+							S								S					
FLDR, SUMMER	S		S			S										S						
FLDR, WINDOWPANE, GOM/GB																						
FLDR, WINDOWPANE, SNE																						
FLDR, WINTER, Offshore																						
FLDR, WINTER, Inshore																						
FLDR, WINTER, SNE		S							S													
FLDR, WINTER, GOM		S																				
FLDR, WINTER, GB									S												S	
FLDR, WITCH		+										S										
FLDR, YELLOWTAIL, SNE		+			S			S														
FLDR, YELLOWTAIL, GB		+			S			S		T				T				T				T
FLDR, YELLOWTAIL, CC									S													
GOOSEFISH		+		S												S					S	
HADDOCK-GB	S	+			S			S		T				T				T				T
HADDOCK-GOM		+															S					
HAGFISH																						
HALIBUT, Atlantic																						
HERRING, Atlantic		S						S														
HORSESHOE CRAB											A											
LOBSTER, American		S	S																A			
MACKEREL, Atlantic	S												S									
MENHADEN, Atlantic															A							
OCEAN POUT		+																				
OCEAN QUAHOG			+					S								S						
OFFSHORE HAKE																						
POLLOCK		+																				
RED CRAB, Deepsea																						
RED HAKE		+																				
REDFISH		+																		S		
RIV. HERRING/SHAD																						
SALMON, ATLANTIC																						
SCALLOPS, SEA	S			S								S					S					
SCUP						S		S								S						
SHAD, American											A											
SHRIMP, NORTHERN		+				S																
SILVER HAKE																	S					
SKATES													S									
SPINY DOGFISH							S															
SQUID, ILLEX		S										S										
SQUID, LOLIGO		S										S									S	
STRIPED BASS							S															
STURGEON, Atlantic											A											
SURFCLAM, Atlantic			S				S						S									
TAUTOG	S												S									
TILEFISH																						
WEAKFISH							S						S									
WHITE HAKE		+							S											S		
WOLFFISH		+																				
ASMFC MSVPA-X MODEL																						

+ = No formal assessment review; research needs, working group or special topic report.

S	SARC review completed.	T	TRAC completed
S	SARC review planned.	T	TRAC planned

G	GARM completed
G	GARM planned

DP	- Data Poor WG
A	ASMFC External Review complete
A	ASMFC External Review planned

Northeast Region Assessment Reviews by Stock (page 3)

YEAR	2002				2003				2004			2005				2006			
SARC #	35	36			37	38			39	40		41	42			43	44		
Other Review			GARM-I	TRAC			TRAC	ASMFC			TRAC			GARM-II	TRAC			TRAC	ASMFC
BLACK SEA BASS									S							S			
BLUEFISH									S			S							
BUTTERFISH						S													
COD, GB			G	T			T				T			G	T			T	
COD, GOM			G											G					
CUSK																			
EEL, American																			
FLDR, AM. PLAICE			G											G					
FLDR, SUMMER	S											S							
FLDR, WINDOWPANE, GOM/GB			G											G					
FLDR, WINDOWPANE, SNE			G											G					
FLDR, WINTER, Offshore																			
FLDR, WINTER, Inshore																			
FLDR, WINTER, SNE		S	G											G					
FLDR, WINTER, GOM		S	G											G					
FLDR, WINTER, GB			G											G					
FLDR, WITCH			G		S									G					
FLDR, YELLOWTAIL, SNE		S	G											G					
FLDR, YELLOWTAIL, GB			G	T			T				T			G	T			T	
FLDR, YELLOWTAIL, CC		S	G											G					
GOOSEFISH										S									
HADDOCK-GB			G	T			T				T			G	T			T	
HADDOCK-GOM			G											G					
HAGFISH					S														
HALIBUT, Atlantic			G											G					
HERRING, Atlantic							T											T	
HORSESHOE CRAB																			A
LOBSTER, American																			
MACKEREL, Atlantic													S						
MENHADEN, Atlantic								A											
OCEAN POUT			G											G					
OCEAN QUAHOG						S											S		
OFFSHORE HAKE																			
POLLOCK			G											G					
RED CRAB, Deepsea																S			
RED HAKE																			
REDFISH			G											G					
RIV. HERRING/SHAD																			
SALMON, ATLANTIC																			
SCALLOPS, SEA									S										
SCUP	S																		
SHAD, American																			
SHRIMP, NORTHERN		S																	
SILVER HAKE													S						
SKATES																	S		
SPINY DOGFISH					S											S			
SQUID, ILLEX					S								S						
SQUID, LOLIGO																			
STRIPED BASS		S																	
STURGEON, Atlantic																			
SURFCLAM, Atlantic					S												S		
TAUTOG																			A
TILEFISH												S							
WEAKFISH										S									
WHITE HAKE			G											G					
WOLFFISH																			
ASMFC MSVPA-X MODEL													S						

S	SARC review completed.	T	TRAC completed	G	GARM completed	DP - Data Poor WG
S	SARC review planned.	T	TRAC planned	G	GARM planned	A ASMFC External Review complete
						A ASMFC External Review planned

Northeast Region Assessment Reviews by Stock (page 4)

2007					2008					2009				2010				2011				YEAR
45	46				47					48	49			50	51			52	53			SARC #
		DataPoor	TRAC	ASMFC		TRAC	ASMFC	GARM-III	DataPoor			TRAC	ASMFC			TRAC	ASMFC			TRAC	ASMFC	Other Review
									DP										S			BLACK SEA BASS
											S											BLUEFISH
																						BUTTERFISH
			T			T		G				T				T				T		COD, GB
								G											S			COD, GOM
																						CUSK
																					A	EEL, American
								G														FLDR, AM. PLAICE
					S													S				FLDR, SUMMER
								G														FLDR, WINDOWPANE, GOM/GB
								G														FLDR, WINDOWPANE, SNE
																						FLDR, WINTER, Offshore
																						FLDR, WINTER, Inshore
								G										S				FLDR, WINTER, SNE
								G										S				FLDR, WINTER, GOM
								G										S				FLDR, WINTER, GB
								G														FLDR, WITCH
								G														FLDR, YELLOWTAIL, SNE
			T			T		G				T				T				T		FLDR, YELLOWTAIL, GB
								G														FLDR, YELLOWTAIL, CC
		DP												S								GOOSEFISH
			T			T		G				T				T				T		HADDOCK-GB
								G														HADDOCK-GOM
																						HAGFISH
								G														HALIBUT, Atlantic
												T										HERRING, Atlantic
													A									HORSESHOE CRAB
													A									LOBSTER, American
																T						MACKEREL, Atlantic
																					SEDAR	MENHADEN, Atlantic
								G														OCEAN POUT
										S												OCEAN QUAHOG
															S							OFFSHORE HAKE
								G						S								POLLOCK
									DP													RED CRAB, Deepsea
															S							RED HAKE
								G														REDFISH
																					A	RIV. HERRING/SHAD
																						SALMON, ATLANTIC
S														S								SCALLOPS, SEA
									DP													SCUP
				A																		SHAD, American
S																						SHRIMP, NORTHERN
															S							SILVER HAKE
									DP													SKATES
																T						SPINY DOGFISH
															S							SQUID, ILLEX
	S																					STRIPED BASS
											S											STURGEON, Atlantic
																						SURFCLAM, Atlantic
										S												TAUTOG
									DP	S												TILEFISH
								G														WEAKFISH
									DP													WHITE HAKE
																						WOLFFISH
																						ASMFC MSVPA-X MODEL

S	SARC review completed.	T	TRAC completed	G	GARM completed	DP	- Data Poor WG completed
S	SARC review planned.	T	TRAC planned	G	GARM planned	A	ASMFC External Review complete
S	- being considered	*T*	- being considered			A	ASMFC External Review planned

~sarc/boi.../SAW-TR-GA-AS..10a

4/26/2010

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
NEFMC											
Meetings		22-24 Portland, ME			28-30 Newport, RI		16-18 Brewster, MA		Meeting		
Herring Specifications (2010-2012)	Prepare final rule	Publish final rule	Implement								
Herring Amendment 4 (ACLs/AMs)	Review Review	Prepare PR Publish PR	Prepare FR	Prepare FR	Publish FR	Implement					
Herring Amendment 5 (monitoring, river herring, etc.)	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Approve alternatives for analysis in DEIS	Development Development Development	Development Development Development	Development Development Development	Approve Draft Amendment 5 DEIS	Publish NOA for DEIS Public Hearings	Pubic Hearings
Herring Research Setaside Program	Summarize comments, hold RSA panel meeting, draft selection memo	Finalize selection memo; notify applicants for 2011; initiate Grants on Line and NEPA review for 2011 Initiate EFP clearances for 2011			Preliminary selection for 2011	Process selection memo through Grants Online for 2011; Initiate grants clearance; notify applicants Council finalizes priorities for 2011	Initiate EFP clearances for 2011 Input FFO/FRP to Grants Online for 2012	Grants clearance for 2011 EFP and NEPA reviews for 2011 Omnibus publication for 2012	Grants awarded for 2011 NMFS issues LOAs/EFPs to vessels for 2011 60-day open period for 2012	Open period for 2012	Receive proposals for 2012; prepare for technical review
Scallop Amendment 15 (ACLs/AMs, capacity reduction, DAS leasing, transfers, sectors or IFQs, overfishing definitions, specs for 2011-2012)	Development Development Development	Public Hearings	Public Hearings	Develop final documents	Approve final measures	Finalize documents	Submit for Secretarial review	Submit to NMFS Review Review	Prepare PR	Publish PR	Prepare FR
Scallop FW 21 (Specs for 2010)	Prepare final rule	Publish final rule	Implement								
Scallop FW 22 (Specs for 2011-2012)	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Approve specs for 2011-2012	Submit to NMFS Review Review	Publish PR Review Review	Prepare FR	Prepare FR	Publish FR	Implement
Scallop Amendment 16 (tranfer of yellowtail flounder ACL)								Development Development Development	Development Development Development	Development Development Development	Development Development Development
Scallop Research Setaside Program	Input FFO and RFP in Grants Online	Omnibus publication; 60-day open period	FFO open period for 2011	Receive proposals for 2011; prepare for technical review	Technical review Technical review	Summarize comments, hold RSA panel meeting, draft selection memo	NEFMC preliminary selection	Finalize selection memo; notify applicants; initiate Grants on Line and NEPA review Initiate EFP clearances	EFP clearances	EFP clearances	Grants approved EFPs issued; Fed. Funding Opportunity (FFO) and RFP drafted for 2012
Monkfish Amendment 5 (ACLs/AMs, specs for 2011-2013)	Finalize analyses	Approve final document & draft regulations	Finalize documents	Submit for Secretarial review	Review Review	Review Review	Prepare PR	Publish PR	Prepare FR	Prepare FR	Publish FR
Monkfish Amendment 6 (sectors, ITQs)					Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
NEFMC									
Meetings	Meeting		Meeting			Meeting		Meeting	
Herring Specifications (2010-2012)									
Herring Amendment 4 (ACLs/AMs)									
Herring Amendment 5 (monitoring, river herring, etc.)	Development Development Development	Approve Final Measures	Finalize Documents	Submit for Secretarial Review	Review Review	Prepare PR Publish PR	Prepare FR	Prepare FR	Prepare FR
Herring Research Setaside Program	Technical review Technical review Technical review	Summarize comments, hold RSA panel meeting, draft selection memo	Finalize selection memo; notify applicants for 2012; initiate Grants on Line and NEPA review for 2012 Initiate EFP clearances for 2012			Preliminary selection for 2012	Process selection memo through Grants Online for 2012; Initiate grants clearance; notify applicants Council finalizes priorities for 2012	Initiate EFP clearances for 2012 Input FFO/FRP to Grants Online for 2013	Grants clearance for 2012 EFP and NEPA reviews for 2012 Omnibus publication for 2013
Scallop Amendment 15 (ACLs/AMs, capacity reduction, DAS leasing, transfers, sectors or IFQs, overfishing definitions, specs for 2011-2012)	Prepare FR	Publish FR	Implement						
Scallop FW 21 (Specs for 2010)									
Scallop FW 22 (Specs for 2011-2012)									
Scallop Amendment 16 (tranfer of yellowtail flounder ACL)									
Scallop Research Setaside Program	Council sets priorities for 2012 Technical review Technical review Technical review	Input FFO and RFP in Grants Online	Omnibus publication; 60-day open period	FFO open period for 2012	Receive proposals for 2012; prepare for technical review	Receive proposals for 2012; prepare for technical review	Technical review Technical review	Summarize comments, hold RSA panel meeting, draft selection memo	NEFMC preliminary selection
Monkfish Amendment 5 (ACLs/AMs, specs for 2011-2013)	Implement	Implement							
Monkfish Amendment 6 (sectors, ITQs)	Development Development Development	Development Development Development	Development Development Development						

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Monkfish Research Setaside Program	Input FFO and RFP in Grants Online	Omnibus publication; 60-day open period	FFO open period for 2011	Receive proposals for 2011; prepare for technical review	Technical review Technical review	Summarize comments, hold RSA panel meeting, draft selection memo	NEFMC preliminary selection	Finalize selection memo; notify applicants; initiate Grants on Line and NEPA review Initiate EFP clearances	EFP clearances	EFP clearances	Grants approved EFPs issued; Fed. Funding Opportunity (FFO) and RFP drafted for 2012
Omnibus Habitat Amendment	Development Development Development	Approve range of alternatives for analysis in DSEIS	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Approve DEIS, preferred alternatives	Development Development Development	Development Development Development	Publish NOA for DSEIS Public hearings	Public hearings
NE Multispecies Amendment 19 (whiting/hakes ACLs/AMs, specs 2011-2013, no limited access)									Council receives results of stock assessment	SSC recommends ABC	Development Development Development
NE Multispecies Amendment 17 (Management systems; area management, LAPPs)	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development
NE Multispecies Framework 44 and Specifications (Adjustment to A16 management measures)	Implement (Effective May 1)										
NE Multispecies Framework 45 (Adjust GB yellowtail rebuilding schedule, TRAC TACs)		TRAC SAFE Report					Approve TACs for GB stocks	Submit to NMFS Review Review	Prepare PR	Publish PR	Prepare FR
Skates Amendment 3 (to address overfishing, rebuilding, ACLs/AMs for 2010/2011)	Publish FR	Implement	Implement								
Red Crab 2010 Specifications	Publish FR	Implement									
Red Crab Amendment 3 (ACLs, AMs, specs for 2011-2013)	Public hearings	Approve final measures	Submit for Secretarial review	Review Review Prepare PR	Prepare PR Publish PR	Prepare FR	Prepare FR	Prepare FR	Publish FR	Implement	
Ecosystem Plan							Development Development Development	Development Development Development	Development Development Development	Development Development Development	Development Development Development
MAFMC											
Meetings		8-10 New York, NY		17-19 Philadel., PA		12-14 Cape May, NJ		14-16 Va. Beach, VA		Meeting	

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
Monkfish Research Setaside Program	Council sets priorities for 2012 Technical review Technical review Technical review	Input FFO and RFP in Grants Online	Omnibus publication; 60-day open period	FFO open period for 2011	Receive proposals for 2012; prepare for technical review	Receive proposals for 2012; prepare for technical review	Technical review Technical review	Summarize comments, hold RSA panel meeting, draft selection memo	NEFMC preliminary selection
Omnibus Habitat Amendment	Development Development Development	Development Development Development	Approve final measures	Submit for Secretarial review	Review Review	Prepare PR Publish PR	Prepare FR	Prepare FR	Publish FR
NE Multispecies Amendment 19 (whiting/hakes ACLs/AMs, specs 2011-2013, no limited access)	Development Development Development	Development Development Development	Approve draft amendment & preferred alternatives	Public hearings	Public hearings	Approve final measures	Submit for Secretarial review	Review Review	Prepare PR Publish PR
NE Multispecies Amendment 17 (Management systems; area management, LAPPs)	Development Development Development	Development Development Development	Development Development Development						
NE Multispecies Framework 44 and Specifications (Adjustment to A16 management measures)									
NE Multispecies Framework 45 (Adjust GB yellowtail rebuilding schedule, TRAC TACs)	Prepare FR	Publish FR	Implement	Implement					
Skates Amendment 3 (to address overfishing, rebuilding, ACLs/AMs for 2010/2011)									
Red Crab 2010 Specifications									
Red Crab Amendment 3 (ACLs, AMs, specs for 2011-2013)									
Ecosystem Plan	Development Development Development	Development Development Development	Development Development Development						
MAFMC									
Meetings	Meeting		Meeting		Meeting		Meeting		Meeting

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Surfclam/Ocean Quahog Specifications	SSC review and recommenda-tions	Council adopts 2011-13 specification recommend-ations	Complete documents	Submit to NMFS	Review Review Prepare PR	Publish PR	Prepare FR	Publish FR	Implement (Effective Jan. 1)		
Bluefish Specifications			SSC and MC review and make recommend-ations	Council adopts 2011 specification recommend-ations, including RSA	Submit to NMFS Review Review Publish PR	Publish PR Prepare FR	Prepare FR	Publish FR	Implement (Effective Jan. 1)		
M/S/B Specifications	SSC and MC review and make recommend-ations	Council adopts 2011 specification recommend-ations, including RSA	Submit to NMFS	Review Review Publish PR	Prepare FR	Publish FR	Implement	Implement	Implement (Effective Jan. 1)		
Spiny Dogfish Specifications	Publish FR Implement	Implement			SSC and MC review and make recommenda-tions	Council adopts 2011 specification recommenda-tions	Council adopts 2011 specification recommenda-tions	Finalize 2011 specification recommend-ations and submit to NMFS Review Review	Review Review Prepare PR	Publish PR	Prepare and publish FR
SF/S/BSB Specifications			SSC and MC review and make recommend-ations	Council adopts 2011 specification recommend-ations, including RSA	Submit to NMFS Review Review Publish PR	Publish PR Prepare FR	Prepare FR	Publish FR	Implement		
SF/S/BSB Recreational Specifications	Prepare FR	Publish FR Implement					Monitoring Committee and Industry Advisors review and make recommenda-tions	Council adopts 2011 recreational specification recommend-ations	Finalize 2011 recreational specifications and submit to NMFS Review Review	Review Review	Prepare PR
Mid-Atlantic Research Set-Aside Program	Summarize comments; hold RSA panel meeting; draft selection memo for 2011	Finalize selection memo; inform MAFMC and applicants for 2011 Council recommends 2011 RSA allocations	Process selection memo through Grants Online for 2011	Council allocates RSA for 2011; Council adopts RSA priorities for 2012	EFP process initiated for 2011; Submits draft 2012 Solicitation	Initiate Grants Online clearance for 2011; Initiate EFP process for 2011	EFP preparation for 2011 Input FFO and RFA in Grants Online for 2012	EFP and NEPA clearances for 2011 Omnibus publication for 2012	Grants approval and EFPs issued for 2011 60-day open period for 2012	60-day open period for 2012	Receive proposals for 2012; prepare for technical review
M/S/B Amendment 11 (Atlantic mackerel limited access)	Development Development Development	Council adopts final measures	Submit to NMFS	Review Review	Publish NOA and PR	Prepare FR	Prepare FR	Implement	Implement		

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
Surfclam/Ocean Quahog Specifications	Invertebrate Working Group review Invertebrate Working Group review	SSC review and recommenda-tions	Council adopts 2012-13 specification recommend-ations (if necessary)	Complete documents	Submit to NMFS	Review Review Prepare PR	Publish PR	Prepare FR	Publish FR
Bluefish Specifications				SSC and MC review and make recommend-ations	Council adopts 2012 specification recommend-ations, including RSA	Council adopts 2012 specification recommend-ations, including RSA	Submit to NMFS Review Review Publish PR	Publish PR Prepare FR	Prepare FR
M/S/B Specifications		SSC and MC review and make recommend-ations	Council adopts 2012 specification recommend-ations, including RSA	Submit to NMFS	Publish PR Prepare FR	Review Review Publish PR	Prepare FR	Publish FR	Implement
Spiny Dogfish Specifications	Implement	Implement (Effective May 1)				SSC and MC review and make recommenda-tions	Council adopts 2012 specification recommenda-tions	Council adopts 2012 specification recommenda-tions	Finalize 2012 specification recommend-ations and submit to NMFS Review Review
SF/S/BSB Specifications				SSC and MC review and make recommend-ations	Council adopts 2012 specification recommend-ations, including RSA	Council adopts 2012 specification recommend-ations, including RSA	Submit to NMFS Review Review Publish PR	Publish PR Prepare FR	Prepare FR
SF/S/BSB Recreational Specifications	Publish PR Prepare FR	Publish FR Implement						Monitoring Committee and Industry Advisors review and make recommenda-tions	Council adopts 2012 recreational specification recommend-ations
Mid-Atlantic Research Set-Aside Program	Technical review Technical review	Summarize comments; hold RSA panel meeting; draft selection memo for 2012	Finalize selection memo; inform MAFMC and applicants for 2012 Council recommends 2012 RSA allocations	Process selection memo through Grants Online for 2012	Council allocates RSA for 2012; Council adopts RSA priorities for 2012	EFP process initiated for 2012; Submits draft 2013 Solicitation	Initiate Grants Online clearance for 2012; Initiate EFP process for 2012	EFP preparation for 2012 Input FFO and RFA in Grants Online for 2013	EFP and NEPA clearances for 2012 Omnibus publication for 2013
M/S/B Amendment 11 (Atlantic mackerel limited access)									

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
M/S/B Amendment 14 (squid catch shares; river herring, shad bycatch)		Committee review of staff analysis	Development Development Development	Committee with Advisors develop final alternatives	Development Development Development	Review DEIS and select preferred alternatives	Development Development Development	Review and adopt DEIS and PHD	Publish NOA for DEIS; begin 45-day comment period	Conduct Public Hearings and Compile Comments; DEIS Comment Period Ends	Review public comments and revise selected alternatives, if necessary
SC/OQ Amendment 15 (Cost recovery; excessive shares; EFH update)	Development Development Development	Development Development Development	Development Development Development	Council selects preferred alternatives, approves Amend, DEIS and PHD	Development Development Development	Development Development Development	Conduct Public Hearings	Review public comments and revise selected alternatives, if necessary	Compile Comments; DEIS Comment Period Ends	Development Development Development	Approve Amendment for Submission to NMFS
Bluefish Amendment 4 (EFH update)											
Omnibus ACL/AM Amendment	Conduct Public Hearings and Compile Comments	Review public comments and revise selected alternatives, if necessary		Council approves Amendment Documents for Submission to NMFS	Finalize Amendment Documents; Submit to NMFS Review Review	Review Review	Prepare PR	Publish PR	Prepare FR	Prepare FR	Publish FR
Spiny Dogfish Amendment 3 (male-only fishery, timing issues, other measures)				Council selects preferred alternatives, approves Amend, DEIS and PHD	Development Development Development	Development Development Development	Conduct Public Hearings	Review public comments and revise selected alternatives, if necessary	Compile Comments; DEIS Comment Period Ends	Development Development Development	Approve Amendment for Submission to NMFS
ASMFC											
Meetings	3-6 Alexandria, VA			2-5 Alexandria, VA			8-12 Charleston, SC			Meeting	
Atlantic Menhaden Addendum IV											
South Atlantic Omnibus Amendment	Draft Amendent	Draft Amendent	Draft Amendent	Approve Draft Amendment for Public Comment	Public Comment	Public Comment	Final Approval				
Striped Bass Addendum II	Approve Draft Addendum for Public Comment	Public Comment	Public Comment								
Atlantic Herring Specifications							Set Specs				
Atlantic Herring Addendum II	Final Approval of Addendum II										
Atlantic Herring Addendum III	Final Approval of Addendum III										
American Lobster Addendum XVI	Final Approval of Addendum XVI										
American Lobster Addendum XVII	Draft Addendum XVII	Draft Addendum XVII	Draft Addendum XVII	Approve Addendum XVII for Public Comment	Public Comment	Public Comment	Final Approval of Addendum XVII				

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
M/S/B Amendment 14 (squid catch shares; river herring, shad bycatch)	Approve Amendment for Submission to NMFS	Finalize Amendment Documents; Submit to NMFS Review Review	Review Review	Prepare PR	Publish PR	Prepare FR	Prepare FR	Publish FR	Implement
SC/OQ Amendment 15 (Cost recovery; excessive shares; EFH update)	Finalize Amendment Documents; Submit to NMFS Review Review	Review Review	Prepare PR	Publish PR	Prepare FR	Prepare FR	Publish FR	Implement	
Bluefish Amendment 4 (EFH update)									
Omnibus ACL/AM Amendment	Implement								
Spiny Dogfish Amendment 3 (male-only fishery, timing issues, other measures)	Finalize Amendment Documents; Submit to NMFS Review Review	Review Review	Prepare PR	Publish PR	Prepare FR	Prepare FR	Publish FR	Implement	
ASMFC									
Meetings		Meeting			Meeting			Meeting	
Atlantic Menhaden Addendum IV									
South Atlantic Omnibus Amendment									
Striped Bass Addendum II									
Atlantic Herring Specifications									
Atlantic Herring Addendum II									
Atlantic Herring Addendum III									
American Lobster Addendum XVI									
American Lobster Addendum XVII									

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Horseshoe Crab Addendum VI	Approve Draft Addendum for Public Comment	Public hearing	Public hearing	Final approval of Addendum VI							
SF/S/BSB Specifications			Monitoring Committee	Set specs			Monitoring Committee	Set specs			
Bluefish Specifications			Monitoring Committee	Set specs							
Spiny Dogfish Specifications										Set Specs	
Northern Shrimp Specifications						Technical Committee recommends season	Northern Shrimp Section sets specifications for 2011				
SF/S/BSB Addendum XV											
Bluefish Specifications			Monitoring Committee	Set specs							
Spiny Dogfish Specifications											
Northern Shrimp Specifications						Technical Committee recommends season	Northern Shrimp Section sets specifications for 2011				
NERO											
NERO SFD											
U.S./Canada TAC Adjustments	Implement								Prepare PR	Publish PR	Prepare FR
Sector Operations Plans	Implement				Receive initial Ops plans/EAs and sector rosters	Review	Review	Prepare PR	Publish PR	Receive final Ops plans/EAs Prepare FR	Publish FR
Allocation of Trips to CA II YTF SAP	Publish PR Prepare FR	Publish FR									
Publish final sector ACE and common pool TACs	Publish FR										
Publish final sector exemptions	Publish FR										
Permit banking											
Pollock emergency rule											
Inseason adjustments											
Quota transfers											
EFPs/LOAs/SRPs											
PSP closures											
Suspension of SC minimum size limit						Publish FR					

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
Horseshoe Crab Addendum VI									
SF/S/BSB Specifications									
Bluefish Specifications									
Spiny Dogfish Specifications									
Northern Shrimp Specifications									
SF/S/BSB Addendum XV									
Bluefish Specifications									
Spiny Dogfish Specifications									
Northern Shrimp Specifications									
NERO									
NERO SFD									
U.S./Canada TAC Adjustments	Publish FR	Implement							
Sector Operations Plans	Implement	Implement				Receive initial Ops plans/EAs and sector rosters	Review	Review	Prepare PR
Allocation of Trips to CA II YTF SAP	Prepare PR	Publish PR Prepare FR	Publish FR						
Publish final sector ACE and common pool TACs		Publish FR							
Publish final sector exemptions		Publish FR							
Permit banking									
Pollock emergency rule									
Inseason adjustments									
Quota transfers									
EFPs/LOAs/SRPs									
PSP closures									
Suspension of SC minimum size limit							Publish FR		

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Lobster Fishing Effort Control Measures	Publish NOA for DEIS Public hearings; 60-day comment period on DEIS begins	Six public hearings held, comment period ends	Review Public Comment and Prepare PR	Prepare PR	Prepare PR	Prepare PR	Publish PR	Comment Period	Prepare FEIS	Prepare FEIS	Prepare FEIS
Lobster Gulf of Maine Area 1 Limited Entry Measures	Data Coordination with States	Prepare EA/PR	Prepare EA/PR	Prepare EA/PR	Prepare EA/PR	Prepare EA/PR	Publish PR	Comment Period	Prepare FR	Prepare FR	Prepare FR
Issue FR Notice - Area 1 Control Date											
NERO PRD											
Amendment to the Atlantic Large Whale TRP	Develop vertical line model, rule, and monitoring plan	Develop vertical line model, rule, and monitoring plan									
Amendment to the Harbor Porpoise TRP											
Critical Habitat Designation for North Atlantic Right Whales	Comment period	Prepare FR and final economic analysis									
Scallop Chain Mat Regulation Modification											
ESA Determination for Cusk	Publish listing determination										
ESA Determination for Atlantic Sturgeon	Development of final listing rule (including associated 4(d) rules if appropriate)	Development of final listing rule (including associated 4(d) rules if appropriate)	Development of final listing rule (including associated 4(d) rules if appropriate)	Development of final listing rule (including associated 4(d) rules if appropriate)	Review and clear final listing rule package	Review and clear final listing rule package	Review and clear final listing rule package	Publish final listing rule (including associated 4(d) rules if appropriate)			
Critical Habitat Designation for Atlantic Sturgeon			Development of proposed critical habitat designation	Development of proposed critical habitat designation	Development of proposed critical habitat designation	Development of proposed critical habitat designation	Development of proposed critical habitat designation	Development of proposed critical habitat designation	Regional Review of proposed designation	Regional Review of proposed designation	OMB review of proposed designation
Shortnose Sturgeon Status Review	Publish ESA determination and PR (if appropriate), may include 4d regulations and associated EA and critical habitat rule	Comment period	Comment period								
Consideration of Wolffish Petition for ESA Listing											
NEFSC											

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
Lobster Fishing Effort Control Measures	Prepare FEIS/FR	Publish NOA for FEIS: 45-day comment period on FEIS begins	Prepare FR	Publish FR	Implement				
Lobster Gulf of Maine Area 1 Limited Entry Measures	Publish FR	Implement							
Issue FR Notice - Area 1 Control Date									
NERO PRD									
Amendment to the Atlantic Large Whale TRP									
Amendment to the Harbor Porpoise TRP									
Critical Habitat Designation for North Atlantic Right Whales									
Scallop Chain Mat Regulation Modification									
ESA Determination for Cusk									
ESA Determination for Atlantic Sturgeon									
Critical Habitat Designation for Atlantic Sturgeon	OMB review of proposed designation	OMB review of proposed designation							
Shortnose Sturgeon Status Review									
Consideration of Wolffish Petition for ESA Listing									
NEFSC									

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
READ and Population Dynamics Branch											
Provide liason between Center and Councils		Attend		Attend	Attend	Attend	Attend	Attend	Attend	Attend	
Provide advice to Council SSCs		Attend		Attend	Attend	Attend	Attend	Attend	Attend	Attend	
SARC	Development	SARC 50 Sea scallop, Monkfish, Pollock	Follow-up	Delivery of final report and presentations to Council	Development	Development	Development	SARC 51 Loligo, Hakes (Silver, Red, Offshore)	Follow-up	Delivery of final report and presentations to Council	Development
Groundfish PDT/ Sector Analyses	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff
Scallop PDT	Data analysis and model projections	Data analysis and model projections	Data analysis and model projections	Data analysis and model projections	Data analysis and model projections	Data analysis and model projections	Data analysis and model projections	Data analysis and model projections			
Monkfish Survey and Analyses	Data analysis and modeling	Assessment	Final Report preparation								
Calibration	Final Report preparation		Internal working group for length based calibration	Internal working group for length based calibration	Internal working group for length based calibration	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.
ACL "Signposts" and Management Strategy Evaluations	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy
Review FMP Amendments, Frameworks, EIS, EA etc.)	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff
Review of Proposals (SK, RSA, etc.)	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff
Assessment Updates	Development	Development Mid-Atlantic stocks (summer flounder, bluefish, scup, striped bass)	WebEx Meetings and Followup Reports to SSC	Reports to SSC							
ASMFC Lobster Benchmark											
TRAC			Stock Assessments for EGB cod and haddock, GB yellowtail	Reports to SSC	Report to Council						Preparation for Dogfish Benchmark (possibly in SARC)
SBRM			Review of data from sectors and bias	Analyses for 3-yr review and detection of bias	Analyses for 3-yr review and detection of bias	Analyses for 3-yr review and detection of bias	Analyses for Annual Report and 3-yr review and detection of bias	Analyses for Annual Report and 3-yr review and detection of bias	Analyses for Annual Report and 3-yr review and detection of bias	Presentations to Councils	Analyses for 3-yr review
Cusk											
Wolffish											

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
READ and Population Dynamics Branch									
Provide liason between Center and Councils	Attend		Attend	Attend	Attend	Attend	Attend	Attend	Attend
Provide advice to Council SSCs	Attend		Attend	Attend	Attend	Attend	Attend	Attend	Attend
SARC	Development	Development	SARC 52 Summer flounder, Winter flounder - 3 stocks	Follow-up	Delivery of final report and presentations to Council	Development	Development	Development	SARC 53
Groundfish PDT/ Sector Analyses	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff
Scallop PDT									
Monkfish Survey and Analyses									
Calibration	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.	Ongoing evaluation of calibration coeff for length and age.
ACL "Signposts" and Management Strategy Evaluations	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy	Data analysis, modeling and harvest strategy
Review FMP Amendments, Frameworks, EIS, EA etc.)	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff
Review of Proposals (SK, RSA, etc.)	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff	Population Dynamics staff
Assessment Updates	Development	Development	Development Mid-Atlantic stocks (summer flounder, bluefish, scup, striped bass)	WebEx Meetings and Followup Reports to SSC	Reporrts to SSC				
ASMFC Lobster Benchmark									
TRAC	Preparation for Dogfish Benchmark (possibly in SARC)	Preparation for Dogfish Benchmark (possibly in SARC)	Preparation for EGB cod and haddock, GB yellowtail	Stock Assessments for EGB cod and haddock, GB yellowtail	Reports to SSC + Prep for dogfish	Report to Council + Prep for dogfish	Possible Dogfish benchmark in TRAC		
SBRM	Analyses for 3-yr review	Analyses for 3-yr review	Analyses for 3-yr review	Analyses for 3-yr review	Analyses for 3-yr review	Analyses for 3-yr review	Analyses for 3-yr review	Analyses for 3-yr review	Analyses for 3-yr review
Cusk									
Wolffish									

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
ICES					20-24 Annual Science Conference, Nantes FR		16-19 ICES ACOM Copenhagen				
NAFO		Scientific Council, Dartmouth, NS			24-24 Annual Meeting, Halifax, NS						
NASCO		1-4 Annual Mtg, Quebec									
AFS					12-16 Annual Meeting, Pittsburgh						
NOAA Fisheries Toolbox (Computer Programs)	Development	Development	Development	Development	Development						
Natl. SAW	17-21 St. Petersburg FL										
Review FMP Amendments, Frameworks, EIS, EA etc.)	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff
Review of Proposals (SK, RSA, etc.)	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff
Protected Species											
Marine Mammal Stock Assessments						Complete 2009 marine mammal bycatch estimates for 2011 SAR				Atlantic Scientific Review Group (ASRG) review of 2011 SAR at annual meeting; 2010 SAR completed and ready for release	
Take Reduction Planning					Scarification study results available through 2009						
International Whaling Commission	Development	Scientific Committee									
Atlantic Sea Turtle Strategy	Economic and biological analyses completed for DEIS										
Sea Turtle Bycatch Estimation			Updated trawl bycatch estimates available for 2004-2008								
Conservation Engineering	2010 Experimental work										
ICES											ICES Marine Mammal WG meeting

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
ICES						19-23 Annual ICES Science Conference, France			
NAFO			Scientific Council, Dartmouth, NS			19-23 Annual NAFO Meeting			
NASCO			31 May - 3 June Ann. Meeting						
AFS						4-8 Annual. AFS Meeting, Seattle			
NOAA Fisheries Toolbox (Computer Programs)									
Natl. SAW									
Review FMP Amendments, Frameworks, EIS, EA etc.)	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff
Review of Proposals (SK, RSA, etc.)	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff	Social Sciences Branch Staff
Protected Species									
Marine Mammal Stock Assessments	2011 Marine Mammal Stock Assessment report (SAR) available for public review						Complete 2010 marine mammal bycatch estimates for 2012 SAR		
Take Reduction Planning						Scarification study results available through 2010			
International Whaling Commission		Development	Scientific Committee						
Atlantic Sea Turtle Strategy									
Sea Turtle Bycatch Estimation									
Conservation Engineering		2010 Experimental work							
ICES									

NORTHEAST REGIONAL ACTIVITY/RESOURCE PLANNING MATRIX: 2009-2011 (May 5, 2010, version)											
Organization and Actions	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Conservation Engineering	2010 Experimental work										
ICES											

NORTHEAST REGIONAL									
Organization and Actions	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
Conservation Engineering		2010 Experimental work							
ICES									

Date: May 12, 2010
To: Northeast Regional Coordinating Council
From: Paul Rago, Susan Wigley, Michael Palmer, Paul Nitschke, and Chris Legault.
Subject: Response to Action Item #6. Northeast Regional Coordinating Council

> 6. Discard Estimation: Develop white paper or discussion document outlining current and possible discard estimation processes. Paper to include discussion of how process is done in other areas of the country and/or world.

Estimation Issues

Most methods of discard estimation rely on the premise that a representative sample can be obtained by an onboard observer. A representative sample of observed samples can be used to estimate unobserved discards by scaling the observation by a suitable raising factor. Generally discard rates are expressed as discards per unit effort. "Effort" is variously defined by coarse measures such a "trip", "days absent", or "days fished" to more precise measures that include factors such as crew size, tonnage class, vessel type, bottom contact time, soak time, net size, and tow duration. Whatever measure is chosen, it is important that it can be estimated for the entire fishery of interest. Hence a highly refined discard per unit effort based on swept area contact time is useful for extrapolation ONLY if such information can be obtained for the entire fleet. A suitable compromise measure of effort used in the SBRM analysis is total landings. This measure integrates many different aspects of vessel power, crew size, capacity, trip duration and so forth. More importantly, the estimate of total landing per trip is available across all fishing fleets. This allows for extrapolation to total discard and its precision across all fleets.

Various tests of observer bias have already been conducted in the process of developing the SBRM. These measures include comparison of differences in observable properties from vessels with and without observers on board. Examples include trip duration, average landings, statistical area fished, and so forth. Another test is to use the species composition of the landing on observed trips to predict the total landings of a species across all trips. All such measures of observer-induced bias are weak statistically because the fundamental item of interest, discards on the unobserved trips, ***could*** be different. If in fact, the discard practices on unobserved vessels are different from observed vessels, then total discards are not estimable from a sample and 100% sampling coverage is the only measure that provides an accurate discard total. Ironically, this new estimate is also biased from what the discard total would be in the absence of observers and the altered estimate will not be comparable to previous estimates based on samples.

Guidance from Literature

The prospects of choosing between discard estimates of unknown accuracy from a sampling program and an excessively costly vessel census program are both undesirable and risky. Much of the literature on bycatch can be divided into two classes. The first class focuses on estimators that can be embedded into sampling programs; the second

class examines the processes underlying discarding behavior. The literature on estimation generally assumes that the sampling program is representative and that observer data are negligibly biased. Negligibly biased estimates can then be expanded to fleets and summed over fleets to estimate total discards. The current SBRM process falls into this class. Various checks for accuracy are summarized in the SBRM and related documents prepared by the NEFSC.

The second major class of bycatch literature tends to be more descriptive than predictive. Attempts are made to relate bycatch rates to various causal mechanisms. Multivariate methods can be used to describe related sets of variables (e.g., cluster analyses, principal components analyses) or identify one or more predictors to distinguish groups (e.g., regression trees, discriminant analysis). As a simple example, cluster analyses might be useful for identifying a set of homogeneous groups of trips based on the mix of landings by species. Discriminant analyses might then be used to see if various predictors, say time, area, vessel type and so forth, could accurately classify the putative groups identified by the clustering algorithm. Bycatch research in this class may be useful for guiding sampling designs but does not result in estimates useful for stock assessments.

Hence there is a strong need to bridge the gap between these two approaches. Major changes occurring in the groundfish fleet via sector implementation, and the implementation of ACLs across all fisheries, argue for an increased observer effect and potentially biased discard estimates. A marriage of a multivariate approach to identify and detect groups and sampling design to estimate total discards would be less timely and have weaker inference than a strictly design or model-based estimator. Timeliness would suffer because of the extra processing time to identify groups, and the inferences would be weaker because of the need to simultaneously estimate all species discards based on small subsets or clusters of homogeneous trips.

A very simple example helps illustrate the dilemma. Suppose we have a group of observed vessels that catches and discards three species. In contrast, a set of unobserved vessels fishing in the same area and time with the same gear, only lands species 2. The challenge is to use the total catch pattern from the observed trips to infer not only the discard pattern of the unobserved trips, but also estimate the landings of species 1 and 3 that might have been discarded due to economic incentives.

	Observed (O)		Unobserved Trips (U)	
Species	Landings	Discards	Landings	Discards
1	L_{1O}	D_{1O}	?	?
2	L_{2O}	D_{2O}	L_{2U}	?
3	L_{3O}	D_{3O}	?	?

Even if the observed and unobserved trips have been well matched, the challenge of estimating total catch for the unobserved trips is daunting. The problem becomes even more difficult if one admits the possibility that the observations from the observed trip may not be representative of the fleet as a whole. The above example highlights the primary challenge of applying the suggested measures described in Action Item #5. Bias

could exist in both the observed trips because of atypical fishing behavior attributable to the observer's presence and the unobserved trips owing to economic incentives and available ACE within a sector.

Proposed Research

At least two major lines of research are proposed to address these concerns. If the observer effect under sector management is large, then there should be major differences in landing patterns (# species and weight) and other attributes of vessels with and without observers. To monitor for these types of differences it is important to immediately begin the process of characterizing landings patterns of observed and unobserved trips within and among existing sectors. This will require improvements in database linkages and regular exploratory analyses.

Existing observer data from recent years may be sufficient to test the estimation of total catches as described above. The second line of research would involve testing the ability to predict total catch given partial information. For example, the existing observer data could be divided randomly into two halves. One half would serve as the training set for model development; the second half could be used to test the model predictions. The ability to predict total catch for the second half would be a measure of the model's validity. Repeating this process many times is known as cross validation and this could be used to identify robust estimation models. The existing data could be used to establish limits on the ability to estimate total catch when the test data are degraded in various ways. One form of degradation would be to delete or reduce landings by species from the test data sets.

Candidate explanatory variables include: observer (present, absent), sector, vessel, and amount of ACE remaining. Candidate response variables include the species composition of landings, total landings, days absent, days fished, VMS reporting area fished, quarter degree square fished, number of species caught. Monitoring of VMS tracks may be a useful method for detecting different behaviors between observed and unobserved trips.

Appendix 1. NRCC Action Item #5 Discard Estimation: Develop problem statement and agenda item for investigation and response regarding how trip discards are estimated. By John Pappalardo

How Should We Extrapolate?

Introduction: The successful transition of New England's fisheries to ACL/AM management is threatened by the inability to adequately account for all catch (landings and discards). Here, we outline the underlying flaw in the proposed extrapolation of *discard data* from observed trips to unobserved trips. Without the extrapolation of *catch-composition* data, rather than observed discard rates, fishing mortality of stocks will be consistently and grossly underestimated.

Problem: The transition to ACL/AM and Catch Share management is predicated on effective accountability and catch monitoring (landings and discards). This additional accountability is required, because quota management creates new and stronger incentives for discarding weak stocks on unobserved trips in order to continue targeting more abundant stocks. Thus, while vessels on *observed* trips will have predictably low discard rates (ex. only sub-legal sized fish), fishermen on *unobserved* trips will have economic reasons to discard limiting stocks without reporting.

Though the federal government has made substantial commitments to fund high levels of at-sea observer coverage/ catch monitoring for the entire fishery, the discard data from these observed trips will provide little to no insight into the discards on unobserved trips. This clearly creates a system in which estimates of overall fishing mortality on each stock will be dangerously mischaracterized. In short, future assessments may continue to show that unreported discarding limits the performance of our Fishery Manage Plan's.

Solution: To address this situation, the NMFS, NEFSC and NEFMC should:

- Consider abandoning current proposals/practices to extrapolate discard rates of observed trips to unobserved trips. Instead, observer/catch monitor-generated catch composition data should be extrapolated in near real-time across all trips within the appropriate gear-area strata. As there is no acceptable reason that catch composition should differ significantly between observed and unobserved trips, it is both appropriate and necessary to make catch-composition the new standard of accountability for each Sector and for the Common Pool.

- Additionally, catch-estimates should be posted online weekly, to allow fishery stakeholders to track the progress of the fishery.

Conclusion: Without these revisions, a window of fish-and-pitch harvesting will undermine our FMP's and jeopardize the impact/ benefit of future management.

Standardized Bycatch Reporting Methodology
Proposed 2010 Observer Sea Day Allocation
Consultation and Prioritization Process
Response to Comments

Northeast Regional Coordinating Committee
May 11, 2010

I. Introduction

The 2010 Standardized Bycatch Reporting Methodology (SBRM) sea day analysis[1] indicated that 14,147 sea days will be required to achieve a 30% coefficient of variation (CV) in the federal fisheries prosecuted in the New England (NE) and Mid-Atlantic (MA) regions. Based on the January provisional budget, there was a total of 10,965 funded days along with an estimated industry-funded 4,000 days for a total of 14,965 days for the April 2010 to March 2011 period. Although the total funded days exceed the SBRM performance standard sea days by 818 days, a shortfall for some fleets exists due to funding constraints. As required by the SBRM Omnibus Amendment when a shortfall exists, the 2010 SBRM prioritization of sea days for the April 2010 to March 2011 period was presented to the New England Council on January 28, 2010 and to the Mid-Atlantic Council on February 9, 2010. The Northeast Fisheries Center Science (NEFSC) and the Northeast Regional Office (NERO) have received comments[2] on the 2010 SBRM sea day prioritization from the Mid-Atlantic Fisheries Management Council (MAFMC); the NEFSC received comments from the NERO; the New England Fisheries Management Council (NEFMC) had no comments.

In this report, we provide a summary of the comments, specific responses to the comments, and where appropriate, the proposed revisions (re-prioritization of sea days). The revised budget now contains 11,821 agency-funded days along with 2,671 industry-funded sea days for a total of 14,492 days.

II. Funding available for the April 2010 to March 2011 period - Revised

There are two funding source categories: agency-funded and industry-funded. Within the agency-funded category, there are five sub-categories.

- **Agency-funded**: Based on the April 15, 2010 budget, the NEFSC has funds for 11,821 sea days. The funding sources for these sea days include: Atlantic Coast (644 days), New England Groundfish [3,488 Northeast Fisheries Observer Program (NEFOP) sea days, 5,991 At-Sea Monitoring (ASM) days funded in part by National Observer Program (NOP), and 765 days 'bought-ahead'], National Observer Program (394 days temporary

[1] Standardized Bycatch Reporting Methodology Sea Day Analysis and Prioritization 2010 (January 26, 2010) Available on-line at: http://www.nefsc.noaa.gov/femad/fsb/SBRM%20Annual%20Discard%20Report/2010/2010-SBRM-Sea-Day-Analysis-Prioritization-01262010.pdf

[2] MAFMC comments are available online at http://www.nefsc.noaa.gov/femad/fsb/SBRM%20Annual%20Discard%20Report/2010/SBRM_2010_Final.pdf

funding source), Reducing Bycatch (150 days), and Marine Mammal Protection Act (MMPA; 389 days). Each funding source has funding constraints (days targeted for specific species and/or data category).

- 542 days have been excluded from SBRM due to sampling protocols that are specific to protected species and are not applicable for fish. However, these days will provide observer coverage for sea turtles above that which is allocated within SBRM.

- 11,279 agency-funded days are applicable for SBRM. This represents a 904 day increase over the provisional January budget (11,279 – 10,375 = 904).

- **Industry-funded**: The number of industry-funded sea days available for monitoring of scallops depends on the total expected budget from the Research Set Aside program and the increase in landings allowed for vessels carrying observers (i.e., the compensation rate). A compensation rate analysis[3] was undertaken to support observer coverage of the nine industry-funded scallop fleets. The nine industry-funded fleets are Rows 9, 10, 12, 26, 27, 28, 29, 32, and 33 (Table 1).
  - Based on the compensation rate analysis conducted in February 2010, a total of 2,971 sea days (with rounding) can be funded (1,410 days for Open areas, 333 days for Delmarva Access Area, 900 days for Elephant Trunk Access Area (ET AA) and 327 days for Nantucket Lightship Closed Area (NLCA).
    - Consideration of the pending Framework 21 regulations that reduce of number of trips to the ET AA from three trips to two trips, the number of sea days were proportionally scaled from 900 days to 600 days for this access area, thus 2,671 sea days are included in the 2010 SBRM.
    - The industry-funded schedule runs March 1 to February, a 12 month period that is shifted one month from the NEFOP sea day of April to March.
    - The letter to vessel owners (dated March 3, 2010) describing the set-aside compensation rate calculations indicates that compensation rates will be re-evaluated when SBRM is finalized.
  - Coverage of the nine fleets depends on industry activity among these fleets; however, caps have been established (Table 2).

  - 2,671 industry-funded days are included in the SBRM based on an initial compensation rate analysis conducted in February 2010.

  - Limited Access General Category (LAGC) open area fleets are not industry-funded fleets (Rows 11, 30, 31; Table 1).

- Revised SBRM total sea days equals 13,950 days.

[3] Available on-line at: http://www.nero.noaa.gov/nero/nr/nrdoc/10/10ScalObserveCompRates1.pdf (Letter to vessel owners dated March 3, 2010)

Comparison of sea days between January and May, by funding source.

Funding Source	January	May
Agency-funded Total	10,965	11,821
Agency-funded applicable to SBRM	**10,375**	**11,279**
Agency-funded not applicable to SBRM	590	542
Industry-funded Total	**4,000**	**2,671**
SBRM Total	14,375	13,950

III. Summary of comments received

The MAFMC is concerned that proposed sea sampling intensity for the small-mesh trawl fisheries in the Southern New England and Mid-Atlantic region may not be sufficient to obtain an acceptable CV for butterfish bycatch in the directed *Loligo fishery*. Parenthetically we wish to emphasize that the '*Loligo fishery*' is a sub-fleet of the SBRM MA small-mesh otter trawl fleet. The '*Loligo fishery*' is defined based on the outcome of the trip, which is inconsistent with SBRM fleet definition. The *Loligo* fishery will however be "identifiable" under the provisions of the call-in program for Amendment 10.

The MAFMC also reiterated its request for coverage of fisheries that bycatch river herring. In the following sections we provide more details on the specific comments.

The NERO comments include a) the use of proper terminology when referring to the number of the sea days needed to achieve a 30%CV, the SBRM performance standard; b) a request for further explanation of funding constraints and justification of prioritized days; c) further explanation of the compensation rates; and d) a request to consider the MAFMC comments regarding the monitoring of the butterfish cap in the Mid-Atlantic fleets.

IV. Response to Comments

Proper terminology

In the 2009 and 2010 SBRM prioritization documents, the terms 'recommended' and 'target' have been improperly used when referring to the number of sea days needed to achieve the SBRM performance standard of 30%CV. The term 'SBRM sea day performance standard' will now be used when referring to the number of sea days required to achieve a 30%CV.

Funding Issues

As stated in previous SBRM prioritization documents, the shortfall in the Mid-Atlantic region has been an on-going issue since the beginning of the sea sampling program in the late 1980's. Constraints associated with Congressional/Headquarters funding restrict its use to a particular region. These restrictions limit re-distribution of sea days between the Mid-Atlantic and New

England regions. The concerns expressed in the comments are directly related to a lack on funding. Any revisions of funding are policy matters beyond the scope of the Agency. Unrestricted funds would support of all FMPs under the SBRM Omnibus Amendment. The roles and responsibilities of NRCC agencies to identify funding sources or admissible changes in funding allocations are important policy considerations.

Compliance Issues

Observer monitoring of bycatch must meet multiple objectives that include: bycatch monitoring of individual species (fish and turtles), compliance monitoring of annual catch entitlements (ACEs) and quota-monitoring of hard TACs. SBRM focuses on monitoring to achieve acceptable measures of precision. Quota monitoring (including monitoring for compliance with regulations) is more challenging since increased coverage may be necessary to ensure more frequent in-season reports of discards rates. Monitoring rates for compliance with regulations, say B-Days, often must be higher to reduce the scope for potential bias in estimation. It must be emphasized that SBRM does not consider the additional monitoring requirements for compliance. Increases in monitoring for compliance issues are based on the expectation that the observed variability in discard rates will include the normal variation plus potential, but unquantified bias. Therefore these requirements are treated in a more ad hoc fashion. At present, we cannot distinguish discard estimates for vessels that are being monitored for compliance from those that are monitored for precision.

Notwithstanding these concerns, we recognize the importance of having a sea-day allocation program oriented towards compliance issues. The current Call-In program is well established and the Pre-Trip Notification System (PTNS) has been implemented.

The Regional Administrator has requested coverage for groundfish compliance monitoring:

30% ASM of sector groundfish trips
22% ASM of common pool groundfish trips
8% NEFOP coverage

Thus fleets associated with New England groundfish (gear types include longline, otter trawl and gillnet) and regions included in Sector Operations Plans (regions include Mid-Atlantic and New England) will have higher coverage for compliance monitoring than the coverage associated with the SBRM variance-based performance standard.

River herring

The Mid-Atlantic Fishery Management Council characterized the proposed coverage level for river herring as 'non-responsive' to their June 24, 2009 letter to the Hon. Gary Locke. The MAFMC requested that observer coverage of New England and Mid-Atlantic fisheries be conducted at a level that provides adequate estimates of river herring bycatch in these fisheries. The proposed coverage level is responsive but two key points need to be stated. With regard to the SBRM FMP, allocation decisions are based on the attainment of precision standards for the set of species under federal FMPs. The allocations are focused on those fleets which in

aggregate have the greatest cumulative effect on the mortality of the species groups. Prioritized allocations are further constrained by existing funding constraints. River herring, comprising both alewife and blueback herring, is not a federally managed species group and is not one of the 15 species groups included in SBRM FMP. However, the river herring species group is indeed monitored, along with all other individual species as part of the sampling protocols of the Northeast Fisheries Observer Program. In response to this request an evaluation of the sea days needed for river herring was conducted. Results indicated that two fleets, NE large-mesh otter trawl (Row 8, Appendix Table 1) and NE mid-water trawl (Row 35, Appendix Table 1) require more sea days than those needed to monitor the 15 SBRM species groups. The 2010 sea day analysis indicates that 379 days are needed for NE mid-water trawl for the 15 SBRM species groups while river herring need 1,091 days. For NE large-mesh otter trawl, 668 days are needed for the 15 species groups while river herring need 1,780 days. The coverage for NE large-mesh otter trawl is expected to exceed the SBRM performance standard (and the river herring coverage) due to compliance monitoring for sectors (Table 1, Row 8). For the NE mid-water trawl, when additional funds are available, this fleet can be covered to meet the needs of species groups beyond the suite of SBRM species. Days have been allocated to small-mesh otter trawl fisheries in the NE and MA regions that will provide additional river herring monitoring.

Distinctions between Fisheries and Fleets

The sea-day allocation process relies on the identification of strata, e.g., groups of vessels in a particular port and quarter, based on observable properties before the vessel begins fishing. The list of vessels with these observable properties can be used to generate a random sample. Moreover, these observable properties can be used to identify the total size of the strata and the landings from the unobserved fraction of the fleet. Together, the random sample and observations from the unobserved fleet allow for estimation of total discards. In contrast, properties of vessels that are the result of the fishing activity, e.g., the mix of species landed, are not known in advance and cannot be used for allocating sampling effort. It is not possible to allocate observers to yellowtail flounder trips or *Loligo* trips, nor is it possible to identify the necessary expansion factors based on post trip identification of these same outcomes. For example, is a *Loligo* trip one that catches 50% *Loligo* by weight or 75% or some other value? At best an allocation program that operates at a multi-fleet level, can improve the chances of obtaining estimates of discards of some species of interest. It can never ensure it unless all vessels are monitored.

Plan development teams and other groups charged with crafting monitoring programs will often base their results on analyses of species or stock specific information. Such analyses are often at a finer level of resolution than can be considered in the SBRM. These post hoc analyses will also include attributes of the trip itself (e.g., species composition) as a way of gaining insight into factors responsible for observed discard rates. Such analyses can lead to further refinement of allocation IF it leads to improved stratification based on observable properties. For the aforementioned reasons, the estimated sample sizes may be underestimates if they fail to consider the probability that sending an observer on a vessel that often catches or intends to catch a certain species does not ensure that a trip will provide useful information.

Relationship between the SBRM Allocation and Optimization Methods

The SBRM focuses on 15 species groups and derives sea day requirements for 51 fleets based on the relative variability (coefficient of variation or CV) of estimates for these species groups. A filtering algorithm is used to reduce the coverage for fleets whose landings or discards represent a small fraction of the total fishing mortality imposed on a species group. Further gains in precision can be obtained by using optimal allocation methods.

Such gains in precision are dependent on the premise that the previous year's observations and fishing patterns persist in the next deployment year. The anticipated but unknown changes in fishing patterns, industry activity, changes in discard rates and variability of discard rates, reduced the utility of optimization methods for 2010-2011. Formal optimization methods, apart from the application of filtering and constraints, were not applied. However, the initial prioritized sea days were proportionally distributed among fleets using VTR sea days with funding constraints even though future behavior is unknown. Actual coverage rates will depend in fishing activity among the fleets. Higher or lower sample sizes are now required for some components depending on changes in variability within a fleet over time.

This allocation relies primarily on statistical methods but incorporates expert judgment and client priority requests to assign sea days while keeping within the funded constraints. Recent changes in management regulations to implement Sectors have resulted in the expanded use of the Call-In program, renamed the Pre-Trip Notification System. This expansion of coverage by the Pre-Trip Notification System, increased overall coverage rates in groundfish, potential changes in the discarding rates in Sector fleets, and unknown changes in activities by fleets, reduced the applicability of optimization methods for 2010. Instead projected sea-day coverage based on proportional allocation among fleets based upon VTR days during the July 2008 to June 2009 period were used to assign sea days for fleets that are associated with the PTNS regulations (New England Groundfish fleets). **These sea day assignments should be considered as provisional.** Actual coverage will depend on industry activity among fleets within this funding category.

Methods for Dealing with Observer Coverage Shortfalls

The initial 2010 SBRM sea day prioritization is an integrated treatment of the bycatch monitoring requirements. Increases to the prioritized allocations can improve precision for some fleets but will likely degrade the precision of discard estimates for one or more species in fleets that donate days. To the extent possible, additional funding was used to augment initial allocations to prevent degradation of precision.

Possible options for dealing with observer coverage shortfalls include

1) No revisions (accept initial prioritization)
2) Adjust the initial sea day prioritization using an ad-hoc approach informed by the expected precisions attainable by species groups using the SBRM sea day analyses and constraints imposed by regionalized funding.

It is important to note that failure to attain the 30% CV standard for a given fleet does not necessarily mean that the predicted precision for all species groups will exceed 30%. Moreover, attainment of the 30% CV standard for a particular fleet implies that all of the species groups will be at or below 30%.

Justification/Rationale

The 2010 SBRM Sea Day Analysis and Prioritization document includes a column entitle '*Justification*' to indicate the rationale of recommended prioritization for each fleet. The phrases '*Fish stock assessment support*' with or without the footnote: '*Sector monitoring coverage is dependent on industry activity*', '*Fish stock assessment support and turtle bycatch support*', and '*Industry funded coverage is dependent on industry activity*' provide a broad rationale for why sea days have been allocated to the fleets. The 2010 SBRM sea day analysis and document were expanded in 2010 to include: 1) a table[4] containing the SBRM sea day standard for each of the 15 species groups; and 2) a table[5] containing the expected achieved CV given the recommended prioritized sea days. The purpose of including these tables was to provide the details on each of the 15 species groups. It is not possible to adequately capture this level of detail into one column, but detailed information is available in the given tables.

Industry Funded coverage and Compensation rates

A letter dated March 3, 2010 from the Regional Administrator to Vessel Owners states initial compensation rates for scallop vessels that carry an observer under the industry funded observer program. The letter further states that industry comments are welcome and will be considered when the compensation rates are re-evaluated in July. Given this letter, it is pre-mature to include a description of the final compensation rate analysis in this document. However, below is a summary of the factors considered in the initial analysis.

In February 2010, a compensation rate analysis was conducted. The most important considerations include a daily compensation rate that does not induce biased fishing practices when an observer is on board, and ensures that overall coverage will be sufficient to meet, or nearly meet, the SBRM precision standards. The proposed compensation rate of 180 lbs per day seems to strike a balance between these objectives. The expected revenue from such additional landings should not make scallopers averse or prone to carry observers or to alter their trip durations or practices.

[4] Table 4 in the 2010 SBRM Sea Day Analysis and Prioritization (January 26, 2010). Available on-line at: http://www.nefsc.noaa.gov/femad/fsb/SBRM%20Annual%20Discard%20Report/2010/2010-SBRM-Sea-Day-Analysis-Prioritization-01262010.pdf

[5] Table 6 in the 2010 SBRM Sea Day Analysis and Prioritization (January 26, 2010). Available on-line at: http://www.nefsc.noaa.gov/femad/fsb/SBRM%20Annual%20Discard%20Report/2010/2010-SBRM-Sea-Day-Analysis-Prioritization-01262010.pdf

While the expected total number of days that might be funded falls short of the SBRM draft recommendation of about 4500 DAS, changes to management measures in 2010 may reduce the chance of encounters. The estimated number of sea days required to obtain a 30% CV under SBRM was based on data from the most recent available 12 month period. The use of the previous year's data to estimate appropriate sampling coverage in a future year is predicated on two assumptions: 1) the discard ratio remains constant, and 2) the distribution and magnitude of fishing effort remains constant in the relevant strata. There are a number of reasons why the number of sea days generated using data from 2009 may be higher than that necessary for 2010. Relevant changes in distribution and timing of fishing effort include:

(1) A new seasonal closure to protect sea turtles during September-October will be implemented in Fishing Year 2010 (FY2010). There was heavy fishing activity in Delmarva during these months in 2009.

(2) The number of Mid-Atlantic access trips was reduced from 4 in FY2009 to 3 in FY2010.

(3) Only 2 of the 3 allocated Mid-Atlantic access trips in FY2010 can be taken during the time when turtle takes have been observed in the scallop fishery (June 16 - Oct 31). There was no restriction of this type in previous years.

(4) The General Category quota has been reduced to about than half that of FY2009 (5% of total landings in FY2010 compared to 10% in FY2009).

(5) Voluntary gear changes (such as a modification of the dredge bridle) have been made by a sizable percentage of the scallop fleet

The SBRM estimated coverages separately for open and access areas, and for different fleets within the scallop fishery. The only observed turtle take was in the open area, but there is no reason to believe that turtle takes are more likely in open areas than access areas. Thus, it is reasonable to pool estimated coverage for sea turtles in the Mid-Atlantic by combining access and open areas. Collectively these measures could reduce the overall sampling requirements in 2010-11. Additional analyses of sampling requirements that consider these factors are currently being conducted but are not available at this time. These analyses include pooling across years, refining the spatial stratification and looking at a suite of explanatory variables.

VI. Summary of revised sea days and associated consequences of revisions, by fleet.

Table 1 and 2 summarizes the initial prioritized (14,375 days) and revised prioritized (13,950 days) for 2010. In general, the fleets associated with NE groundfish have been adjusted to reflect budgetary changes due to additional funds for compliance monitoring of sectors via At-Sea Monitors. To address concerns regarding the coverage of small-mesh fisheries, sea days have been allocated to these fleets using some of additional funds to the budget and re-assigning existing sea day allocations. The industry-funded scallop fleets have decreased due to the replacement of the 4,000 assumed days with the 2,671 days based on the initial compensation rate analysis conducted in February 2010.

The analysis to derive the expected CV achieved for each species group was updated (Table 3) using the revised 2010 prioritized sea days (Table 1 column labeled "*Prioritized April 2010 – March 2011 Coverage REVISED*"). As described in the 2010 SBRM Sea Day Analysis and Prioritization document, there are 23 fleets with sufficient data to support sample size analysis based on the variance of the discard estimates. The fleets designated as in need of pilot coverage can not be evaluated and the fleets with no prioritized sea days are not evaluated. It is important to note that some species groups have been filtered out through the importance filter process and thus do not have an achieved CV; these species groups have been denoted with an '*' in Table 3.

Of the 47 species groups with an estimable CV, 30 species groups (64%) maintained a CV less than or equal to the SBRM 30% CV standard (Table 3). As noted above, the fleets associated with the New England groundfish fisheries (large-mesh otter trawls, gillnets, etc) have more sea days than required by SBRM due to the provisional nature of sea day allocation (i.e. using previous year's industry activity). Consequently, the expected achieved CVs are lower than the 30% CV for all species groups. The expected achieved CV for species groups given the shortfall and surplus of sea days across fleets is for illustrative purposes due to the provisional nature (dependent on industry activity) of the 2010 prioritized sea days. In this revised analysis, the number of sea days associated with the industry-funded fleets was divided equally among the fleets that comprised each combined group (Rows 12, 32, and 33; Rows 10 and 28; and Rows 26 and 27).

The usefulness of Table 3 is demonstrated in rows where the prioritized sea days are less than the SBRM performance standard. For example, the sea days for the MA small mesh otter trawl (Row 5) have been increased to 553 days due to the concern over butterfish. The expected achieved CV is 35% for the species group Squid, Butterfish and Mackerel (SBM). It would take an additional 170 sea days (using Appendix Table 1 Row 5: 723 – 553 = 170) to achieve a 30%CV. For each species group of interest, the above comparisons can be made using the species group and fleet information provided in this document.

Further improvements in precision of discard estimates are limited by total funding and constraints on funding by region or species group. The SBRM feedback process with the Councils ensures that priorities other than precision standards alone can be incorporated into the planned sea day allocations. The SBRM also provides a mechanism for evaluating the tradeoffs induced by the inclusion of other priorities. The observer program and fishery management are changing rapidly with the expansion of sectors in groundfish fisheries, reliance on industry funded programs for scallop fisheries, proposed increases in coverage for vessels with sea herring permits, and real-time estimation of discards for butterfish. These changes represent fundamental changes to the basis of the Standardized Bycatch Reporting Methodology. Information obtained in the coming year will be informative and may lead to an allocation system that relies more heavily on adaptive and systematic sampling of various vessel call-in programs rather than expectations of fishing activities by fleets based on previous years' data.

Table 1. 2010 Standardized Bycatch Reporting Methodology Prioritization sea days, April 2010 to March 2011, based on data from July 2008 to June 2009; (REVISED).

Row	GearType	Access Area	Trip Cat.	Region	Mesh	2010 SBRM Sea Day Standard	Prioritized April 2010 - March 2011 Coverage	*Prioritized April 2010 - March 2011 Coverage REVISED*	Notes
1	Longline	OPEN	all	MA	all	109	104	102	
2	Longline	OPEN	all	NE	all	25	201	178	
3	Hand Line	OPEN	all	MA	all	70	0	0	
4	Hand Line	OPEN	all	NE	all	50	50	12	
5	Otter Trawl	OPEN	all	MA	sm	1,415	116	553	
6	Otter Trawl	OPEN	all	MA	lg	2,175	1,537	1,582	
7	Otter Trawl	OPEN	all	NE	sm	2,192	733	954	
8	Otter Trawl	OPEN	all	NE	lg	668	4,190	4,019	
9	Scallop Trawl	AA	GEN	MA	all	12	24	71	
10	Scallop Trawl	AA	LIM	MA	all	41	5		**
11	Scallop Trawl	OPEN	GEN	MA	all	41	41	41	
12	Scallop Trawl	OPEN	LIM	MA	all	84	34		*
13+	Otter Trawl, Ruhle	OPEN	all	NE	all	3	0	446	
14	Shrimp Trawl	OPEN	all	MA	all	97	0	0	
15	Shrimp Trawl	OPEN	all	NE	all	36	16	16	
16+	Floating Trap	OPEN	all	MA	all	15	0	0	
17+	Floating Trap	OPEN	all	NE	all	9	0	0	
18	Sink, Anchor, Drift Gillnet	OPEN	all	MA	sm	35	0	0	
19	Sink, Anchor, Drift Gillnet	OPEN	all	MA	lg	478	100	128	
20	Sink, Anchor, Drift Gillnet	OPEN	all	MA	xlg	423	302	284	
21	Sink, Anchor, Drift Gillnet	OPEN	all	NE	sm	12	12	0	
22	Sink, Anchor, Drift Gillnet	OPEN	all	NE	lg	159	1,667	1,595	
23	Sink, Anchor, Drift Gillnet	OPEN	all	NE	xlg	140	739	654	
24	Purse Seine	OPEN	all	MA	all	10	20	18	
25	Purse Seine	OPEN	all	NE	all	30	30	30	
26	Scallop Dredge	AA	GEN	MA	all	43	224	88	***
27	Scallop Dredge	AA	GEN	NE	all	12	30		***
28	Scallop Dredge	AA	LIM	MA	all	93	442	775	**
29	Scallop Dredge	AA	LIM	NE	all	255	257	327	
30	Scallop Dredge	OPEN	GEN	MA	all	49	49	49	
31	Scallop Dredge	OPEN	GEN	NE	all	23	23	23	
32	Scallop Dredge	OPEN	LIM	MA	all	3,443	1,356	1,410	*
33	Scallop Dredge	OPEN	LIM	NE	all	475	1,628		*
34	Mid-water Paired & Single Trawl	OPEN	all	MA	all	34	66	66	
35	Mid-water Paired & Single Trawl	OPEN	all	NE	all	379	379	379	
36	Pots and Traps, Fish	OPEN	all	MA	all	26	0	0	
37	Pots and Traps, Fish	OPEN	all	NE	all	13	0	0	
38	Pots and Traps, Conch	OPEN	all	MA	all	16	0	0	
39	Pots and Traps, Conch	OPEN	all	NE	all	13	0	0	
40	Pots and Traps, Hagfish	OPEN	all	MA	all	128	0	0	
41	Pots and Traps, Hagfish	OPEN	all	NE	all	56	0	0	
42+	Pots and Traps, Shrimp	OPEN	all	NE	all	9	0	0	
43	Pots and Traps, Lobster	OPEN	all	MA	all	68	0	0	
44	Pots and Traps, Lobster	OPEN	all	NE	all	427	0	0	
45	Pots and Traps, Crab	OPEN	all	MA	all	37	0	0	
46	Pots and Traps, Crab	OPEN	all	NE	all	51	0	0	
47+	Beam Trawl	OPEN	all	MA	all	31	0	0	
48+	Beam Trawl	OPEN	all	NE	all	18	0	0	
49+	Dredge, Other	OPEN	all	MA	all	23	0	0	
50	Ocean Quahog/Surf Clam Dredge	OPEN	all	MA	all	67	0	0	
51	Ocean Quahog/Surf Clam Dredge	OPEN	all	NE	all	29	0	0	
NEW	Herring - CA1 coverage							150	
	Total Days					14,147	14,375	13,950	

Note: * denotes 1,410 days for Rows 12, 32, and 33 (industry-funded fleets); ** denotes 775 days for Rows 10 and 28 (industry-funded fleets); and *** denotes 88 days for Rows 26 and 27 (industry-funded fleets). P = pilot coverage; P* = pilot coverage for fish only; + = new fleets.

Table 2. Summary of recommended changes in 2010 sea day allocation.

Fishery	Initial Sea Day Allocation	Revised Sea Day Allocation	Comments/Rationale
Agency-Funded Fleets			
Rows 1, 2, 4, 6, 8, 13, 19, 20, 22, 23 NE and MA groundfish fleets using longline, otter trawl, or gillnet	8,890	9,000	9,000 days for compliance monitoring of groundfish sectors (5,991 At-Sea Monitor days and 3,009 NEFOP observer days) exceeds the 4,230 SBRM standard days for these fleets. This coverage is dependent upon current industry activity. The allocated sea days, by fleet, are **provisional** and serve as place-holders based on industry activity in the previous year. It is not known what industry activity will occur in the next 12 months. The sea day allocations to the Mid-Atlantic fleets (large-mesh otter trawl, large and extra-large mesh gillnet) may be over estimated and depend on sector activity in this region. A shortfall may occur in these fleets for trips that are not groundfishing or using a groundfish DAS (i.e. monkfish, dogfish and skate trips). Sea days have been placed in these fleets based on Sector Operations Plans.
Row 5 MA small-mesh Otter Trawl	116	553	Additional funding (using all of the 394 days based on temporary funds from the National Observer Program) was used to increase the number of sea days in this fleet. This increase lowered the CV from 78% to 35% for Squid, Butterfish and Mackerel (SBM). It will require an additional 862 days to lower the CV to 30% for this all species groups.
Row 7 NE small-mesh Otter Trawl	733	954	Additional funding was used to increase sea days in this fleet. A shortfall of 1,238 days remain for this fleet. The additional sea days lowered the CV from 45% to 35% for small-mesh groundfish (GFS) species group. See Table 3 for the expected achieved CV for other species groups.

Row 13 Ruhle Trawl	0	446	Additional funding (funding associated with Sectors) was used to increase sea days in this fleet. This coverage is dependent upon current industry activity; the allocated sea days are provisional. The revised allocation exceeds the SBRM pilot-based standard of 3 days.
Row 21 NE small-mesh Gillnet	12	0	Industry activity is low in this fleet, with only a total of 55 industry trips in the previous year; the 12 days are based on pilot coverage. There are 2 days allocated to this fleet for monitoring protected species, including sea turtles.
Row 24 MA Purse Seine	20	18	The 2 day reduction is associated with the overall reduction of funding associated with sea turtle coverage. The allocated sea days remain above the pilot-based SBRM performance standard.
Row New	0	150	There are 150 sea days for Herring Closed Area I coverage; these days could be used in the NE Mid-water Trawl (Row 35) to provide additional coverage.
Industry-Funded fleets			
Rows 9, 10, 12, 26, 27, 28, 29, 32, and 33	4,000	2,671	4,000 assumed days served as a place holder until the compensation rate analysis was performed. 2,671 days is based on the initial compensation rate analysis conducted in February 2010. Coverage will be based on industry activity within each fleet with a cap of: 1,410 days for the combined coverage of Rows 12, 32, and 33 (rows denoted with * in Table 1); 775 days for the combined coverage in Rows 10, 28 (rows denoted with ** in Table 1); 71 days for Row 9; 88 days for Row 26 and 27 (rows denoted with *** in Table 1); and 327 days for Row 29. Coverage is expected to meet SBRM performance standard for all fleets and species except for turtles (TURS) in Row 32 (Table 3).

Table 3. The expected coefficient of variation (CV) achieved for the proposed prioritized sea days, by species group and fleet based on July 2008 to June 2009 data. Red font indicates CVs less than or equal to 30%; '*' denotes species groups that have been filtered out through the importance filter.

Row	GearType	Access Area	Trip Cat.	Region	Mesh	2010 SBRM Prioritized Sea Days (Revised)	BLUE	HERR	SAL	RCRAB	SCAL	SBM	MONK	GFL	GFS	SKATE	DOG	FSB	SCOQ	TILE	TURS	Pilot
1	Longline	OPEN	all	MA	all	102																P
2	Longline	OPEN	all	NE	all	178	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
3	Hand Line	OPEN	all	MA	all	0																P
4	Hand Line	OPEN	all	NE	all	12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
5	Otter Trawl	OPEN	all	MA	sm	553	*	*	*	*	*	0.347	*	*	0.294	0.338	0.340	0.518	*	*	0.508	
6	Otter Trawl	OPEN	all	MA	lg	1,582	*	*	*	*	*	*	*	0.090	0.364	0.089	0.110	0.117	*	*	*	
7	Otter Trawl	OPEN	all	NE	sm	954	*	*	*	*	*	*	*	*	0.349	*	0.460	0.481	*	*	0.407	
8	Otter Trawl	OPEN	all	NE	lg	4,019	*	*	*	*	*	*	0.091	0.035	0.116	0.034	0.068	0.085	*	*	*	
9	Scallop Trawl	AA	GEN	MA	all	71																P
10	Scallop Trawl	AA	LIM	MA	all	387																P
11	Scallop Trawl	OPEN	GEN	MA	all	41																P
12	Scallop Trawl	OPEN	LIM	MA	all	470																P
13+	Otter Trawl, Ruhle	OPEN	all	NE	all	446																P
14	Shrimp Trawl	OPEN	all	MA	all	0																P
15	Shrimp Trawl	OPEN	all	NE	all	16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
16+	Floating Trap	OPEN	all	MA	all	0																P
17+	Floating Trap	OPEN	all	NE	all	0																P
18	Sink, Anchor, Drift Gillnet	OPEN	all	MA	sm	0																
19	Sink, Anchor, Drift Gillnet	OPEN	all	MA	lg	128															0.747	P*
20	Sink, Anchor, Drift Gillnet	OPEN	all	MA	xlg	284	*	*	*	*	*	*	0.116	*	*	*	0.112	*	*	*	0.374	
21	Sink, Anchor, Drift Gillnet	OPEN	all	NE	sm	0																P
22	Sink, Anchor, Drift Gillnet	OPEN	all	NE	lg	1,595	*	*	*	*	*	*	*	0.056	*	*	0.090	*	*	*	*	
23	Sink, Anchor, Drift Gillnet	OPEN	all	NE	xlg	654	*	*	*	*	*	*	0.131	*	*	0.095	0.102	*	*	*	*	
24	Purse Seine	OPEN	all	MA	all	18																P
25	Purse Seine	OPEN	all	NE	all	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
26	Scallop Dredge	AA	GEN	MA	all	44	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
27	Scallop Dredge	AA	GEN	NE	all	44	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
28	Scallop Dredge	AA	LIM	MA	all	388	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
29	Scallop Dredge	AA	LIM	NE	all	327	*	*	*	*	*	*	0.258	*	*	*	*	*	*	*	*	
30	Scallop Dredge	OPEN	GEN	MA	all	49	*	*	*	*	*	*	*	*	*	0.301	*	*	*	*	*	
31	Scallop Dredge	OPEN	GEN	NE	all	23	*	*	*	*	*	*	*	*	*	0.302	*	*	*	*	*	
32	Scallop Dredge	OPEN	LIM	MA	all	470	*	*	*	*	*	*	0.175	*	*	0.156	0.186	0.308	*	*	0.917	
33	Scallop Dredge	OPEN	LIM	NE	all	470	*	*	*	*	0.287	*	0.213	0.146	0.247	0.153	0.302	0.222	*	*	*	
34	Mid-water Paired & Single Trawl	OPEN	all	MA	all	66																P
35	Mid-water Paired & Single Trawl	OPEN	all	NE	all	379	*	*	*	*	*	*	*	*	0.300	*	0.192	*	*	*	*	
36	Pots and Traps, Fish	OPEN	all	MA	all	0																P
37	Pots and Traps, Fish	OPEN	all	NE	all	0																P
38	Pots and Traps, Conch	OPEN	all	MA	all	0																P
39	Pots and Traps, Conch	OPEN	all	NE	all	0																P
40	Pots and Traps, Hagfish	OPEN	all	MA	all	0																P
41	Pots and Traps, Hagfish	OPEN	all	NE	all	0																
42+	Pots and Traps, Shrimp	OPEN	all	NE	all	0																P
43	Pots and Traps, Lobster	OPEN	all	MA	all	0																P
44	Pots and Traps, Lobster	OPEN	all	NE	all	0																P
45	Pots and Traps, Crab	OPEN	all	MA	all	0																P
46	Pots and Traps, Crab	OPEN	all	NE	all	0																P
47+	Beam Trawl	OPEN	all	MA	all	0																P
48+	Beam Trawl	OPEN	all	NE	all	0																P
49+	Dredge, Other	OPEN	all	MA	all	0																P
50	Ocean Quahog/Surf Clam	OPEN	all	MA	all	0																P
51	Ocean Quahog/Surf Clam	OPEN	all	NE	all	0																P

13,800 (excludes the 150 for Closed Area I Herring coverage)

* Filtered out by importance filter; Blank: No funded seadays or no estmates of discards and variance (in need of pilot coverage).

Appendix Table 1. The number of sea days needed to achieve a 30% CV for the 15 species groups included in SBRM and also for river herring (RHERR), a non-SBRM species group.

Row	GearType	Access Area	Trip Cat.	Region	Mesh	BLUE	HERR	SAL	RCRAB	SCAL	SBM	MONK	GFL	GFS	SKATE	DOG	FSB	SCOQ	TILE	TURS	Pilot days	2010 SBRM Sea Day Standard	Pilot	RHERR
1	Longline	OPEN	all	MA	all	0	0	0	0	0	0	109	109	0	109	109	0	0	109	109	109	109	P	109
2	Longline	OPEN	all	NE	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25		0
3	Hand Line	OPEN	all	MA	all	0	0	0	0	0	0	0	70	0	0	0	0	0	0	70	70	70	P	70
4	Hand Line	OPEN	all	NE	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50		0
5	Otter Trawl	OPEN	all	MA	sm	0	0	0	0	0	723	0	0	533	692	691	1,359	0	0	1,415	180	1,415		706
6	Otter Trawl	OPEN	all	MA	lg	0	0	0	0	0	0	0	163	2,175	158	237	265	0	0	0	240	2,175		0
7	Otter Trawl	OPEN	all	NE	sm	0	0	0	0	0	0	0	0	1,257	0	2,038	2,192	0	0	1,683	159	2,192		2085
8	Otter Trawl	OPEN	all	NE	lg	0	0	0	0	0	0	438	64	668	61	238	370	0	0	0	520	668		1780
9	Scallop Trawl	AA	GEN	MA	all	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	P	12
10	Scallop Trawl	AA	LIM	MA	all	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	P	41
11	Scallop Trawl	OPEN	GEN	MA	all	41	0	0	0	41	41	41	41	41	41	41	41	0	0	41	41	41	P	41
12	Scallop Trawl	OPEN	LIM	MA	all	84	0	0	0	84	84	84	84	84	84	84	84	0	0	84	84	84	P	84
13+	Otter Trawl, Ruhle	OPEN	all	NE	all	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	P	3
14	Shrimp Trawl	OPEN	all	MA	all	0	97	0	0	0	97	97	97	97	97	0	97	0	0	97	97	97	P	97
15	Shrimp Trawl	OPEN	all	NE	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36		32
16+	Floating Trap	OPEN	all	MA	all	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	P	15
17+	Floating Trap	OPEN	all	NE	all	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	P	9
18	Sink, Anchor, Drift Gillnet	OPEN	all	MA	sm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35		0
19	Sink, Anchor, Drift Gillnet	OPEN	all	MA	lg	24	24	0	0	0	24	24	24	0	24	24	24	0	0	478	24	478	P*	24
20	Sink, Anchor, Drift Gillnet	OPEN	all	MA	xlg	0	0	0	0	0	0	46	0	0	0	43	0	0	0	423	67	423		0
21	Sink, Anchor, Drift Gillnet	OPEN	all	NE	sm	12	12	0	0	0	12	12	12	12	12	12	12	0	0	12	12	12	P	12
22	Sink, Anchor, Drift Gillnet	OPEN	all	NE	lg	0	0	0	0	0	0	0	60	0	0	159	0	0	0	0	207	159		0
23	Sink, Anchor, Drift Gillnet	OPEN	all	NE	xlg	0	0	0	0	0	0	140	0	0	72	86	0	0	0	0	92	140		0
24	Purse Seine	OPEN	all	MA	all	10	10	0	0	0	10	0	10	10	10	10	10	0	0	10	10	10	P	10
25	Purse Seine	OPEN	all	NE	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30		0
26	Scallop Dredge	AA	GEN	MA	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	43		0
27	Scallop Dredge	AA	GEN	NE	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12		0
28	Scallop Dredge	AA	LIM	MA	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	93		0
29	Scallop Dredge	AA	LIM	NE	all	0	0	0	0	0	0	255	0	0	0	0	0	0	0	0	104	255		0
30	Scallop Dredge	OPEN	GEN	MA	all	0	0	0	0	0	0	0	0	0	49	0	0	0	0	0	185	49		0
31	Scallop Dredge	OPEN	GEN	NE	all	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	64	23		0
32	Scallop Dredge	OPEN	LIM	MA	all	0	0	0	0	0	0	166	0	0	132	186	494	0	0	3,443	186	3,443		0
33	Scallop Dredge	OPEN	LIM	NE	all	0	0	0	0	431	0	242	116	322	126	475	263	0	0	0	224	475		0
34	Mid-water Paired & Single Trawl	OPEN	all	MA	all	34	34	0	0	0	34	34	34	34	0	34	0	0	0	34	34	34	P	34
35	Mid-water Paired & Single Trawl	OPEN	all	NE	all	0	0	0	0	0	0	0	0	379	0	182	0	0	0	0	44	379		1091
36	Pots and Traps, Fish	OPEN	all	MA	all	0	26	0	26	0	0	0	26	26	26	0	26	0	26	26	26	26	P	26
37	Pots and Traps, Fish	OPEN	all	NE	all	0	13	0	13	0	0	0	13	13	13	0	13	0	13	13	13	13	P	13
38	Pots and Traps, Conch	OPEN	all	MA	all	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	P	16
39	Pots and Traps, Conch	OPEN	all	NE	all	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	P	13
40	Pots and Traps, Hagfish	OPEN	all	MA	all	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	P	128
41	Pots and Traps, Hagfish	OPEN	all	NE	all	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56		0
42+	Pots and Traps, Shrimp	OPEN	all	NE	all	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	P	9
43	Pots and Traps, Lobster	OPEN	all	MA	all	0	0	0	68	0	0	0	68	0	0	0	0	0	0	68	68	68	P	68
44	Pots and Traps, Lobster	OPEN	all	NE	all	0	0	0	427	0	0	0	427	0	0	0	0	0	0	0	427	427	P	427
45	Pots and Traps, Crab	OPEN	all	MA	all	0	0	0	37	0	0	0	0	0	0	0	0	0	0	37	37	37	P	37
46	Pots and Traps, Crab	OPEN	all	NE	all	0	0	0	51	0	0	0	0	0	0	0	0	0	0	51	51	51	P	51
47+	Beam Trawl	OPEN	all	MA	all	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	P	31
48+	Beam Trawl	OPEN	all	NE	all	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	P	18
49+	Dredge, Other	OPEN	all	MA	all	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	P	23
50	Ocean Quahog/Surf Clam Dredge	OPEN	all	MA	all	0	0	0	0	67	0	67	0	0	0	0	0	67	0	67	67	67	P	67
51	Ocean Quahog/Surf Clam Dredge	OPEN	all	NE	all	0	0	0	0	29	0	29	0	0	0	0	0	29	0	29	29	29	P	29
					Total	523	534	318	940	970	1,343	2,102	1,736	5,969	2,047	4,967	5,568	414	466	8,508	4,169	14,147		7,211

109-479
SEC. 408. DEEP SEA CORAL RESEARCH AND TECHNOLOGY PROGRAM. **16 U.S.C. 1884**

(a) IN GENERAL.—The Secretary, in consultation with appropriate regional fishery management councils and in coordination with other federal agencies and educational institutions, shall, subject to the availability of appropriations, establish a program—

(1) to identify existing research on, and known locations of, deep sea corals and submit such information to the appropriate Councils;

(2) to locate and map locations of deep sea corals and submit such information to the Councils;

(3) to monitor activity in locations where deep sea corals are known or likely to occur, based on best scientific information available, including through underwater or remote sensing technologies and submit such information to the appropriate Councils;

(4) to conduct research, including cooperative research with fishing industry participants, on deep sea corals and related species, and on survey methods;

(5) to develop technologies or methods designed to assist fishing industry participants in reducing interactions between fishing gear and deep sea corals; and

(6) to prioritize program activities in areas where deep sea corals are known to occur, and in areas where scientific modeling or other methods predict deep sea corals are likely to be present.

(b) REPORTING.—Beginning 1 year after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, the Secretary, in consultation with the Councils, shall submit biennial reports to Congress and the public on steps taken by the Secretary to identify, monitor, and protect deep sea coral areas, including summaries of the results of mapping, research, and data collection performed under the program.

(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;

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(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery, including its economic impact, and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors;

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(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate, taking into consideration the economic impact of the harvest restrictions or recovery benefits on the fishery participants in each sector, any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery and;

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(15) establish a mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability.

97-453, 99-659, 101-627, 102-251, 104-297

(b) DISCRETIONARY PROVISIONS.—Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, may—

(1) require a permit to be obtained from, and fees to be paid to, the Secretary, with respect to—

(A) any fishing vessel of the United States fishing, or wishing to fish, in the exclusive economic zone [or special areas,]* or for anadromous species or Continental Shelf fishery resources beyond such zone [or areas]*;

(B) the operator of any such vessel; or

(C) any United States fish processor who first receives fish that are subject to the plan;

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(2)(A) designate zones where, and periods when, fishing shall be limited, or shall not be permitted, or shall be permitted only by specified types of fishing vessels or with specified types and quantities of fishing gear;

(B) designate such zones in areas where deep sea corals are identified under section 408, to protect deep sea corals from physical damage from fishing gear or to prevent loss or damage to such fishing gear from interactions with deep sea corals, after considering long-term sustainable uses of fishery resources in such areas; and

(C) with respect to any closure of an area under this Act that prohibits all fishing, ensure that such closure—

(i) is based on the best scientific information available;

(ii) includes criteria to assess the conservation benefit of the closed area;

(iii) establishes a timetable for review of the closed area's performance that is consistent with the purposes of the closed area; and

(iv) is based on an assessment of the benefits and impacts of the closure, including its size, in relation to other management measures (either alone or in combination with such measures), including the benefits and impacts of limiting access to: users of the area, overall fishing activity, fishery science, and fishery and marine conservation;

(3) establish specified limitations which are necessary and appropriate for the conservation and management of the fishery on the—

(A) catch of fish (based on area, species, size, number, weight, sex, bycatch, total biomass, or other factors);

(B) sale of fish caught during commercial, recreational, or charter fishing, consistent with any applicable Federal and State safety and quality requirements; and

(C) transshipment or transportation of fish or fish products under permits issued pursuant to section 204;

(4) prohibit, limit, condition, or require the use of specified types and quantities of fishing gear, fishing vessels, or equipment for such vessels, including devices which may be required to facilitate enforcement of the provisions of this Act;

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(5) incorporate (consistent with the national standards, the other provisions of this Act, and any other applicable law) the relevant fishery conservation and management measures of the coastal States nearest to the fishery and take into account the different circumstances affecting fisheries from different States and ports, including distances to fishing grounds and proximity to time and area closures;

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(6) establish a limited access system for the fishery in order to achieve optimum yield if, in developing such system, the Council and the Secretary take into account—

(A) present participation in the fishery;

(B) historical fishing practices in, and dependence on, the fishery;

(C) the economics of the fishery;

(D) the capability of fishing vessels used in the fishery to engage in other fisheries;

(E) the cultural and social framework relevant to the fishery and any affected fishing communities;

(F) the fair and equitable distribution of access privileges in the fishery; and

(G) any other relevant considerations;

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

MAY 13 2010

Dan Furlong
Executive Director
Mid-Atlantic Fisheries Management Council
800 N. State Street
Suite 201
Dover, DE 19901

Dear Dan,

Over the past 2 years the New England and Mid-Atlantic Fishery Management Councils (Councils) have shown great interest in protecting deep sea corals from current or future fishing activities as exemplified in the establishment of various Habitat Closed Areas and Gear Restricted Areas within the Monkfish; Tilefish; and Squid, Mackerel, Butterfish Fishery Management Plans.

With the 2007 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Councils now have greater discretionary authority to protect deep sea corals from fishing activities. NOAA's National Marine Fisheries Service Northeast Regional Office is providing this guidance to assist the Councils in their continued deep sea coral protection activities.

Deep Sea Coral Discretionary Provisions:

The Councils can consider measures for deep sea coral areas under deep sea coral discretionary authority if the deep sea coral areas are identified through information provided by the Deep Sea Coral Research and Technology Program set forth under MSA section 408.

In addition, the deep sea coral areas must have a nexus to a fishery managed by the Councils under an FMP. MSA section 303(b) provides that a Council may include deep sea coral measures in "[any] fishery management plan . . . with respect to any fishery." To satisfy this threshold, Councils need to show that the deep sea coral areas are located within the geographical range of the fishery as described in the FMP and are within the U.S. Exclusive Economic Zone (EEZ).

The deep sea coral authority allows Councils to designate deep sea coral zones to protect deep sea corals from physical damage from fishing gear, or to prevent loss or damage to such gear from interactions with deep sea corals. These zones can include additional area beyond the locations of the deep sea corals if necessary to ensure the effectiveness of protective measures for the corals. Four different types of measures may be applied to those zones: Restrictions on the location and time during which fishing may occur within the deep sea coral zones; limits to fishing in the deep sea coral zones to specified types of vessels; restricting fishing in the deep sea

coral zones to vessels with specified types and quantities of gear; and closing deep sea coral zones to fishing. It is important to note that a closure of an area to all fishing under the deep sea coral authority must comply with MSA section 303(b)(2)(C), which establishes criteria for any closure under the MSA that prohibits all fishing.

Protective measures in an FMP for deep sea corals could apply to any MSA regulated fishing activity that could occur in the geographical range of the fishery managed by that FMP. Such measures could apply to fishing activity or fishing gear even if that activity or gear type is not used in the fishery managed by the FMP that includes the measures.

Before designating protection zones under the deep sea coral authority, Councils must show that it considered the "long-term sustainable uses of fishery resources" in the deep sea coral areas. To satisfy this requirement, Councils should develop a record that shows the existing and probable future uses of fishery resources in the deep sea coral areas and how those uses could impact deep sea corals. Furthermore, Councils could consider how to balance protection of deep sea coral areas from any current or future impacts with sustainable uses of fishery resources in the areas.

Differences Between the EFH and Deep Sea Coral Authorities:

EFH is a mandatory requirement for FMPs. (See MSA section 303(a)(7) and EFH guidelines at 50 CFR part 600, supart J). EFH must be identified and described in FMPs according to the guidelines set forth under 50 CFR 600.815(a)(1). Once EFH is identified and described, FMPs must also contain an evaluation of the potential adverse effects of fishing on EFH. Based on this evaluation, Councils must minimize adverse effects of fishing on EFH to the extent practicable. Guidance on the evaluation, minimization of adverse effects, and the practicability analysis is set forth under 50 CFR 600.815(a)(2). Therefore, if Councils describe deep sea coral as EFH, they must follow the EFH guidelines.

The requirement to minimize the adverse effects of fishing on EFH applies only to habitat designated as EFH. Accordingly, the EFH authority may only be applied to deep sea coral areas identified and described as EFH. In addition, the EFH authority includes a consultation requirement that mandates Federal action agencies to consult with NMFS on activities that may adversely affect EFH (MSA section 305(b) and 50 CFR part 600, subpart K). The deep sea coral discretionary authority does not include a mandatory consultation requirement.

Since the deep sea coral provisions are discretionary, Councils may, but are not required to, create zones and adopt protection measures for areas containing deep sea coral identified and located under the Deep Sea Coral Research and Technology Program. Councils may adopt measures for deep sea coral areas that are not EFH by using the deep sea coral discretionary authority. If deep sea coral areas are identified and described as EFH, Councils may adopt additional discretionary deep sea coral measures for those areas to supplement measures adopted under the mandatory EFH authority.

Overlap in Council Jurisdiction:

Councils with overlapping jurisdiction implement management actions under discretionary authorities in the same manner as mandatory authorities. MSA section 304(f) and the National Standard 3 regulations at 50 CFR 600.320(c) address jurisdictional overlaps.

Jurisdictional overlaps frequently occur for resources managed by the New England and Mid-Atlantic Councils. In some cases, the jurisdictional overlap is handled through a joint FMP, with one Council designated the lead. In other cases, one of the two Councils is designated by the Secretary to manage the fishery, even though the managed resources and fisheries also occur in the geographic area of the other Council. While the non-managing Council members do not vote on the FMP, its members are normally consulted when the FMP is prepared or amended, and members of the non-managing Council may serve on Committees of the managing Council. The non-managing Council may also send members in a liaison capacity to the managing Council's meetings, where they can participate in discussions of management actions that may have implications for their Council and fishermen

Councils may adopt gear restrictions via an omnibus amendment that applies to several FMPs. An omnibus amendment can include gear restrictions that apply to fisheries under other Council's jurisdiction. However, to do so, there must be a sufficient and adequate legal basis for the action. The Council taking the action must ensure that environmental, economic, and social analyses necessary to satisfy applicable legal requirements will be comprehensive, up-to-date, and accurate. In almost all cases this will require the Council taking the action to consult with and obtain information from the other affected Council.

Relationship to the Atlantic Coastal Cooperative Fisheries Management Act (ACA):

The ACA authorizes the Atlantic States Marine Fisheries Commission (ASMFC) to prepare and adopt coastal fishery management plans (CFMPs) for fisheries that are distributed across waters under the jurisdiction of two or more states or under the jurisdiction of one or more states and the EEZ. In developing a CFMP for a fishery that is located in both state waters and the EEZ, the ASMFC must "consult with appropriate Councils [established under the MSA] to determine where the plan may complement" FMPs developed under the MSA. This consultation process permits, but does not require, the ASMFC to develop CFMPs that are consistent with MSA FMPs. This implies that management measures in MSA FMPs do not apply to fisheries that are regulated under ACA unless the ASMFC includes those measures in the relevant CFMPs.

Under section 804 of the ACA, the Councils may develop FMPs for fisheries regulated under the ACA that extend into the EEZ. This is the exclusive means for Council regulation of fisheries that are regulated under the authority of the ACA. That is, management measures in FMPs apply to fisheries regulated under the ACA only if the FMP is for the same fishery managed under ACA. Conversely, consider the lobster fishery in the Northeast Region which is regulated under authority of the ACA. Although the lobster fishery is primarily located in state waters, a portion of the fishery extends into the EEZ but is not regulated under the MSA. Therefore, deep sea

coral protection measures included in an MSA FMP for any other fishery, would not apply to the lobster fishery.

Conclusion:

The Councils have a variety of tools available to them for providing protection to deep sea corals, either through the EFH provisions or discretionary provisions of the MSA. In order to protect deep sea corals under discretionary provisions of the MSA, the areas must be identified through information provided by the Deep Sea Coral Research and Technology Program and there must be a nexus to a fishery managed by the Councils.

Should you have additional questions regarding protection of deep sea corals please contact Lou Chiarella at (978) 281-9277.

Sincerely,

Patricia A. Kurkul
Regional Administrator

cc: George Darcy, SFD
Peter Colosi, HCD
Gene Martin, GCNE

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

MAY 13 2010

Paul Howard
Executive Director
New England Fisheries Management Council
50 Water Street, Mill 2
The Tannery
Newburyport, MA 01950

Dear Paul,

Over the past 2 years the New England and Mid-Atlantic Fishery Management Councils (Councils) have shown great interest in protecting deep sea corals from current or future fishing activities as exemplified in the establishment of various Habitat Closed Areas and Gear Restricted Areas within the Monkfish; Tilefish; and Squid, Mackerel, Butterfish Fishery Management Plans.

With the 2007 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Councils now have greater discretionary authority to protect deep sea corals from fishing activities. NOAA's National Marine Fisheries Service Northeast Regional Office is providing this guidance to assist the Councils in their continued deep sea coral protection activities.

Deep Sea Coral Discretionary Provisions:

The Councils can consider measures for deep sea coral areas under deep sea coral discretionary authority if the deep sea coral areas are identified through information provided by the Deep Sea Coral Research and Technology Program set forth under MSA section 408.

In addition, the deep sea coral areas must have a nexus to a fishery managed by the Councils under an FMP. MSA section 303(b) provides that a Council may include deep sea coral measures in "[any] fishery management plan . . . with respect to any fishery." To satisfy this threshold, Councils need to show that the deep sea coral areas are located within the geographical range of the fishery as described in the FMP and are within the U.S. Exclusive Economic Zone (EEZ).

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Overlap in Council Jurisdiction:

Councils with overlapping jurisdiction implement management actions under discretionary authorities in the same manner as mandatory authorities. MSA section 304(f) and the National Standard 3 regulations at 50 CFR 600.320(c) address jurisdictional overlaps.

Jurisdictional overlaps frequently occur for resources managed by the New England and Mid-Atlantic Councils. In some cases, the jurisdictional overlap is handled through a joint FMP, with one Council designated the lead. In other cases, one of the two Councils is designated by the Secretary to manage the fishery, even though the managed resources and fisheries also occur in the geographic area of the other Council. While the non-managing Council members do not vote on the FMP, its members are normally consulted when the FMP is prepared or amended, and members of the non-managing Council may serve on Committees of the managing Council. The non-managing Council may also send members in a liaison capacity to the managing Council's meetings, where they can participate in discussions of management actions that may have implications for their Council and fishermen

Councils may adopt gear restrictions via an omnibus amendment that applies to several FMPs. An omnibus amendment can include gear restrictions that apply to fisheries under other Council's jurisdiction. However, to do so, there must be a sufficient and adequate legal basis for the action. The Council taking the action must ensure that environmental, economic, and social analyses necessary to satisfy applicable legal requirements will be comprehensive, up-to-date, and accurate. In almost all cases this will require the Council taking the action to consult with and obtain information from the other affected Council.

Relationship to the Atlantic Coastal Cooperative Fisheries Management Act (ACA):

The ACA authorizes the Atlantic States Marine Fisheries Commission (ASMFC) to prepare and adopt coastal fishery management plans (CFMPs) for fisheries that are distributed across waters under the jurisdiction of two or more states or under the jurisdiction of one or more states and the EEZ. In developing a CFMP for a fishery that is located in both state waters and the EEZ, the ASMFC must "consult with appropriate Councils [established under the MSA] to determine where the plan may complement" FMPs developed under the MSA. This consultation process permits, but does not require, the ASMFC to develop CFMPs that are consistent with MSA FMPs. This implies that management measures in MSA FMPs do not apply to fisheries that are regulated under ACA unless the ASMFC includes those measures in the relevant CFMPs.

Under section 804 of the ACA, the Councils may develop FMPs for fisheries regulated under the ACA that extend into the EEZ. This is the exclusive means for Council regulation of fisheries that are regulated under the authority of the ACA. That is, management measures in FMPs apply to fisheries regulated under the ACA only if the FMP is for the same fishery managed under ACA. Conversely, consider the lobster fishery in the Northeast Region which is regulated under authority of the ACA. Although the lobster fishery is primarily located in state waters, a portion of the fishery extends into the EEZ but is not regulated under the MSA. Therefore, deep sea

coral protection measures included in an MSA FMP for any other fishery, would not apply to the lobster fishery.

Conclusion:

The Councils have a variety of tools available to them for providing protection to deep sea corals, either through the EFH provisions or discretionary provisions of the MSA. In order to protect deep sea corals under discretionary provisions of the MSA, the areas must be identified through information provided by the Deep Sea Coral Research and Technology Program and there must be a nexus to a fishery managed by the Councils.

Should you have additional questions regarding protection of deep sea corals please contact Lou Chiarella at (978) 281-9277.

Sincerely,

Patricia A. Kurkul
Regional Administrator

cc: George Darcy, SFD
Peter Colosi, HCD
Gene Martin, GCNE

COUNCIL COORDINATION COMMITTEE
MAY 19-21, 2010
Hotel Captain Cook
Anchorage, Alaska

Theme: Navigating National Initiatives

http://www.fisherycouncils.org/CCC/CCC.htm

DRAFT AGENDA (as of April 22, 2010)

Wednesday, May 19, 2010

Time	Discussion Item	Presenter(s)	Duration
1:00 – 1:30	Welcome comments and open session with Councils	Eric Olson/ Eric Schwaab Councils	30 min.
1:30 – 2:00	Report from North Pacific Research Board/ Alaska Ocean Observing System	Clarence Pautzke Molly McCammon	30 min.
2:00– 2:30	CCC Terms of Reference	Chris Oliver	30 min.
2:30 – 4:00	Ocean Policy Task Force & Coastal and Marine Spatial Planning Status Update and Next Step	Sam Rauch	1.5 hr.
4:00 - 4:15	Break		15 min.
4:15 – 5:30	Catch Share Implementation Plan - Status of NOAA Policy - Potential Workshops	Mark Holliday	1 hr 15 min.
5:30	Adjourn for the Day		

Thursday, May 20, 2010

8:00 – 9:00	Council Progress on Developing Catch Share Programs	Councils	1 hr.
9:00 – 9:30	ACLs	Galen Tromble	30 min.
9:30 – 10:15	ACLs Continued - Council Round Table Progress and Remaining Hurdles/SSC integration	Councils	45 min.
10:15 – 10:30	Break		15 min.
10:30 – 11:00	National Environmental Policy Act (NEPA) Update - Progress - Potential Workshops - Next Steps - Potential CCC "subcommittee"	Steve Leathery	30 min.

11:00 – 11:30	MPA Network Council Status of Nomination Process	Sam Rauch Councils	30 min
11:30 12:15	President's Budget Other Budget Issues	Gary Reisner Emily Menashes	45 min.
12:15	Lunch		1 hr.
1:15 – 1:45	National SSC Workshop	Ned Cyr/ Bob Mahood	30 minutes
1:45 – 2:15	National Standard 2 Guidelines	S&T	30 min.
2:15 – 2:45	Council/NMFS Relations concerning regulatory review process	Councils	30 min.
2:45 - 3:00	Break		15 min.
3:00 – 4:15	Outreach Activities - Individual Council efforts - Collective efforts - Coordination with NOAA - Potential 'Managing our Nation's Fisheries III' conference	Chris Moore Councils	1 hr. 15 min.
4:15 – 4:45	Recreational Fishery Report	Russell Dunn	30 min.
4:45 – 5:15	Endangered Species/MMPA issues	Kitty Simonds	30 min.
5:15	Adjourn for the Day		
6:00 – 9:00	Reception - Tower One - 10th Floor - Quarterdeck		

Friday May 21, 2010

8:00 – 8:30	SOPPS	William Chappell Tara Scott	30 min.
8:30 – 10:00	Enforcement NOAA USCG	Alan Risenhoover LCDR Schaeffer	1 hr. 30 min.
10:00 – 10:15	Break		15 min.
10:15 – 12:00	**Other Issues** 5-Year Awards Application Process January 2001 CCC meeting agenda Other ?		1.45 hr.
12:00	Adjourn		

Mid-Atlantic Council

Summary of Action:

Ocean Policy Task Force

and Coastal Marine Spatial Planning

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Richard B. Robins, Jr.
Chairman

Lee G. Anderson
Vice Chairman

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Daniel T. Furlong
Executive Director

February 12, 2010

Ms. Nancy Sutley
Chair, Interagency Ocean Policy Task Force
Council on Environmental Quality
722 Jackson Place, NW
Washington, DC 20503

Dear Ms. Sutley:

The Mid-Atlantic Fishery Management Council (Council) reviewed the Proposed Interim Framework for Effective Coastal and Marine Spatial Planning (Framework) at its February meeting. The Council strongly endorsed the Council Coordinating Committee's (CCC) January 25, 2010 letter (attached) to Dr. Jane Lubchenco regarding the proposed Framework and offers the following comments.

The Council appreciates and supports the Framework's broad objectives for marine spatial planning and recognizes the potential benefits of improved coordination and collaboration between and among agencies and constituencies that manage and utilize the marine environment. The Council interacts with a wide range of constituents in the marine environment and our management of public fisheries resources under the Magnuson Stevens Fisheries Conservation and Management Act (MSA) is a transparent and interdisciplinary approach to fisheries and habitat management involving significant public input and significant interaction with state fisheries agencies, the Northeast Fisheries Science Center, the Atlantic States Marine Fisheries Commission, the National Marine Fisheries Service, and other management partners. The Council process is a highly successful model and we encourage the Framework to build upon the existing successful governance structures, including the regional fishery management councils.

The Council recognizes the importance of regional governance and in 2009 passed a resolution in support of the Mid-Atlantic Regional Council on the Ocean (MARCO). Most recently, in December 2009, the Council nominated four gear-restricted areas (GRAs) in the offshore canyons as candidates to be included in the national Marine Protected Area (MPA) Network. The Council's recent actions reflect a clear recognition of the importance and benefits of collaborative, coordinated management in the marine environment. Several years ago, the Council recognized the need to consider marine spatial planning and changed the name of its Ecosystems Committee to Ecosystems and Ocean Planning Committee. This committee has been active in non-fisheries uses of the ocean and has had speakers from various entities involved in those pursuits.

The Council strongly urges that any guidance or implementation of the Framework specifically identify the regional fishery management councils, NOAA Fisheries, and state fisheries agencies as members and signatories to the proposed regional planning bodies. The Council is also concerned that the processes contemplated in the Framework document should be funded separately from existing management activities.
The Council appreciates the opportunity to comment on this important initiative and looks forward to further participation in the implementation of the regional planning process.

Sincerely,

Richard B. Robins, Jr.
Chairman

cc: L. Anderson, G. Kray, P. Kurkul

New England
Fishery Management Council

Gulf of Mexico FMC

January 25, 2010

Dr. Jane Lubchenco, Administrator
National Oceanic and Atmospheric Administration
1401 Constitution Avenue, NW, Room 5128
Washington, DC 20230

Dr. Lubchenco:

{We wish to make you aware of the following comments which were submitted to the White House Council on Environmental Quality via their comment website, and respectfully request your assistance in following through on these comments as the CMSP Framework is finalized.}

Please consider the following comments from the Council Coordination Committee (CCC), consisting of the Chairs, Vice-chairs, and Executive Directors of the eight Regional Fishery Management Councils (Councils) regarding the proposed Interim Framework for Coastal and Marine Spatial Planning (Framework). The CCC met recently with NOAA Fisheries leadership and reviewed the draft Framework prior to developing these collective comments. The Councils, created in 1976 by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), are responsible for the development and maintenance of fishery management plans (FMPs) and regulations for waters within the U.S. Exclusive Economic Zone (EEZ), subject to review and approval by the Secretary of Commerce.

The Councils, as executive agencies of the Department of Commerce and direct partners with NOAA Fisheries in the management of our Nation's fisheries resources, are responsible not only for management of fishing activities directly, but also develop plans and regulations which may indirectly affect other activities. These include establishment of spatially-based marine managed areas developed by each Council which restrict, or prohibit, fishing activities to protect habitat, reduce interactions with marine mammals or seabirds, address bycatch concerns, or address other management issues. Many of these closure areas are considered to be marine protected areas (MPAs) by the MPA Center and are being considered for inclusion in the National System of MPAs.

The CCC applauds the efforts of the Administration to develop a more comprehensive approach to coastal and marine planning, and we realize that fisheries management is only one of the many critical aspects to be considered. However, given that a substantial portion of the scientific and other information to be assembled under the draft Framework is already under the purview of the Councils and NOAA Fisheries, and given that the processes envisioned under the draft Framework are already successfully in place under the purview of the Councils and NOAA Fisheries, it is imperative to explicitly recognize these roles and include them in the draft Framework.

The Framework states that CMS plans would be developed using a regional approach by National Ocean Council (NOC) established regional planning bodies. While the draft Framework specifically recognizes Federal, State, regional governance structures, and tribal representation (including Native or indigenous communities) on the regional planning bodies, it does not specify which Federal and State agencies, nor does it even mention the Councils. The CCC discussed the need to have Federal and State fisheries management agencies at the table in the development of CMS plans, as well as each regional Council. **We strongly urge that the next iteration of the Framework, or any potential Executive Order implementing the Framework, explicitly list the Councils, NOAA Fisheries, and relevant State fisheries agencies as members and signatories of the regional planning bodies.**

A related primary concern is whether the implementation of the proposed Framework could effectively supercede the existing authorities of the Councils under the Magnuson-Stevens Act. The Framework states that "*CMSP processes would be carried out consistent with and under the authority of existing statutes...and that CMSP is not intended to supercede them....*" However, the Framework also implies, at various places, that individual 'agencies' would be required to work within their respective authorities to comply with the plans developed by the regional planning bodies (or justify why they are not doing so), thereby implying an indirect regulatory authority. The draft Framework also states that "*State and Federal agencies would also be expected to formally incorporate relevant components of the CMS plan into their ongoing operations or activities consistent with existing law*". Further, in the particular case of the Councils, it is unclear of their standing relative to the term 'agencies'. Finally, the draft Framework makes reference (page 23) to enforcement of "*CMSP related laws*". If no regulatory authority is vested within the CMS plans, then it is unclear what is meant by this phrase. **We recommend that the Framework more explicitly clarify the relationship of the CMS plans to existing regulatory processes and authorities, and ensure it does not undermine or impair successful processes already in place.**

The CCC has previously gone on record opposing legislation which would create large, new bureaucratic processes which have the potential to undermine, or be redundant to, existing, successful regulatory processes such as that epitomized within the Magnuson-Stevens Act. The draft Framework describes a very large and ambitious process for development of the regional CMS plans, and associated data and other scientific information, which will necessarily interact with existing authorities and which will subsume enormous resources to compile. We urge that the Framework clarify these authorities, particularly as they relate to the RFMCs, and specify the resources necessary to fully develop the CMS plans as envisioned. **It appears possible that the development of the centralized CMS plans could override, or subsume, the expertise, authority, and decision making processes of individual agencies, including the Councils. We believe that the Administration should consider a more limited approach, such as developing more generalized policy guidance for CMSP rather than the detailed, centralized plans as envisioned.**

In addition to the primary concerns described above, we offer the following more specific comments:

- Regional planning bodies would consist of Federal, State, tribal, local authorities, and regional governance structures – given the potentially large number of entities involved (particularly in order to accommodate numerous tribal, Native, or indigenous communities), it will be very difficult to appoint a regional planning body of a small enough size to operate effectively. **The Framework should be more explicit about the composition of the regional planning bodies, and the process for appointing these bodies.**

- The Framework calls for the regional planning bodies to investigate, assess, forecast, and analyze an enormous body of information and data (page 15), comprising virtually every known body of scientific information potentially available. However, the Framework does not identify the resources, or lead agency, expected to compile this vast array of information. It is highly unlikely that the

members of the regional planning bodies themselves have the wherewithal to undertake this task. There is concern on the part of the CCC that financial and human resources under NOAA Fisheries (and the Councils) will be diverted from their current mission in order to fulfill this ambitious undertaking. **We recommend that the Framework directly address the human and financial resources necessary to accomplish these tasks.**

- Following the compilation of this baseline information, the Framework calls for the preparation of a draft CMS plan *"with supporting environmental impact analysis, including alternatives...for appropriate public review and comment"*. Similar to the point above, the CCC is concerned with regard to the resources necessary to compile these analyses. The CCC also questions whether this would either implicitly or explicitly be a NEPA process, which is typically associated with a 'federal action'. If no direct regulatory authority is associated with these plans, then is it necessary to go through a NEPA process prior to approval? **We recommend further clarification regarding the process for approval of CMS plans.**

- NOAA, and the Councils, are currently engaged in a process to identify and list Marine Protected Areas in the National MPA inventory. We believe that the Framework should clarify the relationship between this process and the CMS plans. For example, does CMSP dictate how MPAs will be designated, or do designated MPAs factor into the larger CMS plans? And, who makes that determination? **We recommend that the Framework directly address and clarify this relationship.**

We appreciate the opportunity to comment on this important initiative, and stand ready to assist in its development. However, we also recognize the enormity of the tasks outlined in the draft Framework and caution against the potential deterioration of existing ocean and fisheries management processes in order to accomplish the ambitious objectives of the Framework. **We believe that existing processes, such as the Council process under the Magnuson-Stevens Act, can be effectively leveraged to facilitate the success of this initiative, and we urge that the Framework recognize and rely upon those processes.**

Sincerely,

Eric A. Olson
Chair, NPFMC

Chris Oliver
Executive Director, NPFMC

Richard B. Robbins, Jr.
Chair, MAFMC

Daniel T. Furlong
Executive Director, MAFMC

John W. Pappalardo
Chair, NEFMC

Paul J. Howard
Executive Director, NEFMC

Charles Duane Harris
Chair, SAFMC

Robert K. Mahood
Executive Director, SAFMAC

Eugenio Piñeiro-Soler
Chair, CFMC

Miguel A. Rolon
Executive Director, CFMC

Robert Shipp
Chair, GMFMC

Steve Bortone
Executive Director, GMFMC

David Ortmann, Chair
Chair, PFMC

Donald McIsaac
Executive Director, PFMC

Stephen Haleck
Chair, WPFMC

Kitty M. Simonds
Executive Director, WPFMC

CC: Mr. Sam Rauch
Ms. Monica Medina

Mid-Atlantic Council

Summary of Action:

Council Progress on Developing

Catch Share Programs

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Richard B. Robins, Jr.
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Daniel T. Furlong
Executive Director

March 28, 2010

Dr. Jane Lubchenco
Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator
Department of Commerce
1401 Constitution Avenue, NW, Room 5810
Washington, DC 20230

RE: Comments on NOAA Draft Catch Share Policy

Dear Dr. Lubchenco,

The Mid-Atlantic Fishery Management Council (Council) again thanks NOAA for including Council participation on the Catch Share Task Force. To a large degree our concerns have been adequately addressed and incorporated through that participation. Council leadership supports the NOAA Draft Catch Share Policy because it is aimed at facilitating understanding of Catch Shares so that fishery management decisions will be made in a best-informed manner. As long as Councils are provided the freedom to evaluate which management strategies are most appropriate for given fisheries, assistance in conducting the requisite outreach, education, and analysis will be welcome.

Following are several specific comments as provided by Council leadership:

1. Catch shares are uniquely powerful and potentially transformative as a management tool, can range from simple to complex, and can be designed to achieve a wide range of management objectives. Catch shares can bring immediate, transformative change to the composition and characteristics of a fishery and the tradeoffs associated with these changes require thorough consideration during the evaluation and design of catch share programs. Consequently, we appreciate NOAA's commitment in the draft policy to provide technical assistance to councils related to the design and evaluation of catch share programs.

2. One recurring theme that emerged from our Council's March 2010 Catch Share Workshop was that stakeholder participation in the development of catch share initiatives is critical to the successful development and implementation of catch share programs. While the NOAA Draft Catch Share Policy promotes education and outreach, this component of the draft policy could be strengthened and linked to the importance of goal definition in the policy. Stakeholders need to be fully engaged in the process, and the traditional council processes (i.e. public hearings, committee

meetings, etc.) may not be the most effective method to engage or inform stakeholders.[1] At the conclusion of our workshop, we suggested that the Council could consider initiating a stakeholder-driven visioning process, using surveying and stakeholder workshops to work collaboratively with the Council's stakeholders to identify problems in our existing fishery management plans and use the stakeholder input to update and revise our management objectives and vision for the future of our fisheries. This type of outreach would go significantly beyond "informing and educating" as contemplated in the policy, and would result in a more collaborative, stakeholder-driven process. We would encourage NOAA to strengthen this aspect of the policy to focus specifically on stakeholder engagement as it relates to goal definition, in addition to education and outreach, in order to facilitate a stronger engagement with the public to determine if catch share systems (or other management approaches) provide positive solutions for the problems facing a given fishery.

3. In the exit surveys from our recent catch shares workshop, it was noted that seafood processors and dealers may oppose catch share programs in our region due to the potential of catch shares to change the balance of power between buyers and sellers in the commercial fisheries. Our workshop included a broad range of case studies of catch share programs from the U.S., Canada, Australia and New Zealand. In many of the cases presented, the processing industry became involved to varying degrees in the catch share programs and evolved their business models to adapt to catch share management. Nevertheless, the uncertainty associated with the impacts of catch share management on the processing industry is a potential challenge for the development of catch share programs and we would suggest that NOAA consider specific outreach efforts on this issue, including regional or national workshops to promote a better understanding of the impacts and changes--and related design considerations--in the processing sectors across the range of existing catch share programs.

4. The extent to which existing catch share programs achieve individual accountability varies greatly, and is closely related to the level of at-sea and dockside monitoring in the fishery. The cost of monitoring associated with the implementation of catch shares is another potential challenge for the development of catch share programs. The draft policy indicates NOAA's commitment to provide resources to "monitor catch shares programs" but this appears to be focused on monitoring the performance of catch share programs rather than specifically providing additional resources for at-sea or dockside monitoring in fisheries subject to catch-shares management. In specific cases where successful catch share programs require individual accountability and attendant levels of at-sea monitoring, we suggest that the draft policy include a commitment to provide additional support for monitoring in fisheries subject to catch share management, in order to reduce this potential cost impediment to catch shares. Adequate monitoring programs (especially discards in all sectors and recreational landings) are essential to the success of any management regime and are central to ensuring biologically successful outcomes in fisheries management.

5. Recreational fisheries are highly significant in the Mid-Atlantic, and there is interest and concern in the recreational sector regarding the applicability of catch shares to recreational fisheries. Our workshop included examples of draft proposals under development by charter/party boat industry leaders interested in allowing the purchasing or leasing of quota between commercial and recreational sectors in order to optimize outcomes. We suggest that the draft policy include a commitment from NOAA to work with stakeholders, the Councils, and their management partners to explore how catch shares could be used to optimize access and flexibility for both the recreational and commercial sectors.

6. On a technical note we ask for clarification on the interpretation of the specifics of cost recovery for Catch Share Programs. The draft policy states; "*It is NOAA policy to compute and recover only the incremental operating costs associated with LAPs from participants.*" We concur with this interpretation but note that statements from the NERO offer a different interpretation.

Thanks again for including strong Council representation on NOAA's Catch Shares Task Force, and thanks in advance for your consideration of our comments on the draft policy.

Sincerely,

Richard B. Robins, Jr., Chairman

Lee G. Anderson, Vice Chairman

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[1] Reference GAO's 2006 report, *"Fisheries Management: Core Principles and a Strategic Approach Would Enhance Stakeholder Participation in Developing Quota-Based Programs."*

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

CATCH SHARE WORKSHOP

MARCH 16-18, 2010

BRIEFING MATERIAL

KINGSMILL Conference Center
1010 Kingsmill Road
Williamsburg, VA 23185
800.832.5665

MAFMC Catch Share Workshop - Briefing Book Outline

March 16-18, 2010 - Williamsburg, VA

1) **Tab 1**: Logistics & General Info
   a) Agenda
   b) Directions (http://www.kingsmill.com/discover/maps-and-directions/)
   c) List of Participants
   d) List of Presenters/BIOs
   e) Workshop Scoping Survey Results
   f) Terms of Reference
2) **Tab 2**: Profile of Mid-Atlantic Species & Management
   a) 2010 View of Mid-Atlantic Council Fisheries (D. Furlong's Presentation)
   b) Stocks and Catches - MAFMC species over time.
3) **Tab 3**: Background Materials - There are hundreds of journal articles, reports, and other relevant documents related to "Catch Shares." The following items were selected by Council Staff with the intent to give an overview of some of the major issues related to Catch Shares. Many have reference lists that can be consulted for additional information. The full GAO documents mentioned below may be linked to via the "Selected Catch Shares Bibliography" at: http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm. This NMFS bibliography lists many relevant resources, some of which are available via links.
   ******In just Tab 3, for ease of reference there is a running tally page number in the bottom right that corresponds to the page numbers in () referenced below…**
   a) (p1) Excerpts from the Magnuson-Stevens Act, including national standards and limited access privilege provisions (entire Act: http://www.nmfs.noaa.gov/msa2007/details.html)
   b) (p17) Intro to NMFS "Design and Use of LAPPs" document (entire document: http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm)
   c) (p42) Draft NOAA Catch Share Policy Executive Summary (full document: http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm)
   d) (p45) NMFS Catch Shares Spotlight Series on each of the US catch share programs
   e) (p73) "An overview of fishing rights." Huppert 2006.

f) (p88) Exec. Summary of OECD document "Using Market Mechanisms to Manage Fisheries: Smoothing the Path." Full document available at Google Books

g) (p94) "Can Catch Shares Prevent Fisheries Collapse?" Costello et al 2008.

h) (p98) Abstract from: "Thirty years later: the global growth of ITQs and their influence on stock status in marine fisheries." Chu 2009

i) (p99) "Ecological indicators display reduced variation in North American catch share fisheries." Essington 2010

j) (p105) Excerpt from "ITQs and Community: An Essay on Environmental Governance." McCay 2004. Full article available at: http://ageconsearch.umn.edu/bitstream/31265/1/33020162.pdf

k) (p109) Intro to "Evaluation of Fish Tags as an Attenuated Rights-Based Management Approach for Gulf of Mexico Recreational Fisheries" (UConn Sea Grant - entire document : http://web2.uconn.edu/seagrant/publications/fisheries/fish_tags_GOM.pdf)

l) (p119) Govt. Accountability Office (GAO) 1 pagers "What we Found" from:

   i) *"Individual Fishing Quotas: Better Information Could Improve Program Management."* 2002.

   ii) *"Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation."* 2004.

   iii) *"Individual Fishing Quotas: Economic Effects on Processors and Methods Available to Protect Communities."* 2004

   iv) *"Fisheries Management: Core Principles and a Strategic Approach Would Enhance Stakeholder Participation in Developing Quota-Based Programs." 2006.*

   v) *"Individual Fishing Quotas: Management Costs Varied and Were Not Recovered as Required."* 2005.

m) (p124) Excerpts from: "Catch-Quota Balancing in Multispecies Individual Fishing Quotas." Resources for the Future 2005 Discussion Paper (full document: http://www.fakr.noaa.gov/NPFMC/sci_papers/IFQ.pdf).

n) (p140) Excerpts from "Impacts of harvesting rights in Canadian Pacific Fisheries." DFO Canada 2009 (full document at: http://www.dfo-mpo.gc.ca/ea-ae/cat1/no1-3/no1-3-eng.htm).

o) (p159) Excerpts from MRAG/Meridian Institute Report - New England Lessons Learned. Full document at: http://www.mragamericas.com/publications.php?d=sr

4) **Tab 4**: Presentations and background material from Panelists. The following items were submitted by panelists for additional background for their particular presentations.

   a) Rick Bellevance:

      i) "Voluntary Fluke Sector for Rhode Island Charter and Party Boats: Catch Shares Overview"

   b) Jessica Gharrett:

      i) IFQ Overview Presentation.

      ii) "Lessons Learned" powerpoint from NE Catch Shares Workshop

      iii) Websites and contact information for Alaska Fisheries

   c) John Henderschedt:

      i) Mothership Salmon Savings Incentives Program Rules – Draft

      ii) Chinook Salmon Bycatch Management Measures (North Pacific Fishery Management Council Press Release 2009)

   d) Wes Erikson:

      i) Commercial Industry Caucus Pilot Integration Proposal (Intro Sections)

   e) Corbett Grainger

      i) Excerpt from "Fishing Quota Markets." Resources for the Future 2002 Discussion Paper (full document: http://www.rff.org/rff/documents/rff-event-fishing-quota.pdf).

   f) Bob Gill:

      i) Excerpt from 2008 Red Snapper IFQ Annual Report (full document: http://sero.nmfs.noaa.gov/sf/pdfs/2008RedSnapperIFQAnnualReport1.pdf)

   g) Jane DiCosimo

      i) List of Online Resources

   h) Ed Backus

      i) Presentation

      ii) "A cautionary tale about ITQ fisheries." 2009 Ecotrust Newsletter

FISHERIES
Leadership & Sustainability
FORUM

CATCH SHARE WORKSHOP

MARCH 16-18, 2010

SUMMARY REPORT

Hosted by the

Mid-Atlantic Fishery Management Council

and the

Fisheries Leadership and Sustainability Forum

in cooperation with the

Atlantic States Marine Fisheries Commission

and the

National Marine Fisheries Service

Preface

On March 16-18, 2010 in Williamsburg, VA, the Mid-Atlantic Fishery Management Council (MAFMC) and the Fisheries Leadership and Sustainability Forum (FLSF) hosted an educational workshop on catch share programs in cooperation with the Atlantic States Marine Fisheries Commission (ASMFC) and the National Marine Fisheries Service (NMFS). Participants included MAFMC members, MAFMC staff, MAFMC Advisory Panel representatives, ASMFC representatives, MAFMC Scientific and Statistical Committee (SSC) representatives, as well as leadership from the New England Fishery Management Council, the South Atlantic Fishery Management Council, and NMFS. As with all MAFMC meetings, the workshop was open to the public, and there were several sessions reserved for public comment. The agenda, panelist biographies, and presentations from the workshop are provided as an appendix to this summary report. Additional materials related to the workshop, including briefing materials and video recordings of presentations, are available on the Council's website, http://mafmc.org/, or on the FLSF's website, http://www.fisheriesforum.org/.

Table of Contents

Concluding Remarks: Where Do We Go From Here

Panelists

The workshop concluded with remarks from Rick Robins and Lee Anderson and was followed by a discussion and the identification of the next steps by participants. Robins summarized the proceedings by reminding participants that catch share programs are uniquely powerful and can achieve a broad range of objectives. They can be designed to range from simple to complex, yet they are not one size fits all. Robins noted that catch share programs have transformative potential. Managers should anticipate the need for adaptive management mechanisms in the early design stage when developing catch share initiatives. Adaptive management measures can be front-loaded into the design of catch share programs. Effective data collection and monitoring can create significant opportunities to modify fishing behavior and achieve management objectives through individual accountability. Effective stakeholder engagement is critical to the successful development of catch share programs.

Robins suggested for purposes of discussion that the MAFMC could consider a range of conceptual approaches to catch shares, ranging from status quo to evaluation to visioning. The MAFMC could continue with status quo, a pragmatic approach that considers the adoption of catch share programs on a case-by-case basis. Alternatively, Robins suggested that the MAFMC could evaluate whether existing fishery management plans (FMPs) are meeting their objectives. Finally, Robins suggested considering a visioning approach to survey stakeholders and to determine what they want a fishery to look like, what is working well, and what needs to be improved. This stakeholder process can help identify the objectives of a fishery and be used to update an FMP. The visioning approach outlined in the final plenary session would be built on stakeholder outreach, using surveys, stakeholder workshops, and other outreach methods to develop a council-initiated, stakeholder-driven vision for the Council's managed species. The evaluation strategy and visioning process are not mutually exclusive, and could be conducted synchronously. The visioning process would help the MAFMC to identify problems and opportunities within its existing FMPs, at which point catch share programs would be one management tool available to the MAFMC if it initiates management actions to address the problems and opportunities identified by the constituents. He recommended the take-away message of the workshop be that stakeholder involvement is a key determinant in the success of a catch share program, and that the MAFMC could build upon its outreach methods as cited in a GAO report on the council process.

Lee Anderson spoke next and suggested that instead of asking "how does a catch share program handle x," managers should ask "how do we want a catch share program to handle x." Anderson recommended that the MAFMC members question what the best plan is for meeting a fishery's objectives. A catch share program may alone not address all issues in a fishery but may need to be partnered with other management strategies. During the workshop, Anderson noted that participants have learned a lot from the case studies in other regions, including Alaska, New Zealand, the Gulf of Mexico, and Australia; however, he noted, the MAFMC needs to identify the best program for its regions. Specifically, inter-jurisdictional issues may be a more important consideration for the Mid-Atlantic than for other regions.

Discussion

Participants felt that the workshop provided a good sense of options and ingredients that would go into a catch share program. The next step is identifying if, how, and where this type of program could be applied in the Mid-Atlantic. Participants agreed that the visioning strategy is an appropriate starting point that could help managers understand what fisheries could look like, according to those actually in fisheries.

Rick Robins addressed a question of how to deal with latent effort in a catch share program by explaining that there are several ways to deal with latent effort, including inactivating permits. However, in a catch share program, the market can make those decisions. Councils will need to decide how to address this question of latent effort and excess capacity. Lee Anderson said that latent effort could be addressed when determining eligibility for participants in a catch share program. Another participant responded that latent permits could provide a buffer against uncertainty. Regardless of whether or not fisheries are managed by catch share programs, the question will continue to arise as to how many participants a fishery can sustain.

While catch share programs developed in other regions in response to resource, economic, social, and/or safety problems, one participant felt these are not problems in the Mid-Atlantic. He suggested that industry and the public rather than the MAFMC should decide if catch share programs are desirable in this region. Robins agreed that stocks in the Mid-Atlantic, contrary to other regions, are in good shape now. However, he noted that Virginia's summer flounder fishery is a derby fishery, the fish are sold cheap, and substantial excess capacity exists. Robins explained that current impediments to optimal fishery performance and utilization provide rationale for the MSFMC to ask participants what is working or not working.

Jessie Gharrett suggested speaking with stakeholders but not inquiring solely about catch share programs. Instead, she recommended asking stakeholders to identify problems in their fisheries. Not all stakeholders will be ready to make the big leap to catch share programs but instead will require small steps to get there. Catch share programs offer just one approach, and with time, people will determine if this type of program will allow them to meet their goals. Gharrett suggested as an agency that the MAFMC offer healthy choices but only options that the agency can support, implement, and enforce. Management measures cannot solve all social problems in coastal economies but can help foster and support stakeholder involvement in the issues and in some cases, mitigate economic effects from past management and fishing practices.

Next Steps

In moving forward after this workshop, several recommendations were made for possible next steps for the MAFMC, in addition to those discussed in the "Where do we go from here" and inter-jurisdictional plenary sessions, including to:

1. Create a sub-committee to look at FMPs and to determine which stocks appear suitable for catch share programs. Fisheries that are too complex or that currently face too many inter-jurisdictional challenges for catch share programs to be developed at this time should also be identified.
2. Engage in a visioning process that surveys fishery participants about the problems they see in their fisheries and possible solutions. Participants generally believed that catch share programs were one of several tools that should be evaluated when making decisions about how to effectively manage fisheries. Participants concluded that early stakeholder

involvement is necessary and that it could be useful to establish goals for reaching out to stakeholders within the next few Council meetings.

3. Address latent effort and inactive permits before designing any catch share programs.

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CATCH SHARES

What is a "catch share"?

According to NMFS Office of Sustainable Fisheries..."Catch Share" is a generic term used to describe fishery management programs that allocate a specific percentage of the total allowable fishery catch or a specific fishing area to individuals, cooperatives, communities, or other entities. It includes more specific programs defined in statute such as Limited Access Privileges (LAP) and Individual Fishing Quotas (IFQ). It also includes Territorial Use Rights Fisheries (TURFs) that grant an exclusive privilege to fish in a geographically designated fishing ground. The recipient of a catch share is directly accountable to stop fishing when its specific share allocation is reached.

Catch Shares Workshop held March 2010	Pending Council actions regarding catch shares
Workshop Summary **Meeting Materials** • Briefing Book Outline (Guide to Tabs 1 - 4, below) • Tab 1 (Agenda, Meeting Logistics, General Info) • Tab 2 (Overview of Mid-Atlantic Fisheries) • Tab 3 (Background Information from MAFMC staff) • Tab 4 (Background Information from Presenters)	• Amendment 14 to the Atlantic Mackerel, Squid, Butterfish FMP
Useful Links: Draft NOAA Catch Share Policy NMFS Catch Shares web page	

Last Updated: April 26, 2010

Mid-Atlantic Council

Summary of Action:

Annual Catch Limits and

Accountability Measures

PUBLIC HEARING DOCUMENT

OMNIBUS AMENDMENT

AMENDMENT 13 TO THE ATLANTIC MACKEREL, SQUIDS, AND BUTTERFISH MANAGEMENT PLAN

AMENDMENT 3 TO THE BLUEFISH MANAGEMENT PLAN

AMENDMENT 2 TO THE DOGFISH MANAGEMENT PLAN

AMENDMENT 15 TO THE SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN

AMENDMENT 16 TO THE SURFCLAM/OCEAN QUAHOG MANAGEMENT PLAN

AMENDMENT 3 TO THE TILEFISH MANAGEMENT PLAN

(PUBLIC HEARING DOCUMENT)

April 2010

Mid-Atlantic Fishery Management Council
in cooperation with
the National Marine Fisheries Service

Draft adopted by MAFMC: DD MONTH YYYY
Final adopted by MAFMC:
Final approved by NOAA:

A Publication of the Mid-Atlantic Fishery Management Council pursuant to National Oceanic and Atmospheric Administration Award No. NA57FC0002

PUBLIC HEARING DOCUMENT

This document will be available at all of the public hearings and is currently available via the Internet at: http://www.mafmc.org/comments/comments.htm

This document can also be obtained on request from the Council office at the address and telephone number below.

Schedule of Public Hearings

Atlantic States Marine Fisheries Commission Spring Meeting *May 3, 2010, 7:00 PM* Crowne Plaza Old Town Alexandria 901 N. Fairfax Street Alexandria, Virginia 22314 Contact: Peter Himchak (609) 748-2020	New York Department of Environmental Conservation *May 12, 2010, 7:00 PM* NYSDEC Marine Resources 205 N. Belle Mead Rd, Ste 1 East Setauket, NY 11733 Contact: Jim Gilmore (631) 444-0430
Virginia Marine Resources Commission *May 10, 2010, 7:00 PM* Marine Resources Commission 2600 Washington Avenue Newport News, Virginia 23607 Contact: Jack Travelstead (757) 247-2200	Richard Stockton College of New Jersey *May 18, 2010, 7:00 PM* Lakeside Center Lodge (Off Laurel Lane and Oak Pond Drive; follow campus signs to Lakeside Center) Pomona, NJ 08240 Contact: Peter Himchak (609) 748-2020

In addition to providing information and comments at the above public hearings, you may submit written comments on or before 5:00 p.m., EST, on May 21, 2010 to:

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

Telephone: (302) 674-2331
Fax: (302) 674-5399

Comments may also be sent via fax at the above fax number or by e-mail to info1@mafmc.org. Please note on your correspondence and in the subject line of e-mail comments the following identifier: "Omnibus ACL/AM Amendment Comments."

TABLE OF CONTENTS

ES – EXECUTIVE SUMMARY

ES-1.0 Introduction, Purpose, and Need for Action

The Omnibus Amendment document and draft environmental assessment (EA) will present and evaluate management alternatives that specify mechanisms to set acceptable biological catch (ABC), annual catch limits (ACLs), and accountability measures (AMs) for Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, tilefish, Atlantic surfclam, and ocean quahog, contained within six Mid-Atlantic Fishery Management Council (Council) Fishery Management Plans (FMP) (section 4.0). Specifically, this Omnibus document would amend the Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Tilefish FMP, and Surfclam and Ocean Quahog FMP.

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA) was signed into law by President George W. Bush on January 12, 2007, following its 2006 passage by the U.S. Congress. This reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, M-S Act) includes new requirements for ACLs and AMs and other provisions regarding preventing and ending overfishing (16 U.S.C. §1853(a)(15)). As a result, NOAA's National Marine Fisheries Service (NMFS) revised guidance for implementing National Standard 1 (74 FR 3178; January 16, 2009; NS1) which became effective February 17, 2009. To address the MSA[1] requirements and the revised National Standard 1 guidance, the Council has prepared this document in consultation with NMFS. This Omnibus Amendment is being developed in accordance with the MSA, and the National Environmental Policy Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ).

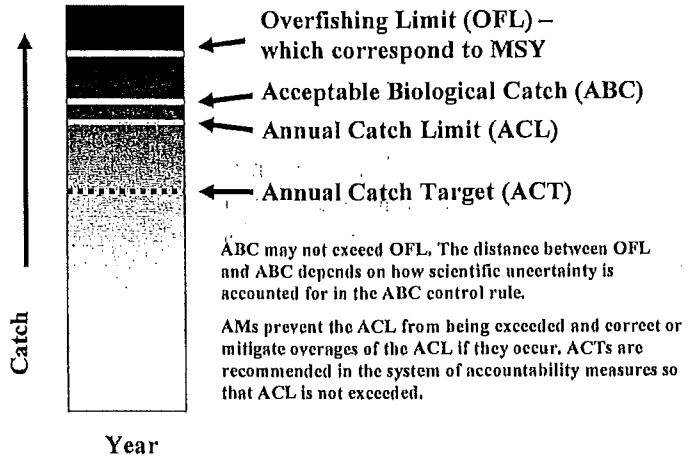
Although this Omnibus Amendment is being prepared primarily in response to the new requirements under MSA and requirements of NEPA, it will also address the requirements of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). When preparing an FMP or FMP amendment, the Council also must comply with the applicable requirements of the Regulatory Flexibility Act (RFA), the Administrative Procedure Act (APA), the Paperwork Reduction Act (PRA), the Coastal Zone Management Act (CZMA), the Information Quality Act (IQA), and Executive Orders. These other applicable laws and executive orders help ensure that in developing an amendment, the Council considers the full range of alternatives and their expected impacts on the marine environment, living marine resources, and the affected human communities. This integrated document will contain all required elements of the FMP amendment as required by NEPA and information to ensure consistency with other applicable laws and executive orders.

[1] Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, M-S Act), portions retained plus revisions made by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA).

The proposed actions in this amendment would: 1) describe the process by which ABC will be specified to account for scientific uncertainty, incorporating both assessment levels and a Council adopted risk policy, 2) establish a framework of ACLs (and/or Annual Catch Targets (ACTs)) to address for management uncertainty, 3) establish AMs for each of the catch frameworks, 4) establish a review process for the performance of ACLs and AMs, and 5) identify how modification of processes established by the amendment would occur (i.e. future amendments, frameworks, or specifications).

NMFS produced guidelines (National Standard 1 Guidelines; NS1) which provide detail on how to comply with the new requirements for annual catch limits (ACLs) and accountability measures (AMs) under the MSA. The terms introduced through that guidance (OFL, ABC, ACL, ACT) relate as given in the following figure.

Definition Framework: OFL ≥ ABC ≥ ACL



NS1 Guidelines state, "The Council should generally set the ACL lower than the ABC to take into account other factors related to preventing overfishing or achieving optimum yield (OY), or it may set the ACL equal to the ABC and take these additional factors into account when setting an ACT below the ACL."

ES-2.0 Acceptable Biological Catch (ABC)

In an effort to be compliant with the NS1 Guidelines, the Council has worked with their Scientific and Statistical Committee (SSC) to prescribe ABC through a set of four levels. The underlying principle is that a fixed classification system (levels) is developed based on specific criteria. In this case the levels are based on the information available to assess the stock. In general, higher levels will contain assessments with greater detail and lower scientific uncertainty while lower levels have less robust assessments with higher uncertainties. When a new stock assessment completes peer-review for any of the target stocks, the SSC would be responsible for determining the level for the assessment. Then a pre-defined set of control rules are used to calculate ABC. Box 1 provides a brief

summary of all of the alternatives discussed in this document that address the issue of ABC.

In the NS1 Guidelines response to comment 42, it states "The SSC must recommend an ABC to the Council after the Council advises the SSC what would be the acceptable probability that a catch equal to the ABC would result in overfishing. This risk policy is part of the required ABC control rule." As such, the Council is considering risk policy options which define the Council's tolerance for overfishing for each of the managed stocks. The Council may consider the consequences of exceeding the OFL and overfishing a stock (biological factors), as well as other factors including social, economic, and ecological, consistent with National Standard 1, when developing a Council risk policy. The Council is considering this risk policy residing in either 1) the FMP, or 2) the Council Standard Operating Procedures (SOPPs).

Box 1. Brief description of the alternatives included in this amendment that address the issue of ABC. "Status" refers to whether an alternative is proposed or has been considered but rejected from further analysis in this EA. Detailed descriptions of each alternative are provided in section 1.0.

Issue	Sub-Issue	Alternative	Status of Alternative	Description of Action (more detail starts on page 13)
Acceptable Biological Catch (ABC)	*ABC Control Rule Framework*	1A	Proposed (No action)	No established ABC control rule framework in FMP
		1B	Proposed	Council establishes ABC control rule framework in FMP
	Council Risk Policy	2A	Proposed (No action)	No established Council risk policy; SSC will determine acceptable probability of overfishing when ABC is specified
		2B	Proposed	Constant probability of overfishing = 25 Percent, under all circumstances
		2C	Proposed	Stock Status, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.0$
		2D	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.5$
		2E	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$
		2F	Proposed	Categorical (4 x 4) with stock history, life history, and assessment level, with range from 10 - 50 percent

ES-3.0 Annual Catch Limits (ACLs) and Accountability Measures (AMs)

Annual catch limit frameworks have been developed which allow for management uncertainty (i.e. implementation uncertainty), if present, to be addressed. Management

uncertainty can occur because of a lack of sufficient information about the catch (e.g. due to late reporting, underreporting, and/or misreporting of landings or bycatch), or because of a lack of management precision (i.e., the ability to constrain catch to desired levels) in many fisheries (e.g. due to limited, unavailable, or untimely landings and/or data, or lack of inseason closure authority). Any time an ACL is determined to have been exceeded, AM measures are required to automatically be enacted. Accountability measures are required for each ACL established by the Council and may be established at the fishery, sector, or sub-sector levels. There are two types of accountability measures under consideration: proactive and reactive. Proactive AMs are intended to prevent, as much as is practicable, the ACL from being exceeded. Examples of proactive AMs include adjustment of possession limits, closure of directed fisheries, or modification of measures to slow landing rates. Reactive AMs are in response to an ACL overage and are designed to mitigate that overage and/or prevent it from occurring in the subsequent year. Examples of reactive AMs include modification of subsequent year trip or possession limits, reduction in landing levels in the subsequent year, adjustments to transfer amounts (e.g., bluefish) or other automatic reactive adjustments. Box 2 provides a brief summary of all of the alternatives discussed in this document that address the issue of ACLs and AMs.

Box 2. Brief description of the alternatives included in this amendment that address the issue of ACLs and AMs. "Status" refers to whether an alternative is proposed or has been considered but rejected from further analysis in this EA. Detailed descriptions of each alternative are provided in section 1.0.

Issue	Sub-Issue	Alternative	Status of Alternative	Description of Action (more starts detail on page 19)
Annual Catch Limits and Accountability Measures	*All Stocks*	3A	Proposed (No action)	No established ACL/AM framework in FMPs
	Species Alternatives	Atlantic Mackerel	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Butterfish	Proposed	Council establishes ACL=ABC; and utilize ACT w/ AMs
		Atlantic Bluefish	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Spiny Dogfish	Proposed	Council establishes ACL=ABC; and utilize ACT w/ AMs
		Summer Flounder	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Scup	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Black Sea Bass	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Atlantic Surfclam	Proposed	Council establishes ACL=ABC; and utilize TAL w/ AMs
		Ocean Quahog	Proposed	Council establishes ACL=ABC; and utilize dual ACTs w/ AMs
		Tilefish	Proposed	Council establishes ACL=ABC; and utilize ACT w/ AMs

ES-4.0 Review and Modification of ABC, ACLs, and AMs

Box 3 provides a brief summary of all of the alternatives discussed in this document that address the issue of review and modification of ACLs and AMs.

Box 3. Brief description of the alternatives included in this amendment that address the issue of review and modification of ACLs and AMs. "Status" refers to whether an alternative is proposed or has been considered but rejected from further analysis in this EA. Detailed descriptions of each alternative are provided in section 1.0.

Issue	Sub-Issue	Alternative	Status of Alternative	Description of Action (more detail starts on page 69)
Review and Modification of ABCs, ACLs, and AMs	*Periodic Review Process*	4A	Proposed (No action)	No established Periodic Review Process in FMPs
		4B	Proposed	Council establishes a process by which ABC control rule, ACLs, and AMs are reviewed and modified
	Modification of Action	5	Proposed	Description of process to modify measures

This document was presented to the Council at its April 2010 meeting, at which time the Council voted to take this to the public without selecting preferred alternatives. Following the Council's recommendations, a comment period will begin during which several meetings will be held to allow for open review of the proposed alternatives by fishery participants and concerned members of the public. Once the public comment period ends, comments will be compiled and presented to the Council. Council response to public comments will determine the final selection of preferred management actions. It is anticipated that the selection of preferred alternatives and the vote on final preferred measures in the Omnibus Amendment document will occur at the August 2010 Council Meeting. The Council will then submit the Omnibus Amendment to NMFS for review, evaluation, and implementation by the Secretary of Commerce via rulemaking under the authority of the MSA § 303.

ES-5.0 Impact Analysis

Analysis of all management alternatives and independent management measures under consideration is provided in this document in relation to a series of valued ecosystem components, or VECs. VECs represent the resources that may be affected by a proposed action, including non-preferred alternatives, and by other actions that have occurred or will occur outside the proposed action. An analysis of impacts is performed on each VEC to assess the direct/indirect effects of an alternative and whether these effects add to or subtract from effects of the past, present and future actions on that VEC from outside the proposed action (i.e. cumulative effects). The VECs identified for this Omnibus ACL/AM Amendment include: the managed resources, non-target species, habitat (including EFH), protected resources, and human communities.

This amendment is wholly procedural in nature—focused on the methodology and mechanisms by which ABCs, ACLs, and AMs will be developed for each of the managed resources subject to the MSA requirements.

Overall and due to the nature of the measures to be implemented through this amendment, there very few functional differences (as far as environmental effects generally considered in an EA are concerned) between the status quo alternatives and the other alternatives under consideration. The expected direct effects are generally well-defined for most fishery management actions, but indirect effects are often less so. While NEPA requires consideration of "reasonably foreseeable effects," it does not require consideration of remote and speculative impacts; these effects remain outside the scope of a NEPA analysis (Bass et al. 2001). During the development of this amendment, there have been occasions when discussions shifted from the process to account for scientific and management uncertainty when establishing catch levels for the managed resources to what the actual catches established through this process might be (i.e. same as current catch levels, higher, lower, for each species). These types of effects are considered too remote and speculative to be appropriate for consideration in this amendment. While this amendment is focused on establishing a clear and transparent process to account for scientific and management uncertainty when establishing catch levels designed to prevent overfishing of stocks, there is nothing to indicate whether the catch levels established under this process would not be similar to the status quo. Secondly, there is no way to predict the effect on the managed resources, non-target species, habitat (including EFH), protected resources, and human communities for the newly described process to account for scientific and management uncertainty when establishing catch levels would have on the managed resources, non-target species, habitat (including EFH), protected resources, and human communities. Lastly, the actual catch levels that would be establish through the processes described in this Amendment cannot be predicted. Biological impacts are driven not only by the potential catch level, which cannot be predicted, but also the biological state (demographics) of the target and non-target species which also cannot be predicted. Therefore, because the proposed management actions covered in this Amendment are too remote and speculative to be adequately or meaningfully addressed, this NEPA analysis focuses solely on the potential direct, indirect, and cumulative effects expected to be immediately associated with the proposed action and primary alternatives. Any future management actions that may result from implementation of these processes would be subject to all the requirements of NEPA at the appropriate time.

A more detailed analysis of impacts will be prepared to assess the direct, indirect, and cumulative effects immediately expected from the alternatives given below on each of the VECs; that analysis will be a part of the final amendment document.

Omnibus ACL/AM Public Hearings

May 2010

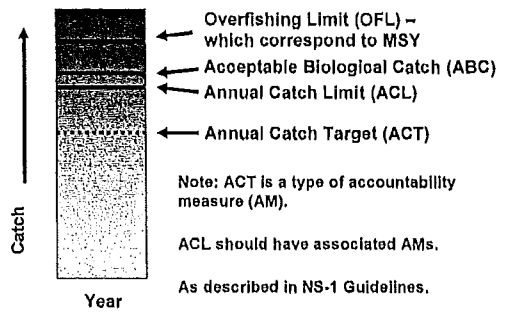
Timeline

- 4 hearings held in May
  - May 3, ASMFC meeting, 7pm
  - May 10, VMRC, 7pm
  - May 12, NYSDEC, 7pm
  - May 18, Stockton College, NJ

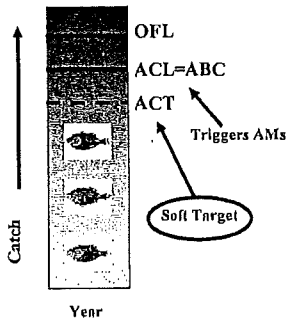
- Comments to be summarized and brought back to Council in June
- Amendment will be prepared for Council to review and approve it for Secretarial submission at August Council meeting

New Terms and Requirements

Definition Framework: OFL ≥ ABC ≥ ACL



ACLs: Council's Preferred Approach



ABC Framework

- SSC lead on development
- Four levels (tiered-based approach) – process to describe how ABC will be specified
- Specific criteria for each level
- SSC determines to which level a stock belongs (Levels 1-4), to be provided with ABC recommendation

Setting ABC

- In lowest tiers, other methods would need to be applied
  - may include ABC control rules based on survey indices, catch, etc.
  - Council risk policy = probability of overfishing
- These are not two separate adjustments, but two necessary considerations to determine ABC

Summary of Levels

Level	OFL Distribution	Mid Stocks Assessments in Each
1	Produced by stock assessment model, and used as is; all relevant sources of uncertainty characterized	None; TBD by SSC
2	Comes from stock assessment model, but with some adjustments made by assessment workgroup; some relevant sources of uncertainty missing	A few Mid-Atlantic Stocks may be in level 2 or 3; TBD by SSC
3	Produced by SSC based on best information available; substantial gaps in information about stock	
4	Not available; substantial gaps in information about stock	Poorly assessed stocks, rejected assessment stock, etc. will fall here; TBD by SSC

Risk Policy

- Risk policy is part of the ABC development process
- Risk options express Council tolerance for overfishing
- Overfishing Limit (OFL) distribution and probability of overfishing combine directly to determine the ABC (for upper 3 assessment levels); may be applied differently for Level 4
- Council chose to approach with formal, overarching policy for all stocks

Risk Policy

- 50% probability of overfishing = OFL (i.e. center of distribution)
- At 50%, half the time you would be below OFL; half the time above the overfishing limit
- An ABC with a 25% percent probability of overfishing means that catch level is 75% successful at preventing overfishing

Elements in options

Clearly an interplay between ABC framework and risk policy.

- Constant probability – no elements
- Stock Status
- Assessment Level
- Stock History
- Life History

Expressed as continuous or categorical options

General Provisions

- For stocks under rebuilding plans, the upper limit on the probability of exceeding the rebuilding F would be 50 percent unless modified to a lesser value through a rebuilding plan amendment.

General Provisions

- If no overfishing definition is available for a stock (i.e. No F_{MSY} or F_{MSY} proxy; can't determine if overfishing is or is not occurring) then an upper limit (cap) on allowable increases in catch levels will be established. Catch levels may not be increased until an appropriate F_{MSY} or F_{MSY} proxy has been identified.
- Backstop against no overfishing definition from SARC and no OFL proxy provided by SSC

Mid-Atlantic Council

Summary of Action:

Marine Protected Areas (MPA)

At the Mid-Atlantic Council's December 2009 meeting it voted unanimously to recommend that the Tilefish Gear Restricted Areas (GRAs) in Oceanographer, Lydonia, Veatch, and Norfolk canyons be added to the national system of Marine Protected Areas (MPAs). Two Scup GRAs, i.e., Scup Northern GRA and Scup Southern GRA, were considered but rejected.

The Northeast Regional Administrator is reviewing the Council's recommendation and will prepare the list of sites for submission to the MPA Center for further review and publication.

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Richard B. Robins, Jr.
Chairman

Lee G. Anderson
Vice Chairman

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Daniel T. Furlong
Executive Director

December 23, 2009

Ms. Pat Kurkul, Regional Administrator
NMFS NERO
55 Great Republic Drive,
Gloucester, MA 01930

Dear Pat,

The Mid-Atlantic Fishery Management Council (Council) is pleased to recommend to you that the Tilefish Gear Restricted Areas (GRAs) in Oceanographer, Lydonia, Veatch, and Norfolk Canyons be added to the National System of Marine Protected Areas. At the Council's December 2009 meeting it voted unanimously to recommend the inclusion of these four tilefish GRAs.

The Council also voted to not recommend (8 for and 9 against) the Scup Northern and Southern GRAs at this time. The Council understood the rationale provided in your June 4, 2009 letter to Chairman Robins inviting us to work with NMFS on nominating these two sites, but as you may recall from the public comments received on December 10 at the Council meeting there was significant opposition from commercial and recreational fishermen for their inclusion as part of the National System of Marine Protected Areas. This opposition and eventual Council vote opposing inclusion as MPAs hinged on three issues. First, the scup GRAs were initially designed to reduce bycatch in the scup fishery not protect scup habitat per se. Hence, they are not viewed as areas associated with fixed bottom habitat that need protection. Second, there is concern that these areas have been successful in their management of scup bycatch and escalation to MPA status would not have any additional benefit to achieve this objective. Finally, there was a lack of confidence that once these areas were designated as MPAs the authority for fisheries management would remain under the control of the Council, i.e., there was fear expressed that some other federal entity might arise and usurp fishery management authority from the Council.

Thank you for the opportunity to provide these recommendations. Should you have any questions, please contact Tom Hoff of Council staff.

Sincerely,

Richard B. Robins, Jr.
Chairman

cc: Gene Kray, Pat Augustine

Mid-Atlantic Council

Summary of Action:

Council / NMFS Relations and

Regulatory Review Process

In August of 2005, NMFS provided "Draft Operational Guidelines for Development and Implementation of Fishery Management Actions" (Guidelines). To the best of our knowledge, these Guidelines were never finalized. Following their release, we developed a draft Regional Operating Agreement (ROA) with our servicing Regional Office. This too was never adopted as a final agreement. Nonetheless, we have adopted many features of the Guidelines and have been using what we consider to be the best practices envisioned in the Guidelines and the unratified ROA. These practices include:

- Using NEPA process as overarching process for MSA actions

- MSA process begins with early identification of problem / issue to be addressed

- A preliminary action plan is developed to assign functional responsibilities, i.e., who does what with whom and for what purpose - when?

- Documents are "frontloaded" in collaboration with NMFS through use of Fishery Management Action Teams (FMAT) established for each plan / amendment action, i.e., this process does **not** apply to annual specification setting process (addressed in Council SOPPs)

- Alternatives to resolve problem / issue are developed and vetted, and - if warranted - preferred alternatives are selected

- Depending on NEPA categorization of action (EIS, EA, CE), appropriate notice filed to initiate public phase of process

- Public hearings / comments sought and integrate as appropriate into management action

- Council approves and adopts FMP / Amendment for Secretarial submission (staff completes documentation package and submits to NMFS for its action)

The above outline highlights the steps the Mid-Atlantic Council generally uses to address its management actions that are subsequently adopted by NMFS through the federal rule making process.

Mid-Atlantic Council

Summary of Action:

Education and Outreach

MAFMC Outreach Activities

Press Releases:

- The Mid-Atlantic Fishery Management Council annually distributes approximately 30 Press Releases to over 1250 people per mailing. Approximately 350 people also receive Press Releases via email. Press Releases generally notify the Council, staff, National Marine Fisheries Service, and public about upcoming Council meetings, hearings, workshops, summaries of Council meetings, and any other newsworthy information.

Booklets:

- Navigating the Council Process booklet was created to provide information to the public regarding how the Council operates and how the public can become more involved in the Council process.

Brochures:

- An annual Regulations Brochure is created to provide information on the Mid-Atlantic Council's managed species for the relevant fishing year. It highlights by species fishing seasons, initial quotas, harvest limits, bag limits, size limits, gear restrictions, and research set-aside (RSA) amounts, etc.
- A Catch-and-Release Brochure was created to provide information to anglers to help them do all they can to ensure the survival of the fish they release. The brochures along with circle hooks were sent to state agencies for their distribution to sport fishing associations in their states.
- A Challenges and Opportunities Brochure was created by all eight Regional Councils to identify current challenges in fisheries management and to address opportunities that could potentially benefit fisheries management. This is posted on the Regional Councils' website at www.fisherycouncils.org.

Journals:

- Current - The Journal of Marine Education. A special issue (Volume 25, Number 3 of 2009) was produced by all eight Regional Councils to feature U.S. Regional Fishery Management Councils in terms of the Councils initiatives and activities to provide sound stewardship of our nation's fishery resources. It summarizes some of the major fishery issues facing our nation and the tools Councils are using to address them. This is posted on the Regional Councils' website at www.fisherycouncils.org.

MAFMC Council Website:

- Information pertaining to the Council such as Council membership, committee membership, industry advisory panel membership, staff membership, press releases, fishery management plans, Council meeting schedule, public hearing and scoping meeting schedules, committee meetings, publications, Council meeting briefing materials and Council meeting minutes can be found on the Council website address at www.mafmc.org. It is updated regularly as information becomes available.

Briefing Books and CDs for Council Meetings:

- Council staff produce analyses and information that is both needed and used by the Council at its meetings. The Council meeting material is organized into Briefing Books for Council distribution and use. CDs are also made for distribution to Council members and other interested parties who wish to keep informed of what the Council will be addressing at its meetings.

Live Broadcasts of Meetings:

- The Council broadcasts its meetings live to allow the public to be informed of what is being discussed. To view and listen to a meeting broadcast, one must log onto www.ustream.tv and type in mafmc in the search block.

Mid-Atlantic Council

Summary of Action:

Endangered Species / MMPA

One of the more important Protected Resources issues in the Mid-Atlantic Council's area relates to the conservation and management of sea turtles. All sea turtles that occur in U.S. waters are listed as either endangered or threatened under the Endangered Species Act of 1973 (ESA). NMFS has indicated that the incidental capture (bycatch) of sea turtles in fisheries is a primary factor hampering the recovery of sea turtles.

NMFS has initiated a Strategy for Sea Turtle Conservation and Recovery in Relation to Atlantic Ocean and Gulf of Mexico Fisheries (Strategy). On May 8, 2009 NMFS announced its intention to prepare an EIS to assess potential impacts resulting from the proposed implementation of new sea turtle regulations in fisheries to protect threatened and endangered sea turtles from incidental capture. The Strategy is a gear-based approach to addressing sea turtle bycatch. Based on documented sea turtle-fishery interactions, NMFS has identified several gear types that need to be addressed to reduce incidental capture of sea turtles. These gear types include, but are not limited to: gillnets, longlines, trap / pot and trawl gear.

Trawl gear has been identified by NMFS as a priority for addressing sea turtle bycatch. NMFS is now working to develop and implement bycatch reduction regulations for trawl fisheries when and where sea turtle bycatch has occurred. NMFS anticipates a phased approach to the implementation of regulations to reduce sea turtle bycatch in trawl fisheries as the information needed to support and properly analyze regulations in various trawl type becomes available.

Another issue of concern to the Council is the current proposal by NMFS and the US Fish and Wildlife Service to designate nine Distinct Population Segments (DPSs) for loggerhead sea turtles (*Caretta caertta*). In addition, the Services' proposal would change the status designation of the North Atlantic DPS of loggerheads from threatened to endangered. This change in status for loggerheads, in combination with the additional restrictions on fishing being contemplated by NMFS in its Sea Turtle Strategy, is likely to have negative social and economic consequences for a wide variety of fisheries in the Council's area.

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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Vice Chairman

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Daniel T. Furlong
Executive Director

August 10, 2009

Alexis Gutierrez
1315 East West Highway
Silver Spring, MD
20910

Dear Ms. Gutierrez,

Thank you for attending the Mid-Atlantic Council's Protected Resources Committee meeting in Alexandria VA and for your presentation on the Scoping Document for Issues and Options on the Strategy for Sea turtle Conservation and Recovery in Relation to U.S. Atlantic Ocean and Gulf of Mexico Fisheries. Based on a review of that document and discussion by the Committee, the Council offers following comments.

Overall, the Council is in favor of the phased approach proposed by NMFS as opposed to applying measures to all fisheries initially. The Council noted that the Spatial Alternatives appear to be too broad with little contrast among the alternatives presented. In addition, the Council is concerned that some of the proposed temporal alternatives also appear to be unnecessarily restrictive. For example, Temporal Alternative 2 would apply regulations to waters adjacent to the Virginia coast year round; this appears to be inappropriate given that turtles do not inhabit this area during the winter months. A careful evaluation of distribution data for sea turtles in time and space should be conducted to minimize economic impacts on fisheries when considering alternatives which would impose time/area restrictions for specific fisheries. In addition, NMFS should consider developing a dynamic area management alternative based on sea surface temperatures in a given year since sea turtle distributions are closely related to this factor. The Council was opposed to Temporal Alternative 3 and recommends it be removed from the list of temporal alternatives to be considered in the EIS for this proposed action.

The Council supports Fisheries Alternative 1 since it would focus on the fisheries identified as having the highest level of interactions with sea turtles, subject to the limitations of available bycatch mitigation technology.

Of the Fisheries Operating Alternatives presented, the Council supports Fisheries Operating Alternative 3 because it provides NMFS with the greatest flexibility to develop mitigation measures to reduce sea turtle interactions in trawl fisheries. In addition, data should be presented which evaluates the effect of TEDs relative to loss of target species catch by trawl gear type so that economic losses to fisheries can be evaluated. In trawl gear types where the use of TEDs appears to be problematic (e.g., fly nets), other measures such as tow time restrictions should be considered. The Council noted Coast Guard concerns about the enforceability of tow time restrictions but is also aware that new technology exists which may allow for tow time mensuration by enforcement personnel. In general, the Council also noted concerns that the more complex time and area restrictions are, the greater the chance for harvest error by fishermen and the more difficult the rules will be to be enforce.

In general, the document lacks a detailed analysis quantifying the expected reductions in sea turtle interactions for each of the alternatives presented. Without an indication of the expected reduction in sea turtle takes for each alternative (or sets of alternatives), it is difficult to evaluate the tradeoff between conservation benefits of a proposed measure and the economic costs to the fisheries. The EIS should provide a detailed quantitative treatment of interaction factors so that such an evaluation can be conducted.

The Council was also concerned that the measures proposed in the scoping document are based on an analysis of sea turtle bycatch data for the period 1994-2004. In addition, bycatch rates for the entire NEFOP data set were

applied to more recent estimates of fishing effort to estimate sea turtle bycatch. The time frame for both components of the bycatch estimation procedure should be consistent. In addition, more recent estimates of turtle bycatch should be included in the analysis and evaluated such that proposed management measures to reduce turtle interactions are based on the best, most recent scientific data available.

One specific alternative that NMFS could consider is modification of sea turtle measures currently in effect in the summer flounder fishery. Summer flounder vessels fishing within the Summer Flounder Fishery Sea Turtle Protection Area are currently required to use a TED, except that vessels fishing north of Oregon Inlet during the period January 15-March 15 are exempt from this requirement (Figure 1). NMFS could consider changing the exemption period and/or moving the southern boundary of the exemption area northward. In addition, NMFS could consider moving the northern boundary of the Sea Turtle Protection Area northward to the Virginia-Maryland border (approximately 38° N) or to the vicinity of the Delaware-Maryland border. Movement of the northern border of the Sea Turtle Protection Area would account for a cluster of sea turtle takes which have been observed in this area historically (Figures 2 and 3).

Finally, the EIS should consider the impact of fisheries on sea turtles relative to all in-water threats to sea turtles including vessel strikes and entanglement with marine debris. In addition, an analysis of threats to sea turtles in waters outside the jurisdiction of the United States should also be presented.

Thank you for the opportunity to comment on the scoping document. The Mid-Atlantic Council looks forward to working with the NMFS to conserve and recover sea turtles along the Atlantic Coast in a manner that minimizes the regulatory burden and economic impact on the fisheries under our jurisdiction.

Sincerely,

Richard B. Robins, Jr.
Chairman, Mid-Atlantic Fishery Management Council

Figure1. Summer Flounder Small Mesh Exemption Areas and Sea Turtle Protection Area

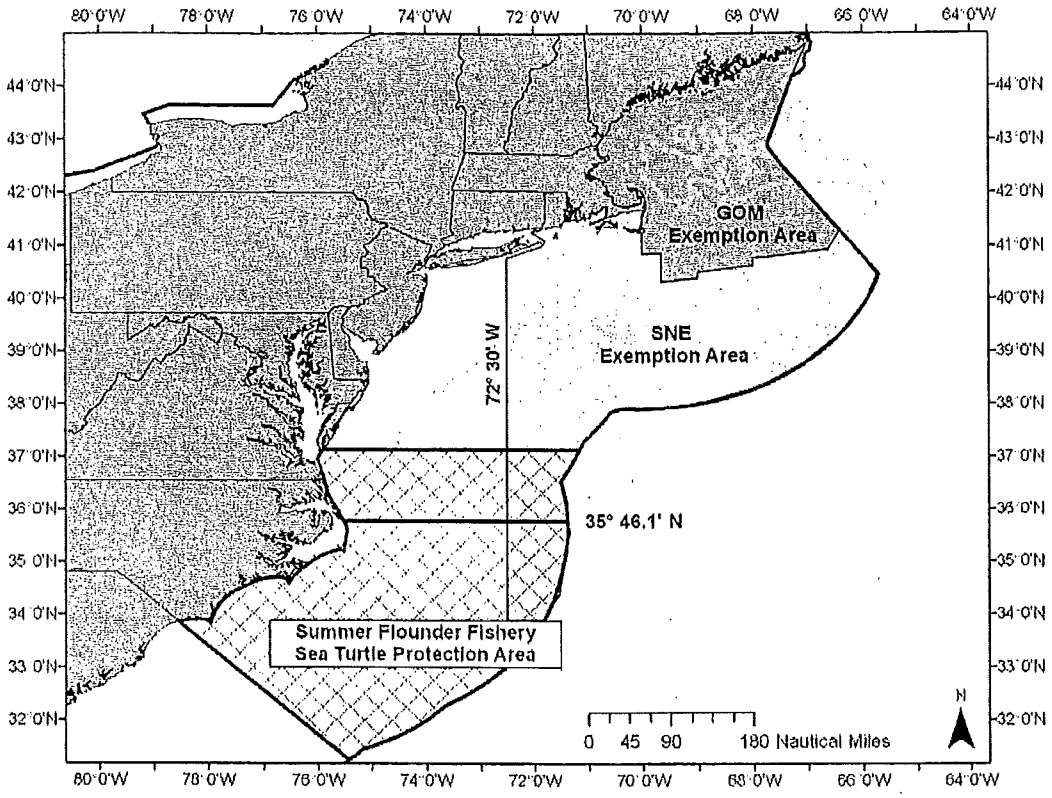


Figure 2. Distribution of Sea turtle Takes from 1994-2007 (based on unpubl. NEFOP data) by dominant species caught

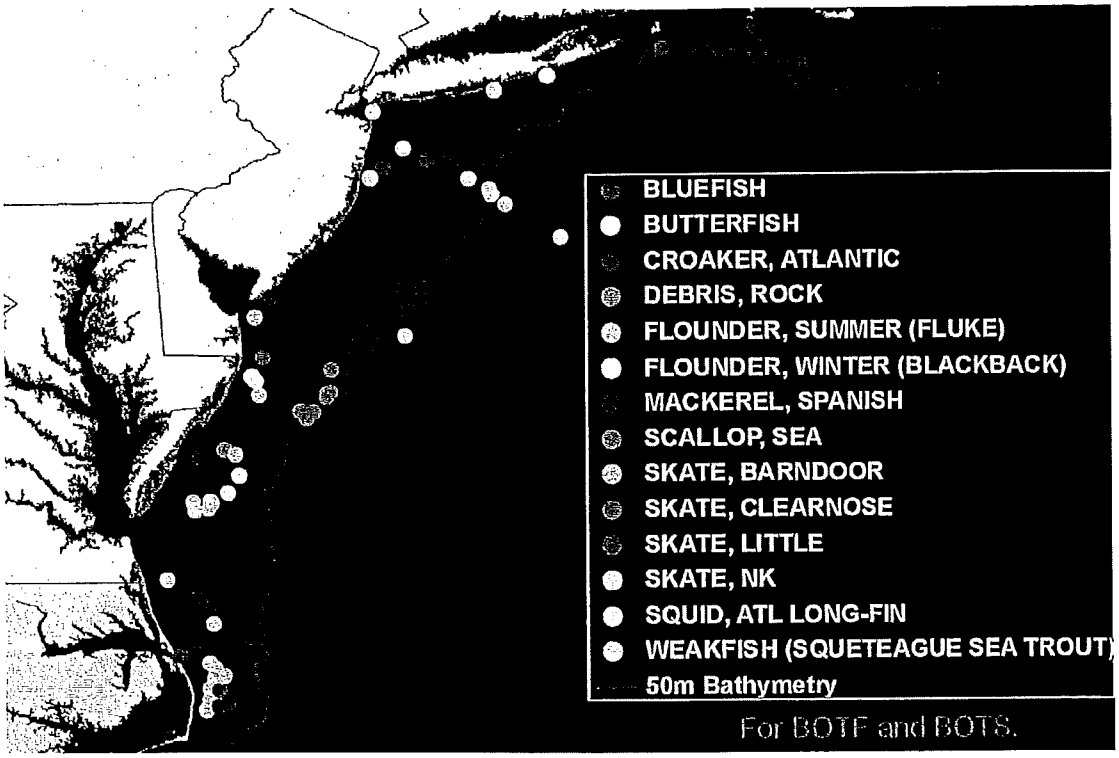
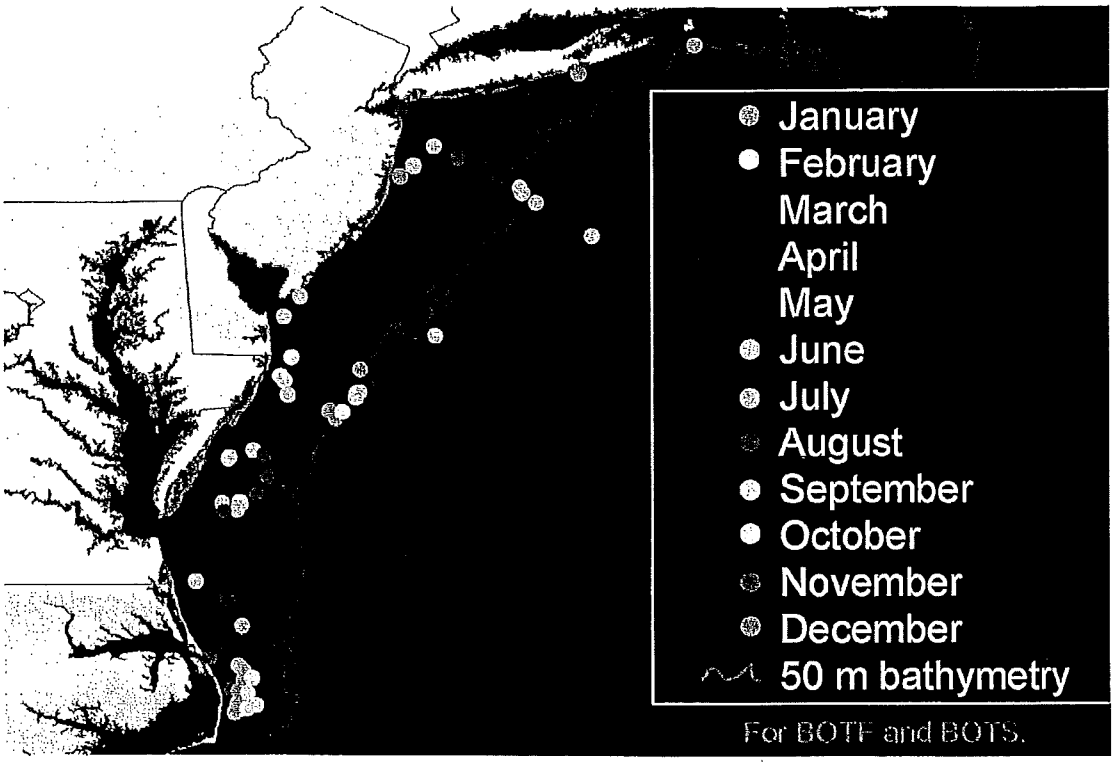


Figure 3. Distribution of Sea Turtle Takes from 1994-2007 by month (based on unpubl. NEFOP data).



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March 2, 2010

VIA ELECTRONIC MAIL

Mr. Eric Schwaab
Assistant Administrator for Fisheries
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Re: Pending Decision to Identify Distinct Population Segments and Change Status of Loggerhead Sea Turtles from Threatened to Endangered

Dear Mr. Schwaab:

We are writing on behalf of the Fisheries Survival Fund, an organization whose participants number approximately three hundred full-time, limited access scallop vessels from Massachusetts to Virginia. We understand that the National Marine Fisheries Service ("NMFS") has committed to making a final decision responding to Oceana, Inc.'s and the Center for Biological Diversity's petition under the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531-1544, to designate "distinct population segments" ("DPS") and to uplist loggerhead turtles from threatened to endangered by March 8, 2010.[1] While we take no position on the DPS issue, we strongly urge NMFS to find the status change to be not warranted based on the 2009 Status Review.[2]

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[1] The petitions also asks NMFS to designate critical habitat for loggerhead turtles. As this process requires the agency to consider economic impacts, *see* 16 U.S.C. § 1533(b)(2), and given the wide geographic, indeed, world-wide, distribution of this species, we would hope that if the agency initiates a critical habitat designation process, that such process be open and public with ample opportunities for input by affected constituencies.

[2] Loggerhead Biological Review Team, *Loggerhead Sea Turtle* (Caretta caretta) *2009 Status Review Under the U.S. Endangered Species Act* (Aug. 2009) ("2009 Status Review").

As an initial matter, it is important to note that the scallop industry, through the FSF in partnership with Coonemessett Farm Foundation, the Virginia Institute of Marine Science, and NMFS itself, has been undertaking cutting edge research on sea turtles. In addition to the proactive work on gear modifications, including a new chain mat designed to protect turtles from harm and a new dredge designed to minimize impacts of sea floor encounters, FSF's partners have been studying turtle behavior and populations. This work includes videotaping turtles with remotely operated vehicles (while also collecting environmental information), oceanographic and aerial surveys, and tagging two juvenile turtles with sophisticated satellite transponders, adding greatly to our understanding of this species.

This research, coupled with observations of fulltime fishermen, suggest the in-water loggerhead population is large and likely expanding. If borne out through in-water surveys, this result should not be surprising given the confluence of dramatic decreases in overall fishing effort and increasing protective measures implemented since 1978 when loggerheads were first listed. As to the former, declines in the number of fishing vessels and overall effort increased significantly with the passage of the Sustainable Fisheries Act of 1996, P.L. 04-297, 110 Stat. 3617 (Oct. 11, 1996), and, more recently, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, P.L. 109-479, 120 Stat. 3575 (Jan. 12, 2007).

Meanwhile, turtle conservation efforts over this period have mushroomed. Not only were turtle excluder devices ("TEDs") mandated for shrimpers, and their use expanded to other fisheries, their designs have improved and large time/area closures for the shrinking pelagic longline fleet (the most recent of which in the Gulf of Mexico) have been implemented. Additional efforts include new measures like those described above for scallopers and improved protection for nesting females, their nests, and hatchlings implemented by states and the federal government.

Nesting beach surveys cannot provide convincing evidence of impending danger of extinction necessary to support an uplisting. These do not capture recent conservation measures, and assess only a fraction of the overall population (mature females). Nor does 2009 Status Review's threat assessment adequately characterize current threats, particularly as it does not appropriately capture or characterize ever-improving and expanding conservation efforts. Most importantly, neither approach provides a temporal dimension—*i.e.*, how long to extinction—that, as explained below, is critical to determining the extent of "danger of extinction."

Rather than a change in legal status, what is desperately needed is an annual, in-water loggerhead turtle abundance survey of substantial duration; an updated and quantitative threat assessment accounting for changes in fisheries impacting the species; and research on the effectiveness existing conservation measures and improvements to existing, and development of new, technologies. Until these are accomplished, the best available scientific and commercial data do not support a change in status of loggerhead turtles under the ESA to endangered.

FSF will expand on these points, incorporating the relevant legal standards governing NMFS' current review.

I. Brief Discussion of Legal Considerations

The standard for determining whether a petition to change the status of listed species is warranted is whether "the status review provides *convincing information* to conclude that a proposal is warranted."[3] "Endangered species" is defined as "any species which is danger of extinction throughout all or a significant portion of its range," while a "threatened species" is one "likely to become an endangered species within the foreseeable future." 16 U.S.C. § 1532(6), (20).

In making this determination, not only must NMFS utilize the best scientific and commercial data, it must also "tak[e] into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction; or on the high seas." *Id.* § 1533(b)(1)(A). This inquiry includes myriad conservation efforts undertaken not only by NMFS itself, but those of other nations, various states, and other federal agencies.

The key questions are whether convincing evidence exists showing loggerheads "in danger of extinction" and whether such extinction is likely to be either worldwide or only over some range determined by NMFS to be significant. As to the first, there is not much case law defining the meaning of "danger of extinction." It would appear, however, that a negative population trend, standing alone, would not suffice. Any negative trend would result in extinction (or quasi-extinction) over some period if no other factors were taken into account. Indeed, there are nations with negative population growth, but no one would assume from that that humans are in danger of extinction in a significant portion of their range. Rather, the critical question relating to danger is the imminence of the threat and the existence of factors to mitigate such threat.

That is why Congress requires NMFS to examine efforts underway to avoid extinction, and why courts look at timeframes sufficient to reasonably gauge the threat. Thus, in *Oregon Natural Resources Council v. Daley*, 6 F. Supp. 2d 1139 (D. Ore 1998), the court found NMFS to have acted arbitrarily when it found that a unit of coho salmon was not likely to become eligible for ESA listing over only a two year period, by which time the state was expected to enact protective measures. *Id.* at 1150-51. While that court was reviewing NMFS' decision not to list the species as "threatened" and was interpreting the meaning of "foreseeable future," its holding applies equally to determining the timeframe for considering the danger of extinction within the meaning of the ESA's "endangered" definition.

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[3] U.S. Fish and Wildlife Service & NMFS, "Endangered Species Petition Management Guidance" at 13, § III(C)(1)(b)(2) (July 1996) (emphasis added).

The court in *Oregon Resources Council* stated:

> This court need not decide whether the "foreseeable future" for coho salmon is 30 or 100 years because it is clear that the NMFS only determined that the Oregon Coast ESU would not become endangered within the next two years, falling far short of any reasonable definition of the "foreseeable future."

Id. at 1151. Likewise, it is unreasonable to determine that a population is in danger of extinction if such extirpation lies fifty or a hundred years in the future. Such a time frame allows ample time for intervention to avoid the "danger." In other words, if functional extinction is well off in the foreseeable future, then a stock may only be considered threatened under the ESA because the danger of extinction is minimal and the stock, at most, is only likely to become endangered.

Consistently, when the impact of the scallop fishery on loggerhead turtles was last assessed, NMFS undertook analysis that looked at probability of extinction in terms of the time to quasi-extinction.[4] This report was conducted in the context of an ESA Section 7 consultation to determine whether the fishery could lead to "jeopardy." The basic findings, utilizing the same nesting trends as relied upon by the 2009 Status Review and very conservative estimates of takes by the scallop fishery, were that the likelihood of quasi-extinction over 75 year period was zero, and the likelihood at 100 years was only 0.01. *Id.* at 8.

Neither of the methodologies utilized in the 2009 Status Review provide any indication of the timeframe over which the speculative risk of extinction could occur. As such, this report cannot support a finding that loggerhead turtles qualify as an endangered species. This analysis is also lacking in any meaningful discussion of the other legally relevant factors, such as existence of protective regimes or the significance of any of the particular ranges to the species as a whole. In short, this report does not provide "convincing evidence" that an uplisting is warranted.

II. Brief Discussion of the Shortcomings of the 2009 Status Review

The fundamental flaw with the 2009 Status Review is that it relies on two new, assumption-dependent, and, as far as we are able to discern, non-peer reviewed approaches.[5] The first, an estimate of quasi-extinction risk, is based entirely on nesting beach surveys. As such, it measures only a fraction of the overall population and is necessarily backward-looking, given

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[4] *See* Merrick & Hass, *Analysis of Atlantic Sea Scallop* (Placopecten magellanicus) *Fishery Impacts on the North Atlantic Population of Loggerhead Sea Turtles* (Caretta caretta), NOAA Technical Mem. NMFS-NE-207 (Feb. 2008).

[5] We base this assumption on the fact that peer reviews of scientific and commercial data used to make listing determinations such as this are to be "made available for public review" and comment, *see* 59 Fed Reg. 34270 (July 1, 1994), yet no announcement of such reports or opportunities for comment appear to have been provided.

that the median age of first reproduction is 30 years. Virtually all nesting females captured by beach surveys were born before the species had the benefit of the protection of the ESA.

The second, the threat matrix analysis, incorporates out-dated, qualitative estimates of risk factors that, at least as to the scallop fishery, are mischaracterized and inaccurate.[6] The 2009 Status Review makes no attempt to quantify the NWA loggerhead population and ignores in-water surveys that largely show either increasing or no population trend.[7] Rather, the Review focuses on only a small fraction of the population, mature, nesting females. Most importantly, the unqualified statement that "the Northwest Atlantic Ocean DPS is currently at risk of extinction," *id.* at 164, provides no timeframe over which this risk may occur.[8] Notably, as well, this finding runs counter to other recent analyses loggerhead populations, like the recent scallop review and the 2009 Recovery Plan, each of which found no imminent danger of extinction.

In particular, as regards the so-called NWA DPS, no nesting survey extends more than 27 years,[9] while loggerheads do not mature until a median age of 30 years, and a maximum age of 41. *Id.* at 54. That means that these surveys are measuring a population of mature females that hatched, at the latest, during the early 1980s and mostly during the 1970s. Since that time, particularly during the 1990s, fishing fleets and effort have declined dramatically[10] and gear modifications, including turtle excluder devices, circle hooks, and scallop dredge chain mats, coupled with time

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[6] For instance, the report ignores the development and use of chain mats, which are proven to reduce harmful and lethal takes. *See* 2009 Status Review at 135 ("Turtles can be . . . captured in the bag where they may drown or be further injured or killed when the catch and heavy gear are dumped on the vessel deck"); *see also* Threat Tables, notes (the impact of chain mats was not considered), *available at* http://www.nmfs.noaa.gov/pr/recovery/threats_tables-final.xls.

[7] NMFS, *Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle* (Caretta caretta), Second Revision, at I-13 (Table 2) (Dec. 2008) ("2009 Recovery Plan").

[8] However, this finding can be contrasted with that for the Mediterranean Sea loggerhead DPS, which was found to be "at *immediate* risk of extinction." *Id.* at 165 (emphasis added).

[9] That survey covers the Northern Recovery Unit; no other survey includes data prior to 1989. *See* 2009 Status Review at 44 (Figure 4).

[10] Taking the scallop fishery as an example, annual area swept by the fishery declined 70 percent between 1990 and 2008, from 16,266 square nautical miles to 4,880. Framework 19 to the Atlantic Sea Scallop Fishery Management Plan Final Submission at 103 (Tables 38 & 39) (Dec. 19, 2007). Two fisheries with major loggerhead turtle interactions, the shrimp and highly migratory pelagic longline fisheries, are merely a fraction of their former size. *See, e.g.*, "Market Report – Shrimp Gulf shrimp fishery faces stagnant prices, declining fleet" (May 19, 2009) ("There are currently about 5,000 active Louisiana shrimpers, a 75 percent decline since the fishery's heyday in the mid-1980s. Texas has embarked on government-led programs to reduce its number of shrimp boats by purchasing the licenses of more than half the fleet, or 1,800 inshore shrimpers."), *available at* http://www.seafoodsource.com/MarketReport.aspx?id=4830.

area closures, have all contributed significantly towards reducing in-water turtle mortalities.[11] Hatchlings born in the past twenty years simply have a much improved chance of survival compared to the current nesting cohort.

This is a key issue. For instance, in discussing analytical difficulties late maturation presents for assessing future population trends, the NMFS Southeast Fisheries Science Center noted:

> A population of long-lived organisms, like loggerhead sea turtles, far from its stable stage distribution, may exhibit transient dynamics that make predicting near-term (within the next 100 years) population size difficult, and could mask the effects of any management actions [to benefit turtles] for a very long time.[12]

Even the 2009 Status Review notes, "A fundamental problem with restricting population trend analyses to nesting beach surveys is that they are unlikely to reflect changes in the entire population. This is because of the long time lag to maturity and the relatively small proportion of females that are reproducing for the first time on a nesting beach, at least in populations with high adult survival rates." 2009 Status Review at 84. In recognition of the these factors, which erode the utility of relatively short timeframes for detecting population trends from nesting surveys, the established recovery criteria for each of the recovery units call for sustained increases in nests over an entire generation time, or fifty years.[13]

Despite the recognition of such uncertainty, the 2009 Status Review declares "that the Northwest Atlantic Ocean DPS is currently at risk of extinction." *Id.* at 164. As mentioned, this determination is legally irrelevant because it provides no timeframe or other contextualizing information contained in other recent analysis which have not found loggerheads to be in danger of extinction. Furthermore, the list of factors allegedly supporting this conclusion are unsupported, contrary to the best scientific and commercial data, and entirely subjective.

This is clearly seen in the reasons allegedly supporting the endangerment finding in the Report's "synthesis" section: "Although national and international governmental and non-governmental entities on both sides of the North Atlantic are currently working toward reducing loggerhead bycatch, and some positive actions have been implemented, it is unlikely that this source of mortality can be sufficiently reduced across the range of the DPS in the near future because":

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11 As only one example, see Office of Protected Resources, NMFS, "Report of the U.S. Longline Bycatch Reduction Assessment and Planning Workshop" Seattle, Washington (Sept. 18 - 20, 2007), *available at* http://www.nmfs.noaa.gov/pr/pdfs/interactions/longline_workshop.pdf. Depending on hook size and bait, this modification has been shown to reduce loggerhead turtle takes by 40 to 90 percent. *Id.* at 8. For a listing of other recent actions not accounted for in any analysis, see NMFS Southeast Fisheries Science Center, *An Assessment of Loggerhead Sea Turtles to Estimate Impacts of Mortality Reductions on Population Dynamics*, at 1 (July 2009)

12 NMFS Southeast Fisheries Science Center, *supra* n.11, at 39.

13 2009 Recovery Plan, *supra* n.7, at ix.

1. **"[T]he diversity and magnitude of the fisheries operating in the North Atlantic"**[14] – As mentioned, fisheries of the North Atlantic, and U.S. fisheries in particular, are both less diverse and of smaller magnitude than they during nearly the entire period when current nesting females were hatched.. Limited entry, conservation requirements that started in earnest with the 1996 Sustainable Fisheries Act and accelerated under the MSA Reauthorization Act of 2008, and coastal gentrification have all conspired to reduce commercial fishing fleets.

2. **"[T]he lack of comprehensive information on fishing distribution and effort"** – The U.S. has perhaps the world's most comprehensive system of information collection and tracking of commercial fishing effort. Today, nearly every federally permitted vessel must carry and utilize vessel monitoring systems. States are increasingly coordinating management of their fisheries through entities like the Atlantic and Gulf States Marine Fisheries Commissions. These systems are magnitudes greater than when loggerheads were first declared threatened under the ESA.

3. **"[L]imitations on implementing demonstrated effective conservation measures"** – Conservation efforts are constantly upgraded and being more broadly applied. Cooperative research, such as the longliners' circle hook program discussed above and ever improving shrimp and trawl TEDs, is leading to ever increasing protection for sea turtles at all life stages. The scallop chain mats and the new turtle dredge design currently in testing are other examples. Efforts are also underway to better protect nesting beaches, nests themselves, and reducing threats to hatchlings, such as light pollution and other natural and man-made threats.[15]

4. **"[G]eopolitical complexities"** – What these geopolitical complexities exist are left unexplained. Given that all the populations studied are within the United States, the import of such "complexities" is completely opaque. While some nesting populations in the NWA DPS occur in foreign nations, such as Mexico and Caribbean states, the U.S. has excellent relations with these countries (save for Cuba), as well as with European nations.

5. **"[L]imitations on enforcement capacity"** – Enforcement of sea turtle protective measures always presents challenges, but the current system is comprehensive and effective. TED compliance is enforced through random at-sea boardings. Penalties for failure to comply are stiff. There is no reason to believe that enforcement presents any barrier to creation and implementation of an overarching turtle protection scheme.

6. **"[A]vailability of comprehensive bycatch reduction technologies"** – The meaning of this statement is entirely unclear. Of course, no single technology is appropriate for all fisheries. For

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14 All quoted language is from page 164 of the 2009 Status Review.

15 For only one example see National Park Service, "Cape Hatteras National Seashore Sea Turtle 2009 Annual Report," at 4-6 (undated) (describing the extraordinary efforts undertaken to protect nests from anthropogenic and natural threats), *available at* http://www.nps.gov/caha/naturescience/upload/2009%20Sea%20Turtle%20Report.pdf.

some, TEDs are both economic and effective; for others, like gillnets, time/area management, mandatory tending of nets, or reduced soak times work well; for longliners, bait substitution, circle hooks, and use of technologies to avoid temperature bands preferred by turtles are all effective. We have an effective system for identifying problem fisheries and addressing those problems in an iterative and comprehensive manner.[16]

In summary, the Biological Review Team's conclusion that extinction, whenever such may occur, lacks a foundation based on a realistic assessment of the relevant factors and legally relevant criteria.

Conclusion

NMFS appears to recognize the shortcomings of the current threat assessment system. Indeed, one of the principle elements of the loggerhead recovery plan is "to develop long-term in-water studies . . . to monitor population status and effectively track population changes, especially as recovery efforts are implemented and assessed." 2009 Recovery Plan at I-12. FSF has begun analyzing techniques and submitted additional proposals to help move this effort forward. However, we are dismayed by the lack of transparency that has marked the current re-assessment process, which appears to be heading towards a pre-determined result that loggerheads should be uplisted. Such a process ill-serves cooperative management efforts and could lead to a legally questionable outcome.

We hope NMFS will consider these comments in making its final determination with respect to the current petition and we look forward to continuing our productive relationship with NMFS in the protection and recovery of sea turtles over the long run.

Sincerely,

David E. Frulla
Shaun M. Gehan
Andrew E. Minkiewicz

Counsel for Fisheries Survival Fund

cc: Dr. Steven Murawski
Ms. Lois J. Schiffer, Esq.
Mr. Andrew Winer

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16 *See, e.g.*, 74 Fed. Reg. 21627 (May 8, 2009) (notice of intent to expand TED use to all Atlantic trawl fisheries on a prioritized basis).

Furlong, Daniel T.

From: Didden, Jason T.
Sent: Wednesday, May 05, 2010 2:29 PM
To: Robins, Rick; Anderson, Lee
Cc: Furlong, Daniel T.; Seagraves, Richard J.
Subject: Envisioning Framework
Attachments: Envisioning.doc

Here is a document with some bullet points to start discussion on the visioning project framing for the next Council meeting. Given the specialized work needed for good surveying, I think the first steps would be to ID the Council's goals in some more detail and then bring in a consultant who can advise us of some options re: surveying. I know enough to recognize bad survey work when I see it, but not enough to avoid all the various surveying pitfalls...

Jason

NEW CONTACT INFO

Jason Didden
MAFMC
800 North State Street, Suite 201
Dover, DE 19901
(302) 526-5254 (direct)
(302) 674-2331 (general)
(877) 446-2362 toll-free
(302) 674-5399 fax

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?

Furlong, Daniel T.

From: Seagraves, Richard J.
Sent: Wednesday, May 05, 2010 3:12 PM
To: Didden, Jason T.; Robins, Rick; Anderson, Lee
Cc: Furlong, Daniel T.
Subject: RE: Envisioning Framework

All,

Another approach would be to schedule a series of Town Hall style meetings and go directly to the fishing public and administer whatever survey instrument we develop *in situ*.
(hopefully under PRA radar). *Or* do a phased approach with the initial step being the Town Hall meetings followed by a formal mailed out survey.

Rich

From: Didden, Jason T.
Sent: Wednesday, May 05, 2010 2:29 PM
To: Robins, Rick; Anderson, Lee
Cc: Furlong, Daniel T.; Seagraves, Richard J.
Subject: Envisioning Framework

Here is a document with some bullet points to start discussion on the visioning project framing for the next Council meeting. Given the specialized work needed for good surveying, I think the first steps would be to ID the Council's goals in some more detail and then bring in a consultant who can advise us of some options re: surveying. I know enough to recognize bad survey work when I see it, but not enough to avoid all the various surveying pitfalls...

Jason

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(302) 674-5399 fax

Furlong, Daniel T.

From: Richard Robins [richardbrobins@gmail.com]
Sent: Wednesday, May 05, 2010 4:30 PM
To: Seagraves, Richard J.
Cc: Didden, Jason T.; Anderson, Lee; Furlong, Daniel T.
Subject: Re: Envisioning Framework
Attachments: visioning draft.doc

Jason and Rich:

Thanks for your efforts to frame the issue. I have filled in some of the blanks in the attached draft to develop some points for discussion. I think we would benefit from testing the waters with focus groups as we develop the surveys. I also like the idea of larger stakeholder meetings, but we could consider using these as we begin to evaluate the results of the survey, to refine and prioritize the information and discuss the range of solutions to the problems and opportunities identified through the visioning process.

When I initially discussed this with Mark Holliday, he indicated that we should be able to use some existing sampling frames for the non-fishing public, and we should be able to use the MRIP frames to sample the recreational public.
Best regards,
Rick Robins

Visioning via Surveying the Fisheries

General Process:

"Why"

1. Establish goals:
   -What does the Council want to learn?
   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?
   -What does the Council want to do with what it learns?
1. Develop a stakeholder-driven vision of the Council's managed fisheries to inform future management of the fisheries.
   2. Review existing FMP goals and objectives relative to the stakeholders' vision of what they want the fisheries to look like.
   3. Consider updating or refining FMP goals and objectives in response to stakeholder visioning results.
   4. Evaluate and address specific management problems and opportunities identified through the visioning process.

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"What"

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"Who & Where"

1. Identify groups - Permit holders (directed, incidental?); recreational fishing public, for-hire sector? Non-fishing public.

2. Sample design will be based on who the target groups are.

"When"

1. 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.

2. One stage or multiple stages? I.e. survey problems and solutions together (seems tricky) or ID problems in first survey and then solicit opinions on solutions in a second survey?

Furlong, Daniel T.

From: Anderson, Lee G. [lgafish@udel.edu]
Sent: Thursday, May 06, 2010 1:51 PM
To: Robins, Rick; Seagraves, Richard J.
Cc: Didden, Jason T.; Furlong, Daniel T.
Subject: RE: Envisioning Framework

Hi all:

I have read both Jason's and Rick's thoughts on this and I think we are moving in the right direction. I was wondering how we could get more real and unsolicited bottom up input. Just brainstorming, but would i9t be possible to go to the industry reps and see if we can encourage them to do some of this on their own, perhaps with pass through funds from the NMFS catch share programs. If it is going to be perceived as bottom up it would be better if it were real and not just apparent. However, I do believe that we must be proactive to get the discussion going. If we just wait for the outside chorus, we may wait a long time.

Best,

Lee

Department of Commerce

National Oceanic and Atmospheric Administration

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

STATEMENT OF ORGANIZATION PRACTICES AND PROCEDURES

As Adopted by Council 3 August 1989
Revised by Council 1 November 1990
Approved by NMFS 22 January 1991 (56 FR 2164)
Revised by Council 9 January 1992
Revised by Council 2 April 1992
Revised by Council 24 June 1992
Approved by NMFS 29 July 1992 (57 FR 33494)
Revised by Council 14 July 1993.
Revised by Council 4 November 1993.
Revised by Council 4 April 1996
Revised by Council 19 September 1996
Revised by Council 20 February 1997
Revised by Council 29 January 1998
Revised by Council on 14 October 1999
Revised by Council on 12 December 2002
Revised by Council on 7 October 2004
Revised by Council on 20 January 2005
Revised by Council on 1 February 2008
Revised by Council on 12 June 2008
Revised by Council on April 15, 2010

PREAMBLE

The organization practices and procedures contained herein shall constitute the procedures that will be followed by the Council, except when they conflict with or are incomplete as to the requirements of the Magnuson Fishery Conservation and Management Act, or 50 CFR Part 600 Subparts A, B, and C, which shall prevail in any event.

TABLE OF CONTENTS

2. Advisory Panels. Advisors shall be appointed as needed to assist the work of the Council and will ordinarily be named to work with a particular Council committee. Such advisors will constitute Advisory Panels as required by Section 302(g)(2) of the Magnuson - Stevens Act.

a. **Objectives and Duties.** When requested by the Council, through the Council Chair or the Executive Director, Advisory Panels shall:

(1) advise the Council on the assessments and specifications contained in each fishery management plan for each fishery within the Council's geographical area of concern, with particular regard to: (1) the capacity and the extent to which the fishing vessels (commercial and recreational) of the United States will harvest the resources considered in fishery management plans, (2) the effect of such fishery management plans on local economies and social structures, (3) potential conflicts between user groups of a given fishery resource, (4) the capacity and the extent to which United States fish processors will process that portion of an optimum yield harvested by United States fishing vessels, and (5) enforcement problems peculiar to each fishery with emphasis on the expected need for enforcement resources;

(2) advise and/or prepare comments for the Council on (1) fishery management plans or amendments thereto during preparation of such plans or amendments by the Council, and on (2) fishery management plans prepared by the Secretary and transmitted to the Council for review;

(3) advise the Council on current trends and developments in fishery matters; and

(4) perform such other necessary and appropriate advisory duties as may be required by the Council to carry out its functions under the Act.

Advisory Panel members shall attend Council meetings and public hearings on fishery management plans and amendments thereto as authorized by the Council Chair.

b. Members

(1) Advisory Panel members shall be nominated for membership by the fishing community (vessel owners or operators, dealers, processors, associations, clubs, or themselves), be recommended by the appropriate Council committee, and be appointed by the Council Chair. Advisory panel members shall be appointed by the Chairman for a period of two years, and may be reappointed at the pleasure of the Chairman. Vacancy appointments shall be for the remainder of the unexpired term of the vacancy.

(2) Advisory Panels shall be composed of persons who are either actually engaged in the harvesting or processing of, or are knowledgeable and interested in the conservation and management of, the fisheries to be managed. Advisory Panels shall also reflect expertise and interest from the standpoint of geographical distribution, industry and other user groups, and the economic and social groups encompassed in the Council's geographical area of concern.

(3) Advisory Panel members shall be notified of meetings at least 10 days in advance of each meeting. Advisory Panel members who cannot attend a scheduled meeting shall advise the Executive Director.

c. Administrative Provisions. The Council shall pay the actual expenses of the members of the Advisory Panels, in accordance with controlling law, while engaged in the performance of Council business.

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Richard B. Robins, Jr.
Chairman

Lee G. Anderson
Vice Chairman

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Daniel T. Furlong
Executive Director

MEMORANDUM

Date: May 25, 2010

To: Council

From: Jessica Coakley, MAFMC staff

Subject: Omnibus ACL/AM Materials

The following items are provided behind this tab:

1) Public comments received on the Omnibus ACL/AM public hearing document - Oral comments were received from 30 persons at 4 public hearings and are transcribed behind this tab, along with 18 sets of written comments received via fax, email, or mail.

2) Incidental Tilefish Category Trip Limit Review – Staff in conjunction with FMAT economist Eric Thunberg prepared an analysis that is relevant to Council considerations of tilefish incidental category trip limits and accountability for the incidental fishery.

3) Summary of process to set catch limits pre- and post-Magnuson Stevens Reauthorization Act (MSRA) for each of the managed stocks – It is not possible to predict what future catch limits would look like under the processes described in the Omnibus document for ABC, ACLs, and AMs because recommendations and decisions on the part of the SSC, Mon. Ctte.'s, and Council have not yet occurred. In addition, it is not possible to predict future stock status and trends, and their influence on proposed catch limits. However, some aspects of these Omnibus processes to address scientific and management are currently being applied to the managed stocks. These examples describe how catch limits have been set in the most recent years relative to overfishing limits (OFL) or maximum sustainable yield (MSY).

4) Interim-draft public hearing document is provided for reference.

ACL/AM Omnibus Public Hearing #1
Alexandria, VA
May 3, 2010

Moderator/Hearing Officer: Peter Himchak
Council Members and Staff: Jessica Coakley, Rick Robins
Attendees: Tom Fote, Ken Stump, Frank Kearney, Adam Nowalsky, Kristen Cevoli, Pete Jensen, Jeff Kaelin, David Pierce, Rebecca Hared, Tom O'Connell, Joe O'Hop, Wilson Laney, Buffy Baumann, Arnold Leo, Dorothy Thumm, A.C. Carpenter, Vincent O'Shea

Dr. David Pierce, MA-DMF: We are going to submit some written comments on this Amendment because we see it is a critical amendment. We need to promote good cooperation, communication, collaboration, between ASMFC and the Council. All of us have had a lot of experience under our belt (inaudible) what we have already done with the setting of ABCs, ACLs, ACTs, etc., so hopefully we can all school under each other to try to prevent what could be a rather difficult management situation for us down the road. I've already made a few comments so along with the questions I have asked, so I'm not going to repeat that, but I will only say that clearly what the National Standard 1 guidelines have done is create a situation where are implementing a precautionary approach to fisheries management and obviously that's needed, it's important, however my fear is that if we are not careful collectively that we may actually implement protocol procedures, control rules, that I would call inordinately precautious, to the point where we may just go too far and to the extent that while we're risk adverse for the resource and of course we need to be because the standard (inaudible) of the resource, we become very risk prone for the fishing industry. We don't put enough time into assessing the effects of our management and actions on the recreational and commercial fishing communities. We just don't do it maybe because the data aren't that good, maybe because we always put conservation in at the top, we have to obviously but still we shouldn't put to the top to the extent that we are extremely risk prone for the fishing industry that provides us with valuable fish for the table and of course critically important recreational fishery experiences. So that's my message in a nutshell. Let's be careful that we create, construct some options as to how we should proceed relative to management uncertainty considering that it would be very important for us to put the numbers onto the protocol for us to see what it means as opposed to just adopt the protocol and then work the numbers through and whatever it is, that's the way it is. I still say there is a need for us to reflect on socioeconomic impact and certainly for the Councils. Now I'm on the New England Council so I've got history here and I have participated in the decision making processes relative to New England. Socioeconomic impact at the Council level is considered, in depth analyses are done but when all is said and done all of the impact analyses tends to trumped by other aspects of the management plan so, whereas with ASMFC the trumping doesn't necessarily occur the way it does with the Council. There is more concern about the sensitivity to socioeconomic impact, and why is that, because we are (inaudible), we are in the ports; we are in the fishing communities. We're on the front lines so to speak, having to deal with fishermen day in and day out, whether recreational or commercial. My hope is that by working together, ASMFC and the Mid-

Atlantic Council specifically we can come to some agreement, some balance, as hard as that may be, some balance that will enable us to be responsive to the National Standard guidelines and more importantly to Magnuson-Stevens itself, all the while not putting ourselves into the position where we're faced with tremendous unnecessary socioeconomic impact, and I can tell you right now, that's what we're going to have with groundfish as a consequence of implementation of Amendment 16, I do not want to repeat with scallop, sea bass, and fluke, I do not want to repeat what I suspect is going to happen with groundfish in New England and the Mid-Atlantic as a consequence of the inordinately precautious steps we felt we were obliged to take on groundfish that I fear will be an outcome of this particular Omnibus Amendment. I urge you to be wary of that. Thanks.

Ms. Buffy Baumann, Oceana: Thank you for the opportunity to comment on the Omnibus ACL/AM Amendment. We will be submitting your comments for consideration on behalf of Oceana and we will be submitting written comments as well. This is actually a comment on the document in general, rather than specific to management measures or fisheries covered in the Omnibus. I am sorry to say we are disappointed by a number of elements of the current version of the Amendment and feel that a number of options in the Amendment are ill-advised, irresponsible, and, illegal. The Omnibus actually fails to establish ACLs. Magnuson-Stevens was very clear in its mandate for the Council to establish and implement ACLs and corresponding AMs for all federal fisheries by the 2011 fishing year. In our review of this document indicates that the Amendment doesn't actually establish these mandated limits but instead establishes a process to set these limits without any specific numbers. We feel that this approach is vague and doesn't satisfy the requirements of the MSA. We assert that actual numbers must be specified for the ACLs for each Fishery Management Plan. These numerical limits, rather than a description of the process to set these limits should either be included in the Omnibus Amendment for each FMP or for each individual FMP. We do want to note that going FMP by FMP using that approach will likely mean that the Council will not be able to meet the deadline for having ACLs and AMs in place by 2011. As you all well know, the ACL approach is significantly different than the current system of catch regulations for the fisheries that the Council manages and the ACLs therefore must be clearly defined and reviewed as part of the public process. So our second main concern is that Omnibus fails to adequately explore the issue stocks in the fishery. Basically the Mid-Atlantic Council hasn't gone beyond that default listed target fisheries, target stocks, MSA and subsequent guidance that came from the agency to implement NS 1 requires limits on catch in each fishery (inaudible) catch limit. The guidance definition of catch includes target catch, incidental catch, and bycatch. All of these components of overall catch need to be fully considered in the Omnibus. So the fundamental concepts in this NS 1 guidance is the idea of stocks in the fishery. The guidance directs that these must include target stocks but may also include non-target stocks and ecosystem components species. That leads the determination of which stocks to include in each fishery to cue the Council. It places the responsibility to rationally consider which species and stocks to include in each FMP in compliance with the Administrative Procedure Act with the Council. It also requires that the Council consider feasible and reasonable alternative choices and to analyze the environmental impacts of these choices pursuant to NEPA. So

in developing the Omnibus Amendment, the Council actually failed to satisfy these duties based (inaudible) the agencies requirement or guidance requirements of these two Acts, the APA and NEPA. So it is important to note this consideration of that true, overall catch of the fisheries is also required by section 303(A)2 of the Magnuson-Stevens Act. So we have suggested that throughout the development of this Omnibus Amendment the Council complete a full analysis of catch in the fisheries covered by the Omnibus as a foundation of the system of ACLs that recognize interaction between fisheries. Unfortunately this public hearing document describes an approach by which the Council appears to use just the bare minimum of interpretation of stocks in the fishery and restricts the use of ACLs to target stocks alone. Furthermore, the approach for (inaudible) here fail to rationally explore the overall catch in the fishery and to include a discussion and explanation of which stocks in the fishery do and do not require ACLs in the FMP and the reasons for such inclusion or exclusion from the Magnuson-Stevens requirements. So in closing, we are urge you to revisit the concept of catch in this document and fully explore the catch (inaudible) under the Council management as well as the catch of species that are managed by Council fisheries outside of the Council jurisdiction, which is New England, South Atlantic, Atlantic States Marine Fisheries Commission. Such an assessment of total catch we feel is the only way the Council will effectively manage the catch in the fisheries and the mortality of the stocks under its control. So we feel that this Omnibus Amendment that is currently drafted is illegal and must be amended before being implemented (inaudible).

Mr. Adam Nowalsky, Recreational Fishing Alliance (RFA): Again, Recreational Fishing Alliance will also be submitting written comments. Just to reiterate some of the concerns that have been voiced here, as well as the Council meetings leading up to this process regarding this document. With regards to section 1, one of the concerns here is while in general the idea of a tiered approach to the stocks assessments is a good one at the SSC level, the concern here is that where do stocks get a priority to move from one level to another, especially as part of the control rule its going to go ahead and effect the maximum probability of overfishing that's allowed. The concern is that especially at a time when there are cuts in funding for research that is going on it will cause stocks for whatever reason are not receiving research priority to remain (inaudible) at a lower level, so that's a concern that remains at that level and again we will also submit that there is the concern that most stocks have the probability as have been discussed so far the potential of being tier 4 with the exception of summer flounder and spiny dogfish at the Mid-Atlantic level right now. In section 2, again there is the concern with regards to tying it to an assessment level specifically an assessment level that we know while it may be based on the best available science may not and in many cases is not based on the best science of even good science. So if you going ahead and tie the control rule back to these assessment levels there has to be more focus put on the increasing of research that is done on these fisheries to move them level to level. With regards to section 3, where we are going to actually apply accountability measures, ACLs, I will have to echo some of the comments here about becoming overly cautious in the approach here. By my count, you can actually see uncertainty apply, three, four, five times throughout the process. And by the time you get it down to something it just becomes risk prone for the fishermen where National Standard 1 indicates achieving optimum yield on an ongoing basis and just can't

see that being achieved under this Amendment. Additionally, with regards to the accountability measures, the marine recreational fishing statistical survey is mandated under section 401(G)3 of Magnuson to have been approved. Specifically 401(G)3(d) states that those improvements shall be completed by January 1, 2009. So what we see in this instance is selective application of components of Magnuson. Going forward with ACLs, accountability measures prior to implementation of other components to improve the way those systems would perform. Specifically, the recreational landings estimation which is only an estimation and now we are going to tie it to something harder and we are going to say well we'll use a soft target to account for that which just results in a lower quota for fishermen. With regards to section 4 with grounds for review we would specifically like to see grounds for underperformance included in here. If you are going to go ahead and provide modifications to the ACL/AMs as there implemented for the benefit of the fishery, they should also be implemented for the benefit of the fishermen as well. If you're not achieving getting close to the ACTs, if your 25% below ACT every year, there should be some discussion about how that would be approached. Again, we'll submit written comments about these but those are some of the concerns that have been voiced at Council meetings previously. The Mid-Atlantic Council to their credit currently has no species experiencing overfishing and only 1 species at a currently overfished status. The process that has been established now specifically at the Ocean City meeting last October seems to be a process with regards to an interaction between the SSC, Monitoring Committee and the Council body itself, that in itself is a process written in the Fishery Management Plan right now, you already have modifications to season, size, and bag limit. These are in effect an accountability measure at the discretion of the Council and for these reasons we have concerns about this going forward and we will submit written comments. Thank you for your time.

Mr. Ken Stump, Marine Fish Conservation Network (MFCN): Thank you. My name is Ken Stump; I am Policy Director for the Marine Fish Conservation Network based in Washington DC. Thank you for the opportunity and for the great presentation. That was a lot of information. We are encouraged by the process that we see being developed here. The hearing document and the proposed alternatives contained some of the features of system of annual catch limits and accountability measures that we recommended in our previous scoping document comments from 2009 and I know its getting late so I am going to try to briefly touch here on a few key issues that we spotted in this document and we will submit more detailed written comments in the coming weeks. First, the public hearing documents assumes that those stocks are already listed in the FMPs are the only stocks the fishery requires ACLs and AMs and we are concerned and we have expressed concern to the Council in the past that there is no evaluation of other non-target stocks that are caught incidentally as bycatch and it may indeed qualify stocks in the fishery. We regard this as a very serious matter effecting species such as river herring that we have written to you about and we think that the absence of evaluation of non-target bycatch species is an omission and needs to be addressed in this document. Unfortunately it appears that no vulnerability analysis has been done for managed species or non-target species that are caught incidentally as well. The vulnerability of the stock is defined in the National Standard 1 guidelines and is a combination of stock productivity and susceptibility to the fishery and the use of a

productivity and susceptibility analysis has been recommended and methodology has been developed by the National Marine Fishery Service and is available online which could be used readily to help identify the key aspects of like history and susceptibility that might otherwise be ignored and we believe that this analysis is a necessary part of this process and should be integrated into an ABC control rule. Thirdly, we support your efforts to develop an ABC control rule based on advice from the SSC. I think conceptually we support the proposed 4-tier control rule structure. However, the dimensions of scientific uncertainty that would or wouldn't be considered when setting ABC are not clearly specified and I spoke to that earlier during the question period on the presentation. We think that specific rules for each tier should be more clearly specified in the Amendment and laid out and if the probability based approach is not applicable for determining the uncertainty associated with the given fishing limit we recognize that there will be a need for alternative methodologies to be used but we think that those processes, those steps, those decision rules for those tiers should be laid out more clearly. In addition, finally the ABC control rule appears to lack the use of productivity and susceptibility analysis and we think that also should be incorporated as one of the features of the control rule. Fourthly, we support the Council's efforts to develop a formal risk policy as part of the required ABC control rule. The proposed alternative policies would have a scalable uncertainty buffer that increases in size as uncertainty increases for stock and lower tiers of an ABC control rule and that is something we support. We think that follows the recommendations of National Standard 1 guidelines. However, none of the alternatives provide an adequate margin of safety against the risk of overfishing in our view. We have written a report looking at what is the National Standard 1 guidelines, what are the statutory requirements for preventing overfishing and we have written comments during the scoping phase of this process to you all last year which we indicated we think ABCs and ACLs should be set at a level that has a high probability of not exceeding of the overfishing level and specifically that it should have a 75% or higher probability of not exceeding the overfishing level, which is based on technical guidance from (inaudible) in 1998. So in light of all of that, we support at this time alternatives 2D of the risk policy as a preferred approach. In part because it incorporates the stock assessment levels and because it appears to be more conservative of the stock biomass so that the inflection point in which fishing mortality is reduced starts when the stock size is 150% of Bmsy or proxy b target rather than waiting until after the stock has fallen to the critically low level. We do emphasize that we do think that there is a need for consideration of less probability of overfishing in the risk policy and then we should at the very least be considered as one of the alternatives. We would just note that the public hearing document states that the risk policy may only be included in the Council or may be included in the Council on a SOPPs however, the NS1 guidelines clearly state the risk policy is intended to be part of the required control rule and we think it is very clear the Council must include the risk policy as part of the ABC control rule in the FMP. I spoke to that briefly earlier during the question period. I think that in the ways that this has been developed and described elsewhere the elements of the risk policy that you illustrate graphically are typically described as part of a control rule and I think that part of our confusion has been that this appears to be separated out and treated as separate features. I think they actually, as you noted, work together. For communication purposes I think that is something to address. Two quick points regarding accountability measures. There

is a lot of issues in these fisheries with regard to accountability and having adequate monitoring in order to be accountable but we were particularly concerned that the ACT, there is no ACT control rule and if you are going to use an ACT as an accountability measure the NS1 guidelines are quite clear that you have to have an ACT control rule which could be a simple decision rule and you may feel you already have it, but I don't think you clearly articulated what it is so people have some fairly transparent idea of how it's going to work in a given situation. Lastly, a very important issue to our member groups, to fishermen and non-fishermen alike, is concern about addressing optimum yield and having specific consideration of mechanisms for achieving optimum yield which is part of the legal requirement of National Standard 1 in the Magnuson Act and we have said before and we will say again in our written comments that an FMP must contain conservation management measures to achieve OY on a continuing basis and we feel it is very important that some of these target fisheries that you manage to develop specific procedures of setting ACLs to achieve optimum yield for forage fish stocks which would maintain significantly higher biomass for those stocks than conventional single species approaches that are aiming toward Bmsy stock size. That is referenced in the improvised National Standard 1 guidelines and endorsed, mandated by National Fisheries Service. We think this is an important feature of an ecosystem based approach and that (inaudible) needs of predators and the fish stocks and this management Council rely on these forage stocks which would include mackerel and butterfish and herring and so forth. We hope to see further development of more specific mechanisms for achieving optimum yield in this rule. That is in summary all (inaudible) and we will submit written comments. Thank you.

Mr. Peter Himchak (Moderator): Mr. Robins has a question.
Mr. Rick Robins, MAFMC Chair: Ken, I just had a question to clarify. I had trouble hearing but I think you said on the risk policy that you supported a specific option and which one was that? Could you restate that?
Mr. Ken Stump: Yes, we were supporting option 2D.

Mr. Tom Fote: Yeah, I started coming to Council meetings in 1984 and started to volunteer my time to do Council and Commission meetings and basically I have done that for 26 years now. I guess sometimes I am a little harsh but I think it is the frustration of 26 years of sitting at meetings and seeing very little progress. We are sitting here arguing over management tools. We have spent a lot of money on management tools. The problem is I am looking at plans that will (inaudible) stock assessments that I have about as much information as we do now in 1992 when I look at scup, when I look at sea bass, and when I look at a bunch of other species that (inaudible) managed. I don't see those stocks ever coming out of tier 4. So we are always being super precautious, super restrictive on commercial / recreational sector because we are not doing what we are supposed to do. My other frustration comes when I look at the budget (inaudible) with no (inaudible) for the budget for the National Marine Fisheries Service and I look at diverting more money for the management tool and taking it away from stock assessment tools. Part of the frustration with sitting here for years is because we don't understand what is going on in the ocean; we don't understand what is (inaudible) summer flounder, scup, black sea bass. We are in no better shape than we were 26 years ago. That's a

shame. We have better models, we can look at that but the real biological data that, the real on the (inaudible) but we are losing that. If you look at the budget of every state there is less work being done on real fish biology. So we are making more and more use of models without having the data. A long time ago I learned garbage in, garbage out, and that's basically where we are. I can sit here and go through this whole document, that's what I use to do 15, 20, 26 years ago, and go page by page and say this is what's wrong but when you start off with the premise where you're not spending the money to get the stock assessment, the only thing you're doing is putting (inaudible) on the image to start with. What we are talking about here, and I looked at it, are the Regional Director shutting down (inaudible) based on MRFSS. Let me see, I got figures that the US Fish and Wildlife Service basically puts out how many recreational rules we have. Those figures do not gel with the National Marine Fisheries Service. They do not compare at all. Then we have license figures. When you look at North Carolina they have 450,000 licensed anglers, you look at MRFSS and it say they have 2 million anglers. The US Fish and Wildlife Service they have a different number completely. How are we supposed to get estimates? As Adam pointed out, the Magnuson Act was to get better information on the recreational sector. We spent three years basically doing a registry that only give us a better phone book. I went to a cooperative and statistical program meeting on Thursday and I could walk in there, I could have walked in there 5 years ago, 6 years ago, or 10 years ago, and we are probably at about the same point. We're getting a little better. But 10 years of frustration of both recreational and the fishing community that is basically dealing with the pain because of a precautionary approaches that are put on sometimes needlessly because of lack of information. I am not going to sit here and go page by page because I guess my frustration level after going through this time and you can maybe appreciate it a little bit Rick but I have been going to these meetings for a long time and the mackerel fishery is the one I really (inaudible) because I remember sitting with a good man from Maryland Jim McHugh and Axel Carlson and we looked at that fishery specifically on why it disappeared on the in-trawl fishery and I am sitting here 26 years later because that was done in 1984 when we started looking at it, when we were going to rebuild the stock and there is no rebuilding of the in-trawl fishery. There is no way you can go five miles off shore and catch mackerel doing those spring runs, occasionally a small run. And yet, we have been penalized because when they collapsed the fishery done by the foreign fleets, we get rewarded by the smaller quota. I guess bluefish is another example where if we didn't do the transfers, we let the stock rebuild, where would that stock be right now. That is always a difficult situation. I actually voted for the transfer originally because the management plan was horrible. We made the commercial quota based upon the recreational catch. That's a better plan now, it was suppose to be an 80/20 split but it never happened. It is about 50/50 when we actually look at what's being allocated. It is a management plan that we never have followed as far as the allocation process. I will just leave it at that. I mean, it's just a lot of frustration and I'm sorry that I'm not going to go page by page, somebody at the commission or maybe I'll be part of the process and maybe I'll get over the frustration, but I really look at the budget. And when you tell me you're going to transfer to do catch shares programs and I look at the lack of fisheries information that we have on stock assessment, it just drives my frustration over the wall. That's what has happened in the last year and a half.

Ms. Kristen Cevoli, Pew Environment Group: We would like to thank you for this opportunity to provide public comments on the record. We will also be submitting in more detail a couple of comments. This will specifically address (inaudible) alternatives but for the time being my comments (inaudible) the document as a whole. We are generally optimistic about the contents of the Omnibus Amendment and we really commend the Council and staff for all the hard work that they have put into this. We do believe there are still some essential elements that need to be included in this document before it will fully comply with the requirements of the Magnuson-Stevens Act and the NS1 guidelines. Our first point is on the Council risk policy. The 2006 Amendment to the MSA required catch limits do not allow overfishing. This is reiterated again in the NS1 guidelines. The law doesn't state that most of the time there shouldn't be overfishing; it says there should be no overfishing. Because of this clear mandate we at Pew have repeatedly stated the probability that overfishing will not occur needs to be high and that in order to do this the Council needs to select and upper range which should not be higher than 10% of probability of overfishing. Because the Council is proposing setting the ACL equal to the ABC, sorry, the Council then needs to select a risk policy that really ensures a high probability that overfishing will not occur because the Council really can't adequately account for the magnitude of what that overage could possibly be. In addition, we feel the Council risk policy should be fully integrated into the FMPs and not a part of the Council's Standard Operating Procedure's as is required by the NS1 guidelines. On next point is on management uncertainty. The Council must account for management uncertainty and the ACT control rule is one way to do this. Therefore we support the inclusion in the document of annual catch targets as a buffer to ensure that the ACL is not exceeded. However, we feel that the Council really needs to have a better analysis of what management uncertainty is. Clearly articulate how management uncertainty will be accounted for as is outlined in the NS1 guidelines. Simply stating that the Council is considering a process really doesn't satisfy the NS1 guidelines. We agree that the individual species management committees have particular knowledge and expertise that's really applicable to this process but the Council really needs to have an overarching policy that's clearly articulated in the Omnibus Amendment which then the individual committees can use in order to guide their decisions. On optimum yield, we believe that the Amendment currently does not sufficiently account for ecological concerns in determining OY. The Council should adopt ACT control rules that address the ecologic, economic, and social factors that must be considered accounted for when accounting for OY as is outlined within the NS1 guidelines. In addition, OY must account for all fishing mortality including target catch, bycatch, discards, and scientific research. And our final point is on the Environmental Impact Statement, and although we have already previously gone on the record with the Council with our March 25 letter regarding the Council's intention to prepare an Environmental Assessment instead of an EIS we would like to reiterate our opposition to this decision again, and note that the Council's explanation for this move is inadequate. We do not believe that the potential effects to implementing this Omnibus Amendment are too remote and speculative to it as stated in the Omnibus as to access the impacts on all managed species, on all non-target species, habitat, protected resources, human, communities, and other things that the Council really should be looking at and should be preparing and EIS to evaluate these

impacts. Thank you for the opportunity to comment and we will be submitting more details on this as well.

ACL/AM Omnibus Public Hearing #2
Newport News, VA
May 10, 2010

Moderator/Hearing Officer: Jack Travelstead
Council Members and Staff: Jessica Coakley, Rick Robins
Attendees: David Agee. Harry Doernte, Skip Feller, and 1 other

No formal statements were made. However, general comments about the adequacy of the MRFSS data. Several questions were also raised about when the ASMFC was considering accountability, and how the application of Federal coastwide accountability may allow states who manage conservative not to be penalized because of states which have overages.

ACL/AM Omnibus Public Hearing #3
East Setauket, NY
May 12, 2010

Moderator/Hearing Officer: Jim Gilmore
Council Members and Staff: Jessica Coakley, Steve Heins
Attendees: Arnold Leo, Charles Witek, Laurie Nolan, John Nolan, Kristen Cevoli

Ms. Laurie Nolan, F/V Seacapture, Montauk, NY, fulltime tilefish boat, ITQ holder: I am a little disturbed to see that one of the alternatives considered would adjust the ITQ allocation, which is a directed fishery, to accommodate an increase in incidental landings in the incidental category. I don't think accommodating to discard should jeopardize the landings that can occur in a directed fishery. The allocation that has been given to the ITQ holders was based on historical landings that occurred over a long period of time. If we are going to take from that sector we are basically reallocating that quota. If we are going to take from them in order to accommodate a discard issue, doesn't think is fair. There will be analysis done on trip limits in the incidental category. The 300 pounds was chosen as a trip limit because, looking at years and years of data, it was a buffer that well captured any landings that occurred in the dragged fishery. If you go around increasing incidental trip limits, you are creating incentives for targeted species. Who can resist when it comes to covering their expenses? I don't think that is the right way to go about it. If you are going to talk about accountability, you punish the people who have exceeded, not the ones working within the guidelines. Certainly the directed fleet could go out and land more fish but they don't because of the regulations in place. While you have these users abiding by the regulations not overharvesting, they are going to be penalized in the end anyway because another user group is exceeding its targeted quota. I am not pushing to shut down other fisheries or pointing fingers. I don't think that was the intent of creating accountability measures. If my son does something wrong, I don't

punish my daughter. Thinks we are not dealing with accountability when it comes to the guy who messed up. Jessica did an unbelievable job. There are a lot of comments to be made on the document. I will write more comments. But I have made the comments that bother me today that are disturbing.

Mr. Arnold Leo, Town of East Hampton, representing the commercial industry: Disagree with the use of these 4 tiers to determine the probability of overfishing for the different species. A species in tier 4, it is likely that it is going to have a requirement of something like 20% probability of overfishing. I find that to be objectionable that they would be using that [assessment level] in the risk level of overfishing. To put it in other words for the poor data, the only one who is going to pay for it is the fishermen. I think over the years the system presently used for management has resulted in no overfishing of any species managed by the Mid-Atlantic Council. The amount of energy and expense that has gone into this alphabet bouillabaisse is utterly offensive to my sense of efficiency. I will be at the June meeting and you may expect to hear more from me.

Mr. Charles Witek, Coastal Conservation Association, NY: This is just a summary of written comments to be provided. CCA of NY is really pleased with some of the possibilities that are coming out with respect to the ABC. We like the idea of a tiered system; we like to see scientific uncertainty categorized because obviously there is more risk involved in managing a species where data is unavailable and where a lot of important facts are unknown. This makes it more unlikely a stock would be inadvertently overfished which would ultimately harm all of us. Therefore, we endorse Alternative 1B [ABC framework]. With regard to risk assessment, we think what you do and amount of risk you are willing to accept when managing species with varying types of data, a species that is very fecund and begins to mature very early, should be very different than managing a species that is badly depleted or one with a long age to maturity or long marginal fecundity. Therefore, what we would suggest is a modified Alternative 2F. We think the distinction between a stock that is overfished and one that has never been overfished is an artificial distinction. Almost every thing has been overfished at sometime in its history. Odds are that if something has not been overfished, it probably will be for a brief period in the future. Rather, we would suggest that the panel that is used for stocks that have been overfished would be adopted in its entirety and that the panel that has never been overfished would be deleted from 2F. We find it somewhat unacceptable that any risk should be set at 50%. This is a long deliberative process that involves a lot of time and a lot of analysis. At the end we should have a probability of success that would be better achieved than tossing a coin. Therefore, 50% would probably be too high, so maybe something in the 40s%. So start at 45% and go to 10%. The life history differentiation is important when dealing with a species like black sea bass where removing a dominant male from a spawning aggregation could make a real difference and disrupt the aggregation. That means something and should be accounted for. When we get to the ACLs and AMs there is a problem. The problem results from a failure to differentiate from AMs in the commercial and those types used in recreational fisheries. The characteristics of those two sectors are very different. We have no problems with the commercial AMs. If there are problems, someone more familiar with the fishery should point them out. In a recreational fishery the biggest problem we have is that rather than

governing a small body of fishes where the catch is recorded in near real-time, you are dealing with millions of individual anglers who land very few fish, all of which aggregates significantly, and whose harvest is estimated with a six week lag. That makes it much more difficult to impose various AMs in-season. In addition, when you deal with recreational anglers, you are not really regulating harvest, you are regulating behavior. What happens, if you shut down a season, mid-season, assuming that occurs, all you are going to do is get a massive effort shift into another fishery and force overfishing in another fishery. When we talk about imposing AMs, as alluded to in the discussion, there is also another major problem. All four major recreational species managed by the Mid-Atlantic Council are co-managed by the ASMFC. The evidence is pretty clear that the ASMFC will not impose mid-season closures. We just saw that with black sea bass. ASMFC is much less likely to be concerned about quickly ending overfishing as they get into rebuilding. We saw this with weakfish, 3% SPR and they continue the fishery. We had southern New England winter flounder, 8% B(MSY) and they continue the fishery in that species, even though Federal government closed that fishery down. ASMFC is an unrealizable partner, at best. By imposing AMs as mid-season closures and paybacks in the following season, what you are likely to see is divergence between ASMFC management measures and Council management measures. Since most of those species are caught inshore, all you are going to do is frustrate the goals of the plan. What we should be doing is creating a management scheme that would be more acceptable by using an F(target) and F(threshold) to manage the recreational fishery. Yes, I believe in a proactive ACT but in the form of an F(target). If you want to see the model for successful management of a mixed fishery look at Atlantic striped bass. The commercial fishery is managed on firm quotas and the recreational fishery is managed on basis of F(target) and F(threshold). In Fifteen years since the stock's was declared recovered, you have a very active fishery and successful fishery at an F(threshold), that to my knowledge has not been exceeded although it has been approached once or twice. That has managed to constrain harvest while maintaining a healthy fishery and that is an approach that ASMFC would probably endorse. I have species specific recommendations but will not go into too much detail except for two. Summer flounder, again in talking about paybacks, mid-season closures in a fishery managed state by state basis, it is not going to work. It is in the interest of the smaller state to set regulations that look good on paper knowing they are only going to have to pay back 4 or 5% of the overage they caused because the other states are going to have to pick up the slack. Even the bigger states: Virginia at 16%, New York around 17.5% and New Jersey about 39%. A state can set regulations that cause an overage and they know they have to pay back a portion of that overage and the other states are going to be responsible for the harm they caused. In the case of scup, 15% trigger would not work. It is a four state fishery between MA and NY. The MA fishery is a spring fishery, ends in middle of June. The other three it is a Sept - Oct fishery. If you see an overage of 15% in Wave 3, that means that MA took the fish. The fish will not be caught and NY, CT, and RI will be deprived of their fishery. That is something that is not going to work.

Mr. James Gilmore, ASMFC Commissioner: This goes back to something that Charlie said. One of the things that concern me is that these measures are in Federal waters, and the ASMFC is not considering ACLs and AMs yet. Measures need to been in alignment

because essentially the fish are in both places for several of the stocks. There is concern in the SSC, setting the parameters, the ABCs and assessment levels, etc. We got the first flavor of this last August with scup and BSB in that SSC came out with some determinations and there was no dialog, which is very foreign to a lot of the Council members. Suddenly their inclination was to have a discussion now, but they said no, we have already decided. If the SSC is going to have that autonomy, first of all they are going to hand something down which is really foreign to this whole system that has been operating for decades. It is essentially something of a cooperative, something of a dialog and becoming something of more that these guys make a decision or this group makes a decision and it is supposed to be based on best science and some of those decisions seem to be extremely conservative and I think a lot of the Council members do too. Getting back to the alignment with the Commission, if you have that sort of level of autonomy and that they are being very conservative that it is even upsetting the Council itself that is going to make it even more difficult to the Commission to start buying into what has been said by the SSC. For the Councils, I think that is going to further complicate this whole process. If you are trying to get one management scheme for a particular species that is both in state and federal waters, and you have one group that doesn't really want to play with the rest of the gang, I think we are setting ourselves up for a problem. So that needs to be reconsidered maybe, that the SSC maybe has to have a more open process in terms of what they are coming up with, include some more dialog rather than coming up with the decision that this is what we are doing, here it is, deal with it.

ACL/AM Omnibus Public Hearing #4
Stockton, NJ
May 18, 2010

Moderator/Hearing Officer: Peter Himchak
Council Members and Staff: Jessica Coakley
Attendees: Bill Shillingful, Ron Goschler, Jack Fullmer, Jeff Bauer, Eddie Yates, Lars Axelsson, Greg DiDomenico, Mike Loper, Ed Goldman, Brook Koeneke, Lee Scanny, Marty Buzas, John Herron, Jim Winn, Fran Verdi, John Hopslider, Kevin Bradshaw, Tom Buban, Scott Russell, James Hauselt, Joe Fumo, David Banke, George Forrer, David Meunier, George Bracheart, Jeff Gutman, Jim Hutchinson, Paul Thompson, Jim Cincchitti, Andrew Morrison, Adam Nowalsky, Lindsay Fuller, Mark Taylor, Jason Kleinschmidt, John Sullivan, Michael Tabassl, John Henson, John Oswald, Tom Siciliano, Maria Dowd, Fred Dowd, Jerry Hurd, Bert Gibbs, James Krauss, Ted White

Mr. Ed Goldman: On page 21, the trigger for AMs, when looking at that it occurred to me that our management regime puts us at a catch 22. Our management regime requires us to harvest bigger and bigger fish. That creates discards to go up and then the discard mortality goes up. It's like a merry go round and we can never get off, we are going to keep going and going. With AMs thrown in there and uncertainty and everything else, the Council really needs to look at the management regimes of what taking bigger fish actually means. On page 34, harvest overages for bluefish, subsection C would be my choice. Don't really like it but it bust is best of the three. Again it would put us in a catch 22 where we could wind up giving back the overages on the recreational side and we would probably wind up without having much of a quota at all. I think that transfer needs to go away. If we overfish it should come off that transfer. On page 43, when we evaluate the ACLs exceeding the recreational catch, for the recreational sector only two options exist. Evaluation based on signal year comparison on a three year moving average. Analysis is conducted with MRFSS recreational landings data for 2008 and the associated recreational harvest limit potential effect. We know summer flounder has been managed on state-by-state conservation equivalency. In the past, I have argued heavily for that but I don't see how the AMs for state-by-state would be compatible. Certain states have set their regulations to be targets that we have been given in the past and some states have been more conservative than other states. This was assuming that NMFS was right. I know we all believe in conservatism, and in NJ, we try to be more conservative. In this scenario there are states that aren't so conservative. Basically more conservatively managed states will be paying for it in the long run. We will see what happens when the Council and Commission meeting on that. The other point is where there is a season where there is basically no closure and they start their other season say January and NJ starts theirs May 29, it was closed down in the Federal waters Sept 1 we have a three month season and they have a nine month season. So that would cause disparities there. On page 44 where it says "NMFS Regional Administrator will monitor recreational fisheries based on MRFSS and other available information" what other information? I think we need to get as much information as possible. Don't see how MRFSS can be used. It was never intended to monitor closed quotas as we know, just long term trends

in the fishery. As time goes on, we keep expecting MRFSS to do more and more. In the Reauthorization, they said we need to fix MRFSS and along with AMs and ACLs. Here we are three years later and doing the ACLs, but we have gotten no where with MRFSS. I understand the MRIP program is slowly moving forward. I have asked this question numerous times, what would make MRIP better than MRFSS? I still haven't gotten a satisfactory answer to that. On page 44, it talks about the 50% rule, based on MRFSS data for 2000-2008. As explained before about the overages, again conservation equivalency in some states will be impacted by other state regulations. I don't think it would be good to for states to start their season earlier. I would give same comments for scup but not as much because it is kind of regionally based right now. BSB would not apply to that as much because they are managed by a coastwide basis. Can conservation equivalency exist with the AMs as spelled out? We get to the general recreational closure authority; refer to my earlier comments on summer flounder. Doesn't think it will work. Page 71, review process, did see this mentioned but hopefully the Council will put something in there to look to see if the ACLs and AMs are being too restrictive, therefore reducing the long term MSY unnecessarily. Hopefully they are not looking at any one direction and will loosen the screws a little bit and make it a little better for everybody. Didn't really see anything except a quick reference in the paper there is not much mention of social and economic impacts. It appears they have ignored it in this document. [Staff noted that impact analysis will be part of the next step of document development].

Jim Hutchinson, Recreational Fishing Alliance: We will have our official comments submitted by the end of the week. I wanted to thank you for coming to NJ and doing this presentation. This Amendment cannot possibly go through until NOAA fisheries meets it's congressionally requirement to fix MRFSS. Everybody in this room has mentioned it. It is not just the recreational fishing community saying any longer that there is something wrong with the MRFSS data. It has been stated by the NRC. It has been mandated by congress to fix this data to have these types of AMs that have recreational paybacks, in-season closures, and basing it on fatally flawed data that is not supposed to be used in this. It is reckless and dangerous and could cause catastrophic closures and have a catastrophic impact on the fishing community. You cannot possibly go through with these measures without fixing those.

Burt Gibbs, Captain Robins Deep Sea Fishing: The sea bass closure virtually crushed everyone in this room. You have no idea of the vast economic damage that has occurred because of bad data. The closure was made on bad data and if NOAA and NMFS was a public company, I would sue them in any court in the land and I would easily prevail. I want each and everyone on the Committee to take a pause and realize if you get it wrong again, I may not be attending the next meeting because NMFS and NOAA put me out of business.

Jeff Gutman: I want to echo what Jim [Hutchinson] from RFA said. For a number of reasons all of these measures based on MRFSS data are absolutely a terrible idea. We also run into a situation that could occur with a front end [loading] of seasons with conservation equivalency. On the coastwide situation where certain species are prevalent in certain waters during a certain portion of the open season, and that part of the country

catches say 15% of scup or whatever the species may be, pausing the trigger that closes the rest of the coast of the management area that really hasn't had time to fish for those fish. A lot of things people forget are that it is very difficult to run a business when you don't know when you're going to be out of business. It is kind of like saying you are a dentist and need to do fillings and root canals. But at any time we can tell you can't. Whatever your job may be, if you didn't know you were going to be there on Sept 22 and you are only going to tell someone two weeks in advance, I guess that could be considered generous compared to what they did with black sea bass last year where there was a four day notice. All of those things, especially when based on MRFSS data are potentially devastating. There won't be an industry for the Council or Commission to manage, at least not on the recreational side if they start closing things down haphazardly.

Tom Buban, Atlantic Star: We are about 75 miles from here. These are important topics. The meeting should have been someplace in the middle to have people from North Jersey to start making these meetings. There is no one here but two or three people from up north. Agree with Jeff [Gutman] and Jim [Hutchinson] from RFA.

Paul Thompson, Cape May: Like Jeff [Hutchinson] said, how do you run a business or stay in business or hire people if you don't even know if you are going to be in business. In season closures should be stricken from this plan. I see how the figures were arrived at, which no one believes.

Gary Gretcher: Agrees with RFA and Jeff Gutman. We seem to be held accountable for overfishing and NMFS screwed up the numbers, and they are not being accountable for it. Who is holding them accountable for our dismay?

Tom Siciliano, Recreational Angler: This entire document is based on assumptions. It shows a lot of nice charts and shows scup going over this year and down this year. But that was based on the assumption that the stock assessment for scup was correct. It's not. You made the statement that the stock assessment for fluke was very good, the summer flounder group [from SSFFF] proved that was incorrect last year. How can you say that? Recreational anglers don't believe anything that is coming out of NMFS. They don't believe in any of the numbers. The numbers don't make sense. They don't correspond to what people are seeing on the water. A quick example, back in the 80s, Atlantic mackerel was the fist fish to hit Jersey. All the party boats loaded up and caught barrels and barrels of mackerel. Now Jersey will go over in two days. Use the data that is available. Use the party and charter boat data that is sitting in a warehouse over there. They have 20 years of data, put it in and see what the trends are for the party and charter boats. Discards keep going higher and higher. Size limits going up will cause more and more discards. Catching the larger females are the ones that you are killing.

Adam Nowalsky, RFA, NJ Chapter: We reiterate the comments that anything in this document that utilizes MRFSS for an in-season or reactive recreational payback is unacceptable. The Magnuson requirements were very clear; improve MRFSS by January 1, 2009, then go ahead and utilize the AMs in 2011. Here we are going forward with all the AMs provisions before MRFSS has been fixed. It is very clear that is not acceptable.

Additionally, there is a tremendous amount of concern in regards to the tired levels for the stock assessments. We have heard on multiple occasions from multiple sources most notably the chair of the SSC himself that most of the stock assessments with the exceptions of summer flounder and spiny dogfish would be a level four assessment. Now glancing at these levels, and the charts using the probability density functions for generating ABC offsets and the success that has been seen in the north Pacific Council utilizing this process, it would seem like something reasonable. However, understanding where we are with the level for stock assessments. Specific language in here says that "in these circumstances, the SSC may propose alternative approaches for satisfying the guidelines with MS1 then those set forth in the MS1 guidelines. It goes on to say that the SSC may deviate from the framework and recommend an ABC different from the resultant calculation. So what have we achieved? If managers and fishermen are looking for something that they can look back on and say I can now understand how we arrived at this quota for the given year, given the fact that almost everything here in the Mid-Atlantic is in a tier 4, we have achieved no improvement. Additionally, the fact that funding at the NOAA level for primarily doing this research is being shifted in a number of cases to catch shares or others, where is the money going to come from to increase a stock from a lower level tier to a higher level tier that would result in higher quotas for fishermen. It simply is not being made a priority. There are things already in use, possession limits, size and season modifications which meets the Magnuson requirement of a reactive measure and the fact of the idea of using an ACT reduction as a proactive concern so any of these in-season measures are unnecessary in meeting the constraints and are unacceptable based on MRFSS. I would like to offer the same comments on behalf of Captain Tony Bogan who asked me to offer his name as President of the United Boatman and on behalf of SSFFF.

Rande Burte: I want to reiterate what everyone else was saying. Everything is this whole document is based on MRFSS. You cannot have an in-season closure, whatsoever. If you do have that, you shouldn't have a season at all. We do close Sept 1. I can only imagine what the pressure would be for species we don't' fish for like striped bass. I saw this last year when sea bass closed, instead of fishing with 100 boats there (inaudible).

Mark Taylor, President of Jersey Coast Anglers Association: I have written comments to send in. JCAA does not include [support] the four tier system dealing with poor stock assessment data. The four tier system deals with the fact the NMFS is still dealing with the same poor stock assessments for the last 25 years. JCAA asked them 25 years ago to get better stock assessments. They failed to spend the money to accomplish this. Instead of doing stuff like that, putting the money to help us, they are not doing it. Garbage in, gospel out, according to NMFS. If they put in garbage, they treat it as gospel coming out. There are people that are very upset on how the money is being spent. JCAA does not support giving the Northeast Regional Director the power to shut down the recreational fisheries. We had that problem with the 3rd wave of the sea bass. (inaudible) This document is very difficult to understand to the normal person that is out there in the fisheries. There are no examples. Everybody has different interpretations of what comes out of this. There are different Councils that are dealing with this data and

have their own interpretation. It is tough to come up with one consensus of what is going on here. Everyone should know what is going on.

Eddie Yates: One thing that disturbs me the most as everyone has spoken so far about MRFSS, last year wave 6 numbers from sea bass came back 85% under. How can you possibly have any kind of catch rates at all when the fishery was 100% closed? It should have been 100% not 85%, and they used it based on 2008 data. NMFS published they were 85% under on Wave 6 on a 100% closed fishery, think about it. That goes to show you that MRFSS possibly did not have good data.

Jim Krauss: I would like to point out three things. First of all, professionally I have been a CPA for 37 years. I want to complement you on what looks to be a marvelous model in [this]. One fatal flaw is the data. I think you have turned a "wag into a swag." If you don't know what that means it is a wild ass guess turned into a scientific wild ass guess. Secondly, I am a taxpayer of NJ and the US. This industry contributes a lot of dollars in sales taxes and income taxes. There has got too be a cost benefit analysis before anything is shut down or substantially reduced. Finally, as a recreational fishermen I think everybody in this room has something they need to protect, and manage the resource, because we want to keep it for our kids and grandkids.

Maria Dowd, RFA NJ Chapter: I agree the document needs tightening; the requirements are very loosely written. I believe that basically CVs for the recreational fish based on other than regional data is unconscionable, in that excuse, the outcome before the process is even done. Having somebody catching flats off the coast of NJ and the inlet, having their data based on Alaska or overfished places in Japan is unbelievable.

Jack Fulmer, NJ Counsel Diving Clubs: As mentioned, I believe this is rushed too fast and is very complicated. I suggest a longer comment period. I think a lot of the automatic measures in this proposal are likely to cause closures. I think that is what you should be trying to avoid rather than the opposite. Finally, I think that the idea in the MSA was to have more science involved, but I don't see where science has been involved here. Basically, there has been less science because of the fact is that the states no longer have the money to do the surveys and really are no surveys being done. As a result, there is less science involved. It is like they are playing with methodology rather than doing what needs to be done.

Mr. John Ketterer, Fishhaven Charter Fishing Association: The plan looks good on paper, but they surely result in management overkill of a fishery that is important to everyone in this room. Until you get MRFSS, who are now 18 months into a plan that was supposed to imposed 18 months ago, you surely shouldn't be able to manage the fishery using data that was unacceptable several years ago. If I didn't pay my income tax for 18 months, people get upset. I'd pay interest and penalties. You haven't supplied correct data for 18 months and nothing happens.

Fred Dowd, RFA NJ: I am a fairly typical small recreational fishermen. My investment for me is rather substantially. I just purchased a 23,000 dollar boat. I have several

hundred of dollars worth of fishing equipment, dock fees, gas, oil, bait. All of this adds up to a lot of money every year. For you to use raw data to cut out of my fishing time and to take fish off my table, to take the enjoyment from me, my wife, friends, it is not like a social economic impact, it is horrendous. A lot of gentlemen in the room have big party boats and have a lot more invested as far as money. But I have a lot of investment too. The fact is that it is that something I love to do and I'm willing to spend the money to do. It is getting to the point where it is not feasible to even think about it because you can't catch fish anymore. My boat will be sitting at the dock. If the flounder season had been open like it was supposed to be, I would have been out fishing having a great time. With this raw data controlling our lives, we can't do it and it is just wrong.

Greg DiDomenico, GSSA: We have members who participate in every one of these fisheries and we have followed this amendment throughout its entirety from the beginning to the end and have provided public testimony. We will provide testimony at the June Council meeting.

John Herron, RFA: I am sure it takes a lot of money to run NMFS. What they have to do is learn how to build the fish stocks with the industry instead of just putting people out of business. They need to find a way to put people to work. Put money back into the economy that they are taking out.

Jim Cincchitti: Concurs with comments regarding MRFSS data. Economically this is ridiculous.

COASTAL CONSERVATION ASSOCIATION
NEW YORK
P.O. Box 1118
West Babylon, NY 11704

May 12, 2010

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

Dear Mr. Furlong:

Coastal Conservation Association New York ("CCA NY") is taking this opportunity to provide the Mid-Atlantic Fisheries Management Council (the "Council") with comments regarding the Omnibus Amendment establishing Annual Catch Limits ("ACL") and Accountability Measures ("AM") in all fisheries management plans that fall within the jurisdiction of the Council (the "Amendment"). In general, CCA NY is in agreement with the goals of the Amendment. However, the Amendment, as currently drafted, fails to recognize essential structural differences between the recreational and commercial fisheries and, because of such failure, the AMs proposed for the recreational sector in the various management plans must be revised. Such need will be explained in greater detail in the appropriate section of these comments.

I

With respect to the control rules used to establish Allowable Biological Catch ("ABC"), the Council should adopt Alternative 1B, which establishes four assessment levels that link the methodology used to establish ABC with the quality of the data available.

Calculations of ABC, as well as other management parameters, must be based on the best available data. However, the quality of the data available to manage various species differs widely, from the good and still improving information used to manage summer flounder to the relatively scant data applicable to species such as butterfish or monkfish. Since the quantity and quality of the data available is directly related to the confidence that one may have in both the accuracy of a stock assessment and the efficacy of the management measures imposed, it is logical that such factors should be taken into consideration when determining the point at which ABC is to be set for each managed species.

Alternative 1B does a good job of organizing the various factors which might affect the available data, creating four assessment levels distinguished by successively diminishing data quality. Such

distinctions are important, as when data is known to be reliable, the ABC can be set relatively close to the Overfishing Limit ("OFL"), while when data is of more questionable quality, or reliable data is altogether absent, managers must take a far more precautionary approach in order to properly address the scientific uncertainty, and set an ABC which is significantly less than the OFL.

For those reasons, CCA NY endorses Alternative 1B.

II

The Council should establish a risk policy which makes it unlikely that overfishing will occur, which incorporates both a species' life history and the condition of the stock into consideration when determining the appropriate management measures.

Although CCA NY cannot give an unqualified endorsement to any of the alternatives provided, it can give general support to the concepts incorporated in Alternatives 2D-2F. All have points militating in favor of their adoption, but all share a common flaw. Each, assuming that data is of the highest quality and that the stock's biomass attained a target level, would permit the adoption of measures that would reduce the likelihood of avoiding overfishing to a mere 50%. While the proper level of risk in any given situation might be subject to debate, everyone should agree that the lengthy process of data gathering, analysis and deliberation inherent in the management process should produce a result with a higher likelihood of success than could be achieved by the simple toss of a coin. Attempts to constrain overfishing which are as likely to fail as to succeed are, at best, of dubious utility. Alternative 2C is inflexible and has very little to recommend it. It's one virtue, however, is that it never permits the likelihood of overfishing to be set at coin-toss odds.

Alternatives 2D and 2E are better, as they condition the level of acceptable risk on the quality of the available data. However, neither considers the additional scientific uncertainty that can arise when dealing with species that have atypical life histories, perhaps best exemplified within Council jurisdiction by the black sea bass, a protogynous hermaphrodite that forms spawning aggregations that can be disrupted by the removal of a single dominant male. Alternative 2F, which incorporates such considerations, comes very close to the ideal, but perhaps adds an undue complication in dividing stocks into those which have previously been overfished and those that have not. CCA NY believes that fisheries management should be forward-looking. The fact that a stock has been overfished in past years does not mean that it will be overfished in the future; managers should have the ability to learn from past errors, and be able to keep from repeating past mistakes. Similarly, the fact that a stock has not been overfished does not mean that overfishing will not occur; if anything, there will be a temptation to grow complacent as a result of past successes, to "push the envelope" and eventually violate the overfishing threshold. Wait long enough, and there will be no such thing as a stock that has not experienced overfishing. There will only be the question of when and for how long such overfishing took place.

CCA NY therefore suggests that the Council adopt a variant of Alternative 2F, which would omit the "Has Never Been Overfished" category. By doing so, they would adopt a risk management policy which takes into account the greatest number of variables, and recognizes that there must be a greater aversion to risk when dealing with a badly depleted stock. It would also assure that no management

plan would contain measures that are as likely to fail as to succeed, and would effectively adopt the concept expressed on page 19 of the draft Amendment, that "the application of a lower [maximum probablility of overfishing] such as 45 percent or 40 percent" is, indeed, appropriate.

III
ACLs and AMs

While the ACLs and ACMs proposed for the various commercial fisheries managed by the Council appear satisfactory, and the recreational ACLs should prove viable if established in conjunction with "proactive" AMs in the form of Annual Catch Targets ("ACT"), the Council's failure to recognize the essential nature of the recreational fishery and its differences from the commercial fishery renders all proposed "reactive" AMs inappropriate.

A

In the case of all species discussed in the draft Amendment which are subject to both commercial and recreational fishing, the alternatives presented fail to adequately consider the essential nature of recreational fisheries and the motivations of recreational fishers. As a result, the AMs proposed for the recreational sector are similar to those proposed for the commercial sector. That is not appropriate, and will result in overly punitive and likely ineffective AMs.

Despite years of comment from the recreational sector, fisheries managers have yet to recognize the essential difference between recreational and commercial fishing. Commercial fishers must necessarily emphasize dead fish, and fish as efficiently as practicable to maximize the profit realized on their catch. Recreational fishers, while they may retain some portion of their catch, fish primarily to enjoy the outdoor experience, to spend time with family and friends, and to escape the workaday world. Unlike commercial fishers, they intentionally engage in a very inefficient activity, and want to stretch their portion of the ACL out over as long a season as possible. Such lengthened season maximizes not only the recreational opportunities offered by each fishery, but also the economic benefits of recreational angling.

In addition, the commercial fishing industry is characterized by a relatively small number of fishers who each catch a relatively large number of fish, and can only participate in fisheries for which they hold the required permits (the few remaining open-access fisheries being a minor exception to that general rule). Mandatory, real-time reporting, verified by weigh-out slips or similar groundtruthing measures, is practical, and allows managers to make a reasonably accurate estimate of harvest at any time during the course of a season. The recreational fishery, however, is made up of millions of fishers who each catch only a small number of fish, and frequently switch target species depending on what is most available. For most species, no type of real-time reporting system is practicable; instead, representative anglers must be surveyed, and harvest estimated within what is hoped to be a reasonable degree of error. Such estimates cannot be made in real time, but in the best circumstances lag harvest by six to eight weeks.

That being the case, commercial and recreational fishers cannot be shoehorned into the same type of AMs, yet that is what the draft Amendment would do. For commercial fishers, closing a season early once the ACL is reached is an appropriate measure, as they will already have landed their quota and realized whatever profit was to be had. In the same vein, requiring commercial harvesters to pay back overages in a following year is not unreasonable, as the measure would likely affect the same group of individuals who caused the overage, and the "excess" earnings resulting from the overharvest in the first year can be set off against the lesser earnings resulting from any payback. Thus, in the case of commercial fisheries, the AMs set in Section 3 of the draft Amendment would appear logical.

However, that is not the case with the recreational AMs. Anglers fish not for pounds, but for pleasure. Thus, while a midseason closure in a commercial fishery merely means that the fishers involved caught their entire quota quickly, and thus could cash out early, a midseason closure in a recreational fishery is something else entirely—it is a denial of significant recreational opportunity that can never be recaptured. It is that recreational opportunity, and not such dead fish as might ultimately be taken home, that is an angler's primary motivation. If anglers sought nothing more than a fish dinner, their wants could be met, at far less cost in both time and money, by a quick trip to the local market. For anglers and angler-related businesses, midseason closures are far more punitive that they are for commercial fishers. They are also counterproductive.

Closing a commercial fishery early will result in some effort shift, but only to the extent that commercial fishers have the permits and the quota to do so. Any such shift is likely to cause an accelerated closure of the newly targeted fishery, but because of near real-time commercial reporting, would probably not result in a significant overharvest. In recreational fisheries, a mid-season closure would result in not only wholesale effort shift, but also significant overfishing, as delayed reporting and estimates of harvest would not be able to timely prevent such overharvest. The recreational black sea bass overage of 2009, brought about largely by a shift of effort out of the summer flounder fishery due to strict regulation and, in some jurisdictions, closed seasons is a perfect example of such an outcome.

Mandatory paybacks of previous seasons' overages would have an even more malignant effect on the recreational fishery, and we would eventually see a domino effect among the most popular species. As the recreational ACL for one species is reduced, harvest regulations for that species would grow more severe, causing anglers to shift effort to other species, which would then be subject to overfishing and the resultant paybacks. Due to the sheer number of anglers and the delays inherent in estimating harvest, it is likely that any overharvest would not be detected until it had continued for some time, likely leading to draconian paybacks in the following year. It is not inconceivable that, after just a few years of such management, the ACLs for the most popular species (e.g. summer flounder, scup and black sea bass) will be reduced to levels that cannot not support a meaningful fishery. While the law requires that overfishing be ended and that AMs be adopted, it is certainly not the law's intent to drive anglers out of fisheries and deprive fishing-related businesses of the ability to make a living.

In addition, all of the most important recreational species managed by the Council (bluefish, summer flounder, scup and black sea bass) are managed jointly with the Atlantic States Marine Fisheries Commission ("ASMFC"). ASMFC is not bound by any legal mandate which requires it to end overfishing, rebuild overfished stocks or impose AMs in any fishery. As demonstrated by its recent decisions to continue harvests of the Southern New England/Mid-Atlantic stock of winter flounder (currently at 8% of $B_{threshold}$, $F_{rebuild}$=0.00) and weakfish (currently at 3%SPR), ASMFC takes advantage of such lack of legal

constraints to avoid the mandates of responsible stewardship. Similarly, its refusal to close state waters in conformity with either the National Marine Fisheries Service's indefinite closure of the Southern New England/Mid-Atlantic stock of winter flounder or its 2009 emergency closure of the recreational black sea bass fishery suggests that any recreational-sector AMs involving mid-season closures, and very possibly any AMs including significant poundage paybacks, may well be ignored with impunity by ASMFC. Since the majority of the bluefish, summer flounder, scup and black sea bass recreational harvest takes place within state waters, any federally imposed AM not adopted by ASMFC would be largely ineffective.

Thus, measures must be adopted that will provide adequate protection for both the resource and the public's access to them, and not result in the Council and ASMFC adopting divergent management plans. One of the simplest means of doing so is to establish a proactive AM in the form of an Annual Catch Target ("ACT") which is far enough below the sector ACL to account for management uncertainty in the fishery. However, because the recreational fishery is so different from the commercial fishery, and because recreational harvest is only estimated well after the fact, and not calculated in near real time, it is most appropriate to establish an ACT based not on pounds of fish landed, but on a fishing mortality rate ("F"). ASMFC provides a perfect model for managing a mixed commercial/recreational fishery in its Fishery Management Plan for Atlantic Striped Bass, in which ASMFC establishes both an $F_{threshold}$ (corresponding to an ACL) and an F_{target} (corresponding to an ACT) for anglers, while commercial fishing is governed by hard quotas and, if required, paybacks and midseason closures. The system works. In the fifteen years since the striped bass stock was declared to be recovered, recreational overfishing has never been an issue, and the stock remains healthy. Arguably, nothing ever proposed by the Council has worked as well, and there is no reason why the Council could not adopt a similar approach for mixed fisheries it manages. While the law requires a "mechanism" that assures accountability, it does not require that any AM impose poundage limits, paybacks, etc. It only requires that the mechanism be effective. Experience demonstrates that an F-based management system, such as that employed by ASMFC to manage striped bass, can be extremely effective. It also demonstrates that a poundage-based system, such as the Council employs to manage the recreational scup fishery, often fails to adequately constrain harvest

B

To the extent that paybacks may be adopted as an AM in the recreational bluefish fishery, no payback should be imposed on anglers unless recreational harvest exceeds the recreational allocation prior to any shift of allocation to the commercial sector; Sub-option C most closely addresses the proper approach to any such problem.

The Council's bluefish management plan establishes the allocation of harvest between the recreational and commercial sectors, but permits some portion of the recreational allocation to be transferred to the commercial sector should the Council believe that the recreational sector will not harvest its share in any given year. There are reasons, irrelevant to this discussion, why CCA NY believes that any such transfer is inappropriate. However, for purposes of the Amendment, it is clearly inequitable for the recreational sector to face the imposition of punitive AMs should it exceed its sector ACL in any year, to the extent that the sector would not have exceeded such ACL had fish not been

transferred from the recreational to the commercial sector. Thus, the proposed Sub-option A is completely unacceptable. Sub-option B, which would share a subsequent year's reduction in the ACL, is only marginally preferable, as it still places part of the blame for the overage on the recreational sector, which was in fact merely a victim of a faulty reallocation decision made by the Council. To the extent that the problem can be fully addresses by Sub-option C, which would reduce the amount transferred from the recreational to the commercial sector in the following year in order to account for the overage, then Sub-option C should the exclusive AM used to address such overage. However, should the Council decide that the transfer amount in the year following the overage is insufficient to fully address such overharvest, than the commercial sector, which received the benefit of the unwarranted transfer which caused the recreational overage, should bear full responsibility for any payback, except to the extent that the overage exceeds the amount of fish transferred. Such procedure would closely link the benefits realized in the prior year's overage with the costs of any payback imposed, something that is not necessarily accomplished by any of the proposed Sub-options.

C

Any AM involving an In-season closure of the recreational summer flounder fishery would likely prove ineffective; AMs involving paybacks of overages in subsequent years will, under the current management of the species, unfairly harm anglers in states which maintain harvest levels within their annual allocations.

As stated in subsection IIIA, above, in-season closures of recreational fisheries are an undesirable remedy, which are likely to cause as many problems as they purport to solve. In the summer flounder fishery, such AMs are likely to be completely ineffective, as it is very likely that ASMFC will not adopt similar measures. The reason is simple. Summer flounder are one of the most important recreational species caught in coastal waters between Rhode Island and Virginia, and the profits of many businesses rise and fall in direct proportion to participation in the recreational summer flounder fishery. ASMFC has no federal mandate which requires that ending overfishing, and rebuilding overfished stocks, be given priority over other issues. In fact, the ASMFC charter requires that economic factors be considered when making many management decisions. In addition, many of ASMFC's commissioners either have a personal economic interest in one or more fisheries, represent individuals who have such an interest, or are state employees who are not immune to pressure being put on them by fishing-related businesses. Given those truths, and given ASMFC's recent history of ignoring other federal fisheries closures (as further described in subsection IIIA of these comments), it is not realistic to assume that ASMFC will conform to federal closures in any fishery as economically important as summer flounder. For similar reasons, any significant payback is likely to result in ASMFC setting its own harvest limit for summer flounder, which would likely to be substantially higher than the recreational ACL, net of any payback, adopted by the Council.

In addition, so long as the recreational summer flounder fishery is based on conservation equivalency instead of a single, coastwide set of regulations, enforcement of a sector-wide payback would prove inequitable to many anglers. Unlike commercial fishers, who might range over wide sections of coast during the course of a season, following the fish wherever they might be available, recreational fishers generally fish in a very limited area, often included within the waters of a single

state. It is thus inequitable to impose a payback on the residents of a state which stayed within its annual allocation as a result of another state's overfishing. "Conservation equivalency" is a simple concept to understand but one that is difficult to properly effectuate, and any person familiar with a state's fishery can easily draft regulations that adequately constrain harvest on paper but will not do so in practice. It is not inconceivable that a small state might draft such regulations, knowing that even if they caused substantial overfishing, the conservation equivalency methodology would result in it paying back only four or five percent of the resulting overage; it is not inconceivable that even a larger state with a shorefront economy heavily dependent on summer flounder would be more willing to risk overharvest, knowing that, depending on the state involved, it would only pay back 16, 17 or, at most, 39 percent of the excess fish killed.

AMs consisting of an F-based ACT that can be adjusted downward if overages occur would be a far more successful mechanism.

D

For reasons similar to those stated in subsection IIIC, above, AMs involving in-season closures or significant paybacks will likely prove ineffective in the scup and black sea bass fisheries; closing the scup season on September 1 in the event that Wave 3 landings exceeded the 15% threshold would impose grave and inequitable regional hardships.

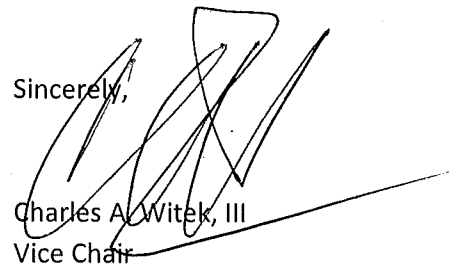
Neither scup nor black sea bass are as important, over the course of the year, to the recreational fisher and to recreational fishing industries as are summer flounder. However, the scup does support an intense fishery off Massachusetts during the spring, and off Rhode Island, Connecticut and New York during the fall. As noted in the draft Amendment, any effective AM would require the affected states to implement conforming measures within state waters. ASMFC's failure to conform to NMFS' October, 2009 black sea bass closure is probably a good predictor of how such states would respond to any in-season closure imposed as an AM. While there is a possibility that the threat of paybacks might influence states with a significant offshore black sea bass fishery, it would have little influence in the scup fishery, which occurs primarily in state waters. In addition, in-season closures would have a very disproportionate regional impact if imposed. More than 90 percent of the recreational scup harvest is caught in the states of Massachusetts, Rhode Island, Connecticut and New York. However, the Massachusetts season peaks in May and early June, while the other three states see peak harvest occur in September and October. By closing the scup season on September 1 should Wave 3 harvest appear excessive, the Council would effectively be allowing Massachusetts to control the recreational fishery, and potentially permit it to prevent the other three states) as well as those farther south from extracting an equal benefit from what has traditionally been a shared fishery. That is not an equitable result, and might arguably run afoul of national standards requiring an equitable distribution of conservation impacts.

IV
Summary

CCA NY supports the creation of a four-tiered assessment system as described in Alternative 1B, as well as a variant of Alternative 2F, which would utilize such assessment system, along with information on a species life history, which would determine the acceptable level of risk that could be assumed in any regulatory regime, while never permitting the possibility of overfishing to near or equal 50%. CCA NY also supports the creation of proactive AMs, in the form of ACTs, in recreational fisheries. However, it vehemently opposes poundage-based AMs which would result in in-season closures of recreational fisheries, or impose poundage-based paybacks on such fisheries, believing such AMs to be an inappropriate means of managing anglers (for in a recreational fishery, it is angler behavior which is actually the key target of management, while in commercial fishery, actual landings may be regulated), and further believing that many or all of such AMs will be frustrated by the actions of ASMFC. Instead, CCA believes that a system of F-based landings targets and thresholds will more effectively constrain recreational harvest and be more readily accepted by both anglers and ASMFC.

Thank you for your consideration of the above.

Sincerely,



Charles A. Witek, III
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Daniel T. Furlong
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Dover, DE 19901
Telephone: (302) 674-2331
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.

In an effort to provide comments on this amendment we are simplifying our statements as much as possible. The level of detail provided in the amendment is nearly overwhelming and until its methodologies can be applied to species-specific scenarios, more detailed comments on every alternative would have little value. After participating in numerous stock assessments, we are very concerned about the uncertain state of our scientific knowledge of fisheries, including our collective inability to collect and assess the data needed to more accurately determine the status of our stocks, many of which have been harvested in this region for decades. In addition, we are very concerned about the real dynamics of "scientific uncertainty" and the interpretation of this mandate by several members of the SSC; an interpretation that was revealed during the most recent SSC meeting. Based upon our experiences in the last year, we anticipate that nothing but reduced quotas will be the result of the new ACL and AM requirements being implemented by the Omnibus Amendment. Given the conditions and encouraging regulatory status of the majority of stocks and fisheries under the jurisdiction of the MAFMC, why are reductions of quotas, particularly in fisheries with long time-series of data and landings, the likely outcome of this process?

This amendment leaves us with many questions, making actual positions on the all alternatives contained in the amendment difficult for us to develop at this time. In addition, the amendment offers industry no blueprint for an expectation that quotas may actually go up one day through the use of applied research, with industry assistance, to help produce more reliable stock assessments in the future.

ES-5.0 Impact Analysis

While we understand that this amendment establishes the administrative process for the consideration of scientific and management uncertainty we cannot comprehend why the amendment does not clearly articulate the range of possible changes to catch levels as a direct result of the amendment. Furthermore, we do not agree that the impacts are "too remote and speculative to be appropriate for consideration in this amendment" as stated on page 12 of the amendment.

Section 1.0: Acceptable Biological Catch (ABC) Alternatives.

Alternative 1A: We support no Action on ABC control rule.

Alternative 1B: ABC Control Rule Framework – Four Assessment Levels: We do not support a "multi-level" approach for setting an ABC for a specific fishery. This approach is too precise for the current state of our scientific knowledge of the fisheries you are obligated to manage. Furthermore, it is being implemented during a time where the lack of money and time available to perform stock assessments is significant. Please consider recent stock assessments that have been performed; the scup and black sea bass stocks were classified as data poor stocks until 2009 when an assessment occurred declaring them rebuilt. Consider the inconclusive results of the Atlantic mackerel TRAC and Atlantic butterfish assessment, the stark differences between the previous assessments for both stocks and an unknown status determination for butterfish. How will the multi-level approach assign an assessment level for these stocks? Furthermore, how can this approach achieve the stated goal of maintaining optimum yield from these fisheries?

Section 2.0: Council Risk Policy Alternatives.

We support Alternative 2C: Stock Replenishment Threshold with Inflection at $B/B_{MSY} = 1.0$, XIntercept at $B/B_{MSY} = 0.1$.

Section 3.0: Annual Catch limits (ACL) and Accountability Measure (AM) Alternatives.

Action Alternatives for: Atlantic Mackerel ACLs and AMs: For the last few years we have demonstrated the potential impacts on the U.S. mackerel fishery due to Trans-boundary stock management. We supported an exemption for trans-boundary resources in our NS 1 comments similar to the position of the MAFMC and articulated this dilema during our testimony before the House of Representatives Committee on Natural Resources.

Since, accountability measures cannot be applied or enforced on the Canadian fishery why would the U.S. industry be put at a disadvantage and be the only entity to take conservative measures? We request that the fishery-level ACL would be set equal to the entire acceptable biological catch (ABC) for the Atlantic mackerel stock, in this case 80,000 metric tons.

Action Alternatives for: Butterfish ACL and AMs: We do not support any of the alternatives and believe that Atlantic butterfish should be exempt from accountability measures and should qualify for the short lived exception. With the high natural mortality exhibited on this stock and the fact that very few butterfish survive beyond one year and almost none survive to age 2, why not exempt this species and the FMP from ACL's / AM's?

Action Alternative for: Atlantic Bluefish ACL and AMs:

Annual Catch Limit (ACL): We support the fishery-level ACL being set equal to the ABC for the bluefish stock.

Accountability Measures (AMs): We support the current management already required by the FMP including the state overage reductions, the seasonal requirements to monitor commercial landings and the transfer of recreational quota to the commercial sector.

Proactive AMs: We support sector specific ACT's.

Action Alternative for: Spiny Dogfish ACL and AMs:

Domestic Acceptable Biological Catch (ABC): We do not support reducing the domestic ABC due to the Canadian catch. The domestic ABC should be set at the total stock ABC.

Action Alternative for: Black Sea Bass, Scup and Summer Flounder ACLs and AMs:

Annual Catch Limits (ACLs): We support separate ACLs for each sector (commercial and recreational) and that each sector ACL would be set equal to the acceptable biological catch (ABC) for the black sea bass, scup and summer flounder stock.

ACL Evaluation for (Recreational Sector): When the recreational catch exceeds the recreational sector ACL the overage deductions should be adjusted from the recreational sector ACL in the next year.

Accountability Measures (AMs) for (Commercial Sector): We support the current management already required by the FMP including the state overage reductions and the seasonal requirements to monitor commercial landings.

Proactive AMs: We support sector specific ACT's.

Section 4.0: Periodic Review of ABC, ACL, and AM Alternatives: A clear role for stakeholders to participate in a review process should be articulated in this amendment and a review to revisit and evaluate ABC control rules should be conducted immediately following the implementation of this amendment.

Section 5.0: Description of Process to Modify Actions: We support a process that allows for the timely modification of the action alternatives proposed in this document through the annual specification or framework process. The process to modify actions implemented by this amendment should not take more than 6 months or should be completed before the beginning of the next fishing season.

Thank you for the opportunity to comment.

Gregory P. DiDomenico
Executive Director
Garden State Seafood Association

JERSEY COAST ANGLERS ASSOCIATION

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May 18, 2010

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JCAA Comments to Omnibus Amendment

JCAA comments:

1. The JCAA does not support the four-tier system for dealing with poor stock assessment data.

The Omnibus Amendment sets up a four-tier system to deal with the fact that NMFS is still dealing with the same poor stock assessment for many species that it was 25 years ago. JCAA asked NMFS 25 years ago for better stock assessment data for many species including black sea bass and scup. NMFS has failed to spend the money to accomplish this and it is still not doing anything to improve that data for these and many other species. The NMFS Data Poor Workshops provided better models but not better basic stock assessment data. So in this system, even if scup and black sea bass are considered recovered, overfishing is not taking place and they are not overfished, then the SSC could set a quota greatly reduced from what the stock assessment recommends. The fishing community is paying the consequences because the NMFS has failed to spend its money on good stock assessment data. Instead, they spend it on models and management tools. JCAA's Legislative Chairman, Tom Fote, often uses the expression, "Garbage In, Garbage Out." However, we believe a better expression is **"Garbage In, Gospel Out According to NMFS."** NMFS puts garbage into the models and then treats the output as gospel. They implement regulations based on that flawed gospel. We are stuck with **The Gospel According to NMFS**, since it is, according to NMFS, "the best available science."

That is why Congress, the Senate, JCAA and many other fishing and environmental groups were so upset when we heard that the head of NOAA had proposed in the NMFS budget to divert stock assessment science money for a management program called Catch Share.

2. **The JCAA does not support giving the NE Regional Director the power to shut down the recreational fishery.**

This Omnibus Amendment would allow the Northeast Regional Director to shut down the recreational fishing of a species based on the first 3 waves of the flawed Marine Recreational Statistical Survey. Look how well this worked this year for Black Sea Bass. We are 5 months into the following year and are now doing a reduction that is half of what was recommended at the end of the previous year. Another example is the scup fishery which in the first 3 waves only represents 15% of the harvest. If, in any year, the first 3 waves were 20%, the Regional Director could shut down the rest of the year's fishery. This is using data the National Academy of Science calls worthless. JCAA cannot support this action.

3. This document is very difficult to understand and there are not examples on what will be the outcome with the new interpretations.

The new language for SSC operation used in the Magnusson Act is open to interpretation. NMFS has one way of interpreting the Magnusson Act. There is not general agreement with the interpretation made by NMFS. Further confusing and complicating this issue is that the Councils are further interpreting what NMFS has said. There is not consistency among the interpretations by the Federal Fishery Management Councils. As a Commissioner to ASMFC, Tom Fote deals with 3 Councils, each with a different interpretation of what NMFS meant when it interpreted the Magnusson Stevens Act. We need a clear, consistent interpretation of the content of the Magnusson Stevens Act in order to make appropriate management decisions. NMFS and all the Federal Management Councils need to agree to a set of rules, make sure everyone understands those rules and then consistently play by those rules. What we have now is pure chaos.

JCAA doesn't think President Bush or Congress, with the passage of the 2006 Magnusson Stevens Act, intended to destroy commercial and recreational fishing. We think their goal was to rebuild sustainable fisheries. But the way NMFS is interpreting the law could destroy the infrastructure of both the commercial and recreational fishing industry for years to come. There needs to be a balance between the needs of the fishing public and the rebuilding of the stocks. There are ways of doing both and somehow this has gotten lost in NMFS interpretation of the Magnusson Stevens Act. If you turn people from commercial and recreational fishing, there is no incentive for them to be stewards of the environment and the oceans we love. The commercial and recreational fishing communities were and remain the original environmentalists. We spearheaded the drive to end ocean dumping and many other important environmental initiatives.

JCAA understands there has been much staff and council time working on the Omnibus Amendment, but we are asking the Mid-Atlantic Fishery Management Council to put this Amendment on hold and draft a National Omnibus Amendment that would include all the Councils. NMFS should be developing the guidelines and not the Councils.

Very truly yours,

Mark Taylor,
JCAA President

Coakley, Jessica

From: [redacted]
Sent: Wednesday, May 19, 2010 3:37 PM
To: Info1
Subject: OMNIBUS AMENDMENT

I agree with the concept that has been presented in this amendment to manage fish stocks HOWEVER the data used to develop the key targets is seriously flawed
(not my words but your own scientist)
Before implementing this amendment you need to fix the data used to developed targets
While random data can be helpful , it has a high risk of inaccuracy ,better data can be found by using the required logs of boat captains, both charter and head boat captains as well as anglers like me who have detail information on every trip
which includes dates,location, and size
With more reliable data the Amendment as presented could work very well and meet our objectives BUT without better data this amendment will only seriously hurt both recreational and commercial fishing as well as have serious negative economic impact on not just fisherman but every other aspect of the economy from gas to food to lodging etc
Lets get the date improved FIRST

Bill Shillingford
20 Pinewood Ct
Swainton ,NJ 08210
representing Tri-State Anglers of Sea Isle City,NJ with over 75 members

Coakley, Jessica

From: [redacted]
Sent: Thursday, May 20, 2010 7:47 PM
To: Info1
Subject: Omnibus ACL/AM Amendment Comments
Attachments: Ominibus Amendment.pages

5/20/10

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

RE: Omnibus ACL/AM Amendment Comments

Dear Daniel Furlong,

I am Capt. Fran Verdi, and I had the opportunity to hear Jessica talk on the omnibus amendment. I was able to comment at the meeting but feel that there was so much to digest in such a short time. While the presentation was great, there are many questions that need to be asked. The first thing is that all of the numbers are based on MRFSS Science, which has been stated to be flawed and has been proven to be flawed. The Amendment does not state what other science is going to be used. I feel that it should be listed in the amendment. For example, the VST Reports that the charter and party boats turn in on a monthly basis could be used. We are on the front lines everyday like the commercial guys, so why would this data not be used?
Another thing that came to light was that, if there was no science available for a particular species, they would try to use something similar. Using something similar is not the same as getting the correct science. MRFSS science has to go before you can move forward with this. Jessica told us that the counsel would be looking for feed back on the Council's Risk Policy Alternatives. I feel Alternative 2C would be correct with the correct science.
Under The Atlantic Bluefish section, I have a major problem with the transfer of any stock to the commercial side. I find it hard to believe that the Recreational side would be punished if we went over the OFL and there was a transfer of stock. If this is the case, I would never want a transfer of stock. I understand that it has not happened yet, but you never know what is going to happen with a stock. The Bluefish limit had already dropped from 25 fish to 15 fish.
The last thing that I would like to comment on is the In-season Closures for Sea Bass, Summer Flounder and Scup. The Amendment states that at different %'s, we would be faced with a closure using data from wave 1 through wave 3. This would be a disaster for the fisheries as each state may have a different season. States with an early start would catch most of the quota. If there was a closure on September 1, it would have a devastating effect on the industry. Many people would be put out of business in an industry that is already in trouble. Another question about this is if one of the waves of data did not come in; how would that be handled? This actually happened last year with wave data 5 for sea bass. It took months to get the data and it was actually reported

after wave data 6.
In closing I would like to say you are trying to push this through on bad science. We need to get better science on the stocks before something like the Omnibus Amendment can move forward. Our system is broken and we have to fix it before we can move forward. Two wrongs do not make a right. Please take the time that is needed to do this right the first time rather then pushing something through with inaccurate science. I will do everything in my power to make sure this does not get pushed through. I appears that I will be attending more meetings, since my business and my future ability to take my kids fishing is on the line.

Thank you,

Captain Fran Verdi

Fish The Drop Off

Member of:
Recreational Fishing Alliance - (RFA-NJ)
Beach Haven Charter Fishing Assoc.
National Charter Boat Assoc.

Beach Haven Charter Fishing Association, Inc.
576 Sentinel Road
Moorestown, NJ 08057

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MAFMC
May 21, 2010
Omnibus Amendment Comments

Charter boats and Head boats are in business to provide legal fish for their customers to take home and eat. This bill has been written with tiered regulations so tough that this bill must be considered regulatory overkill. This Amendment proposes regulations in specific multiple tiers each one tougher that the previous one. Anglers were informed at the NJ Omnibus meeting that only Fluke and Spiny Dogfish are tier #2, all other species are tier #4. This is totally unacceptable! NMFS will NEVER provide the money required to move tier #4 fish species to #2 or higher. The Charter boat and Head boat business will be decimated if these proposed regulations are approved.

We ask that all fisheries in MAFMC plans begin at 50% using the Framework as shown on page #8 of the proposed plan. All additional quota restraints, tiers and other provisions be eliminated since each additional tier in this bill mandates additional quota reductions far beyond what is required to control any fishery.

We ask that the following changes be in any bill MAFMC approves.

A. The council proposes to authorize NMFS Regional Administrator to close specific fisheries based on MRFSS Wave 2 & 3 recreational angler landing data. These fisheries will be closed when predetermined landing percentages are estimated to be exceeded. We request that this "Recreational Inseason Accountability" provision be totally stricken from all fisheries in the proposed Omnibus Bill.

B. The NAS study of MRFSS was found to be a "Fatally Flawed" fishery management stool. The NAS requested the use of the MRFSS plan be ended by Jan 2009. The new system named MRIP has yet to be introduced. We ask that no recreational fishery MRFSS data be used for recreational fishery management in this proposed bill.

C. All proposed bill redundant management actions must be eliminated. They state that MSY will be replaced by ACL and the other various provisions that end with RHL being the managed goal. This is far more than is required by Magnuson/ Stevens Act. The framework proposed on Page 8 should be the only management changes if the entire bill is not eliminated.

Thank you for considering our comments.

Sincerely

MEMBERS OF THE BEACH HAVEN CHARTER FISHING ASSOCIATION

Coakley, Jessica

From: Thomas Siciliano [redacted]
Sent: Friday, May 21, 2010 4:39 PM
To: Info1
Subject: Omnibus ACL/AM Amendment Comments

May 21, 2010

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

Dear Mr. Furlong

Subject: Omnibus ACL/AM Amendment Comments

First the comment period is entirely too short for consideration of a document of this magnitude.

If the idea was to construct a document that is so confusing that 99% of anglers don't understand it you have succeeded. That is 99% with a plus or minus statistical probability of 1%. I just made that number up, but it has more of a chance of being accurate than the numbers used by MRFSS.

This entire document should be scrapped. The number of assumptions that are made to reach the conclusions are far too many for the document to be considered. The charts use stock assessment information, which is known to be inaccurate, then the catch estimates based on MRFSS are used. This leads to an uncertainly level that is totally unacceptable.

On page 24 it states that MRFSS and other available information will be used. There is a plethora of information that is available and has been available for years. This information has been ignored. There are no assurances in this document that the Party and Charter boat data or any other information will be used. When the Party and Charter boat data is used in its entirety NMFS will start to have some credibility with anglers.

It has been a year and a half since the MRFSS system was supposed to have been improved. Where is the new system? When the new improved MRFSS has been in place for five years and has been proven to provide more accurate information then maybe we can start to talk about the possibility of doing some of the things in this document. Until then it is premature to even consider the vast changes proposed in this document.

Rather than consider this document do something that makes sense like reducing the size limits to minimize the number of discards. This simple step would save more fish than any regulation and have the additional benefit of allowing anglers to take fish home.

Sincerely,

Thomas Siciliano

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May 21, 2010

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

Submitted via Email to:info1@mafmc.org, Subject: Omnibus ACL/AM Amendment Comments

Re: Omnibus ACL/AM Amendment Comments

Dear Mr. Furlong:

Oceana would like to submit the following comments for the consideration of the Council in its development and approval of the Omnibus Annual Catch Limit (ACL) and Accountability Measure (AM) Amendment that is currently being developed by the Council and its staff. As you know, Oceana has been involved with the Omnibus Amendment since its inception and was enthusiastic about the possibilities of this holistic look at the fisheries of the region in responding to the new mandates of the Magnuson-Stevens Reauthorization Act (MSRA). Unfortunately, we are disappointed in the current draft and that the Council has not done more with the opportunity presented by this action.

While the approach laid out in the Public Hearing Document *could possibly be developed into an amendment that would* satisfy the requirement for *ACLs and AMs* that is spelled out in the new elements of the MSRA and the January 6, 2009 National Standard One rulemaking (NS1), this approach completely neglects significant *other* requirements of the MSRA, the National Environmental Policy Act (NEPA) and the Administrative Procedure Act (APA), which this action is also required to satisfy.

Oceana encourages the Council to act quickly to amend this action to ensure that the amendment includes:

- A full discussion of the species caught in each affected fishery including Target, Non-Target and Ecosystem Component Species and a rationale for the Stocks in the Fishery that serve as the basis for Annual Catch Limits together with a discussion of alternatives to the preferred list of Stocks in the Fishery.

- A clearly defined numerical set of Annual Catch Limits for the 2011 fishing year and corresponding Accountability Measures.

- A clearly defined mechanism to monitor Annual Catch Limits in the fisheries of the Mid-Atlantic and ensure accountability.

- A full NEPA document to describe this significant change to these fisheries, analyze its effects and compare its effects with the effects of all reasonable and feasible alternatives, and explore the changes to the fisheries that may come as a result of the suites of actions proposed under the Omnibus.

Until these important elements are included in the amendment, the actions of the Council will be shortsighted and the final regulations that are the result of this amendment will not satisfy the law.

The omnibus fails to explore the 'Stocks in the Fishery' for the affected fisheries beyond the default list of target species.

A central principle in the agency's guidance concerning the development and management of ACLs is the concept of 'Stocks in the Fishery.' The agency's guidance anticipates that these Stocks in the Fishery will includes target stocks identified in the Fishery Management Plans (FMPs) but could also include Non-Target stocks and Ecosystem Component species. Agency guidance directed the Councils to establish ACLs with corresponding AMs for each such Stock in the Fishery, but does not require ACLs for stocks that are not 'in the fishery.' This approach results from the agency's interpretation of the new ACL requirement with the preexisting mandate of the Magnuson-Stevens Act requiring FMPs to identify the species of fish involved in a fishery and their location (16 U.S.C. § 1853(a)(2)).

The agency's NS1 guidance left the determination of which stocks to include in each fishery to the Council.[1] This approach places on the Council the responsibility to rationally consider which species and stocks to include in each FMP, in consideration of its duty under the Magnuson-Stevens Act, (16 U.S.C. §1852(h)(1)) to provide for conservation and management in a fishery management plan for all fisheries requiring conservation and management. The Council must also consider feasible and reasonable alternatives to these choices pursuant to the National Environmental Policy Act (NEPA) and analyze the environmental impacts of these choices pursuant to NEPA. In developing the Omnibus Amendment, it appears that the Council failed to satisfy the duties placed upon it.

In order to fully comply with these mandates, Oceana has suggested in comments submitted throughout the development of the Omnibus that the Council complete a full analysis of catch in each fishery. Despite these repeated attempts to persuade the

[1] 74 Fed. Reg. 3204. January 16, 2009.

Council to use an analytical approach to make a fully-informed decision that would recognize and manage the true catch of the fisheries of the region, the Omnibus 4 Public Hearing Document describes an approach by which the Council will use a bare minimum interpretation of 'Stocks in the Fishery' and restrict the use of ACLs to only target stocks.

The Council failed to rationally explore the issue of overall catch in the fisheries and to include a discussion of which stocks in the fishery require ACLs in the FMP, which fisheries do not, and reasons for such inclusion or exclusion from the MSRA requirements. This approach, which appears to result from an erroneous interpretation of the law, ignores the catch of stocks other than target stocks that is described in the 2008 and 2009 Standardized Bycatch Reporting Methodology Annual Discard Reports (SBRM)[2,3]. The approach violates the requirement to treat sea turtles as Stocks in the Fishery, which is discussed more fully in the next section. It also ignores the existing regulations of the Atlantic Highly Migratory Species FMP which establishes clear limits on the catch of Atlantic swordfish by squid trawl vessels that are regulated under the Council FMP[4] and recognizes swordfish as a stock in the squid fishery.

An equally important benefit of the analysis to support the selection of Stocks in the Fishery is an analysis of the fisheries that catch stocks managed by the Mid-Atlantic Council. The data presented in the SBRM indicates that a number of these stocks are being caught in significant numbers by fisheries outside of the Council's jurisdiction, including the bycatch of Summer Flounder in the Scallop dredge and New England groundfish trawl fisheries, which Oceana brought to your attention in 2009[5]. The Council is obligated by the ACL requirement to account for and allocate sub-ACLs for such catch to ensure accountability in its fisheries.

Without a full analysis and discussion of the overall catch of the fisheries of the Mid-Atlantic region, including target catch and non-target catch, the disposition of this catch, and the environmental impact of decisions concerning which stocks are in the fishery, the action of the Council to limit the scope of ACLs in the Omnibus to target stocks alone is not lawful and fails to implement ACLs as required by the MSRA. Hiding or clouding the true nature of the catch of these fisheries when the expertise

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[2] Northeast Fisheries Science Center. 2010. Standardized Bycatch Reporting Methodology Annual Discard Report 2009. (http://www.nefsc.noaa.gov/femad/fsb/SBRM%20Annual%20Discard%20Report/SBRM%20Annual%20Discard%20Reports.htm)

[3] Northeast Fisheries Science Center. 2010. Standardized Bycatch Reporting Methodology Annual Discard Report 2010. (http://www.nefsc.noaa.gov/femad/fsb/SBRM%20Annual%20Discard%20Report/SBRM%20Annual%20Discard%20Reports.htm)

[4] 50CFR635.21 and 50CFR 635.24

[5] *See* Oceana letter to the Gene Kray, Development of Annual Catch Limits for Non-Target Fisheries, July 31, 2009.

clearly exists in the region to estimate the true magnitude and significance of these catches[6] is unacceptable and illegal.

The Omnibus Amendment must include a discussion of Sea Turtles as Stocks in the Fishery and Consider Developing ACLs and AMs for Sea Turtles

The fisheries of the Mid-Atlantic region have a well documented interaction with sea turtles, an issue which has resulted in a variety of actions under the Endangered Species Act to identify, analyze, and control takes of sea turtles in these fisheries. Included in the list of species caught and taken in Mid-Atlantic fisheries is the loggerhead turtle, a species which is currently being considered for 'uplisting' from threatened to endangered under the Endangered Species Act to reflect a decline in its population and the current risk of extinction for this species. Furthermore, the 2009 Status Review concludes that the Northwest Atlantic Distinct Population Segment (DPS)is likely to decline in the foreseeable future, even under the scenario of the lowest anthropogenic mortality rates. These results are largely driven by mortality of juvenile and adult loggerheads from fishery bycatch that occurs throughout the North Atlantic Ocean ....Therefore, the BRT concluded that the Northwest Atlantic Ocean DPS is currently at risk of extinction"[7]

As you know, the Magnuson-Stevens Act defines the term *fish* to mean ". . . all other forms of marine animal and plant life other than marine mammals and birds.[8]" Exceptions are given for mammals and birds that are protected under the Marine Mammal Protection Act and the Migratory Bird Treaty Act, but ESA-listed marine species are included as fish. Hence, the Councils have the *authority* and the *duty* to identify affected species of sea turtles as Stocks in the Fishery for relevant fisheries, establish ACLs and AMs for these species, and limit catch and takes of these species.

The agency anticipated the need for Councils to manage the catch of prohibited species, such as sea turtles in its January, 2009 NS1 rulemaking, giving firm guidance that:

> Prohibition on directed catch and/or retention can be applied to either a stock that is "in the fishery" or an "ecosystem component" species. Managers should consider the classification scheme outlined in § 600.310(d) of the final action as well as MSA conservation and management requirements generally. If a stock contains one of the "in the fishery" characteristics, then it belongs "in the fishery", regardless of the management tools that will be applied to it (*e.g.*, prohibition, bag limits, quotas, seasons, etc.). Also, if the intent is to prohibit directed fishing and retention throughout the exclusive economic zone (EEZ) for which a Council has jurisdiction,

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[6] Testimony of Dr. Wendy Gabriel to the New England Fishery Management Council related to Standardized Bycatch Reporting Methodology. January 28, 2010.
[7] Loggerhead Sea Turtle (*Caretta caretta*) 2009 Status Review. p164
[8] 16 U.S.C. § 1802(12)

> then the stock would, most likely, be identified in an FMP as "in the fishery" rather than as an ecosystem component of one particular FMP.[9]

It is clear that the fisheries of the Mid-Atlantic region which have ESA Incidental Take Statements to limit takes and prohibit catch are included in this directive and must be included in the Council's analysis of Non Target Stocks in the Fishery for which ACLs and AMs apply.

Failing to consider this clear requirement of the MSRA on these species of sea turtles violates both the ESA *and* the ACL/AM requirements of the MSRA.

The Omnibus Fails to Establish ACLs

The MSRA is very clear in the mandate for the Councils to establish ACLs and corresponding AMs by the 2011 fishing year[10, 11]. Despite this clear directive, the Public Hearing Document indicates that the amendment will fail to *establish* these mandated limits but instead establish a *process* to set these limits without any specific limits for the 2011 fishing year. This vague approach violates the MSRA.

The Omnibus Fails to Establish Measures to Ensure Accountability-

The Public Hearing Document describes the way that Annual Catch Targets (ACTs) will be used throughout the region to respond to the mandate that all fisheries include measures to ensure accountability. NEPA and the MSRA demand much more. The Council must consider all reasonable and feasible alternatives, take a hard look at their environmental impacts, and compare their environmental impacts. The range of reasonable and feasible alternatives certainly includes at least the alternatives discussed in the guidelines, such as hard caps, in-season management measures, and overages.

Although the use of ACTs was considered in the agency guidance to the Councils, there is little discussion in the Public Hearing Document of exactly how these measures will prevent overfishing, control both landings and discards (the two equally important components of catch) and ensure overall accountability. This lack of consideration violates both NEPA and the APA.

Without an effective means to monitor catch, the utility of ACLs or any other mechanism to prevent overfishing is undermined. The final Omnibus document must include a robust discussion of the ways that the fisheries of the Mid-Atlantic region will

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[9] *See* National Standard One Rulemaking. Response to Comment 22. 74 Fed. Red 3186. January 16, 2009
[10] Magnuson-Stevens Reauthorization Act Section 302 (h)(6) and 303(a) (15)
[11] Magnuson-Stevens Reauthorization Act Section 303 note, 1853a (1)

be monitored under the ACL management program to ensure that all catch is accounted for, that bycatch is reduced and catch limits are not exceeded. NEPA requires a consideration and comparison of all reasonable and feasible alternatives for such monitoring. Oceana notes that the Northeast Region Standardized Bycatch Reporting Methodology explicitly conceded that the observer deployment schedule completed to support the SBRM is not intended for monitoring annual quotas and the SBRM forecasts must be adjusted for the purpose of real-time quota monitoring.[12]

Recommendations for Council Action-

Oceana strongly suggests that the Council delay approval of the Omnibus Amendment until an honest and empirical approach to listing Stocks in the Fishery can be included in the amendment and appropriate ACLs and AMs are defined in the amendment document. Until these important elements are corrected in the Omnibus, Oceana believes that the narrowly focused Omnibus puts the Council at a disadvantage in confronting its management challenges and violates the MSRA, NEPA, and the APA and is subject to significant challenge.

Oceana remains committed to the implementation of these important measures in time for the 2011 fishing year as required by the MSRA and looks forward to working with the Council to meet its obligations.

Thank you for considering these comments

Sincerely,

Gib Brogan
Northeast Representative
Oceana
Wayland, MA

Cc: Lois Schiffer, NOAA General Counsel
Eric Schwaab, NOAA Assistant Administrator for Fisheries

[12] *See* Northeast Region Standardized Bycatch Reporting Methodology at E-12 and E-19.

May 21, 2010

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

RE: Public Hearing Document for the Omnibus Amendment

Dear Mr. Furlong,

We, the undersigned groups are writing in response to the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Omnibus Amendment document to establish Annual Catch Limits (ACLs) and Accountability Measures (AMs) for all species managed by the MAFMC. We would like to thank the MAFMC and its staff for their hard work and dedication in completing this document. While we appreciate the effort that went into this document, we believe that the following improvements are necessary to ensure that ACLs and AMs are set in a precautionary manner to ensure that overfishing will not occur.

- **Council risk policy must be set in a manner that ensures a high probability that overfishing will not occur:**
  The reauthorized Magnuson-Stevenson Fishery Conservation and Management Act (MSA) is clear in its mandate – Councils must put an end to overfishing. In order to achieve this, the Council's risk policy should include a high probability that overfishing *will not occur*. Overfishing has long been a problem in the Mid-Atlantic and the MAFMC has only recently been able to put an end to it. To prevent overfishing from re-occurring, the probability that overfishing might occur should no higher than 10%. Anything higher would be inconsistent with the spirit and letter of the MSA's mandate to end overfishing.

- **Fishery Management Plans (FMPs) should include buffers to ensure that overfishing does not occur:**
  There are many uncertainties in fishery management, so we are encouraged to see that the Council has included annual catch targets (ACTs) as buffer to ensure that an ACL is not exceeded and that overfishing does not occur. ACTs should be set below the ACL, to a degree that accounts for management uncertainly. While the omnibus amendment calls for an ACT, the Council should adopt explicit policies describing how to account for management risk and establish specific mechanisms to address these sources of uncertainty within the Omnibus Amendment. The current document tasks the MAFMC committees with identifying sources of uncertainly, but fails to identify how catch will be reduced to prevent the ACL from being

exceeded. It is not enough that the Council be "considering a process," it must clearly articulate how management uncertainty is accounted for in setting an ACT.

- **The Council should better account for ecosystem needs:**
  As fish management moves from a single-species to a more integrated ecosystem-based approach, the MAFMC should better address incidentally caught non-target species, or regulatory discards – fish discarded as a result of regulations. The goal of the MSA is to sustainably manage ocean fish, a goal that requires management to prevent overfishing of all fish populations – not simply target fish. In addition the council should consider the role that various species play in the marine and estuary ecosystems, such as forage fish, the primary food source for predator fish, marine mammals, and seabirds of the Mid-Atlantic, when setting ACLs. Accounting for ecosystem needs when setting ACLs is necessary not only for the health of individual fish populations managed by the Council, but for the overall long-term health and sustainability of the ocean and coastal ecosystems of the Mid-Atlantic.

- **The Council should prepare an Environmental Impact Statement:**
  When implemented by the MAFMC, the Omnibus Amendment will require significant changes to the current FMPs in the Mid-Atlantic, which in turn will significantly affect the ocean environment and thus should require the development of an Environmental Impact Statement (EIS). Although the Council cannot place specific numerical figures as to the actual catch of a particular species under the Omnibus amendment, the potential effects of implementing the omnibus are not too remote or speculative to assess such impacts on manage species, non-target species, habitat, protected resources, and human communities. Therefore, the Council should prepare an EIS evaluating the impacts of the Omnibus Amendment, just as the Gulf and South Atlantic Council have prepared for their Omnibus amendments.

Thank you for considering our comments.

Sincerely,

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

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

Carl Safina, PhD,
President
Blue Ocean Institute
New York

Gary Allen,
Executive Director
Center for Chesapeake Communities
Maryland

Terra Pascarosa,
Chair
Chesapeake Bay Group, Sierra Club
Virginia

Bill Goldsborough,
Fisheries Program Director
Chesapeake Bay Foundation
Maryland

Drew Koslow,
Choptank Riverkeeper
Choptank River Eastern Bay Conservancy
Maryland

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

Brad Heavner,
State Director
EnvironmentMaryland
Maryland

Doug O'Malley,
Field Director

Environment New Jersey
New Jersey

Elizabeth Ouzts,
State Director
Environment North Carolina
North Carolina

J.R. Tolbert,
Director
Environment Virginia
Virginia

Don Sims,
President
Float Fishermen of Virginia
Virginia

Bill Tanger,
Chair
Friends of the Rivers of Virginia
Virginia

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

Captain Bill Sheehan,
the Hackensack Riverkeeper
Hackensack Riverkeeper
New Jersey

Stan Kotala,
Conservation Chair
Juniata Valley Audubon
Pennsylvania

Eric Stiles,
Vice President for Conservation and Stewardship
New Jersey Audubon Society
New Jersey

Larry Baldwin,
Lower Neuse Riverkeeper
Neuse Riverkeeper Foundation
North Carolina

Michael L. Pisauro, Jr,
Legislative Director
New Jersey Environmental Lobby
New Jersey

Polina Reznikov,
President
New York City Sea Gypsies
New York

Michael Feld,
President & Founder
Oceanblue Divers
New York

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

David Masur,
Director
PennEnvironment
Pennsylvania

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

Robert Elwood,
President
Potomac River Association, Inc.
Maryland

Alex Matthiessen
Hudson Riverkeeper & President
Riverkeeper, Inc.
New York

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

Sacha Spector, Ph.D,
Director of Conservation Science
Scenic Hudson, Inc.
New York

Michael Skoletsky,
Executive Director
Shark Savers
New York

Jeff Kelble,
the Shenandoah Riverkeeper
Shenandoah Riverkeeper
Virginia

Jeff Tittel,
Director
Sierra Club, New Jersey Chapter
New Jersey

James Sacci,
President
The Scuba Sports Club
New York

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

Conserving Ocean Fish and Their Environment
Since 1973

May 21, 2010

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

Re: Omnibus ACL/AM Amendment Comments

Dear Mr. Furlong,

The National Coalition for Marine Conservation (NCMC) commends the Mid-Atlantic Fishery Management Council for its work to date to bring fishery management plans into compliance with the Magnuson-Stevens Reauthorization Act (MSRA) provisions to end overfishing. At the core of these provisions is the separation of science from allocation decisions to ensure that fishery catches are constrained within biologically safe limits. To assist federal councils with MSRA compliance, revised National Standard 1 (NS1) Guidelines, published in January 2009, outlined requirements for a new system of Overfishing Limits (OFLs), Acceptable Biological Catch (ABC), Annual Catch Limits (ACLs) and Accountability Measures (AMs) to be incorporated in all federal fishery management plans by 2011. In addition, the revised NS1 Guidelines also contain new criteria for addressing economic, social, and ecological factors in Optimum Yield (OY) specifications.

The goal of the Omnibus Amendment is to ensure all Mid-Atlantic Council FMPs conform to these new criteria, and we appreciate the opportunity to provide recommendations on these important measures.

Acceptable Biological Catch Alternatives
NCMC supports the ABC control rule framework proposed in **Alternative 1B**, although we ask for the following clarifications to be included in the final amendment:

- **The ABC control rule and risk policy must apply to *Loligo* and *Illex* squid.** Annual species managed by the Council (*Loligo* and *Illex* squid) are exempt from ACL and AM requirements, but they are not exempt from needing an ABC

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determined through a control rule and council risk policy.[1] To avoid confusion, Alternative 1B should explicitly describe the requirements for annual species and the application of Alternative 1B to squid stocks.

- **Alternative 1B should describe default methodology for ABC specifications for assessments lacking a probability distribution function of OFL.** At a recent meeting of the Mid-Atlantic Council's Scientific and Statistical Committee (SSC), assessments for all of the six species discussed were ranked as either Tier 3 or Tier 4.[2] While the SSC has not undertaken this exercise for all Mid-Atlantic species as of yet, we are concerned that the majority of council-managed species may fall into these lower tiers, and it is critical for the Council and stakeholders to have a clear understanding of how ABC will be specified in these situations. Tier 3 assessments contain an OFL estimate but lack a usable probability distribution of OFL. Tier 4 assessments do not provide either an OFL point estimate or probability distribution. As currently described in Alternative 1B, the Council risk policy is applied using the OFL distribution function, so it is unclear how risk policy will be applied in the absence of this important tool. **We recommend the inclusion of the following default rules to serve as the higher bound of ABC to be used when OFL is unknown or uncertainty surrounding OFL cannot be determined with confidence.** *[Note: we feel these control rules conform to our recommended risk policy of 25% (Alternative 2B)]*

    - **Tier 3: ABC= .75 OFL**

    - **Tier 4: Set OFL equal to recent (5 years or less) median catch, and set ABC=.75 OFL**

Council Risk Policy Alternatives

For the Mid-Atlantic Council's risk policy, NCMC recommends that the Council adopt **Alternative 2B**, which would apply a constant probability of overfishing of no greater than 25% to all species. This value is derived from National Standard 1 Technical Guidance that recommends that "the probability of exceeding the MFMT be not greater than 20%-30%, and certainly smaller than 50%." We believe this straightforward risk-adverse policy is the most appropriate method for taking into account the diverse life histories and ecological roles of species the Council manages.

In addition, the Omnibus states that the Council may consider social, economic and ecological factors in addition to the biological consequences of exceeding the OFL when it selects its risk policy.[3] We fully support these considerations and believe that a conservative risk policy, as

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[1] 50 CFR. § 600.310(h)(2)(i)

[2] The Mid-Atlantic Council's Scientific and Statistical Committee met May 11-12, 2010 to determine ABC recommendations for surfclams, ocean quahogs, longfin squid, shortfin squid, Atlantic mackerel and Atlantic butterfish. Butterfish, mackerel and shortfin squid assessments were labeled "Tier 4"; surfclams, ocean quahogs and longfin squid were ranked as "Tier 3."

[3] Omnibus, p. 9

described under Alternative 2B, is especially relevant when considering the consequences of overfishing forage fish populations (e.g., butterfish, squid, and mackerel), which play a central role in the food web and support a wealth of predator populations.

Annual Catch Limit (ACL) and Accountability Measure (AM) Alternatives

We limit our comments on these alternatives to butterfish and mackerel. As mentioned above, we believe the ecological role of forage fish is an important consideration as the Council chooses policies and procedures for establishing catch limits. NS1 guidelines recognize impacts on forage fish stocks and predator-prey interactions as relevant ecological factors for reducing MSY to achieve OY, and for the first time, national guidance is provided on how this should be done. These factors are to be "quantified and reviewed in historical, short-term and long-term contexts. Even where quantification of...ecological factors is not possible, the FMP still must address them in its OY specification." [4] Further, "(s)pecies 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."[5]

In the mackerel and butterfish Term Tables (Omnibus, pp. 27-28 & p.32), we are pleased that the ACT definition (formerly initial optimum yield) includes ecological factors as a basis for modification of ABC. However, this definition is also included in the definition of ACL. Since ABC=ACL for all species, we assume that the Council plans to address ecological factors in the specification of ACT. While ACT can be an effective tool for dealing with many forms of management uncertainty (e.g., lag times between actual landings and availability of reports and data), it is inappropriate to address ecological factors in this specification since accountability measures are not triggered until the ACL is exceeded. In other words, if the Council deemed it appropriate to implement a forage reserve in the form of a buffer between the ACL and ACT, there would be no trigger to prevent the forage reserve from being depleted and no triggered actions to replenish the forage reserve. **We strongly urge the Council to set mackerel and butterfish ACLs<ABC, and allow for optimum yield factors to be addressed in the ACL specification.**

While it is important to clearly show where in the process ecological factors will be accounted for, it is more important to *demonstrate how* they will be considered. Clear rules and procedures for addressing management uncertainty should be developed and incorporated into the Omnibus before the document is submitted for final approval by the Council. If the Council chooses to maintain OY considerations as part of the ACT, ACT control rules should be added to the amendment to describe how ecological, economic, and social factors will be quantified, reviewed and addressed, as required by the NS1 Guidelines.

National Standard 1 Guidelines –Guidance Not Addressed in the Omnibus

We understand that the Council has been focused on meeting the statutory deadlines of the MSRA. Nonetheless, important guidance regarding managing forage fish stocks to protect their

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[4] 50 CFR § 600.310 (3)(iv)

[5] 50 CFR § 600.310 (e)(3)(iv)(C)

role in the ecosystem and also for identifying and classifying stocks in a fishery (including non-target and ecosystem component species) has been omitted from consideration in this amendment. Since the revised NS1 guidelines were issued in January 2009, NCMC has attended a number of Mid-Atlantic Council meetings and has submitted recommendations for this guidance to be applied to management of the Atlantic mackerel, butterfish, and squid fisheries, including setting biomass targets significantly higher than B_{MSY}.[6] Squid, mackerel, butterfish and non-target species in these fisheries (river herring and shad) comprise a large part of the Northeast forage base. Conforming the Atlantic Mackerel, Squid and Butterfish (MSB) FMP to the above mentioned criteria in the NS1 Guidelines would be an important step in the Council's evolution to ecosystem-based fishery management, and we hope the Council will make this a priority for the next MSB FMP amendment.

Thank you for considering our comments. We look forward to our continued work with the Council.

Sincerely,

Pam Lyons Gromen

Pam Lyons Gromen
Executive Director

[6] NCMC Memorandum to the MAFMC. "NS1 Guidelines and Forage Fish." 27 March 2009.

May 21, 2010

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

Via email (info1@mafmc.org)

Re: Omnibus ACL/AM Amendment Comments

Dear Mr. Furlong:

Please accept the following comments on the public hearing document for the draft Omnibus Fishery Management Plan Amendment ("Omnibus" or "Draft Omnibus"), submitted on behalf of the Natural Resources Defense Council and The Ocean Conservancy. Our groups appreciate the opportunity to comment on this highly significant regulatory action, by which the Mid-Atlantic Fishery Management Council ("MAFMC" or "Council") proposes to come into compliance with statutory requirements enacted as part of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, P.L. 109-479, that all fishery management plans ("FMPs") include mechanisms to set annual catch limits ("ACLs") "at a level such that overfishing does not occur in the fishery" and accountability measures ("AMs") for the ACLs.[1] We seek to ensure that the Omnibus amends each of the relevant FMPs to include the *substantive rules* that the Council (in conjunction with the Council's Science and Statistical Committee ("SSC"), as provided by the 2006 amendments) *will apply* to establish ACLs and to trigger AMs each year, and that such rules are *sufficiently detailed* to ensure, based on best available science, that overfishing will not occur in any fishery under MAFMC jurisdiction, consistent with the detailed framework for implementation of the ACLs/AMs requirements set out in the revised National Standard 1 Guidelines ("NS1 Guidelines" or "Guidelines"), 50 CFR § 600.310. To this end, we have the following comments on the Draft Omnibus (organized according to subtopics):

Stocks "in a fishery"

A central principle in the NS1 Guidelines is the concept of "stocks in the fishery." The Guidelines anticipate that these stocks in the fishery will include target stocks identified in the FMPs but could also include non-target stocks and "ecosystem component" species. The Guidelines directed the

[1] 16 U.S.C. § 1853(a)(15).

Councils to establish ACLs with corresponding AMs for each such stock in the fishery, but does not require ACLs for stocks that are not "in the fishery."

The Guidelines left the determination of which stocks to include in each fishery to the Council.[2] This approach places on the Council the responsibility to rationally consider which species and stocks to include in each FMP in compliance with the Administrative Procedure Act, to consider feasible and reasonable alternatives to these choices pursuant to the National Environmental Policy Act ("NEPA") and to analyze the environmental impacts of these choices pursuant to NEPA. Relative to developing these mechanisms on a FMP by FMP basis, the Omnibus is obviously an ideal vehicle to carry out these evaluations and analyses as part of the development of the required ACLs and AMs because the Omnibus encompasses most of the managed stocks in the region.

Unfortunately, the Draft Omnibus adopts the narrowest possible interpretation of "stocks in the fishery" and simply assumes that those stocks already listed in the FMPs are the only stocks in the fishery requiring ACLs and AMs. The document lacks any evaluation of other non-target stocks caught incidentally as bycatch that may qualify as stocks in the fishery. It ignores the catch of stocks other than target stocks that is described in the 2008 and 2009 Standardized Bycatch Reporting Methodology Annual Reports, various stock assessments and FMPs for stocks in the Mid-Atlantic and adjacent regions, and the work of the Atlantic States Marine Fisheries Commission. The absence of any evaluation of non-target bycatch species must be addressed in the next stage of the Omnibus' development.

ABC Control Rule

As the Council described in its original March 24, 2009 scoping notice for the Omnibus, "ABC control rules" are "*formulaic* approaches ... that can be consistently applied to derive ABC relative to the status of the stock and the level of scientific uncertainty surrounding the stock status estimate."[3] The NS1 Guidelines define an ABC control rule as a "*specified approach* to setting the ABC for a stock or stock complex as a function of the scientific uncertainty in the estimate of OFL and any other scientific uncertainty."[4] Pursuant to the Guidelines, the ABC control rule should consider uncertainty in factors such as stock assessment results, time lags in updating assessments, the degree of retrospective revision of assessment results, and projections.[5] Because they are a critical part of the "mechanism to set ACLs,"[6] ABC control rules must be in the FMPs themselves.[7]

The ABC control rule outlined in the Draft Omnibus would assign stocks to one of four levels based on the level of scientific uncertainty associated with its stock assessment. For stocks assigned to Levels 1-3, ABCs would be set based on a Council "risk policy," for which the Draft Omnibus provides a number of options, applied to an "OFL probability distribution" for the stock. For stocks assigned to Level 4, "a simple control rule will be used based on biomass and catch history and the Council's risk policy." Draft Omnibus at 15.

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[2] NS1 Guidelines Final Rule, 74 Fed. Reg. 3178, 3204 (January 16, 2009).
[3] 74 Fed. Reg. 12314, 12315 (Mar. 24, 2009) (emphasis added).
[4] 50 C.F.R. § 600.310(f)(2)(iii) (emphasis added).
[5] 50 C.F.R. § 600.310(f)(4).
[6] 50 C.F.R. § 600.310(c)(4) (ACLs are to be specified "in relationship to the ABC").
[7] 50 C.F.R. § 600.310(c)(3) (FMP must evaluate and describe ABC control rule); *see also* NS1 Guidelines Final Rule, 74 Fed. Reg. 3178, 3192 (January 16, 2009); 16 U.S.C. § 1853(a)(15).

Our groups are generally supportive of this conceptual approach to ABC control rules for purposes of the Omnibus. However, we have the following significant concerns with how the approach is set out in the Draft Omnibus:

(1) The Draft Omnibus's description of the ABC control rule's 4-tiered structure (at pp. 13-15) is inadequate. As an initial matter, the Draft Omnibus does not provide sufficiently-determinable criteria for assignment of stocks to tiers. More critically, particularly given that we understand that the majority of stocks will likely be assigned to either Level 3 or 4, the buffer-setting mechanism for stocks in these tiers is extremely unclear (indeed, it is not readily apparent that buffer-setting for stocks in Level 4 will result in larger buffers than for Level 3 stocks). For Level 3, the Draft Omnibus states only that a stock's OFL "probability distribution"– which it says may or may not be contained in the stock assessment – will be "adjust[ed]" and an ABC developed, possibly through the use of 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." *See* Draft Omnibus at 15. For Level 4, the best we can gather is that ABC-setting will be ad hoc.

Because of the Draft Omnibus's extremely limited discussion of the tiered component of the ABC control rule, we are unable to evaluate whether ABCs set for the various stocks in the region are likely to adequately account for scientific uncertainty, *i.e.,* result in adequate buffers, as an initial matter and over time. It also means that the Draft Omnibus lacks an actual ABC control rule for at least stocks assigned to Levels 3 and 4. As the NS1 Guidelines make clear, a control rule is not merely a process, but rather "a *policy* for establishing a limit or target."[8]

We strongly recommend that the Omnibus include a significantly more detailed description of the ABC-setting mechanisms for stocks in Levels 3 and 4, including a description of the specific types of uncertainty that will be considered. We understand that this process has been mapped out in significantly more detail than is set forth in the Draft Omnibus, *e.g.,* the SSC will conduct certain activities and make certain decisions at certain times; we ask that the details of this process be included in the Omnibus. An appropriate place to provide this description is in the upcoming NEPA documentation for this regulatory action; the public should then be provided an opportunity to comment on this document. In addition, as it is likely that development of the probabilistic approach envisioned for stocks assigned to Level 3 will be technically-challenging and, depending on the exact approach taken, may depend on information that is not available in a timely fashion, we strongly recommend that the Omnibus include an interim buffer-setting mechanism for Level 3 stocks. We recommend an interim default buffer of ABC= 0.75%OFL for Level 3 stocks. We also strongly recommend that the Omnibus include a default buffer for Level 4 stocks, which should ensure that buffers for these stocks are more precautionary than those used for Level 3 stocks.

(2) We are concerned that ABCs for stocks assigned to Level 2 will not adequately account for scientific uncertainty. For these stocks, the Omnibus recognizes that the probability distribution of the OFL taken from the stock assessment model will fail to include "important sources of uncertainty." Draft Omnibus at 14. The Omnibus nevertheless appears to

[8] *Id.* § 600.310(f)(1) (emphasis added).

contemplate relying on this inadequate measure of scientific uncertainty as the basis for setting ABCs. *Id.* at 15.

(3) With respect to the Draft Omnibus' risk policy options, while we support the Council's development of a risk policy, none of the options provide an adequate margin of safety against the risk of overfishing. Given that the Council is proposing to set ACL = ABC in all cases, it is critical that the Council risk policy effectively address the risk of overfishing, including the ABC-setting process, in order to satisfy the Congressional directive to permanently end overfishing. In our view, to guide the development of adequate control rule uncertainty buffers, councils should adopt a policy that ABCs and ACLs be set at a level that has a high probability (e.g., 75% or higher) of *not* resulting n overfishing, based on technical guidance from Restrepo *et al.* (1998).[9]

With the above caveat, *i.e.*, the maximum probability of overfishing in the risk policy should not exceed 25%, we support Alternative 2D of the risk policy alternatives as the preferred approach because this approach appears to be more conservative of stock biomass – the inflection point at which fishing mortality is reduced linearly starts at a stock size 150% of B_{MSY} (or B_{TARGET}) rather than waiting until stock size has fallen below B_{MSY} (or B_{TARGET}). This policy is proactive in approach because it requires action before stock size has fallen to critically low levels.

(4) The Draft Omnibus states that the risk policy may only be included in the Council "Standard Operating Procedures" (SOPPs).[10] However, the NS1 Guidelines clearly state that a risk policy used in this manner is part of the required ABC control rule[11] and that ABC control rules should be included in FMPs, not SOPPs.[12] The Council must include the risk policy as part of the ABC control rule in the FMP.

OY

National Standard 1 requires that conservation and management measures, including ACLs and AMs, prevent overfishing while achieving OY on a continuing basis.[13] Although the Draft Omnibus discusses the OY requirement, it does not specifically include any mechanisms to ensure that ACLs will be set at a level to achieve OY on a continuing basis. For instance, the development of the ACL-setting mechanism must explicitly consider food needs of predators that rely on the managed species. Specific procedures for setting ACLs to achieve OY for forage fish stocks should be developed to maintain significantly higher biomass than the conventional single-species target biomass of B_{MSY}.[14]

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[9] V.R. Restrepo *et al.* Technical Guidance On the Use of Precautionary Approaches to Implementing National Standard 1 of the MSFCMA. NOAA Technical Memorandum NMFS-F/SPO-##, July 17, 1998.
[10] *See* MAFMC, Public Hearing Document: Omnibus Amendment, April 2010 ("Draft Omnibus") at 9.
[11] *See* NS1 Guidelines, Preamble, 74 Fed. Reg. at 3192.
[12] *See* 74 Fed. Reg. at 3198 ("NMFS does not agree that the ACL and AM mechanisms should be established in the SOPPs. Also, NMFS never intended that ABC control rules would be described in the SOPPs and agrees that the ABC control rules should be described in the Fishery Management Plans.").
[13] 50 C.F.R. 600.310(e)(3)(ii).
[14] 50 C.F.R. § 600.310(e)(3)(iv)(C).

Annual Catch Targets

The Draft Omnibus proposes annual catch targets ("ACTs") for a number of fisheries to account for management uncertainty. However, no ACT control rule is included as called for by the NS1 guidelines[15] -- in the absence of such a control rule, it is unclear how such management uncertainty will be accounted for in the ACT. The ACT control rule should clearly articulate how management uncertainty in the amount of catch in the fishery, including bycatch (as discussed more below), is accounted for in setting the ACT.[16] The control rule should account for uncertainty both in the ability to constrain catch and in quantifying the true catch amount, and consider past management performance in the fishery and such factors as time lags in reported catch.

Management Uncertainty and Accountability Mechanisms with Respect to Bycatch

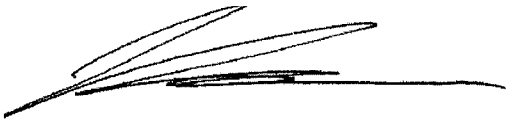
The Draft Omnibus does not adequately consider management uncertainty with respect to bycatch. It is well-recognized that bycatch monitoring in fisheries in the region is generally inadequate, *i.e.*, results in highly-uncertain estimates of bycatch for purposes of annual catch levels. It is not readily apparent from the Draft Omnibus how or whether this uncertainty will be factored into ACL-setting. Moreover, the Draft Omnibus does not incorporate accountability mechanisms with respect to bycatch, which are currently lacking in fisheries in the region (with the exception of butterfish bycatch in the *Loligo* fishery).

* * * *

We thank the Council for this opportunity to submit these comments on this historic set of FMP amendments.

Sincerely,

Bradford H. Sewell
Senior Attorney
Natural Resources Defense Council



Chris Dorsett
Director, Fish Conservation and Management
Ocean Conservancy

cc: Lois Schiffer, NOAA General Counsel
Patricia Kurkul, NMFS Northeast Regional Administrator

[15] 50 CFR § 600.310(f)(6).
[16] *Id.*

MAFMC

Omnibus Bill Comments

The NMFS and the Councils have worked hard to control the overfishing of most key ocean fish species. Only New England Council has fought hard to ignore their legal responsiblilty. The Omnibus Bill is an excessive reaction to the deeds of a single council.

Charter boats and Head boats are in business to provide legal fish for their customer to take home and eat. This bill was written with tiered regulations so tough that this bill must be considered excessive regulation. This Amendment proposes regulations in specific multiple tiers each one tougher that the previous one. Anglers were informed at the NJ Omnibus meeting that only Fluke and Spiny Dogfish are tier #2, all other species are tier #4. This is totally wrong! NMFS will never provide the money required to move tier #4 fish species to #2 or higher. Charter boats and Head boats are in business to provide legal fish for their customers to take home and eat. The Charter boat and Head boat business will be decimated if these proposed regulations are approved.

I ask that all fisheries in MAFMC plans begin at 50%.using the Framework as shown on page #8 of the proposed plan. All additional quota restraints, tiers and other provisions are eliminated. Each additional tier in this bill mandates additional quota reductions.

I ask that the following four changes be in any bill MAFMC approves.
A- The council proposes to authorize NMFS Regional Administrator to close specific fisheries based on MRFSS Wave 2 & 3 recreational angler landing data. These fisheries will be closed when predetermined landing percentages are estimated to be exceeded We request that this "Recreational Inseason Accountability" provision be totally stricken from all fisheries in the proposed Omnibus Bill.

B- The NAS study of MRFSS was found to be a "Fatally Flawed" fishery management stool. The NAS requested the use of the MRFSS plan be ended by Jan 2009. The new system named MRIP has yet to be introduced. We ask that no recreational fishery MRFSS data be used for recreational fishery management in this proposed bill

C- This proposed bills excessive management actions must be eliminated.
It states that MSY will be replaced by ACL and the other various provisions that end with RHL being the management goal. This is far more than is required by Magnuson/ Stevens Act. .All other management provisions of this Amendment must be eliminated. The framework proposed on Page 8 should be the only management changes in this bill.

I can not support this Omnibus Amendment if it is not totally rewritten

Thank you for considering my comments.
Captain John T. Koegler
8 Ringneck Lane, Radnor, Pa. 19087

May 21, 2010

Daniel T. Furlong
Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
FAX: (302) 674-5399

RE: Comments on Public Hearing Document Omnibus Amendment 13 to the Atlantic Mackerel, Squids and Butterfish Management Plan, Amendment 3 to the Bluefish Management Plan, Amendment 15 the Summer Flounder, Scup and Black Sea Bass Fishery Management Plan and Amendment 3 to the Tilefish Management Plan

Dear Mr. Furlong:

Please accept the following comments submitted on behalf of the Recreational Fishing Alliance (RFA)[1] and RFA New Jersey Chapter.

I. General Comments

RFA has major concerns with the public hearing document and the glaring absence of criticism regarding the Marine Recreational Fishing Statistics Survey (MRFSS) and its limitations in monitoring and estimating performance of the recreational fishing sector. Many of the proposed options in the Omnibus Amendment particularly those that deal with proactive and reactive accountability measures (AMs), demand accuracy and timeliness far beyond the current capabilities and design of MRFSS. This point has been made by National Marine Fisheries Service (NMFS) in response to similar action being proposed for the recreational scup fishery through Amendment 8 to the Summer Flounder, Scup and Black Sea Bass Fishery Management Plan.[2] NMFS went beyond calling the use of MRFSS in this manner as inappropriate and indicated it was in violation of numerous national standards.

"The provision that would deduct the annual recreational harvest in excess of the specified limit from the limit for the following year would base the deductions on the results of the

[1] The Recreational Fishing Alliance (RFA) is a national, 501(c)(4) non-profit grassroots political action organization that has been representing individual sport fishermen and the sport fishing industry since 1996. The RFA Mission is to safeguard the rights of saltwater anglers, protect marine, boat and tackle industry jobs and ensure the long-term sustainability of U.S. saltwater fisheries. RFA members include individual anglers, boat builders, fishing tackle manufacturers, party and charter boat businesses, bait and tackle retailers, marinas, and many other businesses in fishing communities.

[2] http://www.mafmc.org/fmp/pdf/SFSCBSB_Amend_8.pdf

Marine Recreational Fishery Statistics Survey (MRFSS). This measure impacts the annual allocation of the recreational sector of the fishery with no clear conservation benefit, in violation of national standard 4. The MRFSS is an excellent fishery management tool for the purpose for which it was designed, that is, giving an overall projection of recreational catch from the recreational fishery from Maine to Texas. However, the survey was not intended to be used as a basis for calculating an overage in the recreational fishery that would then be deducted from the quota established for the subsequent year. The survey variability becomes problematic, and this problem is further exacerbated if the fishery is managed on a regional quota basis as is a possibility in the scup fishery. In addition, the survey variability could affect residents of different states unevenly with respect to quota overages. These problems make the provision inconsistent with national standard 4. Likewise, because the survey is based on contacts with recreational fishermen, it reflects a sampling variability in addition to variations in the stock. The effects of this sampling variability render its use to calculate overages inconsistent with national standard 6. Finally, it would take a significant expenditure of funds to reduce the survey variability, especially as the geographic area for which estimates are made is reduced, to render it consistent with national standard 2. This conflicts with national standard 7."[3]

Specific to the revised National Standard 1guidance cited on page 7 of the public hearing document which has been identified as a major driving force of the entire Omnibus Amendment, NMFS finds this approach and its reliance on MRFSS inconsistent with National Standard 1. This is a profound contradiction that must be resolved.

"***This raises concern regarding its consistency with national standard 1.*** *In failing to account for these variations, the use of the survey affects the overall ability of the entire scup quota management process to achieve on a continuing basis, the optimum yield from this fishery. This raises concern regarding its consistency with national standard 1."*[4]

In response to a Congress mandate to address deficiencies of MRFSS, the National Research Council (NRC) conducted a peer review of the data collection program and released their findings in 2006. Statements such as "fatally flawed" arose from the report and a series of recommendations were made available to fisheries managers, legislators, and stake holders. NRC indicated that a complete overhaul was necessary to meet the ever increasing demands of fisheries management as expressed in the following statement.

"The MRFSS (as well as many of its component or companion surveys conducted either indirectly or independently) should be completely re-designed to improve the effectiveness and appropriateness of sampling and estimation procedures, applicability to various kinds of management decisions, and usefulness for social and economic analyses."[5]

and,

"For recreational fishing surveys, the designs, sampling strategies, and collection methods of recreational fishing surveys do not provide adequate data for management and

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[3] **Federal Register** Vol. 61, No. 107, Docket Number **960520141–6141–01.**

[4] **Federal Register** Vol. 61, No. 107, Docket Number **960520141–6141–01.**

[5] National Research Council. Committee on the Review of Recreational Fisheries Survey Methods, National Research Council, ISBN: 0-309-66036-X. page 3

policy decisions."[6]

Following the NRC findings and consistent with recommendations offered by members of the recreational fishing community, MRFSS was slated to be improved through language included in the 2006 Magnuson Reauthorization. RFA supported having these improvements implemented in order to address significant deficiencies in the MRFSS program that were having a deleterious effect on the recreational fishing community. MSA section 401 (g) mandates the improvement of MRFSS and other recreational data collection programs through the development of a saltwater angler registry, implementation of National Research Council recommendations, and enacting five measures that would produce immediate improvements. The saltwater registry was delayed one year and only just became effective January 1, 2010. Calibration between the random digit dialing survey and a known sampling frame created through the registry will require a minimum of 3 years to fully determine biases and their magnitude. Of the 18 NRC recommendations, RFA can only identify 5 that have been fully or partially implemented. Congress, recognizing the importance and urgency of improving recreational data collection programs establish a deadline[7] for enacting improvements under this section of January 1, 2009. That deadline has expired and NMFS remains severely delinquent on these critical improvements. RFA believes the MAFMC has full justification to postpone moving forward with the recreational component of the Omnibus Amendment until all sections of MSA 401 (g) are fully implemented and a report is submitted to Congress. As expressed by NMFS, the NRC and the fishing community, MRFSS was not designed nor intended to collect data in a timely or accurately enough manner to meet the demands of the Omnibus Amendment. Doing so with the current MRFSS would violate no less than five of the 10 National Standards.

Another major concern lies with the lack of acknowledgment of optimum yield (OY). National Standard 1 mandates that conservation and management measures shall prevent overfishing while achieving on a continuing basis, the optimum yield from each fishery.[8] Optimum yield is defined by MSA as the yield from a fishery that provides the greatest benefit to the Nation in terms of food production and recreation, the amount equal to maximum sustainable yield (MSY) reduced by relevant economic, social or ecological factors, and for rebuilding fisheries, the level of yield that produces MSY.[9] In the most general sense, optimum yield should be a level of fishing that occurs on rebuilt stocks that offsets sacrifices, loss opportunity and loss participation that have accumulated during rebuilding. This is consistent with the basic premise used by NMFS when rationalizing conservation measures in the present that result in negative socioeconomic impacts. RFA further believes this to have been the intent of Congress when passing the Sustainable Fisheries Act in 1996.

The Omnibus Amendment fails to indicate where optimum yield would fall on the chart included on page 8 of the document. It is understood that OY can be equal to or less than MSY. Specific to the Omnibus Amendment, staff has indicated that OY would most likely equal the Allowable Biological Catch (ABC) set by the Science and Statistical Committee (SSC). The RFA can make

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[6] National Research Council. Committee on the Review of Recreational Fisheries Survey Methods, National Research Council, ISBN: 0-309-66036-X.

[7] MSA § 401 (g)(3)(D)

[8] MSA § 301 (a)(1)

[9] MSA § 3(33)(A-C)

a prediction about where OY will fall on the flow chart on page 8 but by leaving this out of the document, fishermen are not made fully aware of the implications of the amendment. If OY is equal to ABC and then ACLs and ACT are set below the ABC, fishermen will never fish at OY even with rebuilt fisheries. This is counter to what NMFS has told the fishing communities to quell concerns about negative impacts during rebuilding. RFA believes it is irresponsible to not make fishermen fully aware that this Omnibus Amendment will institutionalize fishing levels below OY even once rebuilding objectives are achieved.

RFA has explained in comments submitted to other fishery management councils as well as testimony before the House Subcommittee on Insular Affairs, Oceans and Wildlife that MRFSS is neither accurate nor reliable enough to implement accountability measures and annual catch limits in the recreational sector. RFA stands by this position and contends that it is completely inappropriate for the MAFMC to move forward with the section of MSA that deals with ACLs and AM while ignoring critical sections that deal specifically with recreational data collection improvements necessary

II. Section 1.0 Acceptable Biological Catch (ABC) Alternatives.

RFA supports Alternative 1A No Action on ABC control rule. RFA acknowledges that Alternative 1B would perhaps simplify the council member's ability to evaluate a confidence level of a particular stock assessment and subsequent SSC ABC recommendation. The problem with simplifying the process by assigning a number to an assessment is that council members will not take the time to review the supporting documentation associated with a SSC recommendation or stock assessment. As the MAFMC is fully aware, every SSC recommendation includes a section that discusses the scientific uncertainty that was considered during the recommendation setting process. This uncertainty is ultimately dealt with in the SSC recommendation. Uncertainty simply means there is a large amount of variability in estimations of fishing mortality and/or biomass due to missing or less than reliable data that is incorporated at the stock assessment level. In a fishery such as scup, the uncertainty may demand a level 4 but in application, the uncertainly only means the estimate of abundance may vary from 300% rebuilt to 100% rebuilt. Yet, the stigma associated with a level 4 assessment may prompt council members to reduce ACLs or ACT unnecessarily. A low assessment grading may have the unintended consequence of misleading council members and the public that a stock is not responding to management measures or is a state of decline. As seen in the scup fishery which would likely be assigned a proposed level 4, a low assessment level does not mean a stock is performing poorly. Of additional concern, assessment grading levels may be used by NMFS as justification to supersede council recommendations or existing regulation under section MSA 305§ (c)(1).

Currently, there are fishing mortality targets contained within the summer flounder, scup and black sea bass fishery management plan that promote rebuilding or maintenance of these fisheries. The most recent assessment for these species indicate that in the scup and black sea bass fisheries, the current fishing mortality estimates are .048 and 0.28 respectively. These estimates are considerably under the F_{msy} values for these fisheries set at 0.177 and 0.42. It should be noted that projections produced by Council staff using F_{msy} values for scup and black sea bass show a continued increase in stock size. Both fisheries have already achieved their respective rebuilding targets and therefore are no additional rebuilding is required. Since

continued rebuilding is projected under annual catch limits consistent with fishing levels of 2009, it seems extremely remote that even is if fishing pressure was doubled compared to 2009 levels that overfishing would occur. The very definition of overfishing as defined by MSA describes it as taking too many fish from the stock to support MSY on a continuing basis and yet, F_{msy} for these species would cause rebuilding not a decline.

In addition, RFA does not support Alternative 1B due to the lack of available funding or commitment on behalf of NMFS to move fisheries from low stock assessment levels to higher ones. Fisheries that are assigned a level 4 will most likely wallow at the level for minimum of 10years because there is currently no program in place that has the potential to gather the data necessary to improve their stock assessments. Many stock assessments could see improvements by gathering empirical information on life history parameters such as natural mortality. Yet, there is no funding mechanism to prompt this action. In fact, the FY 2011 NOAA budget cut millions of dollars from cooperative research programs. RFA believes it is unwise to lock fisheries into assigned assessment levels knowing there are no options to improve their situation.

III. Section 2.0: Council Risk Policy Alternatives

RFA supports Alternative 2C: Stock Replenishment Threshold with Inflection at B/B_{msy}. RFA supports the use of inflection points based on B/B_{msy} ratio where the probability of overfishing is allowed to increase as the status of the stock increases. However, RFA suggests that two or preferably three inflection points are included in Option 2C similar to inflection points in Option 2E. RFA specifically suggests developing a B/B_{msy} vs Probability of Overfishing curve with a stock replenishment threshold set at 0.1 B/B_{msy}. The first inflection point would correspond to a .75 B/B_{msy} ratio and 40% overfishing probability. The second inflection point would correspond to a B/B_{msy} ratio of 1.0 and a 45% probability of overfishing and a final inflection point at 1.5 B/B_{msy} with the probability of overfishing plateaus at 50%. This represents a shift towards the origin and allows the fishing community to utilize rebuilding success at a quicker rate.

RFA does not support the options contained in section 2.0 that create an artificially low probability of overfishing solely on the basis of scientific uncertainty. All of the important recreational fisheries under the MAFMC jurisdiction have F_{msy} or F_{msy} proxy values. These values and all other biological reference points (BRP) are established through the stock assessment workshop and peer review process. As these numbers are developed, considerable discussion is had on every data point that is included in the numerical models. With data sets that contain more variability as would be expected in proposed level 4 stock assessment fisheries, stock assessment participants add numerous levels of precaution to account for the scientific uncertainty. Even basic parameters such as natural mortality are not always empirically based but are set using assumptions that also include a level of precaution. This noted, it is fair to conclude that fisheries with high coefficient of variability and other characteristics of a proposed level 3 or 4 assessment have a higher level of precaution incorporated into their BRP. Therefore, risk assigned to fisheries by the MAFMC should be independent of assessment level because the risk is already dealt with through the individual assessments. RFA does not support any reduced SSC ABC recommendation as this number is already conservative in terms of dealing with scientific uncertainty.

In addition, RFA does not support options contained in Section 2.0 that link stock assessment levels to a fixed risk policy. As mentioned by the chair of the SSC, most fisheries in the Mid-Atlantic management area would fall in the proposed level 4 stock assessment level. It is unlikely that there will be much progress in moving stocks from level 4 to levels 2 or even level 3 considering the significant financial investment necessary and lack of funding currently available.

The public hearing document indicates that the MAFMC is also considering the appropriateness of a stock replenishment threshold. The concept of a SRT is valid but it is unlikely that a stock could cascade out of control to a B/B_{msy} ratio of 0.1 due to fishing mortality considering the very strict language in MSA. For stocks that are currently rebuilt such as scup and black sea bass, MSA specifies that a rebuilding plan be initiated if these stocks were to fall below the overfished threshold, thus rebuilding requirements would be set through that process. RFA does have concerns with the use of SRT where the probability of overfishing would be set at zero. This situation would not allow any directed fishing and could potential prompt regulations enacted in other recreational fisheries that result in incidental catch. That could have profound impacts on many important recreational fisheries.

IV. Section 3.0: Annual Catch Limits (ACLs) and Accountability Measure (AMs) Alternatives

RFA's comments on this section pertain to the bluefish, summer flounder, scup and black sea bass fisheries. RFA generally supports the flow charts for the above mentioned species on pages 36, 46, 52, and 58 respectively. However, RFA takes issue with all the flowcharts in that they identify scientific uncertainty first deducting catch levels from the overfishing limit (OFL) and do not specifically identity OY. As mentioned earlier in our comments, OFL is a biological reference point set at the stock assessment level. Stock assessments by design, deal with scientific uncertainty when developing biological reference points as they relate to MSY. The SSC accounts for scientific uncertainty in making ABC recommendations and uses the OFL as guidance. Therefore, scientific uncertainty is accounted for at two levels before ACLs and ACT are set through the Omnibus Amendment process. While it is important to understand the multiple levels at which available quota is removed to deal with scientific uncertainty, the fishing community and managers do not have any understanding how these decisions translate into actual pounds of fish. When the final harvest limits are set, recreational anglers are often frustrated by the limited options available to them in setting seasons, size limits and bag limits due to inadequate harvest limits. Many of the most important recreational fisheries are fully rebuilt and near rebuilt which causes a perplexing situation in the recreational sector because regulations have become more and more restrictive. The flowcharts in this section, beginning with the stock assessment process, should identify either the poundage or percentage removed from the OFL to the recreational harvest limit or target beginning at the stock assessment level.

As more recreational fisheries move into a rebuilt or near rebuilt status, regulatory discards and its associated mortality account for a larger portion of the recreational annual catch limit. In the summer flounder fishery, discard mortality is now equal to harvest. While there is some benefit in discarding in fisheries that have a high nonconsumptive value such as marlin and to some extent striped bass and bluefish, regulatory discards in the summer flounder fishery serves no

purpose. The consequence is reduced recreational harvest limits and less flexibility in setting seasons, size limits, and bag limits. Furthermore, with discards being removed at a level above the recreational harvest limit, it will be difficult to correct this problem under the provisions of the Omnibus Amendment.

Action Alternatives for Atlantic Mackerel

RFA does not support proactive AMs in the recreational Atlantic Mackerel fishery. Recreational harvest represents a minimal percentage of the overall domestic harvest and recreational harvest has remained stable over the 28 year timeframe MRFSS has been in operation. The recreational mackerel fishery is extremely dependent upon weather. Combined with a traditional mackerel season that occurs when MRFSS sampling is nominal, landings have the potential to be highly variable from year to year. MRFSS currently does not support this concern and in fact estimates indicate stable landings from the recreational sector. However, MRFSS is unpredictable and this traditional fishery should not be penalized through reactive AMs because of when and how it is prosecuted and the inability of MRFSS to adequately monitoring it. Therefore, RFA does not support reactive AMs for the recreational mackerel fishery nor does it support affording the NMFS Regional Administrator the authority to invoke inseason adjustments and/or closures based on MRFSS. This is simply not acceptable.

Action Alternative for: Atlantic Bluefish ACL and AM

RFA supports Sub-option B for reactive AMs in the recreational bluefish fishery.
RFA does not support general recreational closure authority being placed with NMFS Regional Administrator. For the past 12 years, a third of all bluefish caught are released ACL=ABC which includes discards.

Action Alternatives for: Summer Flounder, Scup and Black Sea Bass

RFA submits the following general comments that are relevant to all three species. For all species, RFA supports a minimum 3-year ACLs evaluation as described by Sub-Option B. As mentioned in our general comments, MRFSS was designed to show trends in recreational fishing activity. In fact, MRFSS becomes more accurate as the terminal years moves farther from the year of question. This well known limitation of MRFSS should automatically cause the MAFMC to reject Sub-Option A for the recreational summer flounder, scup and black sea bass fisheries.

Again citing the limited capabilities of MRFSS and/or MRIP, RFA does not support granting NMFS Regional Administrator authority to close the recreational summer flounder, scup and/or black sea bass fishery based on real-time monitoring. MRFSS by design cannot be used to provide managers real time monitoring of recreational catch, harvest, effort and participation. Consistent with this argument, RFA cannot support inseason adjustments to the recreational summer flounder, scup and black sea bass fisheries when the primary monitoring tool is MRFSS. Both of these proposed management options would completely disrupt any sense of stability in the recreational fisheries. It would be nearly impossible for fishing related businesses to develop efficient business plans with the uncertainty of mid-season closures pending. Anglers would view this scenario as "race to fish" management similar to red snapper in the Gulf of Mexico which proved to be disastrous for the fishing community. Such options are also completely

incompatible with current conservation equivalency and dual management under MAFMC and Atlantic States Marine Fishery Commission (Commission) jurisdiction.

RFA contends that MSA and National Standard 1 guidance requirements for proactive AMs are satisfied through deductions to ABC accounting for management uncertainty as illustrated in the flow charts provided for these species. In addition, regulation modifications account for the previous fishing season's landings relative to that year's landings limit. Recently adopted Performance Standards implemented through the Commission's Summer Flounder, Scup and Black Sea Bass plan, deduct available landings based an average of overage in the three previous fishing seasons. This provides additional assurances that the proactive AM requirement has been met.

RFA is opposed to the implementation of additional reactive AMs in the recreational summer flounder, scup and black sea bass fisheries. Reactive AMs are already a management tool included in the fishery management plan and are the mechanisms that prompt automatic adjustment of seasons, size limits, and bag limits based on a comparison of landings to landings target. The public hearing document qualifies on page 10 that examples of reactive AMs include "modification of subsequent year trip or possession limits."

Action Alternative for: Tilefish ACL and AM

RFA does not support the implementation of ACL or AM in the recreational tilefish fishery. Though once it supported a strong recreational fishery, tilefish is now dominated by the commercial sector and recreational landings should not be set based on the current allocation. The prosecution of this fishery is very demanding and naturally constrains participation and growth. Recreational anglers should be allowed to engage this fishery without ACLs or AMs specific to the sector. This can always be reconsidered in the future if recreational tilefish unexpectedly expands.

V. Section 4.0: Periodic Review of ABC, ACL, and AM Alternatives

RFA supports Alternative 4B: Review of control rules by SSC and Council. While it is stated that the SSC and Council will undertake an evaluation of ABC control rules and AMs if a ACLs for a specific stock is exceeded at a frequency greater than 25%, RFA believes that the MAFMC and SSC should be equally concerned if the fishing communities are unnecessarily restricted from the fisheries, particularly rebuilt fisheries. National Standard 1 mandates achieving optimum yield on an on-going basis. If excessive poundage is removed from a potential landing target due to an unnecessary accumulation of uncertainty, both scientific and management, optimum yield will not be achieved and the fishing community will suffer. Unfortunately, the failure to make meaningful improvements to the recreational data collection unfairly impacts the recreational sector. The application of management uncertainty disadvantages the recreational sector more because its landings are estimated through inefficient survey techniques as opposed to the commercial sector where accounting for every pound of fish sold to dealers is attainable. Equal effort must be made to ensure the recreational sector is given fair opportunity to utilize its sector specific AHT consistent with optimum yield and National Standard 1 guidance.

VI. Section 5.0: Description of Process to Modify Actions

RFA concurs with the following statement contained in this section, "*Flexibility is imperative and must allow for timely modifications give the dynamic nature of fisheries and the environment.*" Many of the problems we face in the recreational sector relative to the lack of access to rebuilding or rebuilt stocks can be linked to the lack of flexibility in MSA. While fisheries science has drastically improved in the last 10 years, numerical modeling is still an imperfect science. More sophisticated models have the ability to give managers a more refined range of outcomes in response to their management choice. However, much of fisheries management is trial and error due to the dynamic nature of the marine environment and the often unpredictable social component of the recreational fishery. For this reason, it paramount that flexibility be explicitly included in the Omnibus Amendment.

RFA will submit additional comments specific to Section 5.0 following the June 2010 council meeting.

Sincerely,

Jim Donofrio
Executive Director

Capt. Adam Nowalsky
RFA New Jersey Chapter Chair

May 21, 2010

To: Daniel T. Furlong, Executive Director
Mid-Atlantic Fishery Management Council
Room 2115 Federal Building
300 South New Street
Dover, Delaware 19904-6790

Re: Public hearing document for an Omnibus FMP amendment to implement NS1 requirements for a system of ACLs and AMs

Dear Mr. Furlong:

The Marine Fish Conservation Network (Network), representing nearly 200 environmental, fishing and marine science organizations nationwide, submits the following comments on the public hearing document for the Omnibus FMP amendment to implement statutory requirements enacted as part of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, P.L. 109-479, that all fishery management plans ("FMPs") include mechanisms to set annual catch limits ("ACLs") "at a level such that overfishing does not occur in the fishery" and accountability measures ("AMs") to ensure that ACLs are not exceeded.[1] These comments are in addition to verbal testimony that we delivered on May 3, 2010 at the public scoping hearing in Alexandria, VA.

Ending overfishing was the highest priority of the reauthorized Magnuson-Stevens Act of 2006 (MSRA). To achieve that end, the MSRA requires each U.S. fishery to adopt a system of ACLs and AMs that is risk-averse, based on scientific advice, and aimed at achieving long-term sustainability in the nation's fisheries. The ACLs may not exceed the acceptable biological catch (ABC) recommendations of the Council's Science and Statistical Committee (SSC). In the Network's 2009 review of the revised National Standard 1 (NS1) Guidelines (*ACL final rule*, 74 Fed. Reg. 3178), we concluded that *all* regions will have to amend their FMPs and their operating procedures to implement the new ACL requirements fully, with support from NMFS.[2] We are pleased that the Mid-Atlantic Council is making progress in this direction and has provided the public with the opportunity to comment on how to proceed with amending its FMPs.

The Network is encouraged by the Council's initial efforts to develop a system of ACLs and AMs for stocks in its fisheries. The public hearing document and the proposed alternatives contain a number of the features of a system of ACLs and AMs that we recommended in our previous public scoping comments from 2009, which were drawn from our earlier national report on ACL implementation (*Implementing Annual Catch Limits: A Blueprint for Ending Overfishing in U.S. Fisheries*).[3] However, the proposed alternatives lack critical elements of an effective system of ACLs and AMs that comply with the law and the NS1 Guidelines. While the public hearing document contains many promising features and represents a good start, the Network believes that much work remains to be done. Specifically,

- The Draft Omnibus public hearing document simply assumes that those stocks already listed in the FMPs are the only stocks in the fishery requiring ACLs and AMs; the document lacks any evaluation of other, non-target stocks caught incidentally as bycatch that may qualify as stocks in the fishery.
- The proposed system of ABC control rules appears to be designed in such a way that substantial sources of scientific uncertainty would not be considered and uncertainty buffers would not be adequate.
- The proposed alternative risk policies do not provide an adequate margin of safety against the risk of overfishing and should be more conservative.
- The proposed system of accountability measures relies primarily on reactive measures that would not enable managers to close a fishery upon attainment of its ACL, and fails to address the shortcomings of the catch monitoring system.
- The document lacks any adequate consideration of procedures for achieving OY, including measures addressing ecosystem considerations in the setting of ACLs in order to achieve OY.

We address these issues in more detail below.

1. The Draft Omnibus hearing document fails to consider non-target stocks in the fishery and lacks any formal mechanism or classification system for evaluating and determining which stocks are "in the fishery."

The Mid-Atlantic Council only includes target species in its FMPs, even though species other than target stocks are caught in these fisheries and have been identified and described in the 2008 and 2009 Standardized Bycatch Reporting Methodology (SBRM) Annual Reports and in the documents of the Atlantic States Marine Fisheries Commission. The public hearing document simply assumes that those stocks already listed in the FMPs are the only stocks in the fishery requiring ACLs and AMs, and lacks any evaluation of other, non-target stocks caught incidentally as bycatch that may qualify as stocks in the fishery.

The revised NS1 guidelines for ACLs and AMs state that the requirement for ACLs and AMs applies to all stocks in a fishery, and all stocks in the FMP should be considered "in the fishery" unless otherwise specified through rulemaking.[4] This includes non-target stocks that are caught incidentally as bycatch during the pursuit of target stocks in a fishery, as well as "regulatory discards" as defined under Magnuson-Stevens Act section 3(38), which may or may not be retained for sale or personal use.[5] The ACL final rule clarifies that all stocks in a fishery *must* have status determination criteria, MSY and OY specification, an ABC control rule, mechanisms for specifying ACLs, and accountability measures.[6]

Unfortunately, the public hearing document does not include a formal classification system for determining all the species that qualify as stocks in the fishery requiring a system of ACLs and AMs. It appears that no vulnerability analysis has been done for target species or non-target species that are caught incidentally in the fishery as bycatch. We believe that such an analysis is necessary and that vulnerability analysis should also be used to determine if some non-target species may qualify for classification as EC species. We urge the Council to incorporate a formal evaluation process to determine whether other, non-target species qualify as stocks in the fishery requiring a system of ACLs and AMs. In the case of non-target species, the ACL would serve as a bycatch limit.

As stated in past Network letters to the Council on this subject, we believe river herring caught incidentally as bycatch likely qualifies as one of the stocks in the trawl fisheries. In the case of river herring, the catch limit would be a non-target species ACL designed to limit bycatch of river herring in the trawl fisheries. Upon attainment of the river herring bycatch ACL, accountability measures might be designed so that bycatch-triggered area closures would move the fishery out of areas of high bycatch of river herring.

2. **The proposed system of ABC control rules appears to be designed in such a way that substantial sources of scientific uncertainty would not be considered and uncertainty buffers would not be adequate.**

Control rules have been described by Restrepo *et al.* (1998) as "pre-agreed plans for making management decisions based on stock size."[7] In order to set ACLs for all stocks in the fishery, the Councils and NMFS must establish control rules for each FMP that will enable them to set numeric catch limits across a wide range of data quality situations and many different species. To achieve a high probability of not overfishing, it is essential that the framework of FMP control rules includes explicit mechanisms to account for uncertainty. If a control rule is structured to reflect different levels of information available for each stock in the FMP, then the system of uncertainty buffers for each category or "tier" should increase precaution as available information decreases and uncertainty increases. In other words, control rules should be designed to be more conservative when the information is limited and uncertainty is greater.

The NS1 guidelines specify that each Council must establish an ABC control rule based on scientific advice from its SSC, which may not exceed the OFL.[8] The NS1 Guidelines define an ABC control rule as a "*specified approach* to setting the ABC for a stock or stock complex as a function of the scientific uncertainty in the estimate of OFL and any other scientific uncertainty."[9] Because the ABC is a level of annual catch that is intended to account for the scientific uncertainty in the estimate of OFL and any other scientific uncertainty, therefore NMFS expects that ABC will virtually always be reduced from OFL to reduce the risk that overfishing might occur in a given year.[10] The ABC control rule should also reduce fishing mortality as stock size declines and establish a stock abundance level below which fishing would not be allowed.[11] The Network supports an approach in which directed fishing should be halted beyond a certain cutoff point that is *no less than* 10-15% of the stock's unfished biomass, or higher if the biology and ecology of the stock indicates that more precaution is warranted.

Conceptually, we support the Council's proposed 4-tier ABC control rule structure. However, the dimensions of scientific uncertainty that would or would not be considered when setting ABC are not clearly specified. Similarly, the criteria for assignment of stocks to tiers of the control rule are not clearly specified. For stocks assigned to Levels 1-3, the uncertainty buffer between ABC and OFL would based on a Council "risk policy," for which the Draft Omnibus provides a number of options. In theory, the risk policy would be applied to an "OFL probability distribution" for stocks in these tiers of the control rule. For data-poor and unassessed stocks assigned to Level 4, however, "a simple control rule will be used based on biomass and catch history and the Council's risk policy."[12] If a probability-based approach is not applicable for determining the uncertainty associated with the overfishing limit

(OFL) for a given stock, then a simple percentage buffer will be required and should be included in the control rule.

Due to the Draft Omnibus's extremely limited discussion of the tiered component of the ABC control rule, we are unable to evaluate whether ABCs set for the various stocks in the region will adequately account for scientific uncertainty and include appropriate buffers. The Omnibus amendment must include a significantly more detailed description of the ABC-setting mechanisms, including a description of the specific types of uncertainty that will be considered in each tier or "level" of the control rule. In addition, it is our understanding that there is no actual assessment methodology in place for most or all stocks in the Mid-Atlantic region with which to calculate the uncertainty associated with estimates of OFL. That being the case, how can the SSC apply a risk policy that is premised on knowing the risk of overfishing associated with the estimate of OFL? The public hearing document is silent on this point, but the final Omnibus amendment and the accompanying NEPA documentation must provide clear answers.

Since it appears likely that the development of a probability-based approach envisioned for stocks assigned to Levels 1-3 will be difficult or may not be available for some time, the Network recommends that the Omnibus include an interim default uncertainty buffer for stocks where the probability of overfishing associated with the OFL cannot be calculated. It would also be important to retain the concept that an ABC control rule buffer system should reflect the increasing uncertainty associated with stocks in lower tiers of the rule. If, for instance, the default buffer for ABC = .75OFL for stocks in Level 3, then the uncertainty buffer should be larger in Level 4.

For data-poor stocks lacking any assessment, the method of determining the buffer may include the use of a vulnerability analysis, other research data, and professional judgment. Inclusion of a Productivity and Susceptibility Analysis (PSA) for data-limited stocks in the lowest assessment tier would be especially important to evaluate the potential risks associated with a given fishing level recommendation.

3. The proposed alternative risk policies do not provide an adequate margin of safety against the risk of overfishing and should be modified accordingly.

The MSRA's strong mandate to end overfishing requires a risk-averse policy to setting ABCs and ACLs such that there is a high probability of not exceeding the OFL. Rosenberg *et al.* (2007) emphasized the need for fishery managers to consider the acceptable level of risk of exceeding the prescribed OFL when setting ACLs.[13]

With respect to the Draft Omnibus' risk policy options, we support the Council's development of a risk policy and proposed inclusion of the policy into the ABC control rule. However, none of the options provide an adequate margin of safety against the risk of overfishing. Given that the Council is proposing to set ACL = ABC in all cases, it is critical that an integrated system of ABC control rules and the Council risk policy effectively addresses the risk of overfishing in the ABC-setting process in order to satisfy the Congressional directive to permanently end overfishing. In addition, the absence of an adequate catch monitoring system means that there is high uncertainty regarding total fishing mortality (including at-sea discards in the fishery and bycatch in other fisheries), and this is yet

another reason for having a highly risk-averse policy. To guide the development of adequate control rule uncertainty buffers, councils should base their development should adopt a policy that ABCs and ACLs should be set at a level that has a high probability (e.g., 75% or higher) of *not* exceeding the overfishing level, based on technical guidance from Restrepo *et al.* (1998).[14]

In light of the above comments, we support Alternative 2D of the risk policy alternatives as the preferred approach because this approach appears to be more conservative of stock biomass – the inflection point at which fishing mortality would be reduced linearly starts at a stock size 150% of B_{MSY} (or B_{TARGET}) rather than waiting until stock size has fallen below B_{MSY} (or B_{TARGET}). Alternative 2D risk policy also has a scalable uncertainty buffer that increases in size as uncertainty increases for stocks in lower tiers of the ABC control rule – an essential feature of an adequate risk policy. This policy is proactive in approach because it requires action before stock size has fallen to critically low levels, but we continue to believe that the maximum probability of overfishing in the risk policy should not exceed 25%. The rationale for this approach is even stronger given that the Council is proposing to set ACL = ABC for all stocks and the catch-monitoring system is inadequate to provide a reliable and timely estimate of fishing mortality for any fishery.

In addition, the Public Hearing Document states that the risk policy may only be included in the Council "Standard Operating Procedures" (SOPPs).[15] However, the NS1 Guidelines clearly state that the risk policy is intended to be part of the required control rule.[16] Therefore, the Council must include the risk policy as part of the ABC control rule in the FMP.

4. **The proposed system of accountability measures (AMs) for managed species relies primarily on reactive measures and a system of annual catch targets (ACTs), but the Draft Omnibus hearing document fails to explain how the ACTs will prevent fisheries from exceeding ACLs and lacks the required ACT control rule that must accompany the use of a system of ACTs.**

The revisions to the NS1 guidelines specify that an ACL may not exceed the SSC-recommended ABC, and that ACL is the limit that triggers AMs.[17] The objective of establishing AMs is that the ACL not be exceeded.[18] In the revised NS1 guidelines, AMs are defined as management controls that prevent ACLs or sector-ACLs from being exceeded (inseason AMs), where possible, and correct or mitigate overages if they occur (reactive AMs). In addition to inseason AMs and reactive AMs, AMs may include area closures, changes in gear, changes in trip size or bag limits, reductions in effort, and other appropriate management controls for the fishery.[19] For fisheries without inseason management controls, AMs should include annual catch targets (ACTs) that are set below ACLs to reduce the risk that catches will exceed the ACLs.[20] In fisheries without inseason monitoring capability, setting the ACT less than ACL is intended to increase the chances of staying within the limit and avoiding frequent overage deductions in subsequent years. The Draft Omnibus hearing document proposes annual catch targets (ACTs) for a number of fisheries to account for management uncertainty, but it is not clear how these ACTs will prevent the fishery catch (landings and discards) from exceeding ACLs and ensure overall accountability, given the general lack of reliable and timely catch monitoring in these fisheries. This issue must be addressed squarely in the accompanying NEPA documentation for the Omnibus amendment.

In addition, no ACT control rule is included as called for by the NS1 guidelines.[21] In the absence of such a control rule, it is unclear how management uncertainty will be accounted for in the ACT or what aspects of management uncertainty are to be considered. The ACT control rule should clearly articulate how management uncertainty in the amount of catch in the fishery is accounted for in setting the ACT.[22] The control rule should account for uncertainty both in the ability to constrain catch below ACL and in quantifying the true catch amount, and consider past management performance in the fishery and such factors as time lags in reported catch.[23] In some data-poor fisheries, it may be appropriate to consider the use of a system of multiyear average ACLs and AMs based on achievement of a rolling average catch.[24] But NMFS intends that evaluation of moving average catch to the average ACL would be conducted annually and that AMs would be implemented if average catch exceeds the average ACL.[25] If ACTs are to be used in the system of AMs, these issues must be addressed in the Omnibus amendment and accompanying NEPA documentation.

In general, we find that the lack of a reliable catch monitoring system and the Council's intent to set ACL = ABC for all fisheries underscores the importance of adopting a highly risk-averse ABC control rule and risk policy that acts proactively prevent overfishing at earliest stages of the catch specification process.

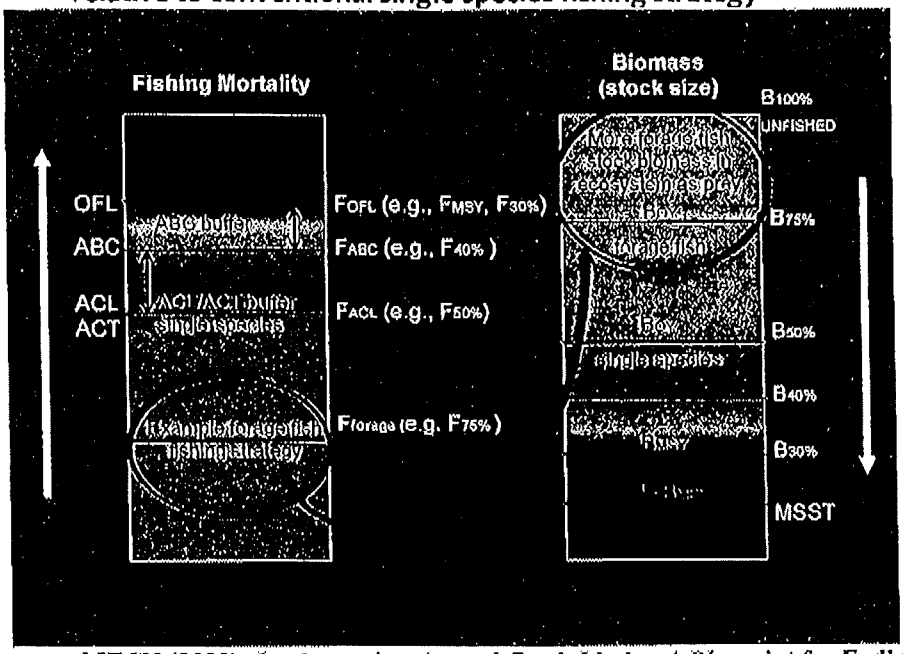
5. The Draft Omnibus scoping document lacks any consideration of procedures for setting ACLs to achieving OY, including measures addressing ecological factors in the setting of ACLs in order to achieve OY.

The National Research Council's Committee on Ecosystem Effects of Fishing, Phase II (NRC 2006) concluded that if the United States is to manage fisheries within an ecosystem context, food web interactions, life-history strategies, and trophic effects will need to be explicitly accounted for when developing fishery harvest strategies.[26]

This ACL Omnibus amendment affords the Council the opportunity to advance precautionary and ecosystem-based approaches to the conservation and management of forage species, specifically, those managed under the Mackerel, Squid and Butterfish (MSB) FMP. The central importance of conserving forage fish is recognized in the existing regulations implementing the MSA's essential fish habitat (EFH) provisions and implementing regulations, which establish that loss of prey species constitutes an adverse effect on EFH.[27] The importance of forage species is also recognized in the revised NS1 guidelines, which emphasize the importance of maintaining adequate forage for all components of the ecosystem when determining the greatest benefit to the Nation.[28] The Guidelines recommend measures to reduce OY from MSY to maintain forage stocks at higher biomass than B_{MSY} to enhance and protect the marine ecosystem.[29]

To achieve these objectives, the Omnibus amendment should include specific mechanisms for setting ACLs to achieve OY with the goal of maintaining significantly higher biomass than the conventional single-species target biomass of B_{MSY} for important forage fish species under the Council's management, including mackerel, squids and butterfish. We offer an example of how such a mechanism or ACL control rule might be structured in Fig. 1 below:

Fig. 1 – Illustration of a more conservative forage fish "F_{Forage}" relative to conventional single-species fishing strategy



Source: MFCN (2009), *Implementing Annual Catch Limits: A Blueprint for Ending Overfishing in U.S. Fisheries.*[30]

***

In conclusion, the issues raised here underscore the need for further detailed exposition of the alternatives and adequate NEPA documentation to accompany the Omnibus amendment. The Network believes that the adoption of ABC and ACL control rules and corresponding AMs via the Omnibus Amendment is likely to have significant effects on the environment that would require an EIS. Other Councils which are developing omnibus amendments for purposes of complying with the 2011 deadline for implementing Section 303(a)(15) of the MSA are conducting EISs in conjunction with these amendments. Given the statutory deadline, we believe it at least prudent that the Council proceed now also with developing an EIS, as it originally intended and as will likely be necessary.

We thank the Council for this opportunity to submit these comments on this important amendment and set of issues.

Bruce Stedman, Executive Director
Marine Fish Conservation Network

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[1] 16 U.S.C. § 1853(a)(15).
[2] All Network reports cited in these comments can be found on the Network's website at: http://www.conservefish.org/index.php?option=com_content&task=section&id=11&Itemid=228.
[3] See note 2.
[4] 50 CFR § 600.310(d)(1).
[5] 50 CFR § 600.310(d)(3-4).
[6] 50 CFR § 600.310(e)(1-5).
[7] V.R. Restrepo *et al.* Technical Guidance On the Use of Precautionary Approaches to Implementing National Standard 1 of the MSFCMA. NOAA Technical Memorandum NMFS-F/SPO-##, July 17, 1998.
[8] 50 CFR § 600.310(f)(4).
[9] 50 C.F.R. § 600.310(f)(2)(iii) (emphasis added).
[10] 50 CFR § 600.310(f)(3).
[11] 50 CFR § 600.310(f)(4).
[12] Draft Omnibus at 15.
[13] Andrew Rosenberg *et al.* Setting Annual Catch Limits for U.S. Fisheries. Report of the Lenfest Working Group on Annual Catch Limits, Lenfest Ocean Program, September 2007. 36 p.
[14] V.R. Restrepo *et al.* Technical Guidance On the Use of Precautionary Approaches to Implementing National Standard 1 of the MSFCMA. NOAA Technical Memorandum NMFS-F/SPO-##, July 17, 1998.
[15] *See* MAFMC, Public Hearing Document: Omnibus Amendment, April 2010 ("Draft Omnibus") at 9.
[16] *See* NS1 Guidelines, Preamble, 74 Fed. Reg. at 3192.
[17] 50 CFR § 600.310(f)(2)(iv) and (f)(6).
[18] 50 CFR § 600.310(f)(6).
[19] 50 CFR § 600.310(g)(2) and (3).
[20] 74 Fed. Reg. at p. 3178.
[21] 50 CFR § 600.310(f)(6).
[22] *Id.*
[23] 50 CFR § 600.310(f)(6)(i)
[24] 50 CFR § 600.310(g)(4).
[25] Fed. Reg. at p. 3197.
[26] National Research Council, Committee on Ecosystem Effects of Fishing, Phase II. Dynamic Changes in Marine Ecosystems: Fishing, Food Webs, and Future Options. National Academies Press, Washington, D.C. (2006). 160 pp.
[27] 50 CFR 600.815(a)(7).
[28] 50 C.F.R. § 600.310(e)(3)(iii)(C).
[29] (50 CFR 600.310(e)(3)(iv)(C)).
[30] MFCN report available at: http://www.conservefish.org/storage/marinefish3/documents/mfcnacl09.pdf.

Commonwealth of Massachusetts

Division of Marine Fisheries

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Paul J. Diodati
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May 21, 2010

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

Re: Omnibus ACL/AM Amendment Comments

Dear Mr. Furlong:

The Massachusetts Division of Marine Fisheries (*MarineFisheries*) offers the following comments on the Mid-Atlantic Fishery Management Council's (MAFMC) Omnibus ACL/AM Amendment. We intend to offer other constructive comments at your June meeting in New York when you're scheduled to continue debate and make final decisions. We appreciate this is an ambitious Amendment encompassing all of your plans. Consequently, we hope for a consistent approach between species to avoid confusion.

We urge the Council to comply with federal law but be aware that National Standard #1 guidelines go well beyond the law obliging the Council to be inordinately precautious at the expense of the fishing industry. Being risk adverse is all well and good, but not to the extent that the Council adopts a risk-prone attitude for the fishing industry, i.e., simply accepting major socioeconomic impacts and fishing industry disruption as a necessity and consequence on adhering to National Standard #1 guidelines.

Several species covered in this Omnibus Amendment are managed jointly by the New England Fishery Management Council and/or the Atlantic States Marine Fisheries Commission, both on which the Commonwealth serves. It is this joint management framework that compels us to comment on the Amendment's proposed calculation and implementation of Acceptable Biological Catch (ABCs), Annual Catch Limits (ACLs) and Accountability Measures (AMs).

ABC Alternatives

Council staff has indicated that the tiered ABC Control Rule Framework relies on published work by Prager & Shertzer (2010) and Caddy & McGarvey (1996). The precautions included in those papers, and any other reports that underpin the recommended methodology, should be explicit in the Omnibus Amendment itself. Applying the detailed methodology to one of the included fisheries, perhaps mackerel, would allow for comprehensive consideration of complications, i.e., (un)availability of the probability distribution of OFL, and bring further clarity to practical benefits, risks and detriments of the proposed framework. Is it appropriate to underestimate ABC when estimated distributions of OFL are unavailable?

The Council's Science and Statistical Committee (SSC) sets ABCs by reducing OFLs for scientific uncertainty. How will the Council proceed within the proposed framework when an ABC is not based on science? I understand the SSC embraced the recommendation of the Transboundary Resource Assessment Committee that total mackerel catches not exceed the average total landings (80,000 mt U.S. and Canadian) over the last three years (2006-2008). I suggested in my May 11th letter to SSC Chairman John Boreman, if averaged landings are to be used to set the ABC, the Council should make that decision and not the SSC. Let the Council pick the years, assess the effects of that decision, and then accept the consequences. It's really a management call.

Council Risk Policy

When considering P*, how much inconsistency in results is acceptable? Prager & Shertzer (2010) suggest a P* range between 0.25 and 0.50 given that overfishing will be controlled through multiple mechanisms thereby making it reasonable to consider higher P* values. Additionally, higher values reduce the possible concern of inconsistent results noted above. For these reasons, *MarineFisheries* does not support consideration of a lower P* such as the 0.20 value noted on page 16 by the Council.

ACL and AM Alternatives

The Council proposes generally to set ACLs equal to ABCs and use the proactive AM of an Annual Catch Target to account for management uncertainty. How will the Council and its Monitoring Committees ensure the New England Fishery Management Council and Atlantic States Marine Fisheries Commission are involved proactively in management uncertainty decisions for jointly managed species?

Before any consideration should be given to species-specific alternatives, it will be informative for the Council to provide its management partners with empirical examples of proposed alternatives. For example, apply the recommended approach for scup, black sea bass, and fluke to the 2009 fishery. What would the quotas have become and how would that have impacted the further allocation of quota by ASMFC among member states? Assumptions may need to be made, but that factor should not prohibit the practical examination of potential impacts anymore than it would prohibit the implementation of final recommendations.

Alternatives that take advantage of the joint management structure with ASMFC will lead to a more useful management toolbox. Consider the rejection of in-season AMs due, in part, to the need to have concurrent state measures (e.g., recreational bluefish). This should be possible with adequate coordination. We cannot emphasize enough that a thorough examination of the implications of proposed approaches for every species, especially fluke, scup, and black sea bass, for which there is a recreational fishery with state's recreational fisheries accounting for the lion's share of recreational catch must be done for the benefit of ASMFC and the recreational fishing industry. Otherwise, it will be difficult if not impossible to acquire needed ASMFC support for your OFL/ABC/ACL/ACT approach. We must completely understand the likely consequences of how you intend to follow National Standard Guideline #1 that doesn't apply to the states.

Thank you for your attention to our comments.

Sincerely,

David E Pierce, Ph.D.
Deputy Director

NEW JERSEY COUNCIL OF DIVING CLUBS

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Comments on the Public Hearing Document
to the OMINIBUS AMENDMENT

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

Dear Mr. Furlong:

The New Jersey Council of Diving Clubs (NJCDC) is an organization of 16 sport diving clubs in New Jersey with a few clubs in nearby states. Recreational Sport Diving is an important industry in New Jersey with 25 specialized dive shops, about 25 commercial dive boats, even more private dive boats, and several manufacturing companies devoted to producing dive gear and supporting the sport. There is a sport diver fishery involved that takes Fluke, Black Sea Bass, Tautog, etc. The NJCDC respectfully submits the following comments on the Ominbus Amendment.

My real concern with the Ominibus Amendment is that it seems to be creating an automatic methodology for closing fisheries, and my chief concern is the recreational sector. I would think that it would be prudent to use every administrative device possible to avoid a complete fishery closure. No charter boat or dive boat captain can schedule charters in advance if he/she doesn't know if the fishery will be open when its supposed to be open. Charter boat captains would be reluctant to charter past June if they thought closures possible.

In addition to ABCs, ACLs, and AMs, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (MSRA) also stated that social and economic impacts on fishing communities and fisheries be considered. Where does that consideration appear in the Ominibus Amendment?

Furthermore, it appears that the primary data source to be used for the recreational fishery will be the fatally flawed MRFSS, a system that was so poorly designed that a national saltwater fishery register was recently created to replace it at the request of scientists. Yet "The NMFS Regional Administrator will monitor the recreational fishery based on MRFSS and other available information, and shall determine if the recreational landing will exceed the recreational harvest limit. The Regional administer shall publish notification in the Federal Register advising that, effective upon a specific date, the recreational fishery will be closed for the remainder of the fishing year"(p 34, 44, 50, 56 etc.). Hence, bad data will be used to close recreational fisheries. Since most recreational fishermen do not read the Federal Register for casual reading, I truly hope that NMFS will find a better way to notify recreational fishermen.

The MSRA was supposed to allow more and better science to be utilized in fishery management. But if the number and quality of ocean fishery surveys has not increased, and MRFSS is still being used, and States have no money to conduct there own surveys due to economic troubles, there is no improvement in science and there might be a decline. It does no good to give more power to the SSC if the data they are using is flawed. If scientific uncertainty is high and you are at a level 4, then science is doing little good.

I will not comment on all aspects of this proposal as most of the options appear to be draconian in nature. In general, I favor a proactive approach with in season adjustments to bag limits in the recreational fishery to avoid closure at all cost, but this depends on getting reliable data quickly. I favor revising the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (MSRA) to make it more flexible. I don't think most Congressmen understood the implications and impacts of hard ABCs, ACLs, and AMs on the recreational fishery industry, and I really don't think Congress thought it would close recreationally fisheries like a drunken sailor.

Nothing in this letter is designed to deprecate the author of this document, who apparently was trying to do her best to follow the guidelines of the NS1 and wording of Congress.

Is this amendment being rushed through? It was only presented to the Mid Atlantic Council in April and its little more then a month since that happened, and already the comment period is about to end. It is a very complicated document, 75 pages long, full of scientific jargon and abbreviations, with proposed automatic cutoffs that could shut down both commercial and recreational fisheries. I'm requesting that the public comment period be extended to allow proper public evaluation and response.

Sincerely

Jack Fullmer
Legislative Committee
NJCDC

Please reply directly to :

Jack Fullmer
443 Chesterfield-Arneytown Rd
Allentown, NJ 08501
Jf2983182@msn.com

Coakley, Jessica

From: James Krauss [redacted]
Sent: Friday, May 21, 2010 4:27 PM
To: Info1
Subject: Omnibus ACL/AM Amendment Comments

Dear Mr. Furlong -

I spoke at the hearing in Stockton, NJ on Tuesday evening, but in case my remarks were not completely lucid, I am submitting a written version, as follows:

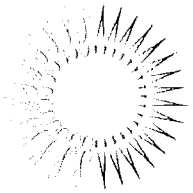
I'm a Certified Public Accountant and have been in practice for 37 years. As such, I am in a measurement business and have seen and used many models and measurement tools over the years. I was very impressed with the work that was done by your staff. It was somewhat analagous to the actuarial calculations that I see used in pension calculations. But the major difference that I see beween the models used in my work and yours is that the data used in your models are completly invalid. As the computer geeks say, no matter how good your program, "if its garbage in, it's garbage out."

As a taxpayer, I was dismayed to find absolutely no cost-benefit analysis. Directly and indirectly, the recreational fishing generates millions, if not billions, of tax dollars, and hundereds of thousands of jobs. To have a black and white closure point and/or severely increased restrictions based on data that is not valid with no thought to the socio-economic impact doesn't make any sense.

Finally, as someone who has fished in saltwater for well over fifty years, and hope to do so for many more, I find it terribly upsetting that the government has spent a tremendous amount of time and effort to develop sophisticated models and measuement tools designed to regulate and possibly close down fisheries, and at the same time has not developed any sophisticated or even common sense measures to gather data.

This amendment should be shelved until real data can be developed and evaluated. You have truly put the cart in front of the horse.

James Krauss
77 Bayside Drive
Atlantic Highlands, NJ 07716



THE
PEW
ENVIRONMENT GROUP

May 21, 2010

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

RE: Public Hearing Document for the Omnibus Amendment

Dear Mr. Furlong,

I am writing to submit the comments of the Pew Environment Group (PEG) in response to the Mid-Atlantic Fishery Management Council's (MAFMC) request for public comments on the Omnibus Amendment document to establish Annual Catch Limits (ACLs) and Accountability Measures (AMs) for all species managed by the MAFMC. We would like to thank the Council and its staff for their hard work and dedication in completing this document. PEG commends the Council for developing a proposal that represents a good faith effort to implement new legal requirements to establish ACLs that prevent overfishing. While we are generally optimistic about the contents of the Omnibus Amendment, we believe that there are still some essential elements of the document that need revision in order for it to meet the requirements of the reauthorized Magnuson-Stevenson Fishery Conservation and Management Act (MSA) and the National Standard 1 (NS1) guidelines.

Council Risk Policy Alternatives:

The 2006 amendments to the MSA require catch limits that do not allow overfishing, and this is reiterated in the NS1 guidelines. Therefore, because of this absolute prohibition on allowing overfishing, we believe that the probability that overfishing will not occur should be high. Due to the long history of overfishing in the Mid-Atlantic, and the fact that the Omnibus Amendment sets the ACL equal to the acceptable biological catch (ABC), it is imperative that the Council adopt a precautionary, risk averse policy to ensure that the ACL is not exceeded.

The Council risk policy must be set in a manner that ensures a high probability that overfishing will not occur. Although the NS1 guidelines state that the probability that overfishing will occur cannot exceed 50 percent, we believe that the selection of a risk policy with this upper limit is unacceptable as a matter of policy. In its risk policy, the Council should operate under the assumption that an actual catch equal to the stock's ABC would result in overfishing, as there is no buffer between the ACL and the ABC. With the 2006 amendments to the MSA, Congress clearly intended that overfishing must end, thus there must be a high probability of success to meet this objective. In order to ensure this, the Council should select an upper probability limit that should not be higher than 10 percent. Anything higher would not be consistent with the spirit and letter of the MSA.

As we stated in our comments on the scoping document, PEG supports a tier-based approach to setting ABC that categorizes stocks by specific criteria, with each tier representing a different level of stock assessment complexity. Additionally, the ABC control rules should be directly linked to stock size through linear or stepwise relationships. As a result, we cannot support alternatives 2A (no action), 2B (constant probability), and 2C which do not used a tiered approach, or 2F which is not directly linked to actual stock status.

Of the remaining alternatives (D and E), we are most supportive of alternative 2D, providing the probability range is modified to be more risk averse in line with our comments above. We agree with using a stock replenishment threshold defined as the ratio of B/Bsmy = 0.10, and we believe that the Council should use an inflection point of B/Bsmy of 1.5. The use of an inflection point of B/Bsmy of 1 is in our view inadequate to ensure that overfishing will not occur. Stocks at a threshold of 1 are at or around the ideal stock size, and therefore vulnerable to high fishing pressure. Because the Council cannot account for the magnitude by which the ACL (and as a result the ABC) may be exceeded, it is essential that the risk policy have a high probability that overfishing not occur.

The Omnibus Amendment also states that the Council is considering including the risk policy in either the FMPs or the Council Standard Operating Procedures (SOPPs). The Council's risk policy must be made part of the Omnibus, not simply the Council SOPPs. The risk policy is an essential element of the ABC control rule. The NS1 Guidelines clearly state that the ABC control rules must be included in FMPs, and not simply in SOPPs (50 C.F.R. § 600.310(c)(3)), and as such, the risk policy must also be included in the FMPs.

Rebuilding:

Section 2.0 of the Omnibus states that for stocks under a rebuilding plan, "the probability of exceeding fishing mortality rate F will be 50 percent unless modified to a lesser value". For the reasons listed above with regard to the Council risk policy, we feel that it is unacceptable as a matter of policy to allow such a high risk of exceeding the fishing mortality rate for the rebuilding plan. Stocks under rebuilding programs are typically depleted (some severely), and therefore more vulnerable. Therefore, the Council should be more risk averse when stocks below their biomass targets, as the consequences of exceeding F are more severe for those stocks. As such, the Council should select an upper probability limit for stocks in rebuilding plans such that the probability that overfishing may occur should not be higher than 10 percent.

Accounting for Management Uncertainty:

Due to the inherent uncertainty in fisheries management, we applaud the Council's use of both proactive and reactive AMs in the Omnibus Amendment. Specifically we are encouraged that the Council has included annual catch targets (ACTs) as a buffer to ensure that an ACL is not exceeded and that overfishing does not occur, as well as a proactive AM. The Council however, must complete its analysis of management uncertainly by developing an ACT control rule that clearly articulates how management uncertainly will be accounted for as required under section (§600.310(f)(6) of the NS1 Guidelines. Simply stating that the Council is "considering a

process" does not satisfy the guidelines requirements that the Council specifically identify a method to account for two factors; (1) uncertainty in the ability of managers to constrain catch so the ACL is not exceeded, and (2) uncertainty in quantifying the true catch amounts (i.e., estimation errors). Furthermore, the analyses need to consider past management performance in the fishery and factors such as time lags in reported catch.

We recognize that there is a degree of variability in each fishery as to the exact level of management uncertainly, and that the species management committees have particular knowledge and expertise, so that it is appropriate for each committee to make *ad hoc* decisions on how to account for uncertainty year to year. However, the Council must have an overarching policy, clearly articulated in the Omnibus Amendment, that individual committees will use to guide their decisions. In order to guide the relevant species committees, the Council must adopt explicit policies so that management uncertainly is accounted for uniformly across managed species so that the Council's uncertainly policy is followed. The Council must carefully craft appropriate policy now and include it within the Omnibus Amendment, not postpone the discussion for a later day.

The Council should also use ACTs as a means of addressing deficiencies in the system of catch monitoring and reporting, in both the commercial and recreational sectors. In both sectors the Council does not have an adequate understanding of total fishing mortality, which can be improved through expanded observer coverage, increased dockside sampling, and other methods to measure bycatch and discards. We recognize that this will be an evolving process, but the Council must acknowledge and begin to address these issues now.

ACL Evaluation:

We note that the Omnibus amendment includes alternatives to evaluate the recreational ACL sector on a three year running average for Summer Flounder, Black Sea Bass, and Scup. We support evaluating recreational fisheries on the basis of a three year moving average - the average catch is compared to average ACL over a three year period and accountability measures triggered if the average catch exceeds the average ACL. Since recreational fisheries currently lack the timely catch data necessary to have effective in-season closures, the fisheries should be evaluated based on a multiyear period. Using a three year moving average of annual catch estimates to determine whether AMs should be instituted will moderate annual variability in recreational catches while still allowing annual evaluations and institution of AMs if necessary.

Optimum Yield:

While we are encouraged that the Omnibus Amendment contains a more detailed description of optimum yield (OY) than the original scoping document, the omnibus amendment still lacks any substantive measure to address necessary factors that must be considered and accounted for in determining OY, in particular ecological factors. As such we would like to repeat our original comments with regard to OY;

> *ACLs should also be set so that optimum yield is achieved, as per NS1's mandate that "conservation and management measures shall prevent overfishing while achieving, on a*

continuing basis, the optimum yield (OY) from each fishery" (§600.310(a)). Thus, a principal focus of management must be to prevent overfishing and rebuild stocks, so that conservation drives the process, but beyond this, management must aim to achieve OY on a continuing basis. OY is the yield that provides the "greatest overall benefit to the Nation" and is reduced from MSY by economic, social, and ecological factors (§600.310(e)(3)). While current science may make it difficult to quantify such factors with confidence, they must be addressed in OY specification. The final rule provides several examples for each of the three factors an FMP must address (§600.310 (e)(3)(iv)).

While all the factors are important, we highlight the need to adequately consider ecological factors, stressing that this consideration must be beyond just predator-prey interactions and include impacts on forage fish stocks and other species (marine mammals, birds, other fisheries). We strongly support the rule's recommendation to set OY farther from MSY according to the degree of uncertainty in estimates of MFMT, biomass, and management controls (§600.310 (e)(3)(v)). The Council should adopt ACL control rules that address the achievement of OY, which means that ecological, economic, and social factors must be considered and accounted for. OY must account for all catch, including all fishing mortality, bycatch, discards, and scientific research (§600.310(e)(3)(v)(C))."

Adopting an ACL control rule, or as an alternative an ACT control rule, which incorporates these factors is necessary because the Council has chosen to set the ACL = ABC. Species in the Mid-Atlantic exemplify the need to take into account ecologic factors. For example, in the tilefish fishery there is a directed recreational fishery that is not accounted for in management measures. If not specifically addressed through an individual quota, then the Council must account for this known catch through the OY for tilefish as required by (50 C.F.R.§600.310(e)(3)(v)(C), as quoted above. In the summer flounder fishery, as is the case in other fisheries, there are unaccounted for bycatch and discards from interactions with other fisheries that should be accounted for.

Better accounting of all catch will allow the Council to better account for ecosystem needs. The key goal of the MSA is to sustainably manage ocean fisheries, a goal that cannot be achieved without an end to all overfishing of all fish populations – not simply target fish. In addition, the Council should consider the role that various species play in the marine and estuary ecosystems, such as forage fish, the primary food source for predator fish, marine mammals, and seabirds of the Mid-Atlantic when setting ACLs. Accounting for ecosystem needs when setting ACLs is necessary not only for the health of individual fish populations managed by the Council, but for the overall long-term health and sustainability of the ocean and coastal ecosystems of the Mid-Atlantic.

The Council should prepare an Environmental Impact Statement:

On March 25th, PEG, along with four other national environmental and conservation groups, sent a letter to the Council regarding the Council's intention to prepare an environmental assessment (EA) instead of an environmental impact statement (EIS). We would like to reiterate our

opposition to this decision and note that we feel that the Council's explanation for this move is inadequate. When implemented by the MAFMC, the Omnibus Amendment will require significant changes to the current FMPs in the Mid-Atlantic, which in turn will significantly affect the ocean environment and thus should require the development of an Environmental Impact Statement (EIS). Although the Council cannot place specific numerical figures as to the actual catch of a particular species under the Omnibus amendment, the potential effects of implementing the omnibus amendment are not too remote or speculative to assess such impacts on managed species, non-target species, habitat, protected resources, and human communities. Therefore, the Council should prepare an EIS evaluating the impacts of the Omnibus Amendment, just as the New England, the South Atlantic and the Gulf Council have prepared for their Omnibus amendments.

Periodic Review:

PEG supports Alternative 4B, for a periodic formal review conducted by the SSC and the Council to review and revise ABC and ACL control rules on a regular basis. This is consistent with the NS1 guidelines which state that the whole ACL/AM system should be re-evaluated if an ACL is exceeded more than once in the last four years (50 C.F.R.§600.310 (g)(3)). The reason for poor performance, if found, must be determined and fixed, which may include revising the ABC and ACL control rules or accountability measures.

In order to assess this performance standard, there should be a review every two years. If the target has been exceeded in the first year and again in the second, then the four year standard would be violated and the system would need to be re-evaluated. Being proactive and keeping on top of performance objectives ensures the system functions effectively and minimizes the potential damage from misspecifications.

Conclusion:

PEG appreciates the comprehensive approach set forth in the Omnibus Amendment and the seriousness with which the Council has addressed the MSA and NS1 requirements pertaining to annual catch limits and accountability measures. As noted above, due to the inherent uncertainty in fisheries science and management, and particularly the scientific and management uncertainty present in mid-Atlantic fisheries, the Mid-Atlantic Council must establish sufficient buffers when setting ABCs, ACLs, and ACTs, and consider appropriate levels of risk when developing ABC and ACL control rules. We support the general framework that the Council has proposed for the Omnibus; however, we strongly encourage the Council to incorporate our comments and concerns listed above in order to fully comply with MSA and NS1 requirements.

The Mid-Atlantic Council has made considerable effort to end overfishing and rebuild depleted fish populations, and this puts it ahead of the curve in relation to many of the other regional councils. We hope that such promising trends continue so that the Mid-Atlantic can serve as an example for other regions.

Sincerely,

Lee R. Crockett
Director, Federal Fisheries Policy
The Pew Environment Group

Incidental Tilefish Category
Trip Limit Review

The purpose of this review paper is to provide information to assess the use of trip limits in the tilefish incidental fishery as an accountability measure (AM) in the context of the Omnibus ACL/AM Amendment.

The tilefish fishery has a mechanism to adjust the tilefish incidental trip limit if the incidental category exceeds 5% of the Total Allowable Landings (TAL) (§ 648.290(c)). A trip limit of 300 lb exists for the incidental category (§ 648.293). If the incidental catch exceeds 5% of the TAL, the incidental trip limit of 300 lb may be reduced in the following fishing year.

The 300 lb limit was chosen because in 1997 and 1998, 99% of the incidental landings were 300 lb and below with an average of 100 lb. This average is highly skewed because of the large number of trips reporting landings averaging 28 to 30 lb. Based on 1998 data only five non longline vessels made a total of 23 trips that landed more than 300 lb of tilefish. The FMP further states that the *"300 pound trip limit is a compromise initially to balance the non directing fisheries' honest bycatch needs while trying to minimize the regulatory discards, but yet not have the limit provide incentive for anyone to direct on tilefish"* (MAFMC 2000).

Overall Fishery Performance

The performance of the incidental category since the implementation of the FMP is shown in Table 1. As a result of the Hadaja v. Evans lawsuit on May 15, 2003, the permitting and reporting requirements for the FMP were suspended for nearly a year. The decision rendered the quotas for the limited access permit categories, and the 5% of the TAL "target quota" for the open access category inoperative. *Initial tabulation* of tilefish landings by the incidental permit category in fishing year (FY) 2002 totaled 105,858 lb and landings in FY 2003 totaled 178,955. In both FY 2002 and FY 2003, the incidental permit category landed over 95% of its catch between November and May, the same time period that the reporting requirements were vacated. Thus, the majority of the landings information for the incidental permit category are not available for FY 2004. An analysis of FY 2002 and FY 2003 conducted by the NERO determined that a trip limit of 133 lb for the incidental category vessels would be necessary to in order not to exceed the 5% of the TAL in FY 2005 (69 *Federal Register* 62201; October 22, 2004). *An updated review of tilefish landings* by the incidental permit category indicates that 141,222 lb were landed by the incidental permit category in FY 2002 and 195,912 lb in FY 2003 (Jay Hermsen, pers. comm.). Taking into account the latest landings values (i.e., FY 2002/FY 2003), an overage of approximately 42% (41 thousand lb) and 96% (96 thousand lb) lb occurred during FY 2002 and 2003, respectively. From FY2005 through FY 2009 the tilefish incidental category landed less than the target quota (ranging from 50 to 80%; Table 1).

Threshold Analysis

A threshold analysis based on Vessel Trip Report (VTR) Data indicates that a total of 115 otter trawl vessels made 923 trips and landed approximately 55,000 lb of tilefish during the 2006 through 2008 period (Table 2).

The threshold analysis indicates that the bulk of the incidental tilefish trips were made below the 300 lb threshold level. More specifically, approximately 84% of the vessels (97) that reported landings of less than 300 lb of tilefish per trip made 98% of the total incidental trips (904) and contributed with 90% (48,876 lb) of the total incidental landings. There were 19 trips (2% of the total) made by 18 vessels (18% of the total) that landed 300 lb of tilefish. These 18 vessels landed 5,700 lb of tilefish which represents 10% of the total incidental tilefish landings and discarded 2 lb of tilefish. The reported tilefish discards for vessels that incidentally landed of 300 lb of tilefish indicates that tilefish discards in the incidental fishery *are likely being underreported*.

Trip Limit Model

An alternative method for analyzing trip limits can be accomplished by employing a trip limit model which uses some assumptions about how a trip limit affects fishing choices (i.e., fishing behavior). The interaction of several variables including the trip limit itself, revenues earned from bycatch or component catches, and fishing costs are used to determine whether a trip limit will affect fishing patterns. For trips where landings are expected to exceed the trip limit, vessel owners are assumed to choose between continuing to fish and discarding any fish in excess of the trip limit, or simply not fishing at all. If a vessel owner expects to earn enough revenue to cover operating costs from the species regulated by the trip limit and the component catch then the trip will take place. However, if projected operating costs exceed potential revenues, it is assumed that the trip limit will not occur (Steinback and Thunberg, 2000).

Data for otter trawl vessels reporting tilefish landings in the VTR Data system for 2006 through 2008 were utilized in this analysis. Average prices were obtained from Northeast dealer reports (sales receipt; 2006-2008). Average fishing costs (adjusted for inflation) were calculated using data obtained through the Northeast fisheries Science Center's sea sampling program. Average costs were adjusted depending on whether the trip durations was less than 24 hours or more than 24 hours. The model includes only daily operating costs (ice, water, food, fuel, oil, gear, supplies,) and these cost are generally considered by vessels owners when deciding whether or not to make a fishing trip.

The results from the trip limit model indicates that regardless of the trip limit imposed in the incidental tilefish fishery (from 0 to 300 lb), otter trawl vessels that catch tilefish would not abandon or shorter any of their fishing trips (Eric Thunberg, pers. comm.). This indicates that tilefish landings made by otter trawl vessels appear to be truly incidental and correspond to a minor component of the total volume and ex-vessel value of those trips (Table 3).

Conclusions and Management Options

Given the results of the trip limit model, the implementation of trip limits in the incidental tilefish fishery are not an effective management tool or an effective AM as it does not induce any changes in fishing patterns (e.g., fishing behavior).

The Council may want to consider the following options for trip limit options in the tilefish fishery:

Option 1 - Maintain the current 300 lb trip limit in the incidental fishery
Option 2 - Increase the trip limit in the incidental fishery
Option 3 - No trip limit in the incidental fishery

The ineffectiveness of the trip limit suggests that eliminating the trip limit (option 3) would not likely result in increased directing on tilefish in the incidental category. These analyses also suggest that tilefish discards are likely underreported, and given 100% mortality on caught fish, the elimination of the trip limit may allow all fish to be landed and a more complete accounting of mortality. Trip limits could be increased (under option 2), but the limited discard information at trips landings 300 lb does not enable direct calculation of how the trip limit should be increased. The future impacts of the newly applied ITQ fishery on market prices are unknown. If tilefish market prices change, the behavior of the incidental fishery could also change. Similarly, changes in other fisheries being directly targeting when tilefish are caught could impact the landings in the incidental fishery, as those fisheries appear to be driving effort.

For reactive accountability for this fishery, the following options could be considered by the Council. If the ACL is exceeded, and that overage is due to landings in excess of the incidental fishery allocation of 5%, then:

Option 1 – Reduce the incidental allocation the subsequent year by the landings overage amount, as a single year adjustment.
Option 2 – Reduce the ACL the subsequent year by the landings overage amount, as a single year adjustment.

While the FMP does allow for trip adjustments which may occur in response to the incidental category exceeding the 5% allocation, the analyses provided suggest this adjustment would not induce changes in fishing behavior.

If the incidental landings are frequently exceeding the allocation, the Council should revisit the incidental landings allowance of 5% of the TAL with no trip limits. If the incidental category were to take more than the incidental landings allowance (5% of the TAL), the incidental landings should be reassessed.

Table 1. Fishery performance for the incidental tilefish category.

Fishing year (FY)[1]	Quota (pounds)[3]	Landings (pounds)[4]	Trip Limit (pounds)	Overage/ Underage (-)
2001	n/a	n/a	n/a	n/a
2002	99,750	141,222	300	41,472 (42%)
2003[2]	99,750	195,912	300	96,162 (96%)
2004[2]	99,750	--	300	--
2005	99,750	48,414	133	- 51,336 (51%)
2006	99,750	17,539	300	- 82,211 (82%)
2007	99,750	29,571	300	- 70,179 (70%)
2008	99,750	27,757	300	- 71,993 (72%)
2009	99,750	29,598	300	- 70,152 (70%)

n/a=not applicable

[1] Tilefish fishing year is Nov 1 - Oct 31. For example, FY 2002 = Nov 1, 2001 - Oct 31, 2002.

[2] As a result of the Hadaja v Evans lawsuit, the permitting and reporting requirements implemented in the FMP were suspended from the May 15, 2003 though May 31, 3004. During that time period, vessels that were not part of the tilefish limited entry program also landed tilefish.

[3] 5% of the TAL.

[4] Landings values provided by Dr. Jay Hermsen, NERO/NMFS. Note: originally NERO had reported incidental landings of 105,858 and 178,955 lb for the 2002 and 2003 FYs, respectively. Source: Vol. 69, No. 2004/Friday, October 22, 2004, page 62001.

Table 2. The number of otter trawl vessels, trips, and associated pounds for a given threshold of tilefish landings.

Threshold	Vessels	%	Trips	%	Pounds	%
≥1	115	100%	923	100%	54,576	100%
≥50	85	74%	396	43%	45,086	83%
≥100	65	57%	204	22%	33,241	61%
≥150	48	42%	150	16%	21,939	40%
≥200	41	36%	64	7%	16,126	30%
≥250	26	23%	35	4%	9,926	18%
=300	18	16%	19	2%	5,700	10%

Source: Combined 2006-2008 VTR Data.

Table 3. Tilefish contribution (%) for otter trawl trips that incidentally landed tilefish by threshold level, combined 2006-2008 VTR Data.

TF Landings Threshold	Weight Contribution	Ex-vessel Value Contribution
1-49 lb	0.10%	0.32%
50-99 lb	0.30%	1.00%
100-149 lb	0.42%	1.41%
150-199 lb	0.73%	2.40%
200-249 lb	0.81%	2.99%
250-300 lb	1.17%	3.62%
Grand Total	0.28%	0.92%

Source: VTR and Dealer Data.

References

Hermsen, J. 2010. Personal communication. NERO/NMFS; Gloucester, MA.

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Steinback, S.R. and E. M. Thunberg, 2002. A method for analyzing trip limits in Northeast fisheries: a case study of the spiny dogfish fishery. *Northeast Fish. Sci. Cent. Ref. Doc.* 00-06; 10p.

Thunberg, E. 2010. Personal communication. NEFSC/NMFS; Woods Hole, MA.

SUMMER FLOUNDER

	Pre-Magnuson Steven Reauthorization Act (MSRA)		Post-MSRA		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
OFL (catch at F_{MSY} or proxy in mil lb)	25.8	21.2	26.5	25.6	30.3
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	SSC did not recommend	21.5[a]	25.5
TAC Recommended by Council (catch in mil lb)	25.8	18.2	16.9	20.9	25.5
TAL Recommended by Council (landings in mil lb)	23.6	17.1	15.8	18.5	22.1
Difference between TAC and OFL (in mil lb); **Ratio of TAC/OFL** (in parentheses)	0 (100%)	3.0 (86%)	9.6 (64%)	4.7 (82%)	4.8 (84%)
Special Comments: Basis for TAC	TAC has 50% prob. of achieving target F_{MAX}=$F_{MSY\text{-}PROXY}$	TAC has 75% prob. of achieving target $F_{REBUILD}$[b]	TAC has 75% prob. of achieving target $F_{REBUILD}$[b]	Council reduced TAC below SSC recommended ABC to address mgmt. uncertainty; TAC has 63% prob. of achieving target $F_{40\%MSP}$[c]	TAC has 50% prob. of achieving target $F_{40\%MSP}$[c]

[a] First use of SSC to recommend ABC during the annual specifications process.

[b] 75% probability used to reduce catch to address persistent retrospective patterns in F and SSB and reset rebuilding trajectory.

[c] Target $F_{40\%MSP}$ was recommended by the June 2008 stock assessment workgroup and is less than the overfishing threshold F_{MSY} proxy of $F_{35\%MSP}$.

SCUP					
	Pre-Magnuson Steven Reauthorization Act (MSRA)		Post-MSRA		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
MSY (catch in mil lb)	N/A	N/A	N/A	35.6	35.6
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	SSC did not recommend	11.70[a]	17.1
TAC Recommended by Council (catch in mil lb); **NMFS implemented TAC**	19.8	14.0	9.9	11.70/15.54[a]	17.1
TAL Recommended by Council (landings in mil lb); **NMFS implemented TAL**	16.3	12.0	7.3	7.34/12.12[a]	14.1
Difference between TAC and MSY (in mil lb)**; Ratio of TAC/MSY** (in parentheses)	N/A	N/A	N/A	20.1 (44%)[b]	18.5 (48%)
Special Comments: Basis for TAC	Data-poor index based methods	Data-poor index based methods	Data-poor index based methods	NMFS-implemented TAC associated with $F_{REBUILD} = 0.10$[a]	SSC recommended a 10% increase in TAC in 2010 (relative to 2009)

[a] First use of SSC to recommend ABC during the annual specifications process; SSC and Council recommended TAC and TAL prior to data poor stock workgroup review in December 2008; NMFS subsequently increased TAC during the annual specifications process to highest TAC analyzed within the specifications package of 15.54 mil lb.

[b] Difference and ratio is based on NMFS-implemented TAC.

BLACK SEA BASS					
	Pre-Magnuson Steven Reauthorization Act (MSRA)		**Post-MSRA**		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
MSY (catch in mil lb)	N/A	N/A	N/A	8.6	8.6
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	SSC did not recommend	2.3[a]	4.5
TAC Recommended by Council (catch in mil lb)	N/A	N/A	N/A	N/A	4.5
TAL Recommended by Council (landings in mil lb)	8.0	5.0	4.2	2.3	3.7
Difference between TAC and MSY (in mil lb); **Ratio of TAC/MSY** (in parentheses)	N/A	N/A	N/A	N/A	4.1 (52%)
Special Comments: Basis for TAC	Data-poor index based methods	Data-poor index based methods	Data-poor index based methods	Data-poor index based methods	SSC recommended a TAC in January 2010 based on data poor stock assessment and catch history

[a] First use of SSC to recommend ABC during the annual specifications process; the ABC recommended by the SSC was landings based.

BLUEFISH					
	Pre-Magnuson Steven Reauthorization Act (MSRA)		Post-MSRA		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
OFL (catch at F_{MSY} or proxy in mil lb)	N/A	N/A	34.315	N/A [a]	42.913
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	SSC did not recommend	34.081	34.376
TAC Recommended by Council (catch in mil lb)	29.15	32.033	31.887	34.081	34.376
TAL Recommended by Council (landings in mil lb)	24.797	27.762	28.156	29.356	29.264
Difference between TAC and OFL (in mil lb); **Ratio of TAC/OFL** (in parentheses)	N/A	N/A	2.4(82%)	N/A	8.5 (80%)

[a] OFL not calculated for 2009.

SPINY DOGFISH					
	Pre-Magnuson Steven Reauthorization Act (MSRA)		Post-MSRA		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
OFL (catch in mil lb)	N/A	N/A	N/A	103.7	66.4
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	SSC did not recommend	33.8	22.2
Total catch at Ftarget associated with quota recommended by Council (catch in mil lb)[a]	16.6	18.5	20.2	33.8	22.2 – 43.6[b]
Quota recommended by Council (landings in mil lb); **NMFS implemented quota**[a]	4.0	4.0	4.0	12.0	12.0 – 25.0[b]
Difference between total catch and OFL (in mil lb); **Ratio of Catch/OFL** (in parentheses)	N/A	N/A	N/A	69.9 (33%)	44.2-22.8 (33% - 66%)

[a] FMP does not specify TAC/TAL, only commercial quota. However, discards, all other sources of mortality are accounted for in calculation of commercial quota

b, Following the updated stock status presented at its April 2010 meeting the Council recommended a quota between 12 M lb and that corresponding to Ftarget (~25 M lb) for 2010.

OCEAN QUAHOG			
	Pre-Magnuson Steven Reauthorization Act (MSRA)	**Post-MSRA**	
Management measures	**2005-2007[a]**	**2008-2010[a]**	**2011-2013[a]**
OFL (catch at F_{MSY} or proxy in mil lb)	346.0	331.0	140.0
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	105.0[c]
TAC Recommended by Council (catch in mil lb)	53.3[b]	53.3	Not yet determined by Council
TAL Recommended by Council (landings in mil lb)	53.3[b]	53.3	Not yet determined by Council
Difference between TAC and OFL (in mil lb); **Ratio of TAC/OFL** (in parentheses)	292.7 (15%)	277.7 (16%)	N/A
Special Comments: Basis for TAC	Quota is based on an OY range from 40.0 to 60.0 mil lb as required under the FMP	Quota is based on an OY range from 40.0 to 60.0 mil lb as required under the FMP	Quota is based on an OY range from 40.0 to 60.0 mil lb as required under the FMP

[a] Multi-year quota recommendation.
[b] Initially the TAC/TAL was set at 53.3, 56.7, and 60.0 mil lb for 2005-2007, respectively. However, the TAC/TAL for 2007 and 2007 was changed to 5.33 mil lb due to request made to the Council by the lease market industry.
[c] ABC is 75% of OFL.
Note: 1 Ocean Quahog bushel ≈ 10 lb.

SURFCLAM			
	Pre-Magnuson Steven Reauthorization Act (MSRA)	**Post-MSRA**	
Management measures	**2005-2007**[a]	**2008-2010**[a]	**2011-2013**[a]
OFL (catch at F_{MSY} or proxy in mil lb)	387.0	387.0	290.0
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	105.0[b]
TAC Recommended by Council (catch in mil lb)	57.8	57.8	Not yet determined by Council
TAL Recommended by Council (landings in mil lb)	57.8	57.8	Not yet determined by Council
Difference between TAC and OFL (in mil lb); **Ratio of TAC/OFL** (in parentheses)	329.2 (15%)	329.2 (15%)	N/A
Special Comments: Basis for TAC	Quota is based on an OY range from 31.5 to 57.8 mil lb as required under the FMP	Quota is based on an OY range from 31.5 to 57.8 mil lb as required under the FMP	Quota is based on an OY range from 31.5 to 57.8 mil lb as required under the FMP

[a] Multi-year quota recommendation.
[b] ABC is 75% of OFL.
Note: 1 Surfclam bushel ≈ 17 lb.

TILEFISH					
	Pre-Magnuson Steven Reauthorization Act (MSRA)		Post-MSRA		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
MSY (catch in mil lb)	4.5	4.5	4.5	4.5	4.5
ABC Recommended by SSC (catch in mil lb)	SSC did not recommend	SSC did not recommend	SSC did not recommend	SSC did not recommend	SSC did not recommend
TAC Recommended by Council (catch in mil lb)	2.0	2.0	2.0	2.0	2.0
TAL Recommended by Council (landings in mil lb)	2.0	2.0	2.0	2.0	2.0
Difference between TAC and MSY (in mil lb)**; Ratio of TAC/MSY** (in parentheses)	2.5 (44%)	2.5 (44%)	2.5 (44%)	2.5 (44%)	2.5 (44%)
Special Comments: Basis for TAL[a]	Quota based on rebuilding schedule	Quota based on rebuilding schedule	Quota based on rebuilding schedule	Quota based on rebuilding schedule	Quota based on rebuilding schedule

[a] The rebuilding schedule would yield a constant annual quota of 2.0 mil lb. There would also be a "benchmark" stock assessment conducted at the NEFSC sponsored SARC/SAW every three years from which the specifics of the B_{MSY}, F_{MSY}, and other biological reference points could change which thus could warrant changes in the actual TAL. The strategy itself would not change, in that the 10 year rebuilding duration, with 50% probability of achieving the B_{MSY} target, and the TAL are the measures used by the Committee and Council to get to the target.

BUTTERFISH					
	Pre-Magnuson Steven Reauthorization Act (MSRA)		**Post-MSRA**		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
OFL (catch at F_{MSY} or proxy in mt) [a]	N/A	N/A	N/A	N/A	N/A
ABC Recommended by SSC (catch in mt)	SSC did not recommend	SSC did not recommend	SSC did not recommend	SSC did not recommend	1,500
ABC Recommended by Council (and also Monitoring Committee) (catch in mt)	4,445	4,445	1,500	1,500	1,500
IOY Recommended by Council (catch in mt)	1,681	1,681	500	500	500
DAH Recommended by Council (landings in mt)	1,681	1,681	500	500	500
Difference between DAH and OFL (in mt); **Ratio of DAH/OFL** (in parentheses)	N/A	N/A	N/A	N/A	N/A
Special Comments: Basis for ABC, DAH	IOY/DAH less than ABC to account for discards	IOY/DAH less than ABC to account for discards	ABC: Maintain low mortality while rebuilding implemented. IOY/DAH: assessment suggested discards about double landings	ABC: Maintain low mortality while rebuilding implemented. IOY/DAH: assessment suggested discards about double landings	ABC: Maintain low mortality while rebuilding implemented. IOY/DAH: assessment suggested discards about double landings

ATLANTIC MACKEREL

	Pre-Magnuson Steven Reauthorization Act (MSRA)		Post-MSRA		
Management measures	**2006**	**2007**	**2008**	**2009**	**2010**
OFL (catch at F_{MSY} or proxy in mt)	N/A	N/A [a]	N/A [a]	N/A [a]	N/A [a]
ABC Recommended by SSC (catch in mt)	SSC did not recommend	SSC did not recommend	SSC did not recommend	SSC did not recommend	156,000
ABC Recommended by Council (and also Monitoring Committee) (catch in mt)	335,000 [b]	186,000 [b]	156,000 [b]	156,000 [b]	156,000 [b]
IOY Recommended by Council (catch in mt)	115,000 [c]	115,000 [c]	115,000 [c]	115,000 [c]	115,000 [c]
DAH Recommended by Council (landings in mt)	115,000	115,000	115,000	115,000	115,000
Difference between DAH and OFL (in mt); **Ratio of DAH/OFL**	N/A	N/A	N/A	N/A	N/A
Special Comments: Basis for ABC		ABC = yield @ 75% of Fmsy (Ftarget) projected from 2004 assessment minus Canadian landings	ABC = yield @ 75% of Fmsy (Ftarget) projected from 2004 assessment minus Canadian landings	ABC = yield @ 75% of Fmsy (Ftarget) projected from 2004 assessment minus Canadian landings (2008 terminal year of proj.)	ABC = yield @ 75% of Fmsy (Ftarget) projected from 2004 assessment minus Canadian landings (2008 terminal year of proj.)

[a] Assessment did not calculate OFL, which would have been catch associated with F=0.16. Only Ftarget (F=0.12) was calculated but OFL would have been higher than the ABC, which was the yield at Ftarget

[b] Total ABC actually higher but expected Canadian landings are deducted to get the U.S. ABC.

[c] IOY/DAH reduced to processing capacity plus recreational allotment to preclude foreign fishing. Could be increased up to ABC in-season.

PUBLIC HEARING DOCUMENT INTERIM DRAFT

OMNIBUS AMENDMENT

AMENDMENT 13 TO THE ATLANTIC MACKEREL, SQUIDS, AND BUTTERFISH MANAGEMENT PLAN

AMENDMENT 3 TO THE BLUEFISH MANAGEMENT PLAN

AMENDMENT 2 TO THE DOGFISH MANAGEMENT PLAN

AMENDMENT 15 TO THE SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN

AMENDMENT 16 TO THE SURFCLAM/OCEAN QUAHOG MANAGEMENT PLAN

AMENDMENT 3 TO THE TILEFISH MANAGEMENT PLAN

June 2010

Mid-Atlantic Fishery Management Council
in cooperation with
the National Marine Fisheries Service

Draft adopted by MAFMC: DD MONTH YYYY
Final adopted by MAFMC:
Final approved by NOAA:

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PUBLIC HEARING DOCUMENT INTERIM DRAFT

This document will be available at all of the public hearings and is currently available via the Internet at: http://www.mafmc.org/comments/comments.htm

This document can also be obtained on request from the Council office at the address and telephone number below.

Schedule of Public Hearings

Atlantic States Marine Fisheries Commission Spring Meeting *May 3, 2010, 7:00 PM* Crowne Plaza Old Town Alexandria 901 N. Fairfax Street Alexandria, Virginia 22314 Contact: Peter Himchak (609) 748-2020	New York Department of Environmental Conservation *May 12, 2010, 7:00 PM* NYSDEC Marine Resources 205 N. Belle Mead Rd, Ste 1 East Setauket, NY 11733 Contact: Jim Gilmore (631) 444-0430
Virginia Marine Resources Commission *May 10, 2010, 7:00 PM* Marine Resources Commission 2600 Washington Avenue Newport News, Virginia 23607 Contact: Jack Travelstead (757) 247-2200	Richard Stockton College of New Jersey *May 18, 2010, 7:00 PM* Lakeside Center Lodge (Off Laurel Lane and Oak Pond Drive; follow campus signs to Lakeside Center) Pomona, NJ 08240 Contact: Peter Himchak (609) 748-2020

In addition to providing information and comments at the above public hearings, you may submit written comments on or before 5:00 p.m., EST, on May 21, 2010 to:

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

Telephone: (302) 674-2331
Fax: (302) 674-5399

Comments may also be sent via fax at the above fax number or by e-mail to info1@mafmc.org. Please note on your correspondence and in the subject line of e-mail comments the following identifier: "Omnibus ACL/AM Amendment Comments."

TABLE OF CONTENTS

LIST OF ACRONYMS

ABC	Acceptable Biological Catch
ACL	Annual Catch Limit
ACT	Annual Catch Target
AM	Accountability Measure
APA	Administrative Procedures Act
ASMFC	Atlantic States Marine Fisheries Commission or Commission
B	Biomass
CEQ	Council on Environmental Quality
CZMA	Coastal Zone Management Act
DAH	Domestic Annual Harvest
DAP	Domestic Annual Processing
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EIS	Environmental Impact Statement
ESA	Endangered Species Act of 1973
F	Fishing Mortality Rate
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
IOY	Initial Optimum Yield
IQA	Information Quality Act
JVP	Joint Venture Processor/Processing
M	Natural Mortality Rate
MAFMC	Mid-Atlantic Fishery Management Council
MFMT	Maximum Fishing Mortality Threshold
MRFSS	Marine Recreational Fisheries Statistical Survey
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
mt	metric tons
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NS1	National Standard 1
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Act (portions retained plus revisions)
MSRA	Magnuson-Stevens Fishery Conservation and Management Reauthorization Act
OFL	Overfishing limit
OY	Optimal Yield
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RHL	Recreational Harvest Limit
RQ	Research Quota
RSA	Research Set-Aside
SSB	Spawning Stock Biomass
SSC	Science and Statistical Committee
TAC	Total Allowable Catch
TAL	Total Allowable Landings
TALFF	Total Allowable Level of Foreign Fishing
VECs	Valued Ecosystem Components

GLOSSARY

Acceptable biological catch (ABC) - a level of stock or stock complex's annual catch that accounts for scientific uncertainty in the estimate of the overfishing limit (OFL; see definition below)

Accountability measures (AMs) - management controls that prevent annual catch limits (ACLs; see definition below) or sector-specific ACLs from being exceeded (i.e., proactive measures), or where possible, correct or mitigate overages if they occur (i.e., reactive measures).

Annual catch limit (ACL) - the level of annual catch of a stock or stock complex that serves as a basis for invoking accountability measures.

Annual catch target (ACT) - the level of annual catch of a stock that is the management target of the fishery. Considered to be a type of accountability measure (AM).

Amendment - a formal change to a fishery management plan (FMP). The Council prepares amendments and submits them to the Secretary of Commerce for review and approval.

B - Biomass, measured in terms of total weight, spawning capacity, or other appropriate units of production.

B_{MSY} - Long-term average stock biomass that would be achieved if fishing at a constant rate equal to F_{MSY} (see definition below). For most fish stocks, B_{MSY} is about ½ of the carrying capacity. Overfishing definition control rules usually call for action when biomass is below ¼ or ½ B_{MSY}, depending on the species.

Control rule - describes a plan for a pre-agreed management action. For example, a control rule could specify how fishing mortality or yield should vary at different levels of stock biomass.

F_{MSY} - a fishing mortality rate that would produce maximum sustainable yield (MSY; see definition below) when the stock biomass is sufficient for producing MSY on a continuing basis.

Management uncertainty - management measure often have some level of uncertainty associated with them. Management uncertainty can occur because of a lack of sufficient information about the catch (e.g. due to late reporting, underreporting, and misreporting of landings or bycatch), or because of a lack of management precision in many fisheries (e.g. due to limited or unavailable data, untimely data, or lack of inseason closure authority).

Maximum sustainable yield (MSY) - the largest long-term average yield (catch) that can be taken from a stock under prevailing ecological and environmental conditions.

Mortality rates - the rate at which the numbers in a population decline over time. Mortality rates are critical parameters for determining the effects of harvesting strategies on fish stocks and yields. Together, the natural mortality rate (M) and fishing mortality rate (F) make up the total mortality rate (Z). Natural mortality is the death of fish from all causes other than fishing (e.g. aging, predation, cannibalism, disease, etc.).

Overfishing - according to the National Standard Guidelines, "overfishing occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the capacity of a stock or stock complex to produce maximum sustainable yield (MSY) on a continuing basis."

Overfished - a stock is considered "overfished" when exploited beyond an explicit limit beyond which its abundance is considered "too low" to ensure safe reproduction.

Overfishing limit (OFL) - the point above which fishing seriously compromises the continued, sustained productivity of a fish stock. The annual amount of catch that corresponds to the fishing mortality rate at maximum sustainable yield applied to stock abundance (in no. or weight).

Scientific uncertainty - measurements in scientific work are also usually accompanied by estimates of their uncertainty. There may be uncertainty in underlying fisheries data that relates to the samples themselves, the sampling methods, or the methods applied to analyze the information. Scientific uncertainty includes uncertainty around the estimate of a stock's biomass and its maximum fishing mortality threshold (MFMT); therefore, an estimate of OFL has uncertainty. Stock assessment models have various sources of scientific uncertainty associated with them.

Sector - a grouping of similar fish harvesting entities participating under a specified ACL. Examples include recreational fishery participants (i.e., recreational sector), commercial fishery participants (i.e., commercial sector) or smaller sub-components of each such as party/charter vessels (i.e., party/charter sector--sub sector of the recreational sector).

Stock - a grouping of a species usually based on genetic relationship, geographic distribution and movement patterns. A region may have more than one stock of a species (e.g. Gulf of Maine cod and Georges Bank cod).

ES – EXECUTIVE SUMMARY

ES-1.0 Introduction, Purpose, and Need for Action

The Omnibus Amendment document and draft environmental assessment (EA) will present and evaluate management alternatives that specify mechanisms to set acceptable biological catch (ABC), annual catch limits (ACLs), and accountability measures (AMs) for Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, tilefish, Atlantic surfclam, and ocean quahog, contained within six Mid-Atlantic Fishery Management Council (Council) Fishery Management Plans (FMP) (section 4.0). Specifically, this Omnibus document would amend the Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Tilefish FMP, and Surfclam and Ocean Quahog FMP.

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA) was signed into law by President George W. Bush on January 12, 2007, following its 2006 passage by the U.S. Congress. This reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, M-S Act) includes new requirements for ACLs and AMs and other provisions regarding preventing and ending overfishing (16 U.S.C. §1853(a)(15)). As a result, NOAA's National Marine Fisheries Service (NMFS) revised guidance for implementing National Standard 1 (74 FR 3178; January 16, 2009; NS1) which became effective February 17, 2009. To address the MSA[1] requirements and the revised National Standard 1 guidance, the Council has prepared this document in consultation with NMFS. This Omnibus Amendment is being developed in accordance with the MSA, and the National Environmental Policy Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ).

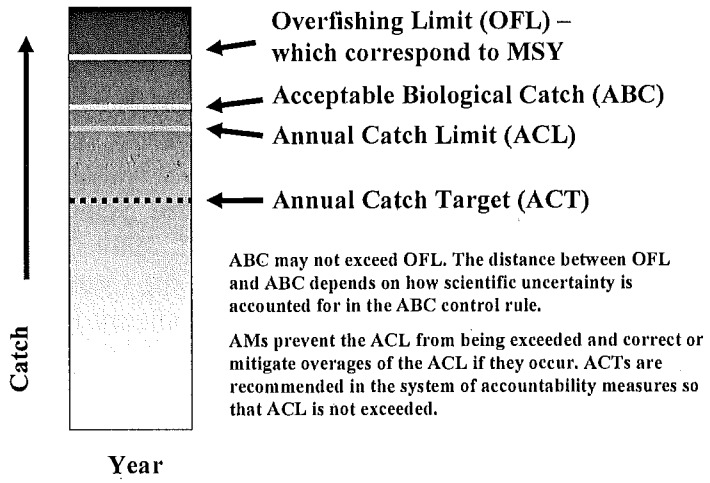
Although this Omnibus Amendment is being prepared primarily in response to the new requirements under MSA and requirements of NEPA, it will also address the requirements of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). When preparing an FMP or FMP amendment, the Council also must comply with the applicable requirements of the Regulatory Flexibility Act (RFA), the Administrative Procedure Act (APA), the Paperwork Reduction Act (PRA), the Coastal Zone Management Act (CZMA), the Information Quality Act (IQA), and Executive Orders. These other applicable laws and executive orders help ensure that in developing an amendment, the Council considers the full range of alternatives and their expected impacts on the marine environment, living marine resources, and the affected human communities. This integrated document will contain all required elements of the FMP amendment as required by NEPA and information to ensure consistency with other applicable laws and executive orders.

[1] Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, M-S Act), portions retained plus revisions made by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA).

The proposed actions in this amendment would: 1) describe the process by which ABC will be specified to account for scientific uncertainty, incorporating both assessment levels and a Council adopted risk policy, 2) establish a framework of ACLs (and/or Annual Catch Targets (ACTs)) to address for management uncertainty, 3) establish AMs for each of the catch frameworks, 4) establish a review process for the performance of ACLs and AMs, and 5) identify how modification of processes established by the amendment would occur (i.e. future amendments, frameworks, or specifications).

NMFS produced guidelines (National Standard 1 Guidelines; NS1) which provide detail on how to comply with the new requirements for annual catch limits (ACLs) and accountability measures (AMs) under the MSA. The terms introduced through that guidance (OFL, ABC, ACL, ACT) relate as given in the following figure.

Definition Framework: OFL ≥ ABC ≥ ACL



NS1 Guidelines state, "The Council should generally set the ACL lower than the ABC to take into account other factors related to preventing overfishing or achieving optimum yield (OY), or it may set the ACL equal to the ABC and take these additional factors into account when setting an ACT below the ACL."

ES-2.0 Acceptable Biological Catch (ABC)

In an effort to be compliant with the NS1 Guidelines, the Council has worked with their Scientific and Statistical Committee (SSC) to prescribe ABC through a set of four levels. The underlying principle is that a fixed classification system (levels) is developed based on specific criteria. In this case the levels are based on the information available to assess the stock. In general, higher levels will contain assessments with greater detail and lower scientific uncertainty while lower levels have less robust assessments with higher uncertainties. When a new stock assessment completes peer-review for any of the target stocks, the SSC would be responsible for determining the level for the assessment. Then a pre-defined set of control rules are used to calculate ABC. Box 1 provides a brief

summary of all of the alternatives discussed in this document that address the issue of ABC.

In the NS1 Guidelines response to comment 42, it states "The SSC must recommend an ABC to the Council after the Council advises the SSC what would be the acceptable probability that a catch equal to the ABC would result in overfishing. This risk policy is part of the required ABC control rule." As such, the Council is considering risk policy options which define the Council's tolerance for overfishing for each of the managed stocks. The Council may consider the consequences of exceeding the OFL and overfishing a stock (biological factors), as well as other factors including social, economic, and ecological, consistent with National Standard 1, when developing a Council risk policy. The Council is considering this risk policy residing in either 1) the FMP, or 2) the Council Standard Operating Procedures (SOPPs).

Box 1. Brief description of the alternatives included in this amendment that address the issue of ABC. "Status" refers to whether an alternative is proposed or has been considered but rejected from further analysis in this EA. Detailed descriptions of each alternative are provided in section 1.0.

Issue	Sub-Issue	Alternative	Status of Alternative	Description of Action (more detail starts on page 13)
Acceptable Biological Catch (ABC)	*ABC Control Rule Framework*	1A	Proposed (No action)	No established ABC control rule framework in FMP
		1B	Proposed	Council establishes ABC control rule framework in FMP
	Council Risk Policy	2A	Proposed (No action)	No established Council risk policy; SSC will determine acceptable probability of overfishing when ABC is specified
		2B	Proposed	Constant probability of overfishing = 25 Percent, under all circumstances
		2C	Proposed	Stock Status, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.0$
		2D	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.5$
		2E	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$
		2F	Proposed	Categorical (4 x 4) with stock history, life history, and assessment level, with range from 10 - 50 percent

ES-3.0 Annual Catch Limits (ACLs) and Accountability Measures (AMs)

Annual catch limit frameworks have been developed which allow for management uncertainty (i.e. implementation uncertainty), if present, to be addressed. Management

uncertainty can occur because of a lack of sufficient information about the catch (e.g. due to late reporting, underreporting, and/or misreporting of landings or bycatch), or because of a lack of management precision (i.e., the ability to constrain catch to desired levels) in many fisheries (e.g. due to limited, unavailable, or untimely landings and/or data, or lack of inseason closure authority). Any time an ACL is determined to have been exceeded, AM measures are required to automatically be enacted. Accountability measures are required for each ACL established by the Council and may be established at the fishery, sector, or sub-sector levels. There are two types of accountability measures under consideration: proactive and reactive. Proactive AMs are intended to prevent, as much as is practicable, the ACL from being exceeded. Examples of proactive AMs include adjustment of possession limits, closure of directed fisheries, or modification of measures to slow landing rates. Reactive AMs are in response to an ACL overage and are designed to mitigate that overage and/or prevent it from occurring in the subsequent year. Examples of reactive AMs include modification of subsequent year trip or possession limits, reduction in landing levels in the subsequent year, adjustments to transfer amounts (e.g., bluefish) or other automatic reactive adjustments. Box 2 provides a brief summary of all of the alternatives discussed in this document that address the issue of ACLs and AMs.

Box 2. Brief description of the alternatives included in this amendment that address the issue of ACLs and AMs. "Status" refers to whether an alternative is proposed or has been considered but rejected from further analysis in this EA. Detailed descriptions of each alternative are provided in section 1.0.

Issue	Sub-Issue	Alternative	Status of Alternative	Description of Action (more starts detail on page 19)
Annual Catch Limits and Accountability Measures	*All Stocks*	3A	Proposed (No action)	No established ACL/AM framework in FMPs
	Species Alternatives	Atlantic Mackerel	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Butterfish	Proposed	Council establishes ACL=ABC; and utilize ACT w/ AMs
		Atlantic Bluefish	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Spiny Dogfish	Proposed	Council establishes ACL=ABC; and utilize ACT w/ AMs
		Summer Flounder	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Scup	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Black Sea Bass	Proposed	Council establishes ACL=ABC; and utilize sector-specific ACTs w/ AMs
		Atlantic Surfclam	Proposed	Council establishes ACL=ABC; and utilize TAL w/ AMs
		Ocean Quahog	Proposed	Council establishes ACL=ABC; and utilize dual ACTs w/ AMs
		Tilefish	Proposed	Council establishes ACL=ABC; and utilize ACT w/ AMs

ES-4.0 Review and Modification of ABC, ACLs, and AMs

Box 3 provides a brief summary of all of the alternatives discussed in this document that address the issue of review and modification of ACLs and AMs.

Box 3. Brief description of the alternatives included in this amendment that address the issue of review and modification of ACLs and AMs. "Status" refers to whether an alternative is proposed or has been considered but rejected from further analysis in this EA. Detailed descriptions of each alternative are provided in section 1.0.

Issue	Sub-Issue	Alternative	Status of Alternative	Description of Action (more detail starts on page 69)
Review and Modification of ABCs, ACLs, and AMs	*Periodic Review Process*	4A	Proposed (No action)	No established Periodic Review Process in FMPs
		4B	Proposed	Council establishes a process by which ABC control rule, ACLs, and AMs are reviewed and modified
	Modification of Action	5	Proposed	Description of process to modify measures

This document was presented to the Council at its April 2010 meeting, at which time the Council voted to take this to the public without selecting preferred alternatives. Following the Council's recommendations, a comment period will begin during which several meetings will be held to allow for open review of the proposed alternatives by fishery participants and concerned members of the public. Once the public comment period ends, comments will be compiled and presented to the Council. Council response to public comments will determine the final selection of preferred management actions. It is anticipated that the selection of preferred alternatives and the vote on final preferred measures in the Omnibus Amendment document will occur at the August 2010 Council Meeting. The Council will then submit the Omnibus Amendment to NMFS for review, evaluation, and implementation by the Secretary of Commerce via rulemaking under the authority of the MSA § 303.

ES-5.0 Impact Analysis

Analysis of all management alternatives and independent management measures under consideration is provided in this document in relation to a series of valued ecosystem components, or VECs. VECs represent the resources that may be affected by a proposed action, including non-preferred alternatives, and by other actions that have occurred or will occur outside the proposed action. An analysis of impacts is performed on each VEC to assess the direct/indirect effects of an alternative and whether these effects add to or subtract from effects of the past, present and future actions on that VEC from outside the proposed action (i.e. cumulative effects). The VECs identified for this Omnibus ACL/AM Amendment include: the managed resources, non-target species, habitat (including EFH), protected resources, and human communities.

This amendment is wholly procedural in nature—focused on the methodology and mechanisms by which ABCs, ACLs, and AMs will be developed for each of the managed resources subject to the MSA requirements.

Overall and due to the nature of the measures to be implemented through this amendment, there very few functional differences (as far as environmental effects generally considered in an EA are concerned) between the status quo alternatives and the other alternatives under consideration. The expected direct effects are generally well-defined for most fishery management actions, but indirect effects are often less so. While NEPA requires consideration of "reasonably foreseeable effects," it does not require consideration of remote and speculative impacts; these effects remain outside the scope of a NEPA analysis (Bass et al. 2001). During the development of this amendment, there have been occasions when discussions shifted from the process to account for scientific and management uncertainty when establishing catch levels for the managed resources to what the actual catches established through this process might be (i.e. same as current catch levels, higher, lower, for each species). These types of effects are considered too remote and speculative to be appropriate for consideration in this amendment. While this amendment is focused on establishing a clear and transparent process to account for scientific and management uncertainty when establishing catch levels designed to prevent overfishing of stocks, there is nothing to indicate whether the catch levels established under this process would not be similar to the status quo. Secondly, there is no way to predict the effect on the managed resources, non-target species, habitat (including EFH), protected resources, and human communities for the newly described process to account for scientific and management uncertainty when establishing catch levels would have on the managed resources, non-target species, habitat (including EFH), protected resources, and human communities. Lastly, the actual catch levels that would be establish through the processes described in this Amendment cannot be predicted. Biological impacts are driven not only by the potential catch level, which cannot be predicted, but also the biological state (demographics) of the target and non-target species which also cannot be predicted. Therefore, because the proposed management actions covered in this Amendment are too remote and speculative to be adequately or meaningfully addressed, this NEPA analysis focuses solely on the potential direct, indirect, and cumulative effects expected to be immediately associated with the proposed action and primary alternatives. Any future management actions that may result from implementation of these processes would be subject to all the requirements of NEPA at the appropriate time.

A more detailed analysis of impacts will be prepared to assess the direct, indirect, and cumulative effects immediately expected from the alternatives given below on each of the VECs; that analysis will be a part of the final amendment document.

DETAILED DESCRIPTIONS OF THE ALTERNATIVES

Section 1.0: Acceptable Biological Catch (ABC) Alternatives

Alternative 1A: No Action on ABC control rule

Under this no action alternative, there would be no new action to establish ABC control rules specified for the stocks under MAFMC management jurisdiction subject to these requirements beyond what currently exist in the FMP as ABC control rules. This option would be selected if the current provisions in the FMP are determined to be sufficient and are found to be consistent with the new MSA requirements.

These current ABC provisions may need to be re-described and formalized in the context of the new MSA requirements to provide justification and support for the no action alternative.

Alternative 1B: ABC Control Rule Framework – Four Assessment Levels

A multi-level approach will be used for setting an ABC for each Mid-Atlantic stock, based on the overall level of scientific uncertainty associated with its assessment. The stock assessment will be required to provide estimates of the maximum fishing mortality threshold and future biomass, the probability distributions of these estimates, the probability distribution of the overfishing limit (OFL; level of catch that would achieve maximum fishing mortality threshold given the current or future biomass) and a description of factors considered and methods used to estimate their distributions. The multi-level approach defines four levels of overall assessment uncertainty defined by characteristics of the stock assessment and determination by the SSC that the uncertainty in the probability distribution of OFL adequately represents best available science. The procedure used to determine ABCs is different in each level of the framework. The SSC will determine which level the assessment for a particular stock belongs when setting single or multi-year ABC specifications, and a description of the justification for assignment to a level will be provided with the ABC recommendation. The rationale for assigning an assessment to a level will be reviewed each time an ABC determination is made. Other factors, in addition to those listed, may be used to assign an assessment to a specific level.

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}[2], 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, 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.

[2] 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, 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 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.

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.

The SSC will determine, based on the assessment level to which a stock is classified, the specifics of the control rule to specify ABC that would be expected to attain the probability of overfishing specified in the Council's risk policy. The SSC may deviate from the above assessment level framework and recommend an ABC that differs from the result of the ABC control rule calculation, but must provide justification for doing so.

Section 2.0: Council Risk Policy Alternatives

The Council risk policy alternatives given below would be applied all to the stocks under MAFMC management jurisdiction. Under any of the action risk alternatives selected below (i.e. excludes alternative 2A) the following would also apply.

For stocks that are under rebuilding plans, the upper limit on the probability of exceeding the rebuilding F would be 50 percent unless modified to a lesser value through a rebuilding plan amendment. In addition, if no overfishing definition is available for a stock (i.e. No F_{MSY} or F_{MSY} proxy; can't determine if overfishing is or is not occurring) and no overfishing limit is specified then an upper limit (cap) on allowable increases in catch levels will be established. Catch levels may not be increased until an appropriate F_{MSY} or F_{MSY} proxy has been identified.

It should be noted in the alternatives below that if the ratio of biomass (B) to biomass at maximum sustainable yield (B_{MSY}) is less than 1.0, then the current stock biomass is less than B_{MSY}; if the ratio of B to B_{MSY} is greater than or equal to B, then the current stock biomass is B_{MSY} or greater.

The Council is considering variations on the action alternatives given below (alternatives 2B - 2F) as part of the public hearing process and is seeking input from the public. Specifically, modification of the variables included in each alternative are considered (e.g. such as stock status, assessment level, life history, stock history) as well as the associated values incorporated in each of the action alternatives (e.g. maximum probabilities of overfishing, inflection points, etc.).

Alternative 2A: No Action on Council Risk Policy

Under this no action alternative, there would be no action to establish a formal Council risk policy to be applied to the stocks under MAFMC management jurisdiction.

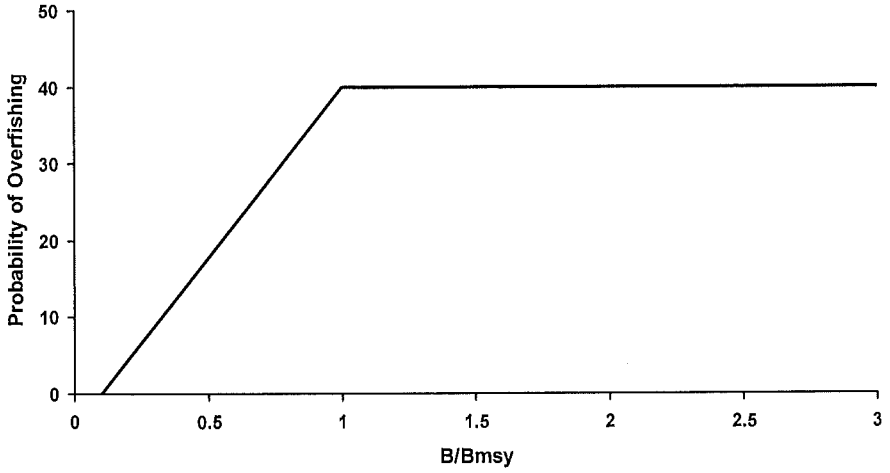
Alternative 2B: Constant Probability of Overfishing = 25 Percent

Under this alternative, the probability of overfishing will be 25 percent under all circumstances (i.e. irrespective of stock condition, rebuilding status, life history, etc.).

The Council is considering variations on this alternative as part of the public hearing process. A different percentage for the probability of overfishing under this alternative (e.g. 20 percent, etc.) could be considered by the Council.

Alternative 2C: Stock Replenishment Threshold with Inflection at B/B_{MSY} = 1.0, X-Intercept at B/B_{MSY} = 0.1 - Under this alternative, a stock replenishment threshold defined as the ratio of B/B_{MSY} = 0.10, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly as the ratio of B/B_{MSY} increases, until the inflection point of B/B_{MSY} = 1.0 is reached and a 40 percent probability of overfishing is utilized for ratios equal to or greater than 1.0.

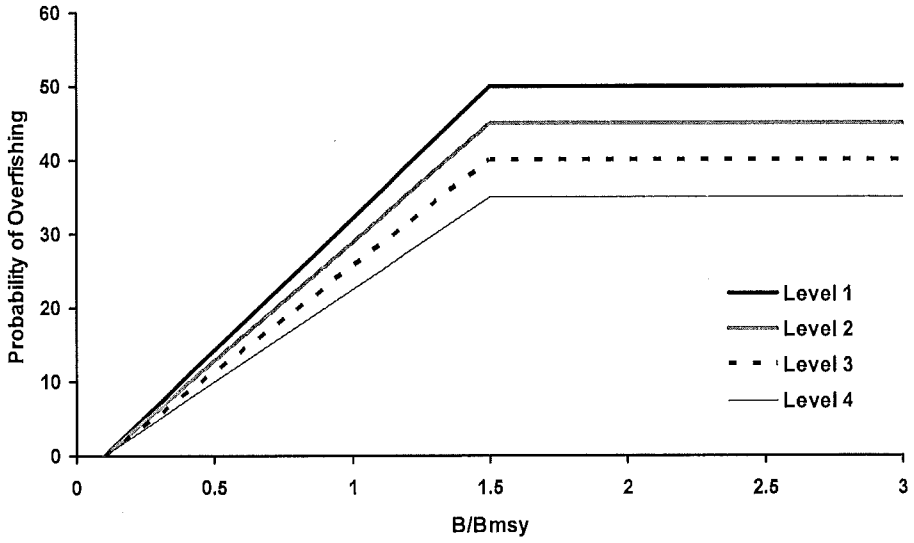
The Council is considering variations on this alternative. Specifically, the Council could consider modification of the inflection point from B/B_{MSY} = 1.0, to some higher value such as 1.5 or 2.0. Similarly, the Council is contemplating the appropriateness of a maximum probability of overfishing in the risk policy of 40 percent, versus the application of a higher value such as 45 percent or 50 percent. The Council is also considering the appropriateness of a stock replenishment threshold and whether it should be included in this risk policy.



Alternative 2D: Stock Status/Assessment Level Offset, Replenishment Threshold, with Inflection at B/B_{MSY} = 1.5

Under this alternative, a stock replenishment threshold defined as the ratio of B/B_{MSY} = 0.10, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly at similar rates as the ratio of B/B_{MSY} increases; until the inflection point of B/B_{MSY} = 1.5 is reached and a 50 percent probability of overfishing is utilized for assessment level 1, 45 percent for level 2, 40 percent for level 3, and 35 percent for level 4.

The Council is considering variations on this alternative. Specifically, the Council could consider modification of the inflection point from $B/B_{MSY} = 1.5$, to some other value such as 1.0 or 2.0. Similarly, the Council is contemplating the appropriateness of a maximum probability of overfishing in the risk policy of 50 percent, versus the application of a lower value such as 45 percent or 40 percent. The Council is also considering the appropriateness of a stock replenishment threshold and whether it should be included in this risk policy.

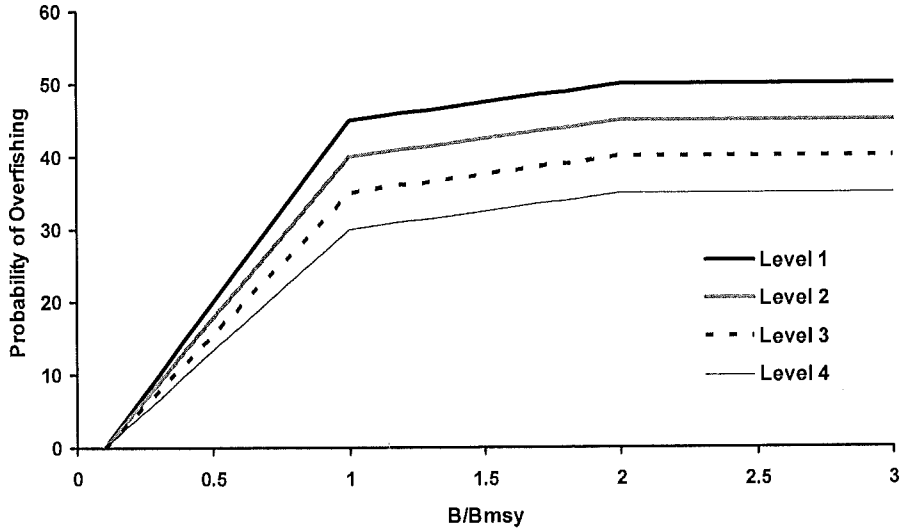


Alternative 2E: Stock Status/Assessment Level Offset, Replenishment Threshold, with 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly at similar rates as the ratio of B/B_{MSY} increases; until the inflection point of $B/B_{MSY} = 1.0$ is reached and a 45 percent probability of overfishing is utilized for assessment level 1 (see section 1.0), 40 percent for level 2, 35 percent for level 3, and 30 percent for level 4. Probability of overfishing then continues to increase to the inflection point of $B/B_{MSY} = 2.0$, where the probability of overfishing is for level 1 is 50 percent, 45 percent for level 2, 40 percent for level 3, and 35 percent for level 4, for all B/B_{MSY} ratios equal to or greater than 2.0.

The Council is considering variations on this alternative. Specifically, the Council could consider modification of the two inflection points from $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$, to another set of values such as $B/B_{MSY} = 2.0$ and $B/B_{MSY} = 4.0$. Similarly, the Council is contemplating the appropriateness of a maximum probability of overfishing in the risk policy of 50 percent, versus the application of a lower value such as 45 percent or 40

percent. The Council is also considering the appropriateness of a stock replenishment threshold and whether it should be included in this risk policy.



Alternative 2F: Categorical, with range from 10 - 50 percent

Under this alternative, specification of the probability of overfishing incorporates assessment level (see section 1.0), stock history, and life history patterns. Probability of overfishing is higher for stocks which have not been overfished (either currently or previously based on best available scientific information). Probability of overfishing is also higher for stocks which have typical life history patterns, when compared to atypical life history patterns (e.g., dogfish and black sea bass). In addition, as the assessment level decreases, the probability of overfishing decreases.

The Council is considering variations on this alternative. Specifically, modification of the variables included in each alternative are considered; one such example would be the removal of stock history as an important criteria, resulting in a 2 by 4 matrix (8 probability categories), as opposed to a 4 by 4 matrix (16 categories). The Council is also contemplating the appropriateness of a maximum probability of overfishing in the risk policy of 50 percent, versus the application of a lower value such as 45 percent or 40 percent.

Probability of Overfishing				
Assessment Level	**Stock History (Previously Overfished?)**			
	Has Never Been Overfished		***Has Been Overfished***	
	Life History Pattern		***Life History Pattern***	
	Typical	**Atypical**	**Typical**	**Atypical**
1	50	45	45	40
2	40	35	35	30
3	30	25	25	20
4	20	15	15	10

Section 3.0: Annual Catch limit (ACL) and Accountability Measure (AM) Alternatives

The alternatives below are organized by FMP stock and identify options for ACLs and AMs. Catch is defined as both landings and discards. ACL frameworks have been developed which allow for management uncertainty (i.e. implementation uncertainty), if present, to be addressed. Management uncertainty can occur because of a lack of sufficient information about the catch (e.g. due to late reporting, underreporting, and misreporting of landings or bycatch), or because of a lack of management precision in many fisheries (e.g. due to limited or unavailable data, untimely data, or lack of inseason closure authority).

It should be noted that while some sources of management uncertainty may be insignificant, others may be substantial. Using recreational fisheries as an example, the limited data used to evaluate the effect of proposed recreational measures on angling effort, in the absence of information to evaluate angler behavior in response to those measures, is a source of management uncertainty. This may be one factor contributing to poor fishery performance relative to harvest targets (i.e. overages). In commercial fisheries, late submission of landings data may result in poor accounting of landings relative to the commercial quotas inseason and result in consistent overages for some fisheries.

In the action alternatives given below, the Council is considering a process by which significant sources of management uncertainty could be identified, and if appropriate, accommodated by reducing catch levels to prevent any ACLs from being exceeded and accountability measures enacted. Reducing catch limits to account for management uncertainty has both associated costs and benefits. Reduction in catch levels to address management uncertainty should be only the amount necessary to achieve the results mandated by the MSA, which are intended to prevent overfishing and, when applicable, rebuild overfished stocks. These adjustments should be considered in the general context of the entire catch framework and its performance relative to MSA.

ACLs may be established at the fishery level, sector level (i.e. recreational and commercial), or sub sector level (i.e. party-charter sub-sector, or state-federal subcomponents) or any combination thereof. ACL cannot exceed ABC and the sum of all sector or sub-sector ACLs cannot exceed the fishery-level ACL, if established. Not all stocks have significant recreational components; therefore, the degree to which a single-sector or more than one sector contribute to the overall landings and/or catch will likely drive the selection of an appropriate and ACL control rules. In addition ACLs may be specified annually or annually for a multiple years. For those stocks that already have ACL-type measures within the FMP, the following measures could be implemented in addition to the current measures, or be used to modify or formally identify the current ACL-type measures to be consistent with the new requirements.

Any time an ACL is determined to have been exceeded, automatic AM measures would be enacted. Accountability measures are required for each ACL established by the

Council and may be established at the fishery, sector, or sub-sector levels. For example, if the Council establishes ACLs for both the recreational and commercial sectors for a species fishery, AMs will need to be established for both sectors. Not all stocks have significant recreational components; therefore, the existence of a single-sector or more than one sector will likely drive the selection of AMs. Accountability measures are already utilized for many stocks contained within the FMPs. For those stocks that already have AM-type adjustment procedures within the FMP, the following measures could be implemented in addition to the current measures, or be used to modify or formally identify the current AM-type adjustments to be consistent with the new requirements. Accountability measures that are consistent with the new requirements must be automatic and cannot require Council deliberation, modification through an existing process (e.g. modification through specifications setting), or be left to the Regional Administrator's discretion.

There are two types of accountability measures under consideration: Proactive and reactive. Proactive AMs are intended to prevent as much as is practicable the ACL from being exceeded. Reactive AMs are in response to an ACL overage and are designed to mitigate that overage and/or prevent it from occurring in the subsequent year.

The trigger for AMs (i.e. comparison of ACL to observed catch, where catch is defined as landings plus discards) could be based on a single year comparison or could be based on multi year average examination, to smooth some of the interannual variability. For example, under a multi-year examination in year-1 the comparison of observed catch to the ACL would be based on single year of data. In year-2, it would be based on a two-year average, and in year-3 (and all subsequent years) it would be based on a three year moving average. The AM trigger would need to be identified as single-year or multi-year for each species. Options to utilize ACTs, a type of proactive AM, may be appropriate if ACL is set equal to ABC (ACL=ABC); however, setting ACL less than ABC (ACL< ABC) does not preclude utilizing an ACT.

Annual catch targets (ACTs) are proposed for a number of fisheries to account for management uncertainty. The guidelines on national standards 1 at §600.310(f)(6) contemplate the use of an ACT control rule. The extreme interannual and intrannual variability in the sources of management uncertainty, practicalities, and the need for flexibility, dictate that an ACT control rule be developed by the species monitoring committee concerned. For Atlantic surfclam and ocean quahog, which lack monitoring committees, the staff would develop an ACT control rule presented in the quota report. These are the groups most knowledgeable about each fishery and changing circumstances that could give rise to different levels of management uncertainty from year to year. Using the process presently included in the various species regulations, the monitoring committee should include in the recommendation to the Council the percentage, if any that the ACL should be reduced to account for management uncertainty in order that the catch of the managed resource does not exceed the ACL. Recommendations regarding the level at which to set the ACT will be guided by the performance requirements established by the Council and required by the MSA.

Optimum yield is the long-term average desired yield from a fishery which provides the greatest overall benefit to the nation particularly with respect to food production and recreational opportunity, and taking into account the protection of the marine ecosystems. OY yield is based on the maximum sustainable yield from the fishery as reduced by any relevant economic, social, or ecological factors, as those terms are described in the national standards guidelines at §600.310. The system for specifying annual catch limits (i.e. OFL-ABC-ACL-ACT) allows for the consideration of all relevant factors including scientific and management uncertainty as the ACT is derived. In the National Standard 1 Guidelines, under the response to comments, it states, "NMFS believes that fisheries managers cannot consistently meet the requirements of the MSA to prevent overfishing and achieve, on a continuing basis, OY [optimum yield] unless they address scientific and management uncertainty. The reduction in fishing levels that may be necessary in order to prevent overfishing should be only the amount necessary to achieve the results mandated by the MSA". For all of the ACL and AM frameworks described in the following alternatives for each of the stocks, the Council has specified ACL=ABC. Therefore, OY will be the long term average catch, which is designed not to exceed the ACL but fall between ACL and ACT that results from the application of these catch limit frameworks. This system is designed to rebuild those fisheries that are overfished and to maintain others at a level (B_{MSY}) that produces the maximum sustainable yield over time. Achieving these objectives will provide the greatest social and economic benefits to fishery participants and allow managers to set catch levels that provide the greatest overall to the nation.

Alternative 2A: No Action on ACL control rule and AMs for Stock X (i.e. substitute stock name)

Under this no action alternative, there would be no new action to establish an ACL control rule for Stock X beyond what currently exist in the FMP as ACL control rules. This option would be selected if the current provisions in the FMP are determined to be sufficient and are found to be consistent with the new MSA requirements. These current ACL provisions may need to be re-described and formalized in the context of the new MSA requirements to provide justification and support for the no action alternative.

Under this no action alternative, there would also be no new proactive or reactive AMs specified for Stock X other than those that currently exist as AM-type FMP adjustments. This option would be selected if the current provisions in the FMP are determined to be sufficient and are found to be consistent with the new MSA requirements. Administrative changes to existing regulatory language would be adopted to codify existing measures as AMs.

Action Alternatives for: Atlantic Mackerel ACLs and AMs

Domestic Acceptable Biological Catch (ABC)

Fishery removals are comprised of both U.S. and Canadian catches, and U.S. accountability measures cannot be applied or enforced on the Canadian fishery. Therefore, under this alternative, the fishery-level ACL would be set equal to the domestic acceptable biological catch (ABC) for the Atlantic mackerel stock (Figure Atlantic Mackerel; Table Atlantic Mackerel). The ABC is reduced from the overfishing limit (OFL) based on an adjustment for scientific uncertainty and the domestic ABC is defined as the ABC for the stock minus the Canadian catch.

ABC = OFL - Scientific Uncertainty Adjustment
Domestic ABC = ABC – Canadian Catch

Considered but rejected: The ACL will be set equal to the domestic ABC accounting for Canadian catch via another mechanism (i.e. creating a domestic OFL or by using a Canadian ACL) was considered but rejected. The artificial splitting of the OFL into a stock and domestic portion was undesirable as it raised a number of policy issues. Utilization of a Canadian ACLs would require accountability that is beyond the scope of the MSA or current international agreements for those components of the Canadian fishery.

Annual Catch Limit (ACL)

Under this alternative, the fishery-level ACL would be set equal to the domestic ABC for this stock.

ACL= Domestic ABC

ACL Evaluation: The ACL is exceeded when the catch from all domestic sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

Accountability Measures (AMs)

Already in the FMP: The commercial fishery already has inseason closure authority when the Domestic Annual Harvest (DAH) is projected to be reached. Specifically, if 100 percent of the DAH is projected to be reached within the fishing season or year, then the fishery could be closed for the remainder of the fishing season or year (§ 648.22(a)(1)).

To slow the approach of observed landings to attaining the DAH, the directed fishery closes when 90 percent of the DAH is reached (§ 648.22(a)(1)) and an incidental 20,000 lb trip limit is implemented if the closure occurs before June 1 and a 50,000 lb trip limit if a closure occurs thereafter (§ 648.25(a)). Vessels may not fish for, possess, or land more than the applicable incidental trip limits at any time and may only land Atlantic Mackerel once per calendar day (defined as 0001 to 2400 hours).

Proactive AMs: An ACT is analytically desirable in cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty. An ACT is a type of proactive AM.

Existing allocations already defined in the FMP would be used to partition the ACL into sector-specific ACTs. A recreational fishery ACT and a commercial fishery ACT would be specified.

The Council is establishing a process to consider management uncertainty when sector-specific ACTs are specified for the commercial fishery and the recreational fishery. The Council may identify the reduction amount from ACL to the sector-specific ACTs at the time of annual specifications and would rely on the Atlantic Mackerel Monitoring Committee for recommendations on the sources of management uncertainty in these fisheries, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction.

Reactive AMs: In the event the ACL is exceeded, and the commercial fishery is responsible for the overage, then the following option would apply.

Commercial Landings Overage Deduction: Landings in excess of the domestic annual harvest (DAH) will be deducted from the DAH for the following year in the final rule that establishes the DAH.

In the event the ACL is exceeded, and the recreational fishery is responsible for the overage, then the following option would apply.

Recreational Harvest Limit Overage Deduction: Landings in excess of the recreational harvest limit will be deducted from the recreational harvest limit for the following year in the final rule that establishes the recreational harvest limit.

Recreational Inseason Accountability: The NMFS Regional Administrator will monitor the recreational fishery based on MRFSS and other available information, and shall determine if the recreational landings will exceed the recreational harvest limit. The Regional Administrator shall publish notification in the Federal Register advising that, effective upon a specific date, the recreational fishery will be closed for the remainder of the fishing year.

Considered but rejected: A mechanism which would allow for inseason adjustments to management measures (i.e. fish size, season, and possession limits) was considered but rejected as no current management measures are presently utilized for the recreational fishery providing no basis for evaluating the effectiveness of measures for constraining landings. In addition, the development of triggers for recreational fishery closure based on recreational data availability (by wave) was also consider but rejected. The recreational fishery has landed 4 - 11 percent of the annual 33.01 million lb (15.00 million kg) allocation over the last 9 years. The recreational data available does not allow

for the development of indicators of imminent fishery overages given no overages have occurred in the recreational fishery; therefore, the data do not support development of fixed/prescriptive triggers to close the fishery.

Reactive accountability for recreational and commercial landings overages that result in the ACL being exceeded are contemplated in this amendment; however, accountability for other catch components (other than commercial and recreational landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e. discards and/or unlikely event RSA is exceeded), then the following measures would apply.

Sector-specific ACT Adjustment: The commercial fishery and/or recreational fishery ACT would be adjusted in response to the ACL being exceeded if other reactive AMs have not addressed the overage. Specifically, the amount by which the ACL was exceeded would be used to adjust the sector-specific ACTs the subsequent year based on the sectors contribution to the overage. The ACT adjustment would be a single-year adjustment.

Atlantic Mackerel Flowchart

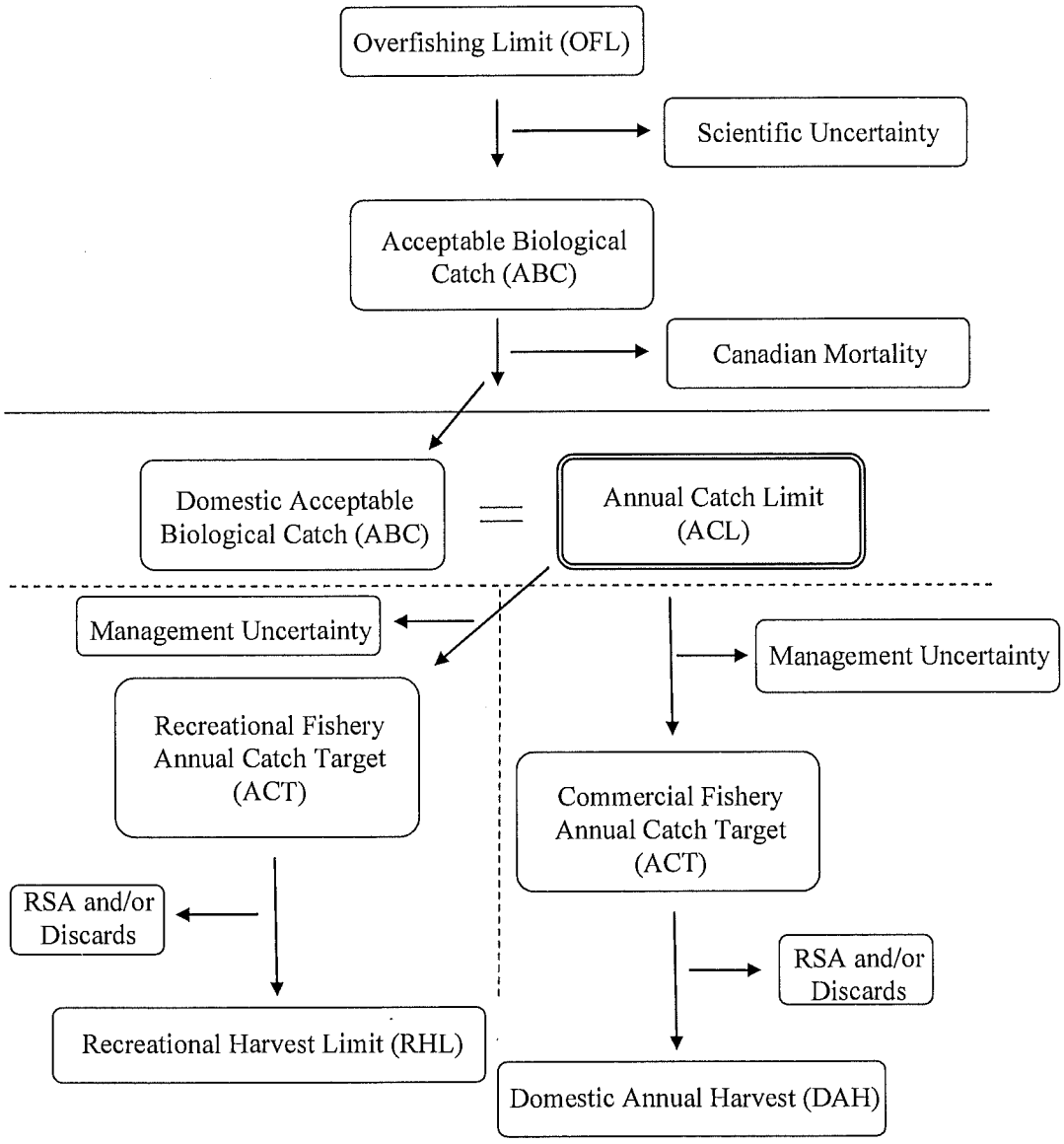


Figure Atlantic Mackerel. Key features of the ACL and AM framework.

Table Atlantic Mackerel. Atlantic Mackerel Terms

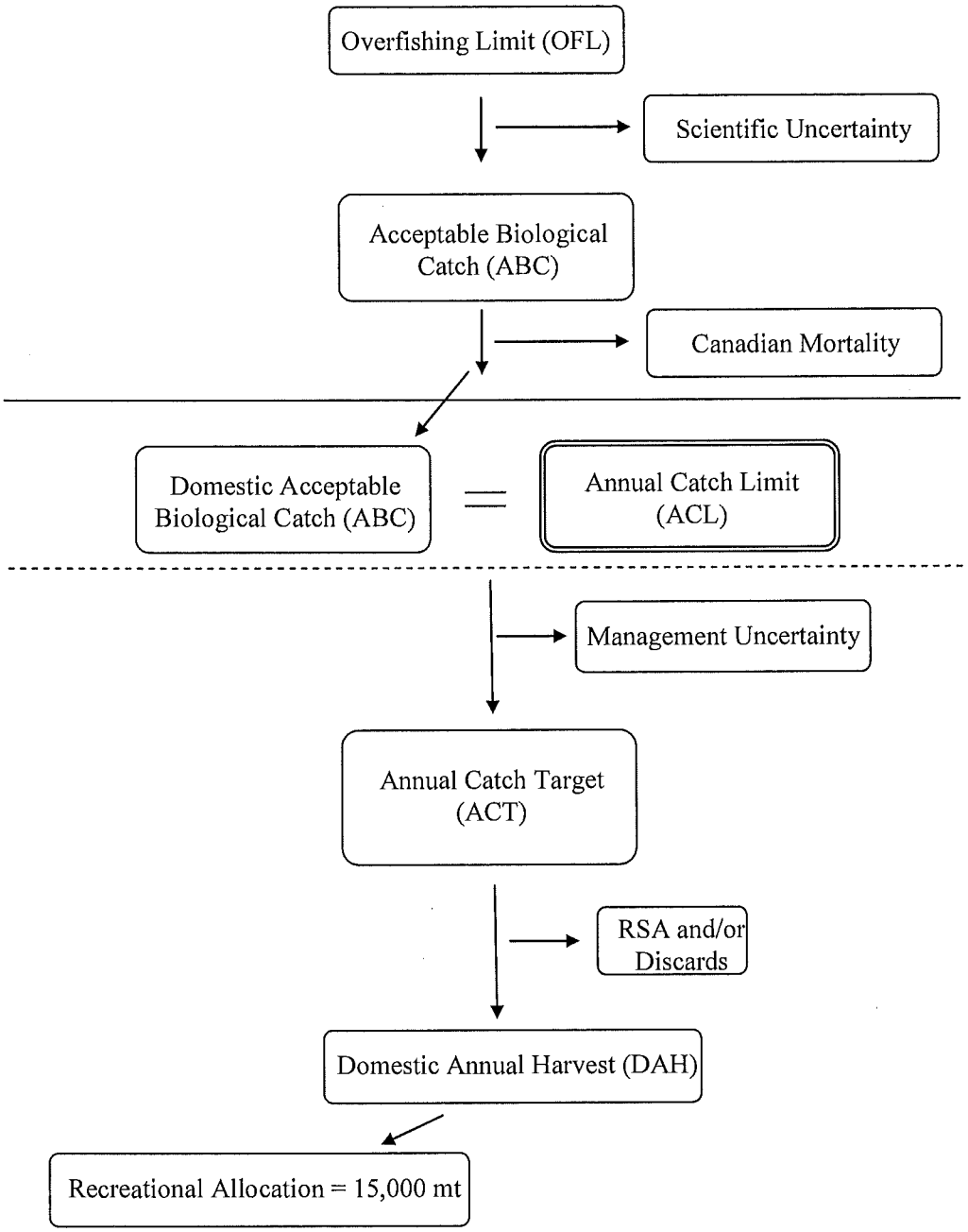
Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. IOY is a modification of ABC, based on social, economic, and ecological factors. It must be less than or equal to ABC. IOY is composed of RQ, DAH, DAP, and may include JVP and TALFF if specified.	ACL = Domestic ABC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For Atlantic Mackerel, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Initial Optimum Yield (IOY)	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery and accounts for management uncertainty in controlling the actual catch at or below ACL. IOY is a modification of ABC, based on social, economic, and ecological factors. It must be less than or equal to ABC. The sector ACT could account for all these factors.	Recreational ACT, Commercial ACT
Domestic Annual Harvest (DAH)	Unchanged	Annual amount of total domestic commercial landings permitted after removing estimated discards.	DAH = Commercial ACT – discards
Domestic Annual Processing (DAP)	Not specified	DAP is the IOY minus the recreational sector ACT. It is part of the overall ACL structure.	DAP = IOY – recreational sector ACT

Research Quota (RQ)	Research set-Aside (RSA) *Term change!*	Amount of annual landings up to 3 percent that may be set aside to fund research activities.	ACL – X% (up to 3%) = DAH and Recreational fishery allocation
	Recreational Harvest Level (RHL)	Annual management target for the recreational sector landings after removing research set-aside.	Recreational Sector ACT – discards = RHL
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY. For Atlantic Mackerel, OY is the quantity of catch that is less than or equal to the ABC in U.S. waters	OY
½ B_{MSY}	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY}
F_{MSY}	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY}

Additional Considerations

This Atlantic mackerel alternative assumes Amendment 11 to the FMP will establish a hard allocation for the recreational and commercial sector; therefore, ACTs could be used for each sector along with associated sector-specific accountability. In the event, this action is not taken and no hard allocations are established, then reactive accountability if the ACL is exceeded (regardless of overage cause) would be needed, and accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment. The alternative provided above would be modified to reflect the following revised flowchart.

Modified Atlantic Mackerel Flowchart if Amendment 11 Allocations Not Established



Action Alternatives for: Butterfish ACL and AMs

Annual Catch Limit (ACL)

Under this alternative, the fishery-level ACL would be set equal to the acceptable biological catch (ABC) for the butterfish stock (Figure Butterfish; Table Butterfish).

ACL = ABC

ACL Examination: The ACL is exceeded when the catch from the total fishery exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

Accountability Measures (AMs)

Already in the FMP: The directed fishery already has inseason closure authority when 80 percent the Domestic Annual Harvest (DAH) is projected to be reached. The directed fishery closure remains effective for the remainder of the fishing period with incidental catch permitted, as outlined below. (§ 648.22(a)(4)).

During a directed fishery closure, an incidental trip limit of 250 lb is implemented if the closure occurs before October 1 and a 600 lb trip limit if closure occurs thereafter (§ 648.25(b)(1)). Vessels may not fish for, possess, or land more than the applicable incidental trip limits at any time and may only land butterfish once per calendar day (defined as 0001 to 2400 hours). Vessels issued an incidental catch permit for butterfish may not fish for, possess, or land more than 600 lb of butterfish at any time and may land only once per day unless the directed fishery closes before October 1. Then the incidental catch permit possession and landing limit becomes 250 lb (per calendar day).

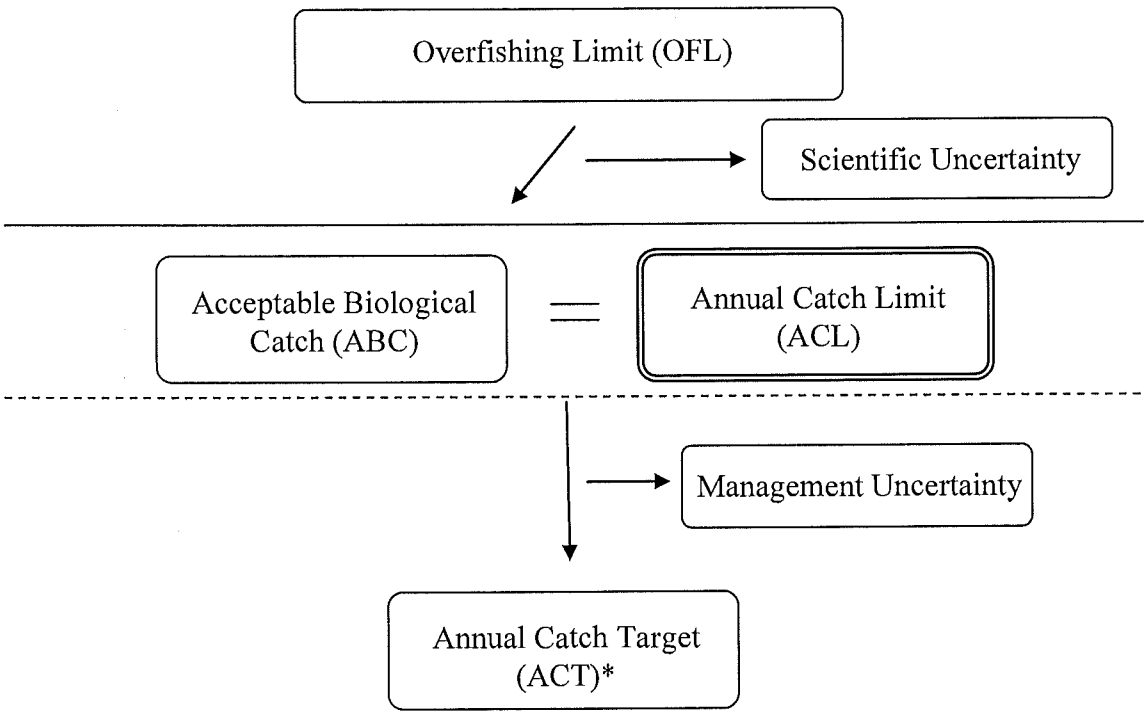
Proactive AMs: Utilizing an ACT is analytically desirable in cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty. An ACT is a type of proactive AM.

Existing allocations already defined in the FMP would be used to partition the ACL into an ACT for the *Loligo* fishery cap and an ACT for the "other fisheries" cap, after discards have been deducted.

The Council is establishing a process to consider management uncertainty when the ACT is specified for the butterfish fishery. The Council may identify the reduction amount from ACL to the ACT at the time of annual specifications and would rely on the Butterfish Monitoring Committee for recommendations on the sources of management uncertainty in this fishery, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction.

Reactive AMs: If the ACL is exceeded (regardless of overage cause), then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment.

Considered but rejected: Additional corrective measures could not be developed for butterfish at this time given the multiple sources of mortality for this fishery, many of which are non-directed.



* Landings are controlled through trip limits and inseason closures. The majority of discards will be controlled through a butterfish cap on the *Loligo* fishery (final rule pending). RSA would be deducted from IOY=ACT for this fishery..

Figure Butterfish. Key features of the ACL and AM framework.

Table Butterfish. Butterfish Terms

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. IOY is a modification of ABC, based on social, economic, and ecological factors. It must be less than or equal to ABC. IOY is composed of RQ, DAH, DAP, and may include JVP and TALFF if specified.	ACL = ABC
Initial Optimum Yield (IOY)	Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery and accounts for management uncertainty in controlling the actual catch at or below ACL. IOY could be reduced from ABC, based on social, economic, and ecological factors. The ACT could account for all these factors.	IOY = ACT
Domestic Annual Harvest (DAH)	Unchanged	DAH is the IOY after removal of estimated discards.	DAH = IOY - discards
Domestic Annual Processing (DAP)	Unchanged	DAP is the *Loligo* and other fishery catch cap.	DAP = *Loligo* Fishery Cap + Commercial Fishery Cap
Research Quota (RQ)	Research set-Aside (RSA)	Amount of Annual Catch Limit (ACL) up to 3 percent that may be set aside to fund research activities	ACL – X% (up to 3%) = ACT
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY}	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY}
F_{MSY}	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY}

Action Alternative for: Atlantic Bluefish ACL and AMs

Annual Catch Limit (ACL)

Under this alternative, the fishery-level ACL would be set equal to the ABC for the bluefish stock (Figure Bluefish; Table Bluefish).

ACL = ABC

ACL Evaluation: The ACL is exceeded when the catch from all sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison. *Considered but rejected:* The issue of a three year average for observed recreational catch to compare to the ACL was considered but rejected, owing to complication associated with the transfer process for this fishery.

Accountability Measures (AMs)

Already in the FMP: There is an overage deduction mechanism (i.e. commercial landing repayment lb for lb) in place by which state-specific overages are deducted from their subsequent year allocation (§ 648.160(e)(2)).

When 100 percent of the commercial quota in a given state is projected to be reached within the fishing season or year, commercial landings are prohibited to the state in question (§ 648.161(b)). The Exclusive Economic Zone (EEZ) may be closed to commercial fishing for the remainder of the year if all individual states have been closed or inaction by a state or states will cause the established fishing mortality (F) to be exceeded during the fishing year (§ 648.161(a)).

There is a mechanism which allows for transfer between the recreational and commercial sectors ((§ 648.160(c)(2)) and to transfer commercial fishery quota allocated pounds between individual states (§ 648.161(f)).

Proactive AMs: Utilizing an ACT is analytically desirable in cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty.

Existing allocations already defined in the FMP would be used to partition the ACL into sector-specific ACTs. A recreational fishery ACT and a commercial fishery ACT would be specified.

The Council is establishing a process to consider management uncertainty (for both sectors combined) prior to sector-specific ACTs being specified for the commercial fishery and the recreational fishery. The Council may identify the reduction amount from ACL to the ACTs at the time of annual specifications and would rely on the Bluefish Monitoring Committee for recommendations on the sources of management uncertainty in these fisheries, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction.

Reactive AMs: If the ACL is exceeded and the commercial fishery is responsible for the overage, then the commercial lb for lb repayment (i.e., existing FMP mechanisms) would be applied.

In the event the ACL is exceeded, and the recreational fishery is responsible for the overage in a year when no transfer has occurred from the recreational to commercial fishery, then the following option would apply.

Recreational Harvest Limit Overage Deduction: Landings in excess of the recreational harvest limit will be deducted from the recreational harvest limit (RHL) for the following year in the final rule that establishes the recreational harvest limit.

In the event the ACL is exceeded, and the recreational fishery is responsible for the overage when a transfer has occurred from the recreational to commercial fishery, then the following option would apply. The Council must decide which sub-option would be applied.

Sub-option A: The RHL overage deduction option given above would be applied. Essentially, the recreational fishery would be responsible for the overage incurred.

Sub-option B: Then accountability for the recreational overage would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment. In effect, the commercial and recreational fisheries would share responsibility for that overage.

Sub-option C: Then accountability for the recreational overage would occur at the fishery level; the ACL would be reduced and the subsequent year transfer would be reduced by the overage amount if it is determined that the overage resulted from too liberal a transfer.

Recreational Inseason Accountability:

General Recreational Closure Authority: The NMFS Regional Administrator will monitor the recreational fishery based on MRFSS and other available information, and shall determine if the recreational landings will exceed the RHL. The Regional Administrator shall publish notification in the Federal Register advising that, effective upon a specific date, the bluefish recreational fishery in the EEZ will be closed for the remainder of the fishing year.

Considered but rejected: A mechanism which would allow for automatic inseason adjustments to management measures (i.e. fish size, season, and possession limits) based on landings triggers was considered but rejected as the lack of adjustment of management measures limits the ability to evaluate the effectiveness of measures at constraining landings (i.e. no history of landings response to regulations). In addition, triggers for recreational fishery closure based on recreational data availability (by wave) was also considered but rejected. Recreational landings have exceeded the RHL in 1 of the most recent 9 years from 2000-2008; the overage was 6 percent. The recreational data available does not allow for the development of indicators of recreational landings

overages given only one overage has occurred recently in the recreational fishery; therefore, the data do not support development of fixed/prescriptive triggers to close the fishery. In addition, the effectiveness of these types of inseason measures may be limited unless concurrent state measures are implemented for these fisheries.

Reactive accountability for recreational landings overages that result in the ACL being exceeded are contemplated in this amendment, and mechanisms to address commercial landings overages already exists; however, accountability for other catch components (other than commercial and recreational landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e. discards and/or unlikely event RSA is exceeded), then the following measures would apply.

Fishery-level Accountability: Then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment.

Atlantic Bluefish Flowchart

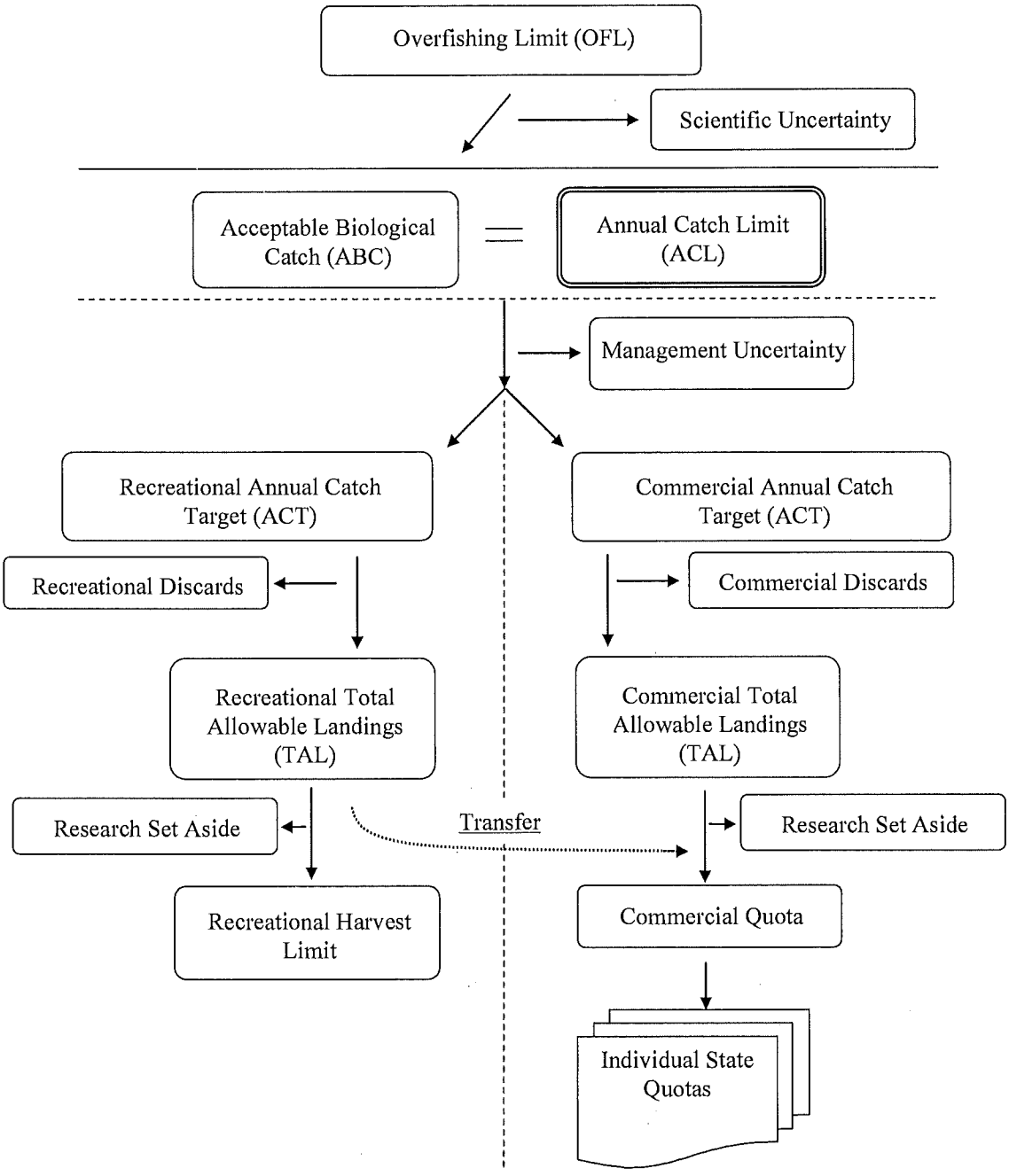


Figure Atlantic Bluefish. Key features of the ACL and AM framework.

Table Bluefish. Atlantic Bluefish Terms

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. ACL may not exceed ABC. For Atlantic Bluefish ACL is set equal to ABC.	ACL = ABC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For bluefish, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards.	Sector TAL = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of landings TAL up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside and receiving transfer from the recreational harvest limit.	Commercial Quota = Commercial Sector TAL-RSA

Optimum Yield (OY)	Unchanged	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} or B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{THRESHOLD}$ (Also F_{MAX}, F_{MSY})	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{THRESHOLD}$ = F_{MSY} = F_{MAX}

Action Alternative for: Spiny Dogfish ACL and AMs

Domestic Acceptable Biological Catch (ABC)

Fishery removals are comprised of both U.S. and Canadian catches, and U.S. accountability measures cannot be applied or enforced on the Canadian fishery. Therefore under this alternative, the ABC is reduced from the overfishing limit (OFL) based on an adjustment for scientific uncertainty and the domestic ABC is defined as the ABC for the stock minus the Canadian catch. The fishery-level ACL would be set equal to the domestic ABC for the spiny dogfish stock.

ABC = OFL - Scientific Uncertainty Adjustment
Domestic ABC = ABC – Canadian Catch

Considered but rejected: The ACL will be set equal to the domestic ABC accounting for Canadian catch via another mechanism (i.e. creating a domestic OFL or by using a Canadian ACL) was considered but rejected. The artificial splitting of the OFL into a stock and domestic portion was undesirable as it raised a number of policy issues and utilization of a Canadian ACL; would require accountability that is beyond the scope of the MSA or current international agreements for those components of the Canadian fishery.

Annual Catch Limit (ACL)

Under this alternative, the fishery-level ACL would be set equal to the domestic ABC for this stock.

ACL= Domestic ABC

ACL Evaluation: The ACL is exceeded when the catch from all sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

Accountability Measures (AMs)

Already in the FMP: Trip limits may be implemented through the specifications process for spiny dogfish (§ 648.230(b)(4)) and have been utilized at varying levels in recent years.

The semi-annual quota may be closed in the EEZ when projected landings indicate that the semi-annual quota will be attained (§ 648.231). Closures are effective for the remainder of the semi-annual quota period in question.

Proactive AMs: Under this alternative, an ACT would be specified and serve as a buffer from the ACL. Utilizing an ACT is analytically desirable in cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty.

The Council is establishing a process to consider management uncertainty when the ACT is specified for the spiny dogfish fishery. The Council may identify the reduction amount

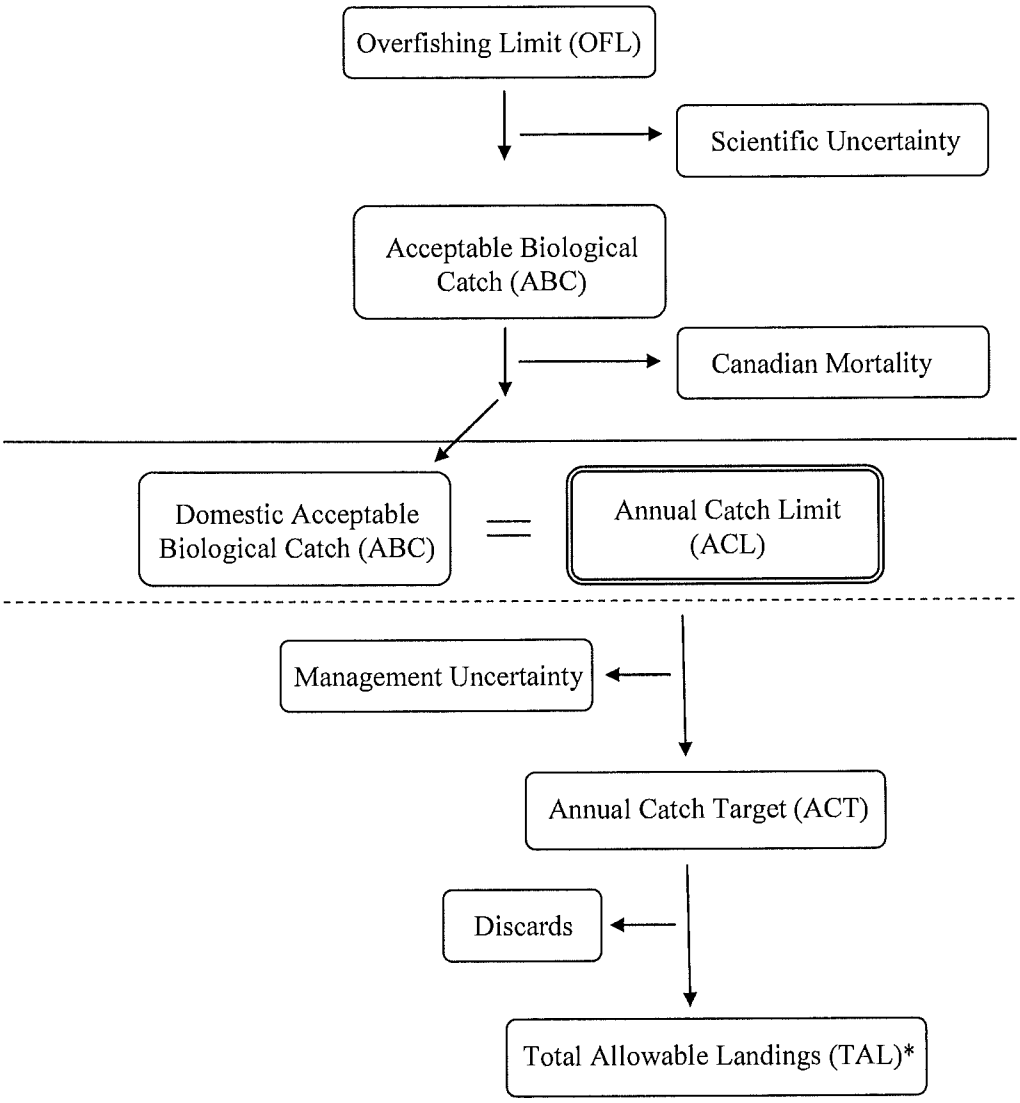
from ACL to the ACT at the time of annual specifications and would rely on the Spiny Dogfish Monitoring Committee for recommendations on the sources of management uncertainty in these fisheries, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction.

While the recreational fishery is not actively managed in this FMP, the recreational mortality (landings and discards) are accounted for in the stock assessment.

Considered but rejected: Development of proactive inseason adjustments and associated trip limit triggers was considered but rejected. An inseason adjustment to the Federal spiny dogfish commercial trip limit would affect the rate at which spiny dogfish landings from the EEZ accumulate and thus slow landings relative to the annual or periodic (seasonal) quota. Importantly, however, a substantial portion (~ 90% + according to dealer weighout data from 2000-2008) of reported commercial spiny dogfish landings do not come from the EEZ. Because of this, the prevailing source of landings is likely to remain unaffected by a potential Federal in-season adjustment. For vessels that currently possess a Federal spiny dogfish permit, the option of responding to reduced trip limits or even closure of the EEZ by relinquishing their Federal permit and fishing in state waters is available. Additionally, under Addendum II (October 2008), the Interstate Fishery Management Plan (ISFMP) allocates the commercial quota regionally rather than seasonally; thus as the Federal periodic (seasonal) quota is being approached, the regional quotas may be less than half landed. Lastly, Amendment 3 to the Federal Spiny Dogfish FMP is contemplating a transition to regional allocation of the commercial quota that would complement the ISFMP allocation scheme. The appropriateness of inseason adjustments to trip limits as a pro-active AM should be further evaluated through the development of that amendment.

Reactive AMs: If the ACL is exceeded, then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment.

Spiny Dogfish Flowchart



* RSA for spiny dogfish is contemplated in proposed Amendment 3. RSA would be deducted from the TAL.

Figure Spiny Dogfish. Key features of the ACL and AM framework.

Table Spiny Dogfish. Spiny Dogfish Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. For spiny dogfish ACL is set equal to ABC.	ACL = Domestic ABC
	Annual Catch Target (ACT)	An amount of annual catch of the stock that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	ACT
Total Allowable Landings (TAL)	Unchanged	Annual amount of total landings permitted after removing estimated discards from the total catch level.	ACT – discards = TAL
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
$B_{THRESHOLD}$	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = $B_{THRESHOLD}$
$F_{THRESHOLD}$	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{THRESHOLD}$

Action Alternative for: Summer Flounder ACLs and AMs

Annual Catch Limits (ACLs)

Under this alternative, the ACLs for each sector (commercial and recreational) would be set equal to the acceptable biological catch (ABC) for the summer flounder stock (Figure Summer Flounder; Table Summer Flounder). The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation guidelines of the FMP.

$$\Sigma(ACL_{SECTOR}) = ABC$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. In the commercial fishery this is based on a single-year comparison. For the recreational sector, two options exist: evaluation based on a single year comparison or on a three-year moving average. An analysis conducted with MRFSS recreational landings data from 2000-2008 and the associated recreational harvest limits (RHLs), on the potential effect of overage adjustments in response to either single-year or three-year averages, suggest that while a three-year average may provide reduced adjustments in year+1 following the overage, the overage is carried through for years+2 and +3, resulting in lower adjusted RHLs overall relative to a single-year adjustment process. One of the following sub-options could be applied:

Sub-option A – Single-year: The comparison of recreational catch to the recreational sector ACL would be based on a single-year comparison.

Sub-option B – Three-year: The comparison of recreational catch to the recreational sector ACL would be based on a three-year comparison.

Accountability Measures (AMs)

Already in the FMP: There is an overage deduction mechanism (i.e. commercial landing repayment lb for lb) in place by which state-specific landings overages are deducted from their subsequent year allocation (§ 648.100(d)(1)(ii)).

If 100 percent of the commercial quota in a given state is projected to be reached within the fishing year, then the fishery could be closed for the remainder of the fishing year (§ 684.101(b)). The EEZ may also be closed for the remainder of the year if the commercial fishery in all states has been closed or if inaction by one or more states will cause the target F to be exceeded (§ 648.101(a)).

Proactive AMs: Existing allocations already defined in the FMP would be used to partition the ABC into sector-specific ACLs. A recreational sector ACT and a commercial sector ACT would be specified and may be reduced from the sector-specific ACLs to address management uncertainty. Utilizing an ACT is analytically desirable in cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty. *Considered but rejected:* Use of a separate ACT for the party/charter component of the recreational fishery was considered but rejected from further analysis on the basis that accountability measures could not be addressed without an allocation for that fishery component.

The Council is establishing a process to consider management uncertainty when sector-specific ACTs are specified for the commercial fishery and the recreational fishery. The Council may identify the reduction amount from the sector-specific ACLs to the sector-specific ACTs at the time of annual specifications and would rely on the Summer Flounder Monitoring Committee for recommendations on the sources of management uncertainty in these fisheries, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction.

Recreational Inseason Accountability:

General Recreational Closure Authority: The NMFS Regional Administrator will monitor the recreational fishery based on MRFSS and other available information, and shall determine if the recreational landings will exceed the RHL. The Regional Administrator shall publish notification in the Federal Register advising that, effective upon a specific date, the summer flounder recreational fishery in the EEZ will be closed for the remainder of the fishing year.

Triggers for summer flounder recreational fishery closure based on the MRFSS data (by wave) were developed; however, there are significant limitations to these types of approaches. It is difficult to predict changes in angler behavior (i.e. catch rates) in response to annual or seasonal fish availability events. Similarly, it is difficult to predict shifts in fishing effort in response to changes in management measures (intra-annually). This in conjunction with the timing of the data may prevent these types of inseason approaches from being highly successful. Only MRFSS landings data for waves 1-3 (i.e. January-June) was used to develop a prescribed trigger for fishery closure, because landings data for waves 1-4 (i.e. January-August) becomes available in October at which point the ability to significantly influence current year landings is substantially reduced. It is a policy decision as to whether accountability measures to close the fishery inseason using data that may not be fully predictive of an overage outweighs the types of potential reactive AMs that may be required if the ACL is exceeded. *Considered but rejected:* A mechanism which would allow for inseason adjustments to management measures (i.e. fish size, season, and possession limits) was considered but rejected. The timing of the availability of the recreational data is insufficient to adequately inform when these measures should be deployed with sufficient time to be highly effective.

Inseason Fishery Closure at 50 Percent Utilization: If 50 percent of the recreational harvest limit has been utilized from MRFSS wave 1 through the end of MRFSS wave 3 (i.e., landings January through June, typically available in mid-August), then the summer flounder recreational fishery in the EEZ would be closed on September 1 for the remainder of the fishing season or year. This is based on MRFSS data from 2000-2008, which suggests in the six years in which overages occurred, in four of those six year about 50 percent or more of the recreational harvest limit had been utilized by wave 3.

The effectiveness of recreational inseason measures may be limited unless complementary actions are taken within state waters. For summer flounder, self-reported area information from MRFSS which anglers specify where the majority of their fishing

occurred, indicates an average of 10.1 percent of the landings from 1999-2008 occurred in the EEZ. Each state has a different set of requirements for application of inseason measures. Some states can take action through declaration; others must take action through emergency rulemaking. The criteria under which action can be taken varies and in many cases requires the stock be threatened, in jeopardy, or imminent public health threat or danger to a fishing resource or habitat involving finfish can be cited.

Reactive AMs: If the commercial sector ACL is exceeded, then mechanisms already in the FMP described above would be applied.

If the recreational sector ACL is exceeded, the recreational harvest limit overage would be deducted from the subsequent year's recreational harvest limit (i.e. recreational landings repayment) which would reduce the recreational sector ACT the subsequent year. The Atlantic States Marine Fisheries Commission (ASMFC) may explore state-by-state accountability if conservation equivalency is utilized; however, the Federal FMP is not empowered to impose such repayment requirements to individual states.

Reactive accountability for recreational landings overages that result in the ACL being exceeded are contemplated in this amendment, and mechanisms to address commercial landings overages already exists; however, accountability for other catch components (other than commercial and recreational landings) that result in the sector-specific ACLs being exceeded must also be addressed. In the event the sector-specific ACL is exceeded, and that overage has not been accommodated through other mechanisms already in the FMP (i.e. discards and/or unlikely event RSA is exceeded), then the following measures would apply.

Sector-specific Accountability: Accountability for overages of the commercial sector ACL and/or recreational sector ACL would occur at the sector-specific ACL. Specifically, the amount by which the commercial sector ACL and/or recreational sector ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment.

The following would need to be jointly adopted under Council and ASMFC rules:
If the ASMFC implements commercial quotas and recreational harvest limits that differ substantially from recommendations made by the Council for Federal waters, administrative action will be taken, if practicable, to reconvene the Council and Summer Flounder, Scup, Black Sea Bass Board, at earliest convenience, to revisit their recommendations.

Summer Flounder Flowchart

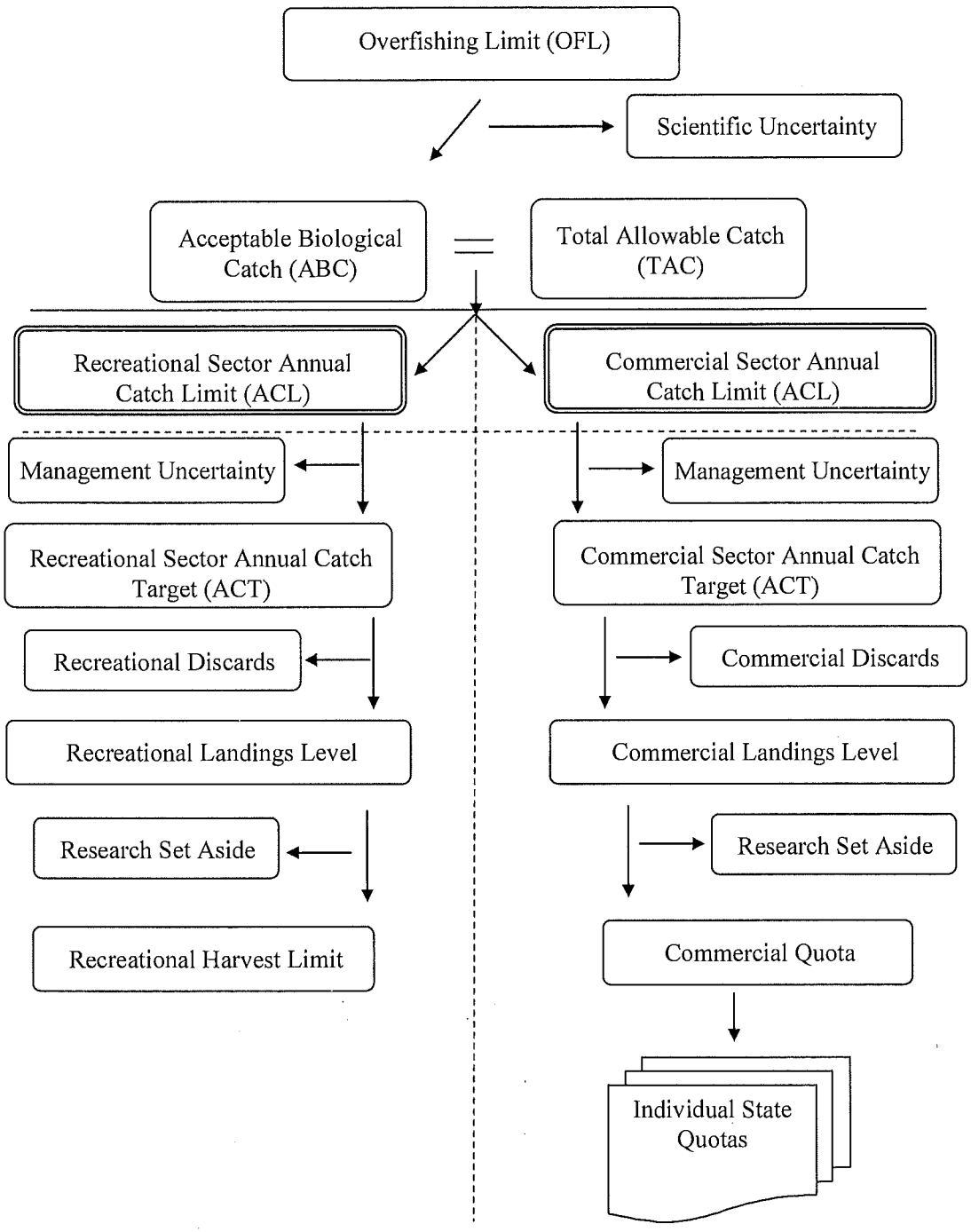


Figure Summer Flounder. Key features of the ACL and AM framework.

Table Summer Flounder. Summer Flounder Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For summer flounder, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Total Allowable Catch (TAC)	Sum of Sector Annual Catch Limits (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. The sum of the sector ACLs may not exceed ABC. For summer flounder Σ sector ACLs is set equal to ABC.	Σ sector ACLs = ABC
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock by sector that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards.	Sector TALs = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside.	Commercial Quota = Commercial Sector TAL - RSA

Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{35\%} = F_{MSY}$ Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{40\%} = F_{MSY}$ Proxy

Action Alternative for: Scup ACL and AMs

Annual Catch Limits (ACLs)

Under this alternative, the ACLs for each sector (commercial and recreational) would be set equal to the acceptable biological catch (ABC) for the scup stock (Figure Scup; Table Scup). The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation precepts of the FMP.

$$\Sigma(ACL_{SECTOR}) = ABC$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. In the commercial fishery this is based on a single-year comparison. For the recreational sector, two options exist: evaluation based on a single year comparison or on a three-year moving average. An analysis conducted with MRFSS recreational landings data from 2000-2008 and the associated recreational harvest limits (RHLs), on the potential effect of overage adjustments in response to either single-year or three-year averages, suggest that while a three-year average may provide reduced adjustments in year+1 following the overage, the overage is carried through for years+2 and +3, resulting in lower adjusted RHLs overall relative to a single-year adjustment process. One of the following sub-options could be applied:

Sub-option A – Single-year: The comparison of recreational catch to the recreational sector ACL would be based on a single-year comparison.

Sub-option B – Three-year: The comparison of recreational catch to the recreational sector ACL would be based on a three-year comparison.

Accountability Measures (AMs)

Already in the FMP: There is an overage deduction mechanism (i.e. commercial landing repayment lb for lb) in place by which quota period-specific landings overages are deducted from the same subsequent year quota period allocation (§ 648.120(d)(4)(i)and (ii)).

The specifications process permits possession limits to be established for the Winter I and II quota periods (§ 648.120(b)(3)) and the percent of landings attained at which the Winter I landing limit will be reduced ((§ 648.120(b)(4)). In recent years, the Winter I fishery has carried a 30,000 lb Federal landing limit that drops to 1,000 lb when 80 percent of the Winter I quota period has been attained. A variable trip limit scale has been used for Winter II dependent on the amount of unused Winter I quota rolled over to the Winter II period.

Proactive AMs: Existing allocations already defined in the FMP would be used to partition the ABC into sector-specific ACLs. A recreational sector ACT and a commercial sector ACT would be specified and may be reduced from the sector-specific ACLs to address management uncertainty. Utilizing an ACT is analytically desirable in

cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty.

The Council is establishing a process to consider management uncertainty when sector-specific ACTs are specified for the commercial fishery and the recreational fishery. The Council may identify the reduction amount from the sector-specific ACLs to the sector-specific ACTs at the time of annual specifications and would rely on the Scup Monitoring Committee for recommendations on the sources of management uncertainty in these fisheries, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction. *Considered but rejected:* Use of a separate ACT for the party/charter component of the recreational fishery was considered but rejected from further analysis on the basis that accountability measures could not be addressed without an allocation for that fishery component.

Recreational Inseason Accountability:
General Recreational Closure Authority: The NMFS Regional Administrator will monitor the recreational fishery based on MRFSS and other available information, and shall determine if the recreational landings will exceed the RHL. The Regional Administrator shall publish notification in the Federal Register advising that, effective upon a specific date, the scup recreational fishery in the EEZ will be closed for the remainder of the fishing year.

Triggers for scup recreational fishery closure based on the MRFSS data (by wave) were developed; however, there are significant limitations to these types of approaches. It is difficult to predict changes in angler behavior (i.e. catch rates) in response to annual or seasonal fish availability events. Similarly, it is difficult to predict shifts in fishing effort in response to changes in management measures (intra-annually). This in conjunction with the timing of the data may prevent these types of inseason approaches from being highly successful. Only MRFSS landings data for waves 1-3 (i.e. January-June) was used to develop a prescribed trigger for fishery closure, because landings data for waves 1-4 (i.e. January-August) becomes available in October at which point the ability to significantly influence current year landings is substantially reduced. It is a policy decision as to whether accountability measures to close the fishery inseason using data that may not be fully predictive of an overage outweighs the types of potential reactive AMs that may be required if the ACL is exceeded. *Considered but rejected:* A mechanism which would allow for inseason adjustments to management measures (i.e. fish size, season, and possession limits) was considered but rejected. The timing of the availability of the recreational data is insufficient to adequately inform when these measures should be deployed with sufficient time to be highly effective.

Inseason Fishery Closure at 15 Percent Utilization: If 15 percent of the recreational harvest limit has been utilized from MRFSS wave 1 through the end of MRFSS wave 3 (i.e., landings January through June, typically available in mid-August), then the scup recreational fishery in the EEZ would be closed on September 1 for the remainder of the fishing season or year. This is based on MRFSS data from 2000-2008, which suggests in

the seven years in which overages occurred, in all of those years 15 percent or more of the recreational harvest limit had been utilized by wave 3.

The effectiveness of recreational inseason measures may be limited unless complementary actions are taken within state waters. For scup, self-reported area information from MRFSS which anglers specify where the majority of their fishing occurred, indicates an average of 6.1 percent of the landings from 1999-2008 occurred in the EEZ. Each state has a different set of requirements for application of inseason measures. Some states can take action through declaration; others must take action through emergency rulemaking. The criteria under which action can be taken varies and in many cases requires the stock be threatened, in jeopardy, or an imminent public health threat or danger to a fishing resource or habitat involving finfish can be cited.

Reactive AMs: If the commercial sector ACL is exceeded, then mechanisms already in the FMP described above would be applied.

If the recreational sector ACL is exceeded, then the RHL overage would be deducted from the subsequent year's recreational harvest limit (i.e. recreational landings repayment) which would reduce the recreational sector ACT the subsequent year. The ASMFC may explore accountability for the regional conservation equivalency applied in state-waters only; however, the Federal FMP is not empowered to impose such repayment requirements to those regions.

Reactive accountability for recreational landings overages that result in the ACL being exceeded are contemplated in this amendment, and mechanisms to address commercial landings overages already exists; however, accountability for other catch components (other than commercial and recreational landings) that result in the sector-specific ACLs being exceeded must also be addressed. In the event the sector-specific ACL is exceeded, and that overage has not been accommodated through other mechanisms already in the FMP (i.e. discards and/or unlikely event RSA is exceeded), then the following measures would apply.

Sector-specific Accountability: Accountability for overages of the commercial sector ACL and/or recreational sector ACL would occur at the sector-specific ACL. Specifically, the amount by which the commercial sector ACL and/or recreational sector ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment.

The following would need to be jointly adopted under Council and ASMFC rules:
If the ASMFC implements quotas and recreational harvest limits that differ substantially from recommendations made by the Council for Federal waters, administrative action will be taken, if practicable, to reconvene the Council and Summer Flounder, Scup, Black Sea Bass Board, at earliest convenience, to revisit their recommendations.

Scup Flowchart

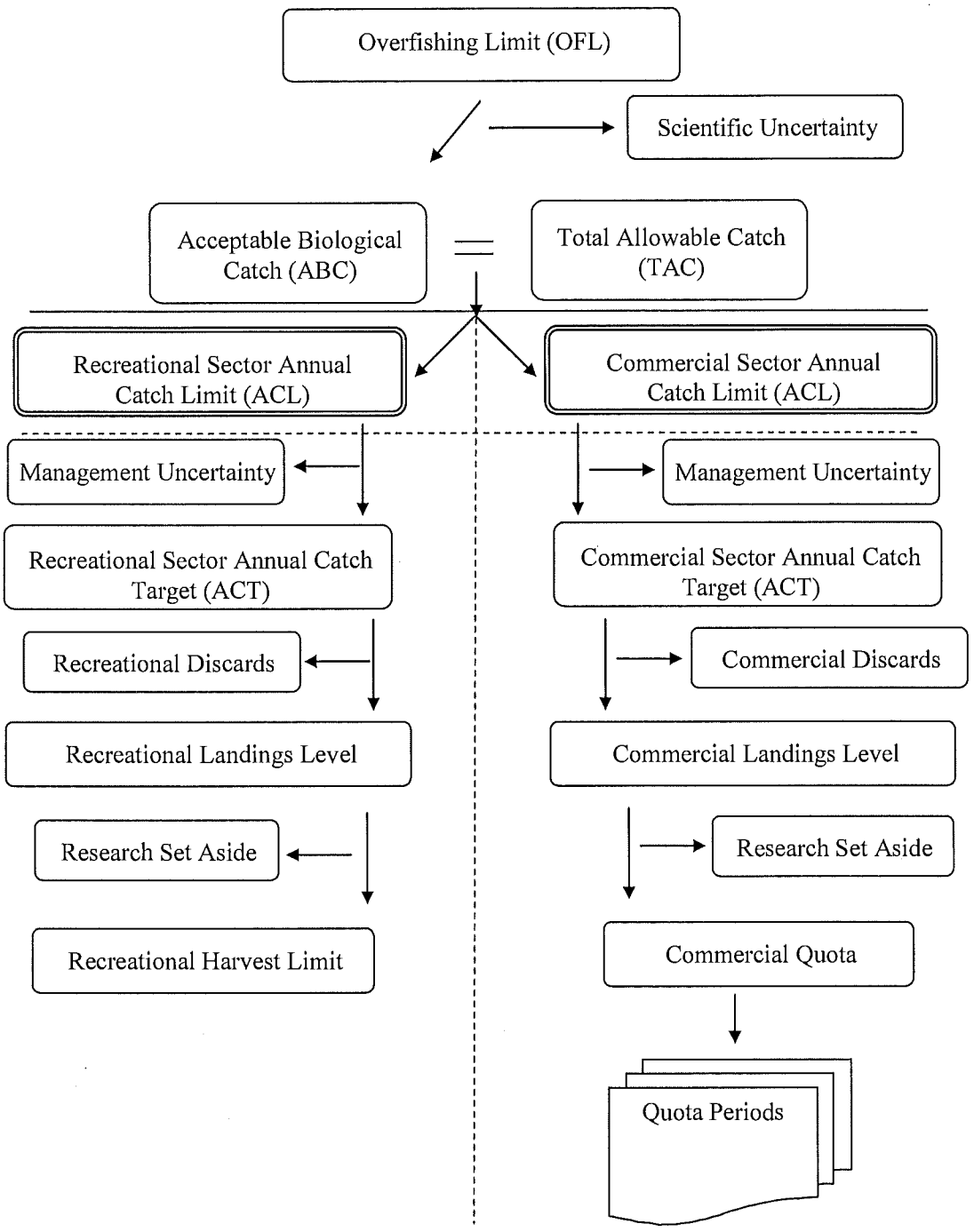


Figure Scup. Key features of the ACL and AM framework.

Table Scup. ScupTerms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For scup, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Total Allowable Catch (TAC)	Sum of Sector Annual Catch Limits (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. The sum of the sector ACLs may not exceed ABC. For scup Σ sector ACLs is set equal to ABC.	Σ sector ACLs = TAC = ABC
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock by sector that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards.	Sector TAL = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside.	Commercial Quota = Commercial Sector TAL - RSA

Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{40\%} = F_{MSY}$ Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{40\%} = F_{MSY}$ Proxy

Action Alternative for: Black Sea Bass ACLs and AMs

Annual Catch Limits (ACLs)

Under this alternative, the ACLs for each sector (commercial and recreational) would be set equal to the acceptable biological catch (ABC) for the black sea bass stock (Figure Black Sea Bass; Table Black Sea Bass). The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation precepts of the FMP.

$$\Sigma(ACL_{SECTOR}) = ABC$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. In the commercial fishery this is based on a single-year comparison. For the recreational sector, two options exist: evaluation based on a single year comparison or on a three-year moving average. An analysis conducted with MRFSS recreational landings data from 2000-2008 and the associated recreational harvest limits (RHLs), on the potential effect of overage adjustments in response to either single-year or three-year averages, suggest that while a three-year average may provide reduced adjustments in year+1 following the overage, the overage is carried through for years+2 and +3, resulting in lower adjusted RHLs overall relative to a single-year adjustment process. One of the following sub-options could be applied:

Sub-option A – Single-year: The comparison of recreational catch to the recreational sector ACL would be based on a single-year comparison.

Sub-option B – Three-year: The comparison of recreational catch to the recreational sector ACL would be based on a three-year comparison.

Accountability Measures (AMs)

Already in the FMP: There is an overage deduction mechanism (i.e. commercial landing repayment lb for lb) in place by which coastwide landing overages are deducted from their subsequent year allocation (§ 648.140(d)(3)).

If 100 percent of the coastwide commercial quota is projected to be reached within the fishing year, then the fishery could be closed for the remainder of the fishing year (§ 684.141). The EEZ may also be closed for the remainder of the year if inaction by one or more states will cause the target F to be exceeded (§ 648.141)

Proactive AMs: Existing allocations already defined in the FMP would be used to partition the ABC into sector-specific ACLs. A recreational sector ACT and a commercial sector ACT would be specified and may be reduced from the ACLs to address management uncertainty. Utilizing an ACT is analytically desirable in cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty. *Considered but rejected:* Use of a separate ACT for the party/charter component of the recreational fishery was considered but rejected from further analysis on the basis that accountability measures could not be addressed without an allocation for that fishery component.

The Council is establishing a process to consider management uncertainty when sector-specific ACTs are specified for the commercial fishery and the recreational fishery. The Council may identify the reduction amount from the sector-specific ACLs to the sector-specific ACTs at the time of annual specifications and would rely on the Black sea Bass Monitoring Committee for recommendations on the sources of management uncertainty in these fisheries, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction.

Recreational Inseason Accountability:

General Recreational Closure Authority: The NMFS Regional Administrator will monitor the recreational fishery based on MRFSS and other available information, and shall determine if the recreational landings will exceed the RHL. The Regional Administrator shall publish notification in the Federal Register advising that, effective upon a specific date, the black sea bass recreational fishery in the EEZ will be closed for the remainder of the fishing year.

Triggers for black sea bass recreational fishery closure based on the MRFSS data (by wave) were developed; however, there are significant limitations to these types of approaches. It is difficult to predict changes in angler behavior (i.e. catch rates) in response to annual or seasonal fish availability events. Similarly, it is difficult to predict shifts in fishing effort in response to changes in management measures (intra-annually). This in conjunction with the timing of the data may prevent these types of inseason approaches from being highly successful. Only MRFSS landings data for waves 1-3 (i.e. January-June) was used to develop a prescribed trigger for fishery closure, because landings data for waves 1-4 (i.e. January-August) becomes available in October at which point the ability to significantly influence current year landings is substantially reduced. It is a policy decision as to whether accountability measures to close the fishery inseason using data that may not be fully predictive of an overage outweighs the types of potential reactive AMs that may be required if the ACL is exceeded. *Considered but rejected:* A mechanism which would allow for inseason adjustments to management measures (i.e. fish size, season, and possession limits) was considered but rejected. The timing of the availability of the recreational data is insufficient to adequately inform when these measures should be deployed with sufficient time to be highly effective.

Inseason Fishery Closure at 40 Percent Utilization: If 40 percent of the recreational harvest limit has been utilized from MRFSS wave 1 through the end of MRFSS wave 3 (i.e., landings January through June, typically available in mid-August), then the black sea bass recreational fishery in the EEZ would be closed on September 1 for the remainder of the fishing season or year. This is based MRFSS data from 2000-2008, which suggests in the three years in which overages occurred, about 40 percent of the recreational harvest limit had been utilized by wave 3.

The effectiveness of recreational inseason measures may be limited unless complementary actions are taken within state waters. For black sea bass, self-reported area information from MRFSS which anglers specify where the majority of their fishing

occurred, indicates an average of 73.0 percent of the landings from 1999-2008 occurred in the EEZ. Each state has a different set of requirements for application of inseason measures. Some states can take action through declaration; others must take action through emergency rulemaking. The criteria under which action can be taken varies and in many cases requires the stock be threatened, in jeopardy, or an imminent public health threat or danger to a fishing resource or habitat involving finfish can be cited.

Reactive AMs: If the commercial sector ACL is exceeded, then mechanisms already in the FMP described above would be applied.

If the recreational sector ACL is exceeded, the RHL overage would be deducted from the subsequent year's recreational harvest limit (i.e. recreational landings repayment) which would reduce the recreational sector ACT the subsequent year.

Reactive accountability for recreational landings overages that result in the ACL being exceeded are contemplated in this amendment, and mechanisms to address commercial landings overages already exists; however, accountability for other catch components (other than commercial and recreational landings) that result in the sector-specific ACLs being exceeded must also be addressed. In the event the sector-specific ACL is exceeded, and that overage has not been accommodated through other mechanisms already in the FMP (i.e. discards and/or unlikely event RSA is exceeded), then the following measures would apply.

Sector-specific Accountability: Accountability for overages of the commercial sector ACL and/or recreational sector ACL would occur at the sector-specific ACL. Specifically, the amount by which the commercial sector ACL and/or recreational sector ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment.

The following would need to be jointly adopted under Council and ASMFC rules:
If the ASMFC implements quotas and recreational harvest limits that differ substantially from recommendations made by the Council for Federal waters, administrative action will be taken, if practicable, to reconvene the Council and Summer Flounder, Scup, Black Sea Bass Board, at earliest convenience, to revisit their recommendations.

Black Sea Bass Flowchart

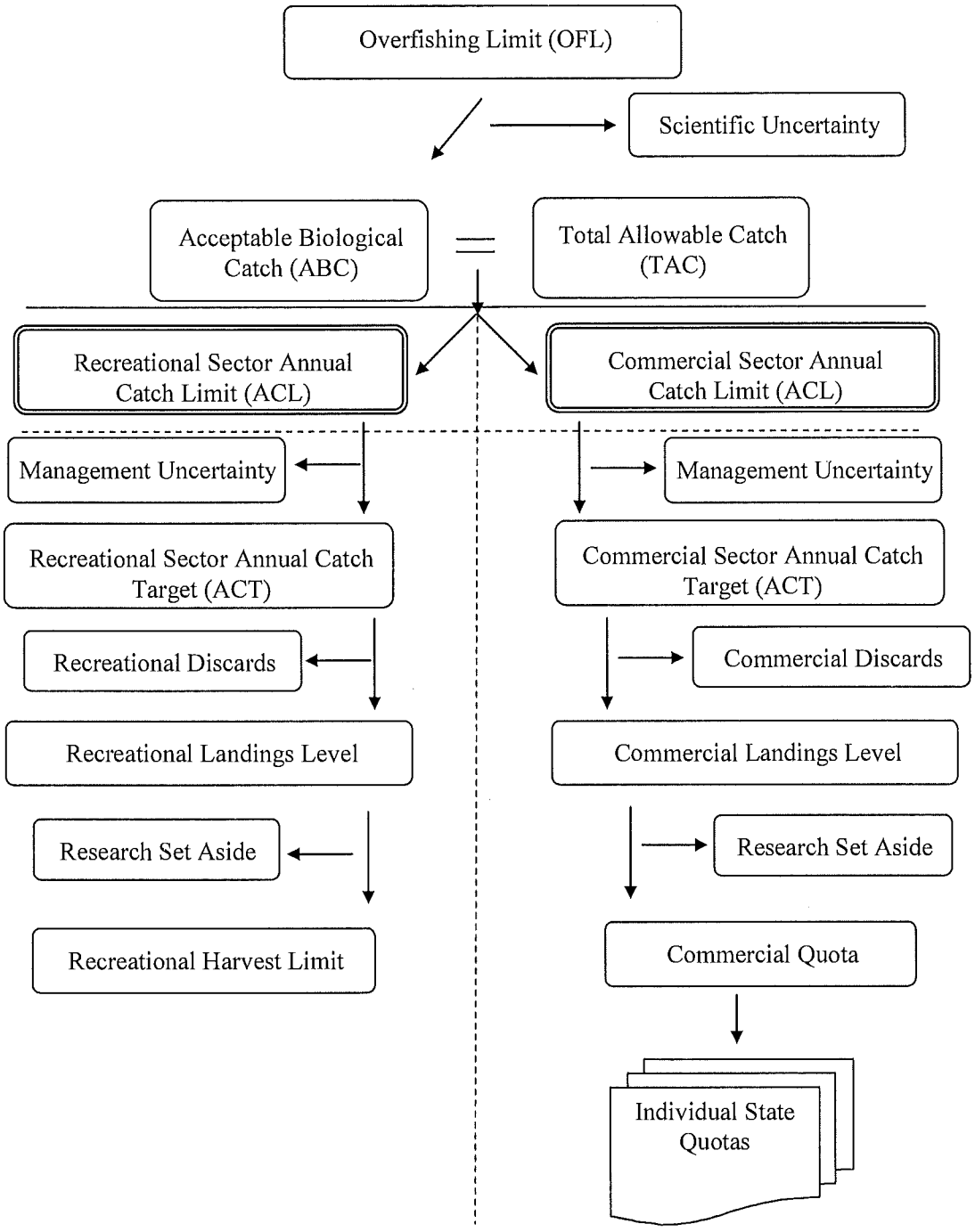


Figure Black Sea Bass. Key features of the ACL and AM framework.

Table Black Sea Bass. Black Sea Bass Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For black sea bass, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Total Allowable Catch (TAC)	Sum of Sector Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. The sum of the sector ACLs may not exceed ABC. For black sea bass Σ sector ACLs is set equal to ABC.	TAC = Σ sector ACLs = ABC
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock by sector that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards. For black sea bass Σ sector TALs is equal to TAL.	Sector TAL = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside.	Commercial Quota = Commercial Sector TAL-RSA

Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{40\%} = F_{MSY}$ Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{40\%} = F_{MSY}$ Proxy

Action Alternative for: Atlantic Surfclam ACL and AMs

Annual Catch Limit (ACL)
The fishery-level ACL would be set equal to the acceptable biological catch (ABC) for the Atlantic surfclam stock.

ACL = ABC

ACL Evaluation: The ACL is exceeded when the catch from the total fishery exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

Accountability Measures (AMs)
The total allowable landings (TAL) for the surfclam fishery would be less than the ACL based on the optimum yield (OY) range for this stock, and then allocated to individual ITQ permit holders based on the precepts of the FMP.

TAL (based on OY range) < ACL

Already in the FMP:
No AM-like authorities exist for the ocean quahog or surfclam fisheries. Areas may be closed due to environmental degradation, small surfclams, and/or paralytic shellfish toxin (§ 648.73(a), (b), and (d)).

Proactive AMs: The Council is establishing a process to consider management uncertainty when the TAL is specified for this fishery. Mid-Atlantic Council staff will recommend measures to address management uncertainty and fishery discards, as needed, as part of the annual quota recommendation paper to the SSC and the Council outlined in §648.71(1). Language contained within §648.71(1) will be modified such that, on an annual basis, MAFMC staff will produce an Atlantic surfclam and ocean quahog annual quota recommendation paper to the SSC prior to the MAFMC, which may consider reduction from the ACL based on sources of management uncertainty or any other emerging issues not presently addressed such as discards, and is based on the latest stock assessment report prepared by NMFS, data reported by harvesters and processors, and other relevant data, as well as information contained in paragraphs (a)(1)(i) though (vi) of this section.

Reactive AMs: If the ACL is exceeded, then accountability for that overage would occur at the ITQ permit level. Specifically, individual ITQ permits would be reduced in the subsequent year by 100 percent of the overage (i.e. bushel per bushel deduction), as a single-year adjustment only.

Atlantic Surfclam Flowchart

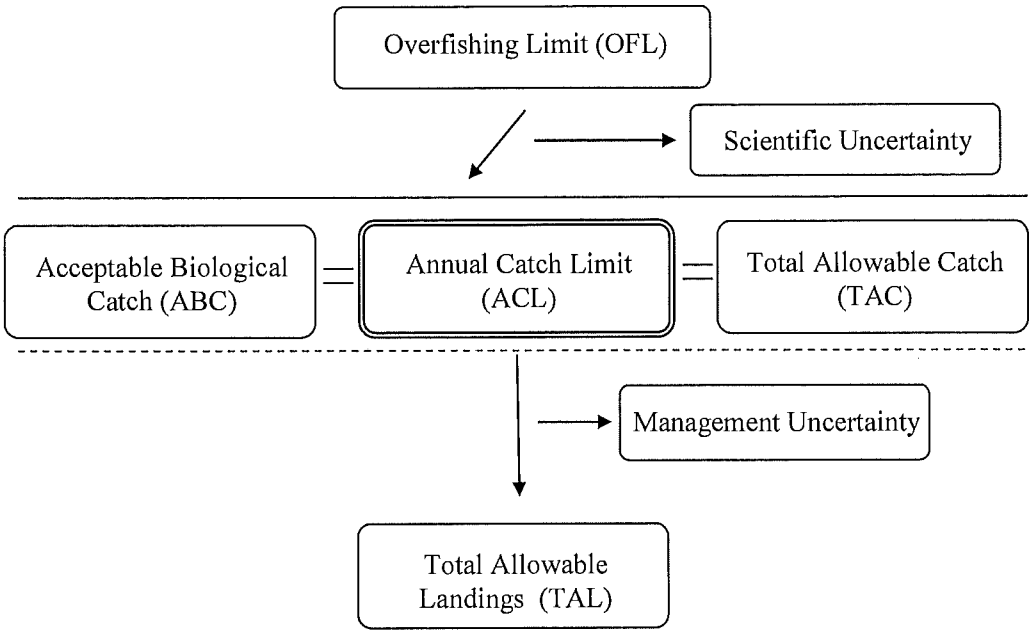


Figure Atlantic Surfclam. Key features of the ACL and AM framework.

Table Ocean Quahog. Ocean Quahog Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of clams.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC established by SSC = TAC = ACL = TAL
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. ACL may not exceed ABC. For Atlantic Surfclam ACL is set equal to ABC.	ACL = ABC
Total Allowable Landings (TAL)	Unchanged	Annual amount of total landings permitted.	TAL < ACL
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
F_{MSY} Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY} Proxy

Action Alternative for: Ocean Quahog ACL and AMs

Annual Catch Limit (ACL)

Under this alternative, the fishery-level ACL would be set equal to the acceptable biological catch (ABC) for the ocean quahog stock.

ACL = ABC

ACL Evaluation: The ACL is exceeded when the catch from the total fishery exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

Accountability Measures (AMs)

After reducing catch levels from the ACL to address optimum yield for this fishery, the allocation precepts of the FMP would be used to partition the ACL into sector-specific ACTs. In this case, ACTs would be specified for the Non-Maine fishery (all fishery components less Maine) and Maine fishery component.

(Maine Fishery ACT + Non-Maine Fishery; based on OY range) < ACL

Already in the FMP: The Maine mahogany quahog quota is monitored inseason and may be closed when the quota is projected to be taken (§ 648.76(b)(1)(i)-(iv)). All Maine mahogany quahog permitted vessels landing quahogs while not utilizing an individual allocation of ocean quahogs are applied against the annual Maine mahogany quahog quota. The Regional Administrator will close the Maine mahogany fishery for the remainder of the fishing year when dealer reports and other information indicate the Maine mahogany quahog quota will be reached.

No AM-like authorities exist for the ocean quahog or surfclam fisheries. Areas may be closed due to environmental degradation, small surfclams, and/or paralytic shellfish toxin (§ 648.73(a), (b), and (d))

Proactive AMs: The Council is establishing a process to consider management uncertainty when ACTs are specified for these fisheries. Mid-Atlantic Council staff will recommend measures to address management uncertainty and fishery discards, as needed, as part of the annual quota recommendation paper to the SSC and the Council outlined in §648.71(1). Language contained within §648.71(1) will be modified such that, on an annual basis, MAFMC staff will produce an Atlantic surfclam and ocean quahog annual quota recommendation paper to the SSC prior to the MAFMC, which may consider reduction from the ACL based on sources of management uncertainty or any other emerging issues not presently addressed such as discards, and is based on the latest stock assessment report prepared by NMFS, data reported by harvesters and processors, and other relevant data, as well as information contained in paragraphs (a)(1)(i) though (vi) of this section.

Reactive AMs: If the ACL is exceeded and the Non-Maine fishery is responsible for the overage, then the Non-Maine Fishery ACT is adjusted. Accountability for that overage would occur at the ITQ permit level. Specifically, individual ITQ permits would be reduced in the subsequent year by 100 percent of the overage (i.e. bushel per bushel deduction), as a single-year adjustment.

If the ACL is exceeded and the Maine fishery is responsible for the overage, then the Maine Fishery ACT is adjusted. The amount by which the ACL was exceeded would be used to adjust the Maine fishery ACT the subsequent year. The adjustment to the ACT would be a single-year adjustment.

Ocean Quahog Flowchart

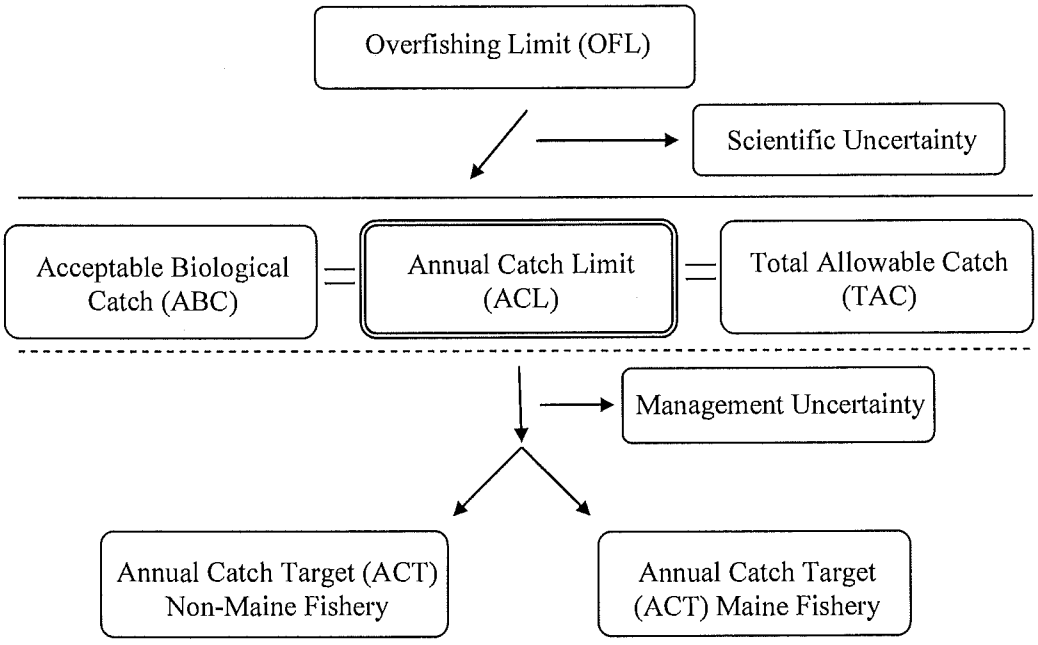


Figure Ocean Quahog. Key features of the ACL and AM framework.

Table Ocean Quahog. Ocean Quahog Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of clams.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC = TAC = ACL
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. ACL may not exceed ABC. For Atlantic Surfclam ACL is set equal to ABC.	ACL = ABC
	Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery, exclusive of discards and broken clams, for controlling the actual catch at or below ACL. There are two subdivisions of ACTs in the ocean quahog plan: Maine fishery and non-Maine fishery.	Σ Maine Fishery ACT and Non-Maine Fishery ACT < ACL
F_{MSY} Proxy = Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
F_{MSY} Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY} Proxy

Action Alternative for: Tilefish ACL and AMs

Annual Catch Limit (ACL)

Under this alternative, the fishery-level ACL would be set equal to the acceptable biological catch (ABC) for the tilefish stock.

ACL = ABC

ACL Evaluation: The ACL is exceeded when the catch from the total fishery exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

Accountability Measures (AMs)

Already in the FMP: The tilefish fishery has a mechanism to adjust the tilefish incidental trip limit if the incidental category exceeds 5 percent of the Total Allowable Landings (TAL) (§ 648.290(c)). A trip limit of 300 lb exists for the incidental category (§ 648.293). If the incidental catch exceeds 5 percent of the incidental trip limit of 300 lb may be reduced in the following fishing year.

Individual fishing quota (IFQ) overages, including amounts of tilefish landed by a lessee in excess of a temporary transfer of IFQ allocation are deduced from the subsequent fishing year allocation (§ 648.291(f)). If the deduction cannot be made in the subsequent fishing year because the individual allocation has already been taken, the reduction in quota may occur in the following fishing year.

Proactive AMs: The Council is establishing a process to consider management uncertainty when the ACT is specified for the tilefish fishery. The Council may identify the reduction amount from ACL to the ACT at the time of annual specifications and would rely on the Tilefish Monitoring Committee for recommendations on the sources of management uncertainty in these fisheries, whether an adjustment is needed, and to provide the technical basis (i.e. methods) for the reduction.

The recreational fishery for tilefish appears to be small (i.e. less than 1 metric ton annually from 48th SAW; NEFSC, 2009) based on the landings information available through MRFSS; however, the recreational landings are highly imprecise because tilefish is a "rare event" in the sampling. Concerns have been raised about the potential emergence of a recreational tilefish fishery and the ability of the recreational landings survey (i.e. MRFSS) to accurately capture the magnitude of that fishery given the levels of sampling. Mortality from the recreational fishery is not presently accounted for through the stock assessment, which would be the appropriate place to address sources of fishing mortality. If not accommodated under scientific uncertainty, uncertainty associated with the imprecision of the recreational fishery (i.e. inability to accurately capture the true magnitude of that fishery) could be accommodated under management uncertainty.

Measures designed to slow or halt incidental fishery landings relative to the allocation
Reduce Trip Limit Inseason:***See separate document called "Incidental Tilefish Category Trip limit Review" for analysis and options***

Inseason Closure Authority: The Regional Administrator will monitor the incidental category fishery and shall determine the date when the allocation will be harvested. The Regional Administrator shall publish notification in the Federal Register advising that, effective upon a specific date, the incidental category has been harvested and will be closed for the remainder of the fishing year.

Reactive AMs: If the ACL is exceeded and the directed IFQ fishery is responsible for the overage, then accountability for that overage would occur at the ITQ permit level. Specifically, individual ITQ permits would be reduced in the subsequent year by the overage amount, as a single-year adjustment.

If the ACL is exceeded and the incidental fishery is responsible for the overage, then accountability would need to be addressed.***See separate document called "Incidental Tilefish Category Trip limit Review" for analysis and options ***

Accountability for other catch components (other than ITQ and incidental fishery landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e. discards and/or unlikely event RSA is exceeded), then the following measures would apply.

Sub-Option F: Fishery-level Accountability
Then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the subsequent year as a single year adjustment.

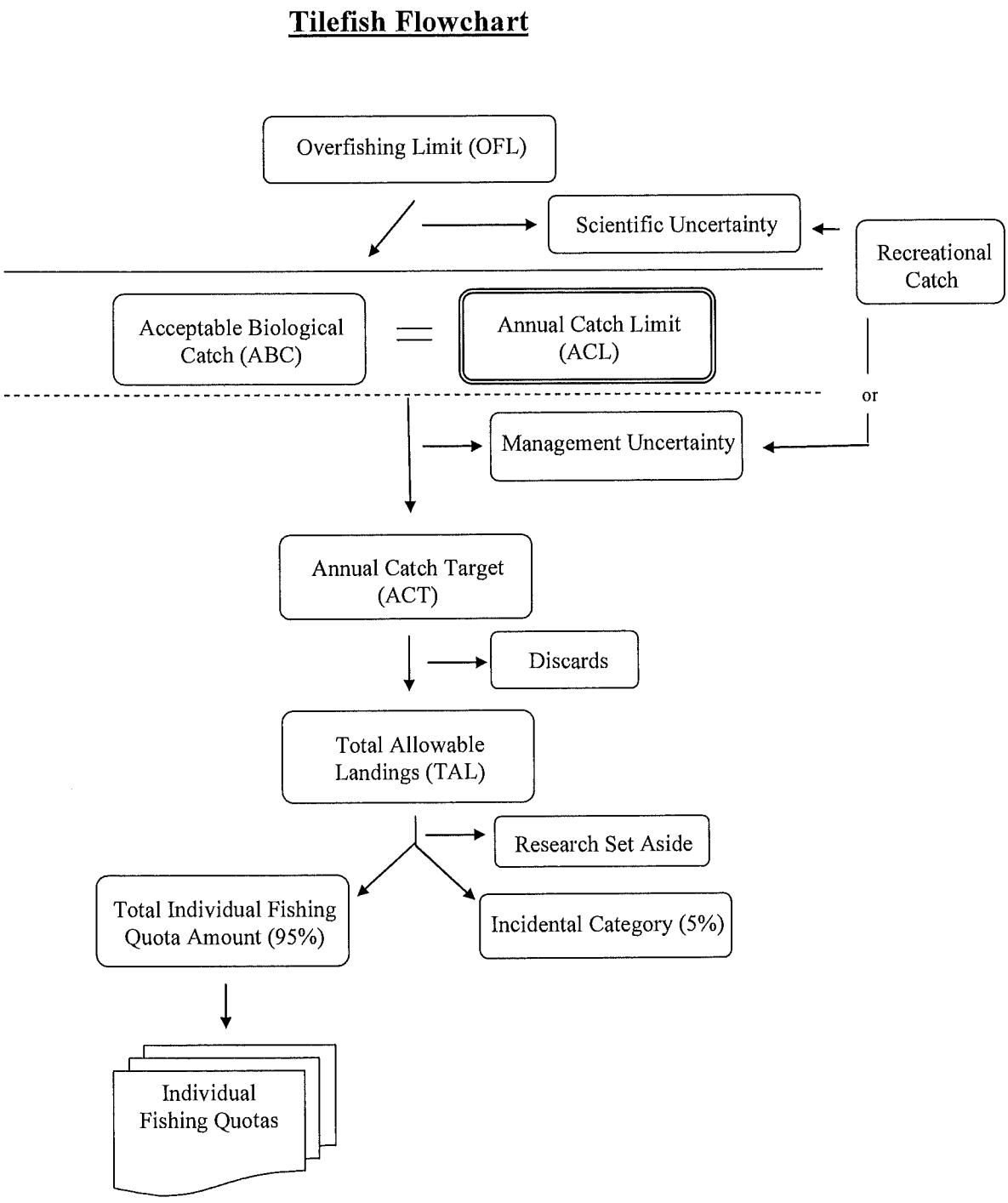


Figure Tilefish. Key features of the ACL and AM framework.

Table Tilefish. Tilefish Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs.	ACL = ABC
	Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	ACT
Total Allowable Landings (TAL)	Unchanged	Annual amount of total landings permitted after removing estimated discards.	TAL = ACT – discards
Research Total Allowable Catch (TAC)	Research Set-Aside (RSA)	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = IFQs + Incedental Category
Total IFQ Amount	Unchanged	95 percent of the annual TAL (After deducting RSA).	IFQ Allocations
Incidental Category	Unchanged	5 percent of the annual TAL (After deducting RSA).	Incidental Category
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY}	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY}
F_{MSY}	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY}

Section 4.0: Periodic Review of ABC, ACL, and AM Alternatives

Alternative 4A: No action on required periodic review control rules and AMs

Under this no action alternative, there would be no formalized system for the periodic opportunity to revise the ABC and ACL control rules and AMs by the Council based on performance reviews and recommendations of the SSC and/or any species specific Monitoring Committees.

Alternative 4B: Review of control rules by SSC and Council

Under this action alternative, a formal review by the SSC which provides the opportunity to revisit and evaluate ABC control rules will occur periodically after control rule implementation. If it is determined by the SSC that the ABC control rules are not performing as intended regarding preventing and ending overfishing, modification could occur and those rules would again be reviewed after several years of implementation. The frequency of these periodic reviews will vary, and be largely dependent on the frequency of stock assessment updates and benchmarks. The SSC and/or Council will need to identify the timing of these reviews.

If it is determined that the ACL for a specific stock is exceeded with a frequency greater than 25 percent, the ACL control rules and system of AMs shall be revisited by the Council. If the ACL is exceeded in two consecutive years, a review would be required in year three (i.e. review cause for prior two years ACL overage and revise). The Council may specify more frequent review periodicity for stocks that enter into a formal rebuilding plan and the timing will be included in the rebuilding plan, when crafted. The Council may seek advice from its Monitoring Committee's (if applicable), and ACL control rules and AMs could be reviewed and revisions recommended as appropriate by the species specific Monitoring Committee. Again, the Council may specify a more frequent review process.

These periodic formal reviews do not substitute for the specification setting review which updates catch level recommendations for the upcoming fishing year(s). These specification updates provide information on the fishery and management, stock status, and other relevant considerations.

Recommended adjustments by the SSC and/or Monitoring Committees to measures contained within this amendment could be addressed as described in the following section.

Section 5.0: Description of Process to Modify Actions

The actions taken in this Omnibus Amendment to establish catch limit frameworks for the purposes of specifying ABCs, ACLs, ACTs, and their associated AMs for each of the managed resources are intended to be dynamic to ensure these catch frameworks and associated system of accountability are flexible so that they do achieve the objectives of the FMP, prevent overfishing and when required, rebuild fisheries. Flexibility is imperative and must allow for timely modifications given the dynamic nature of fisheries and the environment. This action, therefore, contemplates a process that allows for the timely modification of the action alternatives proposed in this document through the annual specification or framework process. Undoubtedly, there will be modifications to the program as yet not contemplated that will have to go through a formal amendment process.

The action proposed in this document would establish an ABC control rule framework comprised of four levels to which a stock could be classified. Each level would apply different ABC control rules. Those specific control rules, including the levels and criteria [including aspects of the risk policy which is part of the control rule], that are applied to derive ABC for the upcoming fishing year(s) would be conceptually expressed in the regulations implementing the amendment and given effect through the annual specifications process. Modifications to these control rules would be based upon the best available scientific and other relevant information and implemented through subsequent annual specifications rulemaking.

The current specifications process already allows for modification of annual catch levels required for management of these fisheries through rulemaking as well as modification to other types of fishery management measures (e.g. trip limits, trip limit triggers, seasons, minimum sizes, possession and trip limits, etc.) through the specifications process for the managed resources on the basis that the dynamic nature of these fisheries requires the ability to respond to changing conditions in a timely fashion. The ACT control rules that are applied to derive ACTs, for the upcoming fishing year(s) would be developed by the various species Monitoring Committees or staff for those stocks which lack these committees, given the dynamic nature of these fisheries and resulting variability in the sources of management uncertainty, within the specifications development process. Recommendations regarding the level at which to set the ACT will be guided by the performance requirements established by the Council and required by the MSA.

In order for the system of catch limits and accountability proposed in this document to be effective for each of the managed resources, modification to the system of accountability (AMs) is necessary to respond to the dynamic nature of these fisheries and prevent the ACL(s) from being exceeded. Essentially, modification of accountability measures which are designed to impose either greater or lesser restrictions to control catch are necessary to prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery. As such, it is contemplated that accountability measures may need to be modified or strengthened which prevent, as much as is practicable, the ACL from being exceeded or to mitigate that overage and/or prevent it from occurring in the subsequent

year. The introduction of ACTs, a type of proactive AM may be necessary to address catch components of the fishery which contribute to a lack of control in the total catch relative to the ACL and require the ability to manage that catch component independently. New or improved sources of data may allow for the development of more effective accountability measures in the future, such as annual or inseason accountability approaches for either the commercial or recreational fisheries, and the ability to responds to dynamic changes in the scientific and technical data available on which to base management measure is essential for preventing the ACL(s) from being exceeded.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

2009 Fishing Year Landings of Atlantic Bluefin Tuna

January 1, 2009 – December 31, 2009

Landings Reported by Permit Category	# of Fish	Weight (mt)	2009 Base Quota (mt)	2009 Adj. Quota (mt)	% Base Quota Taken	% Adj. Quota Taken
General	**1,483**	**325.4**	**475.7**	**623.1**	**68**	**52**
Harpoon	**311**	**41.4**	**39.4**	**76.6***	**105**	**54**
Longline (incl. NED)**	**601**	**129.6**	**106.8**	**99.3**	**121**	**131**
Trap	**0**	**0.0**	**1.0**	**1.3**	**0**	**0**
Purse Seine	**87**	**11.4**	**187.8**	**246.0**	**6**	**5**
Angling	**10,334**	**565.9**	**199.0**	**260.6**	**284**	**217**
School	2,604	54.4	103.5	103.5	53	53
Lg Sch/Sm. Med	7,725	510.9	90.9	151.1	562	338
Trophy	5	0.6	4.6	6.0	13	10
Reserve	**0**	**0.0**	**25.2**	**155.4**	**0**	**0**
TOTAL	**12,816**	**1,073.7**	**1,034.9**	**1,462.4**	**104**	**73**

* Includes transfer of 25 mt from reserve to Harpoon category in August 2009

** NOTE 2009 Dead discard estimates are not yet available (2008 estimate = 172.8 mt)

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 additional catch statistics, please visit http://www.nmfs.noaa.gov/sfa/hms/Tuna.htm or contact Brad McHale at (978) 281-9260.

APR 20 2010

Emily Menashes

Emily H. Menashes
Acting Director, Office of Sustainable Fisheries

Date

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

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 March 31, 2010**. Most of these preliminary landings estimates include landing reports received through March 31, 2010; some estimates include landing reports received through April 16, 2010. The landings presented below are total landings reported through the Pelagic Dealer Compliance (PDC) (previously known as the Quota Monitoring System), and the Accumulated Landings System (ALS) (previously known as the general canvass). 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 reminds fishermen and dealers that they are required to identify all landed sharks to species.

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)	402.1 mt dw (886,367 lb dw)	103%
	Atlantic	July 15	169.7 mt dw (374,121 lb dw)	0.04 mt dw (88 lb dw)	<1%
Shark Research Fishery Quota (Non-Sandbar LCS)	No regional quotas	January 5	37.5 mt dw (82,673 lb dw)	8.4 mt dw (18,436 lb dw)	22%
Shark Research Fishery Quota (Sandbar only)		January 5	87.9 mt dw (193,784 lb dw)	Inside SRF 14 mt dw (30,846 lb dw)	16%
				Outside SRF * 0 mt dw (0 lb dw)	
Small Coastal Sharks	No regional quotas	Effective date of Amendment 3 final rule	454 mt dw (1,000,888 lb dw)	0.1 mt dw (161 lb dw)	<1%
Blue Sharks	No regional quotas	January 5	273 mt dw (601,856 lb dw)	0.5 mt dw (1,150 lb dw)	<1%
Porbeagle Sharks		January 5	1.5 mt dw (3,307 lb dw)	0.3 mt dw (574 lb dw)	17%
Pelagic Sharks Other Than Porbeagle or Blue		January 5	488 mt dw (1,075,856 lb dw)	33 mt dw (73,327 lb dw)	6.8%

† 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

Emily Menashes
Acting Director, Office of Sustainable Fisheries

APR 21 2010

Date

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Atlantic Swordfish Landings Update: Commercial and Recreational

2010 Fishing Year

The table below provides preliminary landings estimates and remaining quotas as of February 28, 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; NMFS is currently working on a proposed rule to adjust the 2010 base quota for these underharvests. The directed fishery quotas below are slightly higher than those reported in the January 2010 landings update due to updated estimates of the amount allotted to the reserve category.

	Quota mt dw		Landings	Remaining Quota	Percent of Quota Taken
			mt dw (lb dw)	mt dw (lb dw)	
	NORTH ATLANTIC SWORDFISH				
Directed Fishery First Season (Jan 1, 2010 – June 30, 2010)	1,094.8	Commercial Landings	192.7 (424,860)	873.8 (1,926,346)	17.6%
Directed Fishery Second Season (July 1, 2010 - Dec 31, 2010)	1,094.8	Commercial Landings	0.0 (0.0)	1,066.5 (2,351,206)	0.0%
Incidental Fishery (annual quota)	300	Commercial Landings	0.1 (128)	297.5 (655,780)	0.8%
		Recreational Landings	2.5 (5,472)		
Total	2,937.6*		195.3 (430,460)	2,742.2 (6,045,553)	6.6%
	SOUTH ATLANTIC SWORDFISH				
Directed Fishery (annual quota)	75.2	Commercial Landings	0	75.2 (165,786)	0%

*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 or contact Steve Durkee at (301) 713-2347.

Emily Menashes

Emily Menashes
Acting Director, Office of Sustainable Fisheries

APR 13 2010

Date

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UNITED STATES DEPARTMENT OF COMMERCE
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2010 Fishing Year

The table below provides preliminary landings estimates and remaining quotas as of March 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; NMFS is currently working on a proposed rule to adjust the 2010 base quota for these underharvests.

	Quota mt dw		Landings	Remaining Quota	Percent of Quota Taken
			mt dw (lb dw)	mt dw (lb dw)	
	NORTH ATLANTIC SWORDFISH				
Directed Fishery First Season (Jan 1, 2010 – June 30, 2010)	1,094.8	Commercial Landings	307.2 (677,190)	787.6 (1,736,406)	28.1%
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	0.1 (225)	296.6 (653,809)	1.1%
		Recreational Landings	3.3 (7,346)		
Total	2,937.6*		310.6 (684,761)	2,627.0 (5,791,472)	10.6%
	SOUTH ATLANTIC SWORDFISH				
Directed Fishery (annual quota)	75.2	Commercial Landings	0	75.2 (165,786)	0%

*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 or contact Steve Durkee at (301) 713-2347.

Emily Menashes

Emily Menashes
Acting Director, Office of Sustainable Fisheries

MAY 05 2010

Date

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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.

		Directed						Incidental			Monthly
Area	Month	Longline	Harpoon	Hand Line	Rod & Reel	Buoy Gear	Total	OtterTrawl	Other	Total	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										0
N of 35N	May-10										0
N of 35N	Jun-10										0
S of 35N	Jan-10	168,796	0	0	1,659	16,961	187,416	0	0	0	187,416
S of 35N	Feb-10	234,368	0	0	533	8,932	243,833	0	128	128	243,961
S of 35N	Mar-10	229,074	0	0	1,015	5,192	235,281	0	0	0	235,281
S of 35N	Apr-10										0
S of 35N	May-10										0
S of 35N	Jun-10										0
Gear Total		642,898	0	0	3,207	31,085	677,190	127	128	255	677,445
											Six Month Total

		Directed						Incidental			Monthly
Area	Month	Longline	Harpoon	Hand Line	Rod & Reel	Buoy Gear	Total	Otter Trawl	Other	Total	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

		677,190		
		Yearly Directed		
			255	677,445
			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									

0
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

HIGHLY MIGRATORY SPECIES ADVISORY PANEL MEETING

May 11-13, 2010

DRAFT AGENDA

Crowne Plaza Hotel
8777 Georgia Avenue, Silver Spring, MD
(301) 589-0800

Tuesday, May 11, 2010

10:30 am *HMS Advisory Panel 101 for new members (optional)*

1:00 pm Welcome, Introductions, & Agenda adoption

1:30 pm Overview of recent activities and upcoming actions/issues, including
- Sea turtle status proposed rule
- Advanced Notice of Proposed Rulemaking Update
- International Update
- Communications

2:30 pm Overview of Final Amendment 3

3:00 pm Break

3:15 pm Introduction to new NMFS Assistant Administrator, Eric C. Schwaab

4:15 pm Working Group Introduction: Bluefin tuna & Sharks

4:30 pm BLUEFIN WORKING GROUP convenes (CONCURRENT)
- Government Detailed Presentation
  - Recent fishery trends – catches, bycatch, relevant research
  - 2010 Bluefin tuna fishery
  - 2011 and Beyond
  - Linkages between Bluefin tuna & Swordfish revitalization
- Discussion

4:30 pm SHARK WORKING GROUP convenes (CONCURRENT)
- Government Detailed Presentation
  - Recent regulations – Amendment 3, ASMFC Shark FMP
  - Stock assessments - SEDAR process and other assessments
  - Future of fishery - catch shares, landings and closures, domestic implications of ICCAT recommendations
  - Outreach and other issues - smoothhounds, shortfin mako
- Discussion

6 pm Adjourn

Wednesday, May 12, 2010

8:30 am Welcome & Agenda Review

8:45 am BLUEFIN WORKING GROUP reconvenes (CONCURRENT)

8:45 am SHARK WORKING GROUP reconvenes (CONCURRENT)

11:30 am Working Groups begin wrap-up and development of report out

12:00 pm Lunch

1:30 pm Working Group Report Outs and AP group discussion
- Bluefin Tuna Working Group
- Shark Working Group

3:00 pm Break

3:15 pm Swordfish Issues
- Swordfish revitalization – accomplishments and challenges
- Buoy gear/user group conflict
- General Commercial Handgear permit

5:15 pm Public comment

5:30 pm Adjourn

THURSDAY, May 13, 2010

8:30 am Billfish Issues
- Roundscale spearfish
- Domestic implication of potential ICCAT recommendations on Sailfish
- Pelagic longline bycatch in the Gulf of Mexico

10:15 am Break

10:30 am Vessel Monitoring System Issues and Options

12:00 pm Lunch

1:30 pm Marine Recreational Information Program - Overview of recent reports

2:00 pm Public Comment

2:15 pm HMS Advisory Panel Wrap-Up

3:00 pm Adjourn

Atlantic Bluefin Tuna (BFT) Angling Category 2010 – Considerations, Reasonable Assumptions, and Management Options

Current and Recent BFT Quotas and Landings by Size Class:

Size Class	2010			2009	
	Proposed Quota (mt)	NC Landings (Jan-Apr) (mt)	Remaining Quota (mt)	Quota (mt)	Landings (mt)
School	97.7	0.4	97.3	103.5	54.4
North	37.6	n/a	37.6	39.8	
South	42.1	0.4	41.7	44.5	
Reserve	18.1	n/a	18.1	19.1	
Large School/ Small Medium	122.5	30.5 (2.2 LS & 28.3 SM)	92	151.1	510.9 (89.7 LS & 421.2 SM)
North	57.8	n/a	57.8	71.3	
South	64.7	30.5	34.2	79.8	
Large Medium/ Giant ("Trophy")	5.2	5.1	0.1	6	0.6
North	1.7	n/a	1.7	2	0.6
South	3.5	5.1	0	4	0
Total	225.4	36	189.4	260.6	565.9

Considerations:

1) Total 2010 landings must not exceed the adjusted 2010 U.S. quota of 1,193 mt.
2) Beginning in 2011, U.S. can carry forward only 10% of the total U.S. quota from the previous year (likely less than 100 mt for 2011).
3) School BFT landings must not exceed the ICCAT 10% limit over 2009-2010 balancing period, i.e., 201 mt total for 2009 and 2010 combined.
4) Angling category quota overharvests could potentially impact several quota categories in 2011. NMFS would need to deduct the full amount of Angling category quota overharvest from the 2011 Angling category quota. If the amount of Angling category overharvest exceeds the 2011 Angling category quota, NMFS would need to reduce *other* category quotas in 2011.

   Examples (hypothetical): If the 2010 and 2011 Angling category quota is 225 mt each year and 2010 Angling category landings total 450 mt, the Angling category quota for 2011 could be reduced to 0. If 2010 Angling category landings total 550 mt, the category quota for 2011 could be reduced to 0 and a total of 100 mt would need to be deducted from other categories and/or the Reserve (if available).

Management Objectives:

1) Keep landings within U.S. quota and domestic quotas, including Angling category subquotas.
2) Provide advance notice of fishing opportunities. This is especially important for charter operators as their clients book trips far in advance.

3) Implement retention limits that are clear and enforceable.
4) Provide reasonable, fair, and equitable opportunities to attain the available quotas (across temporal and geographic distribution of BFT fishery).

AP Feedback:

At the May 2010 HMS AP meeting, NMFS received several good suggestions for the management of the Angling category quota. Suggestions included:

- measures that would eliminate the landings of small medium BFT (measuring 59-73"):
    - 1 school or large school BFT (measuring 27-59") per day for all (i.e., charter and private vessels)
    - 1 school BFT (measuring 27-47") and 1 large school BFT (measuring 47-59") per day for all
- measures that would incorporate seasonal or other time restriction elements:
    - the use of seasons, both north and south, to prevent overharvest of small mediums (similar to approach used in 2006, in which school landings were limited to 3 weeks in July in the South and 3 weeks in August-September in the North)
    - 1 school or large school BFT (27-59") per day on Sundays, Mondays, and Tuesdays; 1 BFT school, large school, or small medium BFT (27-73") per day on Wednesdays, Thursdays, Fridays, and Saturdays
- measures that would apply different limits for private and charter vessels:
    - 1 school, large school, or small medium BFT (27-73") *per day* for charter vessels (with a minimum of 3 people on board); 1 *per week* for private vessels
    - 1 school, large school, or small medium BFT (27-73") *per day* for charter vessels; 4 school BFT and 2 large school/small medium BFT *per month* for private vessels
    - 1 school BFT (27-47") plus 1 large school/small medium BFT (47-73") for charter vessels, with a lower limit for private vessels (not specific)
    - 1 school BFT (27-47") plus 1 large school BFT (47-59") per day for charter vessels; 1 school or large school BFT (27-59") per day for private vessels
    - 1 school or large school BFT (27-59") *per day* for charter vessels; 4 *per season* for private vessels
    - 1 school or large school BFT (27-59") *per day* and 2 small medium BFT (59-73") *per year* for private vessels and a higher limit for charter vessels

All of these suggestions assumed that a trophy limit of 1 BFT (73"+) per year would also apply.

Several HMS AP members noted that many of these suggestions could be incorporated into longer-term monitoring systems and could be enhanced by the use of a fish tag/landing card system.

Reasonable Assumptions:

- It is reasonable to assume that BFT that were at the upper end of the school size range in 2009 (see attached LPS size frequency distribution 2004-2010 diagram) will move into the large school size range and that landings of large school BFT in 2010 may be higher than in 2011.
- It can be reasonably predicted that the remaining large school/small medium quota could be taken via implementation of a daily retention limit that allows retention of large schools only (i.e., prohibits the landings of small medium BFT).
    - (From table above) 92 mt of large school/small medium quota remains for 2010.
    - In 2009, landings of large school BFT alone were 90 mt.
- Similarly, the remaining large school/small medium quota could be taken via implementation of a daily retention limit that allows retention of small medium BFT *by charter vessels only*
    - In 2009, 25% of the 421.2 mt of small medium landings (approximately 105 mt) were made by charter vessels.
- School BFT landings similar to 2009 could be expected if the limit on school BFT is set at 1 fish. Lower school BFT landings could be expected in 2010 if a wider size range is set (e.g., 1 BFT 27-59").

Management Options:

Several of the options above would be extremely difficult to implement and enforce under the existing recreational fishery monitoring systems, but could be considered for future years, in association with some sort of fish census (tagging/landing card) system. The implementation of retention limits that include small medium BFT would risk landings exceeding available quotas.

Given the above considerations, there appear to be three options that could be implemented via inseason action *for the remainder of the 2010 season* with regard to BFT measuring 27-73".

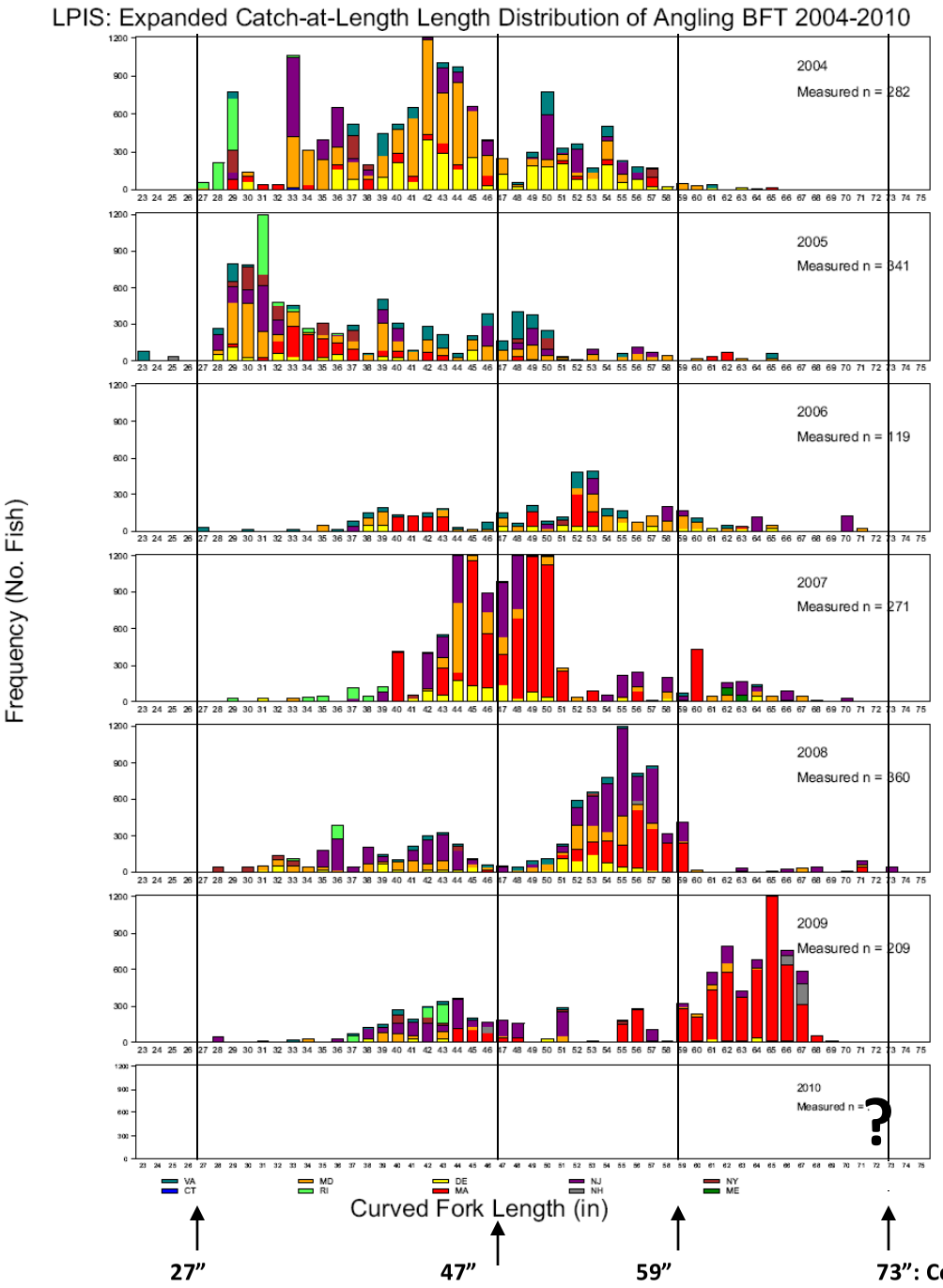
A. 1 school or large school BFT (1 BFT 27-59") per day for *all*

B. 1 school BFT (27-47") and 1 large school BFT (47-59") per day for *all*

C. Option A for private vessels and Option B for charter vessels

In addition, it appears that the large medium/giant Angling category subquota has been taken. At this point, either the recreational "trophy" fishery for large medium and giant BFT should be closed for the remainder of the 2010 fishing year or a quota transfer for the north should be considered.

Attachment – LPIS: Expanded Catch-at-Length Length Distribution of Angling BFT 2004-2010



The average weight of recreationally landed BFT has increased substantially over the last several years

School: 27 to <47”

Lg. School: 47 to <59”

Sm. Medium: 59 to <73”

(Lg. School and Sm. Medium BFT traditionally have been managed as one size class)

Science, Service, Stewardship

HMS AP Summary

May 11-13, 2010
Silver Spring, MD

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Caveats

- This is only a summary
- It does not cover every point made by every AP member
- Working group slides are condensed from Report Out and note some major points, not all
- If we missed something you feel is significant, please let us know
- A more in-depth written summary will be coming

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HMS To Do List

- Follow up conference call with AP on BFT Angling Category 2010 options and simplify web-reporting for BFT
- Investigate permit stacking for shark fishery
- Schedule dedicated time for recreational issues - at next AP meeting?
- Distribute information on decontamination ports in the Gulf of Mexico and monitor effects of oil and dispersants on HMS
- Focus on comments and Agency response from final rules at AP meetings (esp. AP comments) to increase understanding of rationale and increase responsiveness
- Send Working Group summaries to AP
- Add NC data to LPS figures and distribute

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BFT Working Group

- Recent overharvest of Angling cat. quota
  - Inseason management in short term (seasons, retention limits, slot limits, differential considerations for CHB & Priv based on goals)
  - Continue discussion on specific inseason options w/ AP via conference call
  - Longer term - consider adjustments to reporting to provide for inseason landings estimates (i.e. tail tag options, web reporting, etc.) and dedicated quota for CHB; schedule mtg on recreational issues
- Other Angling cat. issues could be addressed with outreach and enforcement include illegal sale of Angling cat. fish, illegal chartering, and catch & release mortality

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BFT Working Group

- Recent quota overharvest and excessive BFT bycatch in Longline category
  - Move forward on weak hook research (voluntary/mandated in Gulf; research in Atlantic; include other species)
  - Increase observer coverage and focus in necessary areas
  - Consider longer term options including Gulf of Mexico bycatch caps & closed area modification
  - Meet with industry on discard estimation methodology
- Consider transfer of purse seine quota to reserve and future management when vessels leave fishery
- Continue to consider General category & Harpoon category actions to fully utilize quota and/or constrain fishery within quota as necessary (i.e., reg amendment issues and inseason actions)

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Shark Working Group

- Discussion of general and targeted goals
  - —Consider economics; maintain precautionary approach; improve science, data, observers, & international success; species-specific mgmt; close pupping seasons; participate more in EFH discussions
- Overall Fishery Direction
  - —Move towards species-specific mgmt
  - —Investigate permit stacking
  - —Consider regions and changing Gulf LCS complex
  - —Consider managing similar to grouper fishery
  - —Mixed discussion on catch shares

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Shark Working Group, cont.

- Data needs/Information sharing
  - —Improve trust in and transparencies of science/stock assessment
  - —Find funds for and use more science (e.g., field, non-NMFS, cooperative)
  - —Improve international (e.g., bi/tri-laterals) and domestic (e.g., with states) cooperation
  - —Improve data and conduct more stock assessments
- Outreach
  - —Encourage participation in tagging programs, provide list of research needs to partners, research fin ratio, provide draft AP summaries, include glossary of terms

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AP Comments: Swordfish Issues

- S. FL is unique area –don't increase effort or participants; consider area differently when revitalizing fishery
- South FL buoy gear gear conflicts have been resolved
- Consider tail tags
- Don't change PLL closed areas without sound science
- If implement General Category permit, (1) don't do it for S. FL and (2) use incidental quota, not directed
- Expand species that can be landed with buoy gear
- Open parts of DeSoto Canyon due to oil spill
- Modernize limited access permits & fleet, inc vessel upgrading & GRT
- Continue revitalization efforts and consider long term goal (e.g., base quota versus adjusted quota)
- Demonstrate U.S. can catch quota under ecosystem approach
- Concerns about various sea turtle issues

NOAA FISHERIES SERVICE

AP Comments: Billfish Issues

- Support for species complex mgmt. concept for WHM and RSS
- Distribute Dr. Goodyear's billfish bycatch assessment
- Need outreach on morphological characteristics between WHM and RSS
- Distribute weak hook study results to other countries to reduce take of BUM
- Release all recreationally-caught sailfish, consistent with commercial sector
- Recreational fishery is about opportunity including the ability to retain the fish even if you don't actually do so; it's tough to put this in terms of market value
- Concerned about enforcement in other countries and impact on stock

NOAA FISHERIES SERVICE

AP Comments: VMS Issues

- Need VMS operators available 24/7/365
- USCG needs to monitor VMS units for safety
- Is the equipment MEA 1803 or 2000 compliant?
- SPOT transmitters are another option
- VMS reporting on 24/7 uses battery quickly
- Will VMS be combined with video cameras instead of observers?
- Need meeting/outreach between USCG, NMFS Enf., and industry about VMS issues

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Upcoming Actions

Proposed:

- 2010 SWO Specs
- Follow up on Shark Issues
- Follow up on ANPR Issues – e.g. squid trawl

Final:

- Amendment 3 – Final rule
- 2010 BFT Specs
- BFT Reg Amendment

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Reminders and BOLOs

- Travel receipts due May 28, 2010
- Shark Data Workshop: June 21-25, Charleston, SC
- Upcoming workshops/public meetings/conf. calls
  - —Shark Issues
  - —Follow up on ANPR - e.g., squid trawl, HMS general commercial handgear permit
  - —Angling Category Inseason mgmt.
  - —BFT discard estimation methodology

NOAA FISHERIES SERVICE

Thank you!

- We value your comments.
- Have a safe trip home.

Summary points from AP BFT Working Group, May 12, 2010

Angling category

Issue: Substantial overharvest of base and adjusted quota
Potential solutions:

- seasons
- retention limits
- slot limit to prevent retention of small medium BFT

Issue: CHBs and private boats using same quota while having different goals and participation
Potential solutions:

- different retention limits for private boats and CHBs
- dedicated Angling category quota for CHB permit category

Issue: underreporting (call-in/web system)/untimely reporting of recreational landings
Potential solutions:

- make reporting (incl. negative reporting) a condition of permit issuance
- catch card/web-based reporting system
- tail tag program (with verification number)…. Or hybrid

Issue: illegal sale and highgrading of Angling category fish
Potential solution: enforcement and outreach

Issue: illegal chartering (without CHB permit and operator permit)
Potential solution: enforcement and outreach

Issue: release mortality
Potential solution: outreach and education

Longline category

Issue: excessive bycatch of BFT
Potential Solutions:

- extend weak hook research into Atlantic;
- encourage voluntary weak hook use in Gulf of Mexico;
- mandate weak hook use in Gulf of Mexico;
- implement a bycatch cap in Gulf of Mexico; modify retention limit and observer coverage as appropriate
- modify boundaries of existing closed areas where BFT bycatch is at a minimum
- increase observer coverage and focus coverage in high CPUE areas
- when weak hook research proven effective, shift observer coverage to areas with more uncertain bycatch rates

Issue: transfer of large amount of Reserve to cover Longline category landings overharvest and discards
Potential Solution: eliminate such transfer

Purse Seine category

Issue: recent un- or under-utilized allocations for vessels
Potential Solution: inseason transfer of quota to the Reserve

Issue: two vessels have totally left the fishery
Potential Short-term Solution: inseason transfer of quota to the Reserve or to all categories
Potential Long-term Solution: consider FMP allocation change
(NMFS should contact the vessel owners to determine intentions for the short and long-term)

General category

Issue: underutilized quota
Potential Solutions:
- year-round fishery
- increase daily retention limit (up to 5 fish)
- allow CHB to fish commercially and recreationally on the same day

Issue: potential for quota being met early in season
Potential Solution: monitor catch rates and adjust retention limit if needed

Issue: concerns about bycatch of undersized fish
Potential Solution: enforcement and outreach

Harpoon category

Issue: Harpoon category base quota fully utilized
Potential Solution: maintain some quota in Reserve and consider transfer if needed

Issue: inconsistent limit for large medium BFT for General and Harpoon categories
Potential Solution: increase retention limit of large mediums from 2 to 3

Shark Working Group Report Out

May 12, 2010

Goals - General

- Improve best available science
- Continue progress toward species-specific management
- Maintain/expand precautionary approach
- Improve reporting
- Give full consideration of economic impacts
- Stop overfishing/rebuild populations
- Expand regulatory flexibility
- Minimize bycatch
- Improve success internationally/straddling stocks
- Maximize U.S. harvest
- Improve public awareness of resource and regulations

Goals - Targeted

- Consider economic impacts to ensure fishermen can make living and continue to exist
- Achieve success through trilateral and other international efforts
- No unclassified sharks
- More timely reporting from dealers
- Foster top notch observer program
- Participate in EFH discussions and continue improving EFH
- Support species-specific management
- Foster more timely assessments and fund research
- Close during pupping seasons

Overall Fishery Direction

- Keep current plan in place until have
  - Species-specific assessments/management measures
  - More research on different species
- Only limited interest in shifting to catch shares at table but more interest from observers
- Several short term measures identified
  - Permit stacking – strong support for investigating
  - Dividing Gulf of Mexico into different regions (E/W or N/S)
  - Removing Gulf Blacktip from LCS
  - Have daily and/or weekly limit
- Consider managing similar to grouper fishery

Data needs/Information sharing

- Improve transparency of stock assessments and input of fishermen
- Improve trust in observer program and competency of the observers
- Collect resources to support research
- Foster variety of research efforts (e.g., cooperative research, independent research)
- Use more science (e.g., field research, non-NMFS) not just stock assessments
- Improve collaboration with international partners
- Increase NMFS' emphasis on good field research/data collection
- Increase funding for long term (>1 yr) research projects

Data needs, cont.

- Ensure states and others more aware of research needs particularly for smoothhounds
- Improve data collected from LA state waters
- Ensure data used in assessments are available
- Identify opportunities to piggyback oil spill research with shark research
- 2010 SEDAR needs:
  - All analysts at data workshop
  - More input from fishermen at data and assessment workshop
  - Don’t have assessment webinar
- Don’t assume new assessments mean different results

Other species to assess

- Blacktip - Gulf and Atlantic
- Lemon
- Hammerheads – scalloped and great
- Silky
- Bull
- Tiger
- Oceanic whitetip
- Smoothhounds
- Bignose
- Common thresher

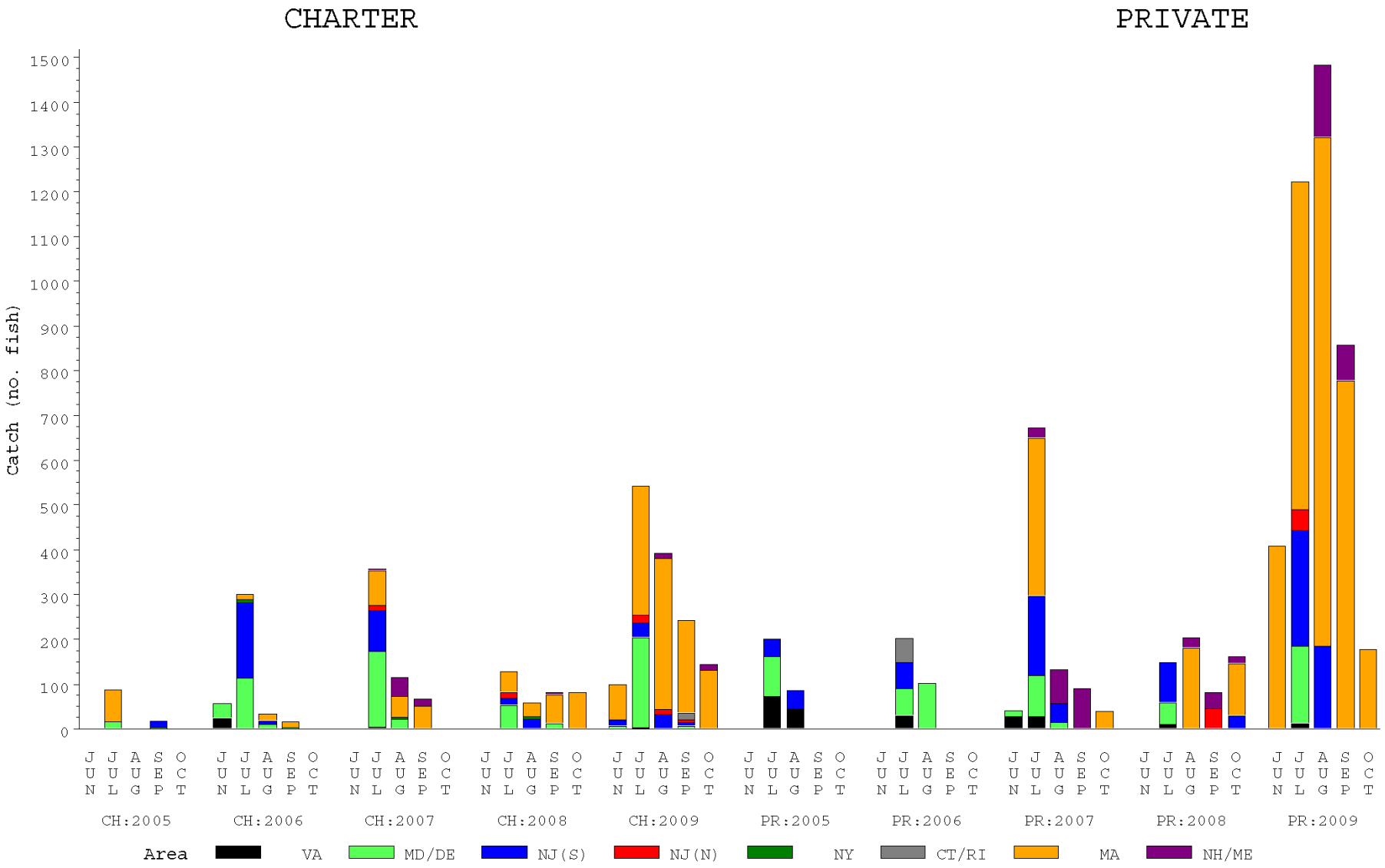
Outreach

- Shortfin mako
  - Limited opportunity to release in both recreational and commercial fishery due to value and lack of import restrictions
  - Educate anglers and encourage participation in tagging programs
- Smoothhound
  - Need for identification of research and outreach needs
  - Provide information on range, sizes, mortality rates, state and federal catches, overlap between species
  - Research fin ratio
  - NC fishermen willing to help with research
- General
  - Workshop for fishermen on stock assessment models
  - Outreach to other countries and shark participation in IAC/ICCAT
  - Provide draft summaries to AP; continue/expand status of discussion
  - Glossary of terms

Other Issues Raised

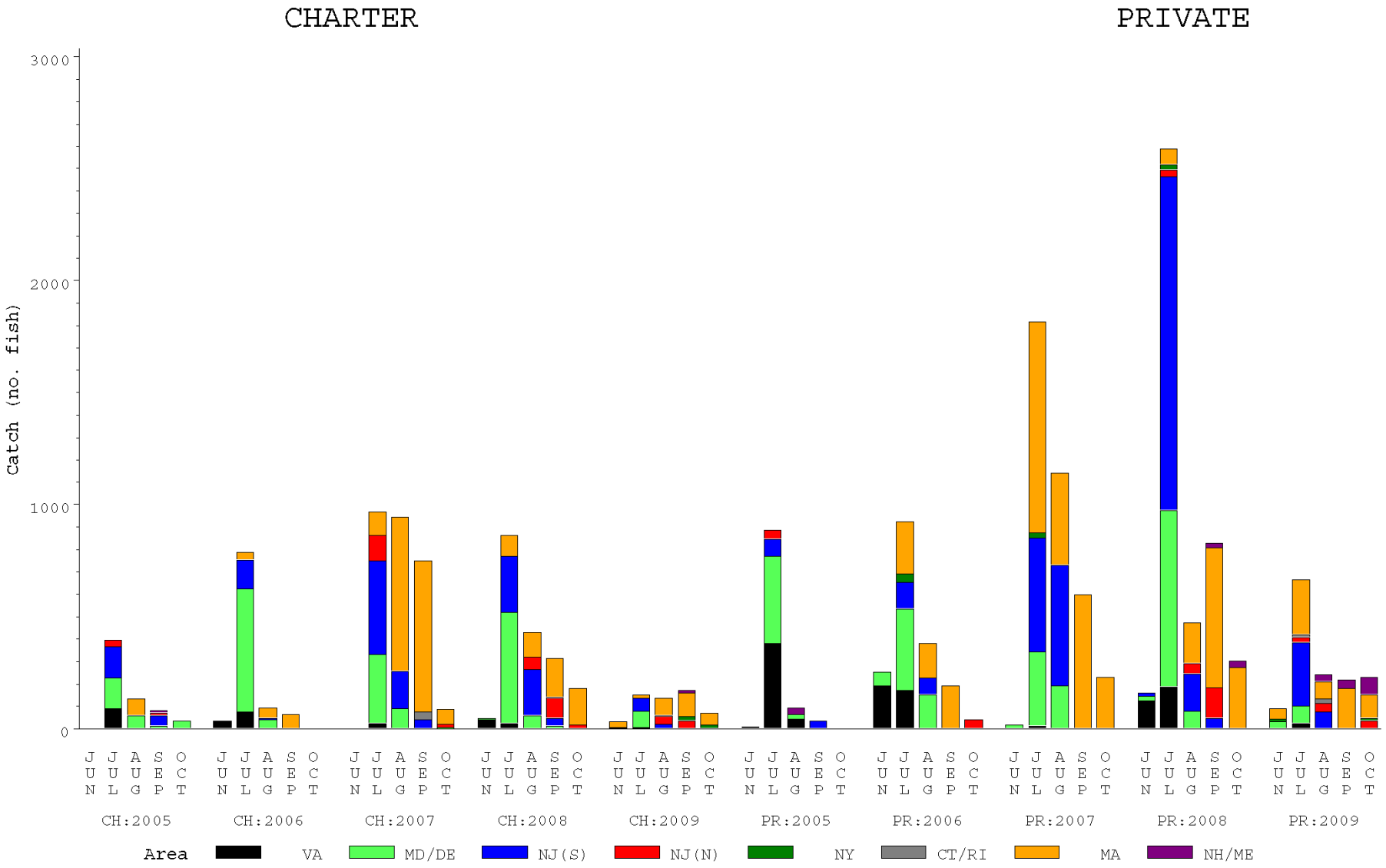
- Porbeagle, deepwater sharks prohibited
- Finning
- Gulf commercial fishermen representation on AP
- Shark research fishery
- FL lemon shark regulations
- NS 2
- Regional specific management
- Regional blacknose quota

BLUEFIN TUNA - SMALL MEDIUM
KEPT Estimates



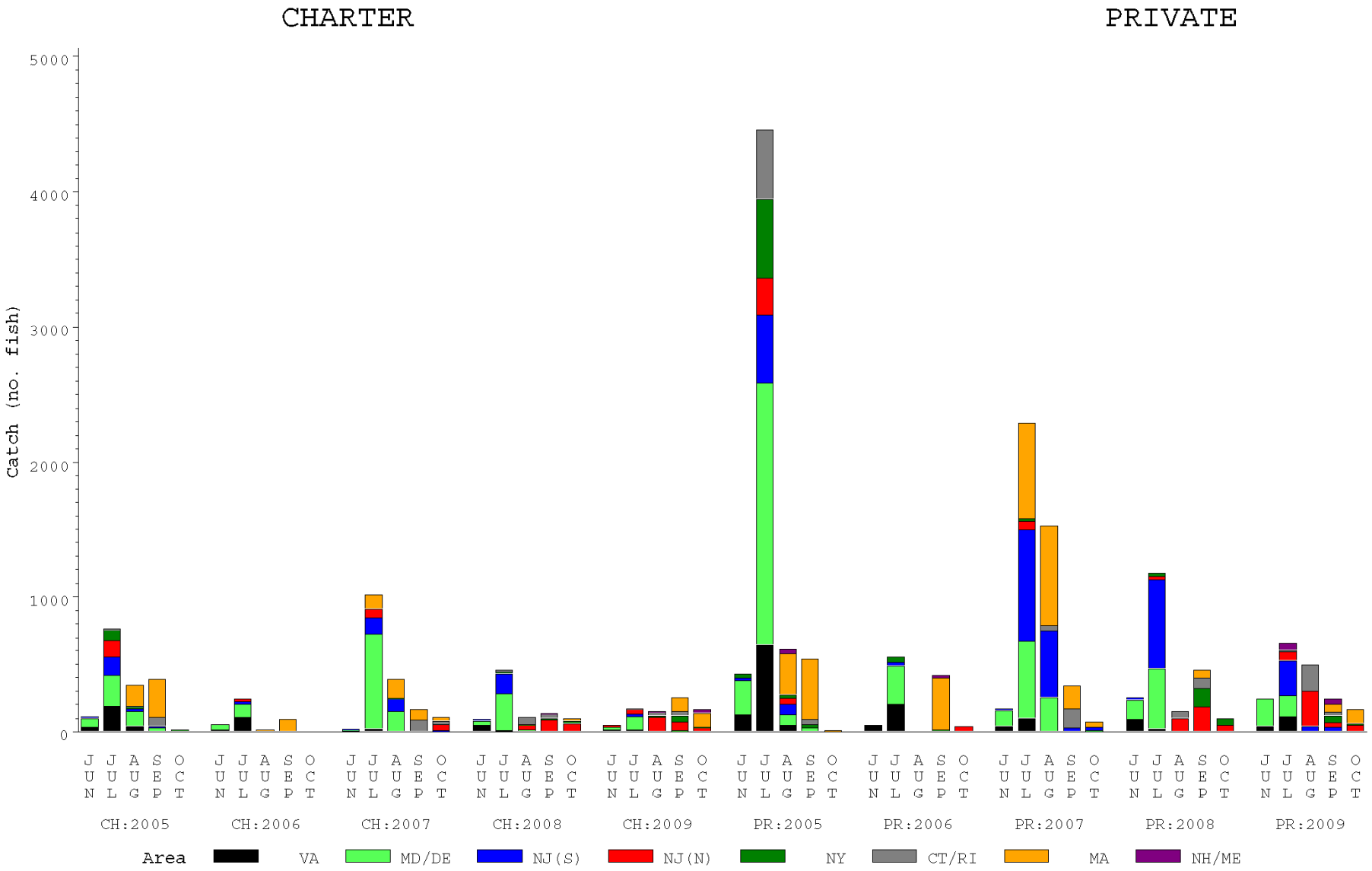
Data Source: NOAA Fisheries Large Pelagics Survey (For questions email: ron.salz@oaa.gov)

BLUEFIN TUNA - LARGE SCHOOL
KEPT Estimates



Data Source: NOAA Fisheries Large Pelagics Survey (For questions email: ron.salz@oaa.gov)

BLUEFIN TUNA - SCHOOL
KEPT Estimates



Data Source: NOAA Fisheries Large Pelagics Survey (For questions email: ron.salz@oaa.gov)

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M E M O R A N D U M

DATE: May 26, 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 May 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 11-12 May 2010 to review stock assessment information and develop acceptable biological catch (ABC) recommendations for six species under the management purview of the MAFMC: surfclam, ocean quahog, *Loligo* squid, *Illex* squid, butterfish, and Atlantic mackerel. A total of 13 of the 18 SSC members were in attendance on May 11th and 14 members in attendance on the 12th, which represented a quorum for both days as defined by the SSC standard operating procedures. Also in attendance were representatives of the MAFMC, MAFMC staff, Northeast Fisheries Science Center scientists (NEFSC), and the public (see attached attendance list).

For each species, MAFMC staff described the assessment history, the most recent survey and landings information, and the basis for the most recent quota set by the MAFMC. Scientists from the NEFSC were then asked to comment, followed by the species lead for the SSC. The public was then invited to comment, but only on scientific uncertainty issues for the species. Following comments from the MAFMC staff, NEFSC scientists, the SSC species lead, and the general public in attendance, the SSC species lead led the SSC discussion on selection of an ABC for the 2011 (and beyond) fishing year. Once the discussion was completed, the SSC provided consensus statements in response to the terms of reference provided by the MAFMC. The terms of reference were the same for each of the six species. The SSC also determined which of the four tiers best described the status of assessment information for each species, based on the ABC control rule in the proposed omnibus amendment currently out for public comment.

The following represents the consensus responses by the SSC to the ABC terms of reference for each of the six species covered in the 11-12 May 2010 meeting.

Surfclams

1) The materials considered in reaching its recommendation;

- Mid-Atlantic Fishery Management Council. 2010. Overview of the Surfclam and Ocean Quahog Fisheries and Quota Considerations for 2011, 2012, and 2013. Mid-Atlantic Fishery Management Council. 38 p.

- Northeast Fisheries Science Center. 2010. 49th Northeast Regional Stock Assessment Workshop (49th SAW) Assessment Summary Report. Ref. Doc. 10-01; 41 p.
- Northeast Fisheries Science Center. 2010. 49th Northeast Regional Stock Assessment Workshop (49th SAW) Assessment Report. Ref. Doc. 10-03; 383 p.
- SARC 49 panelist reports
- Updates on survey indices and landings data

2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;

The F_{MSY} proxy = 0.15 (F=M=0.15). Projected catches at F = F_{MSY} are:

2010	129,300 mt
2011	114,000 mt
2012	102,300 mt
2013	93,400 mt

Catches in 2010 are not expected to be at F_{MSY} levels, however. Thus, available biomass to support catches in 2011-2013 would be expected to be somewhat greater, so these projections may be underestimates.

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;

Catches at F_{MSY} proxy have a high probability of leading to stock declines below the B_{MSY} proxy target level in 2015, and are projected to lead to high probabilities of overfishing in 2015. Thus, the ABC should be significantly lower than the OFL. The SSC recommends an ABC equal to the catch at $0.75*F_{OFL}$*Biomass, based on Restrepo et al. (1998: http://www.nmfs.noaa.gov/sfa/NSGtkgd.pdf):

= 0.75*0.15*878,000 mt
= 0.11*878,000 mt
= **96,600 mt** (includes incidental mortality)

The range of optimum yields (OY) specified in the Fishery Management Plan is between 14,300 and 26,200 mt. The upper value has been used as a quota from 2005-2010.

The stock is currently not overfished, and overfishing is not occurring. However, Delmarva and New Jersey components are well below 50% of the 1999 biomass in the respective regions (= B_{MSY} proxy).

4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);

See Table A1 from the assessment summary document:

Table A1. Decision table showing probabilities of a simulated surfclam stock with total biomass (120+ mm) at or lower than the target level (B_{Target}=B_{1999}/2), at or lower than the threshold level ($B_{Threshold}$=B_{Target}/2), and with fishing mortality rates at or higher than the threshold level ($F_{Threshold}$=M) during 2015. The analysis examines nine states of nature and four possible management approaches. Probabilities for states of nature are described as Low, Medium or High. The column "Pattern ID for dredge efficiency" is to help readers make comparisons among rows.

States of nature			Management actions				
Natural mortality	Survey dredge efficiency	Probability for state of nature	FMP minimum	Industry estimate	FMP maximum	F_{MSY} proxy	Pattern ID for dredge efficiency
Probability of stock biomass below B_{MSY} proxy target level in 2015							
Low	Low	Low	0	0	0	0.612	
Low	Medium	Medium	0	0	0	0.982	
Low	High	Low	0	0	0.004	1	
Medium	Low	Medium	0	0	0	0.91	
Medium	Medium	High	0	0	0.002	0.952	
Medium	High	Medium	0.006	0.012	0.014	0.998	
High	Low	Low	0	0	0	0.618	
High	Medium	Medium	0	0.002	0.002	0.924	
High	High	Low	0	0.002	0.018	0.984	
Probability of stock biomass below $B_{Threshold}$ level in 2015							
Low	Low	Low	0	0	0	0	
Low	Medium	Medium	0	0	0	0	
Low	High	Low	0	0	0	0.894	
Medium	Low	Medium	0	0	0	0	
Medium	Medium	High	0	0	0	0.002	
Medium	High	Medium	0	0	0	0.268	
High	Low	Low	0	0	0	0	
High	Medium	Medium	0	0	0	0	
High	High	Low	0	0	0	0.294	
Probability of overfishing in 2015							
Low	Low	Low	0	0	0	0.908	
Low	Medium	Medium	0	0	0	1	
Low	High	Low	0	0	0	1	
Medium	Low	Medium	0	0	0	0.312	
Medium	Medium	High	0	0	0	0.948	
Medium	High	Medium	0	0	0	1	
High	Low	Low	0	0	0	0.002	
High	Medium	Medium	0	0	0	0.196	
High	High	Low	0	0	0	0.996	

5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;

- Heterogeneity of life history and production parameters over the range of the stock means that model results may be accurate on average, but inaccurate in any particular region (e.g., regional differences in surplus production). This is exacerbated by uncertainty in the distribution of future fishing effort on GB (currently closed to fishing for surfclams) and fact that effort is currently not distributed uniformly.
- The use of F=M as an FMSY proxy is not supported by recent apparent negative surplus production: growth and recruitment are insufficient to compensate for natural and fishing mortalities. There is no sustainable yield. Even in the absence of fishing mortality, the stock will not increase, especially in southern areas.
- Uncertainty in using F_{msy} proxy = M (no uncertainty characterization in OFL);
- Uncertainty in M (there are no direct estimates of natural mortality);
- If surfclams in the George's Bank region are near carrying capacity, then their surplus production could be low;
- Survey dredge efficiency is highly variable;
- Georges Bank role with respect to recruitment contribution is unclear. It is unavailable to exploitation; and
- Projections assumed 1999 biomass = virgin biomass.

6) A certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

Tier specification

Level 3: OFL exists, but no probability distribution of OFL is available. (Approximation of F_{msy} by M has no probability distribution.)

Ocean Quahog

1) The materials considered in reaching its recommendation;

- Mid-Atlantic Fishery Management Council. 2010. Overview of the Surfclam and Ocean Quahog Fisheries and Quota Considerations for 2011, 2012, and 2013. Mid-Atlantic Fishery Management Council. 38p.
- Northeast Fisheries Science Center. 2010. 48th Northeast Regional Stock Assessment Workshop (48th SAW) Assessment Summary Report. Ref. Doc. 09-10; 58 p.
- Northeast Fisheries Science Center. 2010. 48th Northeast Regional Stock Assessment Workshop (48th SAW) Assessment Report. Ref Doc. 09-15 834 p.
- SARC 48 panelist reports
- Updates on survey indices and landings data

2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;

The OFL is based on B_{2008} (exploited area only), and F_{msy} proxy = $F_{45\%}$ = 0.0219; 2011-2013 OFL = 34,800 mt

*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 and ABC for 2011-2013 = 75% F_{msy} proxy*B_{2008} (exploited area); ABC = **26,100 mt**.

4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);

Not possible, given available information.

5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;

- Data Uncertainties: The abundance surveys and dredge efficiency estimates are sources of uncertainty. Survey abundance estimates have a quite low coefficient of variation (10 to 21% in 12 survey years), suggesting they are reliable. Data on recruitment is uncertain; there apparently have been some regional recruitment events but these are not well defined. Natural mortality must be low, but there are no estimates. Underlying age structure and growth rate are unknown.
- Model Uncertainties: Lacking estimates, proxies for B_{msy} and F_{msy}, and associated F reference levels, are adopted. Sensitivity analysis and probabilities of B and F levels are derived from stochastic runs of KLAMZ for assumed M levels. Accurate knowledge of M would reduce uncertainty in the assessment and projections. KLAMZ does not provide explicit threshold or target reference points for ocean quahog.

- Stock Status and Reference Points: Trends in stock are well documented, by region and for the total stock. New reference points recommended by SARC 48 are more conservative than previous reference points. Uncertainties in fishing mortality estimates, based on catch data and swept area biomass estimates, were evaluated by region. Confidence intervals on the estimated (modeled) stock biomass are quite high and thus a source of uncertainty. Overall, the stock seems to be in good shape at present, although the long-term prognosis for this unproductive stock is uncertain.
- A source of uncertainty is the Georges Bank component of stock that is not now fished, but might be fished in the future. How should it be included in assessments and in evaluation of uncertainty? Fully 45% of the ocean quahog stock is on Georges Bank.
- Forecasting: Projections of stock status under different fishing mortality rates and assumed natural mortality rates were conducted to year 2015. Projections in that 5-yr timeframe do not suggest biomass will decline rapidly at present *F* level. But, if fishing mortality increases to the new proposed $F_{threshold}$ level, the projections indicate that overfishing is highly probable at $F_{45\%}$ by 2015. At $F_{present}$ the risk of overfishing is low.
- The long-term sustainability of a low-productivity stock like ocean quahog is a source of uncertainty. It is not known if MSY concepts and theory apply to ocean quahog, and whether sustainable fishing is possible under usual circumstances and assumptions. The SSC offers precautionary advice that even (very) low F levels probably not sustainable in the long term, given its life history and associated population dynamics (i.e., slow growing, very long-lived, recruitment possibly sporadic). The next SARC should reconsider BRPs (F_{msy} proxy = $F_{45\%}$ may not be appropriate)

6) A certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

Tier specification

Level 3: OFL exists, but no probability distribution (approximation of F_{msy} by F45% has no probability distribution).

Loligo Squid

1) The materials considered in reaching its recommendation;

- Assessment documents from SARC 34 (containing data through 2000); a benchmark assessment is scheduled for Fall 2010
- Updates of landings and survey index data

2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;

32,000 mt. The revised F threshold value is F = 1.24, which equates to an OFL of 32,000 mt when applied to the 2003-2007 average fall survey biomass estimate. The revised F threshold value was derived from SARC 34's advice and was the 75th percentile of achieved Fs over the period 1987-2001, a period when the *Loligo* stock appeared to be relatively resilient.

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 **24,000 mt**, which represents 75% of the catch associated with $F_{threshold}$, and is also close to catch derived from the SARC 34 recommended methodology (24,700 mt).

4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);

Not possible, given available information.

5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;

- Surveys cover unknown portion of entire range (variable availability). Range may extend beyond survey coverage, but less likely an issue for *Loligo* than *Illex*.
- Poor precision of U.S. discard estimates;
- Using a bottom trawl survey gear for a semi-pelagic species may induce variation in the indices of abundance and obscure the true signal;
- Erratic survey trends;
- High, and highly variable, natural mortality;
- Extremely short life-span (less than 1 year), and unknown but likely high impact of environmental factors on recruitment; and
- No biomass reference points as per SARC 34 advice (only fishing mortality).

6) A certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

Tier specification

Tier 3: No probability distribution for the OFL is available.

Illex Squid

1) The materials considered in reaching its recommendation;

- Assessment Documents (SARC 21, SARC 37, and SARC 42 (no new benchmark assessment are currently scheduled)
- Updates of landings and survey index data

2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;

The SSC determined it was not possible to provide an OFL given currently available scientific information.

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;

24,000 mt. The 24,000 mt for Illex is not an assessment-based ABC. Even though trawl survey CPUE and landings have varied, there do not appear to be any long-term trends; changes in landings could be the result of changes in abundance, availability, and/or market conditions. Additionally, there is no available evidence that landings of 24,000-26,000 MT have caused harm to the *Illex* stock.

4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);

Not possible, given available information.

5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;

- Surveys cover an unknown portion of entire range (variable availability);
- Poor precision of U.S. discard estimates (but of low magnitude);
- Using a bottom trawl survey gear for a semi-pelagic species may induce variation in the indices of abundance and obscure the true signal;
- LPUE values are sensitive to availability;
- High, and highly variable natural mortality;
- Extremely short life-span (less than 1 year), and unknown but likely high impact of environmental factors on recruitment; and
- No available estimates of biological reference points (F & B), and no estimates of recent biomass and/or fishing mortality.

6) A certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

Tier specification

Tier 4: No available estimates of biological reference points (F & B), and no estimates of recent biomass and/or fishing mortality.

Butterfish

1) The materials considered in reaching its recommendation;

- Mid-Atlantic Fishery Management Council. 2010. 2011 Atlantic mackerel, *Loligo*, and *Illex* Squid and Butterfish Staff ABC White Paper. Mid-Atlantic Fishery Management Council. 31p.
- Northeast Fisheries Science Center. 2010. 49th Northeast Regional Stock Assessment Workshop (49th SAW) Assessment Summary Report. Ref. Doc. 10-01; 41 p.
- Northeast Fisheries Science Center. 2010. 49th Northeast Regional Stock Assessment Workshop (49th SAW) Assessment Report. Ref. Doc. 10-03; 383 p.
- Updates on survey indices and landings (2009)
- SARC 49 panelist reports

2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;

An estimate of OFL was not available from the most recent stock assessment (49th SAW).

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 a *status quo* ABC, **1500 mt**. Assessment reports that abundance trends are in decline and at historically low levels. However F appears very low. SSC concluded that maintaining ABC levels at this time is warranted. Available information suggests stock improvement at 1500 MT ABC, if environmental conditions improve.

4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC

recommendations (if not possible, provide a qualitative evaluation);

Not possible, given the available information, but likely low.

5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;

- Discards imprecisely estimated;
- Survey indices, except for the NEFSC fall survey;
- Model-based estimates of biomass and F are generally imprecise;
- No accepted reference points; and
- Probable large role of environmental drivers (including predation).

6) A certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

Tier specification

Tier 4: No estimates of the biological reference points are available.

Atlantic Mackerel

1) The materials considered in reaching its recommendation;

- Mid-Atlantic Fishery Management Council. 2010. 2011 Atlantic mackerel, *Loligo*, and *Illex* Squid and Butterfish Staff ABC White Paper. Mid-Atlantic Fishery Management Council. 31p.
- 2010 TRAC Summary and working papers
- Updates on survey indices and landings (2009)
- Letter from Sustainable Fisheries Coalition, dated 9 May 2010 (attached)

2) The level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold;

An estimate of OFL was not available from the most recent stock assessment (2010 TRAC).

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 accepted the TRAC recommendation of **80,000 mt**. The SSC decided that the 2009 landings and survey index, in and of themselves, were not sufficient information to deviate from the TRAC recommendation.

4) If possible, the probability of overfishing associated with catches associated with the OFL and ABC recommendations (if not possible, provide a qualitative evaluation);

Not possible, given the available information.

5) The most significant sources of scientific uncertainty associated with determination of OFL and ABC;

- Lack of quantification of the linkage between US and Canadian catches;

- Surveys cover an unknown portion of entire range (variable availability);
- No Canadian discard information and poor precision of U.S. discard and recreational estimates (though likely low);
- Using a bottom trawl survey gear for a semi-pelagic species may induce variation in the indices of abundance and obscure the signal;
- Conflicting catch-at-age and survey information;
- No satisfactory explanation of model retrospectives;
- Apparent, but not fully explainable changes in survey catchability, which may alias a number of unidentified factors.

6) A certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

Tier specification

Tier 4: No estimates of biological reference points are available.

Attachments

cc:
Members, MAFMC SSC
R. Seagraves
T. Hoff
J. Didden

ATTENDANCE

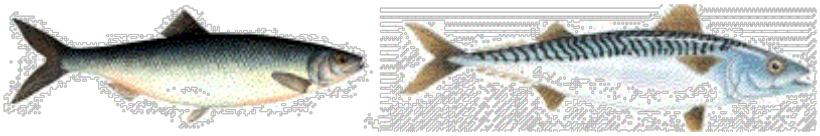
May 11, 2010

Rich Seagraves	MAFMC Staff
Tom Hoff	MAFMC Staff
Jose Montanez	MAFMC Staff
Mark Holliday	SSC Member - NOAA Fisheries
Lee Anderson	MAFMC Vice Chair
Rick Robins	MAFMC Chair
Chris Moore	SSC Member - NOAA Fisheries
John Boreman	SSC Member - NCSU
Mike Frisk	SSC Member - Stony Brook
Robert Latour	SSC Member - VIMS
Scott Crosson	SSC Member - NC DMF
Cynthia Jones	SSC Member - Old Dominion Univ
Brian Rothschild	SSC Member - U MASS
Bonnie McCay	SSC Member - Rutgers
Dave Secor	SSC Member - UMCES
Edward Houde	SSC Member - UMCES
Doug Lipton	SSC Member - UMCP
Wendy Gabriel	SSC Member – NEFSC
Fred Serchuk	SSC Liaison – NMFS/NEFSC
Joe Garvilla	BJ Clam
Pam Gromen	NCMC
Michael LaVecchia	LaMonica Fine Foods
Joe Lacotte	Snow's/Bumble Bee Foods
Carolyn Creed	Rutgers
Sam Martin	Atlantic Cape Fisheries
Jeff Kaelin	Lund's Fisheries, Inc
Daniel Hennen	NEFSC
Toni Chute	NEFSC
Dave Wallace	Wallace & Associates
Pete Jensen	Wallace & Associates
Tom Alspach	Sea Watch International
Eric Powell	Rutgers

May 12, 2010

All SSC Members from May 11.

Mike Wilberg	SSC Member – UMCES
Fred Serchuk	SSC Liaison – NMFS/NEFSC
John Klinck	Old Dominion Univ
Dave Ellenton	Cape Seafoods, Inc & Western Sea Fishing Co.
Greg DiDomencio	GSSA
Pam Gromen	NCMC
Jose Montanez	MAFMC Staff
Rich Seagraves	MAFMC Staff



SUSTAINABLE FISHERIES COALITION

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.

May 9, 2010

Dr. John Boreman, Chair
MAFMC Scientific and Statistical Committee
800 North State Street, Suite 201
Dover, DE 19901

Dear Dr. Boreman:

On behalf of the fishermen and employees of the shoreside facilities who make up the Sustainable Fisheries Coalition (SFC), we are writing to share with you information about the current US mackerel fishery, and the implications of the March 2010 US-Canada mackerel stock assessment (TRAC). Our companies and vessels are highly dependent upon the Atlantic mackerel and Atlantic herring fisheries. Our intent of this letter is for you and the SSC to be fully informed of the situation prior to meeting on May 12, 2010.

Americanization of the Atlantic Mackerel Fishery
The current US Atlantic mackerel (and herring) industry is largely the result of US government policy from the early 1990's - mid 2000's that encouraged "Americanization" of a mackerel fishery which was previously dominated by foreign fishing interests. This encouragement, coupled with robust stock assessments published by NMFS NEFSC as recently as 1999 (SAW 30) [1] and 2005 (SAW 42) [2], was

[1] SAW 30 (1999) Summary: "The northwest Atlantic mackerel stock is at a high level of biomass and is under exploited. Fishing mortality on this stock is very low and Spawning Stock Biomass likely large. Based on trends in survey indices, recruitment has been well above average throughout most of the 1990s. Current annual landings are considerably below the long-term potential yield estimated to be 150,000 mt. The forgone yield is in excess of 100,000 mt and the fishery can be increased substantially.

[2] SAW 42 (2005) Summary: (TOR 2) Spawning stock biomass increased steadily over the last several decades from a low of 663,000 t in 1976 to 2.3 million mt in 2004. The confidence interval on SSB (+ 2 SD) ranged from 1.49 to 3.14 million mt in 2004; however, retrospective analysis showed that SSB has sometimes been overestimated in recent years. The biomass reference point was re-estimated in this assessment at SSBmsy= 644,000 mt (previously SSBmsy=890,000 mt). (TOR 4, 5) Deterministic projections for 2006-2008 were conducted by inputting an estimated catch of 95,000 mt in 2005 and a target fishing mortality of 0.12 (MAFMC 1998, Ftarget=0.75 x

the impetus for a significant investment in this fishery from Maine to New Jersey. In fact, over $100 million has been invested in state of the art processing and freezing plants, and high tech fishing vessels capable of catching and delivering food grade mackerel to these shoreside facilities, in recent years. Export and domestic markets were developed and a successful business, employing hundreds of Americans was born, creating critically needed jobs and exports in the communities of Portland, Portsmouth, Gloucester, Fall River, New Bedford and Cape May. Our "Americanized" industry is now facing a crisis due to the lack of valid stock assessments leading to a slashing of TACs for these pelagic fisheries, as follows:

YEAR		ABC (US and Canada)	US IOY	NOTES
1999	SAW 30	347,000 mt	175,000 mt	No quantitative assessment accepted; stock at a high level of biomass, F low, and catches well below the MSY of 326,000 mt.
2006	SAW 42	335,000 mt	115,000 mt	Extremely precautionary TAC's adopted to protect against overfishing the resource.
2010	TRAC	80,000 mt	?	No quantitative assessment accepted; recommended average of 2006-2008 landings (80,000 mt) not be exceeded until such time that new information suggests that a different amount is appropriate.

Stock Assessment Issues

The TRAC Status Report 2010/01 tersely states: "*The assessment model was faced with resolving disparate trends between the NEFSC spring survey and CPUE indices and total landings. Despite very large annual catches in the 1970s, there was very little change in the spring survey index during these years. Later in the assessment time series, a generally increasing trend in the survey index was co-incident with a rapid disappearance of older age classes in both the survey catches and the commercial landings.*"

In fact, there is no inconsistency between the high and increasing survey and CPUE indices and low landings: using the Spring survey as a continuous index from 1968 onwards (i.e. without splitting the survey) results in a very high 2008 biomass estimate. The discrepancy is between the absence of older age classes since 2000.

The absence of older mackerel in the catches and in the survey since 2000 is difficult to understand; it could be due to mortality or to changes in distribution. Given the fishing effort currently exerted on mackerel compared with that in the 1960s and early 1970s by large foreign fleets (annual average of 350,000 mt), and with the foreign JV fishery in US waters (1985-1991, averaging 76,000 mt), it seems unlikely that mortality due to recent fishing could explain the absence of older mackerel. Estimates of mackerel consumption by predators reviewed during the TRAC were insufficient to account for the large decreases in the older ages. There are indications from the Canadian fishery that mackerel now appears to be distributed in waters where they were not commonly found in the past, perhaps due to

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Fmsy) in 2006-2008. If 95,000 mt are landed in 2005, SSB in 2006 will increase to 2.6 million mt. If the Ftarget F=0.12 is attained in 2006-2008, SSB will decline to 2.3 million mt in 2007 and to 2.0 million mt in 2008. Landings during 2006-2008 would be 273,000 mt, 239,000 mt, and 212,000 mt, respectively. These landings are the result of an unusually large year-class (1999) present in 2005, and will not be sustainable in the long term. It is expected that these projected landings will decline to MSY (89,000 mt) in the future when a more average recruitment condition exists in the stock.

climate change affecting water temperatures and dispersing feed distribution. The presentation of the NEFSC Spring survey results at the April 26 SSC Webinar also suggested that the highest catches were at the offshore margin of the survey. Productive offshore areas formerly fished by self-contained factory trawl foreign and JV fleets are not fished by the small US catcher fleet (max of 16 vessels with limited offshore capability) which generally fishes close to shore where search time is minimized, fish are easiest to locate (but are typically younger), fuel costs are minimized and processing plants are nearby. In addition, US vessels are not capable of consistently finding and staying on the fast moving (3-4 knots) schools of migrating mackerel, so they stay nearshore and catch smaller / younger fish.

It should also be noted that while the TRAC Status Report mentions low productivity based on the absence of older ages in the catch and in the survey, NEFSC survey results suggests that ages 1 to 4 continue to be produced at the same or at a higher rate than they have historically been. The problem seems to be that recruits, being produced at similar or higher rates than in the past, either die or move out of both the fishery and survey areas.

The TRAC report reads, in this regard:

"Given the uncertainty in the assessment results, the TRAC agreed that short term projections and characterization of stock status relative to estimated reference points would not be an appropriate basis for management advice at this time. Given current indications of reduced productivity and lack of older fish in the survey and catch, the TRAC recommended that total annual catches not exceed the average total landings (80,000 mt) over the last three years (2006-2008) until such time that new information suggests that a different amount is appropriate."

Possible Impacts on US Industry

In the case of the mackerel fishery, this situation is compounded by the requirement in the US mackerel FMP that the US must deduct anticipated Canadian catches before determining the US catch quota. Because of the results from the latest mackerel assessment, completed in March 2010, Canadian fishery deductions (if agreed to by NMFS NERO) could result in the US commercial fishery catch quota being set at a level low enough bankrupt the "Americanized" US industry.

In addition, an unintended consequence of an artificially low mackerel TAC will be the premature closure of the Atlantic herring fishery due to mackerel bycatch as a limiting "choke" species. That is, when the mackerel TAC is caught, directed herring vessels will be limited to 2,000 lbs of mackerel bycatch, creating an impossible operating environment.

Such a policy outcome is unacceptable. It sets the stage for return of the foreign fleets to harvest our surplus mackerel and herring fisheries.

SSC action in May 2010

Under the current Magnuson-Stevens Act, this level of uncertainty due to the "retrospective pattern" can result in drastic reductions mandated by the SSC in the amount of the stock made available to the US industry (as in the recent case of the sea herring fishery).

However, the US-Canada mackerel TRAC made it very clear that "sources of scientific uncertainty" were accounted for when making their recommendation of 80,000 mt for total annual catches until such time that new information suggests that a different amount is appropriate. Specifically, the TRAC Summary refers to "current indications of reduced productivity and lack of older fish in the survey and catch", and more detailed discussion takes place on page 5 ("Productivity"). Further, the TRAC Summary notes under "Special Considerations" (pp 5-6) that: "The distribution of the US fishery is

currently inshore relative to the historical foreign fishery. Exploration further offshore (e.g. deeper than 200 m) may help to provide a better understanding of the population dynamics.

We would assert that the SSC should not accept this three year average of catches (in fact 80,685 mt, so 81,000 mt when rounded up) as the stock wide (US and Canada) ABC, but rather consider an ABC based on a wider average time series of landings, as follows:

2002-2008: 84,000 mt
2003-2008: 88,000 mt
2004-2008: 90,000 mt
2005-2008: 85,000 mt
2006-2008: 81,000 mt

The TRAC selected the 3-year average as a US-Canada ABC. As explained above, this places the "Americanized" US industry in jeopardy of bankruptcy due to the subsequent required deductions by NMFS for anticipated Canadian catch, recreational allocation (1,000 mt = 5 year average), and the 90% fishery closure to account for late reporting and bycatch.

As an alternative, and in order to consider the important socio-economic considerations that so far have not been factored in to this TRAC summary, the members of the Sustainable Fisheries Coalition strongly urge that the SSC consider the five-year average of catches (90,000 mt) as the appropriate US-Canada ABC.

This will provide our industry with some ability to remain economically viable, in order to have a fleet in business to assist in the Cooperative Research identified by the TRAC as needed to better assess the Atlantic mackerel stock.

Thank you for your consideration.

Sincerely,

Jeff Kaelin and Jeff Reichle	Peter Moore and Brady Schofield	Greg DiDomenico
LUND'S FISHERIES, Cape May	NORPEL, New Bedford	Garden State Seafood

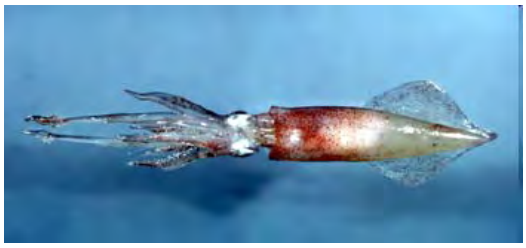
Cc: MAFMC SSC members
MAFMC Chair
MAFMC Executive Director
NEFMC Chair
NEFMC Executive Director
NMFS NERO

Draft Scoping Document

for AMENDMENT 14 to the

Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan

Atlantic mackerel



Loligo squid

Butterfish

Illex squid

Prepared by the

Mid-Atlantic Fishery Management Council

in consultation with NOAA Fisheries (NMFS)

Schedule of Atlantic Mackerel, Squid, and Butterfish Amendment 14 Scoping Meetings

June 14, 2010, 7 pm – 9pm	Hilton Garden Inn, Providence Airport/Warwick, One Thuber Street, Warwick, RI 02886, 401-734-9600
June 15, 2010, 7 pm – 9 pm	Holiday Inn Express East End, 1707 Old country Rd., Route 58, Riverhead, NY 11901, 631-548-1000
June 17, 2010, 7 pm – 9 pm	Congress Hall, 251 Beach Ave, Cape May, NJ 08204, 609-884-6592
June 23, 2010, 7 pm – 9 pm	Virginia Marine Resources Commission, 2600 Washington Avenue, 3rd Floor, Newport News, VA 23607

In addition to providing information and comments at the above scoping meetings, you may submit written comments on or before **[scoping comment period not yet finalized but it will likely end in Late June/early July].**

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

Telephone: (302) 674-2331
Fax: (302) 674-5399

Comments may also be sent via fax at the above fax number or by e-mail to info1@mafmc.org. Please note on any correspondence and in the subject line of e-mail comments the following identifier: " Scoping Comments on MSB 14"