ATLANTIC STATES MARINE FISHERIES COMMISSION
ANNUAL REPORT 2011

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


GLOUCESTER
SEA JACKET
MARINE
PAINTS
MANUFACTOR

70TH ANNUAL REPORT
OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

TO THE CONGRESS OF THE UNITED STATES
AND TO THE GOVERNORS AND LEGISLATORS
OF THE FIFTEEN COMPACTING STATES



ATLANTIC STATES MARINE FISHERIES COMMISSION
ANNUAL REPORT 2011

Presented in compliance with the terms of the Compact and the state-enabling acts creating such Commission and Public Law 539 - 77th Congress assenting thereto (Chapter 283, Second Session, 77th Congress; 56 Stat. 267) approved May 4, 1942, as amended by Public Law 721, 81st Congress, approved August 19, 1950

John V. O'Shea, Executive Director
Atlantic States Marine Fisheries Commission
1050 N. Highland Street, Suite 200A-N, Arlington, VA 22201

Tina L. Berger, Editor
March 2012

Commonly Used Acronyms

AAE	Annual Awards of Excellence
ACCSP	Atlantic Coastal Cooperative Statistics Program
ACFHP	Atlantic Coastal Fish Habitat Partnership
ACFCMA	Atlantic Coastal Fisheries Cooperative Management Act
ACLs	Annual catch limits
ARM	Adaptive Resource Management
ASMFC	Atlantic States Marine Fisheries Commission (also referred to as the Commission)
BRDs	Bycatch reduction devices
CPUE	Catch-per-unit-effort
DPS	Distinct population segments
ESA	Endangered Species Act
F	Fishing mortality
FMP	Fishery Management Plan
GARM	Groundfish Assessment Review Meeting
GBK	Georges Bank
GOM	Gulf of Maine
ISFMP	Interstate Fisheries Management Program
IJF	Interjurisdictional Fisheries Act
ITC	Interstate Tagging Committee
LCMA	Lobster Conservation Management Area
LCS	Large Coastal Shark Complex
MAFMC	Mid-Atlantic Fishery Management Council
MSP	Maximum spawning potential
MSTC	Multispecies Technical Committee
MSVPA-X	Extended Multispecies Virtual Population Analysis
MSY	Maximum sustainable yield
MT	Metric tons
NEAMAP	Northeast Area Monitoring and Assessment Program
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NFHAP	National Fish Habitat Action Plan
NFWF	National Fish and Wildlife Foundation
NMFS	National Marine Fisheries Service; also known as NOAA Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PRT	Plan Review Team
SAFMC	South Atlantic Fishery Management Council
SAW/SARC	Northeast Regional Stock Assessment Workshop and Stock Assessment Review Committee, respectively
SCA	Statistical Catch at Age
SCS	Small Coastal Shark Complex
SEAMAP	Southeast Area Monitoring and Assessment Program
SEDAR	SouthEast Data, Assessment, and Review Process
SEFSC	Southeast Fisheries Science Center
SFMPs	Sustainable Fishery Management Plans
SNE	Southern New England
SNE/MA	Southern New England/Mid-Atlantic
SPR	Spawning potential ratio
SRT	Status Review Team
SSB	Spawning stock biomass
SSC	Scientific and Statistical Committee
TAC	Total allowable catch
TAL	Total allowable landings
TRAC	Transboundary Resource Assessment Committee
USFWS	U.S. Fish and Wildlife Service
VPA	Virtual population analysis

TABLE OF CONTENTS

GUIDING PRINCIPLES

MISSION

To promote cooperative management of fisheries – marine, shell, and diadromous – of the Atlantic coast of the United States by the protection and enhancement of such fisheries, and by the avoidance of physical waste of the fisheries from any cause

VISION

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

GOALS

1. Rebuild and restore depleted Atlantic coastal fisheries, and maintain and fairly allocate recovered fisheries through cooperative regulatory planning
2. Strengthen cooperative research, data collection capabilities, and the scientific basis for stock assessments and fisheries management actions
3. Improve stakeholder compliance with Commission fishery management plans
4. Protect, restore, and enhance fish habitat and ecosystem health through partnerships, policy development, and education
5. Strengthen congressional, stakeholder, and public support for the Commission's Mission, Vision, and actions
6. Represent member states' collective interests at regional and national levels
7. Strengthen human resource management and enhance learning and growth within the Commission
8. Provide efficient administration of the Commission's business affairs and ensure the Commission's financial stability

COMMISSIONER VALUES

- Effective stewardship of the Atlantic coast's marine resources
- Work cooperatively with honesty and integrity
- Transparency and accountability in all Commission actions
- Courage to make difficult decisions
- Forging a vision for the future
- Support decisions of the Commission
- Ensure the long-term financial stability of the Commission
- Respect for everyone involved in the Commission process
- Dedication to growth and learning
- Freedom and flexibility to solve problems creatively
- Commitment to preparation for and participation in meetings

Commissioners

MAINE
Patrick C. Keliher
Sen. Brian Langley
Patten D. White

NEW HAMPSHIRE
Douglas E. Grout
Rep. David H. Watters
G. Ritchie White

MASSACHUSETTS
Paul J. Diodati, Vice-Chair
Rep. Sarah K. Peake
William A. Adler

RHODE ISLAND
Robert Ballou
Rep. Peter F. Martin
William A. McElroy

CONNECTICUT
David G. Simpson
Rep. Craig A. Miner
Dr. Lance L. Stewart

NEW YORK
James J. Gilmore, Jr.
Sen. Owen H. Johnson
Patrick H. Augustine

NEW JERSEY
David Chanda
Asm. Nelson T. Albano
Thomas P. Fote

PENNSYLVANIA
John A. Arway
Rep. Curt Schroder
Loren W. Lustig

DELAWARE
David E. Saveikis
Sen. Robert L. Venables, Jr.
Roy W. Miller

MARYLAND
Thomas O'Connell
Sen. Richard F. Colburn
William J. Goldsborough

VIRGINIA
Steven G. Bowman
Sen. Richard H. Stuart
Catherine W. Davenport

NORTH CAROLINA
Dr. Louis B. Daniel
Rep. William L. Wainwright
Willard W. Cole, Jr.

SOUTH CAROLINA
John E. Frampton
Robert H. Boyles, Jr., Chair
Dr. Malcolm Rhodes

GEORGIA
A.G. "Spud" Woodward
Rep. Jon G. Burns
John Duren

FLORIDA
Jessica McCawley
Sen. Thad Altman
William R. Orndorf

PREFACE

The Commission was formed 69 years ago by the 15 Atlantic coast states to assist in managing and conserving their shared coastal fishery resources. With the recognition that fish do not adhere to political boundaries, the states formed an Interstate Compact, which was approved by the U.S. Congress in 1942. The states have found that their mutual interest in sustaining healthy coastal fishery resources is best promoted by working together cooperatively, in collaboration with the federal government. With this approach, the states uphold their collective fisheries management responsibilities in a cost-effective, timely, and responsive fashion.

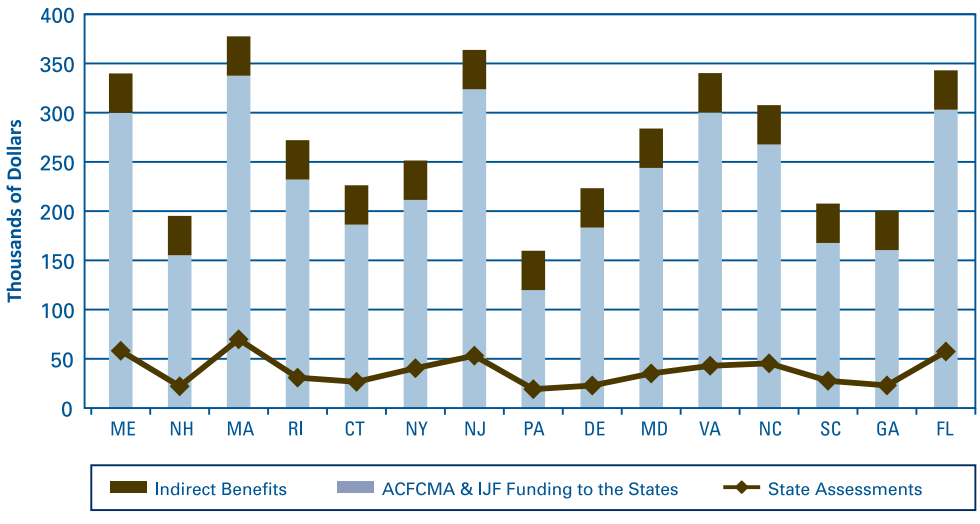
The Commission's current budget is $6.5 million. The base funding ($576,683) comes from the member states' appropriations, which are determined by the value of commercial fishing landings and saltwater recreational trips within each state. The bulk of the Commission's funding comes from a combination of state and federal grants, the largest being a line-item in the NOAA Fisheries Service budget appropriated to implement the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA) of 1993. The Commission also receives funds from NOAA Fisheries Service to carry out the mandates of the Interjurisdictional Fisheries Act of 1986 (P.L. 99-659). The accompanying graph illustrates the benefits that states receive from ACFCMA and the Interjurisdictional Fisheries Act (IJF).

The U.S. Fish and Wildlife Service (USFWS) also provides grant funding to the Commission through its Federal Aid in Sport Fish Restoration Program (Wallop/Breaux). Also, since 1999 the Commission has overseen the administration of the Atlantic Coastal Cooperative Statistics Program (ACCSP), a state and federal partnership for Atlantic coastal fisheries data collection and management. Funding for this program is provided by ACFCMA.

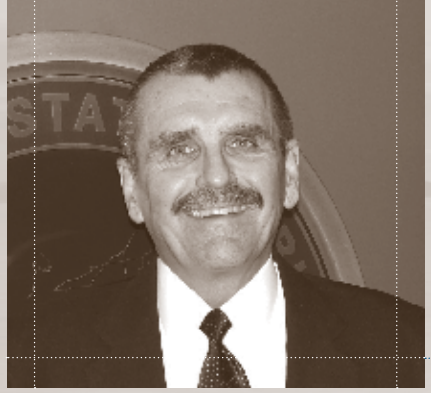
The Commission serves as a deliberative body of the Atlantic coastal states, coordinating the conservation and management of nearshore fishery resources, including marine, shell, and diadromous species. The 15 members states of the Commission are (from north to south): Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, and Florida. Each state is represented on the Commission by three Commissioners: the director of the state's marine fisheries management agency, a state legislator, and an individual appointed by the state's governor to represent fishery interests. These Commissioners participate in deliberations in the Commission's main policy arenas: interstate fisheries management, fisheries science, habitat conservation, and law enforcement. Through these activities, the states collectively ensure the sound conservation and management of Atlantic coastal fishery resources and the resulting benefits that accrue to their fishing and non-fishing publics.

2011 Return on State Assessments to the Commission

Source: FY12 ASMFC Assessments and FY11 ACFCMA/IJF Allocations



*Indirect Benefits include travel and per diem for 6 people from each state to participate in Commission meetings. Please note that this figure does not include the collective benefits derived from the work of the FMP Coordinators and Science Specialists.



Report to Our Stakeholders

John V. O'Shea, Executive Director

We are delighted to present this Annual Report to you – the friends, colleagues, partners, overseers, and stakeholders of the Atlantic States Marine Fisheries Commission. It describes our activities and progress in carrying out our public trust responsibilities for the valuable marine fisheries under Commission stewardship. These resources generate billions of dollars in economic activity annually and provide tens of thousands of jobs within our coastal communities.

Included in this report are charts and graphs with historical records of biomass levels of our stocks. Also provided is a summary of the significant management actions our Commissioners initiated in 2011 to maintain and restore the abundance of our managed species. This report reflects our Commissioners' commitment to accountability and transparency in all they do to manage and rebuild the stocks under their care.

This report also fulfills our requirement to inform Congress on the use of federal funds provided to the Commission. Our Commissioners recognize they have earned the trust and confidence of Congress through their previous successes in restoring fisheries and they remain committed to building on that record. We sincerely appreciate the strong cooperation and support we continue to receive from the members of Congress as well as the Governors and Legislators of our member states. Our Commissioners recognize that our history of accomplishments over these many years would not have been possible without their valued help.

I am delighted by our professional staff's high energy, professionalism, and dedication to our states and the public we serve. They are guided, mentored, and inspired by the strong leadership and enthusiasm of our staff directors who collectively represent decades of service to our Commission. I am also grateful for the strong support of our federal partners. The fiscal and human resources provided by NOAA Fisheries Service and the U.S. Fish and Wildlife Service to our Commission and states are an integral part of our interstate fisheries management program and science activities.

Our staff continues to seek ways to support our states in their struggle with shrinking budgets and increasing workloads. We remain committed to investing in people through our sponsorship of courses and workshops in fisheries science and assessments for our Commissioners, staff, and state scientists. This reflects our Commissioners' strong commitment to enhance the skill and expertise of our scientific advisors, an investment that will pay dividends for years to come by providing us with the best scientific advice available.

Litigation continues to be an issue for our Commission. The Commission has one case pending, an appeal of a complaint regarding river herring. While the outcome of the lower court case was encouraging, litigation requires the expenditure of fiscal resources which could otherwise be invested in fisheries management and science.

Clearly, the bright side of our Commission is the dedication and inspiration of our Commissioners. The majority of them serve without pay, and we are grateful for their willingness to sacrifice time and energy to carry out their public trust responsibilities. They collectively act with courage and wisdom in their difficult job of making decisions which are best for the long-term, often taking severe criticism for the short-term costs.

Their approach recognizes the power of the fundamental principle of our Commission – that the states can accomplish more by working cooperatively than they could by standing alone. Moreover, the efforts and results listed in this report reflect our Commissioners' solemn commitment to leave healthy and abundant marine fisheries for the next generation to enjoy.

Our previous management successes have demonstrated the economic benefits and jobs that can result from abundant and healthy coastal fisheries. That lesson reinforces the relevance and importance of the Commission's Vision today and in the years to come. Readers can track our activities and progress by visiting our website, www.asmfc.org. Again, to all of you who participate in and support the Commission's process, thank you.

Report from the Chair

Robert H. Boyles, Jr.

In preparing this year's report to our Commissioners and stakeholders, I thought of the words of Massachusetts native, poet, and physician, Oliver Wendell Holmes.

I find that the great thing in this world is not so much where we stand as in what direction we are moving.... To reach the port of heaven, we must sail sometimes with the wind and sometimes against it – but we must sail, and not drift, nor lie at anchor.

These words strike a strong chord with me in that they reflect the struggles we face as fishery managers and stakeholders in rebuilding depleted stocks and maintaining healthy resources. Despite the ever growing number of challenges and obstacles in our path, we must remain persistent in our efforts to advance sustainable fishery resources. As Commission Chair these past two years, I have had the opportunity to observe the dedication and passion of our Commissioners – it is the glue that binds us together. I am confident our collective commitment to the Commission's Mission and Vision will keep us on a steady course to achieving healthy, self sustaining populations for all Atlantic coast fish species or successful restoration well in progress by the year 2015.

I wrote last year about the daunting challenges facing us. I was heartened by our Commissioners' response to that message. Over the past year, the Interstate Fisheries Management Program Policy Board made solid progress to improve accountability in our management process and several Boards made difficult decisions to take action to rebuild stocks. I encourage us all to continue that trend.

The challenges of rebuilding stocks, instilling our culture on a new generation of Commissioners, and dealing with scarce fiscal and human resources are known to all of us. I would suggest that cooperation be the fundamental element of our response to these and the other challenges we face.

Cooperation goes to the root of our Commission, the reason we were formed, and the reason for some of our greatest successes and important results.

The notion and potential power of cooperation is embedded in our Compact, Rules, and Regulations. It is a word in the very title of the Atlantic Coastal Fisheries Cooperative Management Act, and a theme repeated throughout the Act. It is a principle and value most recently re-affirmed by our Commissioners when we approved our current Strategic Plan.

I would ask us all to consider what is possible when we agree to stand together:

- We develop better solutions with better outcomes. Our resultant decisions and agreements are stable, a reflection of being good for all versus best for one.
- By collectively carrying out our public trust responsibilities, we enhance and project confidence in the wisdom of our decisions. Standing together, we are better able to respond to challenges to our actions, and better explain and promote the long-term benefits of what we do.
- We make better use of our limited political, fiscal, and human resources, especially in the area of scientific advice.
- We promote clarity of vision and purpose in all that we undertake.
- Perhaps, most importantly, we are able to energize each other through our mutual accomplishments.

The Reauthorized Magnuson-Stevens Act's new standards of accountability and adherence to scientific advice are producing results for federally managed species. This will raise the bar for what the public will expect from our Commission as well. We need to prepare for that challenge.

We can use our power of cooperation to leverage our capacities on multiple fronts. As I stand down from being your Chair, I am confident we have the tools, and the courage to use them, to meet the challenges ahead and to deliver to the next generation fisheries more abundant than what we have enjoyed. I extend to all who have participated in our process and supported the important work of our Commissioners my heartfelt thanks. I look forward to working with you all in the coming years.

Commercial fishing boats in Sandwich Marina on the Cape Cod Canal. Photo by Dan McKiernan, MA DMF.

The Atlantic States Marine Fisheries Commission continues to monitor and revise the interjurisdictional management programs for 24 species groups, making progress toward its vision of "healthy, self-sustaining fish populations for all Atlantic coast fish species or successful restoration well in progress by the year 2015."

In 2011, rebuilding progress was seen in scup, summer flounder, bluefish, and spiny dogfish stocks. However, there is still substantial work ahead to fully rebuild valuable Atlantic coastal fishery resources such as winter flounder, northern shrimp, weakfish, tautog, American shad, river herring, and Southern New England American lobster. In 2011, the Commission updated management programs for eight of its species (via amendments or addenda) in response to emerging stock assessment information and changes in the fisheries.

The Commission maintains its role as an honest broker and forum for the Atlantic coastal states to come together and discuss the biological, socioeconomic, and environmental issues central to developing management programs for each species. The task of managing finite marine resources continues to grow more complex with the consideration of predator/prey interactions, habitat, and water quality, in addition to the more traditional considerations of stock maintenance, rebuilding, and the allocation of fisheries resources.

The following section provides a summary of the status of species managed by the Commission and highlights management activities that occurred throughout 2011. For this summary, "overfishing" is defined as removing fish from the population at a rate that exceeds the target established in a plan, while the "overfished" determination is based on whether or not a stock biomass falls below the threshold established in the plan. The term "depleted" reflects low levels of abundance though it is unclear whether fishing mortality is the primary cause for reduced stock size.

Some other terms used throughout this report are "benchmark stock assessment," "peer-reviewed stock assessment," and "stock assessment update." A benchmark stock assessment is a full analysis and review of the stock condition, focusing on the consideration of new data sources and newer or improved assessment models. This assessment is generally conducted every three to five years and undergoes a formal peer review by a panel of independent fisheries scientists who evaluate whether the data and methods used to produce the assessment are scientifically sound and appropriate for management use (peer-reviewed stock assessment). A stock assessment update incorporates data from the most recent years into the peer-reviewed assessment model to determine current stock status (abundance and overfishing level).

Northern shrimp, Pandalus borealis (top), and two species of striped shrimp (P. montagui and Dichelopandalus leptocerus bottom). Photo by Cinamon Moffett, University of Maine.

Quick Guide to Species Stock Status

STATUS/ TRENDS	SPECIES		OVERFISHED	OVERFISHING	REBUILDING STATUS & SCHEDULE
?	American Eel		Unknown	Unknown	No rebuilding schedule; benchmark assessment scheduled for 2012
√	American Lobster	Gulf of Maine	N	N	Gulf of Maine and Georges Bank stocks rebuilt Board approved 10% reduction in exploitation on SNE stock as 1st phase in rebuilding program
√		Georges Bank	N	N	
↓		Southern New England	Y	N	
↓	American Shad		Depleted	Unknown	Amendment 3 establishes 2013 moratorium unless sustainability can be documented
√	Atlantic Croaker		Unknown	N	Overfished status unknown; however, biomass has been increasing and age structure has been expanding since late 1980s
√	Atlantic Herring		N	N	Rebuilt; benchmark assessment scheduled for 2012
↔	Atlantic Menhaden		N	Y	Board approved new reference points in 2011 to increase SSB
√	Atlantic Striped Bass		N	N	Rebuilt since 1995; benchmark assessment scheduled for 2013
?	Atlantic Sturgeon		Y	N	40+ year moratorium; to be rebuilt by ~2038
√	Black Sea Bass		N	N	Rebuilt; benchmark assessment completed in 2011; Board review for management use scheduled for early 2012
√	Bluefish		N	N	Rebuilt
√/↓	Coastal Sharks		Varies by species & species complex		
?	Horseshoe Crab		Unknown	Unknown	No rebuilding schedule; 2010 assessment found New England and NY stocks to have declined, while DE Bay and Southeast stocks have increased over their respective time series
↓	Northern Shrimp		Y	Y	Benchmark assessment scheduled for 2013

√ = HEALTHY ↑ = REBUILDING ↔ = STABLE/UNCHANGED ↓ = DEPLETED ? = UNKNOWN

STATUS/ TRENDS	SPECIES		OVERFISHED	OVERFISHING	REBUILDING STATUS & SCHEDULE
⇔	Red Drum	Northern Region	Unknown	N	SPR above target and threshold SPRs
		Southern Region	Unknown	N	SPR above threshold SPR
?	River Herring		Unknown	Unknown	Amendment 2 establishes 2012 moratorium unless sustainability can be documented; benchmark assessment scheduled for 2012
√	Scup		N	N	Rebuilt
↑	Spanish Mackerel		Unknown	N	Continuing to rebuild until stock biomass is greater than B_{MSY}
√	Spiny Dogfish		N	N	Rebuilt
?	Spot		Unknown	Unknown	Omnibus Amendment establishes stock status triggers until coastwide assessment can be performed
?	Spotted Seatrout		Unknown	Unknown	No rebuilding schedule
√	Summer Flounder		N	N	Rebuilt
↓	Tautog		Y	Y	F_{target} reduced to 0.15 to initiate stock rebuilding
↓	Weakfish		Depleted	N	6-year rebuilding if SSB is less than the threshold level; Board implemented further harvest restrictions in 2009 based on the findings of the benchmark assessment
?	Winter Flounder	Gulf of Maine	Unknown	N	Overfished status unknown because assessment model was not accepted by peer review
↓		Southern New England/ Mid-Atlantic	Y	N	Current biomass at 16% of SSB target

√ = HEALTHY ↑ = REBUILDING ⇔ = STABLE/UNCHANGED ↓ = DEPLETED ? = UNKNOWN

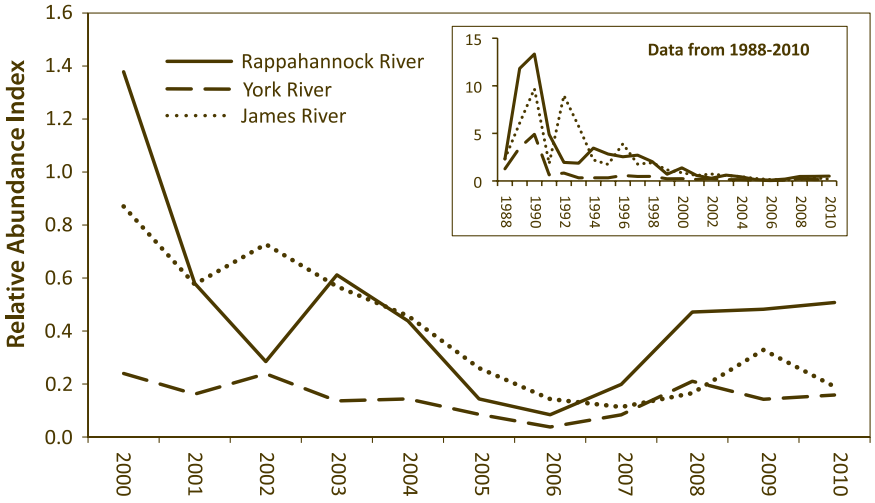
AMERICAN EEL

American eel are currently managed through Addendum II to the American Eel Fishery Management Plan (FMP). The Addendum maintains the mandatory reporting of catch and effort data established in 2006 through Addendum I and places increased emphasis on improving the upstream and downstream passage of American eel.

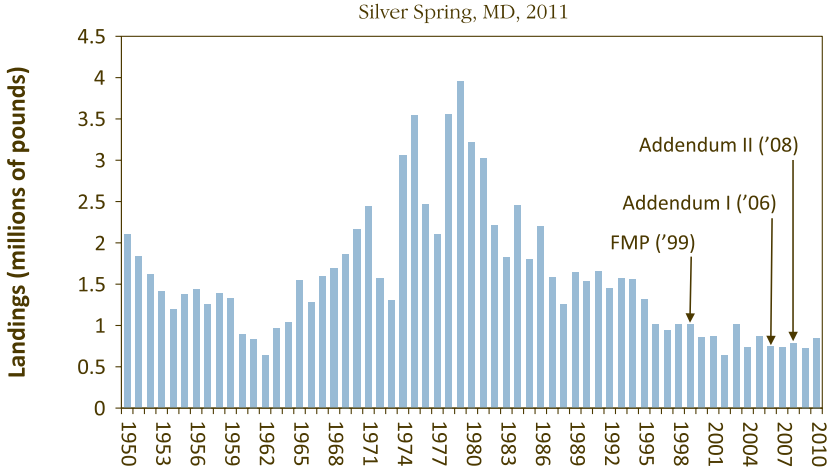
In 2011, the Commission made significant progress on finalizing the American eel benchmark stock assessment for peer review. The assessment, which will be presented to the American Eel Board in mid-2012, will provide new and updated information on American eel stock status, including the long-term young-of-the-year index being conducted by the states, to inform future management actions.

Student with glass eels and elvers as part of NYSDEC's American Eel Project. Photo by Chris Bowser, NYSDEC.

Virginia Index of American Eel Relative Abundance
Source: VIMS Juvenile Fish and Blue Crab Survey, 2011



American Eel Commercial Landings
Source: Personal communication from NMFS Fisheries Statistics Division, Silver Spring, MD, 2011



The Commission has also requested the assessment results be considered by the U.S. Fish and Wildlife Service (USFWS) in its current status review of American eel. The review stems from a 2010 petition to list American eel under the Endangered Species Act (ESA). It is anticipated that USFWS, in collaboration with NOAA Fisheries Service, will make a final determination on whether listing is warranted in late 2012.

The most recent information on the status of the American eel indicates that the coastwide abundance of yellow eel (a juvenile life-stage of the American eel) is at or near historic low levels. Further, relative abundance is likely to continue to decline unless mortality decreases and/or recruitment increases (see accompanying figure on Virginia abundance index).

For the last several years, landings of American eel have remained at low levels, with commercial fisheries harvesting approximately 847,400 pounds in 2010. Historically, recreational landings have only accounted for about 1% of total coastwide harvest.

AMERICAN LOBSTER

With a 2010 ex-vessel value of nearly $400 million, American lobster is one of the most valuable commercial fisheries along the Atlantic coast. The lobster fishery has seen incredible expansion in effort and landings since the late 1940s and early 1950s, when landings varied around 25 million pounds. The last two decades alone have seen dramatic increases in lobster landings, rising from 57 million pounds in 1993 and peaking in 2010 at 116 million pounds. Approximately 90% of lobster is caught in state waters, with Maine and Massachusetts accounting for approximately 80% and 10% of the commercial landings, respectively.

The 2009 peer-reviewed benchmark stock assessment indicates record high stock abundance and recruitment (number of lobsters entering the fishery) throughout most of the Gulf of Maine (GOM) and Georges Bank (GBK), and continued low abundance and persistently low recruitment in Southern New England (SNE). According to the Commission's American Lobster Technical Committee, it is this low recruitment, caused by a combination of environmental factors and continued fishing mortality, which is preventing the SNE stock from rebuilding. Under the assumptions of poor recruitment and high natural mortality, the Technical Committee is not certain the stock would recover to the target level under a total fishery moratorium.

In 2011, in response to the status of the SNE stock, the American Lobster Management Board

Figure 1. Estimated Abundance of American Lobster in the Gulf of Maine
Source: ASMFC American Lobster Stock Assessment, 2009

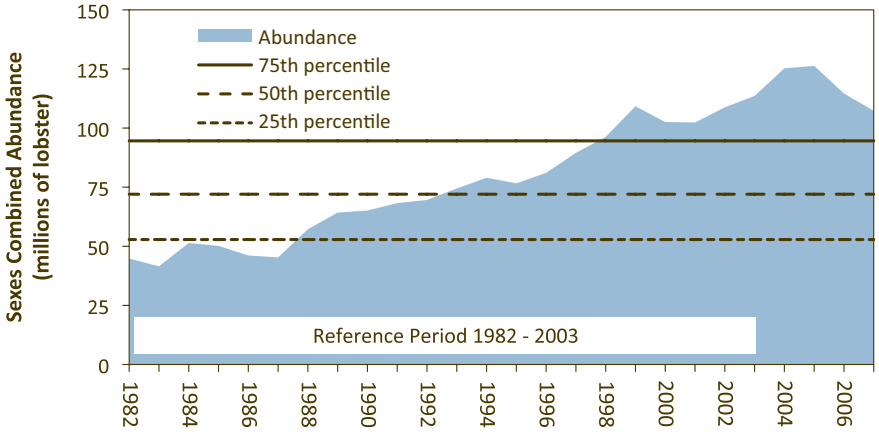


Figure 2. Estimated Abundance of American Lobster in Georges Bank
Source: ASMFC American Lobster Stock Assessment, 2009

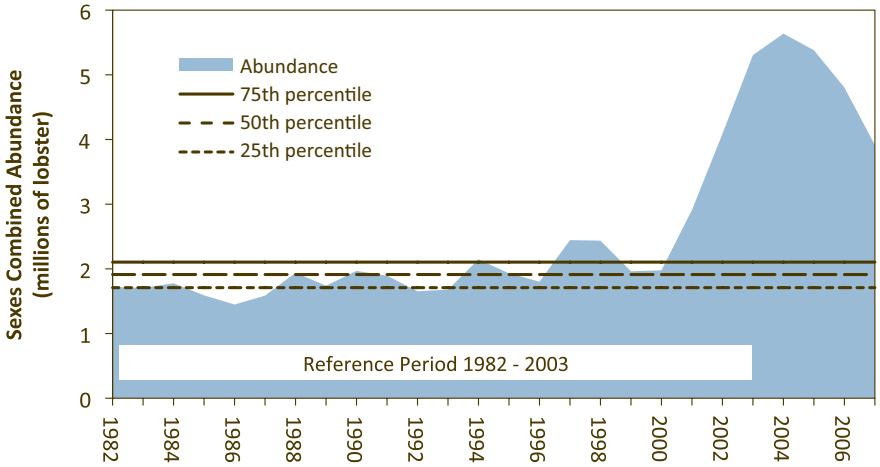
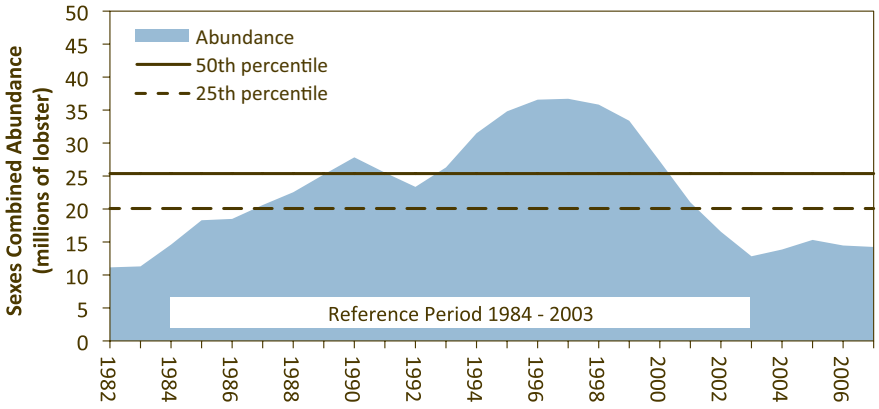


Figure 3. Estimated Abundance of American Lobster in Southern New England
Source: ASMFC American Lobster Stock Assessment, 2009



Timeline of Management Actions: Amendment 3 (1997); Addendum I (1999); Addendum II (2001); Addendum III (2002); Addenda IV & V (2004); Addenda VI & VII (2005); Addenda VIII & IX (2006); Addenda X & XI (2007); Addendum XIII (2008); Addenda XII, XIV & XV (2009); Addendum XVI (2010); Addendum XVII (2011)

adopted a 10% reduction in exploitation by all fishing sectors and all gear types starting January 1, 2013 as the first phase in the Board's efforts to rebuild the stock. The 10% reduction would come from changes in the minimum size limit, maximum size limit, and/or closed seasons. The Board also moved forward on the development of Draft Addenda XVIII and XIX to initiate the second phase of its rebuilding efforts. Both addenda will propose area-specific measures to scale the scope of the SNE fishery to the size of the resource. The addenda will include options to achieve a minimum reduction in traps fished by 25%.

Linda Grindle with the Lobster Foundation of Massachusetts and Beth Casoni with the Massachusetts Lobstermen's Association (MLA) display part of the day's catch. Photo courtesy of MLA.

The current biological reference points (exploitation and abundance targets and thresholds) for the three stock assessment areas (GOM, GBK, SNE) were established through Addendum XVI. These include a four-tiered approach to evaluate abundance in the GOM and GBK (Figures 1 and 2), a four-tiered approach to evaluate exploitation for all three stock units, and a three-tiered approach to evaluate abundance for SNE (Figure 3). The Board set the SNE abundance reference points at a lower target level than the GOM and GBK stocks because it believes that environmental and ecosystem changes have reduced the ability of the SNE stock to rebuild to historical levels. Based on these reference points, GOM and GBK abundance is in favorable condition with abundance above the 75% percentile (Figure 1). Exploitation in the GOM is moderate and is at a favorable level for GBK. The SNE abundance estimate is below the 25th percentile (Figure 3), requiring Board action to rebuild the stock.

Despite current high levels of abundance and recruitment in GOM and GBK, the 2009 Review Panel recommended "that managers be particularly vigilant of recruitment patterns in these stocks and stand ready to impose substantial restrictions should recruitment decline." The Panel cautioned that productivity has been much lower in the past. For example, GOM landings, which account for nearly 87% of the coastwide fishery since 2002, fluctuated around 20 million pounds without trend from 1930 to 1990, possibly due to low recruitment and production. Those levels are substantially lower than 72.8 million pounds, which was the average annual landings from 2000 to 2007. The current levels of fishing effort and harvest will not be sustainable if the stock returns to lower recruitment and production levels. This was of particular concern to the Panel because fishermen harvest approximately 50% of the available (i.e., legal-sized) lobster in the ocean. Biological information indicates that only 30% of the available lobster should be removed in order to maintain a healthy fishable population over the long-term.

ATLANTIC CROAKER

The results of the 2010 peer-reviewed stock assessment for Atlantic croaker indicate the resource is not experiencing overfishing. Although model estimates of spawning stock biomass (SSB) were too uncertain to be used to precisely determine overfished stock status, biomass has been increasing and the age-structure of the population has been expanding since the late 1980s. The 2010 Atlantic croaker assessment considered the population to be a single stock on the Atlantic coast. The previous stock assessment divided the stock into Mid-Atlantic and South Atlantic regions and assessed only the Mid-Atlantic region.

A major source of uncertainty in the assessment is the magnitude of Atlantic croaker bycatch in South Atlantic shrimp trawls. Most croaker caught in this fishery are less than one year old, too small to be marketed, and thus are discarded. Croaker is one of the largest components of the shrimp trawl catch; some studies found that shrimp trawls caught more croaker than shrimp. There are no continuous monitoring programs to account for these discards. In some years, the best available estimates of discards are as large as or larger than reported landings.

In 2011, the South Atlantic State/Federal Fisheries Management Board (South Atlantic Board) approved Addendum I to Amendment 1 to the Atlantic Croaker FMP. The Addendum made two changes to the Atlantic croaker management program: (1) changing the management unit to one region (New Jersey

Atlantic croaker for sale in NY seafood market. Photo by Tina Berger, ASMFC.

to the east coast of Florida), and (2) modifying the biological reference points used to assess stock condition. Both of these changes were based on recommendations from the benchmark stock assessment.

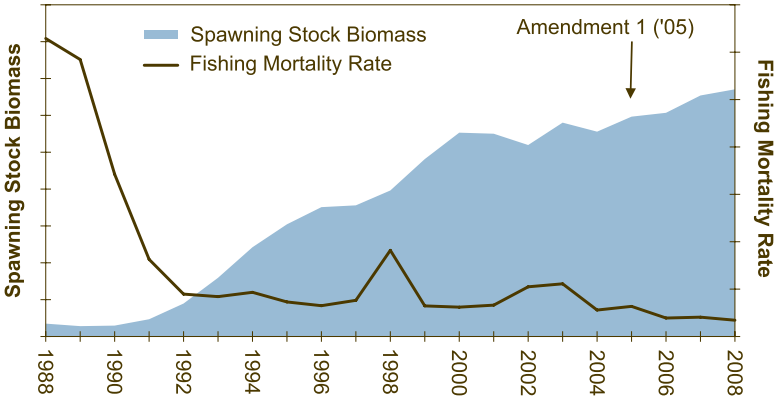
Total 2010 landings are estimated at 19.2 million pounds, a 53% decline since the peak of 41.2 million pounds in 2001. The majority of landings occur in North Carolina, Maryland, and Virginia, accounting for approximately 90% of coastwide recreational landings and 95% of coastwide commercial landings.

From 1981 to 2010, recreational landings from New Jersey through Florida have varied between 2.8 million fish (1.3 million pounds) and 13.2 million fish (11.1 million pounds), with landings generally increasing until 2001 before declining through 2010. Recreational harvest in 2010 is estimated at 6.5 million fish (4.3 million pounds). The number of recreational releases has varied without trend for the last decade. In 2010, anglers released 8.3 million fish, about 1.8 million more fish than they landed.

Atlantic coast commercial landings exhibit a cyclical pattern, with low landings in the 1960s to early 1970s and the 1980s to early 1990s, and high landings in the mid- to late 1970s and the mid-1990s to present. Commercial landings increased from a low of 3.7 million pounds in 1991 to 30.1 million pounds in 2001; however, landings have declined consistently since 2003 to 14.9 million pounds in 2010. Commercial landings comprise about 75% of total reported landings for Atlantic croaker.

Trends in Atlantic Croaker Spawning Stock Biomass & Fishing Mortality Rate

Source: ASMFC Atlantic Croaker Stock Assessment Report, 2010



ATLANTIC HERRING

Atlantic herring fisheries have existed in the Northwest Atlantic since the 1500s. In the early 1960s, an aggressive foreign fishery developed on GBK with landings peaking at 470,000 mt in 1968. This excessive harvest led to a collapse of the offshore herring stock. Stringent management throughout the 1990s resulted in a fully rebuilt stock that has been stable for the past decade. Landings have averaged just below 90,000 mt from 2000 to 2009, and were approximately 65,200 mt in 2010. The majority of Atlantic herring landings are taken from GOM.

Based on the 2009 peer-reviewed stock assessment, the Atlantic herring stock complex is not overfished nor experiencing overfishing. However, catch rates in the past two years have been well below average in Area 1A (inshore GOM), which may be an early sign of change in stock status. While the Area 1A quota was reduced by 40% in 2010, it took considerably more fishing days to fully harvest the reduced quota. A benchmark stock assessment will begin in early 2012; its results will provide an updated estimate of stock status.

In 2011, the Atlantic Herring Section considered an addendum to allocate one or two additional landing days to small mesh bottom trawl and small purse seine vessels during weeks when days-out restrictions are implemented. The additional landing day(s) were considered to address concerns that days-out restrictions in 2008 and 2009 may have disproportionately reduced landings for smaller vessels fishing in Area 1A. These vessels have small or no fish holds and can only fish for one day per landing event, while vessels with large fish holds and refrigeration can fish for several days prior to the initial landing day. The Section decided to not approve the addendum, largely because of concern that the

additional landing day(s) could result in a premature closure of the recently reduced Area 1A quota.

Off loading Atlantic herring. Photo by Peter K. Prybot, Commercial Fisheries News.

The Section implemented a seasonal allocation for the available quota for Area 1A. This allocated nearly three quarters of Area 1A total allowable catch (TAC) for harvest from June to September with the remainder available from October to December. Each season will close when 95% of that period's quota has been harvested and underages from the June to September period will be rolled into the October to December period. The states of Maine, New Hampshire, and Massachusetts continued to modify days-out of the fishery during the season to prolong the fishery in Area 1A making herring available during peak demand.

Recent concerns raised by the Commission and stakeholders regarding river herring (alewife and blueback herring) bycatch in the Atlantic herring fishery prompted the New England Fishery Management Council (NEFMC) to include catch/bycatch monitoring requirements and measures to reduce interactions with river herring stocks in Draft Amendment 5 to the Atlantic Herring FMP. The proposed measures include monitoring requirements, avoidance and protection areas, trigger based approaches, and catch caps. Amendment 5's Draft Environmental Impact Statement was formally submitted to NOAA Fisheries Service in November 2011. Public hearings are scheduled to be held in spring 2012, with final implementation slated for 2013.

ATLANTIC MENHADEN

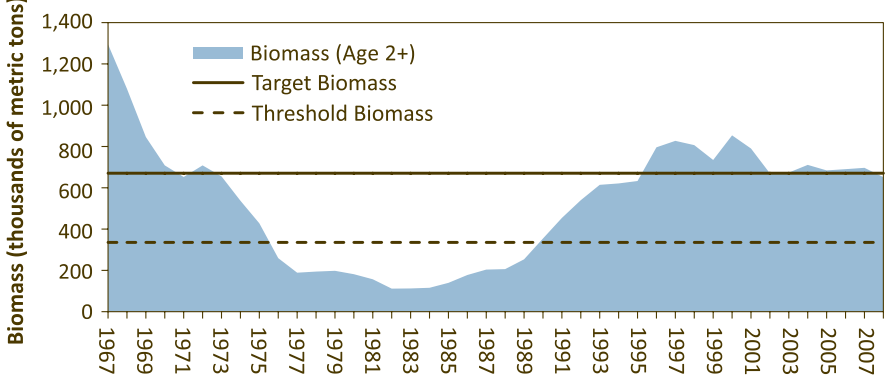
Based on the revised 2010 peer-reviewed stock assessment, the coastwide Atlantic menhaden stock is not overfished but is experiencing overfishing. The fishing mortality rate is above the threshold (the maximum rate at which fishing can occur and still allow the population to replace itself). Population fecundity (measured by number of eggs being produced by the population) is slightly below the target, meaning that the spawning stock appears to be adequate to produce the target number of eggs. However, overall abundance has declined steadily since the peak observed in the early 1980s and 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.

In 2011, in response to these findings, the Atlantic Menhaden Management Board approved Addendum V to Amendment 1 to the Atlantic Menhaden FMP. The Addendum establishes a new interim fishing mortality threshold and target (based on maximum spawning potential or MSP) with the goal of increasing abundance, spawning stock biomass, and menhaden availability as a forage species. The new threshold and target equate to a MSP of 15% and 30%, respectively.

The MSP approach identifies the fishing mortality rate necessary to maintain a given level of stock reproductive potential relative to the potential maximum stock productivity under unfished conditions. A 15% MSP would equate to a fishing mortality rate threshold required to maintain approximately 15% of the spawning potential of an unfished stock. (An unfished

Atlantic Herring Biomass for Ages 2+

Source: Transboundary Resource Assessment Committee, 2009



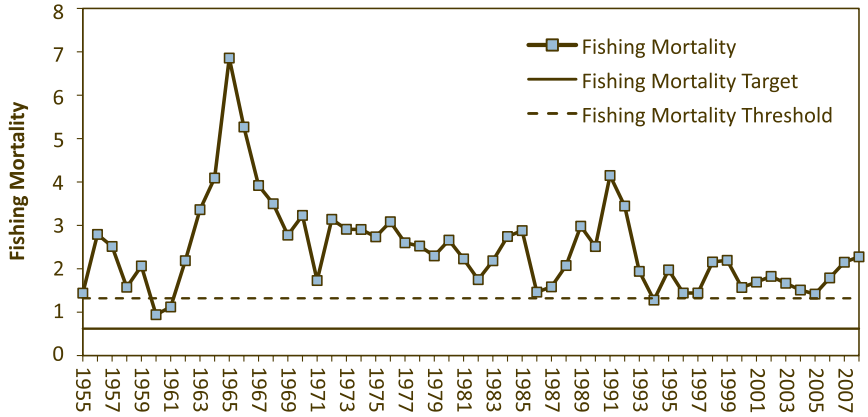
Timeline of Management Actions: FMP (1993); Amendment 1 (1999); Amendment 2 (2006) Addendum I (2009); Addendum II (2010)

stock is equal to 100% MSP.) Given that the current fishing mortality equates to an MSP of approximately 8%, the new reference points are intended to provide increased protection for spawning adults which, given optimal environmental conditions, may result in increased juvenile abundance.

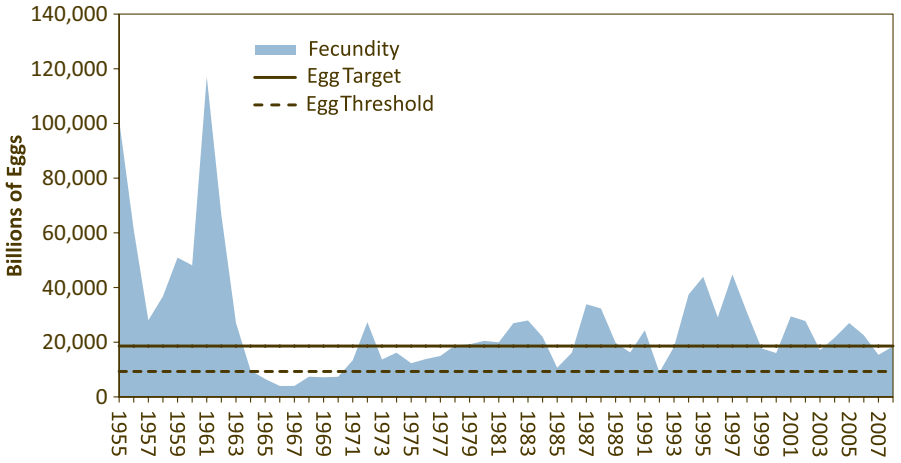
The Board also initiated development of an amendment to establish management measures for all fishing sectors and gear types to achieve the new fishing mortality reference points, with implementation in 2013. Further, the Board placed a high priority on continuing the development of ecosystem reference points using a multispecies modeling approach. Ecosystem reference points are expected to address the forage needs of menhaden's predator species, including striped bass, weakfish, and bluefish. This work is anticipated to take a few years.

Atlantic menhaden captured on the SEAMAP Cooperative Winter Tagging Cruise. Photo by ASMFC.

Atlantic Menhaden Fishing Mortality (Full F)
Source: ASMFC Atlantic Menhaden Stock Assessment, 2010



Atlantic Menhaden Fecundity
Source: ASMFC Atlantic Menhaden Stock Assessment, 2010



Timeline of Management Actions: FMP (1981); FMP Revision (1991); Amendment 1 (2001); Addendum I (2004); Addendum II (2005); Addendum III (2006); Addendum IV (2009); Addendum V (2011)

The Board continued to monitor the Chesapeake Bay harvest cap for the reduction fishery that was initially established through Addendum III. The cap requires harvest for reduction purposes to be prohibited in the Chesapeake Bay when 100% of the cap is landed (109,020 mt). Over-harvest in any given year would be deducted from the next year's cap. The Addendum also includes a provision allowing under-harvest in one year to be credited only to the following year's harvest, not to exceed 122,740 mt. With total reduction landings in 2010 estimated at 85,000 mt, well below the 109,020 mt cap, the Chesapeake Bay reduction harvest cap for 2011 was set at 122,740 mt.

ATLANTIC STRIPED BASS

The 2011 Atlantic striped bass stock assessment update indicates the resource remains in good condition with female SSB estimated at 109% of the SSB target and 137% of the SSB threshold. The estimated fishing mortality rate in 2010 was 0.23, below both the target (0.30) and threshold (0.34). In addition, Maryland and Virginia reported that after several years of poor recruitment, their 2011 young-of-the-year indices appear to be some of the highest on record. Striped bass are assessed as a single stock complex although there are at least three distinct stocks contributing to the coastal migratory group: Hudson River, Delaware River, and Chesapeake Bay and tributaries. The striped bass stock complex is not overfished and overfishing is not occurring.

Commercial fisherman Kelly Place and USFWS biologist Wilson Laney display striped bass captured during a Cooperative Federal/State/Industry Atlantic Sturgeon Bycatch Reduction Survey. Photo by Kate Taylor, ASMFC.

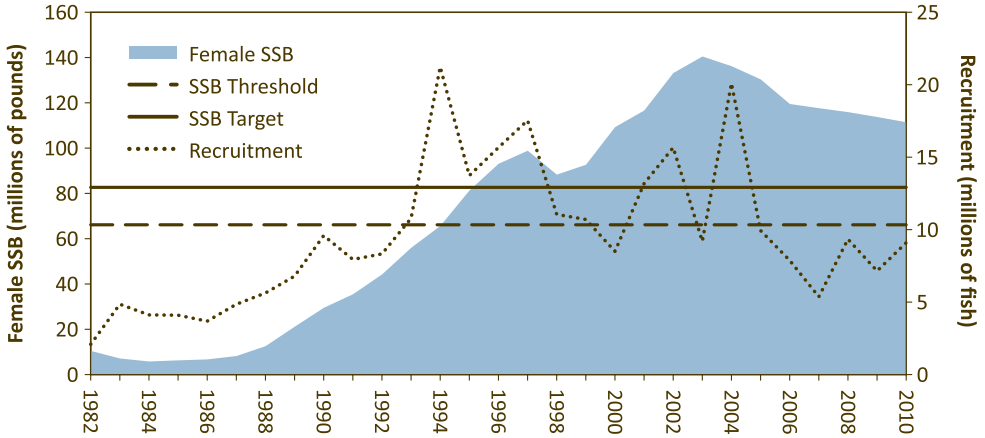
Anglers landed about two million striped bass weighing 21.3 million pounds in 2010. Coastwide landings in 2010 reflect a 26% decline from a high of 2.7 million fish in 2006. Recreational discard mortalities (assuming an 8% mortality of releases) in 2010 were 578,000 fish, a 72% decrease from a high of 2.1 million fish in 2006.

Commercial landings, which have been consistently lower than the recreational catch (harvest plus releases), increased from 140,000 pounds in 1987 to 5.9 million pounds in 1997, and have remained relatively stable since 1997 due to quota restrictions. Landings were estimated at seven million pounds in 2010. Gillnets are the dominant commercial gear, followed by hook and line, pound nets, seines, and trawls.

In 2011, the Atlantic Striped Bass Management Board initiated Draft Addendum III with the goal of reducing striped bass fishing mortality based on recent trends in the fishery and resource, including a 72% decline in estimated recreational catch from 2006 to 2010; a 25% decline in estimated striped bass abundance from 2004 to 2008; lowered recruitment in recent years; and the impact of mycobacteriosis on Chesapeake Bay striped bass. Additionally, states in the northern extent of the fishery have expressed concern over decreased availability of striped bass. Given the results of the 2011 assessment update and strong recruitment from Chesapeake Bay, the Board chose to postpone further action on Draft Addendum III until completion of the benchmark stock assessment in June 2013.

Atlantic Striped Female Spawning Stock Biomass (SSB) and Recruitment

Source: ASMFC Atlantic Striped Bass Stock Assessment Update, 2011



Timeline of Management Actions: Amendment 1 & 2 (1984); Amendment 3 (1985); Amendment 4 (1990); Amendment 5 (1995); Amendment 6 (2003); Addendum I (2007); Addendum II (2010)

USFWS biologist Albert Spells tags a juvenile Atlantic sturgeon. Photo by Kate Taylor, ASMFC.

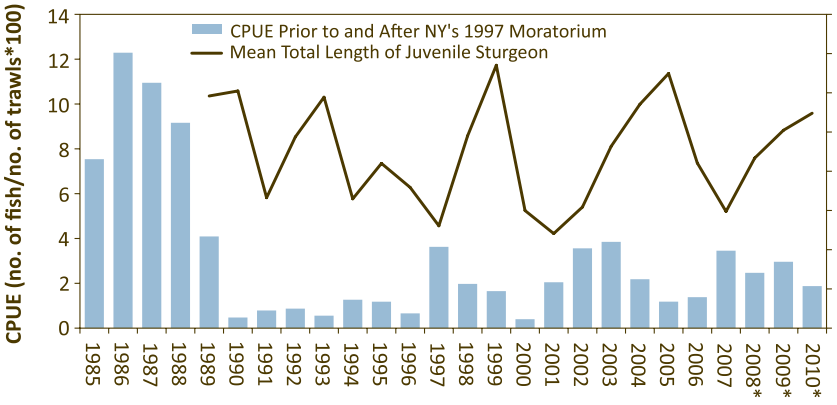
ATLANTIC STURGEON

In the early 1800s, Atlantic sturgeon was regarded as a "junk" fish and was only fit for use as fertilizer for plants or fuel for steam-powered vessels. However, in response to increasing European demand for caviar, a major fishery was established on the Atlantic coast by 1870. As a slow-growing, late-maturing, long-lived species, sturgeon populations could not keep up with the demand. Within 100 years of its emergence, the Atlantic sturgeon fishery collapsed. Wild Atlantic sturgeon stocks are now protected from harvest and possession through a coastwide moratorium in both state and federal waters until 2038.

Very little is known about the Atlantic sturgeon's stock status. Reliable data are difficult to obtain because many river systems have few fish, and rivers with more fish are often not easily sampled. The most recent stock assessment of Atlantic sturgeon occurred in March 1998. The assessment was conducted for each river system where Atlantic sturgeon was historically found. All assessed systems held significantly less sturgeon than they did in the late 1800s and early 1900s, with very few signs of recovery detected.

Catch Per Unit Effort (CPUE) of Juvenile Atlantic Sturgeon in the Hudson River Estuary

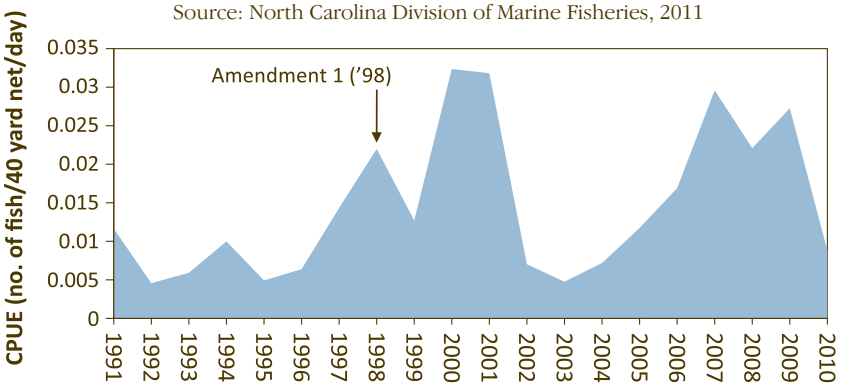
Source: New York State Dept. of Environmental Conservation Compliance Report, 2010



Notes: *2008 – 2010 values are estimated. Coastwide moratorium implemented in 1998.

Fishery-independent Catch Rates of Juvenile Atlantic Sturgeon in Albemarle Sound

Source: North Carolina Division of Marine Fisheries, 2011



The accompanying graphs depict catch per unit effort for two fishery-independent surveys conducted by New York and North Carolina. Both surveys have experienced significant fluctuations in recent years. The New York survey has shown a slight up-tick since 2007, while the North Carolina survey has shown a decrease from 2009.

Atlantic sturgeon is currently being considered for listing under ESA. NOAA Fisheries Service Northeast Regional Office issued a proposed rule to list the GOM distinct populations segment (DPS) as threatened and the New York Bight and Chesapeake Bay DPS as endangered. NOAA Fisheries Service Southeast Regional Office issued a proposed rule to list the Carolina and South Atlantic DPS as endangered. A final rule is expected in early 2012.

BLACK SEA BASS

An important recreational and commercial species in the Mid-Atlantic region, black sea bass are jointly managed by the Commission and the Mid-Atlantic Fishery Management Council (MAFMC). This program, which focuses on the stock north of Cape Hatteras, has been in place since 1996. It includes quotas to restrict the commercial fishery and possession limits, seasons, and minimum sizes to control recreational landings.

Young angler with black sea bass. Photo by Steve Witthuhn, NY.

In 2011, the Summer Flounder, Scup, and Black Sea Bass Board approved state-by-state shares for the 2011 black sea bass recreational season in order to mitigate potential disproportionate impacts to individual states that coastwide measures may cause. The 2010 regulations resulted in a preliminary harvest of 2.98 million pounds, approximately 1.15 million pounds above the 2010 target. The state regulations were modified to achieve an overall reduction of 37% to ensure the 2011 target of 1.78 million pounds was not exceeded.

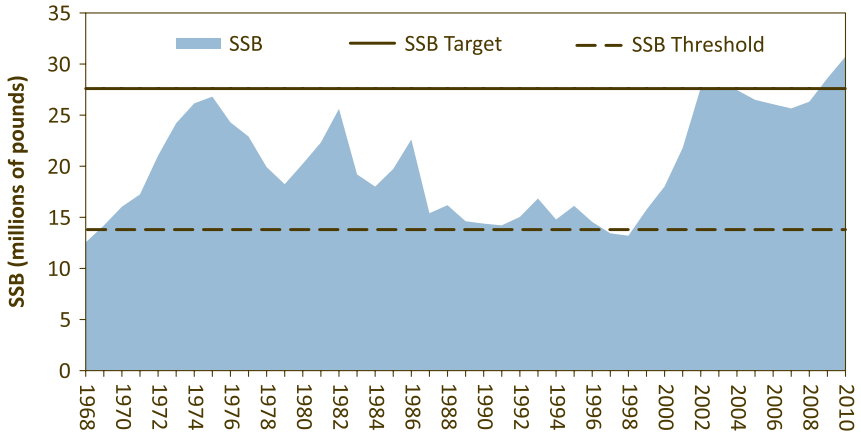
Based on the stock projections completed in 2011, the black sea bass stock is not overfished and overfishing is not occurring. The projections indicate the stock is at about 111% of its biomass target. Based on the advice of MAFMC's Scientific and Statistical Committee (SSC), both the Commission and Council adopted a 3.6 million pound total allowable landing (TAL) limit for the 2012 fishery, 100,000 pounds less than 2011. The Commission took a precautionary approach in setting the black sea bass TAL due to concerns regarding scientific uncertainty in the assessment model. A benchmark stock assessment and peer review were completed in late 2011; a report summarizing the findings should be available in early 2012.

The commercial fishery is allocated 49% of the black sea bass TAL. The principle gears used in the fishery are pots, otter trawl, and handline. After peaking at 22 million pounds in 1952, commercial landings markedly decreased in the 1960s and have since ranged from 1.3 to 4.4 million pounds. From 1988 to 1997, landings averaged 2.86 million pounds. In 1998, a quota system was incorporated into the management program and state-by-state shares were introduced in 2003. Since 1998, landings have ranged from 2.86 to 3.53 million pounds. Landings in 2010 were estimated at 1.68 million pounds. Commercial discards in 2010 were estimated to be approximately 132,000 pounds.

The recreational fishery is allocated 51% of the TAL. After peaking in 1985 at 12.35 million pounds, recreational harvest averaged 3.75 million pounds annually from 1988 to 1997. Recreational harvest limits were put in place in 1998 and harvest has ranged from 1.1 to 4.4 million pounds from 1998 to 2009. Recreational harvest in 2010 was estimated at 2.98 million pounds. In 2010, 79% of the recreational catch (harvest plus releases) was discarded.

Black Sea Bass Spawning Stock Biomass (SSB)

Source: NEFSC Black Sea Bass Projections, 2011



Timeline of Management Actions: FMP (1996); Amendment 10 (1997); Amendment 11 (1998); Amendment 12 (1999); Amendment 13 (2003)

BLUEFISH

Declared rebuilt in 2009, bluefish is an example of the success that can be achieved through joint state/federal management of a coastwide species. Since 1998, the Commission and MAFMC have jointly managed bluefish through state-specific quotas for

the commercial fishery and a maximum possession limit to constrain the recreational fishery.

In 2011, the Bluefish Management Board developed Draft Addendum I to Amendment 1 to the Bluefish FMP to establish a coastwide biological sampling program to improve the quantity and quality of information used in future bluefish stock assessments. The proposed sampling program was developed by the Bluefish Technical Committee in response to a 2005 peer review recommendation that ageing practices be standardized and sampling expanded. It is anticipated the Addendum will be approved in February 2012.

The bluefish stock assessment was updated in 2011 to incorporate 2010 landings and survey indices. This update indicates that the stock is not overfished nor experiencing overfishing. The assessment update projected a 2010 stock biomass of 309 million pounds, approximately 95% of its rebuilding target and about a 10% decline from 2009. Fishing mortality is estimated to be 0.14, below the fishing mortality threshold (F_{MSY} = 0.19) and near the fishing mortality target (0.15). Based on the uncertainty in the assessment update, the Commission modestly increased the bluefish TAL to 27.69 million pounds for 2012, about a 400,000 pound increase from 2011.

Recreational harvest has been increasing since a low of 3.7 million fish in 1999. Since then, recreational harvest averaged over 7.05 million fish annually. In 2010, recreational anglers caught a total of 15.8 million bluefish, a 24% increase from 2009. Of these fish, 6.1 million were landed and the remaining 9.7 million fish were released.Landings from the commercial bluefish fishery have been consistently lower than the recreational catch. Commercial landings decreased from 16.5 million pounds in 1981 to 7.3 million pounds in 1999. The commercial fishery has been regulated by quota since implementation of Amendment 1 in 2000, and has since averaged around seven million pounds annually. Three-quarters of the harvest occur in New York, New Jersey, and North Carolina.

ASMFC FMP Coordinator Mike Waine and friend with a bluefish. Photo by Rick Ricossi, www.rickricossi.com.

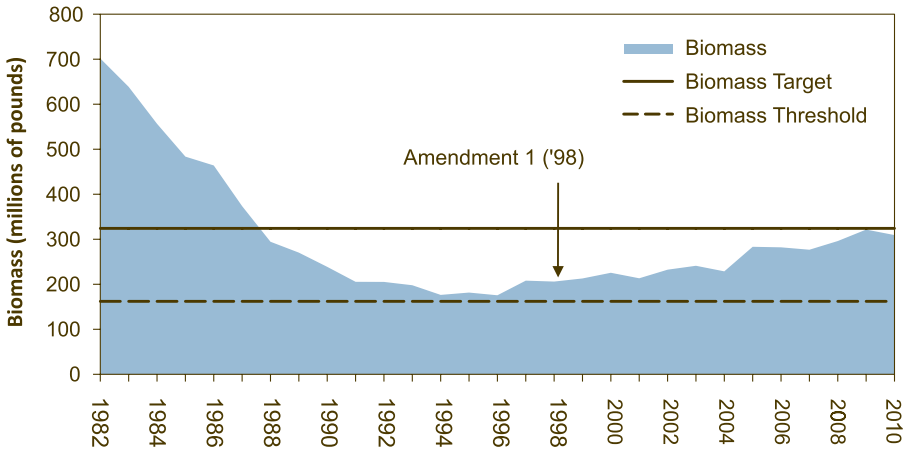
COASTAL SHARKS

The Atlantic Coastal Sharks FMP addresses the management of 40 shark species, including smooth dogfish, and establishes a suite of management measures for recreational and commercial shark fisheries in state waters (zero to three miles from shore). The FMP, approved in 2008 and fully implemented by the states in 2010, was developed to complement federal shark management and ensure consistency between state and federal management measures.

A 2011 benchmark assessment of dusky (*Carcharhinus obscures*), sandbar (*Carcharhinus plumbeus*), and blacknose (*Carcharhinus acrontus*) sharks indicates that implementation of a

Estimated Bluefish Biomass

Source: ASMFC Bluefish Stock Assessment Subcommittee, 2011



comprehensive state waters FMP, coupled with federal management measures, was successful in reducing fishing mortality on depleted sandbar and dusky

Research technician Erin Voigt on a University of North Carolina Coastal Shark Survey Cruise out of Morehead City, NC. Photo by Mike Waine.

stocks. Blacknose shark, part of the small coastal shark complex, are overfished with overfishing occurring. The Board will consider the assessment in February 2012 and initiate a management response as necessary.

NOAA Fisheries Service Highly Migratory Species Division (HMS) will implement the results of the assessment as part of Amendment 5 to the HMS FMP to be implemented by April 2013. The accompanying table provides an overview of stock status by species group.

The Coastal Sharks Management Board maintained the 33-fish large coastal shark (LCS) commercial possession limit in 2011 based on the successful distribution of the quota in 2010. The 33-fish possession limit was approved for 2012 and is consistent with the federal specifications. The Board also initiated an addendum to consider smooth dogfish state shares in response to a proposed federal smooth dogfish commercial quota, but postponed approving the document for public comment until the proposed federal quota is published. It is anticipated that HMS will implement a smooth dogfish quota for the 2013 fishery.

HORSESHOE CRAB

The management of horseshoe crab is an interesting case study of the increasing demands placed on East Coast fisheries resources. Horseshoe crabs play a vital ecological role in the migration of shorebirds along the entire Atlantic seaboard, as well as providing bait

Stock Status of Atlantic Coastal Shark Species and Species Groups

SPECIES OR COMPLEX NAME	STOCK STATUS		REFERENCES/COMMENTS
	OVERFISHED	OVERFISHING	
Porbeagle	Approaching	Y	Porbeagle Stock Assessment, ICCAT Standing Committee on Research and Statistics Report (2009)
Dusky	Y	Y	SEDAR 21 (2011). 'Prohibited' species
Large Coastal Sharks	Unknown	Unknown	SEDAR 11 (2006). Difficult to assess as a species complex due to various life history characteristics/ lack of available data
Blacktip	Unknown	Unknown	SEDAR 11 (2006)
Sandbar	Y	N	SEDAR 21 (2011)
Atlantic Sharpnose	N	N	SEDAR 13 (2007)
Blacknose	Y	Y	SEDAR 21 (2011)
Bonnethead	N	N	SEDAR 13 (2007)
Finetooth	N	N	SEDAR 13 (2007)
Smooth Dogfish	Unknown	Unknown	No Assessment

for commercial American eel and conch fisheries along the coast. Additionally, their unique blood is used by the biomedical industry to produce Limulus Amoebocyte Lysate, an important tool in the detection of contaminants in patients, drugs, and medical supplies. The challenge for fisheries managers is to ensure that horseshoe crab stocks can meet all these diverse needs, while conserving the resource for its self-perpetuation.

In 2011, the Horseshoe Crab Management Board initiated Draft Addendum VII to the Horseshoe Crab FMP to implement the Adaptive Resource Management (ARM) framework. The ARM framework incorporates both shorebird (particularly red knot) and horseshoe crab abundance levels to set optimized horseshoe crab harvest levels for the Delaware Bay area. The ARM framework was developed by the Commission, USFWS, and the U.S. Geological Survey in recognition of the importance of horseshoe crab eggs to shorebirds in the Delaware Bay Region. The framework was peer-reviewed and approved for management use in 2009.

The Draft Addendum also considers allocation of ARM-based harvest quotas among the four states that harvest horseshoe crabs from the Delaware Bay population (New Jersey, Delaware, Virginia, and Maryland). The allocation is based upon multiple decision options, including the proportion of harvested horseshoe crabs that originate from Delaware Bay and a potential harvest cap for Virginia and Maryland to protect crabs that do not originate from Delaware Bay. Final approval of the Draft Addendum will be considered in early 2012.

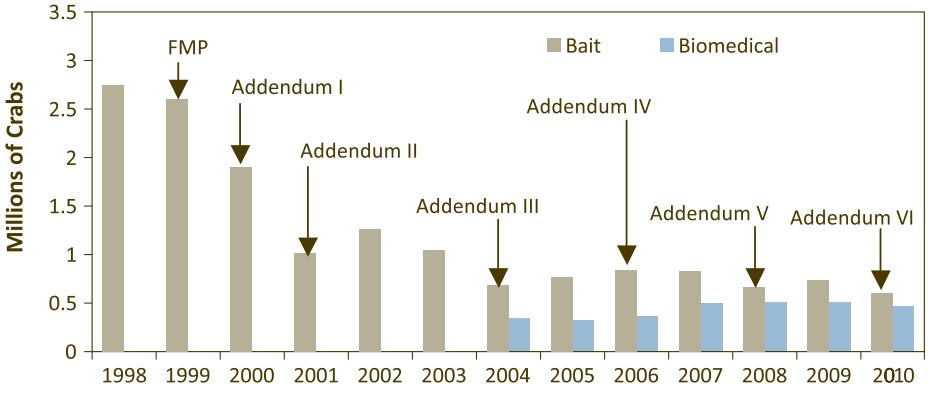
Spawning horseshoe crab in Delaware Bay. Photo by Gregory Breese, USFWS.

In 2011, the Commission secured $200,000 to fully fund the 2011 Virginia Tech Horseshoe Crab Trawl Survey through a $100,000 contribution from the biomedical industry and a matching donation from the National Fish and Wildlife Foundation (NFWF). The survey, which has been conducted since 2002, is the only survey designed to sample the horseshoe crab population in coastal waters. Its data are a critical component of the coastwide stock assessment and ARM framework. The commercial fishing industry also donated seed money in 2011 to partially fund the survey in 2012. The Commission will continue to seek additional funding options to allow the survey to be conducted in 2012 and beyond.

The most recent peer reviewed benchmark assessment, completed in 2009, indicates horseshoe crab abundance has increased in the Southeast and Delaware Bay Regions (New Jersey through coastal Virginia), and decreased in New York and New England. In the Delaware Bay Region, increasing trends were

Coastwide Horseshoe Crab Bait Landings & Biomedical Harvest

Source: ASMFC State Reports, 2011



Note the following details regarding biomedical harvest numbers:

- Harvest numbers include all horseshoe crabs brought to bleeding facilities, including those that were harvested as bait and counted against state quotas.
- Most of the biomedical crabs harvested are returned to the water after bleeding; a 15% mortality rate is estimated for all bled crabs.

most evident for juveniles, followed by adult males. An increase in adult females is now beginning to be observed in the Virginia Tech Trawl Survey. These patterns are indicative of population recovery, given that horseshoe crab females take longer to mature than males. In contrast, declining abundance was evident in New York and New England. Declines in the New England population were also apparent in the 2004 assessment; however, declines in New York represent a downturn from the 2004 assessment.

Reported coastwide bait landings in 2010 remained well below the coastwide quota. Bait landings decreased 21% from the previous year, due to reduced landings in Massachusetts, Delaware, Virginia, and North Carolina. Concern for increased harvest pressure due to Delaware Bay restrictions led Massachusetts and New York to enact stricter regulations to control harvest; these regulations were maintained in 2011. The 2010 commercial landings were approximately 80% below the reference period landings (1995-1997).

NORTHERN SHRIMP

In 2011, there was significant activity surrounding the management of northern shrimp, which is jointly regulated by Maine, New Hampshire, and Massachusetts through the Commission's Northern Shrimp Section. The Commission approved Amendment 2 to the Northern Shrimp FMP, establishing a new suite of management tools to regulate the fishery. These include trip limits, trap limits, and days out of the fishery. The Amendment also modifies the fishing mortality reference points to include a threshold level, contains a more timely and comprehensive reporting system, and allows for the initiation of a limited entry program to be pursued through the adaptive management addendum process.

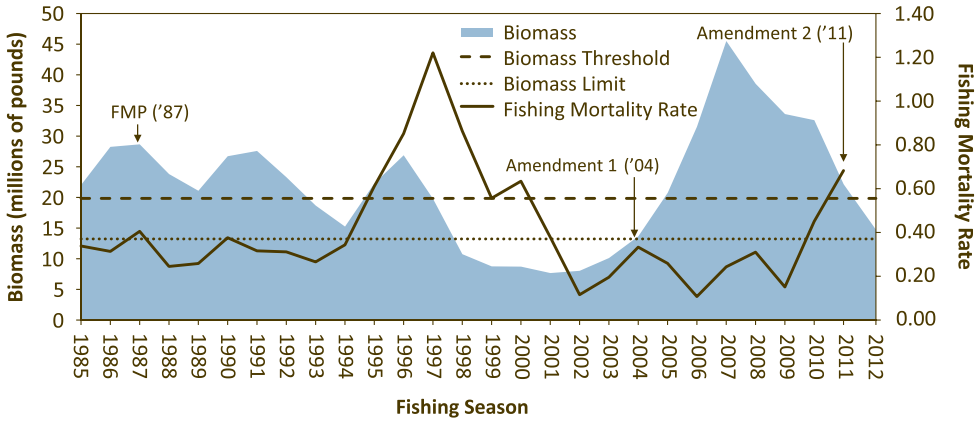
Commercial fishermen Igors Makasins (left) and David Goethel (right) aboard the F/V Ellen Diane after a day of shrimping. Photo provided by David Goethel, courtesy of Commercial Fisheries News.

On February 28, 2011, the Section took emergency action to close the 2011 fishery as landings had exceeded the recommended harvest limit of 8.82 million pounds. By the closure date, landings were estimated to be about 423,000 pounds above the recommended limit. Ultimately, once all the landings data had been fully submitted by dealers and fishermen, total harvest came to 13.1 million pounds, 4.3 million pounds above the harvest limit. The 2010 season was also closed early, with overages estimated at 28% above the recommended limit.

The Section received the results of the 2011 stock assessment update, which indicates the northern shrimp stock is overfished and overfishing is occurring. The 2011 fishing mortality was estimated at 0.68, above the fishing mortality target, threshold, and limit. Biomass was estimated at 14.3 million pounds, below the biomass threshold of 19.8 million pounds, and close to the biomass limit of 13.2 million pounds.

Gulf of Maine Northern Shrimp Total Stock Biomass and Fishing Mortality

Source: ASMFC Northern Shrimp Technical Committee, 2011



Additionally, shrimp abundance in the western GOM has declined steadily since 2006. The latest survey showed a much lower than normal abundance of large females and juveniles, with the remaining males and females being small for their age. The FMP specifies that if fishing mortality exceeds the limit level and biomass is less than the threshold level, the Section must act immediately to reduce fishing mortality.

Based on these findings, the Section approved a total allowable catch (TAC) of 4.9 million pounds for the 2012 fishing season, with the season closing when landings are projected to reach 95% of the TAC (4.6 million pounds). The trawl season will start January 2, 2012 with three landing days a week (Monday, Wednesday, Friday). Vessels may only land once a day. The trap season will start February 1, 2012 with a 1,000 pound landing limit per vessel per day.

Northern shrimp landings are dominated by the availability and abundance of four and five year-old northern shrimp. The emergence of a strong year class will tend to support productive fisheries four to five years down the road, while the appearance of weak year classes and smaller sized shrimp will support much smaller fisheries. The 2011 Northern Shrimp Survey found the 2008 and 2009 year classes to be composed of smaller shrimp (carapace length) and the 2010 year class to be very weak. Since the 2007 year class was the primary component of the 2011 fishery, it is estimated the 2012 fishery will be predominantly comprised of smaller sized four-year-olds from the 2008 year class. Recognizing these findings, the Northern Shrimp Section set a reduced quota for the 2012 fishing season. Given the small shrimp size and weak strength of incoming year classes, the fishery should anticipate low quotas over the next few years.

Valued at $9.8 million in 2010, northern shrimp continues to provide a small but valuable coastal fishery for GOM fishermen. Landings declined after the mid-1990s, from a high of 21 million pounds in 1996 to a low of 934,000 pounds in 2002, the result of low shrimp abundance and reductions in fishing effort. Since then, landings have increased to 10.8 million pounds in the 152-day 2008 season, and then declined to 5.2 million pounds in the 180-day 2009 season. The preliminary landings for 2011 are 13.1 million pounds, more than double the landings observed in 2009.

RED DRUM

Attempts to regulate the Atlantic coast red drum fishery date back to the first Annual Meeting of the Commission in 1942 when a Delaware Commissioner urged that red drum either be made a sport fish or be protected by adequate size limits and daily catch limits. Further, its use as fertilizer should be prohibited. While this request and later management recommendations were unsuccessful in preventing the over-exploitation of red drum, the 2009 stock assessment indicates management has made significant strides in improving the population's condition since 1990. Throughout the 1990s, the stability of the stock was uncertain, with an exploitation level that was jeopardizing future

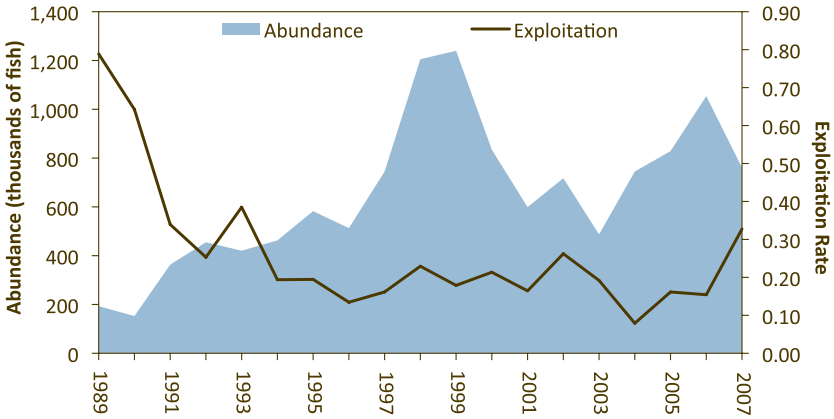
NC DMF biologist with tagged red drum from the Red Drum Longline Survey. Photo by Lee Paramore, NC DMF.

recruitment. Through the implementation of more stringent regulations in the 1990s and 2000s, the stock is now no longer subject to overfishing and sufficient numbers of young fish are surviving to become breeding adults.

Data limitations resulting from species' life history characteristics and management program present unique challenges to scientists as they try to assess the status of the stock. Relatively little is known about the adult (spawning) population (ages four and older), as these fish are primarily found in offshore waters where fishing for red drum is prohibited under federal law. As such, there is little fishery-dependent information and limited fishery-independent data on the larger, reproductive fish. Existing data are largely for the juvenile component of the resource (ages one to three) found in inshore waters. Fishery-dependent data are constrained

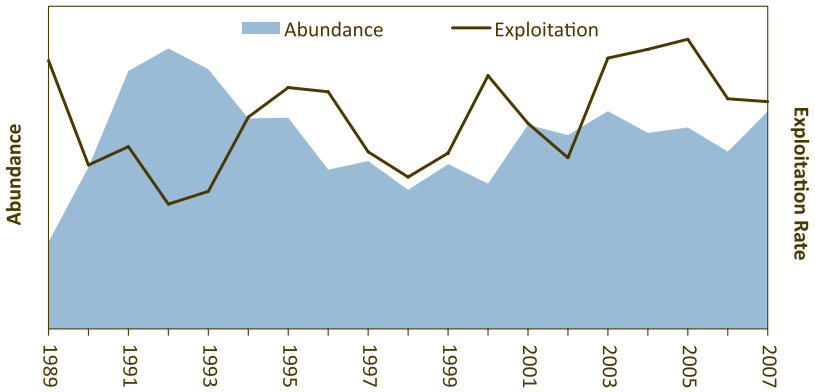
Estimates of Abundance and Exploitation for the Northern Stock Component of Red Drum, Ages 1-3

Source: SEDAR 18 Atlantic Red Drum Stock Assessment Report, 2009



Trends in Abundance and Exploitation for the Southern Stock Component of Red Drum, Ages 1-3

Source: SEDAR 18 Atlantic Red Drum Stock Assessment Report, 2009



Timeline of Management Actions: FMP (1984); Amendment 1 (1991); Amendment 2 (2002)

by the fisheries slot limit, which ranges anywhere from 15 to 27 inches (again limiting the amount of information about larger fish) and fishery-independent data are supplied by few, relatively recent state inshore surveys.

The impact of these limitations is a stock assessment that adequately describes abundance and exploitation rates for the pre-adult component of the population (ages one to three), particularly for the northern region, but provides no reliable information on the adult component. The stock assessment model was considered to be informative only about the relative, not absolute, trends in age one to three abundance and exploitation for the southern region. Therefore, only general conclusions about trends in stock status could be provided for the southern region.

In the northern region (New Jersey to North Carolina), abundance of age one to three red drum increased from 1990 to 2000, after which it widely fluctuated. The initial increase in abundance of these age groups can be explained by the reduction in exploitation rates in the early part of the time series with relative stability since then. Fishing pressure appears to be stable, and there is a high probability that the stock is not subject to overfishing.

In the southern region (South Carolina to Florida), the relative trend in abundance of age one to three fish increased during 1989 to 1992, declined during 1992 to 1998, and has fluctuated thereafter. As with the northern stock, the initial increase in abundance of these age groups can be explained by the reduction in exploitation rates in the early part of the time series. There has been a slight increase in exploitation rates since 1990.

Total 2010 landings from New Jersey through the east coast of Florida were estimated at 2.1 million pounds. This represents a 36% increase from the total harvest in 2009 (which declined 15% from 2008), and nearly a 27% increase from the previous ten-year (2000-2009) average. Commercial and recreational fisheries harvested 11% and 89% of the total, respectively. In 2010, 71% of the total landings came from the South Atlantic region, where the fishery is almost exclusively recreational, and 29% from the Mid-Atlantic region, which was approximately one-third commercial and two-thirds recreational.

Few commercial landings have been recorded in states north of Maryland. Coastwide commercial landings have ranged from approximately 55,000 to 440,000 pounds annually over the last 50 years. The greatest harvest was taken in 1980 and the lowest in 2004. In 2010, coastwide commercial harvest increased to 235,000 pounds from 203,000 pounds the previous year. The majority (99%) of this harvest came from North Carolina.

Recreational harvest peaked in 1984 at 1.05 million fish (2.6 million pounds). Since 1988, the number has fluctuated without trend between 250,000 and 530,000 fish (800,000 to 1.7 million pounds). Recreational harvest increased from 400,300 fish (1.3 million pounds) in 2009 to 728,500 fish (1.9 million pounds) in 2010. The 2010 harvest represents a 45% increase in numbers (40% increase in pounds) from the previous ten year (2000-2009) average. Georgia anglers landed the largest share of the coastwide recreational harvest in numbers (39%), followed by South Carolina (24%), Florida (22%), North Carolina (11%), and Virginia (3%). Anglers release far more red drum than they keep; the percent of the catch released has been generally over 80% during the last decade.

SCUP

Through successful joint management by the Commission and MAFMC, scup are considered rebuilt (population is at 193% of its biomass target) and not experiencing overfishing. In 2011, the scup stock assessment was updated based on the peer-reviewed methodology that was developed in 2009 through NOAA Fisheries Service Northeast Fisheries Science Center (NEFSC) Data Poor Workshop and Peer Review process. While the new model and reference points represent a more stable approach for monitoring scup stock status and specifying the annual fishery regulations, the peer review advised caution in rapidly increasing quota levels due to uncertainty in recruitment (the number of fish that enter the population). Given this advice, both the Commission and MAFMC set an adjusted TAL of 36.35 million pounds for the 2012 fishery, with 27.9 million pounds allocated to the commercial fishery and 8.4 million pounds allocated to the recreational fishery. This TAL represents an increase of 39% relative to the 2011 level.

Fishery managers and stakeholders continue to be concerned about allocation of the resource between the commercial and recreational sectors as well as the allocation split among the three commercial periods (Winter I, Summer and Winter II). Specifically, there is concern that current allocation schemes may not reflect the current needs of the fishing sectors. To begin to address this issue, MAFMC funded an economic evaluation of the scup fishery, specifically the existing allocation percentages used to distribute TAC. Upon completion of this project, the Commission and MAFMC will meet jointly to review the findings and initiate management action to explore potential changes to the current allocation schemes.

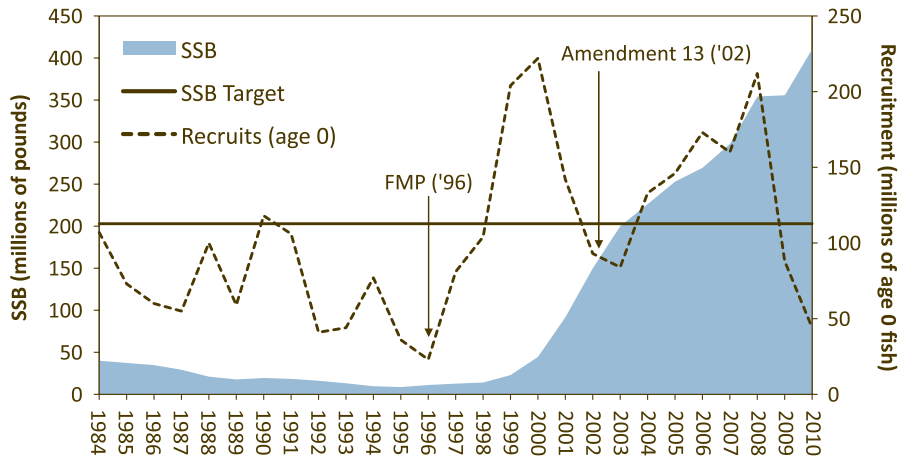
Angler with scup. Photo by Mark Terceiro, NOAA Fisheries Service NEFSC.

Commercial landings peaked in 1960 at 48.5 million pounds. In recent years, landings have fluctuated from 15.6 million pounds in 1991 to a time series low of 2.7 million pounds in 2000. In 2010, commercial landings were 10.7 million pounds (compared to 8.2 in 2009). For the last several years, Rhode Island and New Jersey have harvested the largest share of the total commercial landings.

Recreational landings declined steadily from 11.6 million pounds in 1986 to 0.9 million pounds in 1998, the lowest value in the time series. In 2010, recreational landings were 5.7 million pounds (compared to 2.94 in 2009).

Scup Spawning Stock Biomass (SSB) and Recruitment

Source: NEFSC Stock Assessment Update, 2011



SHAD & RIVER HERRING

With the recent adoption and pending implementation of Amendments 2 and 3 to the Shad and River Herring FMP, the Commission has made significant progress in improving the conservation and management of shad and river herring stocks coastwide. Both Amendments require states and jurisdictions to close their shad and river herring fisheries unless they develop and implement sustainable fishery management plans (SFMPs). The Amendments define a sustainable fishery as "a commercial and/or recreational fishery that will not diminish the potential future stock reproduction and recruitment." Plans must clearly demonstrate that the state's or jurisdiction's shad and river herring fisheries meet this new definition of sustainability through the development of sustainability targets which must be achieved and maintained.

Alewife in the Nemasket River, MA. Photo by Jim Turek, NOAA Restoration Center.

The Commission also continues to collaborate with NEFMC and MAFMC to address the bycatch of these species in federal fisheries as the Councils develop bycatch monitoring and reduction strategies though Amendment 5 (Atlantic Herring) and Amendment 14 (Squid, Butterfish and Mackerel). NEFMC has approved a suite of options for inclusion in Amendment 5 to improve monitoring and reduce shad and river herring bycatch. Specific options include increased observer coverage and portside sampling, the identification of bycatch hotspots, and the development of bycatch caps. MAFMC Amendment 14 is currently being developed, with an emphasis on establishing an effective monitoring program to evaluate bycatch and alternatives to reduce total catch of shad and river herring, as well as aligning Atlantic herring and mackerel reporting requirements. It is anticipated that both of these amendments will be completed in 2012.

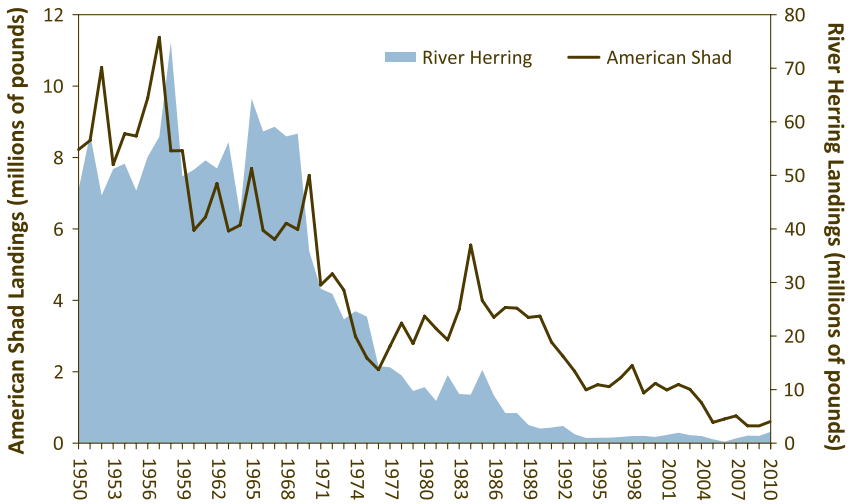
AMERICAN SHAD

Under Amendment 3, any state or jurisdiction without an approved SFMP is required to close its commercial and recreational American shad fisheries, with the exception of catch and release fisheries, by January 1, 2013. In 2011, the Shad and River Herring Technical Committee began the process of reviewing submitted SFMPs, with the Board approving plans for South Carolina and Florida. The Technical Committee will continue to work with the remaining states and jurisdictions as they finalize their SFMPs in 2012.

The latest benchmark stock assessment, conducted in 2007, indicates that American shad stocks are currently at all-time lows and do not appear to be recovering. It identified the primary causes for the continued stock declines as a combination of excessive total mortality; habitat loss and degradation; and migration and habitat access impediments. Although improvement has been seen in a few stocks, many remain severely depressed compared to historic levels.

American Shad & River Herring Commercial Landings

Source: Personal communication from NMFS Fisheries Statistics Division, Silver Spring, MD, 2011



Timeline of Management Actions: FMP (1985); Amendment 1 (1999); Amendment 2 - River Herring (2009); Amendment 3 - American Shad (2010)

To improve data collection, Amendment 3 also implements additional required fishery-independent and -dependent monitoring for some states or jurisdictions. This includes monitoring of juvenile and adult American shad stocks; hatchery production; and commercial, recreational, and bycatch fisheries. Additionally, the Amendment increases coordination of monitoring activities for river systems under shared jurisdictions, as well as between freshwater and marine agencies.

RIVER HERRING

Amendment 2 prohibits commercial and recreational river herring fisheries in state waters beginning January 1, 2012, unless a state or jurisdiction develops and receives approval for a SFMP. In 2011, the Shad and River Herring Management Board reviewed and approved SFMPs for Maine, New Hampshire, New York, North Carolina and South Carolina. The remaining states and jurisdictions will close their commercial and recreational fisheries in 2012.

Amendment 2 measures were initiated in response to widespread concern regarding the decline of river herring stocks. While many populations of blueback herring and alewife, collectively known as river herring, are in decline or remain depressed at stable levels, lack of fishery-dependent and -independent data makes it difficult to ascertain the status of river herring stocks coastwide. Between 1985 and 2010, commercial landings decreased by about 86% from 13.6 million pounds to 1.9 million pounds in 2010. In response to declining stocks within their own waters, four states – Massachusetts, Rhode Island, Connecticut, and North Carolina – have closed their river herring fisheries. An upcoming benchmark stock assessment, scheduled for peer review in 2012, will provide much needed information on stock condition for 20+ river systems along the coast.

In 2011, the National Resources Defense Council petitioned NOAA Fisheries Service to list river herring on the endangered species list throughout all or part of the species range. NOAA Fisheries Service has concluded that, given the information contained in the petition, listing may be warranted. As a next step, it will be conducting a full status review based on available scientific information. The findings of the Commission's 2012 peer-reviewed stock assessment will be provided to NOAA Fisheries Service for consideration in the status review.

Brett Valentin holding an American shad caught on the Roanoke River, NC. Photo by Mike Waine.

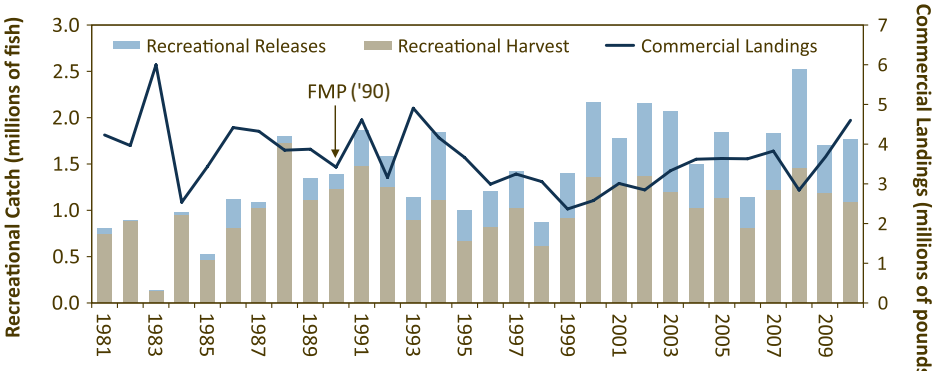
River herring stocks are a multi-jurisdictional resource occurring in rivers and coastal and ocean waters. While oversight of river herring management in state waters lies with the Commission, river herring can be encountered in ocean fisheries beyond state jurisdiction. Bycatch of river herring in small mesh fisheries continues to be a significant concern. Preliminary analyses indicate that, in some years, the total bycatch of river herring by the Atlantic herring fleet alone could be equal to the total landings from the entire in-river directed fishery on the East Coast. As previously mentioned, the Commission will continue to work with the Councils to improve monitoring and reduce bycatch of river herring in federal fisheries.

SPANISH MACKEREL

Spanish mackerel are managed cooperatively by the Commission and the South Atlantic Fishery Management Council (SAFMC). The species supports thriving recreational and commercial fisheries in the

Spanish Mackerel Commercial Harvest and Recreational Catch (Harvest and Alive Releases)

Source: Personal communication NMFS Fisheries Statistics Division, Silver Spring, MD, 2011



Note: Recreational catch (harvest and releases) is expressed in numbers of fish, while the commercial harvest is in millions of pounds. NMFS urges caution when using reported recreational catch in pounds due to the potential for significant uncertainty in the data, therefore, numbers of fish are reported here. Using weight for the commercial fishery is more reliable based on dealer and fishermen reporting programs.

South Atlantic and is gaining importance in the Mid-Atlantic. It is also valued by anglers as bait in big game fishing. Since adoption of the FMP in 1990, states

Anglers display Spanish mackerel (left) and bluefish (right). Photo by Captain Walter Bateman, www.carolinaguide.com.

from New York through Florida have implemented bag and size limits or provisions for seasonal closures to complement federal management measures.

A benchmark assessment and peer review was conducted in 2008. The peer review identified a number of concerns with the stock assessment. It was determined that the stock was not experiencing overfishing; however, the model could not reliably determine whether the stock was overfished. The next benchmark stock assessment is scheduled for 2012.

Total 2010 landings were 6.3 million pounds, with commercial and recreational fisheries harvesting approximately 70% and 30% of the resource, respectively. These values match the average contribution of each sector from 1981 to 2010. Coastwide commercial landings have been consistently below four million pounds since 1995, with the exception of 2010 when commercial landings increased to 4.5 million pounds. Almost 80% of the landings occur in Florida, with the remaining amount harvested in North Carolina. The primary commercial gears are cast nets (39%), gillnets (30%), and hook and line (25%).

Recreational anglers harvested an estimated 1.1 million Spanish mackerel (1.8 million pounds) in 2010, a 7.5% decline in numbers of fish and a 12% decline in pounds of fish from 2009. The number of recreationally-harvested fish appears to show a cyclical trend, with low harvests in the early to mid-1980s and mid- to late 1990s, interspersed with higher harvests. Florida and North Carolina continue to account for the majority of recreational landings in both number and weight (on average, 86% by number since 1981). In 2010, Florida harvested 45% of the total number of fish followed by North Carolina with 43%. While the number of recreational releases has generally increased over time (reached a peak of over one million fish in 2008), releases were estimated at about 650,000 fish in 2010.

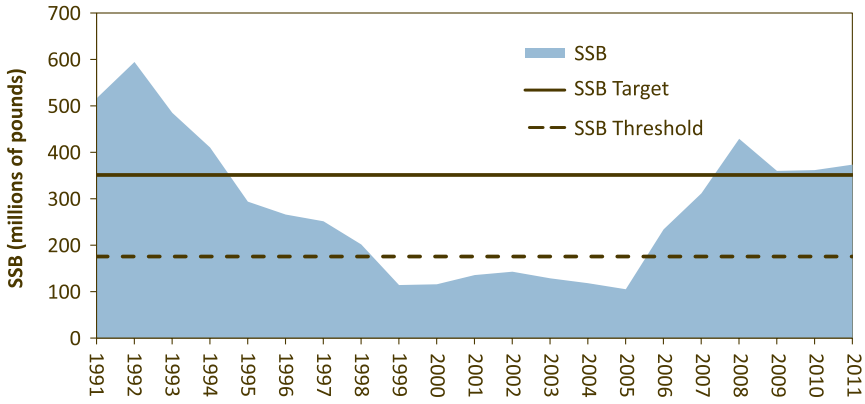
In 2011, the South Atlantic Board approved the Omnibus Amendment for Spot, Spotted Seatrout, and Spanish Mackerel. The Amendment updates all three plans with requirements of ACFCMA the Commission's Interstate Fisheries Management Program Charter (ISFMP Charter). Specific to Spanish mackerel, the Amendment includes commercial and recreational management measures, adaptive management measures, and a process for Board review and action in response to changes in the federal regulations. This will allow for complementary management throughout the range of the species. The Omnibus Amendment includes provisions that are consistent with the SAFMC's recently approved Amendment 18. The Omnibus Amendment will be implemented by July 1, 2012.

SPINY DOGFISH

In 2000, the Commission and MAFMC initiated complementary management programs for spiny dogfish. After eight years of stringent state and federal

Spiny Dogfish Spawning Stock Biomass (SSB) (>=80 cm)

Source: NMFS NEFSC Update on the Status of Spiny Dogfish in 2011 and Initial Evaluation of Alternative Harvest Strategies



Timeline of Management Actions: Emergency Action (2000); FMP (2003); Addendum I (2005); Addendum II (2008); Addendum III (2011)

Tow haul-back results during an industry-based survey with MA DMF. Photo by MA DMF, courtesy of Commercial Fisheries News.

quotas, the management program paid off with the spiny dogfish being declared rebuilt in 2008. The 2011 stock assessment update indicates the resource continues to be in good condition, with SSB in excess of its target and fishing mortality well below its target and threshold. Further, for the fourth year in a row, spiny dogfish are not overfished nor experiencing overfishing. Due to low recruitment from 1997 to 2003, it is projected the SSB will decrease in the future, but will remain above the SSB threshold. Projections indicate that the magnitude of this drop is reduced by lower fishing mortality rates (quotas).

Given the current stock status, the Spiny Dogfish Management Board approved a 30 million pound quota for the 2012/2013 fishing season (May 1 to April 30), with a maximum possession limit of 3,000 pounds per day for the northern region states, Maine through Connecticut. Southern region states (New York to North Carolina) will establish state-specific trip limits for their fisheries. The 2012/2013 quota represents a 50% increase from the 2011/2011 quota of 20 million pounds. MAFMC forwarded a recommendation for a 35.6 million pound quota to the NOAA Fisheries Service Northeast Regional Administrator for final action prior to the start of the 2012/2013 fishing season. The Commission's Spiny Dogfish Technical Committee and MAFMC's Monitoring Committee both recommended a maximum quota of 35.6 million pounds for the 2012/2013 fishing season.

In 2011, the Board also approved Addendum III to the Spiny Dogfish FMP. The Addendum divides the southern region annual quota of 42% into state-specific shares. It also allows for quota transfer between states, rollovers of up to five percent and state-specified possession limits, and includes a three-year reevaluation of the measures. The Addendum's provisions apply only to states in the southern region (New York through North Carolina) and do not modify the northern region allocation. The states of Maine to Connecticut will continue to share 58% of the annual quota as specified in Addendum II.

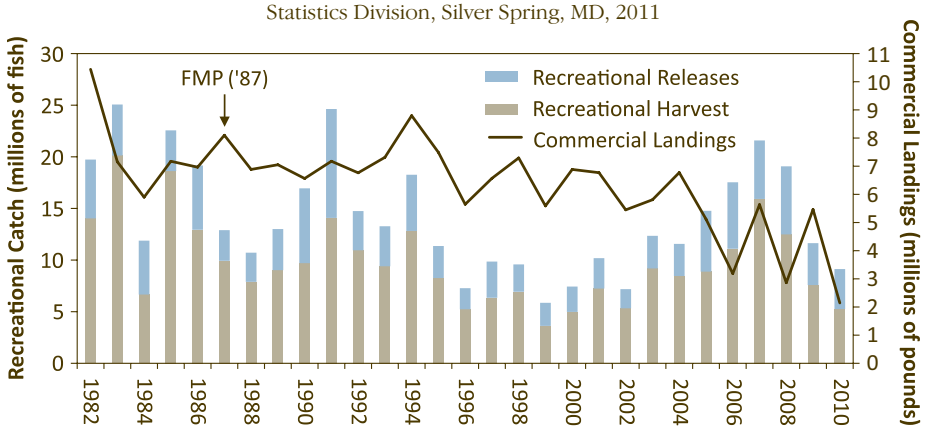
SPOT

Spot support recreational and commercial fisheries in the Mid- and South Atlantic, with total landings in 2010 estimated at about four million pounds (55% harvested by the commercial sector and 45% by the recreational fishery). The species also functions as an important forage species in the region.

In 2011, the South Atlantic Board approved the Omnibus Amendment for Spot, Spotted Seatrout, and Spanish Mackerel. The Amendment updates all three plans with requirements of ACFCMA and the Commission's ISFMP Charter. Specific to spot, the Amendment includes a management trigger, which will

Spot Commercial Harvest and Recreational Catch (Harvest and Alive Releases)

Source: Personal communication NMFS Fisheries Statistics Division, Silver Spring, MD, 2011



Note: Recreational catch (harvest and releases) is expressed in numbers of fish, while the commercial harvest is in millions of pounds. NMFS urges caution when using reported recreational catch in pounds due to the potential for significant uncertainty in the data, therefore, numbers of fish are reported here. Using weight for the commercial fishery is more reliable based on dealer and fishermen reporting programs.

help the Board monitor the status of the stock until a full coastwide stock assessment can be completed. High levels of spot bycatch present a challenge for managers,

Spot as part of a mixed fish assemblage. Photo courtesy of NC DMF.

in terms of both yearly management and overall assessment of the stock health. Coupled with adaptive management measures, the Omnibus Amendment will provide options to efficiently implement management measures should the Board determine that such measures are needed in the future.

No coastwide assessment has been performed for spot; however, spot are a target or component of several state surveys using trawls, gillnets, or seine nets. Juvenile abundance indices have been highly variable throughout the survey time series, although many indices, including some from North Carolina, South Carolina, Virginia, and Maryland, showed increases in 2010. In contrast, many of the adult abundance indices show little change or a decline over the past years, possibly indicating a disconnect between juvenile recruitment and adult abundance.

Commercial harvest in 2010 was estimated at 2.2 million pounds, with the majority taken in gillnets. Virginia landed 45% of the commercial harvest (by pounds) followed by Maryland and North Carolina with 27% and 26% of the harvest, respectively. Small spot are also a major component of the bycatch in haul seine and pound net fisheries in Chesapeake Bay and North Carolina, as well as a significant part of the bycatch of the South Atlantic shrimp trawl fishery.

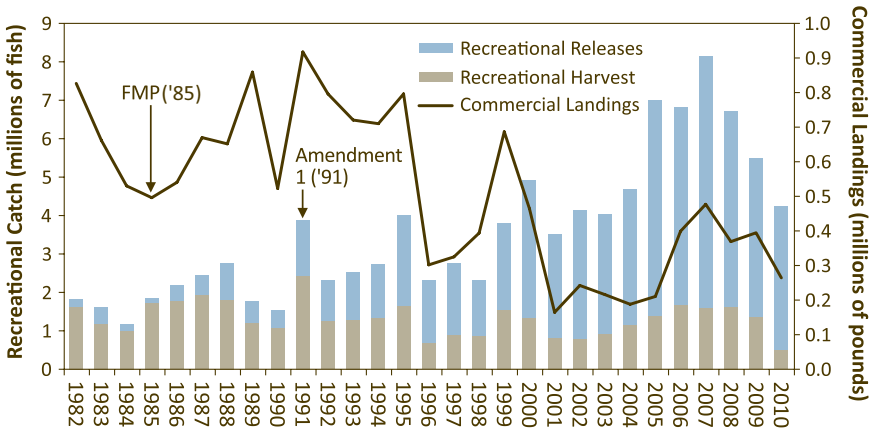
From 1981 and 2010, recreational harvest along the Atlantic coast has varied between 3.6 and 20.1 million fish (1.7 and 6.9 million pounds). There was an increasing trend in the recreational harvest from the low of 3.6 million pounds in 1999 to a high of 15.9 million fish (5.5 million pounds) in 2007; however, harvest declined in 2010 to 5.3 million fish (1.8 million pounds). Virginia anglers were responsible for 37% of the total number of fish harvested in 2010, followed by anglers in North Carolina (25%), Maryland (18%), and South Carolina (16%). The estimated number of spot released annually by recreational anglers has varied between two and 6.4 million fish, with the exception of a few years. The number of fish released alive in 2010 (3.9 million) is slightly below the time series average of 4.6 million fish.

SPOTTED SEATROUT

Spotted seatrout support recreational fisheries throughout the Southeast, with 4.2 million fish harvested and released in 2010. In Florida alone, where the fish is highly accessible, spotted seatrout is often the most sought-after and exploited gamefish. The commercial fishery is just a fraction of the recreational catch, harvesting about 271,000 pounds in 2010. In 2011, the South Atlantic Board approved the

Spotted Seatrout Commercial Harvest and Recreational Catch (Harvest and Alive Releases)

Source: Personal communication NMFS Fisheries Statistics Division, Silver Spring, MD, 2011



Note: Recreational catch (harvest and releases) is expressed in numbers of fish, while the commercial harvest is in millions of pounds. NMFS urges caution when using reported recreational catch in pounds due to the potential for significant uncertainty in the data, therefore, numbers of fish are reported here. Using weight for the commercial fishery is more reliable based on dealer and fishermen reporting programs.

Omnibus Amendment for Spot, Spotted Seatrout, and Spanish Mackerel. The Amendment updates all three plans with requirements of ACFCMA and the Commission's ISFMP Charter. Specific to spotted seatrout, the Amendment includes recommended measures to protect the spawning stock, as well as a required coastwide minimum size of 12".

These measures are essential as increased coastal development presents management challenges to this localized species whose life cycle depends on the same coastal areas that are highly populated by humans. Coupled with adaptive management measures, the Omnibus Amendment provides a mechanism to efficiently implement management measures should the Board determine that such measures are needed in the future. Currently, there is no coastwide stock assessment for the species, and local assessments vary by state.

SUMMER FLOUNDER

A highly valued fish species by both recreational and commercial fishermen, summer flounder have been jointly managed by the Commission and MAFMC for more than two decades. The population is now fully rebuilt in response to the joint management program. In 2011, the summer flounder stock assessment was updated. SSB is estimated to be 132.8 million pounds, slightly above the FMP target of 132.4 million pounds. The stock is not overfished nor experiencing overfishing.

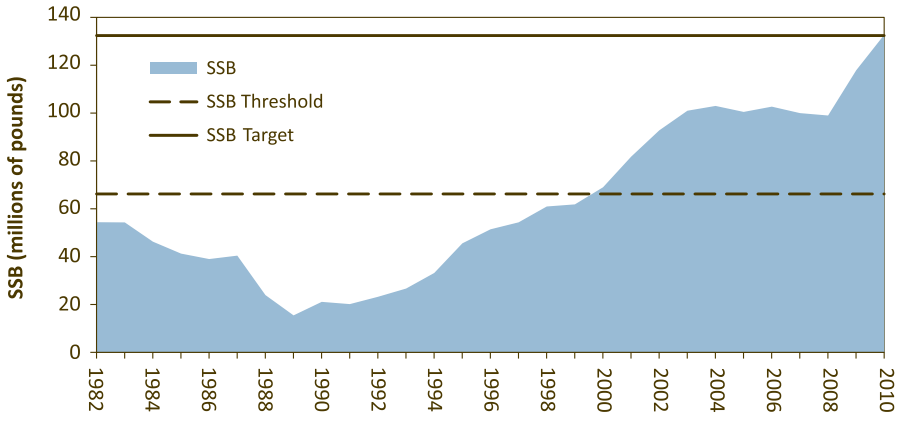
Based on the 2011 stock estimates, the Commission and MAFMC established a 21.9 million pound TAL for the 2012 fishing season, with the recreational harvest limit set at 8.76 million pounds and the commercial harvest set at 13.1 million pounds.

RI DFW biologist Scott Olszewski displays a summer flounder captured on the state's resource assessment trawl survey. Photo courtesy of RI DFW.

During the late 1980s, commercial landings declined dramatically, reaching a low of 9.3 million pounds in 1990. Landings showed an increasing trend through 1995, but have varied without trend through 2010. For the past four years, commercial landings have been around 10 million pounds, with 2010 landings at 13.38 million pounds. Otter trawl is the principle commercial gear.

After reaching a low of 3.2 million pounds in 1989, recreational landings increased to 11.9 million pounds in 1997 and 16.5 million pounds in 2000. Since 2000, landings have varied without trend, with 4.97 million pounds landed in 2010.

Summer Flounder Spawning Stock Biomass (SSB)
Source: NEFSC Stock Assessment Update, 2011



Timeline of Management Actions: FMP (1988); Amendment 1 (1991); Amendments 2-5 (1993); Amendment 6 (1994); Amendment 7 (1995); Amendments 8 & 9 (1996); Amendment 10 (1997); Amendment 11 (1998); Amendment 12 (1999); Amendment 13 (2003)

TAUTOG

In 2011, the Tautog Management Board approved Addendum VI to the Tautog FMP in response to the latest scientific advice that the stock continues to be overfished with overfishing occurring. In order to stop overfishing and improve chances of rebuilding, the Addendum establishes a new fishing mortality target of 0.15. Tautog's slow growth rate, late maturity, and spawning behavior make it particularly susceptible to overfishing and limits stock rebuilding. To meet the Addendum VI fishing mortality target, states are required to implement measures to achieve a 56% reduction in exploitation by January 1, 2012.

According to the 2011 stock assessment update, SSB has remained at low levels for the last decade, with 2009 SSB estimated at 23.3 million pounds, 39% of the target SSB (59.1 million pounds). Coastwide fishing mortality was estimated at 0.38, well above the plan's target.

Historically, recreational harvest has accounted for about 90% of the coastwide harvest, although commercial landings in some states have comprised up to 40% of their total landings in recent years. Most landings occur in state waters between Cape Cod and Chesapeake Bay in the spring and fall months. Some Mid-Atlantic fishermen pursue tautog year-round and there is an active fishery off the Virginia Coast in winter.

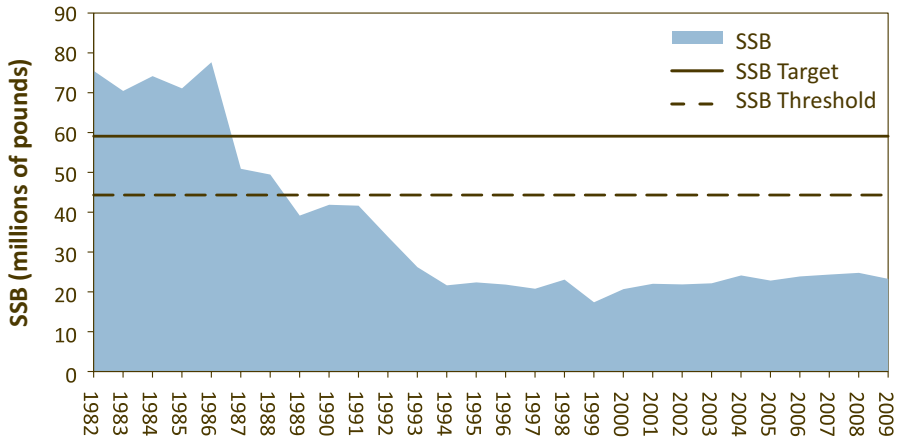
Angler with tautog. Photo by Geoff White, ACCSP.

Over the last 30 years, recreational harvest has ranged from a time series high of 16.9 million pounds in 1986 to a low of 1.5 million pounds in 1998. Since 2000, recreational harvest has averaged 3.6 million pounds, with 2010 harvest estimated at 3.5 million pounds. New Jersey anglers accounted for 26% of the recreational harvest in 2010, followed by anglers in Rhode Island (16%), New York (16%), and Virginia (14%).

Commercial landings have ranged from a high of 1.2 million pounds in 1987 to a low of 208,800 pounds in 1999. Landings have averaged about 300,000 since 2000, with 2010 landings estimated at 242,000 pounds (6.4% of total coastwide harvest). Nearly 50% of the 2010 commercial harvest were landed in Massachusetts and Rhode Island. Rod and reel are the predominant commercial gear, although floating fish traps, fish pots, and otter trawl harvest are also used.

Tautog Spawning Stock Biomass (SSB)

ASMFC Tautog Stock Assessment Update, 2011



Timeline of Management Actions: FMP (1996); Addendum I (1997); Addendum II (1999); Addendum III (2002); Addenda IV & V (2007); Addendum VI (2011)

WEAKFISH

The most recent peer-reviewed benchmark stock assessment, completed in 2009, confirmed weakfish stocks are at an all time low and current fishery removals are unsustainable under existing stock conditions. The peer review panel agreed with the stock assessment's conclusions that weakfish abundance has declined markedly, total mortality is high, non-fishing mortality has recently increased, and the stock is currently in a depleted state. In 2009 in response to the depleted state of the weakfish stock, the Weakfish Management Board approved Addendum IV to Amendment 4 to the Weakfish FMP, significantly reducing the commercial and recreational harvest of weakfish.

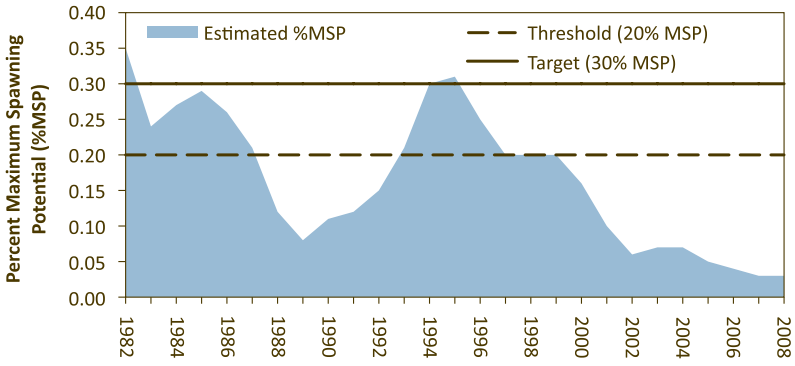
The weakfish stock is depleted, with SSB estimated at 10.8 million pounds (compared to 62 million pounds in 1996). Recent fishery landings are estimated at 604,000 and 271,770 pounds in 2009 and 2010, respectively. While the decline in the stock primarily results from a change in the natural mortality of weakfish in recent years, it is further exacerbated by continued removals by commercial and recreational fisheries.

Natural mortality has risen substantially since 1995, with factors such as predation, competition, and changes in the environment having a stronger influence on recent weakfish stock dynamics than fishing mortality. Given current high natural mortality levels, stock projections indicate that the stock is unlikely to recover rapidly. In order to rebuild the stock, total mortality will need to be reduced, although this is unlikely to occur until natural mortality decreases to previous levels.

On a positive note, juvenile abundance surveys indicate that young-of-the-year weakfish continued to be present in numbers similar to previous years, suggesting that recruitment at this point has not been severely limited despite low stock size.

Juvenile weakfish captured during MD DNR survey. Photo courtesy of MD DNR.

Weakfish Maximum Spawning Potential
Source: ASMFC Weakfish Technical Committee, 2009



Timeline of Management Actions: FMP (1985); Amendment 1 (1991); Amendment 2 (1995); Amendment 3 (1996); Amendment 4 (2002); Addendum I (2005); Addenda II & III (2007); Addendum IV (2009)

WINTER FLOUNDER

2011 was the second full year the states fished under the provisions of the Addendum I to Amendment 1 to the Winter Flounder FMP. The Addendum established harvest reductions in state waters for both the GOM and Southern New England/Mid-Atlantic (SNE/MA) inshore stocks of winter flounder. Its provisions are intended to complement federal management measures that reduce fishing mortality on federally-managed groundfish stocks, including winter flounder, in offshore waters.

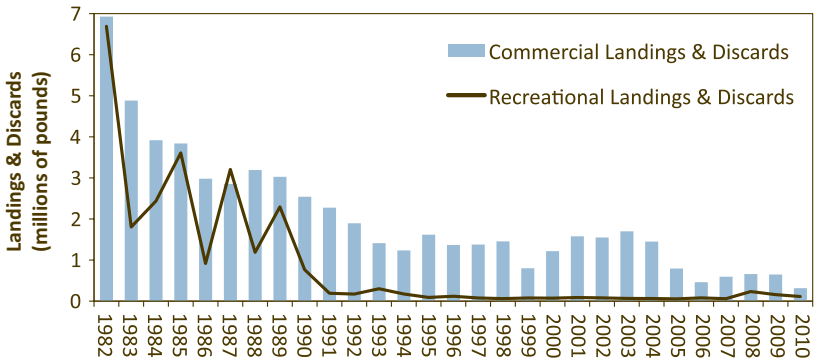
Addendum I was developed in response to the findings of the 2008 peer-reviewed stock assessment, which confirmed that both winter flounder stock components are near all time lows. While the assessment indicated a high level of uncertainty on the status determination for the GOM stock complex, it suggested that it is likely that the stock is in an overfished condition and is probably experiencing overfishing. The SNE/MA stock complex was determined to be nine percent of the target

biomass (overfished) with overfishing occurring. Fishing mortality in 2007 was estimated at 0.649, over twice the fishing mortality target of 0.248. Further, the 2006 year class of 3.6 million fish (age 1 in 2007) was estimated to be the smallest on record. The 2007 year class (age 1 in 2008) was estimated to be 8.8 million fish.

A benchmark assessment, completed in 2011, found that overfishing was not occurring on the GOM stock. Overfished status could not be determined because the analytical assessment model was not accepted by the peer review panel and biomass reference points could not be generated. The SNE/MA stock is overfished and overfishing is not occurring. The 2010 SSB estimate of 15.6 million pounds is below the revised biomass target (96 million pounds) and threshold (48 million pounds). Fishing mortality on the SNE/MA stock was estimated to be 0.051, well below the fishing mortality threshold and target of 0.29 and 0.218, respectively. The Board has not initiated management measures based on the results of the 2011 benchmark assessment.

Winter Flounder Gulf of Maine Landings and Discards

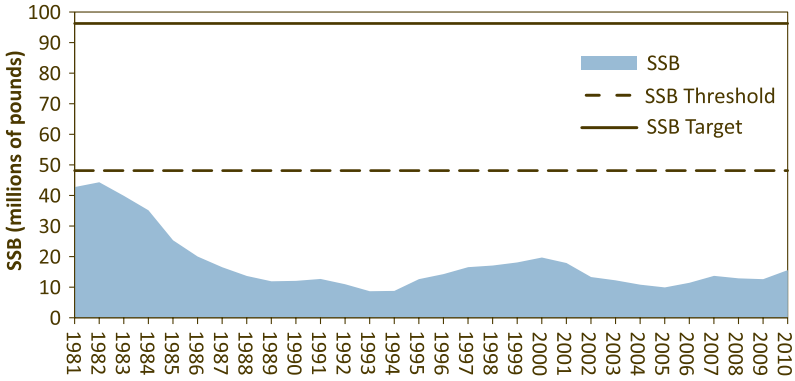
Source: NMFS 52nd Northeast Regional Assessment Workshop, 2011



Note: The 52nd Northeast Regional Workshop did not accept the analytical assessment model used to evaluate the status of the Gulf of Maine stock of winter flounder; therefore, landings are being provided as a proxy for stock status.

Winter Flounder SNE/MA Spawning Stock Biomass (SSB)

Source: NMFS 52nd Northeast Regional Assessment Workshop, 2011



Timeline of Management Actions: FMP & Addendum I (1992); Addendum II (1998); Amendment 1 (2005); Addendum I (2009)

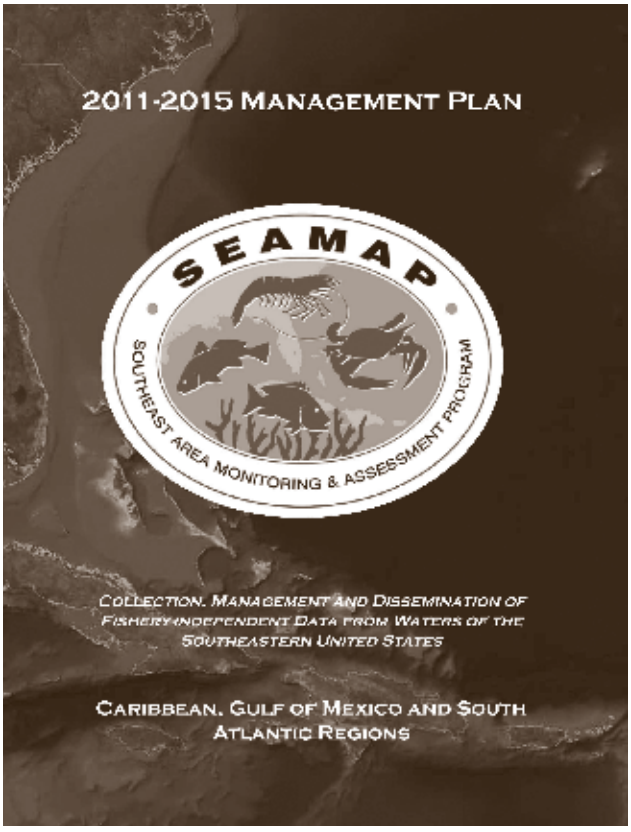
Winter flounder in submerged aquatic vegetation. Photo by Dawn McReynolds, NYSDEC.

Fishery-Independent Data Collection

Fishery-independent monitoring provides insight into the status of fish stocks without the biases inherent to commercial and recreational catch information. The Commission's Fisheries Science Program coordinates two primary Atlantic coast fishery-independent data collection programs – the South Atlantic component of the Southeast Area Monitoring and Assessment Program (SEAMAP) and the Northeast Area Monitoring and Assessment Program (NEAMAP).

SEAMAP

SEAMAP is a cooperative program among state and federal agencies and universities to facilitate the collection, management, and dissemination of fishery-independent data in the Southeastern U.S. and Caribbean. Since 1982, SEAMAP has sponsored long-term standardized surveys that have become the backbone of fisheries and habitat management for its three regions – the South Atlantic, Gulf of Mexico, and Caribbean. In 2011, SEAMAP-South Atlantic surveys continued to collect data on the abundance and distribution of a variety of important commercial and recreational species (e.g., red drum, Atlantic croaker, Atlantic striped bass) from North Carolina to Florida. A



SEAMAP Data Management Work Group continued development of a web-based application to integrate and share information among the several fishery-independent surveys under the SEAMAP umbrella and the fishery managers that use SEAMAP data. Additionally, SEAMAP-South Atlantic continued to support the Southeast Regional Taxonomic Center, maintaining support for the processing and archiving of biological samples collected by SEAMAP surveys.

In 2011, the 2011-2015 SEAMAP Management Plan was published and distributed to SEAMAP partners. The comprehensive plan sets guidelines and priorities for the next five years for fishery-independent data collection efforts in the three SEAMAP regions.

NEAMAP

NEAMAP is a cooperative state/federal fishery-independent research and data collection program established in 1998 for the coastal waters from Maine to North Carolina. The program was developed to respond to the lack of adequate survey coverage and coordination in the coastal waters of the Mid- Atlantic Bight. Its primary tool to fill that gap in coverage has been the NEAMAP SNE/MA Nearshore Trawl Survey, which was piloted in 2006 and has completed four full years of surveys in the spring and fall of each year. The survey samples inshore waters from Cape Hatteras, North Carolina, northward to Martha's Vineyard, Massachusetts. Survey data can be used to complement results from the NOAA Fisheries Service NEFSC Trawl Survey, which samples in deeper, offshore waters of the Mid-Atlantic and New England. The region-wide nature of the program was re-emphasized in 2011 to include the Maine-New Hampshire Inshore Trawl Survey, as well as the Massachusetts Inshore Trawl Survey.

In 2011, research scientists from the Virginia Institute of Marine Science completed spring and fall trawl surveys, working aboard the F/V Darana R, a commercial fishing vessel owned and operated by Captain James Ruhle. Each survey in 2011 conducted tows at 150 locations in depths ranging from three to 25 fathoms. Nearly six million individual fish and invertebrates, representing over 175 different species, were collected during the nine full-scale surveys conducted through the fall of 2011. Individual length measurements were recorded for more than 620,000 animals and laboratory processing is proceeding on the 36,000 stomach samples and 49,000 ageing structures (ear bones,

vertebrae, spines) collected in the field. The catch and sample data are used by scientists and managers to describe trends in fish stock abundance and health.

The 2011 NEAMAP SNE/MA Nearshore Trawl Survey not only extends the time series of fish and invertebrate abundance estimates, but also provides important fish age data for Atlantic striped bass, summer flounder, black sea bass, and other Commission managed

Biologists sample northern shrimp from the GOM Northern Shrimp Trawl Survey. Photo by ASMFC.

species. These data are vital to improving our ability to track year classes and understand changes in population age structure. With additional years of sampling, the SNE/MA Nearshore Trawl Survey will become an increasingly valuable source of fishery-independent data alongside the Maine-New Hampshire and Massachusetts Surveys to support and improve stock assessments. The majority of funds needed to complete NEAMAP Nearshore Surveys in the spring and fall of 2012 have been obtained; however, there is no long-term funding source for the survey.

Research Initiatives

The Commission continued several fisheries research initiatives in 2011 that were supported and funded by Congress as high priority issues for the Atlantic coastal states and their stakeholders. Information gathered from research projects provides the scientific basis for Commission stock assessments and is fundamental to informing fisheries managers about the health of fish and shellfish populations.

Northern Shrimp

The 28th Gulf of Maine Northern Shrimp Trawl Survey was conducted in 2011 by NEFSC in cooperation with the Commission's Northern Shrimp Technical Committee. A total of 84 stations were sampled, with information on shrimp numbers, sizes, gender, and maturity collected to provide data for annual stock assessments and related analyses. The survey is a valuable tool for consistently evaluating the stock's condition. Results show that shrimp abundances have been at or below average levels in the last several years. A notable decline in shrimp sizes across life stages and genders was detected in the 2011 survey.

Red Drum

The Commission identified red drum as a priority species in need of research because the status of the adult portion of the population is not well known. With federally-dedicated research funds, state scientists from North Carolina, South Carolina, and Georgia conducted bottom longline surveys to provide a fishery-independent index of adult red drum abundance. Many red drum encountered in the survey were tagged to provide information on survival rates, migratory behavior, and stock identification. Information was also collected on the presence of hatchery-origin fish in the offshore adult population, as well as sex ratios, maturity, and age structure of the population. All of the information is critical for evaluating the status of the red drum population, especially the adult portion, and developing a successful red drum management program.

Fish Ageing

Fish age and growth information are key components of stock assessments that improve our understanding of species' population dynamics. With age samples being collected, processed, and read by scientists at several institutions every year, it is important to ensure all ageing labs follow consistent protocols.

In 2011, the Commission facilitated consistency and information sharing on fish ageing through the development of standardized ageing protocols, the exchange of fish ageing samples among different laboratories, and a fish ageing workshop. The Commission, in collaboration with state, federal, and academic experts, continued developing a manual of standardized fish ageing protocols for Commission managed species. The Commission also organized exchanges of ageing samples for Atlantic striped bass, summer flounder, black sea bass, and winter flounder

to promote consistency between laboratories. In May 2011, the Commission conducted a workshop to develop and promote best practices for determining the age of sampled bluefish, with the results from the workshop incorporated into a new coastwide monitoring program for bluefish, including age sampling priorities by state. A tautog ageing exchange and/or workshop is being planned for 2012.

Horseshoe Crab Trawl Survey

The Horseshoe Crab Trawl Survey, conducted by Virginia Tech University's Horseshoe Crab Research Center since 2002, is the only fishery-independent survey designed to sample the horseshoe crab population in coastal waters. Its data are a critical component of the Commission's coastwide stock assessment and the new ARM framework, both of which were endorsed through an independent peer review in 2009. The ARM framework includes modeling that links management of horseshoe crab harvest to multispecies objectives, particularly red knot shorebird recovery. The Commission's Horseshoe Crab Management Board will consider formalizing

Participants at the Commission's 2011 Bluefish Ageing Workshop view otoliths to determine age. Photo by Mike Waine, ASMFC.

the ARM framework for management use in Draft Addendum VII to the Horseshoe Crab FMP in early 2012. Full funding for the 2011 Virginia Tech Horseshoe Crab Trawl Survey was secured through a matching donation from the National Fish and Wildlife Foundation (NFWF). NFWF funds match the combined $100,000 contribution from biomedical institutions Lonza Walkersville, Inc., Charles River Laboratory, and Associates of Cape Cod providing the full $200,000 that was needed for survey operations in 2011. Additional donations were pledged by members of the horseshoe crab and whelk fishing industries as seed money for the 2012 survey; the status of which will be determined by the ability to secure full funding. Currently there is no long-term funding source for the survey.

Recreational Fishing Release Mortality

Populations of several fish species managed by the Commission are subject to high levels of recreational catch and release. The release mortality rates, or degree to which fish survive following release, is an important factor included in stock assessments to determine how many fish are lost to release mortality every year. The Commission, in collaboration with NOAA Fisheries Service, hosted a national workshop on release mortality to gather the latest scientific study results on release mortality and identify best fish handling practices to minimize mortality from catch and release fish. Workshop participants included scientists, managers, and fishermen from the U.S. Atlantic, Gulf, and Pacific Coasts. A workshop report, presentations, and additional results from the workshop can be found at www.fishsmart.org.

Cooperative Tagging

Tag and recapture data are valuable inputs to the stock assessments of several species managed by the Commission, including Atlantic striped bass, red drum, sturgeon, weakfish, spiny dogfish, and coastal sharks. The Commission's Interstate Tagging Committee (ITC) was created in 1999 to improve the quality and utility of fish tagging data through the development and promotion of protocols for effective tagging programs. The ITC maintains a Cooperative Tagging Website and Registry that provides information on coastwide tagging programs. Anglers can search a database by fish species, tag type, and tag color in order to identify recovered tags. The website can be found at www.fishtag.info.

Since the early 1980s, the Commission has been a partner to a Cooperative Winter Tagging program led by the USFWS. The program organizes annual field tagging of Atlantic striped bass, Atlantic sturgeon, spiny dogfish, and other species aggregating each winter in nearshore waters off Virginia and North Carolina. In 2011, over 100 striped bass were caught, tagged, and released by scientists and captains aboard charter vessels. Information from recaptured fish with tags provides scientists with data to better understand fish survival and growth, habitat preferences, seasonal movements and migrations, and stock boundaries.

Multispecies Models & Assessments

The Commission recognizes the importance of ecological interactions, such as predator-prey relationships, in understanding the population dynamics of fishery resources. The Fisheries Science Program coordinates the Multispecies Technical Committee (MSTC), a group of state, federal, and university scientists tasked with evaluating relationships among species via a multispecies modeling framework known as the extended Multispecies Virtual Population Analysis (MSVPA-X). MSTC periodically performs updates to the model, evaluates the status of research recommendations from the 2005 model peer review, and works with the Commission's Assessment Science Committee to consider and evaluate alternative stock assessment models that incorporate ecosystem factors. The MSVPA-X model will be updated again in early 2012 with the most recent years of data in preparation for the 2012 Atlantic menhaden stock assessment update. Annual mortality-at-age estimates from the MSVPA-X are generated and used in the Atlantic menhaden assessment model to account for changes in predation rates over time. In addition, a multispecies subcommittee began work on several alternative multispecies models that may be used to develop ecological reference points for Atlantic menhaden.

Scientists participate in ASMFC Intermediate Stock Assessment Training Workshop. Photo by Genny Nesslage, ASMFC.

Stock Assessment Peer Review

The Commission's species management boards rely on the scientific and technical information provided by independent peer reviews of stock assessments to evaluate stock status and develop fisheries regulations using the best available science. In 2011, three benchmark stock assessments were evaluated through peer review processes. The winter flounder and black sea bass assessment reviews were conducted through the NEFSC Stock Assessment Review Committee (SARC). Several species of coastal sharks had stock assessment reviews completed through the SouthEast Data, Assessment, and Review (SEDAR) process. Information on the outcome of 2011 stock assessment peer reviews can be found in the species highlights section of this report.

Stock Assessment Training

The Commission organizes stock assessment training courses to provide instruction to fisheries professionals on the most progressive fisheries analysis methods available for use in stock assessments. Courses are provided each year to meet the specific training needs identified as critical to supporting coastwide assessments, and to provide managers with a better understanding of assessment outcomes. In 2011, an advanced training course entitled "AD Model Builder Programming for Stock Assessment" was held to enhance state scientists' knowledge of ADMB modeling software – a new tool for constructing models of fish population dynamics. Two intermediate level stock assessment workshops were held in 2011, the "Mock Data Workshop" and "Mock Assessment Workshop – Part 1". The courses were designed to provide state scientists with hands-on experience in developing stock assessments, using fishery-independent and -dependent data in a variety of analytical methods and models. Finally, a training session for Commissioners was held in August 2011, "Stock Assessment 101," providing an overview of the assessment development and peer review process, and how to interpret the basic model results typically presented to management boards.

Habitat Protection, Restoration & Enhancement

The Commission recognizes that protection, restoration, and enhancement of fish habitats are essential to promoting the sustainability of fisheries along the Atlantic coast. The Habitat Program is responsible for gathering technical information and developing guidance on the important role fish habitat plays in achieving the Commission's vision of "healthy, self-sustaining populations for all Atlantic coast fish

species or successful restoration well in progress by the year 2015." The Program successfully performed this role through several activities in 2011.

A 2011 highlight was the American Eel Passage Technology Workshop. American and international scientists and engineers specializing in eel passage presented case studies, design techniques, and experiences dealing with regulatory issues related to re-establishing effective up- and down-stream movement of American eel where dams and other impediments exist. Participants included state biologists that are leading eel passage restoration projects supported by the Atlantic Coastal Fish Habitat Partnership and USFWS. Workshop results are being summarized in a Commission Special Report and will be shared with passage experts along the Atlantic coast to guide research and management activities toward improving passage of eel. The Commission's Habitat Program also released the 2011 Annual Issue of *Habitat Hotline Atlantic*, highlighting state habitat-related initiatives, including a special focus on fish passage activities and habitat restoration projects along the coast. The newsletter is available at http://www.asmfc.org/publications/habitatHotline/2011/Habitat_Hotline_Atlantic_2011_Annual_Issue.pdf.

Atlantic Coastal Fish Habitat Partnership

Beginning in 2006, the Commission contributed to the establishment and growth of the Atlantic Coastal Fish Habitat Partnership (ACFHP), an assembly of state, federal, tribal, and non-governmental groups whose mission is to conserve habitat for Atlantic coast diadromous, estuarine-dependent, and coastal fish species. ACFHP addresses habitat threats with a broad and coordinated approach, leveraging resources from many agencies, organizations, and corporations to make a difference for fish habitat. ACFHP operates under the purview of the National Fish Habitat Action Plan (NFHAP).

Two projects identified by ACFHP as priorities were approved to receive USFWS-NFHAP funding in FY2011. One of these projects, located in South Berwick, Maine will restore approximately 800 feet of habitat for diadromous fish species and enhance approximately 4.3 miles of habitat in Shoreys Brook. A partially-breached dam will be removed, a failing perched culvert will be replaced with an open-arch culvert, and the streambed will be restored to its approximate original condition. The other project, located along the Intracoastal Waterway, within the ACE Basin National Estuarine Research Reserve in South Carolina, will rehabilitate tidal marsh areas experiencing degradation from boat traffic by constructing natural breakwaters using oyster reefs. The expected results of the project include: increased fish habitat, stabilized shoreline, improved water quality, and increased public awareness.

In 2011, ACFHP completed the development of its 5-year Conservation Strategic Plan, which identifies objectives and key conservation strategies to confront pervasive threats to fish habitat along the Atlantic coast. ACFHP will address the threats through a broad, coordinated approach and by leveraging resources from partner agencies and organizations to support on-the-ground projects. Subregional priority habitats are identified in the Plan to focus the efforts of the Partnership on localized issues in order to make a measurable difference for fish habitat. The Plan was developed by the ACFHP Steering Committee, with input from members of the ACFHP Science and Data Working Group. The ACFHP Conservation Strategic Plan is available at: http://www.atlanticfishhabitat.org/publications.cfm. For more information on the Partnership, visit its website at http://www.atlanticfishhabitat.org.

Landon Dam Fishway. Photo courtesy of CT DEEP.

During 2011, the Commission had the privilege of presenting awards to several deserving individuals who have directly contributed to furthering the Commission's vision of healthy, self-sustaining populations for all Atlantic coast fish species or successful restoration well in progress by the year 2015.

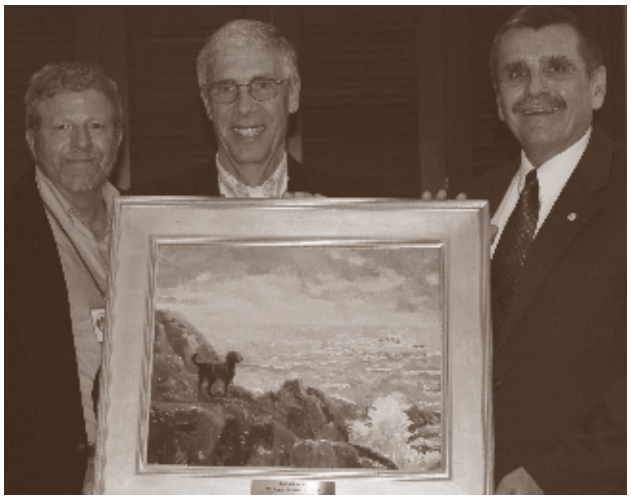
Captain David H. Hart Award

The Commission presented **Patten White**, Maine lobsterman and long-time ASMFC Commissioner, the Captain David H. Hart Award, its highest annual award, at the Commission's 70th Annual Meeting in Boston, Massachusetts.

"Pat truly exemplifies the spirit of Captain Dave, bringing together a rich fishing history, a commitment to sustainable fisheries management, a dedication to the Commission and its Mission, and an unquenchable enthusiasm and optimism for doing the right thing in an easygoing and friendly way," stated Jack Travelstead, Chair of ASMFC's Award Committee. "He treats members of the public, fishermen, fellow Commissioners, and congressional representatives with the utmost respect, and expects the same in return. He has conducted himself as a true gentleman and, in doing so, has elevated the role of fishermen in the fisheries management process."

A lifelong commercial lobsterman, Mr. White has been passionately committed to the success of marine fisheries management at the state, regional, and national levels for over 20 years. He believes that the only way for fisheries management to succeed, for both the resource and the fishermen, is for fishermen to be knowledgeable and personally involved in the management process. This belief is clearly evident in all his efforts related to fisheries conservation and management. It was under his leadership that the Maine Lobsterman's Association became actively involved in the New England Fishery Management Council's lobster management process and was a key proponent of including industry participation in the process through the establishment of lobster management teams.

With the passage of ACFCMA and the transfer of lobster management authority from NEFMC to the Commission, Mr. White and other lobstermen shifted their focus to the Commission. In 1995, he was appointed Governor's Appointee for the State of Maine to ensure that the state's fishermen had a strong voice in the Commission's



From left: Former ASMFC Commissioner and Chair from Maine George Lapointe, Hart Award Recipient Patten White, and ASMFC Executive Director John V. O'Shea.

fisheries management process. As an ASMFC Commissioner, Mr. White has been firmly committed to the Commission's overall fisheries programs, recognizing the importance of the entire marine environment, not just fish and lobster. He chaired the Commission's American Lobster Management Board, Atlantic Menhaden Management Board, and the Northern Shrimp Section, and has been an active participant in the discussions and activities of the Legislators and Governors' Appointees.

Mr. White has also engaged in broader ocean management efforts, most notably as a member of the Pew Oceans Commission. He is a long standing member of the Atlantic Large Whale Take Reduction Team, convinced that it is possible to have good lobster fishing while simultaneously protecting our nation's endangered species. Among other notable activities, Mr. White served on the editorial board for National Fisherman magazine and was a founding member of the Northwest Atlantic Marine Alliance. He has served on the Sea Grant Policy Advisory Committee and Northeast Consortium review team.

Through all of his endeavors, Mr. White has carried himself in a positive, friendly, and effective way that is a model for all. He truly embodies the spirit and character of the Captain David H. Hart Award. The Commission

instituted the Award in 1991 to recognize individuals who have made outstanding efforts to improve Atlantic coast marine fisheries. The award is named for one of the Commission's longest serving members, who dedicated himself to the advancement and protection of marine fishery resources.

Annual Awards of Excellence

Mr. Michael E. Howard, Mr. Charles A. Wenner, and members of the NOAA Fisheries Service Beaufort Laboratory Atlantic Menhaden Team (Dr. Douglas S. Vaughan, Dr. Erik H. Williams, Mr. Joseph W. Smith and Ms. Ethel A. Hall) were named recipients of the Commission's 2011 Annual Awards of Excellence (AAE) for their contributions to the success of fisheries management along the Atlantic coast. Mr. Howard received his award in the Law Enforcement category. Mr. Wenner and the NOAA Fisheries Service Beaufort Lab Atlantic Menhaden Team were presented awards in the Scientific, Technical, and Advisory category.

LAW ENFORCEMENT

Mr. Michael E. Howard has been involved in the Commission process for nearly two decades, first as a member and then Coordinator of the Law Enforcement Committee. He began his career with the Maryland Natural Resources Police (NRP) where he excelled in all forms of conservation law enforcement, particularly fisheries. Much of his career was spent supervising all inland enforcement officers in the lower four counties of Maryland's Eastern Shore. Mr. Howard's final assignment was as Chief of Support Services, at the rank of Major, in Maryland's NRP Annapolis Headquarters. In this position, he not only oversaw functions such as training, vessel maintenance, communications, and records, but also initiated college curriculum specializing in conservation law enforcement at the University of Maryland Eastern Shore. Mr. Howard retired from the NRP in 2001.

As Coordinator for the Commission's Law Enforcement Committee from 2002 to 2010, Mr. Howard was responsible for all aspects of the Committee's activities from meeting planning, coordination, and follow-up, to reporting the Committee's positions to management boards. His greatest contribution was his ability to thoughtfully raise issues that would impact marine fisheries law enforcement regionally. Mr. Howard consistently strived to advance the committee's goal of working with fishery managers to develop regulations that would protect the stocks through fully enforced

From left: ASMFC Executive Director John V. O'Shea with AAE Recipient Michael E. Howard.

measures. He recognized the importance of a realistic balance between species management and law enforcement strategies, and his institutional knowledge of the Commission and marine fisheries law enforcement were valuable assets to new Chairs allowing the committee to be an effective body within the Commission. Mr. Howard is a consummate professional and well respected in the law enforcement and scientific communities, working diligently for marine conservation in various capacities for over 35 years.

SCIENTIFIC, TECHNICAL, AND ADVISORY

Mr. Charles A. Wenner, former Senior Marine Biologist with South Carolina Department of Natural Resources Marine Resources Research Institute, dedicated his career to improving the data upon which stock assessments are built. A long-standing member of several of the Commission's species technical committees, Mr. Wenner long sought to improve ageing databases for Atlantic croaker, bluefish, red drum, and weakfish.

From left: AAE Recipient Charles A Wenner with ASMFC Vice-chair Dr. Louis B. Daniel.

Over the years, Mr. Wenner developed a number of fisheries initiatives on ageing Atlantic croaker, bluefish, red drum, and weakfish. In the mid-1990s, he spearheaded the effort to ensure weakfish were aged using more reliable methods of ageing ear bones, or otoliths, rather than scales. Furthermore, he obtained funding to place personnel on NOAA Fisheries Service Fall Trawl Survey to collect otoliths from weakfish, which his lab subsequently aged. He also made the generous offer (and followed through on it) to age weakfish otoliths from any other state willing to send him the hard parts. He labored in a legendary fashion over red drum, ageing more than 30,000 otoliths for the 2000 stock assessment while simultaneously conducting the long running fishery-independent trammel survey. Mr. Wenner has devoted significant time and effort over the years to ensure quality data is available for fishery managers to make informed management decisions.

NOAA Fisheries Service Beaufort Atlantic Menhaden Team, located in the Beaufort, North Carolina, has been a cornerstone of fisheries data collection and stock assessments, particularly with Atlantic menhaden, for over 40 years. The Team's dedication to Atlantic menhaden science is impressive, especially given that no federal management plan for the species exists.

The retirement of several team members in the near future will no doubt be a huge loss for the Commission and its member states. Fortunately, team leader Dr. Erik H. Williams, Supervisory Research Fish Biologist, is committed to making certain the high level of work and the fluid partnership between state and federal agencies continues. Dr. Williams also contributes his modeling expertise to the team and communicates his complex technical work in a clear and effective manner.

The remaining members of the team are Dr. Douglas S. Vaughan, Mr. Joseph W. Smith, and Ms. Ethel A. Hall. Dr. Vaughan, Research Fish Biologist, is a seasoned and invaluable team member who has participated and led many menhaden stock assessments. His unparalleled knowledge of past menhaden studies and assessments has been a huge asset to the ASMFC Atlantic Menhaden Technical Committee and Stock Assessment Subcommittee. Research Fish Biologist, Mr. Smith has facilitated long-standing and productive relationships with the menhaden fishing industry to collect key data and information. His encyclopedic knowledge of the industry's evolution over the past century and his successful working relationship with the menhaden industry have been indispensable to the Commission's menhaden management program. Ms. Hall, Biological Scientific Technician and the longest serving member of the team, has consistently aged menhaden samples for over 40 years. Her efforts have led to the most impressive and robust aging database for any species along the Atlantic coast. Atlantic menhaden science and stock assessment approaches have been greatly advanced by the combined efforts of the members of the Atlantic Menhaden Team.

From left: NOAA Acting Assistant Secretary for Conservation and Management Eric Schwaab, Dr. Erik William, Dr. Douglas S. Vaughan, Ethel A. Hall, Joseph W. Smith, and ASMFC Executive Director John V. O'Shea.

Commission Staff

John V. O'Shea
Executive Director

Meredith Wilson
Executive Assistant

Robert E. Beal
Director, Interstate Fisheries Management Program

Danielle Chesky
Fishery Management Plan Coordinator

Toni Kerns
Senior Fishery Management Plan Coordinator for Management

Kate Taylor
Fishery Management Plan Coordinator

Christopher M. Vonderweidt
Fishery Management Plan Coordinator

Michael Waine
Fishery Management Plan Coordinator

Patrick Campfield
Fisheries Science Director

Katie Drew, Ph.D.
Stock Assessment Scientist

Emily Greene
Atlantic Coastal Fish Habitat Partnership Coordinator

Genevieve M. Nesslage, Ph.D.
Senior Stock Assessment Scientist

Melissa Paine
Scientific Committee Coordinator

Laura C. Leach
Director of Finance and Administration

Kristina A. Ballard
Accounting Manager

Tina L. Berger
Public Affairs Specialist

Cecilia Butler
Human Resources Administrator

Stefanie Miles
Membership Assistant

Cynthia Robertson
Meetings Assistant

JONES & MCINTYRE PLLC

CERTIFIED PUBLIC ACCOUNTANTS

Independent Auditors' Report

To the Executive Committee
Atlantic States Marine Fisheries Commission
Arlington, Virginia

We have audited the accompanying statements of financial position of the Atlantic States Marine Fisheries Commission as of June 30, 2011 and 2010, and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of the Commission's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Atlantic States Marine Fisheries Commission as of June 30, 2011 and 2010, and the changes in its net assets and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our report dated November 1, 2011 on our consideration of Atlantic States Marine Fisheries Commission's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and important for assessing the results of our audit.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements. The accompanying schedule of contributions requested and received is presented for purposes of additional analysis and is not a required part of the basic financial statements. The accompanying schedules of expenditures of federal awards is presented for purposes of additional analysis as required by U.S. Office of Management and Budget (OMB) Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations* and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Jones + McIntyre, PLLC

November 1, 2011

ATLANTIC STATES MARINE FISHERIES COMMISSION

STATEMENTS OF FINANCIAL POSITION

JUNE 30, 2011 AND 2010

ASSETS

	2011	2010
CURRENT ASSETS:		
Cash	$ 138,112	$ 456,117
Investments	535,486	692,615
Grants receivable	661,723	301,027
Accounts receivable	31,121	70,645
Prepaid expenses	41,494	82,669
Total Current Assets	$ 1,407,936	$ 1,603,073
PROPERTY AND EQUIPMENT, AT COST:		
Office furniture and equipment	$ 464,466	$ 1,038,539
Office condominium	4,122,947	128,695
Leasehold improvements	-	34,458
Total	$ 4,587,413	$ 1,201,692
Less, Accumulated depreciation	(239,849)	(987,779)
Property and Equipment, Net	$ 4,347,564	$ 213,913
OTHER ASSETS:		
Security deposits	$ -	$ 20,941
Investments	-	1,176,505
Total Other Assets	$ -	$ 1,197,446
TOTAL ASSETS	$ 5,755,500	$ 3,014,432

LIABILITIES AND NET ASSETS

CURRENT LIABILITIES:		
Accounts payable	$ 252,012	$ 91,863
Accrued salaries and vacation	287,848	249,584
Deferred revenue	75,594	47,421
Contract advances	40,523	59,828
Current maturities of long term debt	208,963	-
Total Current Liabilities	$ 864,940	$ 448,696
OTHER LIABILITIES;		
Long term debt	$ 2,103,725	$ -
Obligation under interest rate swap	148,354	-
Total Other Liabilities	$ 2,252,079	$ -
UNRESTRICTED NET ASSETS	2,638,481	2,565,736
TOTAL LIABILITIES AND NET ASSETS	$ 5,755,500	$ 3,014,432

ATLANTIC STATES MARINE FISHERIES COMMISSION

STATEMENT OF ACTIVITIES

FOR THE YEAR ENDED JUNE 30, 2011

			Outside Contracts			
	Total	ASMFC	Wallop/ Breaux	Other	ACCSP	ACFCMA
REVENUE:						
Contract reimbursements	$ 5,221,725	$ -	$ 192,212	$ 1,224,936	$ 1,610,214	$ 2,194,363
Contributions from member states	547,308	547,308	-	-	-	-
Annual meeting fees	17,610	17,610	-	-	-	-
Investment income (loss)	106,112	106,112	-	-	-	-
Total Revenue	$ 5,892,755	$ 671,030	$ 192,212	$ 1,224,936	$ 1,610,214	$ 2,194,363
EXPENSES:						
Salaries	$ 2,568,262	$ 718,276	$ 94,820	$ 333,956	$ 854,211	$ 566,999
Travel	664,922	57,174	25,261	116,300	33,321	432,866
Subcontracts	1,008,532	15,000	-	460,431	-	533,101
Fringe benefits	646,459	166,154	26,526	98,889	207,066	147,822
Professional services	87,169	66,896	-	-	-	20,273
Rent	118,226	118,226	-	-	-	-
Office maintenance	69,378	69,378	-	-	-	-
Equipment maintenance	92,649	16,399	2,410	-	72,016	1,824
Depreciation	102,344	102,344	-	-	-	-
Office	55,828	48,981	-	137	6,710	-
Printing	17,347	17,302	-	-	-	45
Meetings	6,414	6,189	-	-	225	-
Postage	17,813	17,813	-	-	-	-
Interest and taxes	82,644	82,644	-	-	-	-
Other	45,006	38,992	-	-	6,014	-
Dues and subscriptions	5,263	5,263	-	-	-	-
Telephone	12,561	12,561	-	-	-	-
Equipment leases	42,517	42,517	-	-	-	-
Insurance	28,322	28,322	-	-	-	-
Indirect cost allocation	-	(1,173,377)	38,443	222,982	417,187	494,765
Total Expenses	$ 5,671,656	$ 457,054	$ 187,462	$ 1,232,695	$ 1,596,750	$ 2,197,695
OPERATING NET INCOME	$ 221,099	$ 213,976	$ 4,750	$ (7,759)	$ 13,464	$ (3,332)
OTHER INCOME (EXPENSE):						
Interest rate swap obligation adjustment	(148,354)					
CHANGE IN NET ASSETS	$ 72,745					
NET ASSETS, BEGINNING OF YEAR	2,565,736					
NET ASSETS, END OF YEAR	$ 2,638,481					

ATLANTIC STATES MARINE FISHERIES COMMISSION

STATEMENT OF ACTIVITIES

FOR THE YEAR ENDED JUNE 30, 2010

			Outside Contracts			
	Total	ASMFC	Wallop/ Breaux	Other	ACCSP	ACFCMA
REVENUE:						
Contract reimbursements	$ 5,020,250	$ -	$ 165,878	$ 863,541	$ 1,829,485	$ 2,161,346
Contributions from member states	521,372	521,372	-	-	-	-
Annual meeting fees	17,425	17,425	-	-	-	-
Investment income (loss)	172,349	172,349	-	-	-	-
Total Revenue	$ 5,731,396	$ 711,146	$ 165,878	$ 863,541	$ 1,829,485	$ 2,161,346
EXPENSES:						
Salaries	$ 2,682,794	$ 759,328	$ 112,225	$ 307,655	$ 913,957	$ 589,629
Travel	900,017	84,285	(4,232)	207,486	58,277	554,201
Subcontracts	431,214	42,000	-	154,521	-	234,693
Fringe benefits	698,850	194,074	30,146	81,819	232,906	159,905
Professional services	130,548	97,771	-	-	-	32,777
Rent	327,012	327,012	-	-	-	-
Equipment maintenance	92,392	13,104	-	-	79,288	-
Depreciation	37,825	37,825	-	-	-	-
Office	44,825	38,824	-	-	6,001	-
Printing	31,640	24,489	-	(4,455)	4,000	7,606
Meetings	9,578	2,110	-	-	7,468	-
Postage	31,941	31,941	-	-	-	-
Other	48,724	26,298	-	-	22,426	-
Dues and subscriptions	3,823	3,823	-	-	-	-
Telephone	12,322	12,322	-	-	-	-
Equipment leases	50,527	50,527	-	-	-	-
Insurance	16,223	16,223	-	-	-	-
Indirect cost allocation	-	(1,241,905)	33,174	169,737	473,506	565,488
Total Expenses	$ 5,550,255	$ 520,051	$ 171,313	$ 916,763	$ 1,797,829	$ 2,144,299
CHANGE IN NET ASSETS	$ 181,141	$ 191,095	$ (5,435)	$ (53,222)	$ 31,656	$ 17,047
NET ASSETS, BEGINNING OF YEAR	2,384,595					
NET ASSETS, END OF YEAR	$ 2,565,736					

ATLANTIC STATES MARINE FISHERIES COMMISSION

STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED JUNE 30, 2011 AND 2010

	2011	2010
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash received from members and contracts	$ 5,456,729	$ 6,155,567
Annual meeting fees	17,610	17,425
Investment income received	4,677	32,333
Cash paid to suppliers and employees	(5,229,521)	(5,581,279)
Interest paid	(61,485)	-
Net cash provided by operating activities	$ 188,010	$ 624,046
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property and equipment	$ (1,427,894)	$ (136,018)
Investments, net	1,435,069	(31,911)
Net cash provided by (used in) investing activities	$ 7,175	$ (167,929)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Payments on long term debt	$ (513,190)	$ -
NET INCREASE (DECREASE) IN CASH	$ (318,005)	$ 456,117
CASH, BEGINNING OF YEAR	456,117	-
CASH, END OF YEAR	$ 138,112	$ 456,117
Reconciliation of change in net assets to net cash provided by operating activities (Note 7)		
Supplemental Disclosures:		
Condominium suite purchase financed	$ 2,700,000	$ -
Equipment financed by capital lease	$ 125,878	$ -

ATLANTIC STATES MARINE FISHERIES COMMISSION

NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2011 AND 2010

Note 1. **Summary of Significant Accounting Policies**

Organization:

The Atlantic States Marine Fisheries Commission (the Commission) (a nonprofit organization) was established in 1942 to represent the interests and needs of the marine fisheries of its member states (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida). Since the Commission is an instrumentality wholly owned by member states, it is exempt from income tax; therefore, an internal revenue code exemption is not required. The purpose of the Commission, as set forth by Congress in Article I of the Commission's Compact, is "to promote the better utilization of the fisheries, marine, shell and anadromous, of the Atlantic seaboard by the development of a joint program for the promotion and protection of such fisheries."

Basis of Accounting:

The Commission prepares its financial statements on the accrual basis of accounting. Consequently, revenue is recognized when earned and expenses when incurred.

Monies received under grants are accounted for separately. Revenue is recognized when funds are expended for the purposes specified in the grant. The Commission funds any excess of expense over revenue incurred in the performance of a grant project.

The accompanying statements of activities reflect expenses summarized on a functional basis. Expenses that can be identified with a specific program or support service are allocated directly according to their natural expenditure classification. Fringe benefits and administrative costs of the Commission have been prorated among the programs by various statistical bases.

Financial Statement Presentation:

Under FASB ASC 958, the Commission is required to report information regarding its financial position and activities according to three classes of net assets: unrestricted net assets, temporarily restricted net assets and permanently restricted net assets. The Commission has only unrestricted net assets.

Cash:

Cash consists of deposits in checking and money market accounts. The Commission's demand deposits with financial institutions at times exceed federally insured limits. The Commission has not experienced any losses in such accounts, and management believes it is not exposed to any significant credit risks.

Bad Debts:

The Commission recognizes bad debts when, in the opinion of management, an account becomes uncollectible.

Investments:

Investments are recorded at fair value.

Note 1. **Summary of Significant Accounting Policies** (Concluded)

Property and Equipment:

Depreciation of property and equipment has been provided for using the straight-line method over useful lives of five years for computer equipment and ten years for other furniture and equipment. The Commission capitalizes equipment purchases with a unit cost exceeding $500. The office condominium suite is being depreciated over 40 years.

Leasehold improvements on the Commission's former office space were recorded at cost and amortized using the straight-line method over the term of the office lease.

Indirect Cost Allocation:

Indirect costs are allocated to contracts based on the Commission's indirect cost allocation rate or the indirect cost allocation allowed by the contract.

Estimates:

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications:

Certain 2010 amounts have been reclassified for comparison with the 2011 presentation.

Note 2. **Investments**

At June 30, 2011 and 2010, investments consisted of the following:

	2011	2010
Cash and money market funds	$ 326,721	$ 424,713
Bonds and certificates of deposit	---	565,126
Equities and mutual funds	208,765	879,281
Total Investments	$ 535,486	$ 1,869,120

Unrealized and realized gains (losses) included in investment income on the Statement of Activities totaled $101,435 and $140,016 for the years ended June 30, 2011 and 2010, respectively.

Note 2. **Investments** (Concluded)

FASB ASC 820 establishes a fair value hierarchy that prioritizes the inputs used to measure fair value into three broad categories: levels 1, 2 and 3. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets (level 1) and lowest priority to unobservable inputs (level 3). In some cases, the inputs used to measure fair value might fall into different levels of the fair value hierarchy. When this happens, the level in the fair value hierarchy that the assets or liability falls under is based on the lowest input level that is significant to the fair value measurement in its entirety. The fair value of the investments noted in the above table is based on quoted prices in active markets (level 1 inputs).

Note 3. **Notes Payable and Derivative Transactions**

At June 30, long-term debt consists of the following:

	2011	2010
Note payable, BB&T, secured by headquarters office condominium suite, payable in monthly installments of $15,000 plus interest at 68% of the one month LIBOR rate plus 1.7875%, due August 2020.	$ 2,190,647	$ ---
Capital leases, payable in monthly installments of $3,365 including interest ranging from 8.89% to 10.88% due November 2013 – September 2015	122,041	---
Subtotal	$ 2,312,688	$ ---
Less, Current portion	(208,963)	---
Total Long-Term Debt	$ 2,103,725	$ ---

Maturities on long-term debt for the years ending June 30 are as follows:

2012	$ 208,963
2013	212,053
2014	208,205
2015	205,896
2016	186,924
2017 and thereafter	1,290,647
Total	$ 2,312,688

In August 2010 the Commission purchased an office condominium suite in Arlington, Virginia and moved its headquarters there in October 2010. The Industrial Development Authority of Arlington County, Virginia (the Authority) provided financing of $2,700,000 through the sale of revenue bonds under the Industrial Development and Revenue Bond Act, Chapter 49, Title 15.2, Code of Virginia of 1950, as amended. The Authority assigned the related promissory note to Branch Banking and Trust Company (BB&T).

Note 3. **Notes Payable and Derivative Transactions** (Concluded)

The Commission makes limited use of derivative instruments for the purpose of managing interest rate risks. The Commission has entered into two interest rate swap agreements to reduce the impact of changes in interest rates on its office condominium suite mortgage note. At June 30, 2011 one of the Commission's interest rate swap agreements had a notional amount of $917,500 and requires a fixed rate of interest of 3.45%. At June 30, 2011 the second interest rate swap agreement had a notional amount of $773,000 and requires a fixed rate of interest of 4.14%. Under both agreements the Commission is to receive a variable rate of interest (the one-month LIBOR rate plus 1.7875%) on the notional amount of indebtedness. The Commission pays or receives any difference in interest on a monthly basis. This amount is charged or credited to interest expense in the statement of activities. The interest rate swap agreements expire in August 2020. The Commission is exposed to credit loss in the event of nonperformance by the other party to the interest rate swap agreement. However the Commission does not anticipate nonperformance by the counterparty.

The carrying amount of the swap has been adjusted to its estimated fair value as of June 30, 2011. The liability is classified as noncurrent since the Commission does not intend to settle it during its next fiscal year.

Note 4. **Obligations Under Capital Leases**

The assets and related obligations for capital leases are recorded at amounts equal to the present value of future minimum lease payments using incremental borrowing rates at the inception of the leases. The assets are amortized over the life of the lease or asset, as appropriate, by the straight-line method. Interest expense is accrued on the basis of the outstanding obligations under capital leases.

The Commission had two capital leases for office equipment and support at June 30, 2011. The gross amount of assets recorded under these capital leases totaled $125,878. Accumulated depreciation on these assets totaled $11,294. Minimum future lease payments under capital leases are as follows for the years ending June 30,

	Total
2012	$ 40,386
2013	40,386
2014	33,277
2015	28,200
2016	7,050
	$ 149,299
Less, executory costs: Interest	(27,258)
Total	$ 122,041

Note 5. **Lease Commitments**

The Commission leases office equipment under a noncancelable operating lease. Minimum lease payments are as follows for the years ending June 30:

2012	$ 7,872
2013	7,872
2014	5,904
	$ 21,648

Note 6. **Retirement Plans**

The Commission sponsors a defined contribution pension plan which covers all employees. The Commission contributes 7% of eligible wages to the plan. The Commission also matches employee contributions up to 3% of eligible wages under an eligible Section 457 plan. Pension expense for the years ended June 30, 2011 and 2010 was $240,891 and $256,968, respectively.

Note 7. **Reconciliation of Change in Net Assets to Net Cash Provided by Operating Activities**

	2011	2010
Change in Net Assets	$ 72,745	$ 181,141
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation	102,344	37,825
Loss on equipment disposition	17,777	---
Unrealized and realized (gain) loss on investments	(101,435)	(140,016)
Obligation under interest rate swap	148,354	---
(Increase) decrease in assets:		
Grants receivable	(360,696)	623,781
Accounts receivable	39,524	(64,333)
Prepaid expenses	45,140	(18,869)
Security deposits	20,941	---
Increase (decrease) in liabilities:		
Accounts payable	156,184	(74,147)
Accrued salaries and vacation	38,264	24,167
Deferred revenue	28,173	1,936
Contract advances	(19,305)	52,561
Net cash provided by operating activities	$ 188,010	$ 624,046

Note 8. **Concentrations**

The Commission received 71% and 72% of its revenue from the Atlantic Coastal Act Program for the years ended June 30, 2011 and 2010, respectively.

Note 9. **Risks and Uncertainties**

The Commission invests in various investment securities, which are exposed to risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term, and such changes could have a material effect on the amounts reported in the financial statements.

Note 10. **Subsequent Events**

Management has evaluated subsequent events through November 1, 2011 and has concluded no significant subsequent events meet the criteria of professional accounting standards to be recognized or not recognized, but disclosed, in the financial statements.

ATLANTIC STATES MARINE FISHERIES COMMISSION

SCHEDULE OF CONTRIBUTIONS REQUESTED AND RECEIVED

FOR THE YEAR ENDED JUNE 30, 2011

	Requested 2010-2011	Received 7/1/10 - 6/30/11
Member States:		
Connecticut	$ 25,692	$ 25,692
Delaware	21,848	21,848
Florida	54,366	54,366
Georgia**	21,927	21,927
Maine	65,713	65,713
Maryland	32,799	32,799
Massachusetts	54,771	54,771
New Hampshire	21,077	21,077
New Jersey	50,793	50,793
New York	38,278	---
North Carolina	43,822	43,822
Pennsylvania	18,253	18,253
Rhode Island	30,362	30,362
South Carolina	26,196	26,196
Virginia	41,411	41,411
Totals	$ 547,308	$ 509,030

**GA owes $17,636 from FY 06

ATLANTIC STATES MARINE FISHERIES COMMISSION

SCHEDULES OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEARS ENDED JUNE 30, 2011 AND 2010

Federal Grantor/ Program Description	Federal CFDA Number	Federal Expenditures	
		2011	2010
Department of Commerce:			
Interjurisdictional Fisheries Act	11.407	$ 246,289	$ 272,501
Atlantic Coastal Act (ACFCMA)	11.474	2,194,363	2,161,346
Atlantic Coastal Act (ACCSP)	11.474	1,610,214	1,829,485
Atlantic Coastal Act (Fisheries Support)	11.474	404,908	149,786
Southeast Area Monitoring and Assessment Program	11.435	140,871	57,601
Total Department of Commerce		$ 4,596,645	$ 4,470,719
Department of the Interior:			
Atlantic Coastal Fish Habitat Partnership	15.628	$ 101,307	$ 120,487
Federal Aid in Sport Fish Restoration Act	15.605	192,212	165,878
Total Department of the Interior		$ 293,519	$ 286,365
Total Expenditures of Federal Awards		$ 4,890,164	$ 4,757,084

JONES & MCINTYRE PLLC

CERTIFIED PUBLIC ACCOUNTANTS

Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Executive Committee
Atlantic States Marine Fisheries Commission
Arlington, Virginia

We have audited the financial statements of Atlantic States Marine Fisheries Commission as of and for the year ended June 30, 2011, and have issued our report thereon dated November 1, 2011. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered Atlantic States Marine Fisheries Commission's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Atlantic States Marine Fisheries Commission's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Organization's internal control over financial reporting.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of the internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Atlantic States Marine Fisheries Commissions's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We noted certain other matters that we reported to the management of Atlantic States Marine Fisheries Commission in a separate letter dated November 1, 2011.

This report is intended solely for the information and use of Management, the Commissioners, the Department of Commerce, the Department of the Interior, and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Jones + McIntyre, PLLC

November 1, 2011

JONES & MCINTYRE PLLC

CERTIFIED PUBLIC ACCOUNTANTS

Report on Compliance with Requirements Applicable to Each Major Program and on Internal Control Over Compliance in Accordance with OMB Circular A-133

Executive Committee
Atlantic States Marine Fisheries Commission
Arlington, Virginia

Compliance

We have audited Atlantic States Marine Fisheries Commission's compliance with the types of compliance requirements described in the *OMB Circular A-133 Compliance Supplement* that could have a direct and material effect on each of Atlantic States Marine Fisheries Commission's major federal programs for the year ended June 30, 2011. Atlantic States Marine Fisheries Commission's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs. Compliance with the requirements of laws, regulations, contracts and grants applicable to each of its major federal programs is the responsibility of Atlantic States Marine Fisheries Commission's management. Our responsibility is to express an opinion on Atlantic States Marine Fisheries Commission's compliance based on our audit.

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of States, Local Governments,* and *Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about Atlantic States Marine Fisheries Commission's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion. Our audit does not provide a legal determination on Atlantic States Marine Fisheries Commission's compliance with those requirements.

In our opinion, Atlantic States Marine Fisheries Commission complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2011.

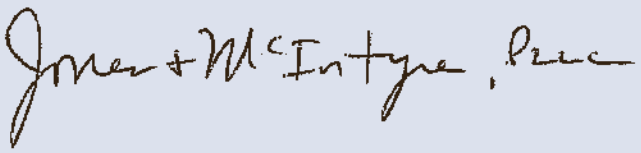
Internal Control Over Compliance

The management of Atlantic States Marine Fisheries Commission is responsible for establishing and maintaining effective internal control over compliance with the requirements of laws, regulations, contracts and grants applicable to federal programs. In planning and performing our audit, we considered Atlantic States Marine Fisheries Commission's internal control over compliance with the requirements that could have a direct and material effect on a major federal program to determine the auditing procedures for the purpose of expressing our opinion on compliance and to test and report on internal control over compliance in accordance with OMB Circular A-133, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Atlantic States Marine Fisheries Commission's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis.

Our consideration of the internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

This report is intended solely for the information and use of Management, the Commissioners, the Department of Commerce, the Department of the Interior, and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.



November 1, 2011

ATLANTIC STATES MARINE FISHERIES COMMISSION

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2011

1. The auditors' report expresses an unqualified opinion on the financial statements of Atlantic States Marine Fisheries Commission.

2. No significant deficiencies relating to the audit of the financial statements of Atlantic States Marine Fisheries Commission are reported in the report on internal control over financial reporting and on compliance and other matters based on an audit of financial statements performed in accordance with government auditing standards.

3. No instances of noncompliance material to the financial statements of Atlantic States Marine Fisheries Commission were disclosed during the audit.

4. No significant deficiencies relating to the audit of the major federal award programs are reported in the report on compliance with requirements applicable to each major program and on compliance in accordance with OMB Circular A-133.

5. The auditors' report on compliance for the major Federal award programs for Atlantic States Marine Fisheries Commission expresses an unqualified opinion on all major federal programs.

6. There were no audit findings relative to the major federal award programs for Atlantic States Marine Fisheries Commission.

7. Major programs tested included:
   Department of Commerce:
   - Atlantic Coastal Act 11.474 (ACFCMA – Red Drum)
   - Atlantic Coastal Act 11.474 (ACFCMA – Phase 1)
   - Atlantic Coastal Act 11.474 (ACFCMA – Fisheries Support)
   - Atlantic Coastal Act 11.474 (ACCSP)

8. The threshold for distinguishing Types A and B programs was $300,000.

9. Atlantic States Marine Fisheries Commission was determined to be a low-risk auditee.

ACKNOWLEDGEMENTS

We would like to acknowledge the following people and agencies for the use of their photographs in this publication.

Front Cover Background:

Annisquam Lighthouse at sunset, © Jill Kyle.

Front Cover Insets and Title Page from left:

Jessica Coakley, MAFMC and Paul Caruso, MA DMF, with a bluefish. Photo by Toni Kerns, ASMFC.

ASMFC FMP Coordinator Kate Taylor with Atlantic sturgeon captured during a Cooperative Federal/State/Industry Atlantic Sturgeon Bycatch Reduction Survey. Photo by ASMFC.

MA lobsterman David Casoni with part of the day's catch. Photo by Dan McKiernan, MA DMF.

Inside Front Cover Background:

Commercial fishing boat in Gloucester, MA. Photo by Dan McKiernan, MA DMF.

Inside Front Cover Insets from left:

Commercial fisherman James Ruhle (left) and biologist repair fishing net during the NEAMAP SNE/MA Nearshore Trawl Survey. Photo courtesy of NEAMAP.

Father and sons with a striped bass. Photo by John McMurray, www.nyflyfishing.com.

Biologist recording fish data on a data collection sheet. Photo by Kate Taylor, ASMFC.

Table of Contents Insets from top to bottom:

Northern shrimp, *Pandalus borealis* (top), and two species of striped shrimp (*P. montagui* and *Dichelopandalus leptocerus* bottom). Photo by Cinamon Moffett, University of Maine.

Young angler with black sea bass. Photo by Steve Witthuhn, NY.

Biologist weighs and measures fish samples collected during the SEAMAP Cooperative Winter Tagging Cruise. Photo by ASMFC.

Table of Contents & Acronyms Background:

Gloucester Lighthouse, © Adam Silver.

Inside Back Cover Background:

Gear coming aboard the SEAMAP Cooperative Winter Tagging Cruise research vessel. Photo by ASMFC.

Inside Back Cover Insets from left:

Brett Valentin holding an American shad caught on the Roanoke River, NC. Photo by Mike Waine.

Off loading Atlantic herring. Photo by Peter K. Prybot, Commercial Fisheries News.

USFWS biologist Albert Spells tags a juvenile Atlantic sturgeon. Photo by Kate Taylor, ASMFC.

ATLANTIC STATES MARINE FISHERIES COMMISSION

1050 N. HIGHLAND ST., SUITE 200 A-N • ARLINGTON, VA 22201
P 703.842.0740 • F 703.842.0741

WWW.ASMFC.ORG