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ASMFC

FISHERIES focus

Vision: Sustainably Managing Atlantic Coastal Fisheries

INSIDE THIS ISSUE

ASMFC Presents Roy W. Miller Prestigious Captain David H. Hart Award

The Atlantic States Marine Fisheries Commission presented Roy W. Miller, Delaware's Governor Appointee to the ASMFC and former Director of Delaware's Division of Fish and Wildlife (DE DFW), the Captain David H. Hart Award, its highest annual award, at the Commission's 77th Annual Meeting in New York City. For the past 40 years, Mr. Miller has admirably served the State of Delaware and the Commission.

Captain David H. Hart Award recipient Roy W. Miller with an Atlantic striped bass.

From the outset of his career in 1978 through passage of the Atlantic Striped Bass Conservation Act in 1984, Mr. Miller served on the Striped Bass Science and Statistical Committee (now known as the Striped Bass Technical Committee), working with the Committee to address the precipitous decline of the striped bass population. As part of those discussions, he was instrumental in getting Delaware to join Maryland in implementing a moratorium on the Delaware striped bass fishery. To this day, he considers the recovery of the striped bass population and the return of the Delaware Bay as a productive and important spawning area as two of his proudest Commission moments.

Beginning in 2003, as Section Administrator for DE DFW, Mr. Miller became the state's Administrative Commissioner Proxy. In that position, he served on and chaired numerous management boards, including Shad and River Herring, Weakfish, and the Horseshoe Crab Board. His chairmanship of the Horseshoe Crab Board was during the highly contentious development and implementation of the FMP, which sought to balance the needs of watermen, who wanted to continue to harvest crabs to use as bait, with the desires of environmentalists, who wanted to preserve the crabs so their eggs could feed migrating shorebirds. Mr. Miller skillfully guided the Board through some intense Board meetings, including significant public comment provided at the meetings. In addition to a management program that accommodated the needs of all the stakeholders and the resource, those meetings also resulted in revised comment protocols for public speaking at ASMFC meetings.

Immediately after his retirement in 2009, Mr. Miller was chosen by Governor Jack Markell (D-DE) to serve as his Appointee to the Commission. Notably, Mr. Miller didn't miss a meeting between his retirement and

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Upcoming Meetings

November 27 (9:30 - 11:30 AM)
Atlantic Herring Plan Development Team Webinar, visit http://www.asmfc.org/calendar/11/2018 for more information

November 27 - 30
Atlantic Striped Bass Benchmark Stock Assessment Peer Review, Northeast Fisheries Science Center's 66th Stock Assessment Workshop (SAW/SARC), Woods Hole, MA

December 3 - 7
South Atlantic Fishery Management Council, Hilton Garden Inn/Outer Banks, 5353 N. Virginia Dare Trail, Kitty Hawk, NC

December 4 - 6
New England Fishery Management Council, Hotel Viking, Newport, RI

December 6 (9:30 - 11:30 AM)
American Lobster Technical Committee Webinar, visit http://www.asmfc.org/calendar/12/2018 for more information

December 11 - 13
Mid-Atlantic Fishery Management Council, Westin Annapolis, 100 Westgate Circle, Annapolis, MD

December 13 (9:30 AM - 12:30 PM)
Atlantic Menhaden Stock Assessment Subcommittee Webinar, visit http://www.asmfc.org/calendar/12/2018 for more information

January 9 (9:30 - 11:30 AM)
American Lobster Technical Committee Webinar, visit http://www.asmfc.org/calendar/1/2019 for more information

January 28-31
American Lobster Benchmark Stock Assessment Workshop, Massachusetts Division of Marine Fisheries, 836 South Rodney French Boulevard, New Bedford, MA

January 29 - 31
New England Fishery Management Council, Portsmouth Harbor Events Center, Portsmouth, NH

February 5 - 7
ASMFC Winter Meeting, Westin, 1800 South Eads Street, Arlington, VA

February 12 - 14
Mid-Atlantic Fishery Management Council, Hilton Virginia Beach Oceanfront, 3001 Atlantic Avenue, Virginia Beach, VA

March 4 - 8
South Atlantic Fishery Management Council, Westin Jekyll Island, 110 Ocean Way, Jekyll Island, GA

April 9 - 11
Mid-Atlantic Fishery Management Council, Icona Golden Inn, 7849 Dune Drive, Avalon, NJ

April 16 - 18
New England Fishery Management Council, Hilton Hotel, Mystic, CT

April 29 - May 2
ASMFC Spring Meeting, Westin, 1800 South Eads Street, Arlington, VA

The Atlantic States Marine Fisheries Commission was formed by the 15 Atlantic coastal states in 1942 for the promotion and protection of coastal fishery resources. The Commission serves as the deliberative body of the Atlantic coastal states, coordinating the conservation and management of nearshore fishery resources, including marine, shell and diadromous species. The fifteen member states of the Commission are: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, and Florida.

Report From the Chair: Reflections on Our Past & Future

For this issue, we are dedicating this space to Commission Chair James Gilmore and the speech he presented to Commissioners at our 77th Annual Meeting in New York City in October 2018.

"This meeting holds special meaning for me. As a New Yorker, born and raised, and someone who has worked in the city (and in the South Tower of the Twin Towers), I am profoundly proud of this city and its people, who have had to come together to deal with one of the nation's worst tragedies. As horrible as 9/11 was, the ability of New Yorkers to set aside their differences and personal losses to come to each other's aid was inspiring and uplifting. It renewed my faith in the goodness of people and their ability to unite and accomplish great feats for a common cause. My fellow New York Commissioners and I felt so strongly about this notion of strength through unity – the ability of people with diverse interests and backgrounds to unify for a greater good – that we chose to use the image of the One World Trade Center as our Annual Meeting logo.

New York also has immense historical significance to the Commission. It was one of a handful of states that came together through the Eastern States Conservation Conference in 1937 to discuss the concept of forming an interstate commission for the purposes of coordinating state marine fisheries activities along the Eastern Seaboard. Upon the Commission's establishment in 1940, New York served as its headquarters with Wayne Heydecker, New York State Regional Representative for the Council of State Governments, serving as the Commission's Secretary-Treasurer, a position he would hold for the next two decades. The Roosevelt Hotel itself played an important part in the Commission's history, serving as the meeting place for 11 out of the first 17 Annual Meetings. It's at the Roosevelt Hotel where Commissioners solidified their commitment to seek solutions that were in the best interests of their shared fishery resources.

> Our greatest strength is in our ability to work cooperatively for the benefit of the fisheries under our care and those that depend on these resources…

So now we find ourselves back at the Roosevelt Hotel 60 years later, dealing with many of the same issues: declining fish stocks, changing environmental conditions, and growing stakeholder demands. And, I'm here to tell you, as it was so many years ago and throughout the evolution of the Commission, we are all in this together. We are all inextricably connected and it's reflected in our shared interests and the challenges we face. Just look at the resources we manage. They show no loyalty to one region or state. They move up and down the coast, inshore and offshore. Filling the role of predators and prey, seeking optimal environmental conditions to maximize their survival, and striving to produce more offspring than are removed – all part of one big interconnected ecosystem. No one piece of it belongs to New York, or Maine, or North Carolina. And yet we divvy up the resources, each of us seeking the biggest piece of pie we can get. I don't blame us, I'm in there with the next guy trying to do what I think is right for our fishermen. But, in doing so, in our struggle to ensure that we get our fair piece, I think we can easily lose sight of the larger picture, of all the reasons why we all choose to be in fisheries management: our love of the ocean and its marine resources, and the deep desire to be effective stewards and ensure that these resources are available to those who want to use them now and over the long-run.

As your Chair, I see it as my responsibility to remind you why we are all here and why now, more than ever, we need to re-energize ourselves and recommit to our shared vision of sustainable Atlantic coastal fisheries. Our greatest strength is in our ability to work cooperatively for the benefit of the fishery resources under our care and those that depend on these resources – recreational anglers and the industries they support, commercial fishermen and processors, who enable consumers to purchase and eat fresh fish, as well as those who place value in the non-consumptive aspects of our coastal resources.

The issues before us are great. They include changing ocean conditions and their effect on species distribution and survival; reallocation of resources between recreational and commercial sectors, as well as between the states; increased fisheries/protected species interactions; responding to recent changes in recreational catch estimates; competing ocean uses; and the challenge of maintaining an engaged membership given the ebb and flow of veteran and new Commissioners, in addition to always present fiscal limitations. While the issues may seem daunting, they are not insurmountable. What is required is a renewed commitment by all of us to work through our challenges with respect for each other and the integrity of our process. When we stray from our intended goal, we need to remind ourselves to take a step back and refocus our energies for the common good. We also must remember to not get caught up in us versus them when we do not get what we want. Let's not lose sight of the fact that we are the Commission. What happens to one state ultimately impacts us all.

Fortunately, we have the continued support of Congress and our federal partners, and an outstanding staff to arm us with the needed resources and information to make informed, balanced decisions. And, we have each other – intelligent, dedicated, passionate, innovative stewards of our Atlantic coastal fisheries. Together, there is nothing we cannot accomplish.

It has been a great honor to serve as your Chair this past year. I am excited about the opportunities and challenges ahead and look forward to working with you all in the coming year."

New Stock Assessment Could Lead to Management Changes

Introduction

Until recently, the Atlantic herring stock had been considered healthy and fully rebuilt from a collapsed stock in the 1980s. However, the results of the 2018 benchmark stock assessment have raised new concerns about the Atlantic herring resource. While the stock remains not overfished and was not experiencing overfishing in the terminal year (2017) of the assessment, the assessment did show very low levels of recruitment over the past five years. These results will likely have management implications for the species as regulators work to prevent overfishing from occurring in the coming years. Diminished stock size and, in turn, lowered catch limits will also impact fisheries that rely on Atlantic herring as an important source of bait, such as American lobster, blue crab, tuna, and striped bass fisheries.

Life History

Atlantic sea herring is one of 200 species in the clupeid family, which includes menhaden, shad, and river herring. It inhabits coastal waters of the U.S. from Cape Hatteras, North Carolina through Labrador, Canada, and off the coast of Europe. Herring form the base of the food web as a forage species for many animals, from starfish and whelk to economically important fish such as haddock, cod, and flounder. Even the vast amount of eggs produced during spawning events serve as an important protein source for marine mammals, seabirds, and many fishes throughout the Mid-Atlantic and Northeast.

The species' entire life cycle occurs in the ocean and is closely associated with plankton. After hatching, the larvae drift passively along coastal currents, consuming eggs and larvae of copepods, barnacles, and other invertebrates. After the larvae herring metamorphose into juveniles (called sardines), they begin to gather in schools inhabiting shallow, inshore waters during the warmer months of the year. As they grow into adults, herring continue to feed on plankton. Feeding behavior consists of nightly vertical migrations following the zooplankton that inhabit deep waters by day and surface waters by night. Adults (age three and older) migrate south from summer/fall spawning grounds in the Gulf of Maine and Georges Bank to spend the winter in Southern New England and the Mid-Atlantic.

Herring spawn as early as August in Nova Scotia and eastern Maine, and during October and November in the southern Gulf of Maine, Georges Bank, and Nantucket Shoals. When temperatures are ideal, the ripe adult herring aggregate in massive shoals over habitats consisting of rock, gravel, or sand bottoms ranging from 50-150 feet deep. A single mature female can produce between 30,000 and 200,000 eggs in one spawning event. Schools can produce so many eggs the ocean bottom is covered in a dense carpet of eggs several centimeters thick. Eggs hatch in 10-12 days depending on water temperature.

Commercial Fisheries

The earliest herring fisheries in North America date back 450 years. Today, Atlantic herring is predominantly a commercially caught species with markets in the U.S. and Canada. Since 2000, the domestic ex-vessel value of commercial herring landings has averaged $30 million/year. The most common gears used to catch Atlantic herring are trawls (midwater and bottom) and purse seines. A small fixed-gear fishery continues in Maine.

Atlantic herring catch increased in the 1960s, peaking in 1968 at 477,767 mt (1.05 billion pounds), largely due to a foreign fishery that developed on Georges Bank. Catch declined in the 1980s, averaging 78,164 mt (172 million pounds). Landings in the 2000s were fairly stable around 113,358

Species Snapshot

Atlantic Herring
Clupea harengus

Management Unit: Maine through New Jersey

Common Names: Sea herring, sardine, sild, common herring, Labrador herring, sperling

Interesting Facts:

- Atlantic herring and other clupeid fish have exceptional hearing. They can detect sound frequencies up to 40 kilohertz, beyond the range of most fish. This allows schooling fish to communicate while avoiding detection by predatory fish.
- While most members of the clupeid family are typically 5.9-9.8 inches in length, the tarpon can grow up to 8 feet long and weigh up to 280 pounds.
- Fresh herring bait is considered premium product and demands the highest prices.
- You can find fresh herring in some high-end restaurants and fish shops. Herring is often canned, pickled, or smoked. The meat is off-white and soft. Small fish have a more delicate flavor than larger fish, which tend to taste oilier and pungent.

Age/Length at Maturity: 3 years/9.1 inches

Stock Status: Not overfished and not experiencing overfishing

THE SARDINE INDUSTRY: Washing, draining, and flaking herring at the sardine cannery, Eastport Maine. From a photograph by T.W. Smilie. Image (c) NOAA.

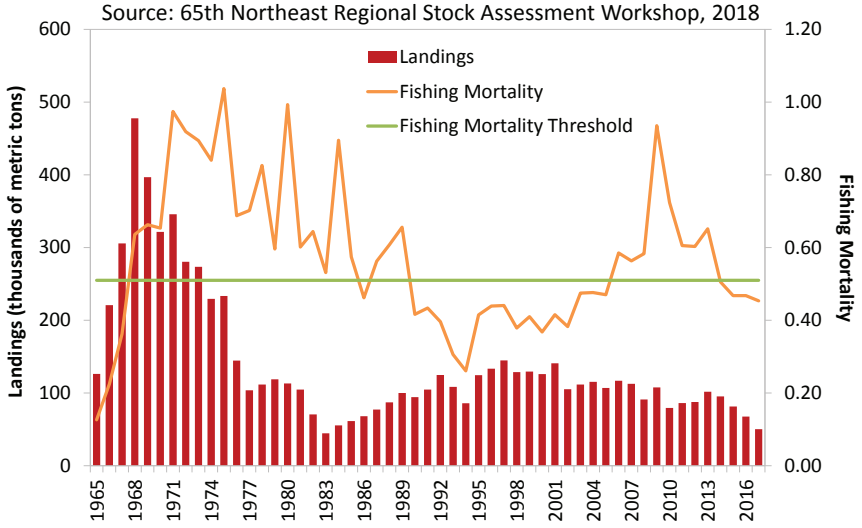
mt (250 million pounds), but have decreased over the past four years to 50,250 mt (111 million pounds) in 2017.

The herring resource was once primarily used for the canning industry, but now provides bait for important fisheries such as lobster, blue crab, tuna, and striped bass. The fish are also a valued commodity overseas where they are frozen and salted.

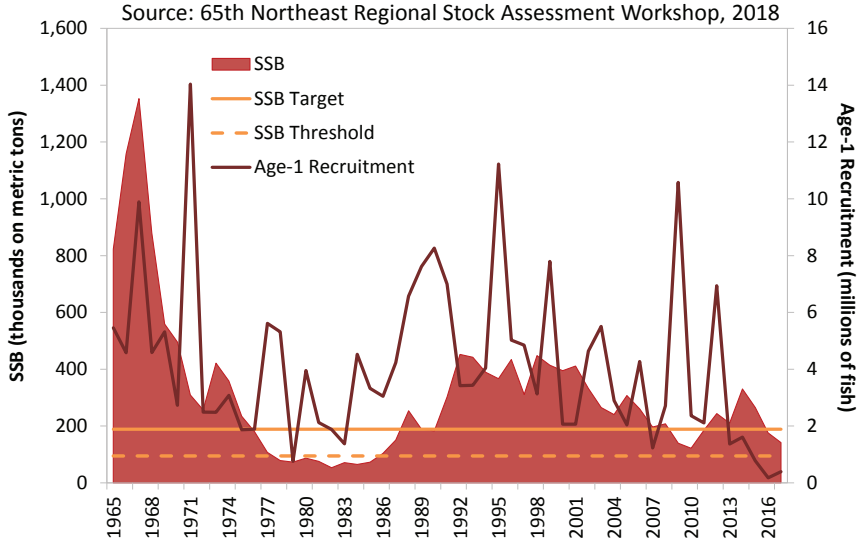
Stock Status

The 2018 benchmark stock assessment, conducted by the Northeast Fisheries Science Center, provided an updated picture of stock health. While Atlantic herring were not overfished and overfishing was not occurring in the terminal year (2017) of the assessment, the report highlighted concerns about trends in recruitment and spawning stock biomass (SSB). Recruitment, a measure of how many herring are born into the population, has been well below the time series average for the past five years. In particular, 2016 recruitment was the lowest on record at 1.7 million fish. While recruitment has been variable throughout time, recent and continuing low levels of recruitment indicate there will be fewer fish available to harvest in future years. SSB, the portion of the population that is capable of reproducing, has also declined in recent years. In 2017, SSB was estimated at 141,473 mt (312 million pounds). Fishing mortality has also decreased in recent years, with a 2017 level of 0.45, below the fishing mortality threshold of 0.51.

Atlantic Herring Commercial Landings
Source: 65th Northeast Regional Stock Assessment Workshop, 2018



Atlantic Herring Spawning Stock Biomass & Recruitment
Source: 65th Northeast Regional Stock Assessment Workshop, 2018



Atlantic Coastal Management

Atlantic herring is cooperatively managed by the Commission and the New England Fishery Management Council (Council). The Commission's fishery management program seeks to prevent overfishing, provide protection to spawning herring, and promote full utilization of herring catch. Both the Commission and Council use annual quotas, called a total allowable catch (TAC), to manage catch in four areas. Management of Atlantic herring includes conservation of its relatives, alewife and blueback herring, collectively known as river herring. River herring populations have declined and remained low in recent years. As a result, river herring and shad catch caps were implemented in order to minimize bycatch in the directed Atlantic herring fishery.

A key component of the Commission's Amendment 3 is the implementation of seasonal closures in the Gulf of Maine (GOM) to protect spawning herring. These closures use a modified GSI-based spawning monitoring system to track reproductive maturity and better align the timing of closures with the onset of spawning. To address the fact that spawning generally occurs earlier in the eastern GOM, as opposed to western GOM, the closures are implemented in three distinct areas at different times. At its most recent meeting, the Atlantic Herring Management Board initiated two addenda to strengthen the spawning protections in the GOM and consider establishing a spawning protection program in Area 3 (off of Cape Cod and Georges Bank). This was prompted by the results of the 2018 benchmark stock assessment.

In 2017, the Commission implemented Addendum I to Amendment 3 to establish management measures to stabilize the rate of catch in the Area 1A (inshore GOM) fishery and distribute the seasonal quota throughout Trimester 2 (June through September). The Addendum modifies the 'Days Out' program by adding management tools to the FMP, including a weekly harvester landing limit and potential restrictions on transfers-at-sea and carrier vessels. In addition, the Addendum allows state staff to access daily catch report data to better monitor landings in the fishery.

For more information, please contact Megan Ware, Fishery Management Plan Coordinator, at mware@asmfc.org or 703.842.0740.

Coastal Sharks

The Coastal Sharks Management Board approved Addendum V to the Interstate Fishery Management Plan (FMP) for Atlantic Coastal Sharks. The Addendum allows the Board to respond to changes in the stock status of coastal shark populations and adjust regulations through Board action rather than an addendum, ensuring greater consistency between state and federal shark regulations.

Previously, the FMP only allowed for commercial quotas, possession limits, and season dates to be set annually through specifications. All other changes to commercial or recreational management could only be accomplished through an addendum or emergency action. In instances when addenda were initiated, the timing of when the addenda were completed and state implementation resulted in inconsistencies between state and federal shark regulations, particularly when NOAA Fisheries adopted changes through interim emergency rules.

Addendum V allows the Board to change a suite of commercial and recreational measures, such as recreational size and possession limits, season length, and area closures (recreational and commercial) in addition to the current specifications for just the commercial fishery, throughout the year when needed. Under this provision, if the Board chooses to adjust measures through Board action, the public will be able to provide comment prior to Board meetings, as well as at Board meetings at the discretion of the Board Chair. Additionally, the Board can still implement changes in shark regulations through an addendum.

In addition, the Board considered proposed federal 2019 Atlantic shark specifications. Similar to recent years, NOAA Fisheries is proposing a January 1 open date for all shark management groups, with an initial 25 shark possession limit for large coastal and hammerhead management groups, with the possibility of in-season adjustments. The Board will set the 2019 coastal shark specifications via an email vote after the final rule is published later this fall.

Addendum V is available at http://www.asmfc.org/uploads/file/5be5af89CoastalSharksDraftAddendumV_Oct2018.pdf and on the Commission's website (www.asmfc.org) on the Coastal Sharks webpage. For more information, please contact Kirby Rootes-Murdy, Senior Fishery Management Plan Coordinator, at krootesmurdy@asmfc.org or 703.842.0740.

Horseshoe Crab

The Horseshoe Crab Management Board approved the harvest specifications for horseshoe crabs of Delaware Bay origin. Under the Adaptive Resource Management (ARM) Framework, the Board set a harvest limit of 500,000 Delaware Bay male horseshoe crabs and zero female horseshoe crabs for the 2019 season. Based on the allocation mechanism established in Addendum VII, the above quotas were set for the States of New Jersey, Delaware, and Maryland and the Commonwealth of Virginia, which harvest horseshoe crabs of Delaware Bay origin.

	Delaware Bay Origin Horseshoe Crab Quota (no. of crabs)	Total Quota**
State	**Male Only**	**Male Only**
Delaware	162,136	162,136
New Jersey	162,136	162,136
Maryland	141,112	255,980
Virginia*	34,615	81,331

*Virginia harvest refers to harvest east of the COLREGS line only
** Total male harvest includes crabs which are not of Delaware Bay origin.

The Board chose a harvest package based on the Delaware Bay Ecosystem Technical Committee's and ARM Subcommittee's recommendation. The ARM Framework, established through Addendum VII, incorporates both shorebird and horseshoe crab abundance levels to set optimized harvest levels for horseshoe crabs of Delaware Bay origin. The horseshoe crab abundance estimate was based on data from the Benthic Trawl Survey conducted by Virginia Polytechnic Institute (Virginia Tech).

This survey, which is the primary data source for assessing Delaware Bay horseshoe crab abundance for the past two years, as well as the ongoing benchmark stock assessment, has not been funded consistently in recent years. However, due to the efforts of three Senators and six Representatives – namely, Senators Chris Coons (D-DE), Tom Carper (D-DE), Cory Booker (D-NJ); and Representatives Frank Pallone (D-NJ), Frank LoBiondo (R-NJ), Lisa Blunt-Rochester (D-DE), Donald Norcross (D-NJ), Chris Smith (R-NJ), and Bill Pascrell (D-NJ) – and the support of NOAA Fisheries, funding for the survey was restored beginning in 2016. They have also requested that NOAA Fisheries incorporate the survey into the agency's annual budget.

Work is well underway on the 2019 Benchmark Stock Assessment and Peer Review, which will be presented to the Board in May 2019. For more information, please contact Dr. Michael Schmidtke, Fishery Management Plan Coordinator, at mschmidtke@asmfc.org or 703.842.0740.

Northern Shrimp

In response to the continued depleted condition of the northern shrimp resource, the Atlantic States Marine Fisheries Commission's Northern Shrimp Section extended the moratorium on commercial fishing through 2021. This three-year moratorium was set in response to the low levels of biomass and recruitment and the fact that, should recruitment improve, it would take several years for those shrimp to be commercially harvestable.

The 2018 Stock Assessment Update indicates the Gulf of Maine northern shrimp population remains depleted, with spawning stock biomass (SSB) at extremely low levels since 2013. SSB in

2018 was estimated at 1.3 million pounds, lower than SSB in 2017 (1.5 million pounds). Recruitment has also been low in recent years, with 2018 recruitment estimated at two billion shrimp. This is below the time series median of 2.6 billion shrimp. Fishing mortality has remained low in recent years due to the moratorium.

High levels of natural mortality and low levels of recruitment continue to hinder recovery of the stock. Predation contributes significantly to the natural mortality of northern shrimp and has been at high levels over the past decade. In addition, long-term trends in environmental conditions have not been favorable for the recruitment of northern shrimp. Ocean temperatures in the western Gulf of Maine have increased over the past decade, with warmer water temperature generally associated with lower recruitment indices and poorer survival during the first year of life. With ocean temperatures predicted to continue to rise, this suggests an increasingly inhospitable environment for northern shrimp in the Gulf of Maine.

Given this change in the environment and the lack of change in stock status despite the fishery being under a moratorium for the past five years, the Section debated current management approaches and if they are appropriate in the face of changing ocean conditions. Ultimately, the Section unanimously agreed to establish a working group to evaluate management strategies for northern shrimp given changes in species abundance, particularly as a result of changing ocean conditions. In February 2018, the Commission approved guidance that species management boards and sections could use to address shifts in species abundance and distribution. The Section will have the opportunity to use this guidance to determine if or what management changes should be made if the stock has no ability to recover.

While industry members advocated for re-opening the commercial fishery in order to evaluate the stock status and provide economic benefits to local fishermen, Technical Committee analysis showed there is little-to-no possibility of 2019 SSB being greater than it was in 2017, even in the absence of fishing. Given the low biomass of the stock, the Section did not establish a Research Set Aside; however, annual surveys including the summer shrimp survey and the Northeast Fisheries Science Center trawl survey will continue to collect important data on the stock.

The Section also approved Addendum I to the Interstate Fishery Management Plan for Northern Shrimp. The Addendum provides states the authority to allocate their state-specific quota between gear types in the event the fishery reopens.

Finally, the Section established a second working group to review the existing Gulf of Maine Summer Northern Shrimp Survey. This working group will evaluate ways to improve the reliability and efficiency of the survey, including shifting to greater commercial industry involvement in the collection of data. Transitioning the shrimp survey to a commercial platform would be one of the options considered by the working group.

For more information, please contact Megan Ware, Fishery Management Plan Coordinator, at mware@asmfc.org or 703.842.0740.

Spiny Dogfish

The Spiny Dogfish Management Board approved the following coastwide commercial quotas for the 2019-2021 fishing seasons (May 1-April 30): 20,522,832 pounds for 2019/2020; 23,194,835 pounds for 2020/2021; and 27,421,096 pounds for 2021/2022 (see below for state-specific allocations).

Spiny Dogfish State Allocations (in pounds) for the 2019-2021 Fishing Seasons

	Northern Region (ME-CT)	NY	NJ	DE	MD	VA	NC
Possession Limit	6,000	To be specified by the individual southern region states					
Allocation	58%	2.707%	7.644%	0.896%	5.92%	10.795%	14.036%
2019/20	11,903,243	555,716	1,568,900	183,893	1,214,957	2,215,484	2,880,640
2020/21	13,453,004	628,069	1,773,165	207,835	1,373,141	2,503,932	3,255,689
2021/22	15,904,236	742,507	2,096,248	245,704	1,623,336	2,960,166	3,848,898

* Any overages in the above quotas will be deducted from that region's or state's quota allocation in the subsequent year. Similarly, any eligible rollovers from one season can be applied to that region's or state's quota allocation the following year.

The quotas are consistent with the measures recommended to NOAA Fisheries by the Mid-Atlantic Fishery Management Council. The Board also established a 6,000 pound commercial trip limit for the northern region states of Maine through Connecticut, while New York through North Carolina have the ability to set state-specific trip limits based on the needs of their fisheries. The Commission's actions are final and apply to state waters (0-3 miles from shore). The Mid-Atlantic and New England Fishery Management Councils will forward their recommendations for federal waters (3 –200 miles from shore) to the NOAA Fisheries Greater Atlantic Regional Fisheries Administrator for final approval.

The quotas are based on the 2018 Stock Assessment Update, which indicates that while the population is not overfished and overfishing is not occurring, biomass has declined, requiring an approximate 46% reduction in the 2019-2020 quota to ensure that overfishing does not occur. The next benchmark stock assessment is currently scheduled for completion in 2021. For more information, please contact Kirby Rootes-Murdy, Senior Fishery Management Plan Coordinator, at krootes-murdy@asmfc.org or 703.842.0740.

ASMFC Seeks Input on Options for Summer Flounder, Scup and Black Sea Bass Management

The Commission's Summer Flounder, Scup and Black Sea Bass Management Board is seeking public comment on Draft Addenda XXXI and XXXII to the Summer Flounder, Scup and Black Sea Bass Fishery Management Plan (FMP). Draft Addendum XXXI and the Mid-Atlantic Fishery Management Council's complementary framework consider adding the following management options to the Summer Flounder, Scup, and Black Sea Bass FMP.

1. Conservation equivalency for the recreational black sea bass fishery
2. Conservation equivalency rollover for summer flounder
3. Transit provisions for Block Island Sound for recreational and/or commercial fisheries for all three species
4. Slot limits (not currently a management option in the Council's FMP)

The Draft Addendum aims to increase the suite of tools available for managing summer flounder, scup and black sea bass, as well as reduce inconsistencies between state and federal regulations. This action does not consider implementing black sea bass conservation equivalency or slot limits for any of the three species in 2019. Rather, the options would update the FMPs to allow these management tools to be used in future years.

Draft Addendum XXXII was initiated to establish new recreational management programs for summer flounder and black sea bass, as the current addenda under which the two fisheries are currently managed (Addenda XXVIII and XXX, respectively) expire at the end of 2018. The Draft Addendum proposes two options for each recreational fishery: (1) coastwide management (the default program for both species under the FMP), or conservation equivalency for summer flounder; and (2) setting measures through a specifications process.

The Draft Addendum seeks to address several challenges with the recreational management of summer flounder and black sea bass. Since the adoption of the FMP, shifts in abundance, distribution, and behavior of these two species have created challenges in constraining harvest to the coastwide recreational harvest limit (RHL) while providing fair and equitable access to fishermen throughout the species' ranges. In addition, the use of highly variable and inherently delayed annual harvest estimates to establish management measures for the subsequent year has led to regulatory instability, regulatory disparities, and frustration on the part of stakeholders.

Setting measures through specifications would be a procedural change, allowing regional management to reflect the current condition and distribution of the stocks and fisheries, and enabling measures to be established based on more complete harvest data rather than preliminary projections. This process would eliminate the need for measures to be established through addenda; instead, the Board would approve measures in the late winter or early spring each year, based on technical committee analysis of harvest estimates and other information on resource availability. Public input on specifications would be gathered by states through their individual public comment processes. For each species, the Draft Addendum also includes proposed standards and guiding principles to structure how measures are set in order to provide fair and equitable access to the resource, and increase regulatory stability.

States from Massachusetts through Delaware are conducting public hearings on the Draft Addenda throughout November; the details of those hearings can be found at http://www.asmfc.org/calendar/. Interested groups are encouraged to provide input on Draft Addenda XXXI and XXXII either by attending state public hearings or providing written comment. Draft Addenda are available at http://www.asmfc.org/files/PublicInput/SF_Scup_BSB_DraftAddendumXXXI_PublicComment_Oct2018.pdf and http://www.asmfc.org/files/PublicInput/SF_BSB_DraftAddendumXXXII_PublicComment_Oct2018.pdf. They can also be accessed on the Commission website (www.asmfc.org) under Public Input. Public comment will be accepted until 5:00 PM (EST) on November 29, 2018 and should be forwarded to Caitlin Starks, Fishery Management Plan Coordinator, 1050 N. Highland St., Suite 200 A-N, Arlington, Virginia 22201; 703.842.0741 (fax) or at comments@asmfc.org (Subject line: Draft Addendum XXXI and XXXII).

Boy with scup by Mark Terciero

Photo courtesy of open boat Laura Lee

Living shorelines, or soft shorelines, are an approach to shoreline stabilization that preserves natural sand edge or vegetated shoreline. An increasingly popular management strategy along the Atlantic coast, living shorelines not only control erosion but create environmentally desirable features, including habitat and vegetated buffers that improve water quality and reduce the effects of upland runoff. This type of shoreline protection is mostly used along shorelines fronting bays, sounds, and in other estuarine settings, as beach and inlet systems experience energy levels that are higher than those for which natural materials can successfully be employed. Unlike traditional bulkhead or revetment approaches to shoreline protection, living shorelines also tend to dissipate rather than reflect wave energy.

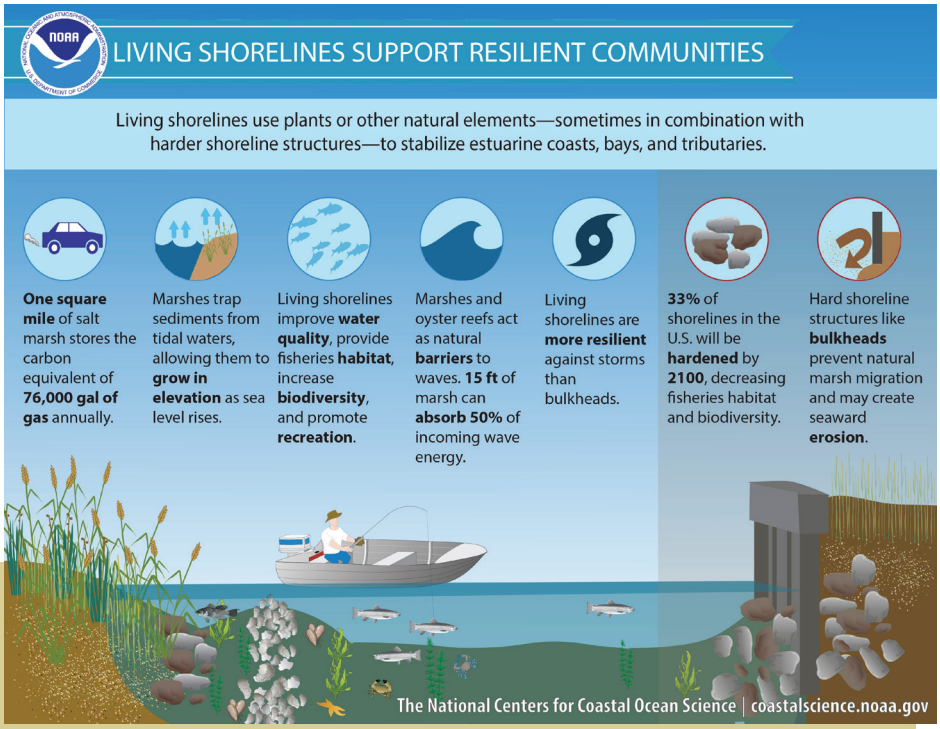
NOAA defines living shorelines as: "A shoreline management practice that provides erosion control benefits; protects, restores, or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural organic materials." These "green" erosion control installations are often compared to "gray" infrastructure like seawalls and revetments. Unlike their gray alternatives, living shorelines integrate habitats across the shoreline landscape, by promoting the land-water continuum, provide enhanced habitat for fish and wildlife, naturally adapt to changing sea levels in the face of climate change, and enhance the natural beauty of their adjacent properties.

As sea level rise continues, armoring shorelines against wave energy and erosion will continue to be important to those living along coastal waters. Using living shorelines to accomplish this will ensure connections remain established between the uplands and estuaries to maintain or even improve the health of the important fish habitats they sustain.

In 2010, the Commission published *Living Shorelines: Impacts of Erosion Control Strategies on Coastal Habitats*, with the purpose of providing resource managers and the general public with a concise comparative discussion of the benefits of living shorelines, and a case study of successful projects to use for reference within their own programs.

Since then, there has been a growing body of literature and lessons learned. This new information has been incorporated into a factsheet that features selected case studies, websites, and references in support of the application of best practices moving forward. The factsheet will be available on the Commission's website at http://www.asmfc.org/habitat/program-overview (under Sedimentation Management) by the end of the year. A copy of the full Report can be found at - http://www.asmfc.org/uploads/file/hms10LivingShorelines.pdf.

For more information, please contact Lisa Havel, Habitat Committee Coordinator, at lhavel@asmfc.org or 703.842.0840.



The Living Shorelines Act

The importance of living shorelines has also gained the attention of federal legislators, with Representative Frank Pallone (D-NJ-6) and Senator Chris Murphy (D-CT) having introduced the Living Shorelines Act (H.R. 4525 and S. 3087). While the bills are unlikely to advance during this year's lame duck session, both Members of Congress intend to reintroduce the Living Shorelines Act in 2019. The Living Shorelines Act would authorize $25 million per year to establish a new NOAA grant program for states, local governments, and NGOs to create living shorelines. As drafted, the Living Shorelines Act would award a 1:1 federal funding match to implement large- and small-scale, climate-resilient living shoreline projects based on a project's potential to protect communities, the environmental conditions of the site, the ecological benefits of the project, and a project's ability mitigate erosion and flooding, absorb coastal storms, and sustain coastal ecosystems. Innovation in the use of natural materials to protect coastal communities, habitats, and natural system functions is encouraged and the Living Shorelines Act seeks to prioritize projects in areas with a history of storms and coastal inundation or erosion.

For more information, please contact Deke Tompkins, Legislative Executive Assistant, at dtompkins@asmfc.org.

ACCSP: What Do You Do?

Fisheries Management and Data Collection Applications

Meet our Software Team: Team Lead Karen Holmes and Senior Developer Nico Mwai. Together, they manage the Standard Atlantic Fisheries Information System, a fisheries data collection system used by thousands of dealers and harvesters all along the Atlantic coast.

We asked them a few questions to learn more about what they do at ACCSP…

1. How would you describe the Software Team's role at ACCSP? What does your day-to-day look like?

The Software Team is responsible for the fisheries management and data collection applications in use by ASMFC state members and ACCSP partners. Applications include all Standard Atlantic Fisheries Information Systems (SAFIS) applications such as Electronic Dealer Reporting (eDR) and Electronic Trip Reporting (eTRIPs), as well as specialized applications for lobster management, highly migratory species reports, and state eLogbooks.

Requirements for applications are generally provided by partners based on state/federal regulations and it is the responsibility of the Software Team to address each of these requirements within the framework of an application. An example might include a state requirement to report on shellfish to its Department of Public Health. This would require the team to develop an understanding of the new fields required, how those fields might impact an application and database, and the how they can be incorporated in a way that makes sense to the end user. The Software Team works closely with partners and end users to identify solutions and see them through to completion.

A master plan of development is identified and reviewed each year during the Information Systems Committee's annual meeting. Short-term goals might include an enhancement to an existing application, such as the ability to report target species in eTRIPS. Long-term goals are multi-year projects like the SAFIS redesign.
On a good day, a Software Team member may spend hours coding and/or analyzing and reviewing new requests. The overall goal and vision of the Software Team is to render the challenging business practices spread over multiple partners and systems into a responsible and complete fisheries management tool that will help dealers, fishermen, and state/federal staff.

2. How has fisheries data collection evolved since you started with ACCSP?

The Software Team has witnessed a growing awareness - both among ACCSP partners and the public at large - of the importance of detailed, timely fisheries management data. Consequently, the goal of ACCSP software applications is to support more robust data collection. Data collected today have a higher degree of specificity than they did ten or fifteen years ago. For example, software is currently being coded to include exacting information on gears and attributes and latitude/longitude are being used to determine areas fished.

3. What are the big projects you're currently working on?

A multi-year project to redesign the SAFIS applications and database is currently underway. This project, which will touch each of the existing SAFIS applications as well as the underlying database structures, aims to produce a more robust fisheries data collection system able to transition data to and from external systems and partners in a cohesive, one-stop repository. It will incorporate business rules and regulations from all ACCSP partners and will impact all current applications. It is the role of the Software Team to understand the requirements and business rules needed to guide development. It is an ambitious goal, and we are on our way.

4. Are there any new technologies you hope to incorporate into ACCSP's systems in future?

The Software Team is looking to standardize its data transfer processes using REST Application Program Interfaces (APIs). APIs are code that enable two software programs to talk to one another, sort of like how telephones allow people to talk to one another. A Representational State Transfer, or REST, API is a type of API that allows the exchange of information between computer systems by way of the Internet.

When one API initiates a communication, the REST API is able to respond automatically and a transfer of information can occur. This would be like needing to enter a 10-digit code from your phone to reach another—when the format is followed, the receiving phone activates (rings) automatically, and the two users can now communicate. That is, provided the users are speaking the same language. In the same way, two APIs must communicate using the same language so that information can be exchanged between the two. ACCSP's REST APIs will provide data in a data "language" called JSON, or JavaScript Object Notation.

By facilitating the automated transfer of data between systems, these REST APIs in JSON will allow for the creation of more useful 3rd party tools like mobile applications and remote servers.

ACCSP is also undergoing a security audit that will likely lead to an increased use of two-factor authentication via Authenticator apps and USB security keys.

2018 Midterm Elections Update

The 2018 midterm elections on the Atlantic coast featured contests for eleven governors, eleven U.S. Senators, and every Member of the U.S. House on November 6, 2018. All nine of ASMFC's Legislative Commissioners on ballots won their election contests.

Governor

Eleven Atlantic coast states held elections for governor. Seven incumbents sought reelection and won. In the remaining four states of Maine, Connecticut, Florida and Georgia, new governors will be sworn-in. However, Georgia's contest between Stacey Abrams (D) and Brian Kemp (R) to replace term-limited Governor Nathan Deal (R) remains contested.

ASMFC Legislative Commissioners/ State Legislatures

Four Atlantic state legislative chambers flipped from Republican to Democratic majorities: Maine's Senate, New Hampshire's House and Senate, and New York's Senate. In the Connecticut Senate, Democrats won control and broke last session's 18-18 split majority.

U.S. Senate

U.S. Senate election contests were held in eleven Atlantic coast states, with the incumbent seeking reelection and winning in ten. The Florida contest between incumbent Bill Nelson (D) and Sen Rick Scott (R) is still being contested. Senate Republicans picked up at least one seat and hold a 51-47 majority, which includes Senators Bernie Sanders (I-VT) and Angus King (I-ME) who caucus with Democrats.

U.S. House of Representatives

In the U.S. House, nearly a quarter (104) of the chamber's membership from the 115th Congress won't return next year (the most since 1992). Democrats control a 232-198 advantage with four races still undecided. Member and staff changes on the House Natural Resources and Appropriations Committees will have an immediate impact on federal fisheries policy and appropriations.

For more information, please contact Deke Tompkins, Legislative Executive Assistant, at dtompkins@asmfc.org.

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2018 Elections for Governor				
State	**Winner**	**Party**	**Result**	**Flip**
Maine	Janet Mills	D	First term	Y
New Hampshire	Chris Sununu	R	Reelected	N
Massachusetts	Charlie Baker	R	Reelected	N
Rhode Island	Gina Raimondo	D	Reelected	N
Connecticut	Ned Lamont	D	First term	N
New York	Andrew Cuomo	D	Reelected	N
Pennsylvania	Tom Wolf	D	Reelected	N
Maryland	Larry Hogan	R	Reelected	N
South Carolina	Henry McMaster	R	Reelected	N
Georgia	Stacey Abrams (D) OR Brian Kemp (R)		First term	
Florida	Ron DeSantis	R	First term	N
ASMFC Legislative Commissioners				
State	**Winner**	**Party**	**Result**	
New Hampshire	Sen David H. Watters	D	Reelected	
Massachusetts	Rep Sarah Peake	D	Reelected	
Rhode Island	Sen Susan Sosnowski	D	Reelected	
Connecticut	Sen Craig A. Miner	R	Reelected	
New York	Sen Philip M. Boyle	R	Reelected	
Delaware	Rep William J. Carson	D	Reelected	
Maryland	Del Dana Stein	D	Reelected	
North Carolina	Rep Bob Steinburg	R	Elected to Senate	
Florida	Rep Thad Altman	R	Reelected	
2018 for U.S. Senate Races				
State	**Winner**	**Party**	**Result**	**Flip**
Maine	Angus King	I	Reelected	N
Massachusetts	Elizabeth Warren	D	Reelected	N
Rhode Island	Sheldon Whitehouse	D	Reelected	N
Connecticut	Chris Murphy	D	Reelected	N
New York	Kirsten Gillibrand	D	Reelected	N
New Jersey	Bob Menendez	D	Reelected	N
Pennsylvania	Bob Casey Jr.	D	Reelected	N
Delaware	Tom Carper	D	Reelected	N
Maryland	Ben Cardin	D	Reelected	N
Virginia	Tim Kaine	D	Reelected	N
Florida	Rick Scott (R) OR incumbent Bill Nelson (D)			
2018 Elections for U.S. House of Representatives				
State	**Winner**	**Party**	**Result**	**Flip**
ME-02	Jared Golden	D	First Term	Y
NH-01	Chris Pappas	D	First term	N
MA-03	Lori Trahan	D	First term	N
MA-07	Ayanna Pressley	D	First term	N
CT-5	Jahana Hayes	D	First term	N
NJ-02	Jeff Van Drew	D	First term	Y
NJ-03	Andy Kim	D	First term	Y
NJ-07	Tom Malinowski	D	First term	Y
NJ-11	Mikie Sherrill	D	First term	Y
VA-02	Elaine Luria	D	First term	Y
VA-10	Jennifer Wexton	D	First term	Y
SC-01	Joe Cunningham	D	First term	Y
FL-26	Debbie Mucarsel-Powell	D	First term	Y
FL-27	Donna Shalala	D	First term	Y

ROY W. MILLER continued from page 1

Roy (center) with past Award recipients (from left): Pat Augustine, Ritchie White, David Borden and Jack Travelstead

the Governor's appointment and continues to serve to this day without fail. As Governor Appointee, Mr. Miller continues to chair management boards and has been a regular visitor to Capitol Hill, keeping staffers apprised of important developments in Delaware and at the Commission. At one such meeting with former Congressman Carney's staff, Mr. Miller expressed his concern about funding shortfalls that resulted in the discontinuance of the Mid-Atlantic Horseshoe Crab Trawl Survey. That meeting and others that followed ultimately led to the restoration of the survey's funding in 2016. The survey is now supported by Senators and Representatives throughout the Mid-Atlantic; the survey's third consecutive year was completed this October.

Throughout his four decades of service, Mr. Miller has distinguished himself by his dedication to the Commission's management process. An insightful and respectful debater, and one of the most collegial Commissioners, Mr. Miller has consistently sought compromise instead of contention. These traits, combined with his long and meritorious record of accomplishments and dedication to sustainable fisheries management, make him a most worthy award recipient.

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