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ASMFC
FISHERIES focus
Vision: Sustainably Managing Atlantic Coastal Fisheries

INSIDE THIS ISSUE

ASMFC Presents Paul J. Diodati Prestigious Captain David H. Hart Award

The Atlantic States Marine Fisheries Commission presented Paul J. Diodati, former Director of the Massachusetts Division of Marine Fisheries (MA DMF), the Captain David H. Hart Award, its highest annual award, at the Commission's 76th Annual Meeting in Norfolk, Virginia. For over four decades, Mr. Diodati has been a prominent figure in the marine fisheries management community throughout New England and along the Atlantic coast. While now retired, the impact of his accomplishments to Atlantic coast fisheries conservation and management will be felt for much longer.

Mr. Diodati's career in marine fisheries began at MA DMF in 1975 as a contracted sea sampler for northern shrimp. Over the years, he worked his way up through the ranks to Division Director, a position he served in for his final 15 years at DMF. In between, Mr. Diodati served as technical and policy advisor for striped bass and northern shrimp, Sportfish Program Director, and co-creator and co-Chair of the Massachusetts Marine Fisheries Institute. Understanding the need to address user conflicts before they begin, he was heavily involved in the development of the Massachusetts Ocean Management Plan and the Federal Ocean Management Plan. Mr. Diodati closed major data gaps by requiring comprehensive reporting from dealers in 2005 and all commercial harvesters in 2010. In 2009, he was instrumental in establishing the state's saltwater fishing license.

As Massachusetts' Administrative Commissioner since 2000, Mr. Diodati chaired numerous management boards, overseeing the development and implementation of interstate management plans for species such as striped bass, shad and river herring. From 2010 – 2013, he provided leadership to the Commission serving as Vice-chair and Chair and worked tirelessly to raise the Commission's profile both on Capitol Hill and within the Administration – ensuring the 15 Atlantic states were well equipped to tackle both current and emerging issues.

Mr. Diodati's outsized role at the Commission is not limited to his term as Chair. He also helped to improve coordination and the sharing of information between the states and their federal partners. He had impeccable foresight, as evidenced by his role as a principal supporter of the Atlantic Coastal Cooperative Statistics Program; a Program he would later Chair.

Mr. Diodati's lifetime has been marked by a commitment to science and sound management and his efforts have been instrumental in improving fisheries programs both in Massachusetts and along the coast. But his legacy is more than scientific papers, surveys conducted, and recovered species; Mr. Diodati will be remembered for his extraordinary way with people. From recreational and commercial fishermen to his peers at the Commission and New England Fishery Management Council, he was well known and trusted as a coalition builder and deal maker.

continued, see HART AWARD on page 18

Upcoming Meetings

January 17 (4-6 PM)
ASMFC American Lobster and Jonah Crab Advisory Panels Conference Call; visit http://www.asmfc.org/calendar/ for more details.

January 29 - February 1
ASMFC Horseshoe Crab Stock Assessment Data Workshop, Hilton Garden Inn-Courthouse Plaza, 1333 N. Courthouse Road, Arlington, VA

January 30 - February 1
New England Fishery Management Council, Sheraton Harborside, Portsmouth, NH

January 31 - February 1
NEAMAP Summit, Renaissance Providence-Downtown Hotel, 5 Avenue of the Arts Providence, RI

February 6-8
ASMFC Winter Meeting, Westin Hotel, 1800 Jefferson Davis Highway, Arlington, VA

February 13-15
Mid-Atlantic Fishery Management Council, Hilton Garden Inn Raleigh/Crabtree Valley, 3912 Arrow Drive, Raleigh, NC

March 5-9
South Atlantic Fishery Management Council, Westin Jekyll Island, 110 Ocean Way, Jekyll Island GA

April 10-12
Mid-Atlantic Fishery Management Council, Montauk Yacht Club, 32 Star Island Road, Montauk, NY

April 17-19
New England Fishery Management Council, Hilton Hotel, Mystic, CT

April 30 - May 3
ASMFC Spring Meeting, Westin Hotel, 1800 Jefferson Davis Highway, Arlington, VA

June 5-7
Mid-Atlantic Fishery Management Council, Doubletree by Hilton, 237 South Broad Street, Philadelphia, PA

June 11-15
South Atlantic Fishery Management Council, Bahia Mar Doubletree by Hilton, 801 Seabreeze Boulevard, Fort Lauderdale, FL

June 12-14
New England Fishery Management Council, Holiday Inn by the Bay, Portland, ME

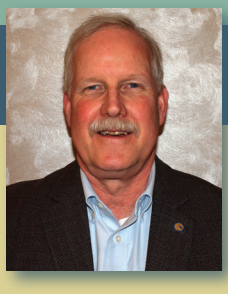
August 7-9
ASMFC Summer Meeting, Westin Hotel, 1800 Jefferson Davis Highway, Arlington, VA

August 14-18
Mid-Atlantic Fishery Management Council, Hilton Virginia Beach Oceanfront, 3001 Atlantic Ave., Virginia

September 17-21
South Atlantic Fishery Management Council, Town & Country Inn, 2008 Savannah Highway, Charleston SC

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

Report from the Chair: A Year in Review



For this issue, we are dedicating the Executive Director's Column to outgoing Commission Chair Doug Grout and the speech he presented to Commissioners at our 76th Annual Meeting in Norfolk, VA.

"It has been a challenging year for state/federal cooperative fisheries management. The long-standing commitment we made to each other through our 76-year old Interstate Compact and 24-year old Atlantic Coastal Act has sorely been tested this year. For the first time since passage of the Atlantic Coastal Act in 1993 and the Atlantic Striped Conservation Act in 1984, a Commission noncompliance recommendation has not been supported by the Secretary of Commerce. It is unclear what the full implications of this action will be on interstate management but we have already begun to hear from some states that their fishing constituents are pushing back on current regulations for some species.

Given this, now more than ever, it is imperative the states form a united front with the goals of maintaining the integrity of our management process, following the letter of the law that guides us, and seeking solutions to the problems raised by individual states so we can avoid the need to request federal intervention to accomplish our management goals. I implore you to remain committed to one another and the principles and values upon which the Commission is founded. I also urge the states to avoid going down the path of noncompliance. No doubt, there will be pressure to do so by your constituents, but continued challenges to our process will slowly chip away at our cooperative management process. As Robert Boyles aptly stated at the August Policy Board meeting, quoting Dr. Franklin, "We must indeed all hang together or most assuredly we shall all hang separately."

While this past year has had its share of challenges, we have made important strides in furthering our strategic goals. We approved new plan amendments for northern shrimp, tautog and Atlantic menhaden, and a new FMP for Cobia. All are significant in their own right. The Northern Shrimp Amendment is the first Commission plan to address adapting management to new environmental conditions. Under the Tautog Amendment, management shifts from a coastwide basis to regional management to more clearly reflect the largely non-migratory nature of the species. Under the new Menhaden Amendment, we continue to make progress towards ecological-based reference points while modifying the allocation of the resource to match the current needs of the states and various user groups. Under the Cobia FMP, we will work with our South Atlantic Council partners to ensure complementary management of the resource in state and federal waters.

On the fisheries science front, Commission staff and state and federal scientists have performed the herculean task of completing benchmark stock assessments for Atlantic sturgeon, Atlantic croaker, spot and red drum; stock assessment updates for American eel, menhaden and river herring; and regional stock assessments and an assessment update for tautog. All of these have provided much needed insight into the health of these species, as well as identified the continued challenges of assessing fish stocks given limited data and increasingly complex stock assessment models. We also made substantial progress in developing a policy on risk and uncertainty to aid us in our fisheries management decision-making.

ACCSP has continued to make great strides in improving data collection and management along the coast on all fronts – commercial, recreational and for-hire. Now fully integrated into the Commission, there has been even more connectivity between the ACCSP and the Commission's other programs. State conduct of APAIS is well into its second year and is estimated to have increased the number of angler intercepts by nearly 10%. ACCSP has been collaborating with GARFO on an integrated reporting system, which will allow all related fisheries-dependent data collected from various sources, including vessel, observer, and dealer reports, to be linked. ACCSP has also been working closely with the Mid-Atlantic Council on launching its mandatory for-hire electronic reporting system and has begun discussions with the South Atlantic Council on its efforts to move to for-hire electronic reporting.

While limited in our ability to directly impact fisheries habitat, the Commission's Habitat Committee and the Atlantic Coastal Fish Habitat Partnership (ACFHP) continue to advance our understanding of the importance of the fisheries-habitat connection and provide us and habitat managers with tools to further habitat conservation. The Habitat Committee released the Sciaenid Fish Habitat Source Document, which provides in-depth information on the habitat requirements for nine sciaenid species, as well as habitat threats and research needs. ACFHP completed its 5-year Conservation Strategic Plan and 2-year Conservation Action Plan, outlining strategies and actions to restore and enhance Atlantic coastal, estuarine, and diadromous fish habitat.

Conservation law enforcement officers from the states and federal agencies continue to come together through the Law Enforcement Committee (LEC) to provide guidance on proposed fisheries management measures, share resources and information on ongoing investigations, and monitor stakeholder compliance with fishing regulations. In 2017, the LEC coordinated enforcement activities directed at illegal glass eel harvest and responded to lobster industry concerns about illegal activity in federal waters by working with our federal partners to place lobster as a high priority for federal and joint enforcement agreement activities.

Overarching all of these activities is the ever present-need for adequate funding to perform our stewardship responsibilities, strong support from Congress and our federal partners in managing our shared fishery resources, and the willingness to seek innovative ways to adapt our management programs to changing resource and environmental conditions. Luckily, we have a long and illustrious track record of meeting formidable challenges head on through the ingenuity and tireless work of countless individuals and the enduring commitment of the states to work together for the greatest good of all the states, not the one or the few. This very principle – that the states could achieve more together than apart – is the foundation of the Commission and the reason we have been so successful. It has been a great honor to serve as your Chair these past two years. I am excited about the opportunities and challenges ahead and look forward to working with you all and our new Chair and Vice-Chair in the coming year."

Commission Implements New Regional Management Program for Blackfish

Introduction

Prized for being a "delicious fish," tautog is a highly sought after recreational species from Massachusetts through Virginia. Approximately 90% of the total harvest is taken by anglers, who catch them among hard structures such as rocky shorelines, piers, pilings, and natural and artificial reefs. Recently, the commercial fishery has expanded in some states, such as New York, where there has been an increased demand for tautog in the live fish market.

A slow growth rate and high site fidelity (tautog tend to stay near and return to their "home" reefs) make tautog particularly susceptible to overfishing. The 2016 stock assessment update indicates this non-migratory reef fish would be more appropriately managed as four stock units. The stock is overfished in all regions except Massachusetts-Rhode Island, with overfishing occurring in the Long Island Sound and New Jersey-New York Bight regions. Spawning stock biomass (SSB) has remained at low levels and management measures have proven insufficient to rebuild the stock.

Amendment 1 to the Tautog Fishery Management Plan (FMP), approved in October 2017, adopts a four-unit stock structure and implements a new management program to rebuild overfished tautog populations.

Life History

A member of the wrasse (Labridae) family, the tautog is a stout fish with an arched head and broad tail. Juveniles are greenish in color and become darker with age. Fishermen have given tautog the nickname "blackfish" due to its dark mottled sides that are either dull black, brown, blackish green, or blackish blue. Anglers also call tautog "white chin" because this coloring pattern commonly occurs on large males.

Tautog are slow growing and can live 35 to 40 years. Males and females are sexually mature at three to four years of age, but studies have shown that larger females produce significantly more (and potentially higher quality) eggs than smaller females. Tautog are distributed along the Northeast Atlantic coast from Nova Scotia to Georgia, with the greatest abundances occurring in the U.S. between Cape Cod, Massachusetts, and Chesapeake Bay. North of Cape Cod, tautog typically remain close to shore in waters less than 60 feet deep. South of Cape Cod, they inhabit waters 40 miles offshore at depths up to 120 feet. During spring, as water temperatures approach 48° F, tautog migrate inshore to spawn in estuaries and nearshore marine waters. They may remain inshore throughout the summer, then move to deeper (80-150 feet) offshore wintering areas as fall approaches and water temperatures drop below 52° F. Toward the southern end of their range, some adults may remain offshore throughout the year.

Tautog are daytime feeders, and feeding activity peaks at dawn and dusk. Adults feed primarily on oysters, mussels, and invertebrates, while the juvenile diet consists of amphipods and copepods. There are no species that preferentially feed on tautog, but fish-eating birds such as cormorants prey on juveniles. Smooth dogfish, barndoor skate, red hake, silver hake, sea raven, and goosefish have been reported to feed on both adults and juveniles.

Throughout their life, tautog aggregate around structured habitats. Shallow, vegetated estuaries and inshore areas serve as juvenile nurseries, while larger juveniles cohabitate with adults in deeper offshore waters. North of Long Island, tautog are generally found around rocks and boulders. Toward the southern end of their range, tautog often inhabit wrecks, jetties, natural and artificial reefs, and shellfish beds. They are also found near the mouths of estuaries and other inlets. Adults stay close to their preferred home site and, although they may move away during the day to feed, they return to the same general location at night where they become

Species Snapshot

Tautog
Tautoga onitis

Common Names: blackfish, tog, white chinner, black porgy

Family: Labridae, commonly referred to as wrasses, which have protactile mouths, usually with separate jaw teeth that jut outwards. Many species can be recognized by their thick lips, the inside of which is sometimes curiously folded.

The word "wrasse" comes from the Cornish word wragh, a lenited form of gwragh, meaning an old woman or hag.

Interesting Facts:

- Tautog have several specialized adaptations for living around hard structures, including a blunt nose, thick lips, and powerful jaws.
- They have conical (pointy) teeth in front, crushing teeth in back, and a set of pharyngeal teeth in their throat, which allow them to pick-up, crush, and sort hard prey such as mollusks and crustaceans.
- Their rubbery skin has a heavy slime covering that protects them while swimming around rocks.
- They are particularly hardy and can survive for hours kept on ice – which makes them desirable for the live fish market.

Maximum Age/Size: 34 years/3.1 feet

Stock Status: Overfished in Long Island Sound through Virginia, with overfishing occurring in the Long Island Sound and New Jersey-New York Bight regions.

dormant and may actually sleep. This aggregation around structure makes tautog easy to find and catch, even when biomass levels are low. The easy catchability and slow growth rate make tautog highly susceptible to overfishing and slow to rebuild.

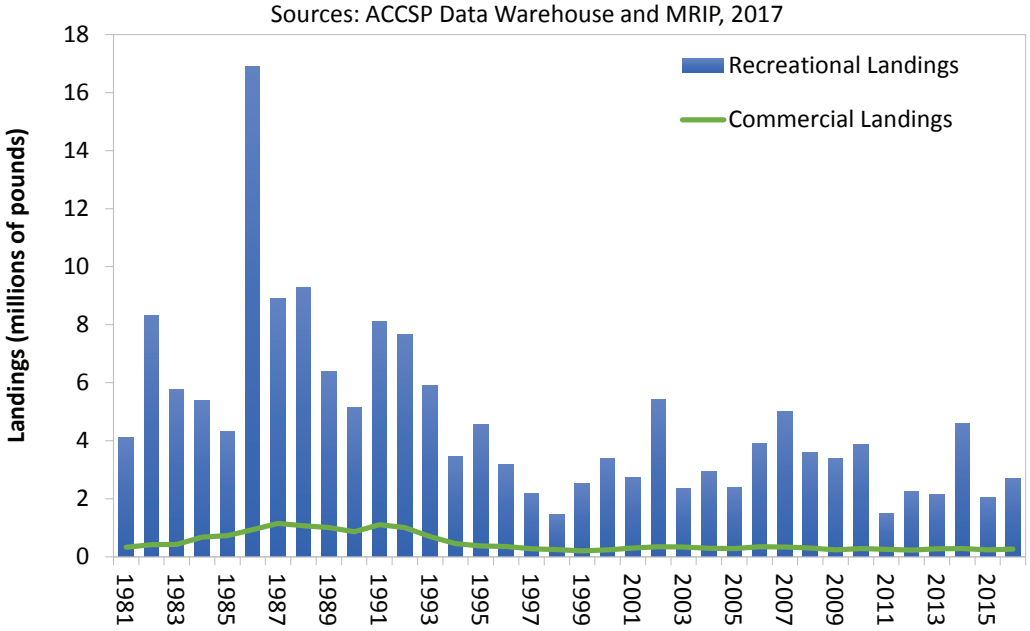
Commercial and Recreational Fisheries

Tautog can be found in waters off Massachusetts to Virginia, with the majority of landings occurring in state waters between Cape Cod and the Chesapeake Bay. Historically, tautog – or "tog" as many fishermen like to call this popular game fish – was a recreational fishery, with about 90% of the coastwide harvest taken by marine anglers. In recent years, however, commercial landings accounted for up to 44% of the catch in some states, largely due to a growing market for live fish. Most tautog are landed in the spring and fall, although some Mid-Atlantic fishermen pursue tautog year-round, and there is an active fishery off the Virginia coast in the winter.

Over the past 30 years, recreational harvest has ranged from a time series high of 16.9 million pounds in 1986 to a low of 1.5 million pounds in 1998. Since 2000, recreational harvest has averaged 3.2 million pounds, with 2016 harvest estimated at 2.7 million pounds. New York anglers accounted for 43% of the 2016 recreational harvest, followed by Connecticut (26%), and Rhode Island (12%).
Commercial landings have ranged from a high of 1.2 million pounds in 1987 to a low of 208,800 pounds in 1999. Landings have averaged about 290,000 pounds since 2000, with 2016 landings estimated at 269,000 pounds. About 50% of the 2016 commercial harvest was landed in New York alone, with Massachusetts and Rhode Island contributing another 40%, combined. Rod and reel are the predominant commercial gear, although floating fish traps, fish pots, and otter trawl are also used.

Tautog Recreational and Commercial Landings

Sources: ACCSP Data Warehouse and MRIP, 2017



Timeline of Management Actons: FMP ('96); Addendum I ('97); Addendum II ('99); Addendum II ('02); Addenda IV & V ('07); Addendum VI ('11); Amendmenmt 1 ('17)

Stock Status

Unlike previous assessments, which assessed the stock on a coastwide basis, the 2015 Benchmark Stock Assessment and Peer Review Report evaluated stock status regionally to reflect differences in life history characteristics and harvest patterns. Based on analysis of all available data, including life history information, tagging data and fishery characteristics, the coastwide population was split into three regions to assess and manage tautog. This new approach comprised a Southern New England region (Massachusetts, Rhode Island, and Connecticut), a New York-New Jersey region, and a DelMarVa region (Delaware, Maryland and Virginia). The Tautog Management Board (Board) accepted the 2015 assessment for management use, but expressed concern about the proposed three-region stock delineation that would split Long Island Sound (LIS) into two assessment and management areas. This was seen as an issue because recent landings indicate a concentration of the effort in the LIS, and fishermen from Connecticut and New York routinely cross states lines when fishing. Thus, a new regional assessment was

continued, see TAUTOG on page 13

Tautog Biological Reference Points and Stock Status by Region

Region	Fishing Mortality			Spawning Stock Biomass (mt)			MSY or SPR	Status
	Target	Threshold	3-Year Average	Target	Threshold	SSB_{2015}		
Massachusetts – Rhode Island	0.28	0.49	0.23	3,631	2,723	2,196	SPR	Not overfished, overfishing not occurring
Long Island Sound	0.28	0.49	0.51	2,865	2,148	1,603	MSY	Overfished, overfishing
New Jersey – New York Bight	0.20	0.34	0.54	3,154	2,351	1,809	MSY	Overfished, overfishing
Delaware – Maryland – Virginia	0.16	0.24	0.16	1,919	1,447	621	SPR	Overfished, overfishing not occurring

Fishery Management Actions

This fall and winter has been a busy time for the Commission and its member states, with the approval of a new FMP and four new plan amendments, initiation of a new amendment and draft addenda, and the setting of specifications for several species. Below are overviews of these management actions.

Atlantic Menhaden

On November 14th, the Commission approved Amendment 3 to the Interstate Fishery Management Plan (FMP) for Atlantic Menhaden. The Amendment maintains the management program's current single-species biological reference points until the review and adoption of menhaden-specific ecological reference points as part of the 2019 benchmark stock assessment process. It also addresses a suite of commercial management measures including allocation, quota transfers, quota rollovers, incidental catch, the episodic events set aside program, and the Chesapeake Bay reduction fishery cap.

In addition to its Amendment 3 deliberations, the Board set the total allowable catch (TAC) for the 2018 and 2019 fishing seasons at 216,000 metric tons with the expectation that the setting of the TAC for subsequent years will be guided by menhaden-specific ecological reference points.

"Through adoption of Amendment 3 and the setting of the 2018 and 2019 TAC at a risk-averse level, the Board has demonstrated its continued commitment to manage the menhaden resource in a way that balances menhaden's ecological role with the needs of its stakeholders," stated Board Chair Robert Ballou of Rhode Island.

"While the Amendment maintains the current reference points, the Board placed the development of menhaden-specific ecological reference points as its highest priority. While the Board's action was not supported by the majority of public comment received, it is still a conservative management action relative to our understanding of stock status and many of the positive signals we see in the current stock conditions. Specifically, the 2017 Stock Assessment Update indicated the resource remains healthy, with increases in abundance particularly in the northern states. Risks to the resource under our current reference points are well understood, while changes to the TAC under the general forage fish guidelines are not as well understood. Further, the approved TAC, which represents a modest 8% increase in the coastwide quota, has a zero percent chance of subjecting the resource to overfishing or causing it to be overfished."

Amendment 3 Allocation Percentages Based on a 0.5% Fixed Minimum During the 2009-2011 Timeframe

State	Allocations (%)
Maine	0.52%
New Hampshire	0.50%
Massachusetts	1.27%
Rhode Island	0.52%
Connecticut	0.52%
New York	0.69%
New Jersey	10.87%
Pennsylvania	0.50%
Delaware	0.51%
Maryland	1.89%
Potomac River Fisheries Commission	1.07%
Virginia	78.66%
North Carolina	0.96%
South Carolina	0.50%
Georgia	0.50%
Florida	0.52%
Total	100%

Amendment 3 also changes fishery allocations in order to strike an improved balance between gear types and jurisdictions. The Amendment allocates a baseline quota of 0.5% to each jurisdiction, and then allocates the rest of the TAC based on historic landings between 2009 and 2011 (see accompanying table). This measure provides fishing opportunities to states which currently have little quota while still recognizing historic landings in the fishery. The Board also agreed to maintain the quota transfer process, prohibit the rollover of unused quota, maintain the 6,000 lb trip limit for non-directed and small-scale gears following the closure of a directed fishery, and set aside 1% of the TAC for episodic events in the states of New York through Maine.

"The Board worked collaboratively and effectively to forge an outcome that is fair and responsive to the needs and interests of all East Coast states," said Chair Ballou.

Finally, the Amendment reduces the Chesapeake Bay cap, which was first implemented in 2006 to limit the amount of reduction harvest within the Bay, to 51,000 mt from 87,216 mt. This recognizes the importance of the Chesapeake Bay as nursery grounds for many species by capping reduction landings from the Bay to current levels.

States must submit implementation plans to the Commission by January 1, 2018 for final implementation by April 15, 2018. The Amendment is available at http://www.asmfc.org/uploads/file/5a330069AtlanticMenhadenAmendment3_Nov2017.pdf or via the Commission's website, www.asmfc.org, on the Atlantic menhaden webpage. For more information, please contact Max Appelman, FMP, at mappelman@asmfc.org.

Black Sea Bass

In addition to approving the Black Sea Bass Draft Addendum XXX for public comment at their December joint meeting, the Commission and the Mid-Atlantic Fishery Management Council (MAFMC) also initiated the development of an addendum/framework to address several recreational management issues. The addendum/framework will consider implementing a conservation equivalency management program for black sea bass similar to that used with summer flounder by allowing

state or regional measures to be implemented in both state and federal waters; allow for a summer flounder, scup and black sea bass transit provision in federal waters around Block Island similar to the provision allowed for striped bass; and consider the possible implementation of slot limits in federal waters for summer flounder and black sea bass. This addendum/framework will be developed in 2018 with the goal of implementation prior to the 2019 recreational fishing seasons.

Additionally, the Commission/Council reviewed draft alternatives for an addendum/framework to consider the opening of the Wave 1 recreational fishery in 2019 through a Letter of Authorization. Work on these documents will continue in 2018. For more information, please contact Caitlin Starks, FMP Coordinator, at cstarks@asmfc.org.

Bluefish

In December, the Commission and MAFMC initiated a new amendment to the Bluefish FMP. The intent of the Draft Amendment is to review and possibly revise commercial/recreational allocation of the resource, as well as distribution of the commercial quota among the states. A Scoping Document will be released sometime in 2018. For more information, please contact Caitlin Starks, FMP Coordinator, at cstarks@asmfc.org.

Cobia

At its Annual Meeting in October, the Commission approved the Interstate Fishery Management Plan (FMP) for Atlantic Migratory Group (AMG) Cobia. The FMP complements many of the aspects of the South Atlantic Fishery Management Council's (SAFMC) cobia regulations for federal waters extending from Georgia through New York. The FMP was initiated in response to recent overages of the federal annual catch limit (ACL) for AMG Cobia. Managing the recreational ACL on a coastwide basis has resulted in federal closures and significant overages in 2015 and 2016, disrupting fishing opportunities and jeopardizing the health of the stock.

Under the Interstate FMP, the recreational fishery will be managed with a one fish bag limit and minimum size limit of 36" fork length (FL) or total length equivalent. Vessel limits will be determined once individual states set their seasonal restrictions, but may not exceed six fish per vessel. State-specific allocations of a coastwide recreational harvest limit that is equivalent to the federal AMG cobia ACL of 620,000 pounds result in the following state-specific soft targets:

Photo (c) Aaron Game

- Georgia: 58,311 pounds
- South Carolina: 74,885 pounds
- North Carolina: 236,316 pounds
- Virginia: 244,292 pounds

Recreational harvest overages of state-specific allocations will be evaluated over a three-year time period. If overages occur, states will be required to adjust management measures to reduce harvest in the subsequent three-year period.

The commercial fishery will maintain the current management measures as implemented through the SAFMC FMP and continue to be managed with a 33" FL minimum size limit and two fish limit per person, with a six fish maximum vessel limit. The federal ACL of 50,000 pounds is allocated to the entire commercial fishery from Georgia through New York. The commercial AMG cobia fishery will close once the ACL is projected to be reached.

The FMP provides the opportunity for states to declare *de minimis* status for their recreational fishery if landings constitute less than 1% of the recreational AMG cobia harvest. States must submit implementation plans to the Commission by January 1, 2018 for Technical Committee review and Board approval at the February 2018 meeting in Alexandria, Virginia. Approved plans must be implemented by April 1, 2018. For more information, please contact Mike Schmidtke, FMP Coordinator, at mschmidtke@asmfc.org.

Northern Shrimp

In response to the depleted condition of the northern shrimp resource, the Northern Shrimp Section extended the moratorium on commercial fishing for the 2018 fishing season. The Section also approved a 13.3 metric ton (mt) research set aside (RSA) and tasked the Technical Committee to develop the RSA program design.

Industry members continued to express concern about the economic impacts of the fishery closure, especially in light of a lack of positive signals in terms of stock rebuilding. Based on these concerns, the Section agreed to include in future discussions the possibility of opening a directed fishery if improvements in stock condition (e.g., strong recruitment or biomass indices) are not realized.

The 2017 Stock Status Report for Gulf of Maine (GOM) Northern Shrimp indicates abundance and biomass indices for 2012–2017 are the lowest on record of the 34 year time series, with 2017 being the lowest observed. Recruitment since 2011 has been poor and includes the four smallest year classes on record. The recruitment index in 2017 (2016 year class) was the second lowest observed. Current harvestable

continued, see FISHERY MANAGEMENT ACTIONS on page 14

ASMFC Winter Meeting

February 6 - 8, 2018

The Westin Crystal City
1800 Jefferson Davis Highway
Arlington, VA
888.627.8209

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.

TUESDAY, FEBRUARY 6

9:30 a.m. – Noon **American Lobster Management Board**

- Consider American Lobster Addendum XXVI and Jonah Crab Addendum III for Final Approval
- Subgroup Report on Goals and Objectives for Management of the Southern New England Stock
- Consider 2020 American Lobster Benchmark Stock Assessment Terms of Reference
- Elect Vice-chair

1:00 – 2:00 p.m. **Atlantic Herring Section**

- Review Technical Committee Report on Effectiveness of Current Spawning Closure Procedure
- Elect Chair and Vice-chair

2:15 – 4:15 p.m. **Winter Flounder Management Board**

- Review Results of the 2017 Groundfish Operational Stock Assessment for Gulf of Maine and Southern New England/Mid-Atlantic Winter Flounder Stocks
- Discuss Potential Management Response
- Consider Specifications for 2018 Fishing Year
- Consider Approval of Fishery Management Plan Review for 2016-2017 Fishing Year
- Elect Chair and Vice-chair

4:30 – 6:00 p.m. **American Eel Management Board**

- Consider Approval of Draft Addendum V for Public Comment
- Consider Approval of 2016 Fishery Management Plan Review and State Compliance Reports

WEDNESDAY, FEBRUARY 7

8:00 – 9:30 a.m. **Executive Committee**

(A portion of this meeting may be a closed session for Committee members and Commissioners only)

- ACCSP Program Update
- Discuss ASMFC Leadership Nomination Process
- Discuss Updating Appeals Process
- Discuss Updating Conservation Equivalency Guidelines

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 30, 2018** 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 30th 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.

9:45 – 11:15 a.m. **Strategic Planning Workshop**

- Review Annual Commissioner Survey Results
- Discuss Next Steps in Developing 2019-2023 Strategic Plan

11:30 a.m. – 12:15 p.m. **Weakfish Management Board**

- Consider Approval of 2017 Fishery Management Plan Review and State Compliance Reports
- Consider the Use of Fishery-independent Samples in Fulfilling Biological Sampling Requirements of the Fishery Management Plan

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

- Review Technical Committee Report on State Implementation Plans for the Interstate Cobia Fishery Management Plan
- Consider Approval of Draft Addendum I to the Black Drum Fishery Management Plan for Public Comment
- Review Technical Committee/Plan Review Team Report on Recommended Updates to the Annual Traffic Light Analyses for Atlantic Croaker and Spot
- Consider Approval of 2017 Fishery Management Plan Reviews and State Compliance Reports for Spanish Mackerel and Spot

3:00 – 4:30 p.m. **Atlantic Striped Bass Management Board**

- Review and Consider Maryland Conservation Equivalency Proposal
- Update on Process and Timeline Regarding Board Guidance on Benchmark Stock Assessment

THURSDAY, FEBRUARY 8

8:00 – 10:00 a.m. **Risk and Uncertainty Policy Workshop**

10:15 a.m. – 1:30 p.m. **Interstate Fisheries Management Program Policy Board**

- Consider Approval of Climate Change and Fisheries Management Policy
- Review Shad Benchmark Stock Assessment Timeline and Consider Terms of Reference
- Habitat Committee Report
- NOAA Fisheries Overview of Right Whale Issue
- Update on Marine Recreational Information Program

1:30 – 2:00 p.m. **Business Session**

- Consider Noncompliance Recommendations (If Necessary)

2:15 – 4:15 p.m. **Summer Flounder, Scup, and Black Sea Bass Management Board**

- Consider Black Sea Bass Addendum XXX for Final Approval
- Finalize Summer Flounder, Scup, and Black Sea Bass Recreational Measures

ASMFC Elects New Leadership

JAMES J. GILMORE, JR.

At the Commission's 76th Annual Meeting, member states thanked Douglas Grout of New Hampshire for an effective two-year term as Chair and elected James J. Gilmore, Jr. of New York to succeed him.

"I am honored by the support of my colleagues from the 15 Atlantic coast states, and grateful to Doug for shepherding the Commission through two challenging years," said Mr. Gilmore. "I embrace the challenges that lie ahead and pledge to rise up to the lofty expectations set by my predecessors – especially Doug. Environmental and political threats to fisheries and management for the 15 sovereign coast states have never been greater. As the Commission has always done, we must use these obstacles as stepping stones. I will ensure the voices of our many stakeholders – recreational, commercial, and conservation alike – are heard. The Commission must seek ways to ensure the integrity of our management process is protected, strengthen our collaboration with NOAA Fisheries, and continue forging alliances on Capitol Hill. With all the challenges facing the Commission, it's all too easy to lose sight of our Vision: Sustainably Managing Atlantic Coastal Fisheries. Our Vision must guide the Commission through all its decisions."

Mr. Gilmore has served as Director of the Division of Marine Resources for the New York State Department of Environmental Conservation for the past ten years. As a respected marine scientist and fisheries manager with more than 40 years of experience in both the public and private sector, Mr. Gilmore has built a reputation as a coalition builder and skilled negotiator. Mr. Gilmore is also an Executive Committee member of the New York Sea Grant Board of Directors and holds an adjunct faculty position at SUNY Stony Brook, where he teaches a graduate level fisheries management course. Most importantly, he is an avid marine angler, dividing his efforts between Long Island Sound's south shore and southern New Jersey. Mr. Gilmore received a Bachelor of Arts in Biology from SUNY Plattsburgh and a Master's in Marine Science from SUNY Stony Brook.

PATRICK C. KELIHER

The Commission also elected Patrick Keliher, Commissioner of the Maine Department of Marine Resources (ME DMR), as its Vice-Chair. During his tenure as ME DMR Commissioner, Mr. Keliher has worked hard to reach out to the Department's many and varied constituents to ensure an opportunity for broad input and feedback around Maine's challenging marine resources issues.

Proposed Management Actions

Throughout January, the Commission and its member states will be busy gathering public comment on proposed management actions for American lobster/Jonah crab and black sea bass. 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.

American Lobster and Jonah Crab

In October, the American Lobster Management Board approved American Lobster Draft Addendum XXVI/Jonah Crab Draft Addendum III for public comment. Given the same data collection needs apply to both American lobster and Jonah crab fisheries, Draft Addendum XXVI and Draft Addendum III are combined into one document that would modify management programs for both species upon its adoption. The Draft Addenda seek to improve harvest reporting and biological data collection in the American lobster and Jonah crab fisheries. The Draft Addenda propose using the latest reporting technology, expanding the collection of effort data, increasing the spatial resolution of harvester reporting, and advancing the collection of biological data, particularly offshore.

Recent management action in the Northwest Atlantic, including the protection of deep sea corals, the declaration of a national monument, and the expansion of offshore wind projects, have highlighted deficiencies in current American lobster and Jonah crab reporting requirements. These include a lack of spatial resolution in harvester data and a significant number of fishermen who are not required to report. As a result, efforts to estimate the economic impacts of these various management actions on American lobster and Jonah crab fisheries have been hindered. States have been forced to piece together information from harvester reports, industry surveys, and fishermen interviews to gather the information needed. In addition, as American lobster and Jonah crab fisheries continue to expand offshore, there is a greater disconnect between where the fishery is being prosecuted and where biological sampling is occurring. More specifically, while most of the sampling occurs in state waters, an increasing volume of American lobster and Jonah crab are being harvested in federal waters. The lack of biological information on the offshore portions of these fisheries can impede effective management.

The Draft Addenda present three questions for public comment: (1) what percentage of harvesters should be required to report in the American lobster and Jonah crab fisheries; (2) should current data elements be expanded to collect a greater amount of information in both fisheries; and (3) at what scale should spatial information be collected. In addition, the Draft Addenda provide several recommendations to NOAA Fisheries for data collection of offshore American lobster and Jonah crab fisheries. These include implementation of a harvester reporting requirement for federal lobster permit holders, creation of a fixed-gear VTR form, and expansion of a biological sampling program offshore.

Public comment will be accepted until ***5 PM (EST) on January 22, 2018***.

Black Sea Bass

In December, the Summer Flounder, Scup and Black Sea Bass Management Board approved Draft Addendum XXX for public comment. The Draft Addendum was initiated to consider alternative regional management approaches for the recreational fishery, including options for regional allocation of the recreational harvest limit (RHL) based on historical harvest and exploitable biomass. The Draft Addendum also includes an option for coastwide management of black sea bass recreational fisheries should a regional approach not be approved for management.

In recent years, challenges in the black sea bass recreational fishery have centered on providing equitable access to the resource in the face of uncertain population size, structure, and distribution. Since 2012, the recreational fishery has been managed under an ad-hoc regional management approach, whereby the states of Massachusetts through New Jersey have individually crafted measures aimed at reducing harvest by the same percent, while the states of Delaware through North Carolina have set their regulations consistent with the federal waters measures. While this approach allowed the states flexibility in setting measures, some states expressed concerns about equity and accountability in constraining harvest to coastwide catch limits. Additionally, the 2016 Benchmark Stock Assessment provided information on the abundance and distribution of the resource along the coast that was not previously available to include in the management program.

Draft Addendum XXX proposes two approaches for regional allocation of the RHL in the black sea bass recreational fishery: (1) allocation based on a combination of stock biomass and harvest information, or (2) allocation based solely on historical harvest. The regional allocation options offer advantages over coastwide regulations by addressing geographic differences in the stock (size, abundance, and seasonality) while allowing for more uniformity in measures between neighboring states. The Draft Addendum also proposes an option for evaluating harvest and adjusting measures against the annual catch limit, which aims to reduce year to year changes in management measures.

Public comment will be accepted until ***5 PM (EST) on January 22, 2018***.

ASMFC & NOAA Fisheries Award Funds to East Carolina University to Study River Herring Spawning Populations Using Environmental DNA

The Commission and NOAA Fisheries announced they have awarded approximately $40,000 to researchers at East Carolina University (ECU) to further ground-truth a new way to survey river herring (i.e., alewife and blueback herring) using Environmental DNA (eDNA). In 2013, NOAA Fisheries collaborated with the Commission and other partners to implement a coordinated coastwide effort that builds upon other ongoing efforts to proactively conserve river herring and address data gaps. This project will help to address some of these data gaps.

Small silver fish that spawn in freshwater reaches of rivers along the East Coast, river herring spend most of their lives in the ocean. Once highly abundant, these historically and culturally important fish have declined significantly, primarily due to habitat degradation, overfishing, climate change and fish passage impediments that have prevented them from reaching their spawning habitat.

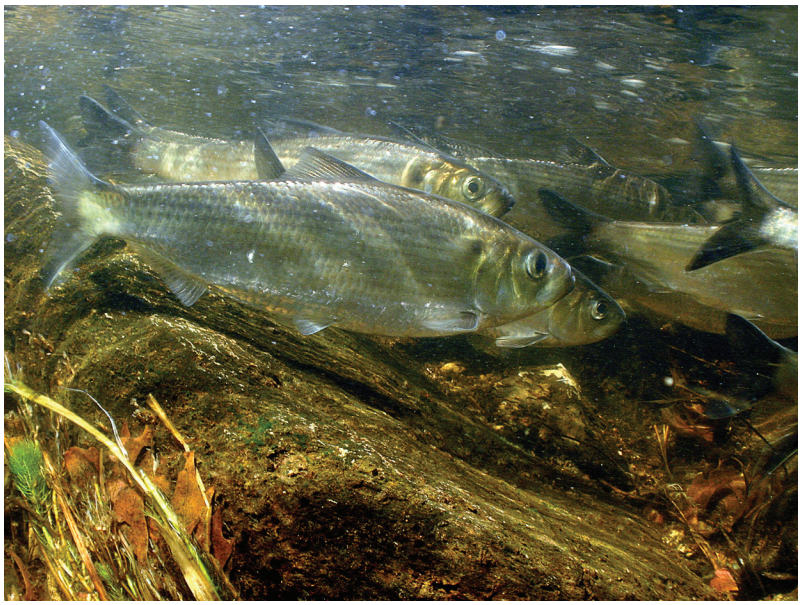


Photo (c) Jerry Prezioso, NOAA Fisheries

"River herring are an important prey species for a variety of animals including commercial and recreational fish like cod and haddock. When they migrate from marine to freshwater, river herring also release important nutrients, which helps promote healthy aquatic ecosystems," said John Bullard, regional administrator, NOAA Fisheries. "This award complements the proactive conservation effort that we are undertaking with the Commission, the Atlantic states, fishery management councils, and other partners to better understand river herring populations."

"For this funding opportunity, we were looking specifically for projects that would contribute to future stock assessments of river herring, particularly blueback herring in the Mid-Atlantic. The selected project examines the innovative approach of using eDNA versus traditional, labor-intensive methods to survey rivers to determine population abundance," said Robert Beal, ASMFC Executive Director. "If this technique is proven to be effective, it could result in more efficient, accurate sampling, and help monitor areas where traditional survey methods are challenging."

The use of eDNA for biological research and monitoring is relatively new. Environmental DNA is DNA that is collected from a variety of environmental samples such as soil, seawater, or even air, rather than directly sampled from an individual organism. As various organisms interact with the environment, DNA is expelled and accumulates in their surroundings. Example sources of eDNA include, but are not limited to, feces, mucus, gametes, shed skin, and carcasses.

Researchers Erin Field, Michael Brewer, and Roger Rulifson from ECU's Department of Biology and Institute for Coastal Science and Policy, have already completed a pilot study in North Carolina's Chowan River watersheds, corroborating the presence of river herring eDNA with actual river herring presence using electrofishing. This project will further develop eDNA methods to measure river herring abundances by calibrating the eDNA method in two Massachusetts watersheds with highly accurate fish counts in collaboration with MA Division of Marine Fisheries. By comparing fish abundance using eDNA quantity and shedding rates with traditional fish counting, the researchers will assess the validity of the new method. This method can then be applied to understudied watersheds in the Mid-Atlantic.

"Being able to rapidly monitor spawning habitats is essential for developing and monitoring conservation efforts, sustainability, and population growth," says Erin Field. "In Mid-Atlantic watersheds, traditional survey methods are more difficult due to high turbidity, large run sizes, and vast watersheds. The ability to provide information for previously unsurveyed areas will not only help us with stock status assessments, but will also help us better plan restoration and remediation efforts to help bring back river herring."

Find out more about our River Herring Conservation Plan and other funded research projects.

Lynn Fegley Elected ACCSP Coordinating Chair

On October 17th, Program partners of the Atlantic Coastal Cooperative Statistics Program's (ACCSP) Coordinating Council (the ACCSP's governing body), acknowledged the many accomplishments of outgoing Chair, Robert H. Boyles, Jr. of South Carolina, and elected Lynn Fegley as its new Chair.

In assuming the chairmanship, Ms. Fegley spoke eagerly about her new position, "I want to thank my colleagues at the Commission for entrusting me to this position which I consider both an honor and a great opportunity.

I am looking forward to working with the Coordinating Council over the next two years as ACCSP takes on new challenges including the re-design of SAFIS and the development of the program's next strategic plan, which I view as a means to reinvigorate ACCSP's vision to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

I especially want to thank outgoing chair Robert Boyles for his leadership—his shoes will be tough ones to fill. In particular, the approval of a long term funding strategy for partner projects and the authorization of eTrips/Mobile for eVTR submission in the Greater Atlantic Region will bolster ACCSP's ability to achieve its mission to produce dependable and timely marine fishery statistics for Atlantic coast fisheries."

Ms. Fegley is the Director of the Stock Health, Data Management and Analysis Division for the Maryland Department of Natural Resources (DNR), Fishing and Boating Services. She holds a Bachelor of Arts in Zoology from the University of New Hampshire and a Masters of Science in Fisheries Science and Stock Assessment from North Carolina State University. She has worked at Maryland DNR for 20 years.

The Coordinating Council also elected John Carmichael from South Carolina as its Vice-Chair. Mr. Carmichael is the Deputy Executive Director for Science & Statistics at the South Atlantic Fishery Management Council.

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.

ASMFC Seeks Proposals for Marine Aquaculture Pilot Projects: *Proposals Due February 1, 2018*

The Atlantic States Marine Fisheries Commission is requesting proposals to develop potential marine aquaculture projects in the U.S. Atlantic coast region. NOAA Fisheries, through the Commission, is making $450,000 available for the funding period of April 1, 2018 to March 31, 2019. The Commission plans to award several projects ranging from $50,000 to $100,000 each, but will give consideration to projects that can justify a greater need. Any investigator seeking support for this period must submit, as a single file, an electronic proposal by email no later than 5:00 p.m. EST on Thursday, February, 1, 2018. Please see the Request for Proposals (RFP) for complete proposal details, qualifying requirements, and submission instructions. The RFP is available at http://www.asmfc.org/files/JobAnnouncements/ASMFCAquacultureRFP_Dec2017.pdf.

The Gulf and Pacific States Marine Fisheries Commissions have also issued similar RFPs seeking proposals relevant to their respective regions. For more information, please contact Dr. Louis Daniel at ldaniel@asmfc.org or 252.342.1478.

TAUTOG continued from page 5

completed analyzing two additional regions (Long Island Sound and New Jersey-New York Bight) to comprise a four-region management scenario.

In 2016, the Board reviewed stock status across the three and four region management scenarios, ultimately electing to separate management into four regions: Massachussetts-Rhode Island (MARI), Long Island Sound (LIS), New Jersey-New York Bight (NJ-NYB), and Delaware-Virginia (DelMarVa). A four region stock assessment update was conducted using data through 2015. Stock status and associated reference points for the stock units is presented in the table on page 5. Spawning potential ratio (SPR) based reference points were utilized for the MARI and DelMarVa regions, and maximum sustainable yield (MSY) based reference points were used for LIS and NJ-NY Bight. Based on these reference points, the assessment update indicated that the stock is overfished in all regions except MARI, with overfishing occurring in the Long Island Sound and New Jersey-New York Bight regions.

Photo (c) Chip Lynch, NOAA Fisheries

Atlantic Coastal Management

While the 2016 stock assessment update still finds the tautog resource overfished in some regions, it paved the way for the development of a new approach to manage the resource, one that reflects the regional differences in the species' biology, as well as the behaviors of recreational and commercial fishermen who utilize the resource. In October, the Commission approved Amendment 1 to the Interstate Fishery Management Plan (FMP) for Tautog, which includes new management goals and objectives, biological reference points, fishing mortality targets, and stock rebuilding schedules. The Amendment institutes a fundamental change in tautog management, moving away from coastwide management towards regional management. Specifically, the Amendment delineates the stock into four regions due to differences in biology and fishery characteristics: MARI; LIS; NJ-NYB; and DelMarVa

Amendment 1 replaces the goal of the FMP to sustainably manage tautog over the long-term using regional differences in biology and fishery characteristics as the basis for management. Additionally, the Amendment seeks to promote the conservation and enhancement of structured habitat to meet the needs of all stages of tautog's life cycle. The plan objectives were modified to achieve this new goal.

Under Amendment 1 the four regions will implement measures to achieve the regional fishing mortality target with at least a 50% probability. No consistent schedule is required to achieve targets, but if the current fishing mortality exceeds the regional threshold, the Board must initiate corrective action within one year. A stock rebuilding schedule can be established via an addendum.

In addition, Amendment 1 establishes a commercial harvest tagging program to address an illegal, unreported and undocumented fishery. The tagging program will be implemented in 2019. Reports of illegally harvested fish have been documented in cases against fishermen, fish houses, and at retail markets and restaurants. The tagging program, which will accommodate both the live and dead commercial markets, was recommended by the Commission's Law Enforcement Committee to increase accountability in the fishery and curb illegal harvest. Tags will be applied by the commercially-permitted harvester at harvest or prior to offloading. Tautog must be landed in the state that is identified on the tag.

The states will submit implementation proposals by December 1, 2017 and all measures in the Amendment except for the commercial tagging program will be implemented by April 1, 2018. The commercial tagging program must be implemented by January 1, 2019.

The Amendment is available at http://www.asmfc.org/uploads/file/5a0477c3TautogAmendment1_Oct2017.pdf or via the Commission's website, www.asmfc.org, on the Tautog webpage. For more information, please contact Caitlin Starks, FMP Coordinator, at cstarks@asmfc.org.

FISHERIES MANAGEMENT ACTIONS continued from page 7

biomass is mainly comprised of females from the weak 2013 year class and some small, early-maturing females from the below-average 2015 year class.

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 Gulf of Maine shrimp habitat have increased over the past decade and reached unprecedented highs within the past several years. While 2014 and 2015 temperatures were cooler, 2016 and 2017 temperatures were again high, and temperature is predicted to continue rising as a result of climate change. This suggests an increasingly inhospitable environment for northern shrimp and the need for strong conservation efforts to help restore and maintain the stock. The Northern Shrimp Technical Committee considers the stock to be in poor condition with limited prospects for the near future. The 2017 Stock Status Report is available at http://www.asmfc.org/uploads/file/5a1deb972017NorthernShrimpAssessment_Final.pdf. For more information, please contact Megan Ware, FMP Coordinator, at mware@asmfc.org.

Horseshoe crabs captured for sampling as part of the Virginia Tech Horseshoe Crab Trawl Survey.

Horseshoe Crab

In October, the Commission's Horseshoe Crab Management Board approved 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 2018 season. Based on the allocation mechanism established in Addendum VII, the accompanying quotas were set for the states of New Jersey, Delaware, Maryland and Virginia, which harvest horseshoe crabs of Delaware Bay origin.

State	Delaware Bay Origin Horseshoe Crab Quota (no. of male only crabs)	Total Quota (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. The horseshoe crab abundance estimate was based on data from the Benthic Trawl Survey conducted by Virginia Polytechnic Institute (Virginia Tech). This survey has not been funded consistently in recent years, but was funded and conducted in 2016. A composite index of the Delaware Trawl Survey, New Jersey Delaware Bay Trawl Survey, and New Jersey Ocean Trawl Survey has been developed and used in years the Virginia Tech Survey was not conducted. While continued, long-term funding of the Virginia Tech Survey is preferred, the recent revival of this survey also allows the composite index to be improved through "tuning" relative to additional Virginia Tech Survey data points. The Virginia Tech Survey has been funded for 2017 and is currently underway. Funding for future years continues to be explored.

Terms of reference for the 2018 stock assessment were presented to and approved by the Board. Within these terms of reference were tasks specific to the horseshoe crab stock assessment, including assessments of regional populations of horseshoe crabs, incorporation and evaluation of estimated mortality attributed to the biomedical use of horseshoe crabs for Limulus Amebocyte Lysate production, and comparisons of assessment results with results from the ARM Framework used to annually set bait harvest levels for horseshoe crabs from the Delaware Bay region. The completed assessment is expected to be presented to the Board in October at the 2018 Annual Meeting. For more information, please contact Michael Schmidtke, FMP Coordinator, at mschmidtke@asmfc.org.

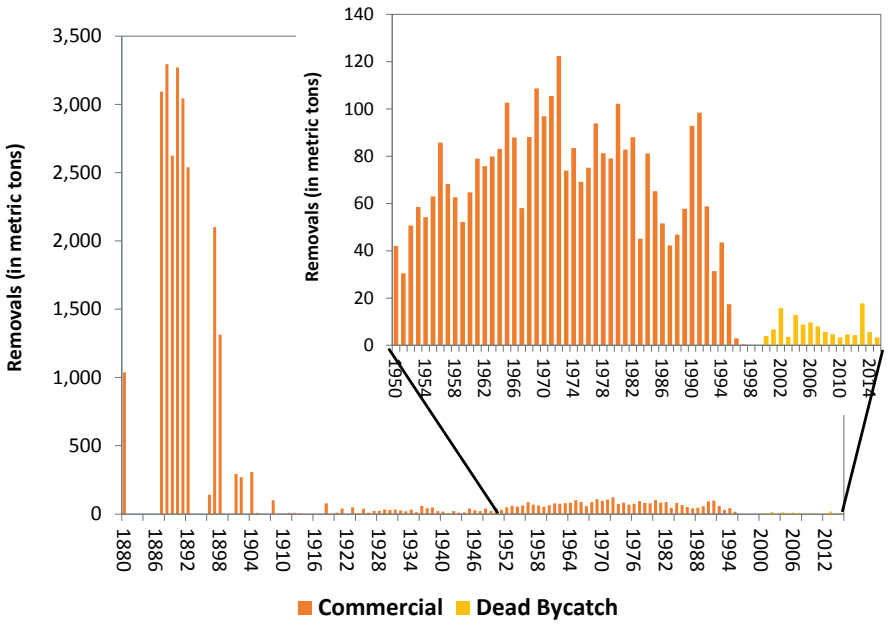
continued, see FISHERY MANAGEMENT ACTIONS on page 17

ASMFC Releases Atlantic Sturgeon Benchmark Stock Assessment and American Eel Stock Assessment Update

In October, the Atlantic Sturgeon Board and American Eel Board were presented the results of the sturgeon benchmark stock assessment and the American eel stock assessment update, respectively. A benchmark stock assessment is a full analysis and review of stock condition, focusing on the consideration of new data sources and newer or improved assessment models. This assessment is generally conducted every 3-5 years and undergoes a formal peer review by a panel of independent scientists who evaluate whether the data and the methods used to produce the assessment are scientifically sound and appropriate for management use. A stock assessment update incorporates data from the most recent years into a peer-reviewed assessment model to determine current stock status (abundance and overfishing levels).

The findings of both assessments are provided below. More detailed overviews, as well as links to the assessment reports, can be found on the Commission's website, www.asmfc.org, on the respective species pages under Stock Assessment Reports.

Coastwide Atlantic Sturgeon Commercial Landings and Dead Bycatch, 1880–2014. Inserted graph provides same information but for a more recent timeframe, 1950–2014.



Atlantic Sturgeon Benchmark Stock Assessment Indicates Slow Recovery Since Moratorium; Resource Remains Depleted

The results of the 2017 Atlantic Sturgeon Benchmark Stock Assessment indicate the population remains depleted coastwide and at the distinct population segment (DPS) level relative to historic abundance. However, on a coastwide basis, the population appears to be recovering slowly since implementation of a complete moratorium in 1998. Despite the fishing moratorium, the population still experiences mortality from several sources, but the assessment indicates that total mortality is sustainable. The "depleted" determination was used instead of "overfished" because of the many factors that contribute to the low abundance of Atlantic sturgeon, including directed and incidental fishing, habitat loss, ship strikes, and climate changes.

Atlantic sturgeon are a long lived, slow to mature, anadromous species that spend the majority of their life at sea and return to natal streams to spawn. While at sea, extensive mixing is known to occur in both ocean and inland regions. The Commission manages Atlantic sturgeon as a single stock, however, NOAA Fisheries identified five DPSs of Atlantic sturgeon based on genetic analysis as part of a 2012 Endangered Species Act listing: Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic.

Atlantic Sturgeon Coastwide and DPS-level Stock Status Based on Mortality Estimates (Z) and Biomass/Abundance Status Relative to Historic Levels and the Last Year of Available Indices Data Relative to the Start of the Coastwide Moratorium

	Mortality Status	Biomass/Abundance Status	
Population	**Probability that $Z > Z_{50\%EPR}$ 80%**	**Relative to Historical Levels**	**Average probability of terminal year of indices > 1998* value**
Coastwide	7%	Depleted	95%
Gulf of Maine	74%	Depleted	51%
New York Bight	31%	Depleted	75%
Chesapeake Bay	30%	Depleted	36%
Carolina	75%	Depleted	67%
South Atlantic	40%	Depleted	Unknown (no suitable indices)

*For indices that started after 1998, the first year of the index was used as the reference value.

Accordingly, this benchmark assessment evaluated Atlantic sturgeon on a coastwide level as well as a DPS-level when possible.

Atlantic sturgeon are not well monitored by existing fishery-independent data collection and bycatch observer programs, and landings information does not exist after 1998 due to implementation of a coastwide moratorium. Because of this, Atlantic sturgeon are considered a "data-poor" species which hindered the Stock Assessment Subcommittee's ability to use complex statistical stock assessment models, particularly at the DPS-level. Based on the models used, the stock assessment indicated the Atlantic sturgeon population remains depleted relative to historic levels at the coastwide and DPS levels. Since the moratorium, the probability that Atlantic sturgeon abundance has increased coastwide is high and total mortality experienced by the population is low. The results are more mixed at the DPS-level due to sample size and limited data, but the Gulf of Maine and Carolina DPS appear to be experiencing the highest mortality and abundance in the Gulf of Maine and Chesapeake Bay DPS is not as likely to be at a higher level since the moratorium.

The Board approved the 2017 Atlantic Sturgeon Benchmark Stock Assessment and Peer Review Reports for management use and discussed the need to support management actions that have contributed to recovery seen to date (e.g., the moratorium, habitat restoration/protection, better bycatch monitoring) and continue to work on improving them (e.g., identifying bycatch and ship strike hotspots and ways to reduce those interactions). It is important to note there has been a tremendous amount of new information about Atlantic sturgeon collected in recent years. Although this does not resolve the issue of the lack of historical data, it certainly puts stock assessment scientists and fisheries managers on a better path going forward to continue to monitor stocks of Atlantic sturgeon and work towards its restoration.

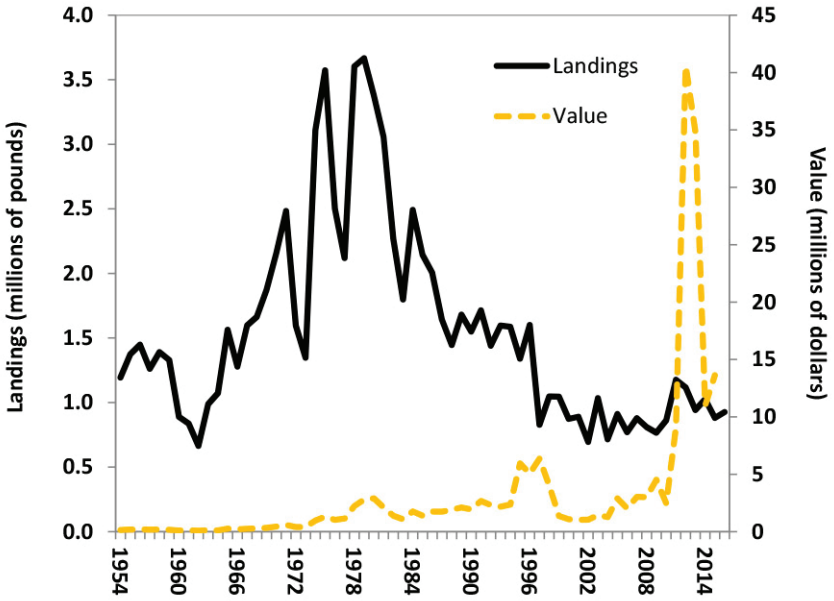
American Eel Stock Assessment Update Finds Resource Remains Depleted

The 2017 American Eel Stock Assessment Update, which indicates the resource remains depleted. The assessment updates the 2012 American Eel Benchmark Stock Assessment with data from 2010-2016. Trend analyses of abundance indices indicated large declines in abundance of yellow eels during the 1980s through the early 1990s, with primarily neutral or stable abundance from the mid-1990s through 2016. Total landings remain low but stable. Based on these findings, the stock is still considered depleted. No overfishing determination can be made based on the analyses performed.

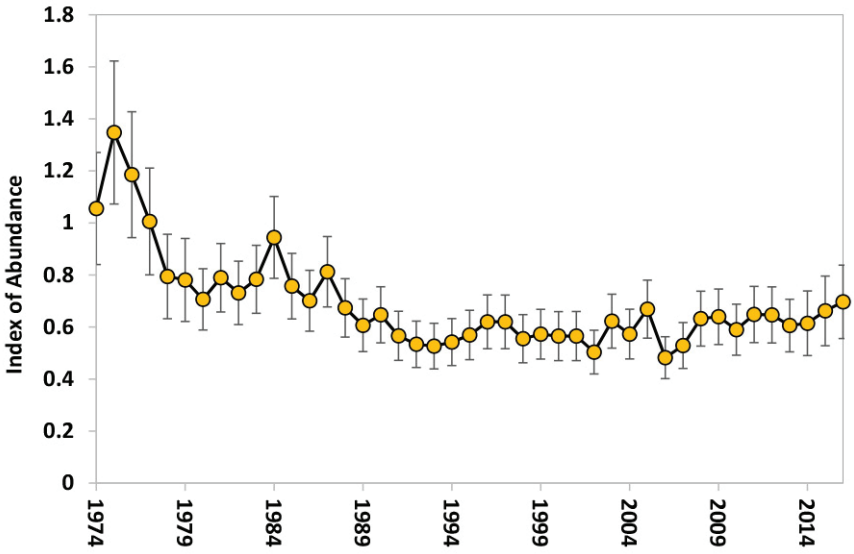
The American eel fishery primarily targets yellow eel. Glass eel fisheries along the Atlantic coast are prohibited in all states except Maine and South Carolina. In recent years, Maine is the only state reporting significant glass eel harvest. The highest total landings of all life stages occurred from the mid-1970s to the early 1980s after which they

continued, see SCIENCE HIGHLIGHT on page 18

Total Commercial Landings of American Eel along the Atlantic Coast



Index of Yellow Eel Abundance along the Atlantic Coast, 1974-2016



The error bars represent the standard errors about the estimates.

FISHERIES MANAGEMENT ACTIONS continued from page 14

Scup

In December, the Commission and MAFMC maintained status quo recreational management measures for scup in federal waters (e.g., 9-inch minimum size, 50 fish possession limit, and year-round open season). For state waters, the Commission approved the continued use of the regional management approach. Based on interest expressed by fishery managers and stakeholders, the Technical Committee will conduct an analysis on the potential impacts of lowering the size limit for northern region state waters on the 2018 coastwide harvest. The Technical Committee will present this analysis at the Commission's Winter Meeting in February. For more information, please contact Kirby Rootes-Murdy, Senior FMP Coordinator, at krootes-murdy@asmfc.org.

Spiny Dogfish

The Commission's Spiny Dogfish Management Board approved a spiny dogfish commercial quota of 38,195,822 pounds for the 2018 fishing season (May 1, 2018 – April 30, 2019). 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). The quota and northern region trip limit are consistent with the measures recommended to NOAA Fisheries by the Mid-Atlantic Fishery Management Council. 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.

2018 marks the third year of the current federal 3-year specifications cycle. It is anticipated the stock assessment will be updated in 2018 to inform development of fishery specification recommendations, including the commercial quota, for 2019 and beyond. Additionally, the Board intends to discuss issues raised by the Advisory Panel (and other fishery participants) in more detail prior to setting 2019 specifications. The timing of the next benchmark stock assessment for spiny dogfish is less certain; however, the Board supported the Council's recommendations to conduct a benchmark stock assessment in 2019, or soon after.

The 2018 spiny dogfish commercial quota allocations (in pounds) for the northern region and the states of New York through North Carolina are provided in the accompanying table. Any overages from the 2017 season will be deducted from that region's or state's 2018 quota allocation. Similarly, any eligible roll overs from the 2017 season will be applied to that region's or state's 2018 quota allocation.

For more information, please contact Kirby Rootes-Murdy, Senior FMP Coordinator, at krootes-murdy@asmfc.org.

Summer Flounder

Also at their December joint meeting, the Commission and MAFMC extended the provisions of Addendum XXVIII, allowing for the use of conservation equivalency to achieve, but not exceed, the 2018 summer flounder RHL of 4.42 million pounds. Conservation equivalency allows individual states or multi-state regions to develop customized measures that, in combination, will achieve the coastwide RHL. Further, it was specified that any modifications to state measures in 2018 should result in no more than a 17% liberalization in coastwide harvest relative to the projected 2017 harvest of 3.23 million pounds. This maximum liberalization was set based on continued concern for the stock status of summer flounder. Additionally, information suggests 2017 appears to be an anomalous low year in terms of effort and harvest, raising concern that overages in 2018 may occur under a larger liberalization in regulations if catch and effort rates increase in 2018. In extending the provisions of Addendum XXVIII, the regional delineation for 2018 will be: (1) Massachusetts (2) Rhode Island (3) Connecticut-New York, (4) New Jersey, (5) Delaware-Virginia, and (6) North Carolina. Any state or region wishing to modify its management measures must submit proposals for Technical Committee review in January, and for Board consideration in February.

The Commission and Council set non-preferred coastwide measures in the event that state conservation equivalency measures are not approved by NOAA Fisheries. These measures include a 4-fish possession limit, a 19-inch total length minimum size, and an open season of May 15 – September 15. The Council and Board also approved precautionary default measures (i.e., a 2-fish possession limit, a 20-inch total length minimum size, and an open season of July 1 – August 31), which will be implemented in any state or region that does not adopt measures consistent with the conservation equivalency guidelines.

Lastly, work continues on the development of a new Summer Flounder Amendment. The Commission and Council reviewed the latest revisions to the Draft Amendment, including FMP goals and objectives, and commercial alternatives. An updated draft document is scheduled to be released in 2018 for public comment.For more information, please contact Kirby Rootes-Murdy, Senior FMP Coordinator, at krootes-murdy@asmfc.org.

2018 Spiny Dogfish Commercial Quota Allocations

	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%
2018 Quota	22,153,577	1,033,961	2,919,689	342,235	2,261,193	4,123,239	5,361,166

SCIENCE HIGHLIGHT continued from page 16

declined. Since the 1990s, landings have been lower than historical landings and have been stable in recent decades. The value of U.S. commercial American eel landings has varied from a few hundred thousand dollars (prior to the 1980s) to a peak of $40.6 million in 2012 (largely driven by the price of glass eels).

The 2012 benchmark stock assessment found the resource depleted and Addenda III (2013) and IV (2014) were approved with the goal of reducing mortality across all life stages. These addenda established a 9-inch minimum size limit for commercial and recreational fisheries, a yellow eel commercial coastwide cap of 907,671 pounds, and glass eel quota of 9,688 pounds for Maine beginning for the 2015 fishing year. The yellow eel cap has two management triggers: (1) the coastwide cap is exceeded by more than 10% in a given year and (2) the coastwide cap is exceeded for two consecutive years, regardless of the percent over. If either trigger is met, there is an automatic implementation of state-by-state quotas. The 2015 yellow eel landings were below the cap. However, 2016 landings were 925,798 pounds, which exceeded the cap by less than 10%.

Trend Analysis of Regional and Coastwide Indices of American Eel Abundance by Young-of-the-year (YOY) and Yellow Eel Life Stages

Region	Life Stage	Time Period	2012 Trend	2017 Trend
Gulf of Maine	YOY	2001–2016	NS	NS
Southern New England	YOY	2000–2016	NS	NS
	Yellow	2001–2010	NS	-
Hudson River	YOY	1974–2009	↓	-
	Yellow	1980–2016	↓	↓
Delaware Bay/ Mid-Atlantic Coastal Bays	YOY	2000–2016	NS	NS
	Yellow	1999–2016	NS	NS
Chesapeake Bay	YOY	2000–2016	NS	NS
	Yellow	1990–2009	↑	↑
South Atlantic	YOY	2001–2015	NS	↓
	Yellow	2001–2016	↓	↓
Atlantic Coast	YOY (short-term)	2000–2016	NS	NS
	YOY (long-term)	1987–2013	NS	NS
	Yellow (40+ year)	1974–2016	NS	↓
	Yellow (30-year)	1987–2016	↓	↓
	Yellow (20-year)	1997–2016	NS	NS

The arrows indicate the direction of the trend if a statistically significant trend was detected (P-value < α; α = 0.05). NS = no significant trend detected. A dash (-) = indices that data were not updated.

HART AWARD continued from page 1

In honor of Mr. Diodati's lifelong dedication to the conservation of Atlantic striped bass, his innate ability to sense and adapt to changing winds, and the unerring guidance and direction he provided throughout his long career, Mr. Diodati will receive a striped bass weathervane. Due to unforeseen circumstances, Mr. Diodati was not able to attend the award ceremony. Dr. David Pierce, current MA DMF Director and lifelong friend and colleague of Mr. Diodati accepted the award on his behalf.

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