UPCOMING EVENTS

January 17-19, 2017

MREP 100 Management module, Atlantic City, NJ

February 21-23, 2017

SARC 63, ocean quahog, Woods Hole, MA

Top Story

Jon Hare Named NEFSC Science and Research Director

On October 24, 2016 NOAA announced the appointment of Jonathan A. 'Jon' Hare, Ph.D. as the new Science and Research Director for NOAA's Northeast Fisheries Science Center.

Cooperation, collaboration and partnerships are among the top priorities for Jon Hare as the new Science and Research Director for the Northeast Fisheries Science Center (NEFSC). Hare officially assumed his new role on October 31, 2016, and is already working to address those priorities.

As NEFSC director, Hare will lead NOAA Fisheries' five northeastern labs and field stations and continue the work of planning, developing, and managing a multidisciplinary program of basic and applied research on the living marine resources of the Northeast Continental Shelf Ecosystem from the Gulf of Maine to Cape Hatteras, North Carolina.

During his first 90 days on the job, he has left his office in the Woods Hole Laboratory to visit with as many constituents in the region as possible, attending council meetings and conferences, talking with industry and meeting with researchers and leadership at academic organizations. He attended the Buyers & Sellers Exchange (BASE) seafood auction (formerly known as the Whaling City Seafood Display Auction) and toured the Foley fish plant in New Bedford.

He hopes to spend more time in the coming year and beyond learning more about different aspects of the fishing industry in the region, from harvesters and dealers to wholesalers and retailers. "I have been to sea a lot on research cruises. I would like to go out on some industry vessels to learn about their operations, issues and perspectives."

Jon Hare carries baskets of fish during a 2006 bottom trawl survey on the Northeast U.S. Continental Shelf.

"The Northeast ecosystem is changing rapidly and it is a challenge for us as a region to deal with that, but I am optimistic that we can work together to address the challenges and opportunities we face." *Jon Hare*

Since October he has also visited every NEFSC facility except one to introduce himself to staff, to learn more about that facility's operations, and to emphasize that NEFSC needs to expand cooperation and collaboration internally and externally. Due to a December snowstorm, his visit to the Maine Field Station in Orono was postponed, but the goal of getting out to meet, talk with and listen to people will remain a top priority during his tenure.

Hare has two long-term broad goals for the NEFSC: to encourage the Center to conduct the best science possible, and to make the NEFSC the best place to work within NOAA. "One is a scientific goal, the other an organizational one. We have a lot of work to do on both." He plans to be in his position for ten years, to bring some stability to the position and to have time to make progress on a number of fronts, realizing change takes time and won't happen overnight.

The day-to-day interactions with the NEFSC staff, seeing firsthand their dedication to the mission and understanding the expertise within the Center across the broad range of the NOAA Fisheries mission, have been very rewarding, Hare says of his first few months on the job. So has seeing the importance and the value of the science related to peoples' livelihoods and marine resources in the region. "Everyone has been very open with ideas. I am not naive. Tough interactions will happen, but we need to listen to and learn from each other. It is all part of building trust and respect."

Hare started as a researcher who wanted to inform fisheries management some 30 years ago after receiving a Bachelor of Arts in Biology from Wesleyan University in 1987, and a Ph.D. in Oceanography from the State University of New York at Stony Brook in 1994.

"Early in my career my understanding of management was very limited, but over the past few years especially I have come to understand and appreciate the role of a broad range of disciplines, including social sciences, and the importance of different perspectives in the day to day and year to year operations of a large scientific organization like the NEFSC. I see a real role for science in living marine resource conservation and management, and I want to improve the science in support of management."

Hare grew up in upstate New York and says he has always been interested in fisheries. He followed that interest and took advantage of opportunities along the way to land at the NOAA Fisheries laboratory in Beaufort, North Carolina more than two decades ago, and eventually joined the staff at the NEFSC. Through the years he has won multiple awards for his leadership and administrative capabilities, as well as for his research, which has included a number of major studies on climate change and its impact on various fish species.

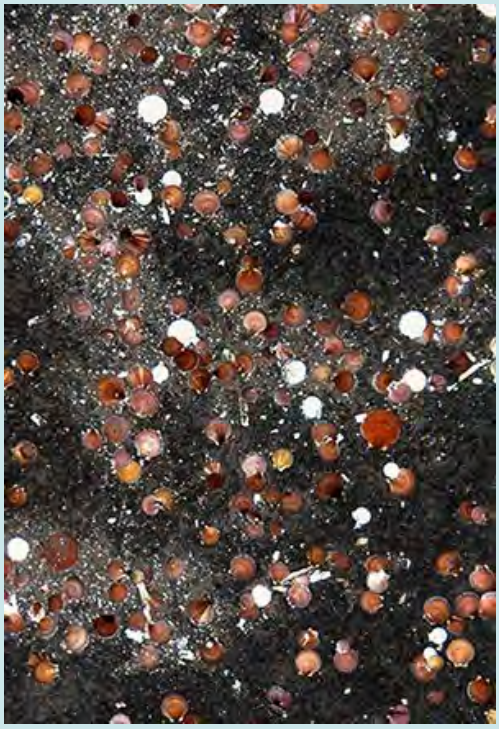
Most recently, he served as Supervisory Research Oceanographer and Acting Ecosystems Processes Division Chief for the NEFSC. In this role, he managed division research while also managing personnel and research resources for five different locations in the Center. Previously, he served as director of the Narragansett Laboratory and was Oceanography Branch Chief for seven years, contributing to the Center's tactical and strategic planning while establishing and maintaining relationships both across the agency and externally. He was also responsible for overseeing plankton and oceanographic survey programs for the Northeast U.S. Shelf, and provided NEFSC leadership guidance on climate change.

"The Northeast region's ecosystem is in a state of rapid change. Our science needs to change. At the same time, the organizational landscape is changing. NOAA Fisheries has a broad mission: fisheries, protected species, aquaculture, habitat, and ecosystems. Adequately addressing the mission with limited resources is one of our biggest challenges.

Increasing our efficiencies, collaborations, cooperative programs and partnerships can improve our science and our organization in a resource-limited environment."

For Hare, the focus on cooperation, collaboration and partnerships is key to the future. "There are a lot of individuals, organizations and institutions that can, and do, contribute to our understanding of living marine resources. Having a variety of ideas, from different perspectives, and evaluating them in an open and objective environment will improve our science and our management. But that openness has to come internally from the staff and externally from our partners and stakeholders. Building trust must be a goal shared by all."

As to what he hopes to accomplish during his tenure, increasing trust is at the top of the list. "I would hope that in the region more of our stakeholders will learn to trust us to a greater degree. They may not agree with us, but they will trust the work and the science that we do as an organization. And vice versa, that we will learn to trust the perspectives and input from our stakeholders and partners. This will take time and effort. The Northeast ecosystem is changing rapidly and it is a challenge for us as a region to deal with that, but I am optimistic that we can work together to address the challenges and opportunities we face." More about Jon Hare here: http://www.fisheries.noaa.gov/stories/2015/01/climate_hare_qa.html



Shelled animals like sea scallops are more vulnerable to higher acid content in ocean water, an outcome of increased carbon dioxide in the atmosphere. Sea scallops are among the most valuable fishery stocks in the nation.

Northeast Regional Climate Action Plan Released

NOAA Fisheries released an action plan December 16 intended to better position people in the Northeast to deal with what happens to valuable marine life as waters warm. The action plan addresses the Northeast U.S. Shelf Ecosystem, which extends from North Carolina to Maine, and from the headwaters of watersheds to the deep ocean. It was developed jointly by the Northeast Fisheries Science Center and the Greater Atlantic Region Fisheries Office with input from a number of partners and the public. Its goal is to provide timely and relevant information on what's changing, what's at risk, and how to respond. That information is key to minimizing the effects of climate change on the health, welfare, and economies of communities in the region. More here: http://www.nefsc.noaa.gov/press_release/pr2016/news/nr1615

Science Shorts

Improving Ocean Observing Systems Goal of Novel Projects

Using low-cost sensor technology in novel ways has become a hallmark of NEFSC oceanographer Jim Manning's many research projects, whether they be ocean drifters used to track surface currents, weather stations and net sensors on commercial fishing vessels, or temperature sensors on lobster traps. Sensors have even been placed on mini-sailboats used for educational programs. One of his latest projects is developing a new version of an ocean drifter with a unique star-shaped drogue hung below the surface to track currents in the deeper layers of the ocean. While the size and shape is consistent with oceanographic standards, it is the more eco-friendly materials that are new: http://www.nefsc.noaa.gov/press_release/pr2016/scispot/ss1616/

The Return of American Shad: Successful Spawning in Maine River a Positive Sign

Where have are all the American shad gone? Like other diadromous fish species in New England whose annual spawning once numbered in the millions prior to their collapse in the last century, today's populations of American shad (*Alosa sapidissima*) are at historically low levels. But there are signs of a rebound and cause for optimism. This food, sport, and prey fish native to the East Coast is being found in much larger

The Return of American Shad: A Maine Field Station researcher holds an American shad on the Sheepscot River at the Head Tide Dam in Alna, Maine, circa 2002. After years in decline, a 2012 survey found that a local stock exists, and the population is successfully spawning in the Penobscot River.

CHAMP: NEFSC researchers and local collaborators deployed ten marine autonomous recording units (MARUs) like this one and sound traps, another type of passive acoustic recording device, in Caribbean waters in December to assess the differences in song and seasonal differences in the arrival of humpback whales.

numbers, although population estimates for juveniles or adults don't yet exist. While much of the historic shad spawning habitat has been inaccessible and no one has been sure where the few remaining shad came from, NOAA Fisheries researchers have found juvenile shad throughout the Penobscot River and estuary during the summer months: http://www.nefsc.noaa.gov/press_release/pr2016/scispot/ss1614/

Change of Command for R/V *Gloria Michelle*

Honoring a long-held maritime tradition, the command of the NEFSC's 72-foot research vessel *Gloria Michelle* was transferred October 28 from Officer in Charge (OIC) Douglas Pawlishen to Junior Officer in Charge (JOIC) Andrew Reynaga. Both hold the rank of Lieutenant (junior grade) in the NOAA Corps, one of the seven uniformed services of the United States. NOAA Corps officers operate and manage the agency's fleet of ships and aircraft and support NOAA's mission in a wide variety of shore-side assignments. LTJG Reynaga assumed the responsibilities as OIC effective immediately, while LTJG Pawlishen assumed a new position December 15 as head of the Gulf Marine Support Facility in Pascagoula, Mississippi. Ensign Chris Gallagher reported for duty December 16 as JOIC. Born and raised in East Sandwich, MA, ENS Gallagher graduated from Massachusetts Maritime Academy in 2014 with a B.S. in marine safety and environmental protection and a minor in marine biology. After joining the NOAA Corps he spent two years aboard the Pascagoula-based NOAA Ship *Pisces.*
http://www.nefsc.noaa.gov/news/features/gloria-michelle-2016-command-change/

Caribbean Humpback Acoustic Monitoring Program (CHAMP)

Two teams of researchers from the NEFSC's Protected Species Branch traveled to the Caribbean in December to deploy ten underwater recording devices for six months in the waters off of Aruba, Bonaire, the Dominican Republic, Guadeloupe, Martinique, and St. Martin. Two different types of passive acoustic recording devices, the marine autonomous recording unit (MARU) and the sound trap, are being used in this inaugural season to assess the differences in song and seasonal differences in the arrival of whales. NEFSC staff will work with the Sea Education Association to make additional recordings during their winter/spring 2017 program in Caribbean waters. Numerous international collaborators and supporters and local contacts have made this project possible.

Metabolic Experiments on Adult and Neonate Spiny Dogfish

NEFSC scientists and colleagues from Rutgers University and the University of South Florida are conducting experiments at the Sandy Hook lab to measure shark metabolism under various water temperatures. Thermal habitat models will be generated for use in reassessing survey-based population estimates. The work will also improve understanding of climate change effects on shark distribution.

Atlantic Mackerel Population Ecology & Fishery Working Group

Many NEFSC staff participated in this collaborative workshop with agency and academic researchers and fishing industry representatives in Point Judith, RI. Similar to the first workshop in December 2015, this interdisciplinary, inter-institutional working group assembles experts in the socio-ecological aspects of the specific fishery and the ecosystem in which it operates. The group's objective is to identify and develop products and methods that could improve the accuracy of the population assessment by bringing ecosystem considerations, including socio-economic aspects, to bear.

NEFMC Herring Management Strategy Evaluation Workshop

NEFSC staff participated in this workshop in Portsmouth, New Hampshire to review MSE results to date that evaluate control rules considering both herring and predator populations and economic concerns. The goal is to refine performance metrics with stakeholders to narrow the range of acceptable herring control rules considered by the NEFMC.

Latest NEFSC Publications

Cox GK, RW Brill, KA Bonaro, AP Farrell. 2016. Determinants of coronary blood flow in sandbar sharks, *Carcharhinus plumbeus*. *J Comp Physiol B.*

Rountree BP. 2016. Limited-access Privilege Programs in the Mid-Atlantic Fisheries. *Marine Fisheries Review*. 77:3: article 4

Larsen J, P Bushnell, J Steffensen, M Pedersen, K Qvortrup, R Brill. 2016. Characterization of the functional and anatomical differences in the atrial and ventricular myocardium from three species of elasmobranch fishes: smooth dogfish (*Mustelus canis*), sandbar shark (*Carcharhinus plumbeus*) and clear nose skate (*Raja eglanteria*). *J Comp Physiol B*.d oi:10.1007/s00360-016-1034-9.

Rosa M, JE Ward, BA Holohan, SE Shumway, GH Wikfors. 2017. Physicochemical surface properties of microalgae and their combined effects on particle selection by suspension-feeding bivalve molluscs. Journal of Experimental Marine Biology an*d Ecology 486:59-68.*

McBride RS, R Ferreri, EK Towle, JM Boucher, G Basilone. 2016. Yolked oocyte dynamics support agreement between determinate-and indeterminate-method estimates of annual fecundity for a Northeastern United States population of American shad. *PLoS ONE* 11(10): e0164203. doi:10.1371/journal.pone.0164203

Wallmo K, Bisack KD, Lew DK and Squires DE (2016) Editorial: The Economics of Protected Marine Species: Concepts in Research and Management. *Front.Mar.Sci*.3:183.doi: 10.3389/fmars.2016.0018

Chang JH, Hart DR, Shank BV, Gallager SM, Honig P, York AD. 2016.Combining imperfect automated annotations of underwater images with human annotations to obtain precise and unbiased population estimates. *Methods in Oceanography* 17, 169–186.

Lipsky C., Saunders R, Stevens J. 2016.Evidence of successful spawning and other life history aspects of *Alosa sapidissima* (American Shad) in the Penobscot River and estuary. *Northeastern Naturalist*. 23(3):367-377

Dellabianca NA, GJ Pierce, A Raya Rey, G Scioscia, DL Miller, MA Torres, NM Passo Viola, RNP Goodall, ACM Schiavini. 2016. Spatial models of abundance and habitat preferences of Commerson's and Peale's dolphin in Southern Patagonian waters. *PLoS ONE* 11(10): e0163441. doi:10.1371/journal.pone.0163441

continued on page 8

Gulf of Maine Bottom Longline Survey

The NEFSC's Cooperative Research Branch completed its third year of a biannual bottom longline survey this fall. This survey is focused on complex rocky habitat in the western and central Gulf of Maine. The major objectives of this survey are to provide supplemental data on species composition, for indices of abundance, and biological samples in these rocky habitats for commercially important groundfish as well as seven 'data-poor' species. The NEFSC is working with two commercial fishing vessels from Scituate and Barnstable, MA, to set 45 longline survey stations each spring and fall concurrent with the NEFSC bottom trawl survey.

Blue Mussel Heart Rate Monitoring Experiment

The joint project between NEFSC researchers at the Milford Laboratory and SUNY Stony Brook professors is looking at how ocean acidification may affect the heart rate of the blue mussel. Mussel heart rate was monitored under three different pCO2 conditions, and then temperature was dropped from 15 to 5°C over a two-week period. Data collected are being analyzed statistically to determine possible pCO2 and temperature effects.

NEFSC Advising on USDA Farmers' Market and Local Food Promotion Project

NEFSC staff are working with a team from Princeton University to provide advice on a USDA grant project supporting a community food network that links small New Jersey seafood producers with an inner city Philadelphia neighborhood through charter schools. Garden State Seafood Association is administering the grant.

Water Quality Assurance Project Plan in Development for Barnegat Bay NJ

NEFSC staff are assisting the Barnegat Bay Partnership refurbish two existing monitoring stations and install a new station to provide water quality data in near real time that can then be accessed from the NJDEP website. Water quality parameters measured will be salinity, temperature, dissolved oxygen, and pH, with the new station also monitoring pCO2. The new monitoring station will be located in Little Egg Harbor near the mouth of Great Bay and will provide important carbonate data for a nearby oyster restoration project.

Fish Stomachs Processed for Oyster Ecosystem Services Study

Milford Lab staff completed gut content analysis on all fish collected as part of an experiment to study ecosystem services provided by off-bottom cage culture of oysters in Long Island Sound. About 100 fish were processed for stomach content analysis (95 black seabass, 4 cunner and 1 tautog). Prey species of importance were blackfingered mud crabs, black sea bass, and hermit crabs.

Growth Documented for Cape Cod Bay Scallop Experiment

Sandy Hook and Milford Laboratory staff collaborated on an experiment using specially spawned and cultured bay scallops. The scallops carry a genetic marker that allows the planted stock to be tracked independent of natural settlement. These scallops with their phenotypes/markers were deployed at cooperating inshore shellfish industry members on Cape Cod and the Islands.

Pacific Coast Shellfish Growers Annual Conference

Milford Laboratory staff were invited to participate in the conference by the NOAA Fisheries Office of Aquaculture to foster cooperation between NEFSC aquaculture researchers and the Pacific coastal shellfish industry. '

European Union Commission Rejects Proposed Ban on Imports of Live American Lobsters

The Commission cited lack of evidence for harm and large economic impacts in the EU. The US exports live lobsters to Europe worth about $150 million each year and the

Sugar kelp sporophytes at Milford Lab's Mass Culture Room

A black sea bass captured on a research survey.

proposed ban would have had substantial impact negative impacts on US fishing interests. The US biological opinion considered by the Commission was written by a small team, including researchers from NEFSC and state and university researchers.

Sugar Kelp Sporophytes at Milford Lab Mass Culture Room Experience Explosive Growth

A cooperative effort between the Milford Lab, GreenWave, and the University of Connecticut, this pilot-scale project is showing positive results and proving a good model for kelp growth, systems design, and cooperative efforts. The string with attached sporophytes was later deployed at the Thimble Island Oyster Farm site for harvest in April 2017.

Slope Sea Atlantic Bluefin Tuna Larvae Provided for a Population Genetics Study

Some of the Atlantic bluefin tuna larvae collected aboard the *Henry B. Bigelow* last summer were sent to a Spanish researcher who is conducting a basin-scale population genetics study using the RAD-Sequencing approach. This work will provide one test of the relationship between the newly documented Slope Sea spawning ground off the Mid-Atlantic, and the known Mediterranean and Gulf of Mexico spawning grounds.

Assessment Updates

SARC 62 Peer Review for Witch Flounder and Black Sea Bass Assessments, Woods Hole, MA

The SARC panel comprised three reviewers from the Center for Independent Experts and one NEFMC Science and Statistical Committee member who served as chair. The assessment presented for witch flounder concluded that stock status could not be determined relative to biological reference points, but that the stock appears to be at a low historical level with truncation of age structure and a reduction in the number of old fish in the population. The assessment for black sea bass concluded the stock is not overfished and overfishing is not occurring.

SARC 63 Ocean Quahog

The working group met in December on the upcoming benchmark assessment for ocean quahog, scheduled for peer review in Woods Hole during February 21-23, 2017. More information here: http://www.nefsc.noaa.gov/saw/

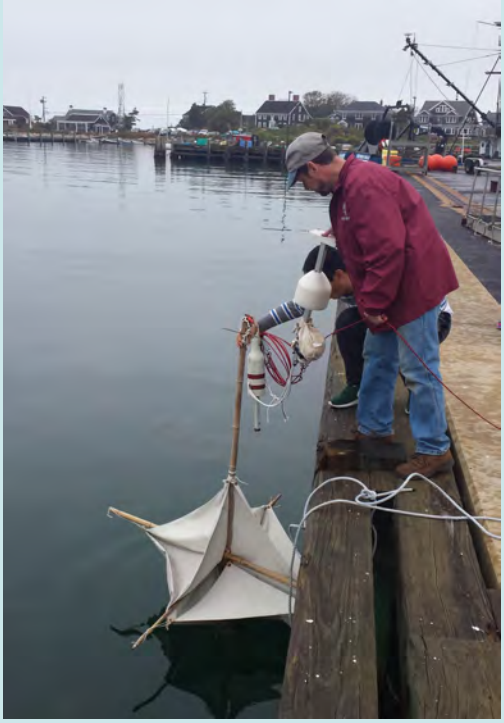
Vessels and Field Updates

New Vessels Join NEFSC Study Fleet

Northeast Cooperative Research Program (NRCP) staff helped 14 new vessels that are joining the Study Fleet with hardware and software set-up to begin tow-by-tow reporting. Vessel homeports range from NH to NJ and fisheries involved include groundfish, monkfish, squid, herring, mackerel and other fisheries.

Second Generation Bottom-Temperature Telemetry System Installations Continue

Two Massachusetts fishing boats, the F/V *Mystic* in Scituate and F/V *Resolve* in Sandwich, have been fitted with these upgraded systems from Lowell Instruments by NEFSC staff from the Cooperative Research Program and the Oceans and Climate Branch. The system includes a 7-in display in the wheelhouse, a microcomputer, and Iridium transmitter that sends hourly updates of current bottom temperature measurements from Study Fleet temp depth probes to the NEFSC and then to regional oceanographic forecasting models.



A high school science teacher tests the new star-shaped drogue off the NEFSC's Woods Hole Laboratory dock, with help from a staff member. The new design uses more eco-friendly materials and tracks currents in the deeper layers of the surface ocean.

Visitors on Leg 3 of the Fall Bottom Trawl Survey aboard the *Henry B. Bigelow* (left to right): Chris Roebuck (Salt Pond Fisheries/ NTAP), Jakub Kircun (NEFSC Ecosystems Surveys Branch), Matt Camisa (Massachusetts DMF), Phil Politis (NEFSC Ecosystems Surveys Branch), Mark Godfroy (New England Fishery Management Council), Mike Pol (Massachusetts DMF/NTAP), Mary Hudson (Gulf of Maine Research Institute), Terry Alexander (New England Fishery Management Council/NTAP), and *Bigelow* Commanding Officer Jeff Taylor (NOAA Corps)

In combination with dockside wifi, this system is being tested as a lower cost and more efficient reporting system coupled with the FLDRS logbook, GPS polling and the complete temp-depth time series. Current procedures result in significant delays in integrating the various sources of data and this activity could significantly improve timeliness and provide opportunities to deliver 24 hour feedback on temp and catch composition to enhance selective fishing practices.

NOAA Ship Ferdinand Hassler Mapping Cruise

A multibeam/side-scan acoustic cruise to map part of the BOEM New Jersey Wind Energy Area targeted benthic habitats of interest off Cape May, NJ. The cruise began late because of mechanical problems and was completed by mid-December. The vessel retrieved two marine autonomous recording units (MARUs) which surfaced unexpectedly in early November off Charleston after being contacted by the NEFSC's marine mammal acoustics group.

NOAA Ship Pisces Benthic Monitoring Cruise

A fall NEFSC cruise, sponsored by the Bureau of Ocean Energy Management (BOEM), found the limits of the sea scallop habitat within the NY Wind Energy Area and encountered patches of juvenile black sea bass habitat. Longfin squid, and their egg mops, little skate and their egg cases, summer and windowpane flounders and a host of associated non-managed members of habitat ecological communities were also recorded. Even across a depth span of only 25 to 45 meters in a relatively flat, mostly sandy bottom area there appeared to be substantial differences in species assemblages. The results should provide a better sense of habitats in the area and better definition of stock habitats in the northeast in general.

FSV *Henry B. Bigelow* Fall Bottom Trawl Survey

The fall bottom trawl survey ended November 13. The *Bigelow* is undergoing routine maintenance in Newport, Rhode Island and is expected to begin seal trials on time in early February.

NTAP Visit Aboard FSV *Henry B. Bigelow*

Three members of the Northeast Trawl Advisory Panel (NTAP) and other research partners made a day trip on the NOAA Ship *Henry B. Bigelow* October 11 at the start of Leg 3 of the autumn bottom trawl survey to observe bottom trawl operations on the vessel. Three tows were completed during the visit. The capabilities of the ship's auto-trawl winch system and the use of the Scanmar net-mensuration package were demonstrated as the tow was underway. Once a tow was hauled aboard, NTAP members watched NOAA scientists process the catch in the ship's wet lab and observe the marriage of the automated conveyor-belt system with the capabilities of the Fisheries Scientific Computer System (FSCS) and the Scientific Computer System (SCS) databases, which link environmental and shipboard operations data with the fisheries sampling data. Panel members had opportunities to speak with the survey scientists, ship's officers and crew members before returning to shore via small boat at the end of the day. The ship continued on Leg 3 of the autumn bottom trawl survey: http://www.nefsc.noaa.gov/press_release/pr2016/news/nr1611/

R/V *Gloria Michelle* Undergoing Maintenance and Upgrade

The vessel has been tied up at Eastern Fisheries, Inc. in New Bedford since November 9. Contracted work includes removing the old winch and installing new split Pullmaster H-18 winches, refurbishing and relocating the crane, and removing the large hatch on the aft deck. The hydraulic pump and all hydraulic plumbing from tank to pump to equipment will also be replaced, and a J-frame side sampling station and winch will be fabricated and installed, along with steel beams to reinforce the deck. Work should be completed by mid-March 2017.

Latest NEFSC Publications

(continued from page 5)

Lee YJ, PA Matrai, MAM Friedrichs, VS. Saba, O Aumont, M Babin, ET Buitenhuis, M Chevallier, Lde Mora, M Dessert, JP Dunne, I Ellingsen, D Feldman, R Frouin, M Gehlen, T Gorgues, T Ilyina, M Jin, JG John, J Lawrence, M Manizza, CE Menkes, C Perruche, V Le Fouest, E Popova, A Romanou, A Samuelsen, J Schwinger, R Séférian, CA Stock, J Tjiputra, LB Tremblay, K Ueyoshi, MV ichi, A Yool, and J Zhang. In press. Net primary productivity estimates and environmental variables in the Arctic Ocean: An assessment of coupled physical-biogeochemical models. *Journal of Geophysical Research-Oceans*.

Heenehan H, Van Parijs SM, Bejder L, Tyne JA, Johnston DW. 2017.Using acoustics to prioritize management decisions to protect coastal dolphins: A case study using Hawaiian spinner dolphins. *Marine Policy* 75:84-90.

Sabal MC, Huff DD, Henderson MJ, Fiechter J, Harding JA, Hayes SA. 2016.Contrasting patterns in growth and survival of Central Valley fall run Chinook salmon related to hatchery and ocean conditions. *Environ Biol Fish*. doi:10.1007/s10641-016-0536-3.

Chute AS, RS McBride, SJ Emery, E Robillard. 2016. Annulus formation and growth of Atlantic surfclam (Spisula solidissima) along a latitudinal gradient in the western North Atlantic Ocean. J*ournal of Shellfish Research* 35(4):729-737. http:dx.doi.org/10.2983/035.035.0402

Manderson JP. An essay about differences between seascapes and landscapes.*Habitat Hotline Atlantic*. 2016:2-3. http://www.asmfc.org/uploads/file/585ad20eHabitat_HotlineAtlantic2016_web.pdf

NOAA Ship *Pisces*, Ecosystem Monitoring Cruise

The fall 2016 EcoMon cruise was only able to conduct sampling at nine stations in Southern New England when generator problems forced the vessel to return to its dock in Davisville, Rhode Island, where it remained waiting for parts which did not arrive until the scheduled cruise period had passed. The winter EcoMon cruise is scheduled to depart February 10 on the *Henry B. Bigelow*.

Observer and F/V Crew Safe After Close Call in the Gulf of Maine

Several Fisheries Sampling Branch senior staff received an emergency SOS from an observer's InReach device late Tuesday evening, November 29. The vessel was in rough seas and taking on water. The Coast Guard responded, escorting the vessel back to port. All aboard were then transferred to a small USCG vessel and brought to the USCG station. The USCG, local authorities and service provider all provided critical support during the rescue.

Fishery Monitoring Update

Observer Web Portal Opens

This new system in the Fisheries Sampling Branch will help share critical information to improve safety for observers, assess performance, ensure that certifications and inspections are addressed in a timely fashion, and simplify information access. The data helps the program keep track of observer and observer provider performance, composition of the observing workforce, upcoming required training or gear replacement, and serves as the first central database for observer deployments from all four provider companies.

Electronic Monitoring (EM) Update

Installation of EM equipment on 10 vessels has been completed for the herring EM project and work is underway on the remaining two vessels. The Fisheries Sampling Branch is working with Saltwater to finalize the data template and will begin video review and data annotation in January. Project partners for the groundfish EFP plan to install equipment on five additional vessels before the end of February 2017. FSB will work with GARFO to review vessel monitoring plans (VMPs); once approved, the vessels will be allowed to fish with EM in lieu of at sea monitors (ASMs) for the duration of the fishing year.

Volume 25 Issue 4
November/December 2016

ASMFC
FISHERIES focus
Vision: Sustainably Managing Atlantic Coastal Fisheries

INSIDE THIS ISSUE

ASMFC Presents William Goldsborough Prestigious Captain David H. Hart Award

The Atlantic States Marine Fisheries Commission presented William "Bill" Goldsborough of the Chesapeake Bay Foundation the Captain David H. Hart Award, its highest annual award, at the Commission's 75th Annual Meeting in Bar Harbor, Maine. Bill is the first person to receive all three Commission awards, having previously received an Annual Award of Excellence for Management & Policy Contributions and the Atlantic Coastal Fish Habitat Partnership (ACFHP) Melissa Laser Fish Habitat Conservation Award.

Hart Award recipient Bill Goldsborough (front row center) joined by ASMFC Executive Director Bob Beal, ASMFC Chair Doug Grout and 10 previous award recipients.

Throughout his 30 years on the front lines of fisheries management and conservation, Bill has remained a thoughtful and persistent voice of reason in his commitment to science-based decision making. A senior scientist for the Chesapeake Bay Foundation since 1988, Bill has provided an independent, conservation-oriented voice to the fisheries discussion. Bill joined the Commission in 1995 after having served as a member of the Commission's Atlantic Coastal Fisheries Cooperative Management Act Transition Team. From 1995 through 2004 he was the Maryland Governor's Appointee and again from 2007 until this year.

continued, see HART AWARD on page 8

Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200 A-N • Arlington, Virginia 22201 • www.asmfc.org

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.

Upcoming Meetings

January 3-5
MREP Workshop on Fisheries Science, Sheraton Hotel, Atlantic City, NJ

January 5 (10 a.m. - 2 p.m.)
Atlantic Herring Section Regional Work Group, New Hampshire Urban Forestry Center, 45 Elwyn Road, Portsmouth, NH

January 6 (2 - 4 p.m.)
Jonah Crab Advisory Panel Conference Call; go to http://www.asmfc.org/calendar/ for more details.

January 9 (10 a.m. - Noon)
Atlantic Menhaden Advisory Panel Conference Call; go to http://www.asmfc.org/calendar/ for more details.

January 11 (10 a.m. - 2 p.m.)
Tautog Technical Committee Conference Call, go to http://www.asmfc.org/calendar/ for more details.

January 17-19
MREP Workshop on Fisheries Management, Sheraton Hotel, Atlantic City, NJ

January 30-February 2
ASMFC Winter Meeting, The Westin Alexandria, 400 Courthouse Square, Alexandria, VA (see preliminary agenda on page 6).

February 6-8
ASMFC and GSMFC Artificial Reef Committees, Crowne Plaza-Jacksonville Airport, 14670 Duval Road, Jacksonville, FL.

February 14-16
Mid-Atlantic Fishery Management Council, Hilton Garden Inn, Virginia Dare Trail, Kitty Hawk, NC

February 23 (3:30 - 5:30 p.m.)
Northern Shrimp Advisory Panel Conference Call; go to http://www.asmfc.org/calendar/ for more details.

March 6-10
South Atlantic Fishery Management Council, Westin Jekyll Island, 110 Ocean Way, Jekyll Island, GA

March 14-16
MREP Workshop on Fisheries Science and Management for the Recreational Angler, Crowne Plaza, Warwick, RI

April 5 & 6
Quality Assurance/Quality Control Fish Ageing Workshop, FL FWCC Fish and Wildlife Research Institute, 100 8th Ave SE, St. Petersburg, FL

April 11-13
Mid-Atlantic Fishery Management Council, Icona Golden Inn, 7849 Dune Drive, Avalon, NJ

May 8-11
ASMFC Spring Meeting, The Westin Alexandria, 400 Courthouse Square, Alexandria, VA

June 6-8
Mid-Atlantic Fishery Management Council, The Main, 100 Main Street, Norfolk, VA

From the Executive Director's Desk

The Future of Atlantic Coastal Fisheries Lies in Partnerships

At our 75th Annual Meeting in Bar Harbor, Maine, we brought together past, present and future Commission leaders to reflect on our origins and envision the future of Atlantic coast fisheries. We initially focused on three ideas: sustainable management as a shared goal of the states; people as the Commission's most valuable resource; and, of course, change as a constant. Digging deeper into these themes, we realized all led us back to one overarching principle – our stewardship successes are a result of strong, effective partnerships. Partnerships, within state delegations, between states, and with stakeholders and federal partners, are the basis of our past successes and the solid foundation upon which our future depends.

Robert Boyles and Jack Dunnigan may have said it best. According to Robert, "There are four things that make a strong partnership – passion, vision, commitment and respect. These traits are often lacking in the world today, but are not with this group." Jack added, "Effective partnerships boil down to two things. Trust among partners, and willingness to look past self-interest for the sake of the partnership."

Often noted throughout the Plenary Session: the Commission is the states. Our collective success is a result of their commitment to one another and the shared belief they can accomplish more for the long-term sustainability of marine fisheries by working together than alone. Gordon Colvin pointed out two ways the Atlantic Coastal Act enabled stronger partnerships.

First, state directors willingly relinquished their primary decision-making control at the Commission. The states have always been represented by three Commissioners, however, the marine fishery director had an outsized role. By fully involving Governor Appointee and Legislative Commissioners, our coastal ecosystems and stakeholders are better for it.

Second, the states willingly allowed for the possibility of federal intervention through management authority, a leap that required an unprecedented level of trust between the states. With this coastwide authority, the state/federal partnership took on a new importance. As a trade-off for relinquishing individual state autonomy, Congress and our federal partners committed increased financial resources to the states.

The Commission partnership with our federal partners has experienced ebbs and flows over the past 25 years. Chief among those is funding for state programs, research, and data collection for fisheries management. Lamenting the seemingly never ending challenge of securing funding for the most basic needs of fisheries management, Gordon wondered aloud, "In the federal budget climate that has evolved since the years I retired, I don't know how you all even carry on with it. It's very, very difficult to imagine having a sense of optimism." Elaborating further, "Never lose track of the need to make it very clear to the world the value of your program and what you are achieving. Be accountable. There will be opportunities, but they're not going to come at you the way you want or expect them to." Our partnership with the federal government has been improving lately, but growing trust on both sides must remain a priority.

Another important partnership, one which connects us to our Vision of *Sustainably Managing Atlantic Coastal Fisheries*, is with the fishing public and other stakeholders. Without the trust of commercial and recreational fishing communities and NGOs, the Commission cannot succeed. Pat Keliher stressed the importance of involving these stakeholders at a more intimate level. "The only time we really engage our stakeholders is when we're in the process of developing an FMP. Trying to understand their thoughts and goals is critically important. Maine is beginning to engage industry at a broader level outside of the regulatory process. I think you start to gain a better understanding about needs from the industry perspective. It may be a way to engage in a different way outside of management plans." Added Kathy Knowlton, "I would like to see informal comment periods, where the public can meet biologists that are involved and have those informal conversations that aren't perhaps as full of pressure. Also, have this interaction in an environment in which they feel more relaxed, can be themselves, make comments, joke around, and find those common grounds first."

Jason McNamee emphasized the importance of partnerships between government, scientists, the fishing industry, and fishermen and the critical need to strengthen these partnerships, especially with regards to data collection and the integration of these data into our science and management activities. "There is often this fear and conjecture of bias in industry-collected information. But as we begin to test the information that's being collected by the industry, we didn't see that. It looked like pretty high quality data. I see this as a critical partnership, because as scientists our research vessels can never match the magnitude of fishing effort going on every day on the water." He suggested that we need to continue to invest in this partnership to get better data and improve industry confidence in our decision-making.

The Commission's next 25 years will be marked by our ability to adapt to change. As Jack noted, "Things are changing and you have a choice. You can either let change control you, or you can be the change agent. It will always be there, you have to face it head on. Don't let it push you. Push yourself into a position to be able to make change happen." At the end of the session, all in attendance left feeling confident the Commission will be ready for whatever is next. After all, change is really just an opportunity to find a better way.

Wishing you and your family a wonderful holiday season and happy New Year!

The Complexities of Sustainably Managing Striped Bass

Introduction

Known throughout New England and the Mid- Atlantic as striper, rockfish, linesider, rollers, squidhound, or simply as "bass," Atlantic striped bass is regularly referred to as America's greatest game fish on the U.S. Atlantic coast. High demand for this species among fishermen and consumers coupled with the complexity of its seasonal distribution along the coast, make sustainable management of the Atlantic coast striped bass population complex and challenging. Stakeholders regularly call for the Commission to implement biologically, economically, and socially sound regulations within each jurisdiction and sector. As a result, the dynamic saga of Atlantic striped bass fishery management will likely continue for many years to come.

Today, thanks to the immense cooperative efforts of nearly all Commission member states and jurisdictions, Atlantic coastal striped bass populations appear healthy and capable of producing high levels of recruitment in any given year. However, the latest stock assessment results indicate that female spawning stock biomass (SSB) has declined steadily since 2004 and is approaching overfished status. Through the implementation of Addendum IV, and at the cost of substantial economic hardships, states and jurisdictions successfully reduced fishing mortality (F) to a more sustainable level. However SSB continues to decline and the Commission is once again facing difficult decisions in striped bass management.

Life History

On the Atlantic coast, Atlantic striped bass range from the St. Lawrence River in Canada to the St. John's River in Florida. The migratory stock under Commission management ranges from Maine through North Carolina.

Atlantic striped bass are an anadromous species spending most of their adult life in oceanic or estuarine waters, and can live up to 30 years old. Mature individuals migrate into freshwater rivers and tributaries in early spring to spawn, releasing millions of eggs into the ecosystem, and then return to the ocean. The fertilized eggs eventually hatch into larvae which begin feeding on zooplankton. The larvae mature into juveniles and remain in coastal sounds and estuaries for two to four years before joining the coastal migratory population in the Atlantic Ocean.

In the ocean, fish tend to move north during the summer and south during the winter, but these migrations can be influenced by their age, sex, degree of maturity, and the river in which they were born. Important wintering grounds for the mixed stocks are located offshore from New Jersey to North Carolina. In general, Chesapeake Bay spawning areas produce the majority of coastal migratory striped bass.

Commercial & Recreational Fisheries

For centuries, Atlantic striped bass have supported valuable commercial and recreational fisheries on the Atlantic coast. Currently, commercial fisheries operate in eight Atlantic coastal jurisdictions, while recreational fisheries operate in 14. Commercial fishermen harvest Atlantic striped bass with a variety of gears including gillnets, pound nets, haul seines, trawls, and hook and line, while recreational fishermen use hook and line almost exclusively.

Species Snapshot

Atlantic Striped Bass
Morone saxatilis

Management Unit: Maine to North Carolina

Interesting Facts

- In 1669, the 1st public school in North America (MA) was financed with taxes imposed on striped bass harvest.
- In the 1880s, Atlantic striped bass were successfully transplanted to the Pacific Ocean, and a commercial fishery began in 1889. Commercial fishing was stopped in 1935 when the California coast striper was declared a game fish. The population continues to thrive.
- Atlantic striped bass is the most sought after sportfish in the Chesapeake Bay, and is the official state fish of Maryland, Rhode Island, and South Carolina.
- Atlantic striped bass and hybrid striped bass, a cross between striped bass and white bass, have been successfully introduced into many of the nation's fresh water lakes.

Largest Recorded: New world record was caught in CT (2011), weighing 81.88 lbs. Historic records confirm a 125 lb female caught off of NC in 1891.

Age at Maturity:
Females - 50% mature at age 6 (25-26");
100% at age 9 (32")
Males - 100% mature at age 3 (18")

Age at Recruitment into Fishery:
Chesapeake Bay Fishery = age 4 (18")
Coastal Fishery = age 8 (28")

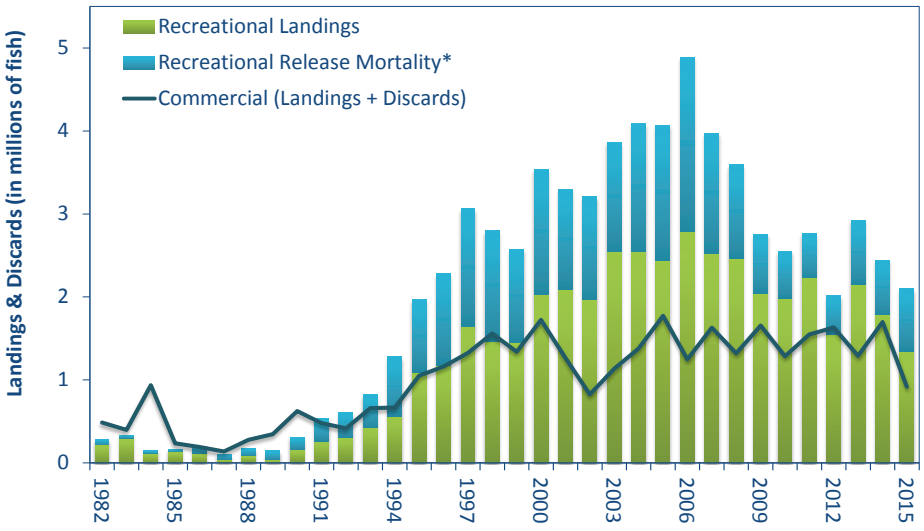
Stock Status: Not overfished nor experiencing overfishing

Increased fishing pressure in the 1970s coupled with degradation and loss of habitat led to stock collapse in the early 1980s. Commercial landings peaked in 1973 at almost 15 million pounds and then declined abruptly to less than two million pounds by 1983. During the mid-to-late 1980s, a number of states closed their Atlantic striped bass fisheries in order to initiate stock rebuilding. In the mid-1990s, the commercial fishery slowly grew again under a new management program (Amendment 4). Coastwide commercial landings rose from about 700,000 pounds in 1990 to 3.4 million pounds in 1995. Under Amendment 5, striped bass harvest grew from 3.4 million

pounds in 1995 to 6 million pounds in 2002. Since the passage of Amendment 6, commercial harvest has been managed through a quota system and landings have averaged just shy of 7 million pounds annually from 2003 to 2014. The commercial quota was reduced starting in 2015 through the implementation of Addendum IV. Commercial landings are consistently dominated by Chesapeake Bay fisheries, which made up approximately 64% (3.1 million pounds) of the total commercial landings in 2015 (4.8 million pounds).

Atlantic Striped Bass Commercial Landings and Discards & Recreational Landings and Release Mortality

Source: ASMFC Atlantic Striped Bass Stock Assessment, 2016



*Recreational release mortality assumes that 9% of fish released alive die.

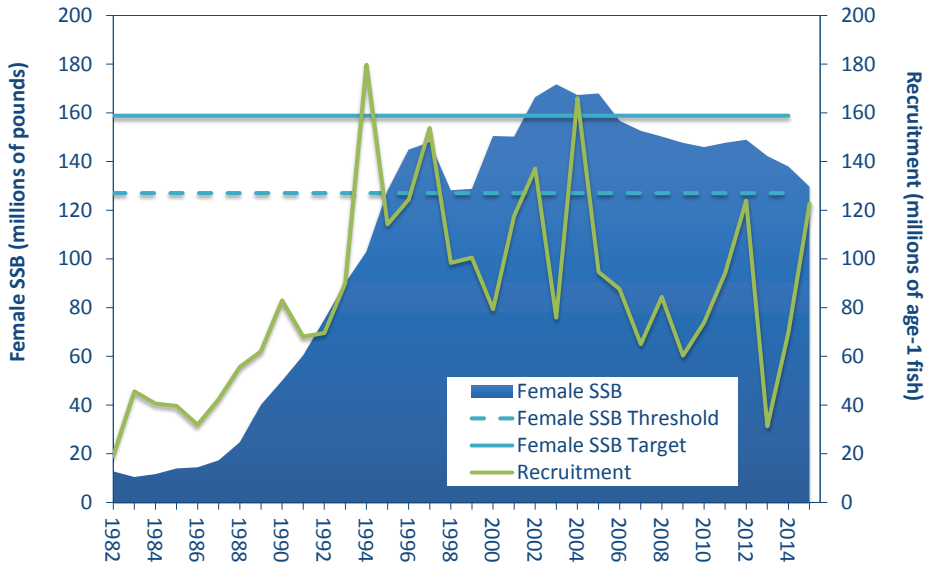
Between 1982 and 1989, recreational anglers landed an annual average of 1.4 million pounds due to a combination of low stock abundance and stringent regulations. Under Amendment 4, recreational landings grew from 2.2 million pounds in 1990 to 6.8 million pounds in 1994. The following year, with the declaration of restored stock status, recreational landings nearly doubled to 12.5 million pounds, and landings continued to increase to a record 31 million pounds in 2006. From 2007 to 2014, recreational landings averaged just over 25 million pounds annually. In 2015, recreational anglers harvested an estimated 18.2 million pounds, which can be attributed to implementation of more restrictive regulations via Addendum IV. Of those coastwide recreational landings, Maryland landed the largest percent in numbers of fish (30%), followed by New Jersey (21%), New York (20%), Massachusetts (13%) and Virginia (7%). Maine, New Hampshire, Rhode Island, Connecticut, Delaware, and Virginia accounted for the remaining harvest (9%). Anglers continue to release the vast majority of striped bass they catch; 73-90% have been released since implementation of Amendment 6 in 2003. The number of released fish peaked in 2006 at 23.3 million fish. Total numbers of releases have declined since then, averaging 8.7 million fish annually since 2007. An estimated 8.4 million fish were caught and released in 2015.

Stock Status

On a regular basis, female SSB and F are estimated and compared to target and threshold levels (i.e., biological reference points) in order to assess the status of the stock. The 2016 Atlantic striped bass stock assessment indicates the resource is not overfished nor experiencing overfishing relative to the biological reference points. Although the stock is not overfished, female SSB has continued to decline since 2004, and in 2015 is estimated at 129 million pounds just above the SSB threshold of 127 million pounds, and below the SSB target of 159 million pounds. Total F is estimated at 0.16 in 2015, a value that is below both the F threshold and target levels (0.22 and 0.18, respectively). Total removals were in 2015 were estimated at 3.02 million fish.

Atlantic Striped Bass Female Spawning Stock Biomass and Recruitment

Source: ASMFC Atlantic Striped Bass Stock Assessment, 2016



Despite recent declines in SSB, the stock is still well above the SSB during the moratorium that was in place in the mid-late 1980s. Atlantic striped bass experienced a period of strong recruitment (i.e., number of age-1 fish entering the population) from 1993 to 2004, followed by a period of lower recruitment from 2005 to 2011 (although not as low as the 1980's stock collapse). Recruitment of the 2011 year-class was high, but was followed by

continued, see ATLANTIC STRIPED BASS on page 11

ASMFC Winter Meeting

January 30 - February 2

The Westin Alexandria
400 Courthouse Square
Alexandria, VA
703.253.8600

Preliminary Agenda

The agenda is subject to change. Bulleted items represent the anticipated major issues to be discussed or acted upon at the meeting. The final agenda will include additional items and may revise the bulleted items provided below. The agenda reflects the current estimate of time required for scheduled Board meetings. The Commission may adjust this agenda in accordance with the actual duration of Board meetings. Interested parties should anticipate Boards starting earlier or later than indicated herein.

MONDAY, JANUARY 30

1:00 – 5:00 p.m. **Climate Change Working Group**

TUESDAY, JANUARY 31

8:00 – 9:30 a.m. **Atlantic Herring Section**

- Consider Approval of Draft Addendum I for Public Comment
  - Plan Development Team Report

9:45 – 11:45 a.m. **Tautog Management Board**

- Technical Committee Analysis on Regional Harvest Reduction (Bag/Size/Season) and Spawning Stock Biomass Projections
- Review Progress of Regional Working Groups
- Commercial Tagging Trial Report

12:45 – 1:15 p.m. **Winter Flounder Management Board**

- Review and Set 2017 Specifications

1:30 – 4:30 p.m. **American Lobster Management Board**

- Consider Approval of Lobster Draft Addendum XXV for Public Comment
  - Addendum XXV Subcommittee Report
  - Plan Development Team Report
- Consider Action to Address Data Deficiencies in the Lobster Fishery
- Technical Committee Report on American Lobster Gulf of Maine/Georges Bank (GOM/GBK) Stock
  - Discuss Next Steps in Management of GOM/GBK Stock
- Consider Draft Addendum II to the Jonah Crab FMP
  - Review Issues and Management Options
  - Review Public Comment Summary
  - Review Advisory Panel Report
- Update on New England Fishery Management Council Deep-Sea Coral Amendment

4:45 – 5:30 p.m. **American Eel Management Board**

- Consider 2016 Fishery Management Plan Review and State Compliance
  - Update on the 2017 Stock Assessment Schedule
  - Review Technical Committee Report

Public Comment Guidelines

In order to ensure a fair opportunity for public input, the ISFMP Policy Board has established the following guidelines for use at management board meetings:

For issues that are not on the agenda, management boards will continue to provide opportunity to the public to bring matters of concern to the board's attention at the start of each board meeting. Board chairs will use a speaker sign-up list in deciding how to allocate the available time on the agenda (typically 10 minutes) to the number of people who want to speak.

For topics that are on the agenda, but have not gone out for public comment, board chairs will provide limited opportunity for comment, taking into account the time allotted on the agenda for the topic. Chairs will have flexibility in deciding how to allocate comment opportunities; this could include hearing one comment in favor and one in opposition until the chair is satisfied further comment will not provide additional insight to the board.

For agenda action items that have already gone out for public comment, it is the Policy Board's intent to end the occasional practice of allowing extensive and lengthy public comments. Currently, board chairs have the discretion to decide what public comment to allow in these circumstances.

In addition, the following timeline has been established for the submission of written comment for issues for which the Commission has NOT established a specific public comment period (i.e., in response to proposed management action).

1. Comments received 3 weeks prior to the start of a meeting week will be included in the briefing materials.

2. Comments received by **5 PM on Tuesday, January 24, 2017** will be distributed electronically to Commissioners/Board members prior to the meeting and a limited number of copies will be provided at the meeting.

3. Following the January 24th deadline, the commenter will be responsible for distributing the information to the management board prior to the board meeting or providing enough copies for management board consideration at the meeting (a minimum of 50 copies).

The submitted comments must clearly indicate the commenter's expectation from the ASMFC staff regarding distribution. As with other public comment, it will be accepted via mail, fax, and email.

WEDNESDAY, FEBRUARY 1

8:00 – 10:00 a.m. Executive Committee (a portion of this meeting may be a closed session)

- Review and Consider Approval of FY16 Audit
- Finalize Standard Meeting Practices
- ACCSP Update

10:15 – 11:15 a.m. Shad and River Herring Management Board

- Review Sustainability Measures within New or Revised Sustainable Fishery Management Plans (SFMPs) from Maine, New York and the Delaware River Basin
  - Technical Committee Recommendations
  - Consider Approval of SFMPs

11:30 a.m. – 1:45 p.m. Interstate Fisheries Management Program Policy Board (Lunch Included)

- Review Draft Assessment Schedule
- Discuss State Policies on Accounting for Illegal Harvest in the Management of State Quotas
- Review Commissioner Survey
- Climate Change Working Group Update
- Risk Working Group Update
- Marine Recreational Information Program Update

2:00 – 5:30 p.m. Atlantic Menhaden Management Board

- Consider Draft Amendment 3 Public Information Document
  - Review Issues and Management Options
  - Review Public Comment
  - Review Advisory Panel Report
  - Provide Guidance to Plan Development Team on Draft Amendment 3
- Review Socioeconomic Study of Fishermen and Dealers from the States

THURSDAY, FEBRUARY 2

8:00 – 9:45 a.m. Summer Flounder, Scup, and Black Sea Bass Management Board

- Consider Approval of Draft Addendum XXVIII for Summer Flounder Recreational Management in 2017
  - Review Public Comment Summary
  - Review Advisory Panel Report
- Update on 2015 Black Sea Bass Commercial Landings and 2017 Quotas
- Outline Process for Setting Black Sea Bass and Scup Recreational Management Measures for 2017

10:00 – 11:45 a.m. Atlantic Striped Bass Management Board

- Review Technical Committee Report
- Review and Consider Approval of 2018 Atlantic Striped Bass Benchmark Stock Assessment Terms of Reference
- Review and Populate the Atlantic Striped Bass Stock Assessment Subcommittee Membership

12:15 – 2:45 p.m. South Atlantic State/Federal Fisheries Management Board

- Review Stock Assessment and Peer Review Reports for Red Drum
- Update on Spot and Atlantic Croaker Benchmark Stock Assessments
- Review Spot FMP Review
- Consider Cobia Public Information Document
  - Review Issues and Management Options
  - Review Public Comment
  - Review Advisory Panel Report
- SEAMAP Report

HART AWARD continued from page 1

During his career, Bill has made significant contributions to the protection and recovery of several key Chesapeake Bay fishery species. He played a central role in the striped bass recovery, beginning with the implementation of the Maryland moratorium in 1985 and continuing through to the reopening of the fishery in 1990, having achieved consensus among diverse stakeholders to move towards a conservation-based approach to striped bass management. He also led a public blue crab conservation campaign that resulted in a broad commitment to cap effort in the fishery and led to the adoption of bay-wide fishery management plans under the Chesapeake Bay Agreement.

A passionate advocate for aquatic habitat, Bill made habitat protection and restoration a topic of critical and common concern among fishermen. Regionally, he brought together a diverse group of commercial and recreational fishermen to adopt codes for protecting the Chesapeake Bay. Coastwide, he has left an indelible mark on the Commission's Habitat Program as one of the earliest members of the Habitat Committee and its longest serving Chair, having served in that position for 10 years. Thanks to his leadership and participation, the Committee has developed habitat sections for many of the Commission's fishery management plans and released numerous publications – all of which have elevated our understanding that healthy aquatic habitats are the foundation of abundant fisheries. As a Steering Committee member, Bill also played an important role in the development and launching of the Atlantic Coastal Fish Habitat Partnership.

Perhaps one of Bill's most notable and lasting endeavors is his commitment to ecological fisheries management, which the Atlantic Menhaden Board is now pursuing through Amendment 3. In 2005 and 2006, he was instrumental in developing the Chesapeake Bay reduction cap for menhaden and prompting a five-year Chesapeake Bay population research program. Throughout the oftentimes contentious deliberations, Bill's was the calm voice reminding us to stay the course.

His contributions and composure in the face of challenging decision-making negotiations undoubtedly spring from his concurrent participation in other fisheries management fora, including his work with the EPA Chesapeake Bay Program where he serves on the Sustainable Fisheries Goal Implementation Team, and his tenures as a member of the Chesapeake Bay Program's Fishery Management Workgroup (1987-2001), Aquatic Reef Habitat Workgroup (1993-2000), Fish Passage Workgroup (1987-2000), and the Fishery Management Plan Review Taskforce (1993). From 1996 through 2003, he was a member of NOAA's Bi-State Blue Crab Advisory Committee. For eight years (2002-2010), he was the NGO representative on NOAA's Chesapeake Bay Fisheries Steering Committee.

These are only some of the highlights in the remarkable career of an exceptional ecologist who has found ways to bridge gaps between stakeholders and the environment while deftly negotiating the terrain between what could be ideal and what is humanly possible.

Bonnie Bick and Jim Long Receive 2016 Melissa Laser Fish Habitat Conservation Award

The Atlantic Coastal Fisheries Habitat Partnership (ACFHP) proudly presented Bonnie Bick and Jim Long of the Mattawoman Watershed Society its 2016 Melissa Laser Habitat Conservation Award at the Commission's 75th Annual Meeting in Bar Harbor, Maine.

From Left: ACFHP Steering Committee member Dr. Wilson Laney, Award recipient Jim Long, Mrs. and Mr. Laser, Award recipient Bonnie Bick, and Maine Commissioner Patrick Keliher

Over the past two decades Bonnie and Jim have worked tirelessly without financial compensation to protect one of the most important fish breeding grounds in the Chesapeake Bay watershed, Mattawoman Creek. It is used by Atlantic striped bass, American and hickory shad, alewife, and blueback herring for spawning and nursery habitat. It is one of the more productive and high quality tributaries to the Bay and is also facing significant development pressure. Their efforts not only helped to preserve a watershed threatened with conversion to other uses in this southern Maryland stream system, but also played an important role in maintaining the ecological resiliency of the watershed.

One of their greatest achievements has been the recent resource-friendly comprehensive growth plan adopted by Charles County. Among other things, the plan recognizes the role of conserving Mattawoman Creek's watershed for anadromous fish. This comprehensive, ground-breaking growth plan provides a blueprint for future growth, both in Maryland and along the coast, while also addressing the needs of fish and wildlife in the area. Through their diligent voluntary efforts, Bonnie and Jim greatly aided the Department of Natural Resources by collecting data that otherwise would not exist. In turn, they used the science generated by these data to defend their beloved watershed.

continued, see MELISSA LASER AWARD on page 12

Throughout November, December and January, the Commission and its member states are busy gathering public comment on a number of proposed management actions, from the development of a new Fishery Management Plan (FMP) for Cobia, a new plan amendment for Atlantic menhaden, and proposed changes to the management programs for Jonah crab and summer flounder. Below is a brief description of the proposed changes. Readers should visit the Commission website at http://www.asmfc.org/about-us/public-input to obtain the draft documents and view scheduled public hearings.

Cobia

The South Atlantic State/Federal Fisheries Management Board has released the Public Information Document (PID) to the Draft Interstate Fishery Management Plan (FMP) for Cobia. As the first step in the FMP development process, the PID provides stakeholders with an opportunity to inform the Commission about changes observed in the fishery and provide feedback on potential management measures as well as any additional issues that should be included in the Draft FMP. Specifically, the PID seeks comment on the management unit; goals and objectives of the plan; commercial and recreational measures; coastwide, regional or state-by-state measures; and other issues.

This action responds to a request by the South Atlantic Fishery Management Council (SAFMC) for the Commission to consider joint or complementary management of the resource in light of the significant overage of the 2015 recreational annual catch limit (ACL) and the impact of those overages to state management. Further, during most recent years, a majority of recreational landings of cobia along the Atlantic coast occurs in state waters. The Commission considered this request in August and agreed to move forward with the development of a complementary FMP.

Widely distributed throughout the western Atlantic and Gulf of Mexico, cobia are managed as two distinct groups – the Gulf Migratory Group and the Atlantic Migratory Group. The Atlantic Migratory Group, which range from New York to Georgia, is managed by the SAFMC. The east coast of Florida falls under the Gulf Migratory Group. The SAFMC manages the east coast of Florida sub-ACL which is set by the Gulf of Mexico Fishery Management Council. Recreational landings of the Atlantic Migratory Group in 2015 were approximately 1.5 million pounds, 145% over the ACL, resulting in a June 20, 2016 closure of the fishery by NOAA Fisheries. Commercial cobia landings in 2015 were 83,148 pounds, 38% over the ACL. Late landings reports in 2015 precluded a timely closure of the commercial fishery.

Concerns were expressed by some states whose recreational seasons would have been significantly reduced by federal waters closure due to the 2015 quota overage. Instead of following the federal closure, several states developed alternate management strategies to reduce economic impacts to their state fisheries which resulted in differing regulations for federal and state water fishing. An intent of the complementary Cobia FMP is to provide the states the flexibility to respond to changes in the fishery and stock that meet their state fisheries needs without impacting federal fishermen while meeting the goals and objectives of the FMP.

Stakeholders are encouraged to provide input on the PID either by attending state public hearings or providing written comment. Public comment will be accepted until **5 PM (EST) on January 6, 2017** and should be forwarded to Dr. Louis Daniel, Fishery Management Plan Coordinator, 1050 N. Highland St, Suite A-N, Arlington, VA 22201; 703.842.0741 (FAX) or at ldaniel@asmfc.org (Subject line: Cobia PID).

The Management Board will meet at the Commission's 2017 Winter Meeting to review and consider public comment and provide direction to staff for items to be included in the Draft FMP. For more information, please contact Louis Daniel at ldaniel@asmfc.org or 252.342.1478.

Atlantic Menhaden

The Atlantic Menhaden Management Board has released the PID for Draft Amendment 3 to the Interstate FMP for Atlantic Menhaden. As the first step in the amendment process, the document seeks input from stakeholders and those interested in Atlantic menhaden about changes observed in the fishery/resource and potential management measures.

Draft Amendment 3 was initiated following Board review and acceptance of the 2015 Stock Assessment and Peer Review report, which found the menhaden resource in good condition -- not overfished nor experiencing overfishing. Population fecundity, a measure of reproductive capacity, was estimated to be roughly double the threshold value (86.8 trillion eggs). Additionally, total fishing mortality was estimated to be 0.22, below both the fishing mortality threshold (1.26) and target (0.38).

The PID outlines a number of issues in the fishery and solicits feedback on how the resource should be managed. Specifically, the

continued, see PROPOSED MANAGEMENT ACTIONS on page 10

PID presents a suite of tools to manage the menhaden resource using ecological reference points and provides options to allocate the resource among the states, regions, and user groups. In addition to the specific issues identified in the PID, commenters are welcome to provide input on all aspects of the fishery and resource, including recommendations for future management.

Stakeholders are encouraged to provide input on the PID either by attending state public hearings or providing written comment. Public comment will be accepted until **5 PM (EST) on January 4, 2017** and should be forwarded to Megan Ware, Fishery Management Plan Coordinator, 1050 N. Highland St, Suite A-N, Arlington, VA 22201; 703.842.0741 (FAX) or at comments@asmfc.org (Subject line: Menhaden PID).

The Management Board will meet at the Commission's 2017 Winter Meeting to review and consider public comment and provide direction to staff for items to be included in the Draft Amendment 3.

Jonah Crab

The American Lobster Management Board has released Draft Addendum II to the Interstate FMP for Jonah Crab. The Draft Addendum considers establishing a coastwide standard for claw harvest to address concerns regarding the equity of the current claw provision. Specific options include establishing a whole crab fishery or allowing for the harvest of claws coastwide. The Draft Addendum also considers establishing a definition of bycatch, based on a percent composition of catch, in order to minimize the expansion of a small-scale fishery under the bycatch allowance.
The FMP currently establishes a whole crab fishery with the exception of fishermen from NJ, DE, MD, and VA who have a history of claw landings prior to June 2, 2015. Following approval of the FMP, claw fishermen from NY and ME were identified. Currently, these fishermen are required to land whole crabs. As a result, jurisdictions have expressed concern regarding the equity of this provision as some fishermen with a history of claw landings are allowed to continue this practice while others must land whole crabs.

In order to address concerns regarding the expansion of a small-scale fishery, consideration of a bycatch definition was added as a second issue in the Draft Addendum. Addendum I established a bycatch allowance of 1,000 crabs per trip for non-trap gears and non-lobster trap gears (i.e., fish pots, crab pots, whelk traps). Fishermen using these gears are not required to have other species on board when harvesting Jonah crab. As a result, fishermen harvesting Jonah crab under the bycatch limit may, in fact, directly target Jonah crab by landing 1,000 crabs per trip and nothing else. This does not reflect the intention of the bycatch allowance which is to account for Jonah crab caught while targeting another species.


Photo (c) Derek Perry, MA DMF

Stakeholders are encouraged to provide input on Draft Addendum II either by attending state public hearings or providing written comment. Public comment will be accepted until **5 PM (EST) on January 6, 2017** and should be forwarded to Megan Ware, Fishery Management Plan Coordinator, 1050 N. Highland St, Suite A-N, Arlington, VA 22201; 703.842.0741 (FAX) or at mware@asmfc.org (Subject line: Jonah Crab Draft Addendum II).

The Board will review submitted public comment and consider final action on the Draft Addendum at the Commission's Winter Meeting. For more information, please contact Megan Ware at mware@asmfc.org.

Summer Flounder

In December, the Commission's Summer Flounder, Scup and Black Sea Bass Management Board and the Mid-Atlantic Fishery Management Council approved Draft Addendum XXVIII to the Summer Flounder Fishery Management Plan (FMP) for public comment. The Draft Addendum presents management approaches, including regional options, to achieve the 2017 recreational harvest limit (RHL).

Changes in summer flounder distribution, abundance and availability created problems under the static state-by-state allocations, with overages often occurring. In response, states would implement regulations to reduce harvest, resulting in differing regulations between neighboring states. In 2014, the Board shifted away from traditional state-by-state allocations to a regional approach for managing summer flounder recreational fisheries. A benefit of the regional approach is it provides the states the flexibility to temporarily share allocations. The intent is to set regulations that account for shifting distribution, abundance and availability while providing stability and greater regulatory consistency among neighboring states as well as individual states in achieving but not exceeding the coastwide RHL.

In August, the Board and Mid-Atlantic Fishery Management Council (Council) approved a 30% reduction in the 2017 coastwide RHL relative to 2016. This was in response the 2016 Stock Assessment Update which found fishing mortality was higher in recent years and population estimates were lower than previously projected.

The Draft Addendum will be released for public comment by December 23rd. Anglers and interested stakeholders are encouraged to provide input on Draft Addendum XVIII either by attending state public hearings or providing written comment. Public comment will be accepted until **5 PM (EST) on January 19, 2017** and should be forwarded to Kirby Rootes-Murdy, Senior FMP Coordinator, 1050 N. Highland St, Suite A-N, Arlington, VA 22201; 703.842.0741 (FAX) or at krootes-murdy@asmfc.org.

ATLANTIC STRIPED BASS continued from page 5

followed by the second lowest recruitment estimate on record going back to 1982. However, in 2015, recruitment was again high and estimated at 122.8 million age-1 fish (the 2014 year class), the 7th highest on record.

It is projected that if catch remains constant at 3.02 million fish each year for 2016 -2018, there is a 39% chance of SSB falling below the threshold level in 2016, but only a 20% chance by 2018. This trend is largely driven by the presence of the 2011 year class (now age 5) which is presently maturing into the spawning stock, and is beginning its migration from the Chesapeake Bay into the coastal migratory population.

Atlantic Coastal Management

Prior to the passage of Atlantic Striped Bass Conservation Act (Striped Bass Act, 1984), the precursor to the Atlantic Coastal Fisheries Cooperative Management Act (1993), the Commission did not have the management authority that it does today. The Interstate Fishery Management Plan (FMP) for Atlantic Striped Bass (1981) and Amendments 1 and 2 (1984) only provided recommendations for how to sustainably manage the resource. Amendment 3 (1985) was the first enforceable plan under the Striped Bass Act. The Amendment implemented measures to protect the 1982 year class, the first modestly sized cohort for nearly a decade. Several states, beginning with Maryland, opted for an even more conservative approach and imposed a total moratorium on striped bass landings. The Amendment contained a trigger mechanism to reopen fisheries based on a juvenile abundance index, which was triggered with the recruitment of the 1989 year class. Subsequently, Amendment 4 (1989) was implemented and aimed to rebuild the resource rather than maximize yield. In 1995, the Commission declared Atlantic coastal striped bass stocks fully recovered.

Currently, Atlantic striped bass is managed through Amendment 6 to the FMP (2003). The Amendment introduced a new set of biological reference points based on female SSB, and a handful of management triggers based on the biological reference points. The coastal commercial quota was restored to 100% of the historical average landings during the 1970s, and coastal recreational fisheries were required to implement a two fish bag limit and a minimum size limit of 28 inches, except for the Chesapeake Bay fisheries, Albemarle-Roanoke (A/R) fisheries, and fisheries with approved conservation equivalency proposals. At the time, the Chesapeake Bay and A/R regulatory programs differed from that of the coastal migratory stock because these programs were predicated on a more conservative F target than the coastal migratory stock. The independent F target allowed these jurisdictions to implement separate seasons, harvest caps, and size and bag limits as long as they remained under that target.

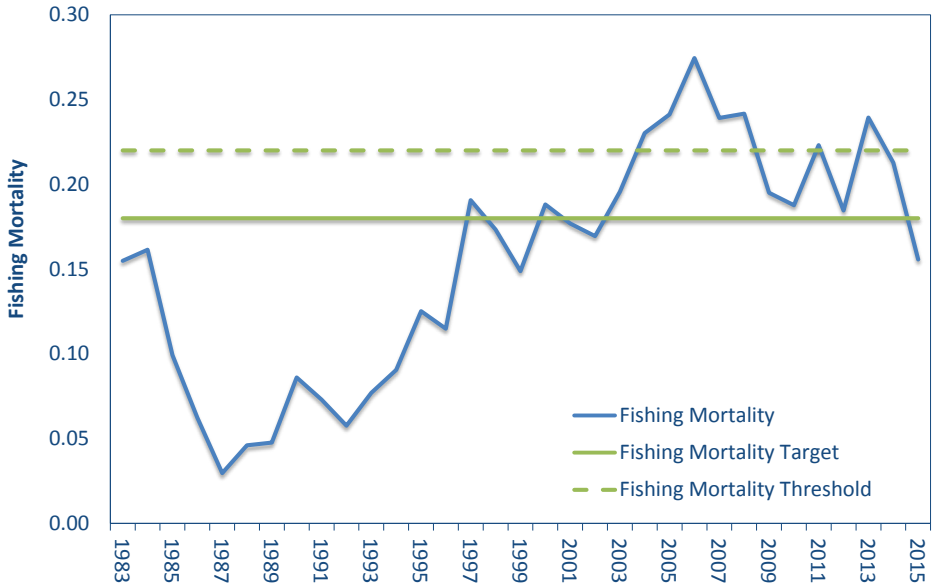
A series of four addenda to Amendment 6 were implemented from 2007 to 2014. Addendum I (2007) established a bycatch monitoring program to improve stock assessments, and Addendum II (2010) modified the definition for recruitment failure, a term defined in the FMP and associated with one of its management triggers. Addendum III (2012) addresses illegal striped bass harvest and was developed in response to a multi-year, multi-jurisdictional investigation conducted within Chesapeake Bay that uncovered over one million pounds of illegally harvested striped bass with an estimated net worth of $7 million. The Addendum requires all states and jurisdictions with a commercial striped bass fishery to implement a commercial harvest tagging program whereby each commercially caught striped bass is affixed with a unique tag that must remain on the fish until purchased by the consumer.

The latest addendum was initiated in response to a steady decline in SSB since 2004. Implemented in 2014, Addendum IV reduces harvest (relative to regional-specific reference periods) by 25% along the coast and 20.5% in the Chesapeake Bay in order to reduce F to a more sustainable level and stabilize SSB. To achieve this, commercial quotas were cut and recreational bag limits were reduced from two fish to one. However, many state fisheries utilized the FMP's conservation equivalency process resulting in a wide range of regulations across the coast. Additionally, since the A/R stock was

continued, see ATLANTIC STRIPED BASS on page 12

Atlantic Striped Bass Fishing Mortality

Source: ASMFC Atlantic Striped Bass Stock Assessment, 2016



ATLANTIC STRIPED BASS continued from page 11

deemed by the Commission to contribute minimally to the coastal migratory population, Addendum IV formally defers management of the A/R stock to the State of North Carolina under the auspices of the Commission, and using stock-specific biological reference points approved by the Board. Addendum IV continues to set the coastwide regulatory program for Atlantic striped bass (i.e., commercial quotas and recreational bag and size limits).

Lastly, but perhaps most importantly, Addendum IV established one set of F reference points for the coastal migratory population in all management areas. Now, and as it was prior to Amendment 5, the Atlantic striped bass complex (excluding the A/R stock) is managed and modeled as a single stock with one set of SSB and F reference points for the coastal migratory population. In reality, the coastal migratory population is comprised of multiple stocks (i.e., the Chesapeake Bay, the Hudson River, and the Delaware Bay stocks), each with unique biological characteristics, and dynamic contributions to the coastal migratory population. While Addendum IV reference points include the effects of area-specific harvest of smaller fish on the coastwide SSB, they do not incorporate data on the sex ratio that exists in different areas where target fisheries occur. For example, data suggest that the Chesapeake Bay harvest is comprised of a greater proportion of males than females. Therefore, the Board is limited in its ability to maximize striped bass fishing opportunities for all stakeholders (while ensuring the sustainability of the resource) until stock assessment data and modeling approaches produce reliable stock-specific sex-based reference points for management use.

Photo (c) John McMurray, www.nyflyfishing.com

The next benchmark assessment, which will attempt to address these concerns, is scheduled for review at the end of 2018.

Please visit www.asmfc.org for more information, or contact Max Appelman, Fishery Management Plan Coordinator, at mappelman@asmfc.org.

MELISSA LASER AWARD continued from page 8

In presenting the award, Dr. Wilson Laney, ACFHP Steering Committee member and previous award recipient, stated, "In protecting fish habitat in Mattawoman Creek, Bonnie and Jim have displayed tenacity, energy, intelligence, and superior organizational skills. Managing inland fish habitat is challenging because these watersheds are under the jurisdiction of local, not state or federal, governments with which the natural resources management community often do not have sufficient collaboration. Bonnie and Jim provide a glowing example of how to achieve significant success through positive influence on local decision-making processes."

In addition to the comprehensive growth plan, their accomplishments include protecting more than 1,000 acres along Mattawoman Creek, stopping the proposed Cross County Connector Extension across the watershed's headwaters in Charles County, and encouraging replacement of the road project with a proposed bike path. Further, they promoted a 10% impervious surface cap within the watershed and served as enthusiastic citizen scientists collecting the critical fish spawning and habitat data necessary to support their efforts. They also attend and testify at countless development hearings.

The Melissa Laser Fish Habitat Conservation Award is bestowed upon individuals deemed to further the conservation, protection, restoration, and enhancement of habitat for native Atlantic coastal, estuarine-dependent, and diadromous fishes in a unique or extraordinary manner. The award was established in memory of Dr. Melissa Laser who passed away unexpectedly on April 27, 2010. Dr. Wilson Laney, ACFHP Steering Committee member and previous award recipient, and Patrick Keliher, Commission's Annual Meeting host and Melissa's former boss, presented the award. Melissa's family were in attendance to share in the celebration as well.

For more information, please contact Dr. Lisa Havel, ACFHP Coordinator, at lhavel@asmfc.org or 703.842.0740.

Northern Shrimp Moratorium Maintained for 2017 Season

In response to the depleted condition of the northern shrimp resource, the Northern Shrimp Section extended the moratorium on commercial fishing for the 2017 fishing season. The Section also approved a 53 metric ton (mt) research set aside (RSA) to allow for the continued collection of much needed biological data.

The 2016 Stock Status Report for Gulf of Maine (GOM) Northern Shrimp indicates abundance and biomass indices for 2012–2016 are the lowest on record of the thirty-three year time series. Recruitment indices for the 2010–2015 year classes are also poor and include the three smallest year classes on record. Current harvestable biomass is almost entirely composed of the 2013 year class.

"By increasing the 2017 RSA, which is above last year's 22 mt quota and that recommended by the Technical Committee for 2017 (13.6 mt), the Section sought to strike a balance between providing limited fishing opportunities to the industry while collecting valuable data to allow for the continued monitoring of the northern shrimp resource," stated Section Chair Dennis Abbott of New Hampshire.

Recruitment of northern shrimp is related to both spawning biomass and ocean temperatures, with higher spawning biomass and colder temperatures producing stronger recruitment. Ocean temperatures in western GOM shrimp habitat have increased over the past decade and reached unprecedented highs within the past several years. This suggests an increasingly inhospitable environment for northern shrimp and the need for strong conservation efforts to help restore and maintain a fishable stock. The Northern Shrimp Technical Committee considers the stock to be in poor condition with limited prospects for the near future. The 2016 Stock Status Report is available at http://www.asmfc.org/uploads/file/5823782c2016NorthernShrimpAssessment.pdf.

To maintain the time series of data collected from northern shrimp commercial fishery catches, a cooperative winter sampling program was approved with a 53 mt RSA quota. This program allows for the continued collection of biological data (e.g. size composition, egg hatch timing) from GOM northern shrimp fishery catches in the absence of a directed fishery. The RSA will include the participation of 10 trawlers (8 Maine trawlers, 1 Massachusetts trawler, and 1 New Hampshire trawler) and 5 trap fishermen, fishing for 8 weeks from mid-January to mid-March. The trawlers will have a maximum trip limit of 1,200 pounds per trip, with 1 trip per week, while the trappers will have a maximum possession limit of 500 pounds per week, with a 40 trap limit per vessel. Preference will be given to individuals in the lottery with double Nordmore grates and having history prior to the June 7, 2011 control date.

Photo (c) Ashton Harp, ASMFC.

The States of Maine and New Hampshire and the Commonwealth of Massachusetts have issued request for proposals (RFPs) for fishermen wishing to participate in the cooperative sampling program; information on those RFPs is available at http://www.asmfc.org/jobs/.

For more information, please contact Max Appelman, Fishery Management Plan Coordinator, at mappelman@asmfc.org.

Atlantic Menhaden Board Sets 2017 TAC at 200,000 MT

The Atlantic Menhaden Management Board approved a total allowable catch (TAC) for the 2017 fishing season of 200,000 mt, a 6.45% increase from the 2016 TAC. According to Technical Committee analysis this increase has a zero percent probability of resulting in overfishing. The TAC will be made available to the states/jurisdictions based on the state-by-state allocation established by Amendment 2 (see accompanying table).

2017 ATLANTIC MENHADEN QUOTAS*

STATE	QUOTA (MT)	QUOTA (LBS)
ME	77.96	171,882
NH	0.06	131
MA	1,660.35	3,660,454
RI	35.47	78,195
CT	34.54	76,152
NY	109.78	242,032
NJ	22,159.75	48,853,880
DE	26.15	57,646
MD	2,717.77	5,991,662
PRFC	1,229.15	2,709,809
VA	168,937.75	372,443,990
NC	975.68	2,150,995
SC	-	-
GA	-	-
FL	35.58	78,449
TOTAL	200,000	440,924,524

*Quotas may be adjusted pending final 2016 landings. Total landings after 1% set-aside for episodic events.

"Given the healthy condition of the resource, this modest increase provides additional fishing opportunities while the Board proceeds with the development of Draft Amendment 3 to the Interstate Fishery Management Plan." stated Board Chair Robert Ballou from Rhode Island.

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

continued, see 2017 SPECIFICATIONS on page 14

November 2016 Federal and Statewide Atlantic Coast Election Results

In each of the three Atlantic coast states holding gubernatorial elections, new governors were elected. In New Hampshire, Republican Chris Sununu replaced Democrat Governor Maggie Hassan who ran for the U.S. Senate. In Delaware, Democrat Representative John Carney replaced term-limited Democrat Governor Jack Markell. In North Carolina, Democrat Attorney General Roy Cooper defeated incumbent Republican Governor Pat McCrory.

Nine Atlantic coastal states held U.S. Senate elections. Seven incumbents won their reelection bids, one incumbent lost, and Maryland replaced a retiring Senator. In New Hampshire, Democrat Governor Maggie Hassan defeated incumbent Republican Senator Kelly Ayotte. In Connecticut, incumbent Democrat Senator Richard Blumenthal won his reelection bid. In New York, incumbent Democrat Senator Chuck Schumer won his reelection bid. In Pennsylvania, incumbent Democrat Senator Pat Toomey won his reelection bid. In Maryland, Democrat Republican Chris Van Hollen won retiring Democrat Senator Barbara Mikulski's Senate seat. In North Carolina, incumbent Republican Senator Richard Burr won his reelection bid. In South Carolina, incumbent Republican Senator Tim Scott won his reelection bid. In Georgia, incumbent Republican Senator Johnny Isakson won his reelection bid. In Florida, incumbent Republican Senator Marco Rubio won his reelection bid.

The U.S. House and Senate will both remain under Republican control in the 115th Congress. Committee assignments are progressing at various speeds within the two chambers and two parties. The 115th Congress will begin on January 3rd, and the Presidential Inauguration will take place on January 20th.

Federal Appropriations

Congress has approved a continuing resolution to extend Fiscal Year 2016 federal spending levels through April 28, 2017. Still pending in Fiscal Year 2017 appropriations are two provisions regarding the Mid-Atlantic Horseshoe Crab Trawl Survey and Atlantic Coastal Fisheries Cooperative Management Act funding allocation. For more information, please contact Deke Tompkins, Legislative Executive Assistant at dtompkins@asmfc.org.

ASMFC Species Word Search

Can you find the following words in the puzzle?

American Eel	Red drum
Atlantic Herring	River herring
Atlantic Sturgeon	Scup
Black Drum	Shad
Black Sea Bass	Spanish mackerel
Bluefish	Spiny dogfish
Coastal Sharks	Spot
Croaker	Spotted seatrout
Horseshoe crab	Striped bass
Jonah crab	Summer flounder
Lobster	Tautog
Menhaden	Weakfish
Northern shrimp	Winter flounder

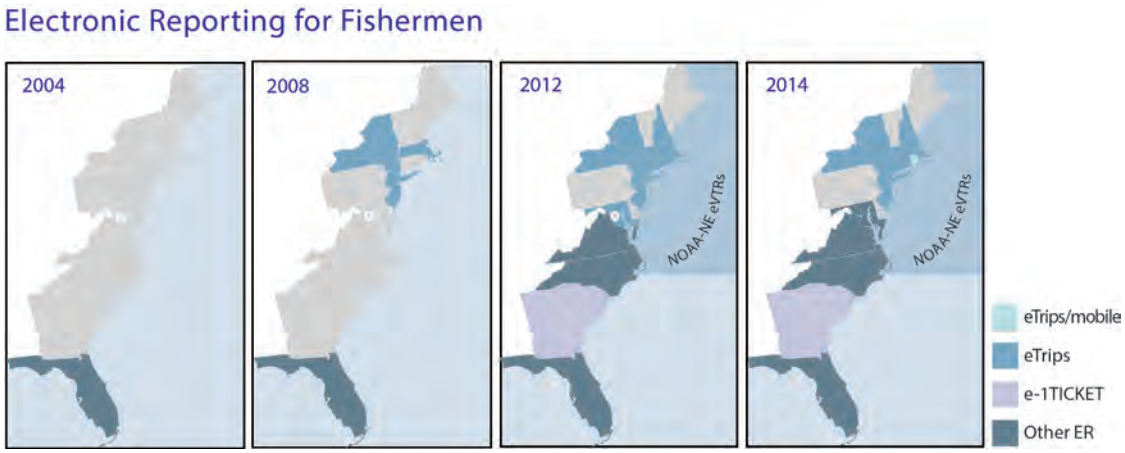
G	N	I	R	R	E	H	C	I	T	N	A	L	T	A	A	T	C
I	L	T	G	O	A	M	L	H	E	S	Q	H	P	T	B	U	O
W	R	E	H	N	J	N	S	O	V	P	O	L	L	Y	P	O	A
H	I	R	R	K	I	I	E	B	B	R	U	A	P	M	A	R	S
S	B	N	R	E	F	R	L	D	S	S	N	C	I	V	H	T	T
I	T	M	T	K	K	A	R	E	A	T	T	R	S	L	S	A	A
F	N	R	A	E	C	C	S	E	I	H	H	E	E	C	I	E	L
E	D	E	I	K	R	H	A	C	H	S	N	E	R	R	F	S	S
U	W	Y	D	P	O	F	S	M	N	R	N	E	E	O	G	D	H
L	A	R	T	E	E	T	L	R	H	A	E	D	M	A	O	E	A
B	U	O	C	P	U	D	E	O	C	S	D	V	X	K	D	T	R
M	P	R	V	R	X	H	B	I	U	R	I	M	I	E	Y	T	K
S	A	X	G	B	T	O	R	A	U	N	Q	N	J	R	N	O	S
B	K	E	U	R	M	E	J	M	S	S	D	A	A	P	I	P	D
A	O	D	O	X	M	T	M	L	F	S	M	E	N	P	P	S	A
N	R	N	B	A	R	C	H	A	N	O	J	U	R	B	S	C	H
S	U	M	M	E	R	F	L	O	U	N	D	E	R	C	Z	F	S
S	S	A	B	A	E	S	K	C	A	L	B	G	O	T	U	A	T

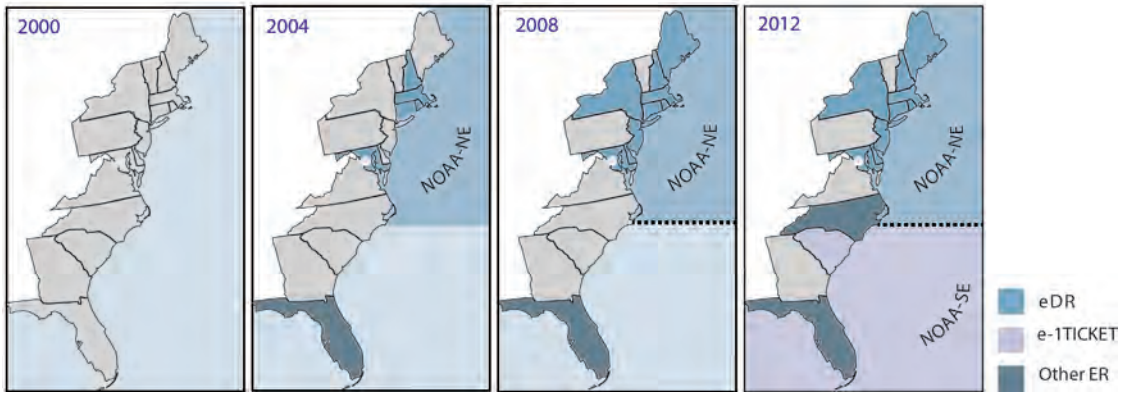
ACCSP Presents the State of Electronic Reporting

Many of the Atlantic Coastal Cooperative Statistics Program (ACCSP) partners are working to modernize their fisheries data collection efforts via electronic reporting, yet have limited knowledge of similar efforts being undertaken by their peers. Better communication among the partners could reduce confusion, increase the impact of individual agencies' efforts, and encourage collaborative, consistent approaches to the design and implementation of electronic reporting initiatives.

In response to requests from its constituents and to raise awareness of ACCSP's efforts to modernize data collection, the ACCSP has developed a presentation titled "The State of Electronic Reporting in Atlantic Coast Fisheries". This presentation provides a status overview of electronic fisheries dependent data collection efforts being undertaken by state, regional, and federal agencies on the Atlantic coast.

ACCSP Director Mike Cahall gave the presentation at both the Commission's Annual Meeting and the South Atlantic Fishery Management Council's Winter Meeting this year; he plans to present it to both the New England and Mid-Atlantic Fishery Management Councils in early 2017.





The presentation provides a brief synopsis of the benefits of electronic reporting and the status of electronic reporting for dealers, harvesters, and the for-hire industry in both state and federal waters. The accompanying maps illustrate the growth in electronic reporting for fishermen and dealers over the past 15 years, along with the applications used by each agency.

Federal seafood dealers have been reporting landings electronically through ACCSP's Standard Atlantic Fisheries Information System (SAFIS) for years, while the transition to electronic trip reporting for harvesters has been slower and more fragmented. The maps also show that most partners use some form of SAFIS reporting; however, the system also accommodates data submitted to it by external applications, like Maryland's FACTs and BlueFin Data's Trip Ticket program, to maintain flexibility for its partners.

The presentation concludes with a discussion of ACCSP's past, present, and future roles in electronic reporting, providing an overview of the ACCSP's data collection, warehousing, and distribution capabilities and discussing future efforts to further enhance these capabilities. The presentation has been well received thus far, and ACCSP looks forward to presenting it to additional program partners in 2017.

ACCSP
Good Data. Good Decisions

ACCSP is a cooperative state-federal program focused on the design, implementation, and conduct of marine fisheries statistics data collection programs and the integration of those data into a single data management system that will meet the needs of fishery managers, scientists, and fishermen. It is composed of representatives from natural resource management agencies coastwide, including the Atlantic States Marine Fisheries Commission, the three Atlantic fishery management councils, the 15 Atlantic states, the Potomac River Fisheries Commission, the D.C. Fisheries and Wildlife Division, NOAA Fisheries, and the U.S. Fish & Wildlife Service. For further information please visit www.accsp.org.

2017 SPECIFICATIONS continued from page 14

Spiny Dogfish Board Approves 2017 Fishery Specifications

The Spiny Dogfish Management Board approved a spiny dogfish commercial quota of 39,099,717 pounds for the 2017 fishing season (May 1, 2017 – April 30, 2018). The Board maintained a 6,000 pound commercial trip limit in state waters (0-3 miles from shore) in the northern region (Maine through Connecticut). States in the southern region (New York to North Carolina) have the ability to set state-specific trip limits based on the needs of their fisheries. The quota and northern region trip limit are consistent with the measures recommended to NOAA Fisheries by the Mid-Atlantic Fishery Management Council. Although the spiny dogfish commercial quota represents a slight decrease from the previous year, the 2015 assessment update projects spawning stock biomass to increase starting in 2019. Therefore, the commercial quota is expected to increase in the next specifications cycle if the projection is supported by catches in the Northeast Fisheries Science Center spring survey.

	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%
2017 Quota	22,677,836	1,058,429	2,988,782	350,333	2,314,703	4,220,814	5,488,036

The 2017 spiny dogfish commercial quota allocations (in pounds) for the northern region and the states of New York through North Carolina are described above. Any overages from the 2016 season will be deducted from that region's or state's 2017 quota allocation.

For more information, please contact Max Appelman, Fishery Management Plan Coordinator, at mappelman@asmfc.org.

Horseshoe Crab Board Sets 2017 Specifications for Horseshoe Crabs of Delaware Bay Origin

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 2017 season. The table to the right indicates the quotas for the states of New Jersey, Delaware, Maryland and 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 Technical Committee and ARM Subcommittee 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. Previously, the horseshoe crab abundance estimate was based on data from the Benthic Trawl Survey conducted by Virginia Polytechnic Institute. However, due to a lack of funding, the Benthic Trawl Survey has not been conducted in recent years. Therefore, a composite index of the Delaware Trawl Survey, New Jersey Delaware Bay Trawl Survey, and New Jersey Ocean Trawl Survey was used instead. The Benthic Trawl Survey has been funded for 2016 and is currently underway. Funding for future years is being explored.

Given the upcoming benchmark stock assessment in 2018 and the potential for management changes resulting from the assessment, the Board postponed any further action of Draft Addendum VIII until after the assessment and peer review. In preparation for the assessment, the Horseshoe Crab Technical Committee, Delaware Bay Ecosystem Technical Committee, and the ARM Subcommittee emphasized the need for information on sex-specific mortality of horseshoe crabs from the time of collection to release by biomedical bleeding facilities. Further, the committees recommended the states conduct surveys of eel and whelk fishermen to gain information on current baiting practices for these fisheries. The states agreed to work on both issues with its biomedical industries and fishermen. Results of these surveys are expected to be made available to the Board in May 2017.

For more information, please contact Michael Schmidtke, Fishery Management Plan Coordinator, at mschmidtke@asmfc.org.

Science Highlight: Maine's Snap-a-Striper Program

Maine's striped bass fishery is a seasonal recreational fishery made up of migratory (coastal stock) and resident fish (Kennebec River). The Kennebec population is the only native striped bass run in Maine. In recent years, anglers have voiced concerns regarding declining catches in Maine's fishery. A large proportion of fish caught in Maine are coastal migratory fish originating from major production sites for stripers (e.g., Chesapeake Bay, and Delaware and Hudson Rivers). However, the extent to which anglers catch fish from the resident Kennebec population of striped bass is unknown. Anglers and managers have raised questions about the relative proportion of migratory and resident striped bass in Maine's fishery, and what is the spatial footprint of the resident population?


THIS SIDE UP FOR PHOTO

Gulf of Maine Research Institute

SNAP-A-STRIPER Fish # _____

Name: _____

Date: _____

Location: _____

In River ☐ River Mouth ☐ Bay ☐ Offshore ☐

Head submitted: Yes ☐ No ☐

THIS SIDE UP FOR PHOTO - EMAIL TO stripers@gmri.org

In 2013, the Gulf of Maine Research Institute (GMRI) started the Snap-a-Striper Program, a citizen science data collection effort in collaboration with the Coastal Conservation Association of Maine, and local anglers and guides. The Program asks fishermen to take and submit photos of striped bass they catch-and-release (Figure 2), and donate the heads of legally harvested keepers. Angler submissions are used to collect valuable biological information from striped bass. Body shape data from striper photos taken with a Snap-a-Striper data card (Figure 1), as well as data retrieved from otoliths (fish ear bones) collected from the heads of harvested stripers, can help fisheries scientists determine the origin of each fish (resident or coastal migrant).

Figures 1 & 2. Snap-a-Striper data card and submitted photo of fish with data card (c) GMRI.

Using image analysis software, photos of striped bass can be used in morphometric analyses to look for differences in body features indicative of a migratory or resident lifestyle (Figure 3). Studies of other migratory fish have shown that resident fish can have an altered body shape compared to migratory fish. Counting the rings in fish ear bones, similar to counting the rings of a tree, can determine a striper's age (Figure 4). Otoliths also preserve a record of the chemistry of water inhabited over the life of the fish, including estuaries where stripers were spawned that have very unique chemical signatures. Analyzing the chemistry of ear bones provides clues to where and when individual fish traveled, allowing scientists to assign fish to migratory or resident stocks. Program results from morphometric and otolith analyses inform stewardship of the Kennebec River population and improve management of the greater coastal striped bass resource.

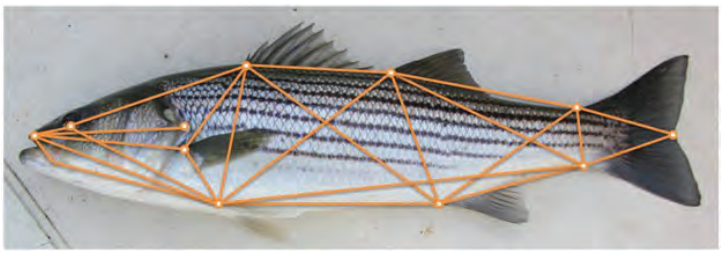


Figure 3. Measurements taken from striped bass angler photo submissions. The collection of measurements is called a 'box-truss' network. Analysis of box-truss networks is called morphometrics. Image (c) GMRI.

Figure 4. Striped bass otolith (c) GMRI.

Snap-a-Striper is part of a growing movement of citizens participating in fisheries science. Anglers in Maine can participate by downloading Snap-a-Striper data cards from the GMRI website - http://gmri.org/our-work/research/projects/snap-striper-program or by contacting stripers@gmri.org. Fish photos and associated catch data can be submitted to GMRI for storage and data analysis. Striper heads and the data card used in fish photos can be placed in a plastic bag and frozen for delivery to local bait and tackle shops. Questions about the program can also be sent to stripers@gmri.org and directed to Lisa Kerr and Graham Sherwood at GMRI. For more general questions about citizen science initiatives along the Atlantic coast, please contact Pat Campfield, Director of Fisheries Science, at pcampfield@asmfc.org.

Join the Snap-a-Striper Program!

Coastal Conservation Association Maine

Gulf of Maine Research Institute
Science. Education. Community.


HAPPY
HOLIDAYS!