

Issues/Reports





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Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

Aug. 1, 2018

MEMORANDUM

TO: Marine Fisheries Commission

FROM: Lee Paramore, Chair, Biological Review Team

SUBJECT: 2018 Stock Overview Report

Attached is the Division of Marine Fisheries 2018 Stock* Overview Report. The annual report, released each July, serves as an overview summarizing available information used to determine the overall condition of North Carolina's fishery resources. The overview covers information for each species through 2017.

Last year, the report format was changed to provide better clarification to the public on North Carolina's role in managing each species. This included partitioning the 14 species solely managed by North Carolina from the other 23 stocks where management is deferred to other principal entities, including the Atlantic States Marine Fisheries Commission, the South Atlantic Fishery Management Council and the Mid-Atlantic Fishery Management Council.

This year, additional changes have been implemented aimed at better informing the public. The division will no longer assign each stock to one of the five former stock status categories: viable, recovering, depleted, concern and unknown. Assigning species to these predefined categories can be subjective as the term definitions have some overlap and stock conditions are often in transition. Instead, the 2018 report provides direct classifications for each stock based on the most recent peer-reviewed stock assessment. As such, assignments are directly related to the overfishing* and overfished*/depleted state of each stock. Species reports without overfished/overfishing determinations will still provide pertinent information on trends and management of the species.

Four species: blue crab, southern flounder, striped mullet and striped bass stocks in the Tar/Pamlico, Neuse and Cape Fear rivers are highlighted in this year's report due to ongoing concerns. A benchmark stock assessment approved in 2018 indicates that the blue crab stock is overfished and overfishing is occurring. Amendment 3 to the state blue crab plan is currently under development. Southern flounder are classified as overfished with overfishing occurring. This species is currently undergoing an assessment update through 2017 based on recent peer-review recommendations. Amendment 2 to the state southern flounder plan is currently under development. Striped mullet hit a management trigger in 2016 due to low landings. Declining



trends in landings and adult indices are of concern for this species. The division updated the striped mullet stock assessment to evaluate if stock conditions warrant management changes. Results of the stock assessment update indicate overfishing is not occurring through 2017. The Central Southern Management Area striped bass stocks include the Tar/Pamlico, Neuse and Cape Fear rivers. The major management issue is that with very limited natural reproduction occurring, most of the fishery is supported by hatchery-reared fish. The fishery management plan, which is a joint plan with the Wildlife Resources Commission, is currently under review for these stocks with the results of a benchmark stock assessment anticipated in early 2019.

The complete 2018 Stock Overview Report can be found on the division's website at: <http://portal.ncdenr.org/web/mf/stock-overview>.

The annual stock overview report for state-managed species is informed by annual fishery management plan updates. These updates are compiled to create the annual Fishery Management Plan Review. A copy of this document will be provided to each commissioner at the August 2018 business meeting. The annual Fishery Management Plan Review is a good resource about species management and provides information critical to our understanding of stock conditions on a state and coastwide basis.

***Definitions**

Stock – A group of fish of the same species in a given area. Unlike a fish population, a stock is defined as much by management concerns (jurisdictional boundaries or harvesting locations) as by biology.

Overfishing – Occurs when the rate that fish that are harvested or killed exceeds a specific threshold.

Overfished/Depleted – Occurs when the spawning stock size of a population is below a specified threshold. This condition significantly reduces the stock's reproductive capacity to replace fish removed by harvest.



Roy Cooper
Governor

Michael S. Regan
Secretary



Steve Murphey
Director

Release: Immediate
Date: July 25, 2018

Contact: Patricia Smith
Phone: 252-726-7021

Changes to fisheries annual report changes terminology to reflect stock assessment determinations

MOREHEAD CITY – The North Carolina Division of Marine Fisheries is continuing efforts to better explain the health of the state’s fisheries by tying its annual stock overview report to terminology commonly used in peer reviewed stock assessments.

In this year’s report, the division no longer assigns fish stocks to one of the five former categories: viable, recovering, depleted, concern, and unknown. Instead, the stock status for a species is tied directly to the most recent peer reviewed stock assessment determination of overfishing and overfished/depleted.

Assigning species stock status to one of the former five categories had become increasingly difficult over time because definitions of the terms overlapped, and stock conditions were often in transition. Tying the stock status determinations to peer reviewed stock assessments removes subjectivity. For species that do not have an overfishing/overfished status, the report still documents trends in biological data and summarizes management.

It is the second consecutive year that the division has substantially changed the stock overview. Last year, the division altered the format of the report to clarify the role the state plays in management of each species, separating state-managed species from those cooperatively managed through a federal or interstate entity.

Three state managed species warrant notation in this year’s stock overview:

Blue crab – Results of the 2018 benchmark stock assessment indicate the blue crab stock is overfished and overfishing is occurring. This assessment passed peer review and the model was accepted for use in management. The division is developing Amendment 3 to the Blue Crab Fishery Management Plan in conjunction with an advisory committee.

Striped mullet – Amendment 1 to the N.C. Striped Mullet Fishery Management Plan, adopted in 2015, requires the division to initiate further analysis of the striped mullet data if commercial landings fall below 1.13 million pounds or above 2.76 million pounds in any given year. In 2016, commercial landings of striped mullet fell below the 1.13 million pound minimum to 964,348 pounds, triggering the analysis. A 2018 update of the state’s 2013 striped mullet stock assessment found that overfishing is not occurring; however, it cannot be determined if the stock is overfished. The N.C. Marine Fisheries Commission will discuss potential management options at its August meeting.

Southern flounder – A January 2018 stock assessment of southern flounder in the south Atlantic indicated that the stock is overfished and overfishing is occurring. This assessment passed peer review, and the model was accepted for use in management with the condition that it be updated with information through 2017 so management is based on the most current data available. The update is underway and expected to be complete this fall. The division is developing Amendment 2 to the Southern Flounder Fishery Management Plan in conjunction with an advisory committee.

Website: <http://www.ncdenr.gov>

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For more information, read the entire [2018 Stock Overview](#) and read this month's Division of Marine Fisheries [INSIGHT newsletter](#) or contact Division Biologist Lee Paramore at Lee.Paramore@ncdenr.gov or 252-473-5734.

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ASMFC

FISHERIES *focus*

Vision: Sustainably Managing Atlantic Coastal Fisheries

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ASMFC Presents Annual Awards of Excellence

At its Spring Meeting, the Atlantic States Marine Fisheries Commission presented Mr. Dan McKiernan, Dr. Larry Jacobson and Colonel Kyle Overturf with its Annual Awards of Excellence (AAE) for their outstanding contributions to science and law enforcement along the Atlantic coast.

"The Atlantic coast has no shortage of skilled and dedicated fisheries policy, science and law enforcement professionals. However, Dan, Larry and Kyle represent the cream of the crop" said ASMFC Chair Jim Gilmore of the New York State Department of Environmental Conservation. "The Commission's 2018 Annual Awards of Excellence reflect a diversity of accomplishments from management to science to law enforcement. It is an honor to present the 2018 AAE to three exceptional individuals for their contributions to the management and conservation of Atlantic coast fisheries."



From left: ASMFC Chair Jim Gilmore, AAE Recipients Dan McKiernan and Colonel Kyle Overturf, and ASMFC Executive Director Bob Beal

Management & Policy Contributions

Mr. Dan McKiernan, Massachusetts Division of Marine Fisheries

Dan McKiernan has been a vital contributor to the Commission's management and policy programs for over three decades. Throughout his career, he has worked tirelessly to meet the needs of Massachusetts' fishermen while ensuring the health of the fisheries resources on which they depend. At the management board level, Mr. McKiernan approaches problem solving in a pragmatic, collaborative way. His recipe for success has been one part engagement and one part persuasion, bringing his colleagues together during board meetings or over a friendly meal to make his case for Massachusetts' position while finding effective solutions to difficult interstate fisheries management problems.

Mr. McKiernan's efforts on the development and adoption of Amendment 1 to the Tautog Fishery Management Plan illustrate his dedication to the collaborative process. Working closely with neighboring Rhode Island officials, he helped to develop uniform rules throughout the region. He was also a staunch

continued, see AAE on page 9

Atlantic States Marine Fisheries Commission

1050 North Highland Street, Suite 200 A-N • Arlington, Virginia 22201 • www.asmfc.org

Upcoming Meetings

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.

Atlantic States Marine Fisheries Commission

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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

June 19 - 20

ACCSP Recreational Technical Committee, ASMFC Offices, 1050 N. Highland Street, Suite 200A-N, Arlington, VA

June 26 (10 a.m. - 4:30 p.m.)

ASMFC and MAFMC Summer Flounder, Scup and Black Sea Bass Advisory Panel, Hilton Garden Inn, BWI Airport, 1516 Aero Drive, Linthicum, MD

July 23 - 26

SEAMAP Annual Meeting, Hilton St. Petersburg Bayfront, 333 1st Street South, St. Petersburg, FL

August 7 - 9

ASMFC Summer Meeting, Westin, 1800 South Eads Street, Arlington, VA

August 14 - 18

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

August 19 - 23

148th Annual Meeting of the American Fisheries Society: Communicating the Science of Fisheries Conservation to Diverse Audiences, Atlantic City Convention Center, Atlantic City, NJ

September 17 - 21

South Atlantic Fishery Management Council, Town and Country Inn, 2008 Savannah Highway, Charleston, SC

September 25 - 27

New England Fishery Management Council, Hotel 1620, Plymouth, MA

October 2 - 4

Mid-Atlantic Fishery Management Council, Congress Hall, 200 Congress Place, Cape May, NJ

October 21 - 25

ASMFC 77th Annual Meeting, The Roosevelt Hotel, 45 East 45th Street and Madison Avenue, New York City, NY

December 3 - 7

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

December 4 - 6

New England Fishery Management Council, Hotel Viking, Newport, RI

December 11 - 13

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



Black Sea Bass: Seeking Solutions through Compromise

I don't know whether you had a chance to listen to Commissioners discuss recreational black sea bass management during our Spring Meeting at the beginning of May. If you did, you had the chance to witness the states coming together to handle a difficult and controversial management issue through compromise for the benefit of the states, their recreational fisheries, and the resource. This is what the Commission is designed to do.

Black sea bass is a tricky species to manage with lots of moving parts. From a policy perspective, the species is managed jointly by the Commission and the Mid-Atlantic Fishery Management Council. As such, the states strive to implement recreational measures to achieve but not exceed the annual recreational harvest limit (RHL). The Council's Scientific and

Statistical Committee recommends the allowable biological catch, which constrains the RHL based on the latest stock status information. Magnuson-Stevens requirements for annual catch limits and accountability measures, combined with uncertainty surrounding recreational estimates, create even greater difficulties at the state level, with states having to adjust recreational measures on an annual basis.

Black sea bass biology and life history

characteristics present additional challenges. Although the species was declared rebuilt in 2009, black sea bass' unique characteristics contribute to uncertainty about the size of the stock. Black sea bass are protogynous hermaphrodites, which mean they start life as females and when they reach 9-13 inches (2 - 5 years of age) they change sex to become males. Because of this trait, the response of this species to fishing pressure is difficult to account for. More profoundly, as water temperatures have warmed along the coast, the distribution and abundance of this species has begun to shift northward. This means northern states are catching more black sea bass

even under restrictive management measures simply because there are more fish.

Yet our current management program and the distribution of fish to the states is based on traditional fishing patterns that do not reflect recent changes in the stock's distribution and availability. This last point and the potential reduction in recreational harvest for the states in Southern New England motivated the states of Massachusetts, Rhode Island, Connecticut and New York to appeal a recent decision by the Summer Flounder, Scup and Black Sea Bass Management Board (Board) regarding 2018 recreational management measures approved in response to Addendum XXX. However, before the appeal was actually brought before the Interstate Fisheries Management Program Policy Board, the Northern Region states offered a potential management program for the 2018 black sea bass recreational fishery to replace the allocations specified in Addendum XXX. The revised management program, which was approved by the Board, was the result of extensive work and deliberations among the Northern Region states, who came up with a compromise to meet the needs of the Northern Region without impacting the remaining states, while constraining the harvest to the 2018 RHL of 3.66 million pounds.

Further, in response to the appeal, the Board initiated new management action for the 2019 black sea bass recreational fishery and tasked the Plan Development Team to develop a white paper to consider the impacts of changes in black sea bass abundance and distribution on the management of commercial and recreational fisheries.

While the path getting to the compromise was not an easy one, it not only affirmed why the Commission has been so successful for three-quarters of a century, but also highlighted the importance of the processes we have developed to ensure that states have an opportunity to challenge management decisions and seek solutions through compromise and debate. Our deliberations in May provided a fix for the 2018 recreational black sea bass fishery; however, there is still much work to be done and many discussions to be had about how we best address shifting resource abundance, distribution, and productivity due to warming waters. There are as many states who hope for a new management regime that reflects changing resource availability as there are those who feel strongly about allocating the resource based on historical landings. Perhaps the solution lies somewhere in the middle. I look forward to working with our Commissioners to help find that middle ground, where we account for historical harvest while acknowledging the new realities brought about by changes in our marine environment.

The revised management program, which was approved by the Board, was the result of extensive work and deliberations among the Northern Region states who worked closely to come up with a compromise...

Species Profile: Atlantic Sturgeon

Benchmark Assessment Indicates Signs of a Slow Recovery Though Challenges Towards Sustainability Remain

Introduction

For almost 30 years, the 15 Atlantic coastal states have worked together to effectively manage Atlantic sturgeon throughout its range from Maine to Florida. Recognizing both the importance of this ancient species and the dire status of the population, the states implemented a 40-year coastwide moratorium on harvest through Amendment I to the Atlantic Sturgeon FMP in 1998 with the goal of restoring the population of this once thriving fishery. Since then, the states have invested considerable resources to research the species' biology and life history. Despite the strong conservation efforts taken, Atlantic sturgeon was added to the Endangered Species List in February 2012. A coastwide benchmark stock assessment completed by the Commission in the fall of 2017 concluded that the population remains depleted at the coastwide and distinct population segment (DPS) levels relative to historic abundance, although the population appears to be recovering slowly since implementation of the 1998 moratorium.

Life History

Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) are ancient fish, dating back to at least the late Cretaceous Period (66-100 million years ago). Historically, they have been found along the entire Atlantic coast from Labrador, Canada to St. Johns River, Florida. Atlantic sturgeon were once present in about 38 rivers along the U.S. Atlantic coast, 35 of which contained spawning populations. Today, Atlantic sturgeon can be found in 32 of those rivers, 20 of which have spawning populations. Atlantic sturgeon are anadromous fish, living their adult lives in the ocean and migrating into coastal estuaries and rivers to spawn once every two to five years. There are five DPSs of Atlantic sturgeon: Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic.

Atlantic sturgeon are one of the largest and longest-lived anadromous fish in North America, although individual's growth rates and maturity schedules vary widely along the coast. Typically, populations in the southern part of the species range mature faster and grow larger than those in the northern part of the range. Females reach sexual maturity between the ages of seven and 30, and males between the ages of five and 24. The number of eggs a female produces increases with age and size, which means older and larger females are more valuable to the population because they produce more eggs (up to eight millions eggs per spawning event) than younger, smaller females (estimated 400,000 eggs per spawning event). Most juveniles remain in freshwater rivers for one to six years before migrating out to the ocean. As mature adults, they return to their natal streams to spawn.

Species Snapshot



Atlantic Sturgeon
Acipenser oxyrinchus oxyrinchus

Management Unit: Maine to Florida

Interesting Facts

- The species name 'oxyrinchus' means sharp snout.
- Sturgeon were a key food source for U.S. settlers along the Atlantic coast.
- In the late 1800s, fishing for sturgeon eggs (to sell as caviar) attracted so many people, the trend was referred to as the "Black Gold Rush."
- Atlantic sturgeon are river-specific, returning to their natal rivers to spawn.
- Rather than having true scales, Atlantic sturgeon have five rows of bony plates known as scutes.
- When sturgeon wash up on beaches, many people mistake them for dinosaurs or sea monsters. In fact, sturgeon were around throughout the Cretaceous Period when dinosaurs roamed the earth.
- Young sturgeon are known to travel widely at sea, along the whole East Coast and as far north as Iceland.

Maximum Size: 14 feet, 811 pounds, Canada

Oldest Recorded: 60 years old, captured from the St. Lawrence River

Stock Status: Depleted and not experiencing overfishing

Photo (c) NYSDEC



Sturgeon don't have teeth. Instead, they suck up prey using their downward projecting vacuum-like mouth. As juveniles, Atlantic sturgeon feed on flies, worms, shrimp, and small mollusks and crustaceans. As adults, they are opportunistic feeders and prey mainly on mollusks, snails, worms, shrimp and benthic fish. Very little is known about their natural predators.

Commercial Fishery

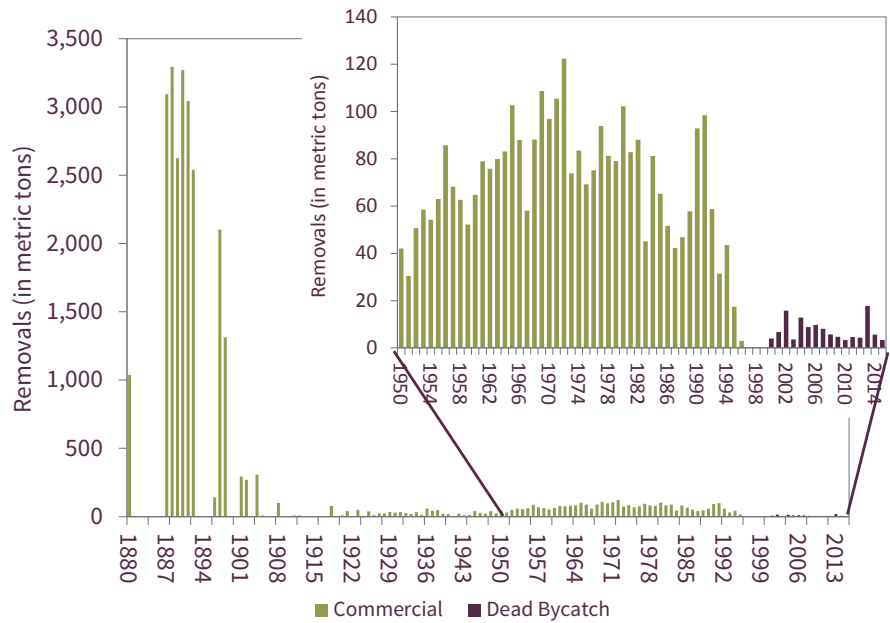
Atlantic sturgeon have been taken for food by humans in North America for at least 3,000-4,000 years, and have supported commercial fisheries of varying magnitude since colonial times. There are reports from Maine and Massachusetts from as early as the 1600s that cite sturgeon as an important fishery in those states. Atlantic sturgeon eggs were valued as high-quality caviar both in the U.S. and in Europe, attracting a large number of fishers and placing a huge strain on the population. Other parts of the sturgeon were used for a variety of products. Sturgeon skin was made into leather for clothes and bookbinding. The swim bladder was used to make a gelatin that served as a clarifying agent in jellies, wine, beer, and glue, and was also fashioned into windows for carriages.

The fishery was once considered second in value only to lobster. In 1888, the U.S. Fish Commission reported that there were 7.3 million pounds of sturgeon caught on the U.S. Atlantic coast. Landings declined significantly from 1950 through the mid-1990s to between 100,000 and 250,000 pounds, annually. In 1998, the Commission implemented a coastwide moratorium on the harvest of wild Atlantic sturgeon stocks, although many states had already closed their fisheries.

Status of the Stock

In 1998, a benchmark stock assessment conducted by the Commission concluded that Atlantic sturgeon populations throughout the species' range were either extirpated or

Coastwide Atlantic Sturgeon Commercial Landings and Dead Bycatch, 1880–2014
 Inserted graph provides same information but for a more recent timeframe, 1950–2014.
 Source: ASMFC Atlantic Sturgeon Benchmark Stock Assessment, 2017



at historically low abundances. In 2013, in response to the Endangered Species Act (ESA) listing, the Board initiated the development of a coastwide benchmark stock assessment to evaluate stock status, stock delineation, and bycatch. The Board approved the 2017 Atlantic Sturgeon Benchmark Stock Assessment and Peer Review Report for management use in October 2017.

The assessment results indicate that at the coastwide and DPS level, Atlantic sturgeon are depleted relative to historical levels (Table 1). The 'depleted' status was used instead of 'overfished' because many factors, not just directed historical fishing, contributed to the low abundance of Atlantic sturgeon. For example, bycatch, habitat loss and ship strikes also contribute to population status. However, there are signs that populations have started a slow recovery from 1998 levels. On a coastwide scale, it is highly likely that abundance is higher than it was in 1998. At

the DPS level, the Gulf of Maine, New York Bight, and Carolina DPSs are most likely to have increased, while the Chesapeake Bay DPS only has a 36% chance of having increased. The abundance status of the South Atlantic DPS is unknown because the assessment was unable to develop a usable index of relative abundance from that region.

Despite the moratorium on commercial fishing, Atlantic sturgeon still experience mortality coastwide from several sources.

Table 1. 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

Population	Mortality Status	Biomass/Abundance Status	
	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.

continued, see SPECIES PROFILE on page 12

Fishery Management Actions

Atlantic Menhaden

In early May, the Commission's Atlantic Menhaden Management Board initiated a noncompliance finding in response to the Commonwealth of Virginia's failure to fully implement the mandatory provisions of Amendment 3 to the Interstate Fishery Management Plan. Specifically, the Commonwealth has not established the Chesapeake Bay reduction fishery cap of 51,000 mt. Rather than forwarding that finding to the Commission's Interstate Fisheries Management Program, the Board postponed action on the noncompliance finding until the Commission's Summer Meeting in August 2018. In the interim, the Board has requested the Commission send a letter to the Commonwealth of Virginia stating its intent to consider the noncompliance finding in August if the Commonwealth has not implemented Amendment 3's Chesapeake Bay reduction fishery cap. Staff will monitor the fishery and inform the Board if harvest is approaching 51,000 mt in the Bay.

There are several reasons why the Board postponed action. The Commonwealth's General Assembly, which oversees Atlantic menhaden management in Virginia, is still in session and has an opportunity to implement the 51,000 mt Bay cap. The reduction fishery is just beginning for the year and is highly unlikely to exceed the Bay cap prior to August given the performance of the fishery for the past five years (i.e., the reduction fishery in the Chesapeake Bay has been significantly below 51,000 mt over that time period).

Upon notification by the Commission of a noncompliance finding, the Secretary of Commerce has 30 days to review the recommendation and determine appropriate action, which may include a federal moratorium on fishing for Atlantic menhaden in Virginia's state waters.

For more information, please contact Max Appelman, Fishery Management Plan Coordinator, at mappelman@asmfc.org or 703.842.0740.

Black Drum

On May 3rd, the South Atlantic State/Federal Fisheries Management Board approved

Addendum I to the Black Drum Interstate Fishery Management Plan (FMP). The Addendum allows Maryland to reopen its black drum commercial fishery in the Chesapeake Bay with a daily vessel limit of up to 10 fish and a 28-inch minimum size.

In the late 1990s, Maryland closed its Bay commercial black drum fishery in order to conduct a tagging and migration study. The fishery was not reopened after the study. In 2013, the Black Drum FMP extended this closure by requiring states to maintain management measures in place at the time of the FMP's approval.

In approving Addendum I, the Board considered the status of the resource, which is not overfished nor experiencing overfishing, and the estimated relatively small size of the reopened commercial fishery. When the fishery was open in the 1970s under more liberal management than that in Addendum I, it was a small scale fishery with an average annual harvest of 11,475 pounds. Over the next year, Maryland will develop a management program for the commercial fishery for implementation by April 1, 2019.

The Addendum will be available on the Commission's website, www.asmfc.org (under Black Drum). For more information, please contact Dr. Mike Schmidtke, FMP Coordinator, at mschmidtke@asmfc.org or 703.842.0740.

Black Sea Bass

Upon the direction of the Commission's Interstate Fisheries Management Program (ISFMP) Policy Board, the Summer Flounder, Scup and Black Sea Bass Management Board approved revised 2018 recreational measures for the Northern Region states of Massachusetts, Rhode Island, Connecticut and New York (see accompanying table). Further, the Board initiated new management action for the 2019 black sea bass recreational fishery and tasked the Plan Development Team to develop a white paper to consider the impacts of changes in black sea bass abundance and distribution to the management of commercial and recreational fisheries.

This action is taken in response to a Northern Region state appeal of the approved 2018 recreational measures under

continued, see FISHERY MANAGEMENT ACTIONS on page 8

Black Sea Bass State-by-State Recreational Management Measures for 2018

State	Minimum Size	Possession Limit	Open Season
ME	13"	10 fish	May 19–Sep 21; Oct 18–Dec 31
NH	13"	10 fish	Jan 1–Dec 31
MA	15"	5 fish	May 19–Sep 12
RI	15"	3 fish	Jun 24–Aug 31
		7 fish	Sep 1–Dec 31
CT, Private/Shore	15"	5 fish	May 19–Dec 31
CT, Authorized Party/Charter	15"	5 fish	May 19–Aug 31
		7 fish	Sep 1–Dec 31
NY*	15"	3 fish	Jun 23–Aug 31
		7 fish	Sep 1–Dec 31
NJ	12.5"	10 fish	May 15–Jun 22
	12.5"	2 fish	Jul 1–Aug 31
	12.5"	10 fish	Oct 8–Oct 31
	13"	15 fish	Nov 1–Dec 31
DE, MD, VA, & NC (North of Cape Hatteras)	12.5"	15 fish	May 15–Dec 31

* NY is in the process of promulgating its measures, which should be finalized in June.

ASMFC Habitat Committee Revisits 20-Year Policy on Submerged Aquatic Vegetation

In honor of the 20-year anniversary of the Atlantic States Marine Fisheries Commission's (Commission) Policy on Submerged Aquatic Vegetation (SAV), the Commission's Habitat Committee conducted a thorough review of the policy, re-evaluating its recommendations and importance. Upon review, it was determined that the policy is still relevant and, arguably, more important now than ever. SAV continues to be vital to many Commission-managed fish species, and is afforded different degrees of protection up and down the coast.

SAV comprise some of the most productive ecosystems in the world. According to the Blue Carbon Initiative, SAV covers 43.7 – 148 million acres worldwide. This is only 0.2% of the ocean floor, yet SAV binds approximately 10% of carbon (as sediments) each year. In fact, they're twice as effective at storing carbon as terrestrial forests by acre. SAV roots also stabilize sediments and absorb excess nutrients. Their stabilizing properties reduce shoreline erosion, benefiting not only estuarine communities, but coastal property owners. SAV also improves water quality and provides food and habitat for many species, especially juveniles. Overall, SAV contributes to healthy fisheries and ecosystems. Unfortunately, SAV is one of the most rapidly declining habitats around the world, with up to a 7% loss in area annually due to human activities.

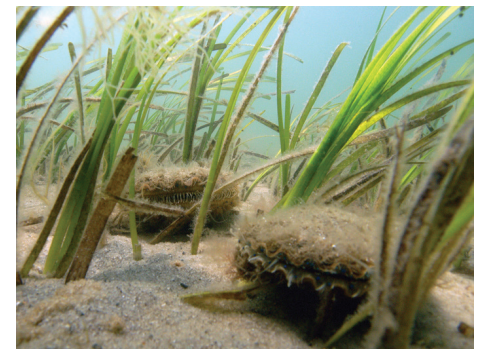
In 1997, the Commission's Habitat Committee developed a policy to communicate the need for conservation of coastal SAV resources, and to highlight state and Commission-based activities for implementation of a coastal SAV conservation and enhancement program. The Commission encouraged implementation of this policy by state, federal, local, and cooperative programs that influence and regulate fish habitat and activities impacting fish habitat, specifically SAV.

In updating the policy, the Habitat Committee left the goals largely unchanged from the 1997 version. The primary goal is to preserve, conserve, and restore SAV where possible, in order to achieve a net gain in distribution and abundance along the Atlantic coast and in tidal tributaries, and to prevent any further losses of SAV in individual states by encouraging the following:

1. Protect existing SAV beds from further losses due to degradation of water quality, physical destruction to the plants, or disruption to the local benthic environment;
2. Continue to promote state or regional water and habitat quality objectives that will result in restoration of SAV through natural re-vegetation;
3. Continue to promote, develop, attain, and update, as needed, state SAV restoration goals in terms of acreage, abundance, and species diversity, considering historical distribution records and estimates of potential habitat; and
4. Continue to promote SAV protection at local, state and federal levels and when unavoidable impacts to SAV occur from permitted coastal alterations or other unintended actions, agencies should implement compensatory mitigation for the functional and temporal impacts.

There are six key components to achieving the goal of this policy: (1) assessment of historical, current and potential distribution and abundance of SAV; (2) protection of existing SAV; (3) SAV restoration and enhancement; (4) public education and involvement; (5) research; and (6) implementation. The background information, policies and recommended actions have been updated based on emerging issues and new information released over the past 20 years. A summary of SAV initiatives conducted by the Commission's state and federal partners is also included in this updated policy. The policy can be found here – http://www.asmfc.org/files/Habitat/HMS15_SAV_PolicyUpdate.pdf.

For more information on SAV, visit the Commission website at <http://www.asmfc.org/habitat/hot-topics> or contact Dr. Lisa Havel, Habitat Committee Coordinator, at lhavel@asmfc.org.



Photos from top to bottom: Winter flounder in eel grass © Chris Pickerel, Cornell Cooperative Extension; Peconic bay scallops (*Argopecten irradians*) inhabiting transplanted eelgrass © Kimberly Manzo, Cornell Cooperative Extension; and Lady crab (*Ovalipes ocellatus*) in eelgrass © Kimberly Manzo, Cornell Cooperative Extension

Federal Funding for 2019 Advances in U.S. House of Representatives

On May 17th, the U.S. House of Representatives Committee on Appropriations approved its Fiscal Year 2019 Commerce, Justice, and Science (CJS) Appropriations Bill on a vote of 32-19. The bill funds the Department of Commerce, NOAA and the National Marine Fisheries Service.

Similar to last year, President Trump identified a number of fisheries conservation and research programs for elimination. These include Interjurisdictional Fisheries Act grants, Sea Grant, Coastal Zone Management grants, and the National Estuarine Research Reserve System. Additionally, the President is seeking to eliminate Joint Enforcement Agreement (JEA) funding in Fiscal Year 2019. JEAs provide federal funding to state law enforcement agencies to enforce federal regulations. The House Appropriations Committee has rejected all of these proposals put forward by President Trump.

The Committee Report accompanying the CJS Appropriations bill contains instructions for two ASMFC-managed species. NOAA is

explicitly instructed to continue the Mid-Atlantic horseshoe crab trawl survey in 2019 and review the federal moratorium on Atlantic striped bass. Other topics addressed in the Committee Report include the Marine Recreational Information Program, Fishery Information Networks, lionfish, SEAMAP, and the oyster restoration program in the Chesapeake Bay. The bill text and Committee Report can be read in their entirety by visiting <https://appropriations.house.gov/>.

The Senate Committee on Appropriations is expected to consider and approve its Fiscal Year 2019 CJS Appropriations bill during the week of June 11th. Members of both the upper and lower Chamber intend to send as many of the 12 annual spending bills as possible to the President before the August recess. Fiscal Year 2019 begins on October 1, 2018.

H.R. 5248/S. 2764 – the Sustainable Shark Fisheries and Trade Act

The Sustainable Shark Fisheries and Trade Act replaces controversial legislation to ban the sale of all shark fins in the U.S. H.R. 5248 and S. 2764 require the Secretary of Commerce to establish a certification program for importing shark products into the U.S. To gain certification, a nation must enact and enforce shark conservation and management programs comparable to those of the U.S., and explicitly prohibit shark finning. The Secretary may grant partial certifications for individual shark species. Certifications must be renewed every three years. Finally, the bill requires the Secretary of Commerce to include rays and skates in the Seafood Traceability Program for imported fish.

The House Natural Resources Subcommittee on Water, Power and Oceans convened a legislative hearing for H.R. 5428 on April 17th; and the Senate Committee on Commerce, Science, and Transportation advanced S. 2764 out of committee on May 22nd. For more information, please contact Deke Tompkins, Legislative Executive Assistant, at dtompkins@asmfc.org.

National Oceanic and Atmospheric Administration (in \$ thousands)					
	2016 Enacted	2017 Enacted	2018 Enacted	2019 Trump	2019 House
Fisheries Science and Management					
Fisheries and Ecosystem Science Programs and Services	139,489	139,489	144,196	141,185	144,196
Fisheries Data Collections, Surveys and Assessments	163,271	164,000	164,749	156,558	165,249
Observers and Training	43,655	43,655	53,955	43,768	43,955
Fisheries Management Programs and Services	115,995	117,051	118,659	112,598	112,643
Aquaculture	6,300	9,300	15,000	9,327	15,000
Salmon Management Activities	31,500	33,500	35,500	31,524	37,000
Regional Councils and Fisheries Commissions	33,470	34,254	35,871	34,495	37,000
Interjurisdictional Fisheries Grants	3,000	3,004	3,004	0	3,500
Enforcement	69,000	69,000	69,073	51,495	70,000
Habitat Conservation and Restoration	61,408	52,524	53,384	47,919	54,000
Other					
National Sea Grant College Program	64,000	63,000	65,000	0	68,500
Marine Aquaculture Program	9,000	9,500	11,500	0	11,500
National Estuarine Research Reserve System	23,000	23,500	25,000	0	27,000

FISHERY MANAGEMENT ACTIONS continued from page 6

Addendum XXX. The appeal argued the Board's action under Addendum XXX incorrectly applied technical data and was inconsistent with the Summer Flounder, Scup and Black Sea Bass Fishery Management Plan. After reviewing the appeal, Commission Leadership agreed there was adequate justification to bring portions of the appeal forward to the ISFMP Policy Board.

During the ISFMP Policy Board's deliberations regarding consideration of the appeal, a potential management program for the 2018 black sea bass recreational fishery was presented to replace the allocations specified in Addendum XXX. The revised management program was developed to meet the needs of the Northern Region without impacting the remaining states, while still constraining harvest to the 2018 recreational harvest limit of 3.66 million pounds.

For more information, please contact Caitlin Starks, Fishery Management Plan Coordinator, at cstarks@asmfc.org or 703.842.0740.



Photo © Steve Withuhn

AAE continued from page 1

advocate of a harvester tagging program to improve tracking of fish in commerce, thereby addressing a longstanding poaching problem in the fishery.

Having spent much of his career working on science and management of the lobster fishery, there are few who are more passionate and dedicated to this species. As Chair of the American Lobster Management Board, Mr. McKiernan skillfully led the Board through difficult deliberations regarding the findings of the 2015 benchmark assessment and the future management of the species. In response to the decline of the Southern New England stock, Mr. McKiernan was integral to right-sizing the industry in Lobster Conservation Management Areas 2 (inshore Southern New England) and 3 (offshore waters) to the abundance of the resource. This was accomplished through trap reductions over a six-year period.

Mr. McKiernan understands that on-the-water experience and talking to fishermen are critical components of any fisheries manager job. That is why he has spent considerable time on fishing vessels acquiring the hands-on knowledge and perspective necessary to understand and respect fishermen's views. Throughout his career, Mr. McKiernan has been a proponent of working with the fishing industry to understand their unique perspective, get advice about management issues, and engage them in cooperative fisheries research.

Science, Technical & Advisory Contributions

Dr. Larry Jacobson, formerly with NOAA Fisheries Northeast Fisheries Science Center

Dr. Larry Jacobson has greatly advanced the scientific understanding of American lobster biology through his contributions on the Commission's American Lobster Stock Assessment Subcommittee. In 2004, Dr. Jacobson was one of the lead model developers for the Lobster Model Technical Review. He played an important role in shifting away from the historical Delury stock assessment model to the current statistical length-based approach developed by Dr. Yong Chen. Dr. Jacobson's extensive knowledge in population dynamics and statistics, combined with his model programming skills, were invaluable during this transition and the continued development of Dr. Chen's assessment model.

During the 2015 lobster assessment, Dr. Jacobson took over the assessment responsibilities for the Gulf of Maine stock. Under his leadership, the assessment model was substantially improved to incorporate spatial dynamics within a stock and show changes in climate and stock productivity. These improvements allowed for accurate modeling of the Southern New England stock decline, as well as the rapid increase in the combined Gulf of Maine/Georges Bank stocks. The 2015 lobster assessment could not have been completed in a timely fashion without Larry's skill and commitment.

Dr. Jacobson's willingness to step into a leadership role when needed, his commitment to seeking out and using the best scientific methods available, and his dedication to sharing his knowledge of lobster biology and stock dynamics with his colleagues are several reasons why American lobster is one of our best understood marine species.

Law Enforcement Contributions

Colonel Kyle Overturf, Connecticut Environmental Police

Colonel Kyle Overturf exemplifies the lifelong commitment and spirit of public service that is common among his natural resource enforcement peers. Growing up hunting and fishing, Colonel Overturf learned the "game warden" lifestyle firsthand from his father, who served 25 years with Connecticut's Environmental Police.

Colonel Overturf began his law enforcement career in 1986, serving as a Conservation Enforcement Officer in the Central Marine Sector for the State Environmental Police. Progressing through his career, Colonel Overturf was promoted to Sergeant, then to

continued, see AAE on page 10

Comings and Goings

COMMISSIONERS



PETER AARRESTAD

In April, Peter Aarrestad, Director of the Fisheries Division for the Connecticut Department of Energy and Environmental Protection (CT DEEP), became Connecticut's

Administrative Commissioner to the ASMFC. Peter has worked for CT DEEP in fisheries programs since 1987. He was Director of the Inland Fisheries Program for many years and recently became Director of the Fisheries Division, which has included both marine and inland programs since 2017. Welcome, Peter!



MARK ALEXANDER

On April 1st, with his retirement from CT DEEP, Mark Alexander stepped down as Connecticut's Administrative Commissioner. Mark served as Commissioner since 2017 and as

Connecticut's administrative proxy since 2008. For many years prior to 2008, Mark participated on the Commission's Management and Science Committee, and was both a member and Chair of ACCSP's Coordinating Council. Mark was also a longstanding member of the New England Fishery Management Council. We wish Mark a long, healthy, and happy retirement.



CATHY DAVENPORT

On April 27th, the Commission was notified that Cathy Davenport would no longer be serving as the Commonwealth's Governor Appointee. Cathy served in that position for nearly two decades, representing

several governors and working with many VMRC Commissioners from Bill Pruitt to Steve Bowman. Over that time, she faithfully represented the interests of Virginia's commercial fishing industry. We are grateful for Cathy's longstanding commitment to the Commission and wish her the very best in all her future endeavors.

continued, see COMINGS & GOINGS on page 10

Eastern District Supervisor in Recreational Law Enforcement. He later went on to serve as Captain and Commander of the State's Western and Marine Districts. In recognition of his leadership and professionalism, Colonel Overturf was promoted to Colonel in 2010 and continues to lead the Connecticut Environmental Conservation Police as Director.

That leadership and professionalism has been reflected in Colonel Overturf's work throughout his career, where he has focused on the mentoring, instruction and professional development of fellow marine and conservation officers. Colonel Overturf has served as an instructor at the Connecticut Police Academy and currently serves as an Adjunct Instructor at the University of Connecticut, where he teaches Conservation Law Enforcement. He has been a leader in resource conservation at regional and national levels, serving in the National Association of Conservation Law Enforcement Chiefs, including as President of the Northeast Association of Chiefs. He supported the development of an enforcement group within the Association of Fish and Wildlife Agencies, and for many years has been a positive presence on the Commission's Law Enforcement Committee. Colonel Overturf served as Law Enforcement Committee Chair from 2011-2013.

Reflecting his concern for professional development and training in the field of marine and conservation enforcement, Colonel Overturf has been a staunch advocate and supporter of a nationwide Conservation Law Enforcement Leadership Academy, administered through the National Association of Conservation Law Enforcement Chiefs and with support from the United States Fish and Wildlife Service. He serves on the Academy Steering Team and was a member of the first graduating class in 2014. He actively encourages and supports future leaders through this program, carrying on a tradition of care and passion for protecting all our natural resources that was bestowed on him by his father.

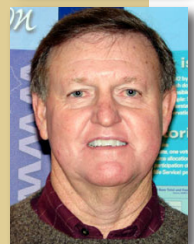
RACHEL DEAN

In March, Rachel Dean stepped down as Maryland's Governor Appointee to refocus her efforts on a number of fronts, including teaching English at Patuxent High School, operating Solomons Island Heritage Tours, and commercially fishing and co-owning Patuxent River Seafood. We are grateful for Rachel's contributions these past two years and wish her and her family the very best!



RUSSEL DIZE

No stranger to the Commission, having served as legislative proxy from 2002 to 2015, Russel Dize rejoins us as Maryland's Governor Appointee. He has a long history as a waterman, working the waters of Talbot County and the Chesapeake Bay since 1959. Now retired from commercial fishing, Russell owns and operates the charter boat *Riley Kat*. Welcome back, Russell!



STAFF

SARAH MURRAY

In late April, Sarah Murray joined the Commission staff as its new Fisheries Science Coordinator. As Coordinator, Sarah is the staff lead for a number of science committees, including the Assessment Science Committee, the Management & Science Committee, and the Committee on Economics and Social Sciences. She will also coordinate the activities of the South Atlantic component of the Southeast Area Monitoring and Assessment Program, the Northeast Area Monitoring and Assessment Program, the Ecological Reference Points Work Group and the Risk & Uncertainty Policy Work Group. Sarah will serve on the ACCSP Biological Review and Bycatch Prioritization Panels.



Sarah completed a dual master's degree from American University in Natural Resources and Sustainable Development and International Affairs. Her studies included an internship in Costa Rica sampling fisheries and conducting a survey on social capital in the fishing community. Before joining the Commission, Sarah conducted research on the Galician octopus fishery as a Fulbright Researcher in Spain. She also worked at the Seacoast Science Center in New Hampshire and the National Oceanographic Partnership Program in DC. Welcome, Sarah!

AMY PAQUETTE

In May, Amy Paquette began her summer internship helping with the data capture process for the Access Point Angler Intercept Survey (APAIS) of the Marine Recreational Information Program (MRIP) along the Atlantic coast, primarily scanning and OCR verification.



Amy completed a B.S. in Coastal Studies from the University of Connecticut and a M.S. in Environmental Law and Policy with Vermont Law School. She has been helping CT DEEP as an APAIS interviewer and entering commercial fisheries logbooks. She has interests in both data management and supporting fisheries management and policy. Welcome, Amy!

MIKE RINALDI

After spending last summer with the APAIS team as a Seasonal Scan Technician, Mike Rinaldi has joined the ACCSP's Data Team as its new Fisheries Data Coordinator. In his new role, Mike works with ACCSP Partners and staff to provide support for data activities. He also provides quality control and monitoring for Partner data feeds and the ACCSP data management systems.



Mike holds two Bachelors degrees, one in Political Science and one in Marine Affairs, and a Master's degree in Marine Affairs, all from the University of Rhode Island. While studying for his Master's, Mike worked as an ArcGIS research and teaching assistant supporting marine spatial planning. He then went on to work in commercial aquaculture and as a Marine Specialist at TruWeather Solutions before joining ACCSP. Welcome, Mike!

States Seek Input on American Eel Draft Addendum V

Throughout May and into June, Atlantic coastal states from Maine through Florida are conducting hearings to gather public input on Draft Addendum V to the American Eel Fishery Management Plan. The Draft Addendum, released in May for public comment, considers a number of potential modifications to the current management program. These include changes to the coastwide cap, management triggers, state-by-state allocations, and quota transfer provisions for the yellow eel commercial fishery; as well as to the current Maine glass eel commercial quota and the aquaculture provisions of the plan.

Currently, the yellow eel fishery is managed to an annual coastwide landings cap (referred to as the coastwide cap) of 907,671 pounds and evaluated against two management triggers: (1) the coastwide cap is exceeded by more than 10% in a given

year; or (2) the coastwide cap is exceeded in two consecutive years, regardless of the percent overage. If either of these triggers are met, state-by-state quotas are required to be implemented. 2016 landings exceeded the coastwide cap by less than 10%. If landings in 2017 exceed the coastwide cap, state-by-state quotas will need to be implemented. These current management provisions are concerning to some jurisdictions given uncertainty in the landings data.

If approved, changes to the current management program would be implemented for use in the 2019 fishing season. Since the four management issues related to the yellow eel fishery are linked (e.g., coastwide cap, management trigger, state-by-state allocations, quota transfers), the public is encouraged to specify their preferred alternatives for each issue.

The Draft Addendum is available at http://www.asmfc.org/files/PublicInput/AmEelDraftAddendumV_PublicComment_April2018revised.pdf or on the Commission website, www.asmfc.org, under Public Input. Fishermen and other interested groups are encouraged to provide input on the Draft Addendum either by attending state public hearings or providing written comment. Public comment will be accepted until 5:00 PM (EST) on June 15, 2018 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 comments@asmfc.org (Subject line: Draft Addendum V).

Final action on the Addendum is scheduled to occur at the Commission's Summer Meeting. For more information, please contact Kirby Rootes-Murdy at krootes-murdy@asmfc.org or 703.842.0740.

In the News: Maine's Elver Fishery Shuts Down, Charges Pending for Illegal Sales

On May 23rd, the Maine Department of Marine Resources (ME DMR) announced that it would be shutting down the elver fishery two weeks early, on May 24 at 6:00 a.m. The closure, done through emergency rulemaking, is being implemented because of illegal sales which jeopardize the department's ability to manage the fishery.

An investigation by the Maine Marine Patrol revealed that some Maine elver dealers were paying a cash amount that was substantially less than the per pound price for elvers that were harvested and accounted for through the state's swipe card system. The investigation is on-going and charges will be filed against dealers and harvesters who bought and sold elvers without using the state's swipe card system. The swipe card system records the weight and value of each sale, allowing the state to ensure that harvesting does not exceed individual and overall state quotas.

The state's overall quota is set by the Atlantic States Marine Fisheries Commission (ASMFC), and individual quotas that add up to the overall quota are established by the state.

The value and weight of the illegally harvested and sold elvers were not recorded with the swipe card system and not accounted for in the Department's quota management system. The swipe card system was established in 2014 to allow DMR to obtain accurate, timely information on the amount of elvers landed and sold in Maine, and has been key in the state's ability to comply with the overall quota requirement.

"This is a fishery that stood to net Maine license holders nearly \$24 million this year, and now because of the greed of some dealers and harvesters, I am obligated to cut that opportunity short," said ME DMR Commissioner Patrick Keliher.

As of May 22nd, 9,090.629 pounds of the state's 9,688-pound quota had been sold legally, using the swipe card system.

"We believe that if the illegal sales had been recorded, the 2018 elver quota would have already been exceeded," said Commissioner Keliher. "For this reason, an immediate closure of the fishery, done through emergency rulemaking, is necessary to prevent depletion of the elver resource, caused by exceeding the 2018 elver fishing quota.

"The future of this lucrative fishery is now in question," said Commissioner Keliher. "We clearly have to consider additional measures to ensure that Maine can remain compliant with ASMFC, that we can continue to protect our state's valuable marine resources, and that we can hold accountable anyone who chooses to squander the opportunity those resources represent."

Under the regulation, licensed harvesters may not fish for or take elvers after 6:00 a.m. on May 24, but may possess and sell elvers until noon on May 24. Licensed dealers may purchase elvers until noon on May 24, and may possess legally purchased elvers until 6:00 a.m. on May 29.

While the stock assessment indicated that the mortality rate is sustainable on a coastwide basis, estimates of total mortality for each DPS are more uncertain due to low sample sizes. The Gulf of Maine and Carolina DPS are most likely to have mortality rates exceeding sustainable levels.

Efforts to assess the status of Atlantic sturgeon are still hampered by a lack of data. Atlantic sturgeon are not well monitored by existing fishery-independent data collection and bycatch observer programs, and landings information is nonexistent after 1998 due to implementation of the coastwide moratorium. Better information on population trends, especially at the DPS level, is a high priority. More work is needed to establish reliable indices of abundance for spawning populations and juveniles. The assessment recommended observer programs that monitor bycatch should be expanded to include more estuarine waters and to increase the number of trips and gears covered in order to improve estimates of bycatch. In addition, ship strikes may be a significant source of mortality for some DPSs, and more data are needed to quantify the numbers of Atlantic sturgeon killed by ship strikes each year. Tagging data provide important information on current mortality rates. It is critical to maintain and support current networks of acoustic receivers and acoustic tagging programs, and expand the programs in underrepresented DPSs to improve the estimates of total mortality.

Atlantic Coastal Management

Despite the genetic differences between Atlantic sturgeon in each of the five DPSs, the Commission manages the species as a single coastwide population. Atlantic sturgeon is managed through Amendment 1 to the Interstate Fishery Management Plan for Atlantic Sturgeon



Atlantic sturgeon being measured as part of a Cooperative Federal/State/ Industry Atlantic Sturgeon Bycatch Reduction Survey. Photo © ASMFC.

(July 1998) and its subsequent addenda (Addendum I – IV). The primary measure of Amendment 1 is the implementation of a coastwide moratorium, prohibiting the take, harvest, possession, harassment and/or other actions that may cause the species harm. Exemptions to the moratorium on possession may be obtained for scientific research and educational display, and several facilities culture Atlantic sturgeon for research and potential stocking efforts.

Endangered Species Listing

NOAA Fisheries has investigated whether Atlantic sturgeon should be listed under the Endangered Species Act (ESA) several times since the Commission instituted a moratorium on the species in 1998. The first three status reviews, in 1998, 2005, and 2007, all concluded that listing was not warranted. The 2007 review additionally identified the five DPSs recognized today. The last status review, initiated in 2009, declared the Gulf of Maine DPS threatened and the remaining four DPSs (New York Bight, Chesapeake Bay, Carolina and South Atlantic) endangered (the ESA listing became effective in April 2012). The Status Review determined the most significant threats to the species are bycatch mortality, poor water quality, lack of adequate state and/or federal regulatory mechanisms,

and dredging activities. Additional stressors include habitat impediments and ship strikes. In December 2013, NOAA Fisheries published an Interim Final 4(d) Rule for the threatened Gulf of Maine DPS, which provides essentially the same protection as an endangered listing.

In August 2017, NOAA Fisheries designated critical habitat for Atlantic sturgeon. This is required for any species listed as threatened or endangered under the ESA, and indicates areas within the species' range that have physical or biological features necessary to the species' survival and recovery, or that may require additional

management considerations. 3,968 miles of coastal river habitat was included in the critical habitat designation. With this action, federal agencies funding or conducting activities that may affect the critical habitat are now required to consult NOAA Fisheries on how to best minimize impacts before starting those projects.

Next Steps for Management

Although the lack of historical data remains an issue, it is important to note there has been a tremendous amount of new information about Atlantic sturgeon collected in recent years, which helps stock assessment scientists and fisheries managers in their efforts to monitor stocks of Atlantic sturgeon and work towards its restoration. The Commission's Atlantic Sturgeon Management Board 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).

For more information, please contact Max Appelman, FMP Coordinator, at mappelman@asmfc.org.



FY19 Proposals Due June 11

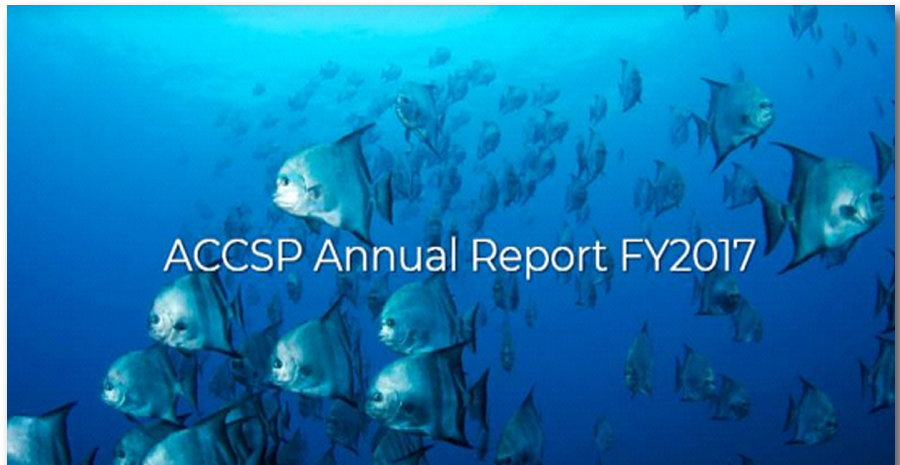
Over the past 19 years, Atlantic Coastal Cooperative Statistics Program (ACCSP) funds have supported more than 100 unique fisheries data collection and processing projects conducted by our state and federal partners and committees.

On May 7th, ACCSP issued its request for proposals to program partners and committees for FY19 funding. Project proposals are evaluated based on their potential to help meet ACCSP goals. These goals, listed in order of priority, are improvements in:

- 1a. Catch, effort, and landings data (including licensing, permit and vessel registration data);
- 1b. Biological data (equal to 1a.);
2. Releases, discards and protected species data
3. Economic and sociological data

Project activities that will be considered according to priority may include:

- Partner implementation of data collection programs
- Continuation of current Program funded partner programs
- Funding for personnel required to implement Program related projects/proposals



2017 ACCSP ANNUAL REPORT NOW AVAILABLE

The ACCSP has released its 2017 Annual Report. Highlights include:

- More than 100 custom data requests fulfilled by the Data Team
- eTrips/Mobile used to help the for-hire industry move toward census reporting
- Redesign of SAFIS initiated
- 10% increase in APAIS intercepts over 2016
- SAFIS API created to support seafood traceability
- Priorities for improving Atlantic recreational data identified

This year, the report is provided in a digital, responsive format that can be accessed on your computer, tablet, or phone. A PDF version of the digital report will be made available at a later date.

- Data management system upgrades or establishment of partner data feeds to the Data Warehouse or Standard Atlantic Fisheries Information System.

Projects in areas not specifically addressed may still be considered for funding if they help achieve Program goals. For further guidance, please see the supporting materials provided at <http://www.accsp.org/funding>.

Proposals should be submitted by June 11, 2018 to Mike Cahall, ACCSP Director, at mike.cahall@accsp.org and Ali Schwaab, Program Manager, at alexandra.schwaab@accsp.org.

Reminder: FY19 will be the final year of full funding for some maintenance projects. Maintenance projects that have been funded for four or more years will receive a funding cut of 33% in FY20.

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.

Deke Tompkins & Cecilia Butler Named Employees of the Quarter



Each quarter, the Commission honors an individual who has made notable contributions to the Commission's mission, vision, programs and activities. Deke Tompkins, Legislative Executive Assistant, and Cecilia Butler, Human Resources Coordinator, were named Employees of the Quarter for the first and second quarters of 2018, respectively.

Since joining the Commission staff in March 2013, Deke Tompkins has proven to be a valuable addition. His outstanding efforts to support the Commission's legislative activities have resulted in an increased and effective presence on Capitol Hill. Deke's prior experience as a legislative staffer has enabled the Commission to develop and foster relationships with many congressional offices and appropriations staff that are important to Atlantic states. In turn, these relationships have helped to build strong support for the work of the Commission and the states to sustainably manage Atlantic coast fisheries. For the past five years, Deke has worked closely with the Legislative and Governor-appointed Commissioners to ensure they have opportunities to engage with legislators on Capitol Hill, as well as maintain their important role in the Commission. Further, his relaxed attitude and willingness to work with others makes him a great member of the Commission staff. Always willing to pitch in on other projects, Deke is a constant contributor to newsletter articles, speeches, correspondence, and outreach materials, including oversight of the Commission's social media presence.

With the birth of his baby boy Peter "Striper" Tompkins in April, Deke moves into the new role of father, a role at which we know he will excel.

Cecilia Butler, a 15-year veteran of the Commission, first joined the staff as an Administrative Assistant, providing support to the ISFMP. In 2006, Cecilia was promoted to Human Resources (HR) Coordinator to address the needs of a growing staff under expanding Atlantic Coastal Fisheries Cooperative Act responsibilities. In 2016, to address the increasing demand by the states to hire part-time seasonal employees to conduct the Access Point Angler Intercept Survey portion of the Marine Recreational Information Program, Cecilia was joined by an HR Specialist. With the HR Specialist's recent departure, Cecilia fully and gracefully assumed the responsibilities of two full-time employees without missing a beat. Over the past few months and throughout her entire tenure at the Commission, Cecilia has enthusiastically and untiringly contributed to the success of the Commission and the well-being of its staff. She is a great team player, seeking assistance from co-workers where responsibilities overlap. She shows great initiative, anticipating needs and acting without direction. Lastly, she consistently demonstrates her keen attention to detail, her commitment to completing work ahead of schedule, and her dedication, concern, and commitment to providing the best support to the staff.

Both Deke and Cecilia epitomize the qualities for which the Employee of the Quarter was established: teamwork, initiative, responsibility, quality of work, and positive attitude. As Employee of the Quarter, they both received a cash award and a letter of appreciation to be placed in their personal record. In addition, their names are on the Employee of the Quarter plaque displayed in the Commission's lobby. Congratulations, Deke and Cecilia!



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

August 1, 2018

MEMORANDUM

TO: Marine Fisheries Commission

FROM: Chris Batsavage, Protected Resources Section Chief/Special Assistant for Councils

SUBJECT: Mid-Atlantic Fishery Management Council Meeting Summary—June 5-7, 2018

The Mid-Atlantic Fishery Management Council met on Jun. 5-7 in Philadelphia, PA. Highlights of the management actions taken by the council are discussed below:

Summer Flounder Commercial Issues Amendment

The council approved a Draft Environmental Impact Statement for the Summer Flounder Commercial Issues Amendment. The management issues addressed in this amendment are permit requalifying criteria, state commercial quota allocations, and framework provisions for commercial landings flexibility. Public hearings on the draft amendment are tentatively scheduled to begin in September, with the North Carolina hearing being held in Washington, NC.

Estimating and Reducing Black Sea Bass Discard Mortality

Dr. Douglas Zemekis from Rutgers University presented results from a research on recreational black sea bass release mortality. The research focused on the deep water (45-80 meters) fishery during the fall and winter to determine factors leading to release mortality. Deflating the distended swim bladders and the time it took to land a fish were among the most significant factors for predicting mortality, and the discard mortality estimates from the study suggest a higher mortality rate from the deep water recreational fishery than what is assumed for the overall recreational fishery (15 percent) in the black sea bass stock assessment.

Aquaculture in the Northeast

Kevin Madley, Aquaculture Coordinator for NOAA Fisheries Greater Atlantic Regional Fisheries Office, presented an overview on current trends in global aquaculture production, aquaculture operations in the Atlantic Ocean federal waters, and U.S. research and innovation in aquaculture. The development of aquaculture in federal waters is an important topic among many of the federal fishery management councils, and the Mid-Atlantic Council is expected to have more presentations and discussions to determine the appropriate management response.

Upcoming Meeting

The next regularly scheduled meeting of the Mid-Atlantic Fishery Management Council will be August 13-16, 2018 at the Hilton Virginia Beach Oceanfront in Virginia Beach, VA.





June 2018 Council Meeting Summary

June 5 - 7, 2018

Philadelphia, PA

The following summary highlights actions taken and issues considered at the Mid-Atlantic Fishery Management Council's June 2018 meeting in Philadelphia, PA. Presentations, briefing materials, and webinar recordings are available on the Council website at www.mafmc.org/briefing/june-2018.

Surfclams and Ocean Quahogs

Excessive Shares Amendment

The Surfclam and Ocean Quahog Committee met to review the draft recommendations on alternatives for the [Excessive Shares Amendment](#) developed by the Fishery Management Action Team (FMAT) (available [here](#)). The Committee recommended an additional alternative to be added to the set of alternatives developed by the FMAT and instructed the FMAT to continue development of the alternatives for inclusion in the Public Hearing Draft. The Surfclam and Ocean Quahog Advisory Panel (AP) members will have an opportunity to comment on the Public Hearing Draft before the Council meets again to approve this document for public hearings.

2019 Specification Review

Next year the surfclam and ocean quahog fisheries will be in the second year of multi-year specifications previously set for the 2018-2020 fishing years. The Council reviewed updated catch and landings information for both stocks, as well as recommendations from staff, the surfclam and ocean quahog AP, and the SSC, and determined that no changes are warranted. The Council also voted to recommend suspending the minimum shell length for surfclams in 2019. These specifications are described in detail in the final rule published February 6, 2018:

<https://www.federalregister.gov/documents/2018/02/06/2018-02321/fisheries-of-the-northeastern-united-states-atlantic-surfclam-and-ocean-quahog-fishery-2018-2020>

Atlantic Mackerel Closure Framework

The Council met for a second meeting to discuss and take final action on the [Atlantic Mackerel Closure Framework](#). This framework was initiated in April 2018 in response to concerns about the possible effects of an Atlantic mackerel closure on the herring fishery. Currently, the Atlantic mackerel fishery is projected to reach 100% of its quota at some point in late 2018. Under current regulations, a zero-possession limit will take effect once the quota is reached. During this meeting, the Council voted to recommend that NOAA Fisheries implement a 5,000 pound trip limit when 100% of the commercial quota is reached. This limit appears likely to minimize negative impacts from a zero-possession limit on the Atlantic herring fishery while likely avoiding an ACL overage for the Atlantic mackerel fishery.

Chub Mackerel Amendment

The Council received an update on the [Chub Mackerel Amendment](#) and reviewed a fishery performance report developed by the Mackerel, Squid, Butterfish (MSB) Advisory Panel. The Council also reviewed recommendations from the FMAT, the MSB Advisory Panel, and the MSB Committee regarding amendment goals and objectives and other issues being considered as part of this action. The Council approved two modifications to the draft goals and objectives recommended by the Committee. These goals and objectives will be included in a public hearing document.

Summer Flounder Commercial Issues Amendment

The Council approved a Draft Environmental Impact Statement (DEIS) for the [Summer Flounder Commercial Issues Amendment](#). The Council and Atlantic States Marine Fisheries Commission had previously approved a public hearing document at their [joint meeting in April 2018](#). The amendment DEIS will be submitted to NMFS for review, followed by public hearings tentatively scheduled to begin in September 2018.

Atlantic Herring Amendment 8

The New England Fishery Management Council (NEFMC) hosted a public hearing on Amendment 8 to the Atlantic Herring FMP. Amendment 8 addresses several goals: (1) To account for the role of Atlantic herring within the ecosystem, including its role as forage; (2) To stabilize the fishery at a level designed to achieve optimum yield; and (3) To address localized depletion in inshore waters. NEFMC staff presented an overview of the amendment and the alternatives being considered, followed by an opportunity for Council members and members of the public to provide oral comments. Additional information about this amendment is available on the NEFMC website at <https://www.nefmc.org/library/amendment-8-2>.

Regulatory Review

On July 7, 2017, NOAA published a notice on “Streamlining Regulatory Processes and Reducing Regulatory Burden,” which solicited public input on identifying existing regulations and processes that can be further streamlined consistent with law. During the meeting, the Council reviewed a list of regulations identified by staff that may be appropriate for streamlining. These include both general recommendations as well as FMP-specific regulations that appear outdated, unnecessary, and/or ineffective. After a brief discussion the Council approved the list of regulations recommended by staff for streamlining.

Presentations

Estimating and Reducing Black Sea Bass Discard Mortality

Douglas Zemeckis (Rutgers University) presented the results of a research project on black sea bass discard mortality. Funded by the Council’s 2016-2017 Collaborative Fisheries Research Program, this project aimed to estimate the discard mortality rate of black sea bass following capture with rod-and-reel fishing gear at a deepwater offshore shipwreck in the Mid-Atlantic and identify the capture-related factors that influence discard mortality.

Northeast Observer Program

The Council received an update on the Northeast Fisheries Observer Program from Amy Martins, Branch Chief of the Fisheries Sampling Branch with NOAA Fisheries Northeast Fisheries Science Center. The presentation included an overview of observer activities and accomplishments from the past year and upcoming activities in the current year.

NMFS Climate Strategy

Vincent Saba (NOAA Fisheries Northeast Fisheries Science Center) presented an overview of climate change research within NOAA’s Northeast Fisheries Science Center. Much of this work falls under the umbrella of the NOAA Fisheries Climate Science Strategy. Current research indicates that the Northeast shelf has warmed faster than most other coastal waters globally and that continued distribution shifts of valuable commercial species are highly likely. Future research will focus on incorporating climate variables into ecosystem models and evaluating the impacts of climate change to inform stock assessments and management. For additional information, visit:

<https://www.st.nmfs.noaa.gov/ecosystems/climate/national-climate-strategy>.

Mid-Atlantic Coastal Acidification Network Monitoring Plan

Sherilyn Lau (U.S. Environmental Protection Agency) presented on the Mid-Atlantic Coastal Acidification Network’s (MACAN) Draft Monitoring Plan. The plan highlights existing monitoring of ocean acidification, best available technology, and optimization to improve understanding of carbonate chemistry variability while monitoring in an efficient way. Following the presentation, Council members had an opportunity to ask questions and provide feedback on the draft plan.

Aquaculture in the Northeast

The Council received a presentation on aquaculture in federal waters from Kevin Madley, Aquaculture Coordinator for NOAA Fisheries Greater Atlantic Regional Fisheries Office. Mr. Madley provided an overview of current trends in global aquaculture production, aquaculture operations in the Atlantic exclusive economic zone (EEZ), and U.S. research and innovation in aquaculture. The presentation also covered different regional approaches to aquaculture management in the EEZ.

Next Council Meeting

Monday, August 13, 2018 – Thursday, August 16, 2018

Hilton Virginia Beach Oceanfront
3001 Atlantic Ave.
Virginia Beach, VA 23451
757-213-3000



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

August 16, 2018

MEMORANDUM

TO: Marine Fisheries Commission

FROM: Captain Carter Witten, Marine Patrol, Eligibility Board Chair

SUBJECT: Standard Commercial Fishing License Eligibility Pool Determination

An individual who does not hold a Standard Commercial Fishing License, but wants to purchase a license through the Division of Marine Fisheries, can apply to receive the license through the Eligibility Pool process. The application goes before a board which determines if the applicant is qualified based on criteria set out in rule. The number of licenses available in this pool is set annually by the commission.

Session Law 1998-225, Section 4.24(f) states that “the number of SCFLs in the pool of available SCFLs in license years beginning with the 2000-01 license year is the temporary cap less the number of SCFLs that were issued and renewed during the previous license year.” The temporary cap was set at the number of valid Endorsements to Sell as of June 30, 1999 (8,396 licenses), plus an extra 500 licenses to be included in the Eligibility Pool (8,896 total licenses).

In the 2016-2017 license year, the division modified the calculation used to determine the number of licenses available in the Eligibility Pool. This correction was made to prevent licenses already existing in the cap from being double counted and removed from the number of licenses remaining.

For the 2018-2019 license year, the number of licenses available through the Eligibility Board is 2,723. This number accounts for licenses issued in the 2017-2018 license year and the number of approvals from the Eligibility Board from 2017-2018 that still have the option to purchase a license before June 30, 2019. Individuals approved in the fall (September/October) must purchase their license by June 30 of the same license year, but those approved in the spring (March) have until June 30 of the following license year to purchase their license.

Session Law 1998-225, Section 4.24(f) also states “the Commission may increase or decrease the number of SCFLs that are issued from the pool of available SCFLs. The



Commission may increase the number of SCFLs that are issued from the pool of available SCFLs up to the temporary cap. The Commission may decrease the number of SCFLs that are issued from the pool of available SCFLs but may not refuse to renew a SCFL that is issued during the previous license year and that has not been suspended or revoked. The Commission shall increase or decrease the number of SCFLs that are issued to reflect its determination as to the effort that the fishery can support, based on the best available scientific evidence.”

In February 2016, as part of Amendment 4 to the Oyster Fishery Management Plan, the commission adopted a management strategy to pursue elimination of the Shellfish License for oysters only and require all oyster harvesters to have a Standard Commercial Fishing License or a Retired Standard Commercial Fishing License with a shellfish endorsement to harvest oysters commercially. Legislative action would be required to enact this recommendation; therefore, in October 2017, the harvest limits of oysters were modified by proclamation to establish specific harvest limits based on license type to satisfy management recommendations from Amendment 4 (SF-4-2017). Many Shellfish License holders, wanting higher harvest limits, have applied through the Eligibility Pool to obtain a Standard Commercial Fishing License, increasing the number of applications submitted to the Board. The number of applications received in the 2017–2018 license year increased by 135 percent from the 2016–2017 license year. From July 1, 2017 to June 30, 2018, the Eligibility Board received 97 applications and approved 84. So far, there are 6 pending applications for review at the fall Eligibility Board meeting. Calls to the division inquiring about applying through the Eligibility Pool are currently being received from shellfish fishermen on a daily basis.

In summary, there are 2,723 licenses available to the Eligibility Pool for the 2018–2019 license year. The commission needs to determine the number of licenses it wants to place in the pool for the upcoming year. Considerations the commission should keep in mind include:

- Statutory guidance that increasing or decreasing the number of licenses should reflect the commission’s determination as to the effort that the fishery can support, based on the best available scientific evidence;
- The average number of licenses issued by the Eligibility Board; and
- Number of fishermen displaying interest to the Division of Marine Fisheries in making the change from holding the Shellfish License to the Standard Commercial Fishing License with a shellfish endorsement to harvest higher limits of oysters in the upcoming oyster season.



**Eligibility Pool
Commission Report for 2018–2019
August 15–16, 2018**

How the Pool Number is Determined:

Session Law 1998-225, Section 4.24(f).

(f) Adjustment of Number of SCFLs. The number of SCFLs in the pool of available SCFLs in license years beginning with the 2000–01 license year is the temporary cap less the number of SCFLs that were issued and renewed during the previous license year. . .

Role of the Marine Fisheries Commission:

Session Law 1998-225, Section 4.24(f).

(f). . . The Commission may increase or decrease the number of SCFLs that are issued from the pool of available SCFLs. The Commission may increase the number of SCFLs that are issued from the pool of available SCFLs up to the temporary cap. The Commission may decrease the number of SCFLs that are issued from the pool of available SCFLs but may not refuse to renew a SCFL that is issued during the previous license year and that has not been suspended or revoked. The Commission shall increase or decrease the number of SCFLs that are issued to reflect its determination as to the effort that the fishery can support, based on the best available scientific evidence.

Temporary Cap:

The maximum number of SCFLs that can be issued is the number of valid Endorsements to Sell as of June 30, 1999 plus 500 for the first eligibility pool, for a total of 8,896.

Eligibility Board Pool Determination 2018–2019:

There are 2,723 SCFLs available through the Eligibility Board for the 2018–2019 license year.

Attachments:

2018–2019 Eligibility Pool Determination Calculations
FY2017 License Sales Report
Licenses Available and Approved Summaries
Eligibility Board Meeting Summary
Eligibility Board Open Files

Eligibility Pool Determination Calculations For 2018–2019 License Year

Below is the current calculation used to determine the number of licenses available in the Eligibility Pool. Corrections were made to this calculation in August 2016 to prevent licenses already existing in the cap from being double counted and removed from the number of licenses remaining.

Licenses removed from the cap in this calculation include the number of SCFLs and RSCFLs issued and renewed in the 2017–2018 license year as well as any Eligibility Board approvals from the spring meeting. Those approved by the Eligibility Board in the spring have until the following license year to purchase their SCFL. These licenses are subtracted from the pool because they represent potential licenses available for purchase.

Current calculation:

Total Number of SCFLs Available in 2018–2019 License Year (Data run date: 7/11/2017)

1) Total original SCFLs available (Cap).....	8,896
2) Less total number of SCFLs issued and renewed in 2017–2018.....	- 6,162
<hr/>	
3) Total number of SCFLs available in the pool for 2018–2019.....	2,734
4) Less total number of 2017–2018 approvals through Eligibility Pool not yet issued ^{1,2}	-11
<hr/>	
5) Total SCFLs available for the 2018–2019 license year	2,723

¹ Individuals approved in the spring (March) have until June 30 of the following license year (2019) to purchase their SCFL.

² Numerical value includes one SCFL reinstated by the NCDMF Director's approval

**North Carolina Division of Marine Fisheries
Commercial Licenses Sold by License Type
FY2018 License Year**

Data Run Date: 7/11/2018

Blanket For-Hire Captain's Coastal Recreational Fishing License:	115
Blanket For-Hire Vessel Coastal Recreational Fishing License:	566
Commercial Fishing Vessel Registration:	7,016
Fish Dealer License:	664
Land or Sell License:	131
License to Land Flounder from Atlantic Ocean:	156
NC Resident Shellfish License without SCFL:	775
Non-Blanket For-Hire Vessel License:	106
Ocean Pier License:	19
Recreational Fishing Tournament License:	27
Retired Standard Commercial Fishing License:	1,340
Standard Commercial Fishing License:	4,822
 TOTAL LICENSES FOR ALL LICENSE TYPES:	 15,737

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: right;">4,822</td> <td>SCFL</td> </tr> <tr> <td style="text-align: right;"><u>+ 1,340</u></td> <td>RSCFL</td> </tr> <tr> <td style="text-align: right;">6,162</td> <td>Total Number of SCFL's issued for FY2018</td> </tr> </table>	4,822	SCFL	<u>+ 1,340</u>	RSCFL	6,162	Total Number of SCFL's issued for FY2018
4,822	SCFL					
<u>+ 1,340</u>	RSCFL					
6,162	Total Number of SCFL's issued for FY2018					

**Licenses Available from the Eligibility Pool
Annual Summary**

License Year	Number of Licenses Available
1999–2000	500
2000–2001	1,314
2001–2002	1,423
2002–2003	1,458
2003–2004	1,421
2004–2005	1,423
2005–2006	1,536
2006–2007	1,596
2007–2008	1,562
2008–2009	1,557
2009–2010	1,507
2010–2011	1,420
2011–2012	1,375
2012–2013	1,358
2013–2014	1,368
2014–2015	1,257
2015–2016	1,238
2016–2017	2,417
2017–2018	2,592
2018–2019	2,723

**Licenses Approved and Denied by the Eligibility Pool Board
Annual Summary**

License Year	Approved	Denied
1999–2000	166	133
2000–2001	110	75
2001–2002	46	37
2002–2003	38	23
2003–2004	56	11
2004–2005	35	13
2005–2006	31	9
2006–2007	32	4
2007–2008	49	7
2008–2009	83	5
2009–2010	109	11
2010–2011	63	2
2011–2012	68	17
2012–2013	99	9
2013–2014	96	14
2014–2015	61	13
2015–2016	45	6
2016–2017	32	6
2017–2018	84	13
Totals	1,303	408

Eligibility Pool Board Meeting Summary

HEARING DATE	APPRVLS	DENIALS	TABLED **	TOTAL REVIEWED	INCOMP. ***	NON-RESIDENTS		
						TABLED	APPRV'D	DENIED
5/5/1999	2	0	2	4		0	0	0
5/19/1999	5	0	1	6		0	1	0
6/17/1999	2	5	3	10		0	0	0
7/1/98-6/30/99	9	5	6	20		0	1	0
7/7/1999	12	10	0	22		0	3	0
7/8/1999	23	25	0	48		0	7	0
07/15/1999 MFC	N/A	N/A	N/A	N/A		N/A	N/A	N/A
8/11/1999	18	20	4	42		0	3	0
8/27/1999	17	33	0	50		0	0	1
09/09/1999 MFC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/29/1999	18	11	1	30		0	0	0
11/3/1999	13	12	4	29		1	2	0
11/08/1999 MFC	N/A	N/A	N/A	N/A		N/A	N/A	N/A
1/26/2000	9	5	5	19		1	1	0
02/18/2000 MFC	N/A	N/A	N/A	N/A		N/A	N/A	N/A
4/19/2000	19	6	8	33		2	1	0
5/18/2000	18	3	9	30		2	0	1
6/7/2000	10	3	2	15		1	0	0
7/1/99-6/30/00	157	128	33	318		7	17	2
7/12/2000	11	1	4	16		0	2	0
7/21/2000 MFC	N/A	N/A	N/A	N/A		N/A	N/A	N/A
9/20/2000	24	15	7	46		0	1	0
10/27/2000	16	8	3	27		0	1	0
12/1/2000	5	16	2	23		0	0	0
1/24/2001	10	14	3	27		0	0	2
3/9/2001	12	12	8	32		0	0	0
4/4/2001	32	9	1	42		0	0	1
7/1/00-6/30/01	110	75	28	213		0	4	3
7/26/2001	18	10	2	30		1	3	0
08/21/2002 MFC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11/14/2002	12	15	3	30		0	2	1
2/21/2002	16	12	2	30		0	1	0
7/1/01-6/30/02	46	37	7	90		1	6	1
9/11/2002	28	14	6	48		1	2	0
08/19/2003 MFC	N/A	N/A	N/A	N/A		N/A	N/A	N/A
3/5/2003	10	9	1	20		0	2	0
7/1/02-6/30/03	38	23	7	68		1	4	0
08/19/2003 MFC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7/9/2003	16	3	1	20		0	2	0
11/4/2003	17	2	0	19		0	3	0
3/19/2004	22	6	0	28		0	2	0
6/22/2004	1	0	0	1		0	0	0
7/1/03-6/30/04	56	11	1	68		0	7	0
11/1/2004	22	4	1	27		0	0	0
2/28/2005	11	2	0	13		0	0	1
4/18/2005	2	7	0	9		0	0	0
7/1/04-6/30/05	35	13	1	49		0	0	1
9/27/2005	17	7	1	25		0	1	0
3/15/2006	14	2	2	18		0	1	0
7/1/05-6/30/06	31	9	3	43		0	2	0

HEARING DATE	APPRVLS	DENIALS	TABLED **	TOTAL REVIEWED	INCOMP. ***	NON-RESIDENTS		
						TABLED	APPRV'D	DENIED
10/4/2006	16	3	2	21		0	1	0
3/14/2007	16	1	2	19		0	1	0
7/1/06-6/30/07	32	4	4	40		0	2	0
9/10/2007	26	2	4	32		0	0	0
3/19/2008	23	5	3	31		0	0	0
7/1/07-6/30/08	49	7	7	63		0	0	0
9/30/2008	39	0	3	42		0	4	0
3/24/2009	44	5	1	50		0	3	0
7/1/08-6/30/09	83	5	4	92		0	7	0
10/6/2009	52	6	1	59		0	2	1
3/10/2010	36	2	1	39		0	1	0
6/2/2010	21	3	0	24		0	0	0
7/1/09-6/30/10	109	11	2	122		0	3	1
9/21/2010	40	2	1	43		0	2	0
3/24/2011	23	0	0	23		0	4	0
7/1/10-6/30/11	63	2	1	66		0	6	0
10/4/2011	39	7	0	46		0	2	0
3/15/2012	28	10	0	38		0	2	0
1/13/2012	1	0	0	1		0	0	0
7/1/11-6/30/12	68	17	0	85		0	4	0
9/12/2012	53	7	3	63		0	1	1
3/19/2013	46	2	4	52		0	2	0
7/1/12-6/30/13	99	9	7	115		0	3	1
9/18/2013	56	7	0	63		0	2	0
3/19/2014	40	7	1	48		0	0	0
7/1/13-6/30/14	96	14	1	111		0	2	0
09/17/2014	32	9	0	41		0	1	0
03/18/2015	25	3	5	33		1	0	0
05/12/2015	4	1	0	5		0	1	0
7/1/14-6/30/15	61	13	5	79		1	1	0
10/21/2015	16	4	1	21		0	3	0
03/23/2016	29	2	2	33		0	0	0
7/1/15-6/30/16	45	6	3	54		0	3	0
9/28/2016	17	3	2	22		0	0	0
3/16/2017	15	3	0	18		0	0	0
7/1/16-6/30/17	32	6	2	40		0	0	0
9/28/2017	44	9	0	53		0	1	0
11/1/2017	11	3	0	14		0	1	0
03/28/2018	29	1	0	30		0	3	0
7/1/17-6/30/18	84	13	0	97		0	5	0
TOTALS ALL	1,303	408	122	1,833		10	75	9

**TABLED files are presented again at the next Board meeting for a final decision of approval or denial and are then accounted for in the Approved or Denied categories. TOTAL REVIEWED does not equal total approved or denied because some files are reviewed in multiple meetings (tabled, etc.).

**Standard Commercial Fishing License Eligibility Pool Office
Summary of Open Files beginning July 1, 2018**

File Description	Total Number of Files
To be researched/ready for the next board meeting	6
New/being processed	0
Pending responses to letters mailed requesting more information	0
Incomplete – no response to letters	0
Total Open/Pending Applications	6



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

Aug. 1, 2018

MEMORANDUM

TO: Marine Fisheries Commission

FROM: Catherine Blum, Fishery Management Plan and Rulemaking Coordinator
Fisheries Management Section

SUBJECT: Fishery Management Plan Update

This memo describes the materials about fishery management plans for the August 2018 commission meeting. There are four items in this section; the first three are for information and the fourth is scheduled for the commission to take action. Each item is summarized below.

Status of Ongoing Plans

The first item is a three-page summary of the status of the fishery management plans. This is a document staff presents to the commission at each business meeting. The document provides background information on the authority and process for fishery management plans, as well as the status of each individual plan. Additionally, staff leads for plans currently under review or development will provide updates to the commission at the meeting.

Fishery Management Plan Review

The second item is a separate publication entitled “2017 Fishery Management Plan Review.” It is a compilation of annual updates about state-managed, federally-managed, and Atlantic States Marine Fisheries Commission-managed species for which there are fishery management plans for North Carolina. The updates are based on data through the previous calendar year. Staff provides the document to the commission annually at its August business meeting. It is a useful resource document, especially as a means of providing fishery management plan schedule recommendations based on the latest data. The document also provides a comprehensive list of research recommendations for all fishery management plans.

The Fishery Management Plan Review is an invaluable reference document for information about the latest status of fisheries occurring in North Carolina. The document is organized into two primary sections: state-managed species and interstate-managed species, including species managed by the Atlantic States Marine Fisheries Commission and federal fishery management councils. The latter section is further divided into species with and without North Carolina indices. If a species has a North Carolina index, it means that North Carolina data were used by the federal management councils or the Atlantic States Marine Fisheries Commission in their respective plans.

Each update in the Fishery Management Plan Review contains information about the:

- History of the plan;
- Management unit;
- Goal and objectives;
- Status of the stock;
- Status of the fishery, including current regulations and commercial and recreational landings;
- Monitoring program data, including dependent and independent monitoring;
- Management strategy;
- Research needs; and
- Recommendation on the timing for the next state plan review.

Streamlining Fishery Management Plan Documents

The third item will be a presentation on the division's efforts to streamline fishery management plan documents. It is important to note the efforts focus on changing the documents themselves, not the requirements of the process. Those requirements are set forth in state law and must continue to be met. The presentation provides an overview of the requirements for fishery management plans, roles and responsibilities of those involved in the process, the different forms the documents can take, what the plans must achieve, what the documents contain now, and why we are changing the documents.

Primarily, the division is focused on addressing stakeholder complaints about the process not being easy to follow and being perceived as delaying management actions, as well as the documents themselves being lengthy. The division is striving to have a more efficient fishery management plan, with improved understanding of the plan. A key objective to achieving this goal is to pinpoint management issues that are based on sustainability of the resource. Other issues, such as rule clarifications, user conflicts and outreach initiatives can be addressed outside of the fishery management plan process. Overall, the division wants fishery management plans to be more interesting, relevant and readable. The new streamlined fishery management plan document format more effectively disseminates to the public the rationale for the science-based management strategies.

Five-year Schedule

The final item in this section is the draft "Fishery Management Plan Review Schedule" presented for the commission's consideration and approval. This is an action item because it requires the commission's approval each year in accordance with General Statutes 113-182.1 and 143B-289.52. Upon the commission's approval, the final schedule will be forwarded to the secretary of the Department of Environmental Quality, also per statutory requirements, to assist the secretary in monitoring the progress in the development and adoption of fishery management plans.

Annual Fishery Management Plan Update
North Carolina Division of Marine Fisheries and Marine Fisheries Commission
Aug. 1, 2018

Authority and Process

The Fisheries Reform Act of 1997 and its subsequent amendments established the requirement to create fishery management plans for all of North Carolina's commercially and recreationally significant species or fisheries. The contents of the plans are specified, advisory committees are required, and reviews by the Department of Environmental Quality secretary, Joint Legislative Committee on Agriculture and Natural and Economic Resources, and legislative Fiscal Research Division are mandated.

The original 1997 legislation mandated the Blue Crab Fishery Management Plan be completed first. The Marine Fisheries Commission used the Division of Marine Fisheries' annual stock status review to prioritize the order of species that would be addressed in subsequent plans. All initial fishery management plans identified on the priority list have been developed. Fishery management plans normally take about two years to complete and are required to be reviewed at least once every five years. Upon review, amendment of a plan is required when changes to management strategies are necessary. An information update for a plan, which includes changes in factual and background data only, is completed if there are no management changes. The division and the Marine Fisheries Commission adopted an annual rule making cycle in 2009 to coincide with rulebook production, increase efficiency in rule making processes, and consolidate efforts in the development of fishery management plans and the associated implementing rules.

Status of State Fishery Management Plans

Three of 13 state plans are currently underway. These are reviews of the Blue Crab, Estuarine Striped Bass and Southern Flounder fishery management plans. A table indicating the 2018 schedule for the plan reviews is included at the end of the report. The Marine Fisheries Commission will vote on approval of the schedule at its August 2018 business meeting.

The next review of the **Blue Crab Fishery Management Plan** was scheduled to begin in 2018. In June 2016, management measures were implemented under the adaptive management framework adopted as part of Amendment 2. Due to continued stock status concerns, the Marine Fisheries Commission adjusted the schedule for the review of this plan at its August 2016 business meeting to begin immediately. A stock assessment was completed and determined the North Carolina blue crab stock is overfished (stock size is too small) and overfishing (excessive fishing mortality) is occurring. An advisory committee was formed and has been meeting to assist the division with development of Amendment 3 to the plan. Adaptive management measures will remain in place until the next amendment is adopted.

At its Aug. 18, 2016 business meeting, the Marine Fisheries Commission approved a motion to begin the review of the **Southern Flounder Fishery Management Plan** as soon as a valid stock assessment was available. Although data inputs used in the 2014 stock assessment of southern flounder in North Carolina waters were determined to be valid, the stock assessment could not be used to determine stock status because the southern flounder stock mixes throughout the South Atlantic (North Carolina to Florida.) As a result, a coastwide stock assessment for southern flounder was conducted and determined the stock is overfished (stock size is too small) and overfishing (excessive fishing mortality) is occurring. An advisory committee was formed and

has been meeting to assist the division with development of Amendment 2 to the plan. Supplement A to the Southern Flounder Fishery Management Plan Amendment 1 was approved in August 2017 to adopt temporary management measures to reduce the catch of southern flounder up to 60 percent. This was due to concerns about the sustainability of current harvest levels because of a coast-wide decline in the number of young fish entering into the stock since the 1990s. Per statute, the temporary management measures will be in place until the adoption of the next amendment.

The next review of the **Division of Marine Fisheries-Wildlife Resources Commission Joint Estuarine Striped Bass Fishery Management Plan** was scheduled to begin in 2018; however, staff from both state agencies recommended initiating the review in 2017 to address problems with striped bass reproduction in the Central Southern Management Area. The Marine Fisheries Commission approved this schedule change at its August 2016 meeting. At its August 2017 meeting, the Marine Fisheries Commission passed a motion to begin the review of the plan no earlier than 2019, contingent on a supplement being approved and implemented to adjust the recreational and commercial takes of the Central Southern Striped Bass, with the exception of the Cape Fear River system, by reducing the commercial takes from 25,000 pounds to 2,500 pounds and the recreational limit to 1 fish between 24 inches and 26 inches. The secretary did not grant the request and concluded “there is insufficient data and analysis currently in existence to change course” from the FMP process already underway. Stock assessments for the Central Southern Management Area stock and the Roanoke River Management Area stock that began in 2017 are continuing.

The **Striped Mullet Fishery Management Plan Amendment 1** was approved in November 2015 and implementing rules became effective April 1, 2016. The next review of this plan is scheduled to begin in 2020. Completion of the annual fishery management plan update in July 2017 for striped mullet showed 2016 commercial landings fell below the minimum landings trigger established in Amendment 1. There was also low abundance in division sampling programs. In accordance with the plan, the division reviewed striped mullet data in more detail to determine what factors are responsible for this decline. The review of the data included updating the 2013 stock assessment model with data through 2017 for better assessment of trends in the striped mullet fishery and striped mullet stock abundance. As an assessment update, there were no changes to model parameters and peer review was not required, as the configuration of the model that previously passed peer review was maintained. Results of the stock assessment update indicate overfishing is not occurring through 2017. Per the plan, management options were brought to the advisory committees and their input will be provided to the Marine Fisheries Commission at its August 2018 business meeting. At that meeting, the commission will be asked to decide on management options to be implemented via authority of adaptive management in the Striped Mullet Fishery Management Plan and proclamation authority of the Fisheries Director. Any changes to striped mullet management would be made as a revision to the existing plan.

The **Spotted Seatrout Fishery Management Plan** was adopted in February 2012 and scheduled for review in 2017. At the August 2017 Marine Fisheries Commission meeting, the Division of Marine Fisheries recommended the next review of the Spotted Seatrout Fishery Management Plan begin in 2018, one year later than originally planned. This was due to staff workload from the unscheduled review of the Blue Crab Fishery Management Plan, the early review of the Estuarine Striped Bass Fishery Management Plan and the review of the Southern Flounder

Fishery Management Plan. The 2014 stock assessment indicated that the spotted seatrout stock in North Carolina and Virginia was not overfished (stock size is adequate) and that overfishing (excessive fishing mortality) was not occurring in the terminal year (2012) of the assessment. Recreational and commercial landings for 2017 were at average levels compared to the past 10 years and there is no indication that the stock is at risk. At its August 2017 meeting, the Marine Fisheries Commission passed a motion to begin the review of the Spotted Seatrout Fishery Management Plan in 2019, resulting in a two-year delay in the start of the next review.

The Marine Fisheries Commission gave its final approval of the **Shrimp Fishery Management Plan Amendment 1** in February 2015 and the implementing rules became effective May 1, 2015. The next review is scheduled to begin in 2020, although the timing could be impacted by the North Carolina Wildlife Federation's petitioned rules.

The Marine Fisheries Commission gave its final approval of the **Bay Scallop Fishery Management Plan Amendment 2, and Division of Marine Fisheries-Wildlife Resources Commission Joint River Herring Fishery Management Plan Amendment 2** in February 2015 and the implementing rules became effective May 1, 2015 and June 13, 2016. The next reviews are scheduled to begin in 2020.

The **Fishery Management Plan for Interjurisdictional Fisheries Information Update** and the **Kingfishes Fishery Management Plan Information Update** were approved in November 2015. No change in management strategies was necessary, so the plans were updated with the most current factual and background data. The next review of these plans will begin in 2020.

The **Hard Clam Fishery Management Plan Amendment 2** and the **Oyster Fishery Management Plan Amendment 4** were approved in February 2017 and the implementing rules became effective May 1, 2017. The next reviews are scheduled to begin in 2022.

At its August 2017 business meeting, the Marine Fisheries Commission approved the Division of Marine Fisheries recommendation for the annual fishery management plan update to satisfy the review of Amendment 1 to the North Carolina **Red Drum Fishery Management Plan**. The Atlantic States Marine Fisheries Commission benchmark stock assessment for red drum was approved for management use in February 2017 and showed that management targets set forth by Amendment 2 to the Atlantic States Marine Fisheries Commission Red Drum Fishery Management Plan continue to be met. Thus, the Atlantic States Marine Fisheries Commission opted to keep all management and compliance requirements under Amendment 2 in place with no further action taken. The management targets of the state fishery management plan are consistent with Amendment 2 to the Atlantic States Marine Fisheries Commission plan, which requires that states not adopt a less protective management program than currently in effect. Stock conditions will be monitored and reported through each annual fishery management plan update. The next review of the plan will begin in 2022.

FISHERY MANAGEMENT PLAN REVIEW SCHEDULE (July 2018 – June 2023)					
Revised August 2018					
SPECIES (Date of Last Action)	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
BLUE CRAB (11/13)					
SOUTHERN FLOUNDER (2/13)					
ESTUARINE STRIPED BASS (5/13) *					
SPOTTED SEATROUT (2/12) **					
BAY SCALLOP (2/15)					
RIVER HERRING (2/15)					
SHRIMP (2/15)					
INTERJURISDICTIONAL (11/15)					
KINGFISHES (11/15)					
STRIPED MULLET (11/15)					
HARD CLAM (2/17)					
OYSTER (2/17)					
RED DRUM (8/17)					

* In preparation for the next review of the Estuarine Striped Bass Fishery Management Plan, stock assessments that began in 2017 for the Central Southern Management Area stocks and the Roanoke River Management Area stock are continuing.

** As part of its approval of the fishery management plan schedule at its August 2017 business meeting, the Marine Fisheries Commission directed the next review of the spotted seatrout plan will begin in 2019. The 2014 stock assessment indicated that the spotted seatrout stock in North Carolina and Virginia was not overfished (stock size is adequate) and that overfishing (excessive fishing mortality) was not occurring in the terminal year (2012). Recreational and commercial landings for 2017 were at average levels compared to the past 10 years and there is no indication that the stock is at risk.



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

August 1, 2018

MEMORANDUM

TO: Marine Fisheries Commission

FROM: Jason Rock, Blue Crab Species Lead
Corrin Flora, Blue Crab FMP Co-lead
Fisheries Management Section

SUBJECT: Blue Crab Traffic Light Update

Amendment 2 to the N.C. Blue Crab Fishery Management Plan adopted by the Marine Fisheries Commission in November 2013 incorporated the use of the traffic light stock assessment method and adaptive measures for management of the blue crab stock*. The current plan requires annual updates to the traffic light be presented to the commission as part of the Division of Marine Fisheries' annual Stock Overview.

The Blue Crab Traffic Light is divided into three separate characteristics: 1) adult abundance, 2) recruit* abundance, and 3) production. Each characteristic uses data from several division biological surveys and sampling programs to determine the relative abundance of adult and recruit blue crabs in the population and various production indicators for the stock each year. Under the plan, management measures will be implemented in the blue crab fishery if certain biological triggers are met. To trigger management actions, either the adult abundance or production characteristic of the Blue Crab Traffic Light must be at or above the 50 percent red threshold for three consecutive years to trigger moderate management action and must be at or above the 75 percent red threshold for two of three consecutive years to trigger elevated management action as established in the plan (Table 1). The recruit abundance indicator, while not used to trigger initial management action, may be used to supplement any management action taken if an adult abundance or production trigger is activated. The three-year period was chosen to prevent taking management action due to annual variability in the blue crab stock and instead base any management response on the observation of a short, but continued declining trend in the population.

The update in 2014, which incorporated data through 2013, showed both the adult abundance and production characteristics had met or exceeded the moderate threshold of 50 percent red for the first year. The update in 2015, which incorporated data through 2014, showed both the adult abundance and production characteristics exceeded the moderate threshold of 50 percent red for 2014. The Blue Crab Traffic Light was updated in early 2016 with 2015 data due to the high



probability that management action might be needed. As a result of that update, a revision to the Blue Crab Fishery Management Plan was adopted in May 2016 to improve the condition of the blue crab stock. Since management measures were implemented in June 2016, it is too early to tell what effect, if any, these measures have had on the condition of the blue crab stock.

The current traffic light update, including data through 2017, indicates the adult abundance characteristic continues to exceed the moderate threshold of 50 percent red (2017=67 percent red; Figure 1). This serves as the fifth consecutive year at or above the 50 percent red threshold for the adult abundance characteristic. The recruit abundance characteristic has exceeded the 75 percent red threshold for the fifth consecutive year (2017=80 percent red). The production characteristic fell below the 50 percent red threshold (2017=46 percent red) after meeting it in 2016. Under the adaptive management plan adopted by the commission as part of Amendment 2 to the Blue Crab Fishery Management Plan, management measures adopted in May 2016 should continue (Table 2).

The blue crab stock status is currently overfished* and overfishing* is occurring based on the 2018 blue crab stock assessment. The stock assessment was completed, passed peer review, and accepted for management use earlier this year. The traffic light will continue to be updated annually under the adaptive management framework in Amendment 2, which is still in effect until Amendment 3 is adopted. The division is in the process of drafting Amendment 3 in conjunction with an FMP advisory committee and expects the amendment and associated rule adoption to be completed in November 2020.

***Definitions**

Stock – A group of fish of the same species in a given area. Unlike a fish population, a stock is defined as much by management concerns (jurisdictional boundaries or harvesting locations) as by biology.

Recruit – Blue crabs that survive to the juvenile stage.

Overfished – Occurs when the number of mature female blue crabs drops below a specific threshold.

Overfishing – Occurs when the rate blue crabs are harvested or killed exceeds a specific threshold.

Table 1. Moderate and elevated management measures under the adaptive management framework for the Blue Crab Traffic Light in Amendment 2 to the Blue Crab Fishery Management Plan.

Characteristic	Moderate management level	Elevated management level
Adult abundance	A1. Increase in minimum size limit for male and immature female crabs	A4. Closure of the fishery (season and/or gear)
	A2. Reduction in tolerance of sub-legal size blue crabs (to a minimum of 5%) and/or implement gear modifications to reduce sublegal catch	A5. Reduction in tolerance of sub-legal size blue crabs (to a minimum of 1%) and/or implement gear modifications to reduce sublegal catch
	A3. Eliminate harvest of v-apron immature hard crab females	A6. Time restrictions
Recruit abundance	R1. Establish a seasonal size limit on peeler crabs	R4. Prohibit harvest of sponge crabs (all) and/or require sponge crab excluders in pots in specific areas
	R2. Restrict trip level harvest of sponge crabs (tolerance, quantity, sponge color)	R5. Expand existing and/or designate new crab spawning sanctuaries
	R3. Close the crab spawning sanctuaries from September 1 to February 28 and may impose further restrictions	R6. Closure of the fishery (season and/or gear)
		R7. Gear modifications in the crab trawl fishery
Production	P1. Restrict trip level harvest of sponge crabs (tolerance, quantity, sponge color)	P4. Prohibit harvest of sponge crabs (all) and/or require sponge crab excluders in pots for specific areas
	P2. Minimum and/or maximum size limit for mature female crabs	P5. Reduce peeler harvest (no white line peelers and/or peeler size limit)
	P3. Close the crab spawning sanctuaries from September 1 to February 28 and may impose further restrictions	P6. Expand existing and/or designate new crab spawning sanctuaries
		P7. Closure of the fishery (season and/or gear)

Table 2. Management measures implemented under the May 2016 Revision to Amendment 2 to the Blue Crab Fishery Management Plan ([Proclamation M-11-2016](#)).

Traffic Light Characteristic	Management Level	Management Action	Effective Date
Adult Abundance	Moderate	Add one additional cull ring to crab pots, which must be located within one full mesh of the corner of the pot and within one full mesh of the bottom of the apron/stairs (divider) of the upper chamber of the pot	January 15, 2017
Adult Abundance	Moderate	Eliminate the harvest of v-apron immature female hard crabs (excluding peeler crabs) and that v-apron immature hard crab females be included in the culling tolerance (currently only includes sublegal male and immature female hard crabs)	June 6, 2017
Adult Abundance	Moderate	Lower the cull tolerance to 5 percent for all crabs, except mature females	June 6, 2017
Adult and Recruit Abundance	Elevated	Prohibit crab harvest with dredges except incidental to lawful oyster dredging as outlined in North Carolina Marine Fisheries Commission Rule 15A NCAC 03L .0203(a)(2)	June 6, 2017
Recruit Abundance	Moderate	Prohibit harvest of dark sponge crabs (brown and black) from April 1-April 30. Include dark sponge crabs in the cull tolerance	June 6, 2017

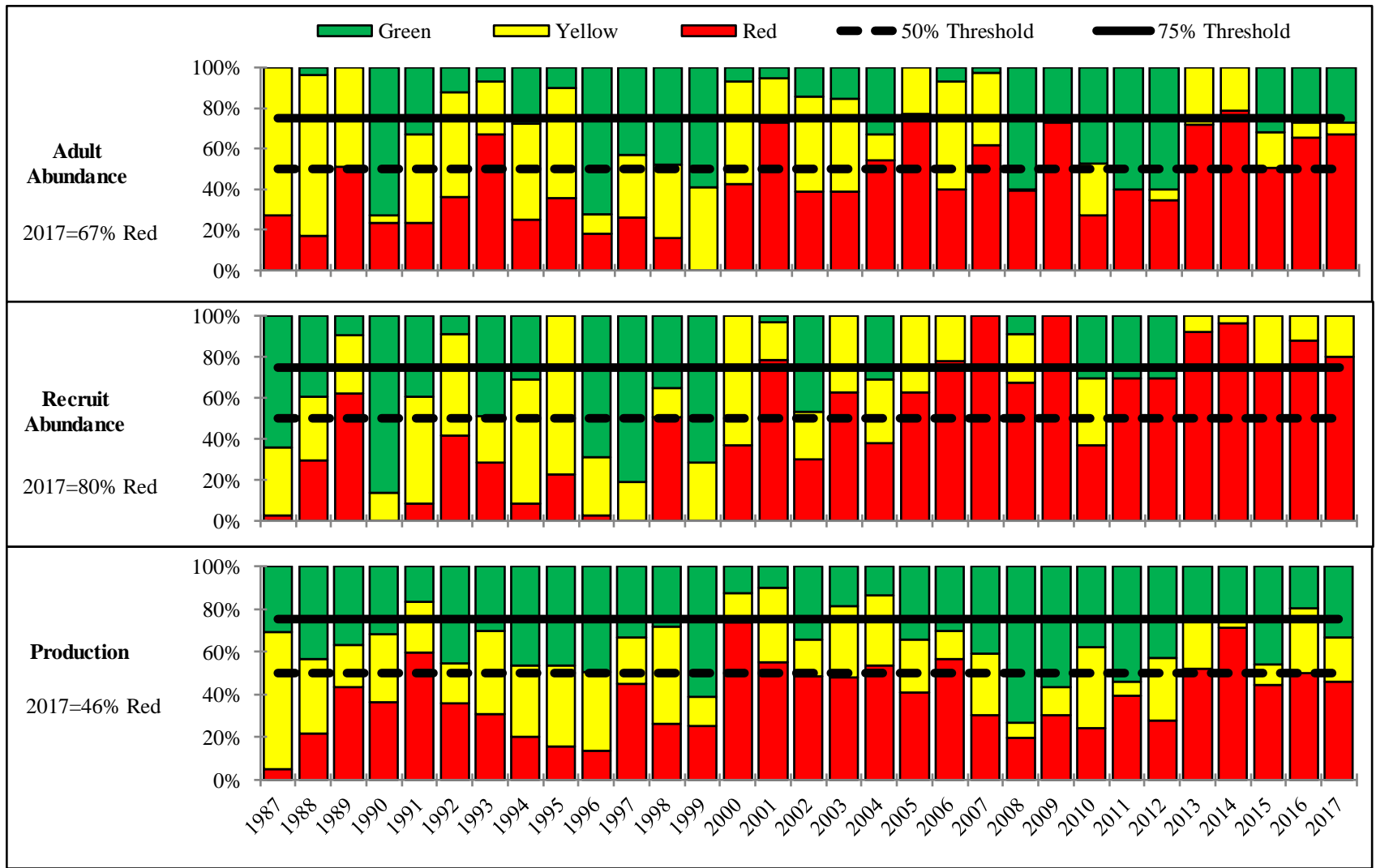


Figure 1. Adult abundance, recruit abundance, and production characteristics for the 2017 Blue Crab Traffic Light update.



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

Aug. 1, 2018

MEMORANDUM

TO: Marine Fisheries Commission

FROM: Jason Rock, Blue Crab Species Lead
Corrin Flora, Blue Crab FMP Co-Lead
Fisheries Management Section

SUBJECT: North Carolina Blue Crab Fishery Management Plan Amendment 3

Now that the stock assessment has been finalized, the division is moving into the development phase of Amendment 3 to the North Carolina Blue Crab Fishery Management Plan (FMP). The first step in that process is presenting the FMP timeline to the Marine Fisheries Commission (Table 1). We are currently on step three in the timeline (highlighted below).

Table 1. Development timeline for Amendment 3 to the North Carolina Blue Crab Fishery Management Plan.

TIMELINE FOR BLUE CRAB FISHERY MANAGEMENT PLAN AMENDMENT 3 (May 1, 2018)	
MILESTONES	PROJECTED COMPLETION DATE
1. Orient AC and Discuss Issues, Goal and Objectives	September 2017-June 2018
2. Draft/Revise and Review Informational Sections and Issue Papers in the FMP and Establish DMF/AC Positions	June 2018- June 2019
3. Present Timeline and Goal and Objectives to MFC; Solicit MFC Input on Issues	August 2018
4. Obtain MFC Approval for Review of FMP	August 2019
5. Public and Committee Review of FMP	September 2019
6. Present Revised FMP to MFC for Selection of Preferred Management Options	November 2019
7. Review of FMP by Department and Legislative Committee	January 2020
8. Procedural Approval of FMP and Approval of Notice of Text for Rulemaking by MFC	May 2020
9. Direct Rules through APA Process	August-October 2020
10. Final FMP and Rule Approval by MFC	November 2020
11. Selected Management Measures Effective Date	48 Hours if proclamation; April 1, 2021 if rule

Part of this step is also presenting to the commission for approval the draft Goal and Objectives for the plan which were reviewed and agreed to by the Blue Crab FMP Advisory Committee. The division's proposed Goal and Objectives are:

Goal: Manage the blue crab fishery to achieve a self-sustaining population that provides sustainable harvest using science based decision making processes. The following objectives will be used to achieve this goal.

Objectives:

1. Implement management strategies that maintain/restore the blue crab spawning stock with multiple cohorts and adequate abundance to prevent recruitment overfishing.
2. Restore, enhance, and protect habitat and environmental quality necessary to maintain or increase growth, survival, and reproduction of the blue crab population.
3. Use biological, environmental, habitat, fishery, social, and economic data needed to effectively monitor and manage the blue crab fishery and its ecosystem impacts.
4. Promote stewardship of the resource through increased public awareness regarding the status and management of the blue crab fishery, including practices that minimize bycatch and discard mortality.

The final phase in step three is to solicit input from the MFC on potential issues to explore in the upcoming amendment. Under the division's new streamlined FMP strategy, these issues should not include things like simple rule clarifications or corrections, user conflicts, resource neutral tweaks, or outreach initiatives that can be handled outside the FMP process, instead they should be substantive issues affecting the fishery. Issues identified to date by the division include:

- Issue 1: Restoring the blue crab spawning stock
- Issue 2: Minimizing ecosystem impacts
 - *Terrapin excluder devices (holdover from Amendment 2)*
 - *Eliminating crab harvest with dredges*
 - *Reducing crab trawl areas*
- Issue 3: Protect and enhance habitat conditions for blue crab
 - *Expand and/or designate new crab spawning sanctuaries*
 - *Effects of agricultural runoff on the blue crab population*

**TIMELINE FOR BLUE CRAB FISHERY MANAGEMENT PLAN AMENDMENT 3
(May 1, 2018)**

MILESTONES	PROJECTED COMPLETION DATE
1. Orient AC and Discuss Issues, Goal and Objectives	September 2017-June 2018
2. Draft/Revise and Review Informational Sections and Issue Papers in the FMP and Establish DMF/AC Positions	June 2018- June 2019
3. Present Timeline and Goal and Objectives to MFC; Solicit MFC Input on Issues	August 2018
4. Obtain MFC Approval for Review of FMP	August 2019
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11. Selected Management Measures Effective Date	48 Hours if proclamation; April 1, 2021 if rule

Approved by DMF Director: _____ Date: 7/25/18 Signature: 

Presented to MFC: _____ Date: _____

Revision(s) and reason(s): _____



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

Aug. 1, 2018

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Daniel Zapf, Striped Mullet Species Lead
Tracey Bauer, Striped Mullet Fishery Management Plan Co-Lead
Fisheries Management Section

SUBJECT: Recommendations for Adaptive Management of the Striped Mullet Stock

Striped mullet commercial landings in 2016 were 965,198 pounds, which is below the minimum commercial landings trigger (1.13 million pounds) established in Amendment 1 of the Striped Mullet Fishery Management Plan. Following the management strategy in Amendment 1, the division initiated further analysis of all striped mullet data to determine if the decrease in striped mullet commercial landings is attributed to a stock* decline, decreased fishing effort, or both. The adaptive management framework established in Amendment 1 allows for implementation of management measures using existing proclamation authority of the Fisheries Director if they are recommended following completion of data analysis.

Completed data analysis was presented to the commission at its February 2018 business meeting. From the data analysis, the division concluded at this point that the striped mullet stock had likely declined since completion of the 2013 stock assessment (terminal year* 2011) and recommended updating the 2013 stock assessment model to include data through 2017 prior to taking any management action. Following completion of the stock assessment update, any potential management measures would be developed by the division's Striped Mullet Plan Development Team in conjunction with the Finfish, Northern and Southern advisory committees, the commission would decide on a preferred management strategy at its August 2018 business meeting.

The stock assessment update (terminal year 2017) indicates overfishing* is not occurring in the striped mullet fishery and has never occurred in the 24-year time series (1994-2017). However, the assessment update indicated declining spawning stock biomass* and increased fishing mortality* in the last year of the time series. Recruitment* was also declining in the latter part of the time series with a small increase in 2017. In addition, technical issues with the stock assessment model increased uncertainty with the results. Regardless of the stock assessment results, there have been declining trends in fishery independent* indices (declines across three surveys for multiple years) that closely mirror declining trends in commercial landings.



Given the stock assessment update indicates overfishing is not occurring in the striped mullet fishery, the commission may choose to take no action since no additional management measures are needed to end overfishing. No new management measures would result in the fishery continuing “as is.”

Declining spawning stock biomass, declining recruitment, increasing fishing mortality, negative trends in fishery independent and fishery dependent* data, and the fact the striped mullet commercial fishery primarily targets mature female (roe mullet) striped mullet on their way to the ocean to spawn may merit implementation of new management measures. Although overfishing is not occurring, the commission may implement additional management measures with the goal of increasing escapement of mature females to the ocean to spawn enhancing protection for the population from poor recruitment events. Given the intended goal, a season closure during a portion of the fall striped mullet fishery would be most effective in reducing harvest of mature females. However, a season closure may adversely affect some fisheries more than others and would create regulatory discards during the closed season.

An issue paper providing background information and detailing the positives and negatives of no additional management action and implementation of additional management measures is provided in the commission’s briefing book. The updated stock assessment and the issue paper were also presented to the commission’s advisory committees (Table 1).

Because overfishing is not occurring the division recommends retaining the FMP scheduled review for 2020 and no additional management action at this time. The division will also continue to monitor the commercial landings trigger and trends in the striped mullet commercial fishery and fishery independent indices.

Table 1. Recommended adaptive management framework responses for striped mullet.

	Recommendation
Division	No additional management action, Continue monitoring, Retain FMP schedule
Finfish Advisory Committee (7/10/2018)	Same as NCDMF recommendation
Southern Advisory Committee (7/11/2018)	Same as NCDMF recommendation
Northern Advisory Committee (7/12/2018)	Same as NCDMF recommendation

***Definitions**

Stock – A group of fish of the same species in a given area. Unlike a fish population, a stock is defined as much by management concerns (jurisdictional boundaries or harvesting locations) as by biology.

Fishery Dependent – Data derived from the commercial and recreational fisheries and dealers; including catch, landings, and effort information.

Fishery Independent – Data derived from activities such as research and surveys that does not involve the commercial or recreational harvest of fish.

Terminal Year – The final year of estimates being used in an analysis.

Overfishing – Occurs when the rate that fish that are harvested or killed exceeds a specific threshold.

Spawning Stock Biomass – Total weight of mature females in the stock.

Recruitment – The number of striped mullet that survive to the juvenile stage.

Fishing Mortality – Rate at which striped mullet are removed from the population.





State of North Carolina | Division of Marine Fisheries
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ADAPTIVE MANAGEMENT OF THE NORTH CAROLINA STRIPED MULLET STOCK

July 27, 2018

I. ISSUE

Recommendations for how to proceed with adaptive management in the North Carolina striped mullet fishery.

II. ORIGINATION

Amendment 1 to the Striped Mullet Fishery Management Plan.

III. BACKGROUND

The North Carolina commercial fishery for striped mullet (*Mugil cephalus*) is one of the largest along the U.S. Atlantic seaboard and is a predominately fall, roe-targeting, gill net fishery. Strong demand from Asia for striped mullet roe and competing roe exporting companies combined to create a highly profitable roe fishery in North Carolina. Rapid surges in roe values in the late 1980s, followed by rising commercial fishing effort and landings through the mid-1990s, caused concern for the North Carolina striped mullet stock.

The most recent benchmark stock assessment of the North Carolina striped mullet stock was completed in 2013 and used data from 1994-2011 (see NCDMF 2013). The results of the stock assessment indicated spawning stock biomass increased from 2003 through 2007 but declined through 2011. Recruitment also declined in the latter portion of the time series, though a slight increase was observed in 2011. Numbers-weighted fishing mortality (F) for ages 2-5 increased toward the end of the time series, but F in the terminal year ($F_{2011} = 0.437$) was below both the fishing mortality target ($F_{35\%} = 0.566$) and threshold ($F_{25\%} = 0.932$). Based on the assessment results, the stock was not undergoing overfishing in 2011. A poor stock-recruit relationship resulting in unreliable biomass based reference points prevented determining if the stock was overfished.

Amendment 1 to the NC Striped Mullet FMP was adopted in November 2015 (NCDMF 2015). Although overfishing was not occurring in 2011, fishing mortality had been increasing and recruitment had been declining. If this trend were to continue, a series of poor recruitment events and/or shifts in market demand could make management measures necessary to reduce harvest and maintain fishing mortality below a threshold of $F_{25\%}$ spawning potential ratio. The 2015 FMP updated the minimum and maximum commercial landings triggers using 1994-2011 commercial landings. The updated minimum and maximum commercial landings triggers were set at 1.13 and 2.76 million pounds, respectively. If commercial landings fall below the minimum trigger the division would initiate further analysis of the data to determine if the decrease in commercial landings is attributed to stock decline or decreased fishing effort or both. If commercial landings exceed the maximum trigger the division would initiate analysis to determine if commercial harvest is sustainable and assess factors that may be driving the increase

in harvest. Amendment 1 also instituted an adaptive management framework for striped mullet. This allows management measures, if needed to maintain sustainable harvest, to be implemented using existing proclamation authority of the Fisheries Director. Any potential management measures will be developed by the division’s Striped Mullet Plan Development Team (PDT) in conjunction with the regional and finfish advisory committees and approved by the North Carolina Marine Fisheries Commission (NCMFC) prior to implementation.

In 2016, striped mullet commercial landings were 964,348 pounds which is 15% less than the minimum trigger established by Amendment 1. Therefore, the division initiated further analysis of fishery-dependent and fishery-independent striped mullet data to determine if the decline in commercial landings is the result of decreased fishing effort, stock decline or both. The division presented preliminary data analysis and recommendations to the commission at its November 2017 business meeting, followed by additional information at their February 2018 business meeting. Based on results of the completed data analysis the division concluded the striped mullet stock had likely declined since completion of the 2013 stock assessment (terminal year 2011) and management action was likely warranted. At that time the division recommended updating the 2013 stock assessment model to include an additional six years of data from 2012 through 2017 prior to considering any management action. Peer review was not required for this update because the stock assessment model configuration that previously passed peer review (NCDMF 2013) was maintained.

Results of the stock assessment update indicate overfishing is not occurring in the striped mullet fishery (terminal year of 2017) and has never occurred at any point in the 24-year time series (1994-2017; NCDMF 2018). However, the assessment update indicated declining spawning stock biomass (Figure 1), declining recruitment (Figure 2), and increased fishing mortality (numbers-weighted) for ages 1-5 in the last year of the time series (Figure 3). Note the benchmark stock assessment for striped mullet (NCDMF 2013) reported F values as numbers-weighted for ages 2-5 and so are not comparable to the results of this assessment update.

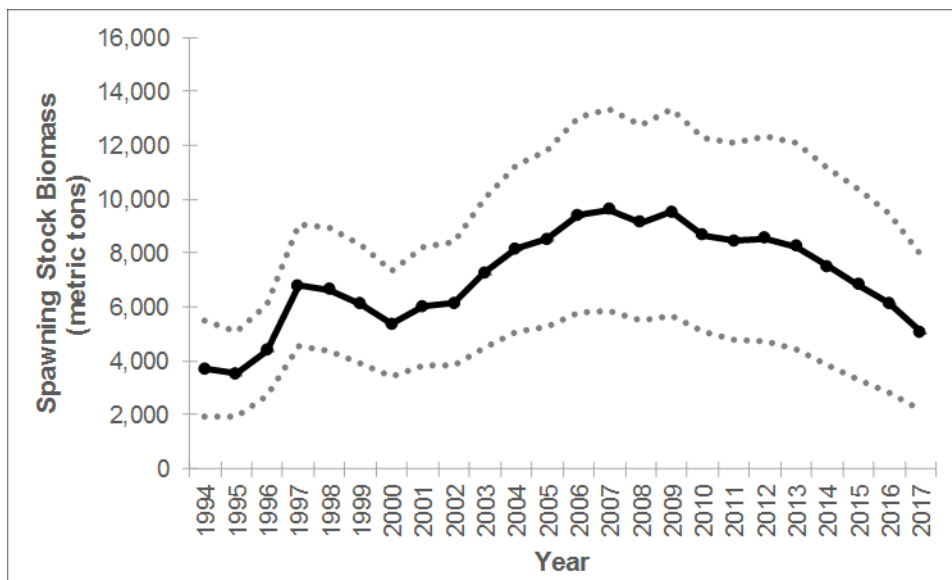


Figure 1. Annual predicted female spawning stock biomass from the base run of the stock assessment model, 1994-2017. The dotted lines denote \pm two standard deviations.

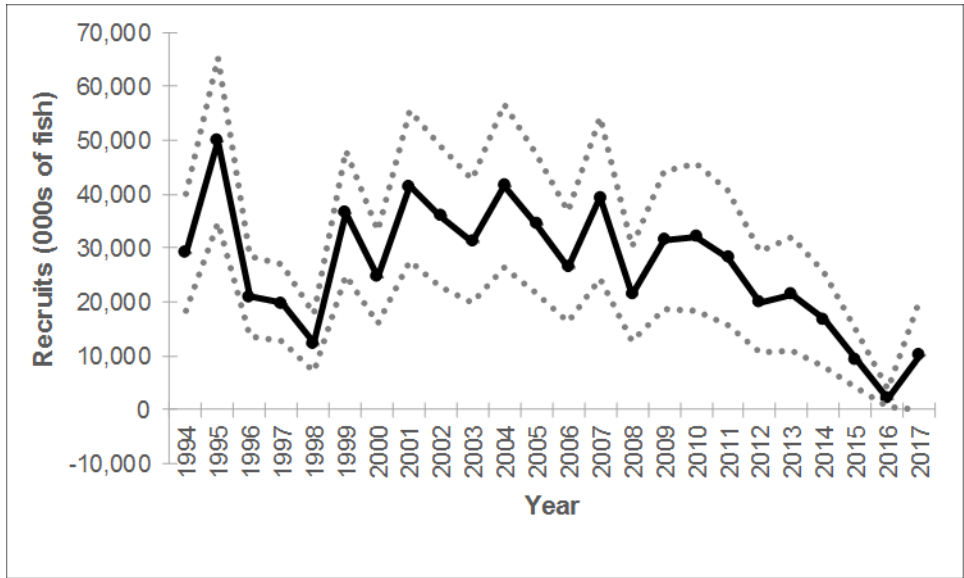


Figure 2. Annual predicted recruitment from the base run of the stock assessment model, 1994-2017. The dotted lines denote \pm two standard deviations.

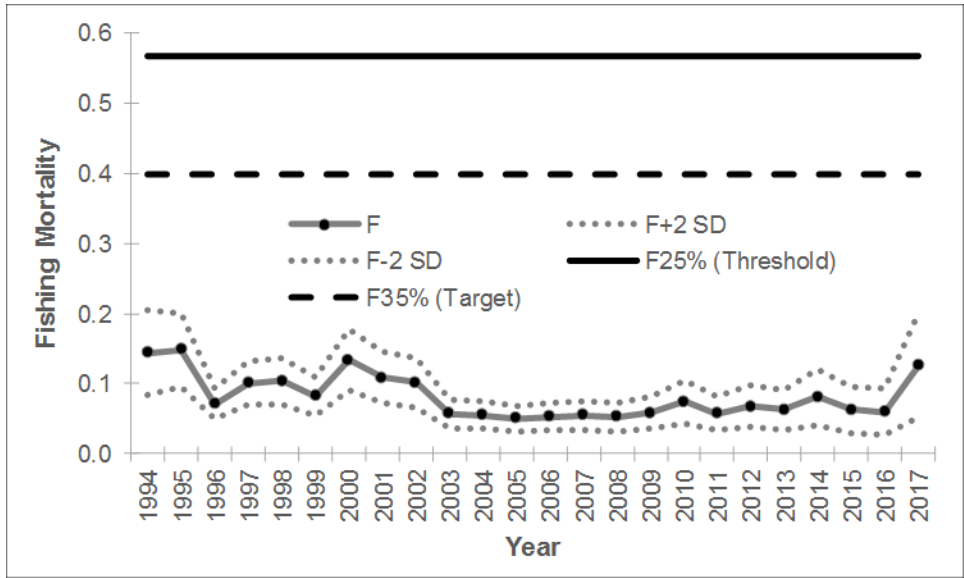


Figure 3. Comparison of annual estimates of fishing mortality (number-weighted, ages 1-5) from the base run to estimates of the fishing mortality target ($F_{35\%}$) and threshold ($F_{25\%}$). The dotted lines denote \pm two standard deviations.

As this was a stock assessment update, very limited adjustments could be made to model parameters or inputs that might otherwise be made to improve the model. A major concern with the assessment update is the lack of contrast in commercial landings data and lack of contrast and high variability associated with fishery-independent indices leading to uncertainty in parameter estimates. Lack of contrast in input data was noted as a concern during the 2013 benchmark stock assessment. Also of concern are the poor fits to survey data produced by the model, which may be caused by issues with temporal patterns and non-normality. The model also had poor fits to the length composition data suggesting predicted trends in recruitment may not be reliable.

While the two models are not directly comparable, the fishing mortality estimates in relation to the target ($F_{35\%}$) and threshold ($F_{25\%}$) reference points from the assessment update are much lower compared to the 2011 assessment (Figure 4). These conclusions seem to be inconsistent with observed trends in the commercial fishery and fishery-independent data. Further information on the stock assessment update, including strengths and weaknesses, adjustments that were made, and recommendations to improve the model can be found in the stock assessment report (NCDMF 2018).

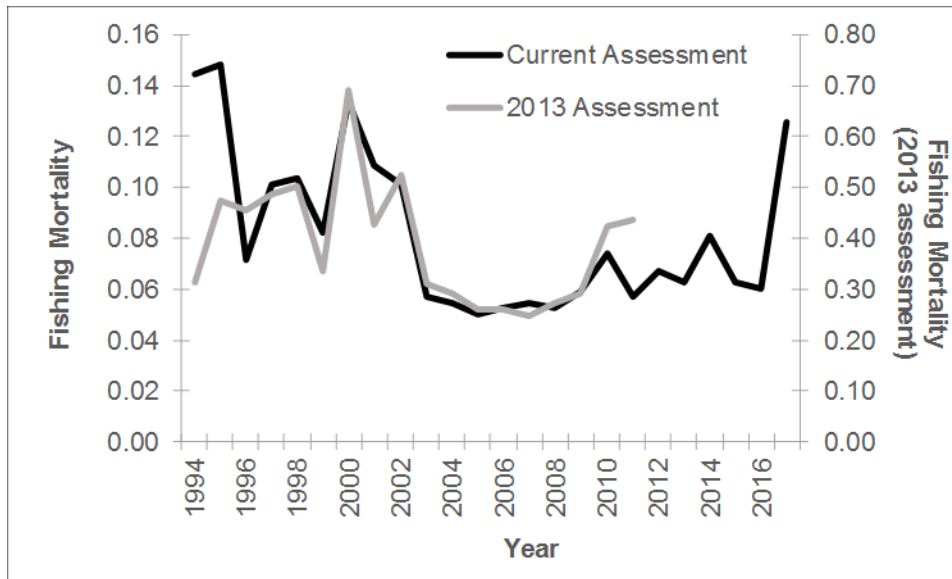


Figure 4. Comparison of estimates of fishing mortality from the current (numbers-weighted, ages 1-5) and previous (numbers weighted, ages 2-5) NCDMF stock assessments.

Because of the seasonal timing of the Striped Mullet Electrofishing Survey (P146) sampling, results are available for January-April 2018. Data analysis for 2018 indicated the nominal index of striped mullet relative abundance increased during the January-April period to near the time series average (Figure 5). Standardizing the index to account for the impact of environmental factors had little impact on the overall trend, also indicating striped mullet abundance increased to near the time series average (Figure 6). Previous models of P146 data had included area as a significant covariate, which based on the sampling area covered by the survey should account for differences in salinity. Standardization was performed excluding area as a possible covariate to test this hypothesis. Results indicated year, salinity, and dissolved oxygen were significant covariates but there were no differences in trends in striped mullet abundance from previous models (Figure 7). However, just as one year of low abundance data does not establish a negative trend, one year of increased abundance data does not establish a positive trend and should be interpreted with caution.

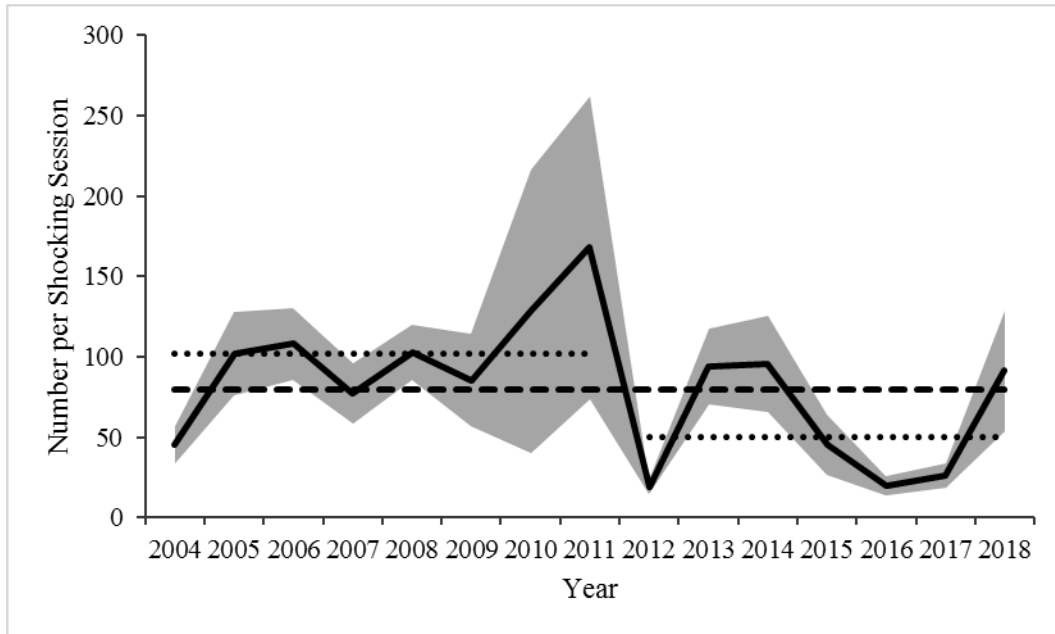


Figure 5. Annual relative abundance of adult striped mullet (number per shocking session) from P146 for January-April, 2004-2018. Center dashed line represents the 2004-2017 average, upper dotted line represents the 2004-2011 average, lower dashed line represents the 2012-2017 average, and the shaded area is standard error.

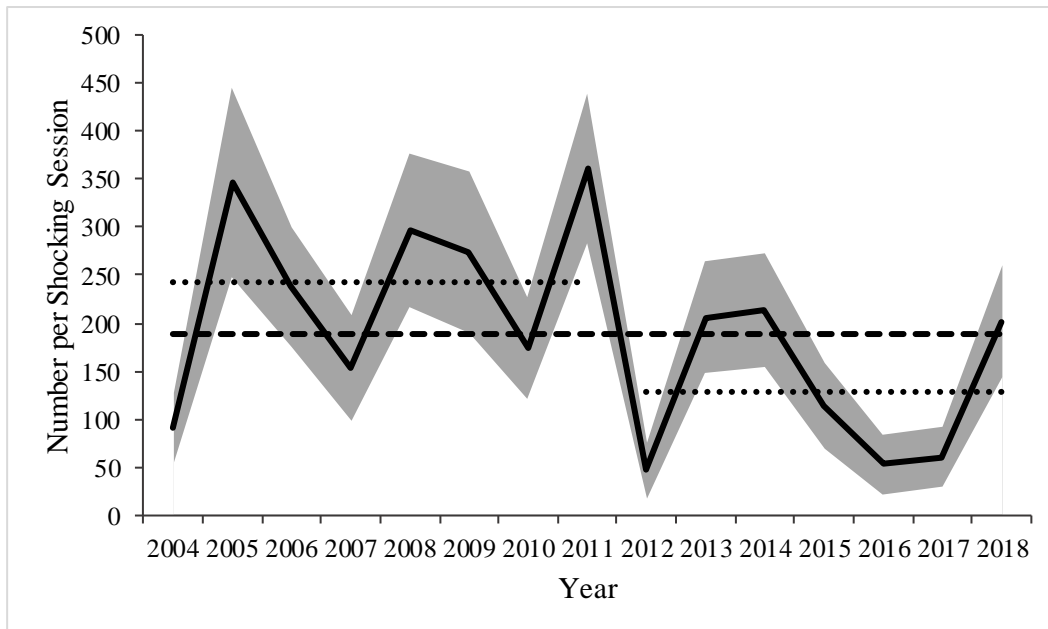


Figure 6. GLM-standardized index of relative abundance for adult striped mullet collected from P146 during January-April, 2004-2018. Relative abundance was modeled with a quasi-Poisson model. Significant covariates included year, area, depth and dissolved oxygen. Center dashed line represents the 2004-2017 average, upper dotted line represents the 2004-2011 average, lower dashed line represents the 2012-2017 average, and the shaded area is standard error.

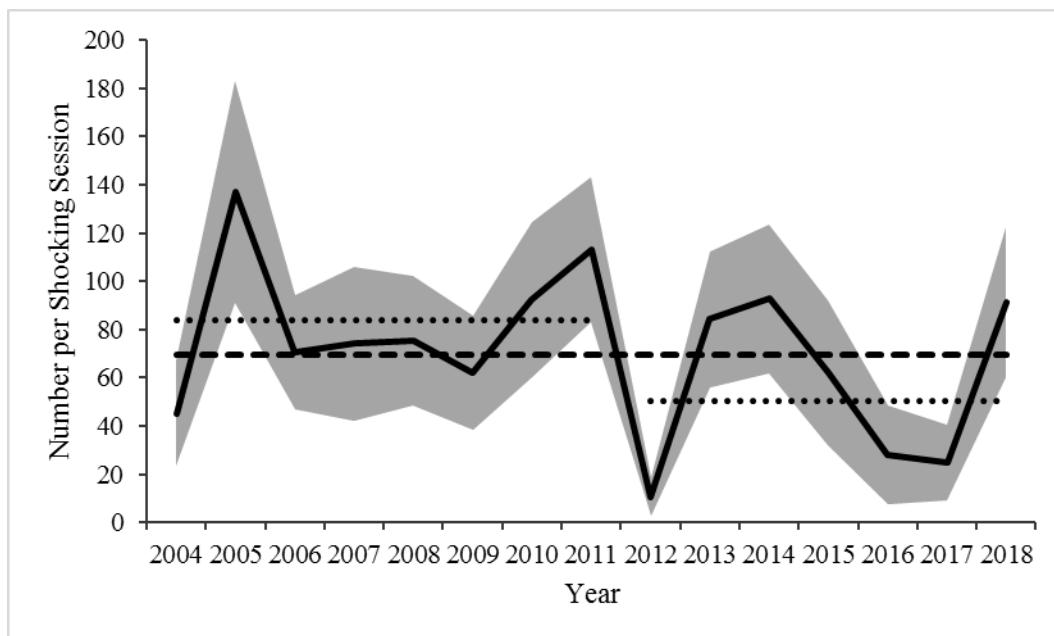


Figure 7. GLM-standardized index of relative abundance for adult striped mullet collected from P146 during January-April 2004-2018. Relative abundance was modeled with a quasi-Poisson model excluding area as a possible covariate. Significant covariates included year, salinity, and dissolved oxygen. Center dashed line represents the 2004-2017 average, upper dotted line represents the 2004-2011 average, lower dashed line represents the 2012-2017 average, and the shaded area is standard error.

Although the stock assessment update indicated overfishing is not occurring, fishing mortality has increased and recruitment and spawning stock biomass have declined in recent years. These same concerns were also considered in the development of Amendment 1 and were addressed by implementing the current adaptive management framework. Amendment 1 notes that although overfishing was not occurring (through 2011), fishing mortality had been increasing and recruitment had declined at the end of the time series. If that trend were to continue, a series of poor recruitment events occurred, and/or shifts in market demand occurred, management measures would be necessary to reduce harvest to prevent overfishing. Because the striped mullet commercial fishery is a roe fishery primarily targeting mature females during the spawning season, and there are no direct regulations impacting the amount of striped mullet harvested, concerns about recruitment and fishing effort will continue as long as the striped mullet fishery continues as is. In addition, the noted shortcomings with the stock assessment update (NCDMF 2018) increase uncertainty in model results. Regardless of the stock assessment results, there have been declining trends in fishery-independent indices (declines across three surveys for three consecutive years) that closely mirror declining trends in commercial landings. Because of these concerns, some type of additional management action could be implemented as a precautionary strategy to increase the escapement of mature females to the ocean to spawn and protect the stock should these negative trends continue.

IV. AUTHORITY

G.S. 113-134 RULES

G.S. 113-182 REGULATION OF FISHING AND FISHERIES

G.S. 143B-289.52 MARINE FISHERIES COMMISSION-POWERS AND DUTIES

15A NCAC 03M .0502 MULLET

15A NCAC 03H .0103 PROCLAMATIONS, GENERAL

V. OPTIONS

At this time, it is not necessary to move up or delay the scheduled review of the striped mullet FMP in 2020. Under the adaptive management framework established in Amendment 1 the commission could choose either of the following strategies after considering the information provided by the division and public input.

Given overfishing is not occurring in the striped mullet fishery based on results of the stock assessment update, strengths and weaknesses of taking no additional management action are presented. However, noted shortcomings in the stock assessment model, increasing fishing mortality, declining spawning stock biomass, declining recruitment, and declining trends in fishery-independent indices are causes for concern and may warrant implementation of additional management measures. Positives and negatives of implementing additional management measures are also discussed.

No Additional Management Action

The stock assessment update indicated overfishing was not occurring and therefore no additional management action is needed to end overfishing. No new management measures would result in fishing continuing to occur “as is” and would not increase the regulatory burden on the commercial fishing industry or the enforcement burden on Marine Patrol. However, if negative trends continue, not enacting management measures, may result in future overfishing and implementation of more restrictive harvest reduction strategies.

Additional Management Measures

Technical issues with the stock assessment inputs and model increase uncertainty with model results. Results of the stock assessment model indicate increasing fishing mortality, decreasing recruitment, and decreasing spawning stock biomass. These considerations in conjunction with observed negative trends in striped mullet fishery-independent data, negative trends in the striped mullet commercial fishery, and that the striped mullet fishery primarily targets mature females (roe mullet) on their way to the ocean to spawn may merit implementation of new management measures. Because the striped mullet commercial fishery is primarily a roe fishery with no direct regulations there will always be concern that any increase in harvest could lead to poor recruitment and overfishing or be of further detriment to a stock already experiencing poor recruitment and declining spawning stock biomass.

With results of the stock assessment update indicating overfishing is not occurring, there is no harvest reduction goal for any proposed management option. The goal of any management measure would be to increase escapement of mature female striped mullet to the ocean to spawn. This means proposed management measures will focus on the fall fishery (September-December), when striped mullet are migrating to the ocean to spawn and the majority of the striped mullet commercial fishery occurs (Figure 8). It should be noted that if management options are implemented to reduce harvest, the commercial landings trigger could no longer be used to monitor the stock. A new trigger will need to be developed during the next review of the striped mullet FMP and a subsequent amendment developed if an adaptive management strategy incorporating a trigger is to continue.

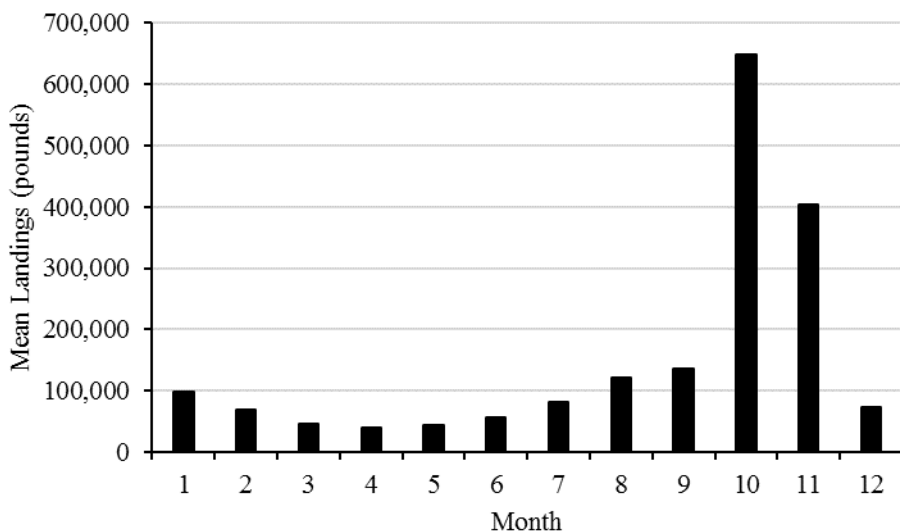


Figure 8. Mean commercial landings of striped mullet by month, 1994-2017.

Implementation of quotas, size limits, area closures, and/or trip/creel harvest limits were discussed in development of Amendment 1 (NCDMF 2015). However, given the intended management goal of increasing escapement of mature female striped mullet to the ocean these are not considered strong options. Each of these options would increase the regulatory burden on the fishery, increase the regulatory burden on Marine Patrol, create regulatory discards, and ultimately, may not accomplish the goal of increasing escapement of mature female striped mullet to the ocean.

Increasing mesh size restrictions could result in excluding smaller striped mullet from the gill net catch and large enough mesh sizes would result in excluding the majority of striped mullet from the gill net catch. However, mesh size increases may not accomplish the goal of increased escapement of female striped mullet but may shift harvest to larger, more fecund fish. In addition, mesh size increases may shift harvest from one sector of the fishery to another as the large mesh gill net (Figure 9), cast net, and stop net fisheries would not be impacted by minimum mesh size increases.

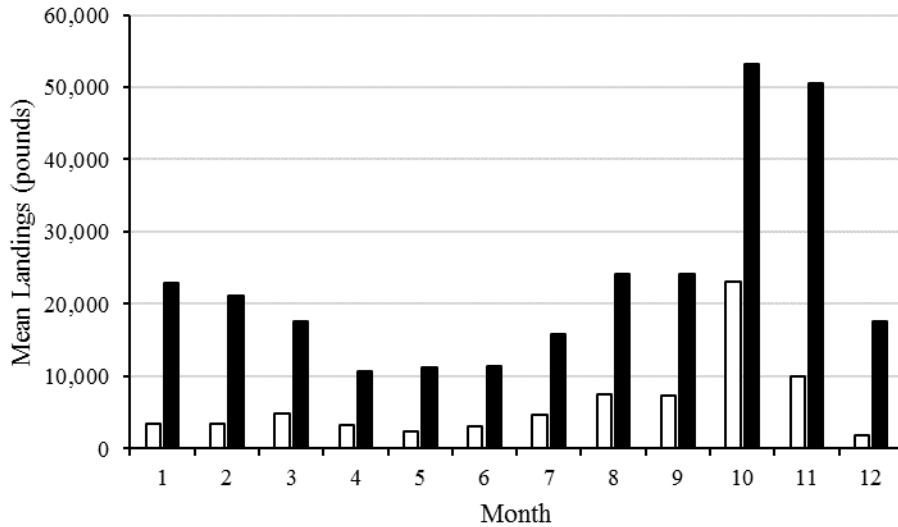


Figure 9. Mean commercial landings of striped mullet from gill nets with mesh size greater than or equal to five inches (white) and mesh size less than five inches (black) by month, 2004-2017.

Closing a portion of the fall season to possession of striped mullet would reduce the targeted striped mullet roe fishery (i.e., runaround gill nets; Figure 10), where most effort and landings occur, and allow for increased escapement of mature females to spawn.

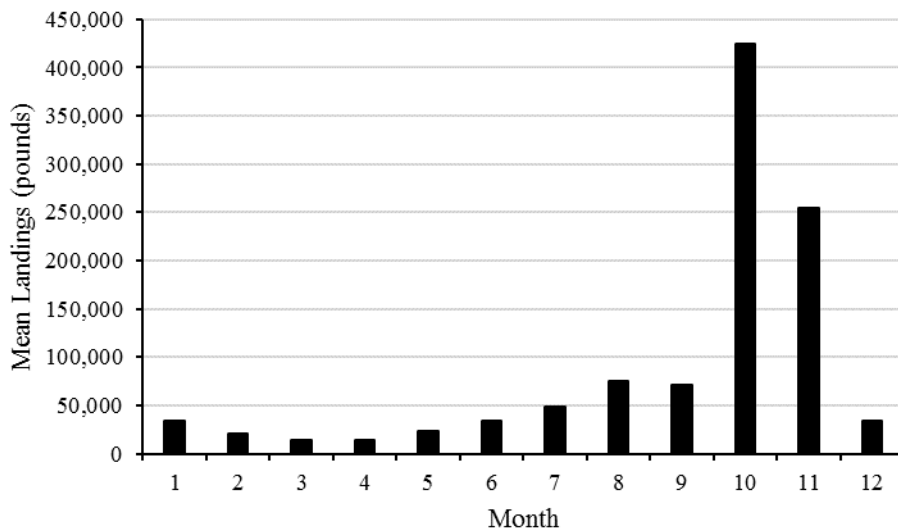


Figure 10. Mean commercial landings of striped mullet from the runaround gill net fishery by month, 2004-2017.

Historically, peak roe landings have occurred in October-November, with the majority of striped mullet roe landings occurring from approximately October 15-November 15. However, recently roe landings have shifted later in the year to include December as a month with a significant percentage of roe landings due to market forces (Figure 11), although landings from this month

are still generally low (Figure 12). For example, if a season closure was implemented to include only the month of December, it would minimally impact landings while resulting in increased escapement of mature female striped mullet to spawn. Extending the closure to include portions of October or November would result in a higher portion of mature female striped mullet escaping to the ocean to spawn but would also result in greater declines in commercial landings. Because the fall striped mullet fishery is primarily a targeted fishery, gear closures would not need to be implemented unless adjustments were made to the stop net/beach seine fishery. With a seasonal closure, gear would not be removed from the water completely, which may cause increased regulatory discards of striped mullet. In addition, fishing effort may increase in the part of the fishing season that remains open, and adverse weather conditions may prevent fishing during portions of the open season.

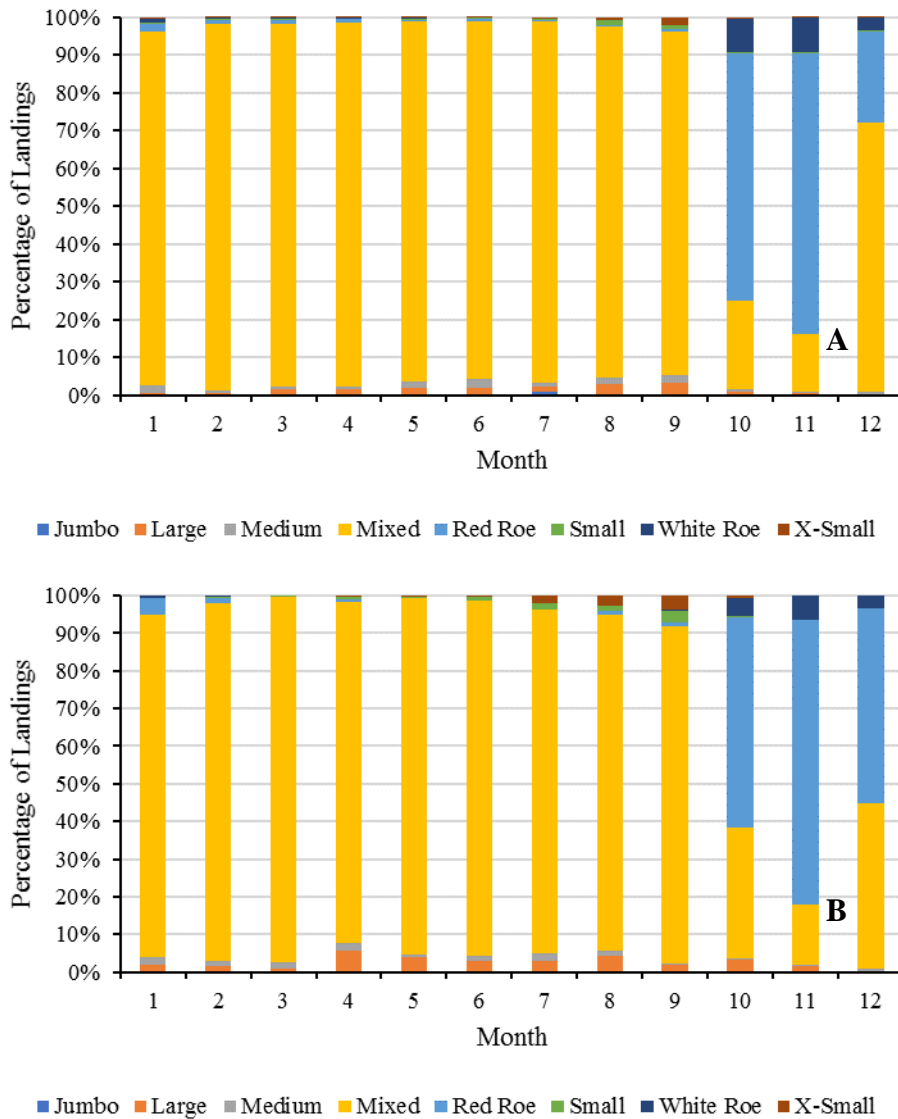


Figure 11. Percentage of striped mullet commercial landings by market grade using a 2003-2017 reference period (A) and a 2015-2017 reference period (B).

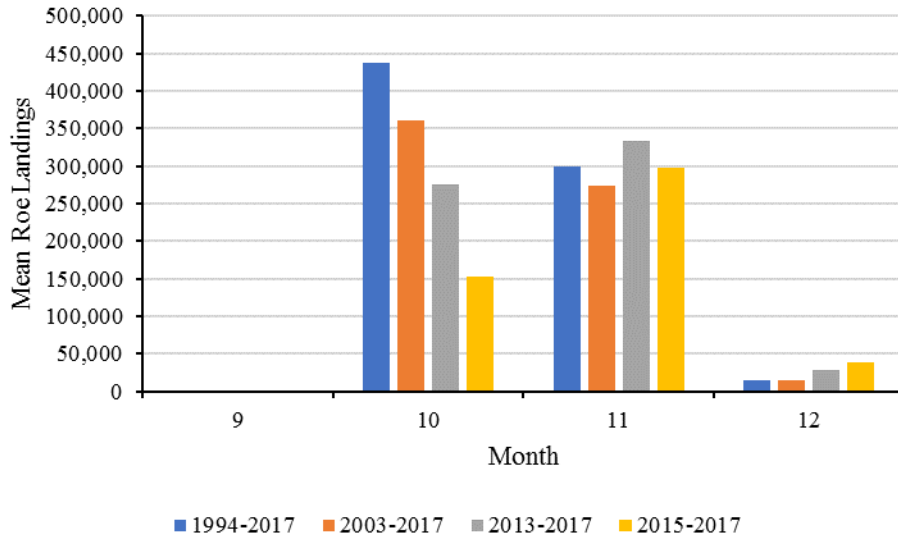


Figure 12. Mean commercial landings of striped mullet graded as “red roe” using 1994-2017, 2003-2017, 2013-2017, and 2015-2017 reference periods.

If management action is recommended, the preferred management strategy is implementation of a season closure. Different options for season closures were explored with the objective of increasing the escapement of mature females to the ocean to spawn while minimizing impacts to the commercial fishery (Table 1). The approximate increase in percent escapement for different closure periods was calculated using average daily striped mullet landings from three reference periods; 1994-2017, 2003-2017 and 2015-2017. Closure periods ranging from about four weeks to a month and a half with approximate increase in percent escapement from approximately four to 50 percent are shown. It should be noted that if early season closures (prior to the spawning season) are implemented there is a greater chance of recoupment by the fishery and the actual escapement of mature females would likely be less than predicted.

Table 1. Examples of options for closure periods in the striped mullet commercial fishery and the associated approximate percent escapement of striped mullet that would result based on average daily striped mullet landings for 1994-2017, 2003-2017 and 2015-2017 reference periods.

Closure Period	Approximate Increase in Percent Escapement		
	1994-2017	2003-2017	2015-2017
September	7.5	8.3	8.7
October	35.5	34.1	23.0
November	22.1	22.9	33.1
December	4.1	3.9	6.1
October 15-November 15	45.0	44.8	39.4
October 1-October 15 AND November 15-November 30	14.1	15.0	18.1
November 15-December 31	9.9	10.5	20.8

A. No Action

- + No additional restrictions on fishing practices
- + No additional enforcement responsibilities for Marine Patrol
- Continue fishery at a level that may result in more restrictive harvest reductions in the future
- Continue unregulated harvest of mature female striped mullet which may lead to recruitment overfishing

B. Implement Management

- + Could prevent future overfishing
- + Proactive response to negative trends
- Additional restrictions on fishing practices
- Additional enforcement responsibilities for Marine Patrol

i. Season Closure

- + Framework and resources for implementation already exist
- + No additional reporting burden on fishermen or dealers
- + Could reduce effort from current level
- + Reduces harvest on mature females; enhancing protection for the population from poor recruitment events
- Effort may increase during open season reducing the effectiveness of the closure
- May adversely affect some fisheries more than others
- Weather may prevent fishing during open periods
- Increase enforcement responsibilities for Marine Patrol
- Create regulatory discards during the closed season

ii. Other management options from Amendment 1 (i.e., quotas, size limits, area closures, trip/creel harvest limits and/or mesh size restrictions)

- + May reduce fishing mortality
- May not increase escapement of mature female striped mullet to the ocean to spawn
- Increase regulatory burden on fishery
- Increase enforcement responsibilities for marine patrol
- Create regulatory discards
- May shift harvest to larger or smaller fish
- May shift harvest from one sector of the fishery to another

VI. PROPOSED RULE(S)

No rule changes are needed as any restrictions to the striped mullet fishery may be implemented via proclamation authority of the Fisheries Director.

VII. RECOMMENDATION

Division Recommendation and Rationale:

Given the results of the stock assessment update indicate overfishing is not occurring, the division recommends option A – no additional management action. However, the division will continue to monitor trends in the striped mullet commercial fishery and trends in fishery-independent indices.

Finfish Advisory Committee:

Same as NCDMF recommendation.

Northern Advisory Committee:

Same as NCDMF recommendation.

Southern Advisory Committee:

Same as NCDMF recommendation.

MFC Selected Action:

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July 27, 2018

References

NCDMF (North Carolina Division of Marine Fisheries). 2015. North Carolina Striped Mullet Fishery Management Plan Amendment 1. NCDMF, Morehead City, North Carolina. 388 pp.

NCDMF. 2013. Stock assessment of striped mullet (*Mugil cephalus*) in North Carolina waters. NCDMF, Morehead City, North Carolina. 161 pp.

NCDMF. 2018. Stock assessment of striped mullet (*Mugil cephalus*) in North Carolina waters. NCDMF, Morehead City, North Carolina. 120 pp.



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

Aug. 1, 2018

MEMORANDUM

TO: Marine Fisheries Commission
FROM: Catherine Blum, Fishery Management Plan and Rulemaking Coordinator
Fisheries Management Section
SUBJECT: Rulemaking Update

This memo describes the materials about the rulemaking update for the August 2018 commission meeting. In accordance with requirements of G.S. 150B-21.3A, Periodic Review and Expiration of Existing Rules, there are three items in this section; the first two are for information and the third is scheduled for the commission to take action. Background information is provided here, including recent actions that have occurred and a summary of the materials for this meeting.

Background on the Periodic Review and Expiration of Existing Rules

Session Law 2013-413, the Regulatory Reform Act of 2013, implemented requirements known as the “Periodic Review and Expiration of Existing Rules.” These requirements are codified in a new section of Article 2A of Chapter 150B of the General Statutes in G.S. 150B-21.3A. Under the requirements, each agency is responsible for conducting a review of all its rules at least once every 10 years in accordance with a prescribed process.

The review has two parts. The first is a report phase, followed by the readoption of rules. An evaluation of the rules under the authority of the Marine Fisheries Commission is being undertaken in two lots (see Figure 1.) A report on the rules in Title 15A, Environmental Quality, Chapter 03, Marine Fisheries was due to the Rules Review Commission in December 2017. A report on the rules in Chapter 18, Environmental Health, for portions of Subchapter A that govern shellfish sanitation and recreational water quality is due January 2019. The Marine Fisheries Commission has 211 rules in Chapter 03 and 164 rules in Chapter 18A. The Marine Fisheries Commission is the body with the authority for the approval steps prescribed in the process for these rules.

Figure 1. Marine Fisheries Commission schedule to comply with G.S. 150B-21.3A, Periodic Review and Expiration of Existing Rules.

Rules	2017	2018	2019	2020	2021	2022
Chapter 03 (211 rules)	Report	Rule Readoption				
Chapter 18A (164 rules)		Report	Rule Readoption			

The process began for the Marine Fisheries Commission at its February 2017 meeting with approval of the draft report on the rules in Title 15A, Environmental Quality, Chapter 03, Marine Fisheries. This report contained 211 rules and was reviewed by the Rules Review Commission in December 2017.

Nine of these 211 rules are jointly adopted by the Marine Fisheries Commission and the Wildlife Resources Commission. The rules are subtitled “Jurisdiction of Agencies: Classification of Waters” and are found in 15A NCAC 03Q .0100. Similarly, the Wildlife Resources Commission has 11 rules that are jointly adopted and have the same subtitle; they are found in 15A NCAC 10C .0100. For the required steps in the periodic review process, both agencies must approve both sets of rules, since the rules were all jointly adopted. The approvals for the draft report on these rules occurred at the Marine Fisheries Commission’s February and May 2017 meetings and the Wildlife Resources Commission’s April 2017 meeting.

For the reports, the first step is for each agency to make a determination as to whether each rule is necessary with substantive public interest, necessary without substantive public interest, or unnecessary. After the draft reports are approved, they are posted on the Division of Marine Fisheries website for public comment for a minimum of 60 days. It is important to note, for the purposes of these requirements, “public comment” means written comments from the public objecting to the rule. The agency must review the public comments and prepare a brief response addressing the merits of each comment. This information becomes the final report.

The final report for rules in 15A NCAC 03Q .0100 and the final report for all other rules in 15A NCAC 03 were reviewed and approved by the Rules Review Commission at its December 2017 meeting. The reports were forwarded to the Joint Legislative Administrative Procedure Oversight Committee for final determination. The committee met Jan. 9, 2018 and the review process was completed for these rules.

The second part of the periodic review process is the readoption of rules; this began for the Marine Fisheries Commission at its May 2018 meeting. The final report determines the process for readoption. Rules determined to be necessary and without substantive public interest and for which no public comment was received remain in effect without further action. Rules determined to be unnecessary and for which no public comment was received expire on the first day of the month following the date the report becomes effective. Rules determined to be necessary with substantive public interest must be readopted as though the rules were new rules. The Rules Review Commission works with each agency to consider the agency’s rulemaking priorities in establishing a deadline for the readoption of rules.

The final determinations for the rules in 15A NCAC 03Q .0100 and all other rules in 15A NCAC 03 were unchanged from how they were submitted. As a result, three rules were determined to be unnecessary and expired, 36 rules were determined to be necessary without substantive public interest and remained in effect without further action, and 172 rules were determined to be necessary with substantive public interest and must be readopted as though they were new rules. The next step in the process is to set a readoption schedule.

Recent Actions for the Periodic Review and Expiration of Existing Rules

Readoption Schedule for 15A NCAC 03 Rules

The process of rule readoption began at the Marine Fisheries Commission's May 2018 meeting. Given the large number of rules subject to readoption, this was the first of several years proposed to readopt rules. At its February 2018 meeting, the Marine Fisheries Commission approved the schedule for readoption of these rules to be completed by June 30, 2022. The proposed readoption schedule, as approved by the Marine Fisheries Commission, was approved by the Rules Review Commission at its June 2018 meeting. Due to the nature of the jointly-adopted rules of the Marine Fisheries Commission and the Wildlife Resources Commission, the Wildlife Resources Commission also approved the readoption schedule, at its April 2018 meeting.

To achieve readoption of the 15A NCAC 03 rules within the deadline, staff will prepare approximately 40 to 45 rules for readoption in each of four years. For the 2018-2019 rule package, the Marine Fisheries Commission approved notice of text at its May 2018 meeting, which began the rulemaking process. The proposed rules in this package have been recently amended and/or need only technical changes. The rules have no anticipated costs associated with them and will benefit stakeholders with increased clarity and consistency across rules. The rules are intended to become effective April 1, 2019. A handout is provided showing the steps in the Marine Fisheries Commission's 2018-2019 annual rulemaking cycle.

Staff is already preparing the next package of 40 to 45 rules in 15A NCAC 03 for readoption, which will occur in the second of four years. For the 2019-2020 rule package, rules proposed for readoption will include 15A NCAC 03M .0509, Tarpon. At its February 2018 meeting, the Marine Fisheries Commission voted to have the division begin the process of drafting a rule to make tarpon a no spear, no gaff and no possession fish. The rules in the 2019-2020 package will be provided to the Marine Fisheries Commission at its May 2019 meeting to begin the rulemaking process. These rules are intended to become effective April 1, 2020.

Final Report on 15A NCAC 18A Rules

At its February 2018 meeting, the Marine Fisheries Commission gave approval to begin the report process for the 164 rules in 15A NCAC 18A .0100, .0300-.0900, and .3400, regarding shellfish sanitation and recreational water quality requirements. All rules were classified as necessary with substantive public interest and are subject to readoption. The process is following the same timing that occurred in 2017 for the previous rule reports. A public comment period was held for these rules from Feb. 26-May 7, 2018; no public comments were received. As a result, the final report is unchanged from the draft version. The final report will be presented to the Marine Fisheries Commission at its August 2018 meeting for final approval and is due to the Rules Review Commission by January 2019. Staff recommends the Marine Fisheries Commission approve the final report on the 15A NCAC 18A rules.

N.C. Marine Fisheries Commission 2018-2019 Annual Rulemaking Cycle

August 2018

Time of Year	Action
January 2018	Last opportunity for a new issue to be presented to DMF Rules Advisory Team
February 2018	Second review by DMF Rules Advisory Team
February-April 2018	Fiscal analysis of rules prepared by DMF staff and approved by Office of State Budget and Management
May 2018	MFC considers approval of Notice of Text for Rulemaking
Aug. 1, 2018	Publication of proposed rules in the North Carolina Register
Aug. 1-Oct. 1, 2018	Public comment period
Aug. 22, 2018	Public hearing held: 6 p.m., Division of Marine Fisheries, 5285 Highway 70 West, Morehead City, NC 28557
November 2018	MFC considers approval of permanent rules
January 2019	Rules reviewed by Office of Administrative Hearings Rules Review Commission
(January)	(Last opportunity for a new issue to be presented to DMF Rules Advisory Team)
(February)	(Second review by DMF Rules Advisory Team)
Feb. 1, 2019	Earliest possible effective date of rules
February/March 2019	Rulebook prepared
April 1, 2019	Actual effective date of new rules
April 1, 2019	Rulebook available online
April 15, 2019	Commercial license sales begin

G.S. 150B-21.3A Report for 15A NCAC 18A, Sections .0100, .0300-.0900 and .3400

Agency - Marine Fisheries Commission

Comment Period - Filled in by Agency

Date Submitted to APO - Filled in by RRC staff

Subchapter	Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(e)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
SUBCHAPTER 18A - SANITATION:20A27 :247:64	SECTION .0100 - HANDLING, PACKING, AND SHIPPING OF CRUSTACEA MEAT	15A NCAC 18A .0134	DEFINITIONS	Amended Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0135	PERMITS	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0136	APPLICABILITY OF RULES	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0137	GENERAL REQUIREMENTS FOR OPERATION	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0138	SUPERVISION	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0139	FACILITY FLOODING	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0140	FLOORS	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0141	WALLS AND CEILINGS	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0142	LIGHTING	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0143	VENTILATION	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0144	INSECT CONTROL	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0145	RODENT AND ANIMAL CONTROL	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0146	PREMISES	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0147	WATER SUPPLY	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0148	ICE	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0149	PLUMBING	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0150	SEWAGE DISPOSAL	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0151	TOILETS	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0152	SOLID WASTE	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0153	PERSONAL HYGIENE	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0154	EMPLOYEES' PERSONAL ARTICLES	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One	
	15A NCAC 18A .0155	SUPPLY STORAGE	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One	
	15A NCAC 18A .0156	EQUIPMENT AND UTENSIL CONSTRUCTION	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One	
	15A NCAC 18A .0157	FACILITY AND EQUIPMENT SANITATION	Eff. October 1, 1992	Necessary with substantive public interest	No	Yes If yes, include the citation to the federal law	21 CFR 178.1010 (March 16, 1977)	No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0158	EQUIPMENT STORAGE	Eff. October 1, 1992	Necessary with substantive public interest	No		No	No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0159	SEPARATION OF OPERATIONS	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0160	RAW CRUSTACEA RECEIVING AND REFRIGERATION	Eff. October 1, 1992	Necessary with substantive public interest	No		No	No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0161	CRUSTACEA COOKING	Eff. October 1, 1992	Necessary with substantive public interest	No		No	No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0162	COOKED CRUSTACEA AIR-COOL	Eff. October 1, 1992	Necessary with substantive public interest	No		No	No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0163	COOKED CRUSTACEA REFRIGERATION	Eff. October 1, 1992	Necessary with substantive public interest	No		No	No	Necessary with substantive public interest	Select One	Select One	Select One
	15A NCAC 18A .0164	COOKED CRUSTACEA PICKING	Amended Eff. August 1, 2002	Necessary with substantive public interest	No		No	No	Necessary with substantive public interest	Select One	Select One	Select One

G.S. 150B-21.3A Report for 15A NCAC 18A, Sections .0100, .0300-.0900 and .3400

Agency - Marine Fisheries Commission

Comment Period - Filled in by Agency

Date Submitted to APO - Filled in by RRC staff

Subchapter	Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(e)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
		15A NCAC 18A .0165	PACKING	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0166	PICKED CRUSTACEA MEAT REFRIGERATION	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0167	DELIVERY WINDOW OR SHELF	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0168	SINGLE-SERVICE CONTAINERS	Amended Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0169	FREEZING	Amended Eff. August 1, 2002	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0170	SHIPPING	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0171	WHOLE CRUSTACEA OR CRUSTACEA PRODUCTS	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0172	COOKED CLAW SHIPPING CONDITIONS	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0173	REPACKING	Amended Eff. August 1, 2002	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0174	PASTEURIZATION PROCESS CONTROLS - THERMOMETERS	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0175	PREPARATION OF CRUSTACEA MEAT FOR PASTEURIZATION	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0176	PASTEURIZATION OF CRUSTACEA MEAT	Amended Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0177	LABELING OF PASTEURIZED CRUSTACEA MEAT	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0178	INTERFACILITY PASTEURIZATION PROCEDURES	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0179	RECALL PROCEDURE	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0180	SAMPLING AND TESTING	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0181	EMBARGO OR DISPOSAL OF COOKED CRUSTACEA OR CRUSTACEA MEAT	Eff. October 1, 1992	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0182	BACTERIOLOGICAL AND CONTAMINATION STANDARDS	Amended Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0183	ALTERNATIVE LABELING	Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0184	THERMAL PROCESSING CONTROLS - THERMOMETERS	Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0185	THERMAL PROCESSING OF CRUSTACEA AND CRUSTACEA MEAT	Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0186	LABELING OF THERMALLY PROCESSED CRUSTACEA OR CRUSTACEA MEAT	Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0187	INTERFACILITY THERMAL PROCESSING PROCEDURES	Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0188	HAZARD ANALYSIS	Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0189	HACCP PLAN	Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0190	SANITATION MONITORING REQUIREMENTS	Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0191	MONITORING RECORDS	Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .0300 -- SANITATION OF SHELLFISH - GENERAL	15A NCAC 18A .0301	DEFINITIONS	Amended Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0302	PERMITS	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0303	RELAYING PERMITS	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One

G.S. 150B-21.3A Report for 15A NCAC 18A, Sections .0100, .0300-.0900 and .3400

Agency - Marine Fisheries Commission

Comment Period - Filled in by Agency

Date Submitted to APO - Filled in by RRC staff

Subchapter	Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(e)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
		15A NCAC 18A .0304	DEPURATION HARVESTING PERMITS	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0305	APPEALS PROCEDURE	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .0400 - SANITATION OF SHELLFISH - GENERAL OPERATION STANDARDS	15A NCAC 18A .0401	APPLICABILITY OF RULES	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0402	GENERAL REQUIREMENTS FOR OPERATION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0403	SUPERVISION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0404	CONSTRUCTION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0405	PLANT LOCATION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0406	FLOORS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0407	WALLS AND CEILINGS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0408	LIGHTING	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0409	VENTILATION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0410	FLY CONTROL	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0411	RODENT AND ANIMAL CONTROL	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0412	PLUMBING	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0413	WATER SUPPLY	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0414	TOILET FACILITIES	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0415	WASTE DISPOSAL	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0416	PERSONAL HYGIENE	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0417	LOCKERS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0418	SUPPLY STORAGE	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0419	HARVEST BOATS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0420	TRANSPORTING SHELLSTOCK	Amended Eff. May 1, 1994	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0421	DAILY RECORD	Amended Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0422	SHELLSTOCK CLEANING	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0423	SALE OF LIVE SHELLSTOCK	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0424	SHELLFISH RECEIVING	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0425	TAGGING	Amended Eff. April 1, 1999	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0426	BULK SHIPMENTS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0427	SHELLSTOCK STORAGE	Amended Eff. May 1, 1994	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0428	SAMPLING AND TESTING	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0429	STOPSALE OR DISPOSAL OF SHELLFISH	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One

G.S. 150B-21.3A Report for 15A NCAC 18A, Sections .0100, .0300-.0900 and .3400

Agency - Marine Fisheries Commission

Comment Period - Filled in by Agency

Date Submitted to APO - Filled in by RRC staff

Subchapter	Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(e)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
		15A NCAC 18A .0430	BACTERIOLOGICAL STANDARDS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0431	STANDARDS FOR AN APPROVED SHELLFISH GROWING AREA	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0432	PUBLIC DISPLAY OF CONSUMER ADVISORY	Eff. April 1, 1999	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0433	HAZARD ANALYSIS	Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0434	HACCP PLAN	Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0435	SANITATION MONITORING REQUIREMENTS	Eff. August 1, 2000	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0436	MONITORING RECORDS	Eff. August 1, 2002	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .0500 - OPERATION OF SHELLSTOCK PLANTS AND RESHIPPIERS	15A NCAC 18A .0501	GENERAL REQUIREMENTS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0502	GRADING SHELLSTOCK	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0503	GRADER	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0504	RESHIPPIERS	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .0600 - OPERATION OF SHELLFISH SHUCKING AND PACKING PLANTS AND REPACKING PLANTS	15A NCAC 18A .0601	GENERAL REQUIREMENTS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0602	SEPARATION OF OPERATIONS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0603	HOT WATER SYSTEM	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0604	HANDWASHING FACILITIES	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0605	DELIVERY WINDOW OR SHELF	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0606	NON-FOOD CONTACT SURFACES	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0607	SHUCKING BENCHES	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0608	EQUIPMENT CONSTRUCTION	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0609	SANITIZING EQUIPMENT	Amended Eff. December 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0610	EQUIPMENT SANITATION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0611	EQUIPMENT STORAGE	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0612	ICE	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0613	SHELLFISH SHUCKING	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0614	CONTAINERS	Amended Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0615	SHELLFISH COOLING	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0616	SHELLFISH FREEZING	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0617	SHIPPING	Amended Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0618	HEAT SHOCK METHOD OF PREPARATION OF SHELLFISH	Amended Eff. August 1, 2002	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One

G.S. 150B-21.3A Report for 15A NCAC 18A, Sections .0100, .0300-.0900 and .3400

Agency - Marine Fisheries Commission

Comment Period - Filled in by Agency

Date Submitted to APO - Filled in by RRC staff

Subchapter	Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(e)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
		15A NCAC 18A .0619	REPACKING OF SHELLFISH	Amended Eff. December 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0620	SHELLFISH THAWING AND REPACKING	Eff. April 1, 1997	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0621	RECALL PROCEDURE	Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .0700 - OPERATION OF DEPURATION (MECHANICAL PURIFICATION) FACILITIES	15A NCAC 18A .0701	GENERAL REQUIREMENTS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0702	FACILITY SUPERVISION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0703	FACILITY DESIGN AND SANITATION	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0704	LABORATORY PROCEDURES	Amended Eff. September 1, 1991	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0705	FACILITY OPERATIONS	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0706	SHELLFISH SAMPLING PROCEDURES	Amended Eff. September 1, 1990	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0707	DEPURATION PROCESS WATER CONTROL - SAMPLING PROCEDURES	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0708	DEPURATION TREATMENT PROCESS WATER - STANDARDS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0709	DEPURATION - SHELLFISH MEAT STANDARDS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0710	ULTRAVIOLET UNIT	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0711	SHELLSTOCK STORAGE	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0712	DEPURATION - TAGGING AND RELEASE OF SHELLFISH	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0713	DEPURATION - RECORDS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .0800 - WET STORAGE OF SHELLSTOCK	15A NCAC 18A .0801	GENERAL REQUIREMENTS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0802	PLANT DESIGN: SANITATION: AND WET STORAGE	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0803	WET STORAGE WATER	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0804	SHELLSTOCK CLEANING	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0805	WET STORAGE TANKS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0806	SHELLSTOCK CONTAINERS	Eff. February 1, 1987	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .0900 - CLASSIFICATION OF SHELLFISH GROWING WATERS	15A NCAC 18A .0901	DEFINITIONS	Amended Eff. August 1, 1998	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0902	CLASSIFICATION OF SHELLFISH GROWING WATERS	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0903	SANITARY SURVEY	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0904	APPROVED AREAS	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0905	CONDITIONALLY APPROVED AREAS	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0906	RESTRICTED AREAS	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0907	PROHIBITED AREAS	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One

G.S. 150B-21.3A Report for 15A NCAC 18A, Sections .0100, .0300-.0900 and .3400

Agency - Marine Fisheries Commission

Comment Period - Filled in by Agency

Date Submitted to APO - Filled in by RRC staff

Subchapter	Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(e)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
		15A NCAC 18A .0908	UNSURVEYED AREAS	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0909	BUFFER ZONE	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0910	RECLASSIFICATION	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0911	MARINAS; DOCKING FACILITIES; OTHER MOORING AREAS	Amended Eff. July 1, 1993	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0912	SHELLFISH MANAGEMENT AREAS	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0913	PUBLIC HEALTH EMERGENCY	Eff. June 1, 1989	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .0914	LABORATORY PROCEDURES	Amended Eff. September 1, 1991	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
	SECTION .3400 - COASTAL RECREATIONAL WATERS MONITORING, EVALUATION, AND NOTIFICATION	15A NCAC 18A .3401	DEFINITIONS	Eff. February 1, 2004	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .3402	BACTERIOLOGICAL LIMITS FOR SWIMMING AREAS	Eff. February 1, 2004	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .3403	PUBLIC NOTICE OF INCREASED HEALTH RISKS IN SWIMMING AREAS	Eff. February 1, 2004	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .3404	SWIMMING ADVISORIES FOR POINT SOURCE DISCHARGES INTO SWIMMING AREAS	Eff. January 1, 2004	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .3405	RESCINDING A SWIMMING ADVISORY OR SWIMMING ALERT	Eff. January 1, 2004	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .3406	DESTRUCTION OF SIGNS	Eff. January 1, 2004	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One
		15A NCAC 18A .3407	APPLICABILITY OF RULES	Eff. January 1, 2004	Necessary with substantive public interest	No		No	Necessary with substantive public interest	Select One	Select One	Select One



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

August 1, 2018

MEMORANDUM

TO: Marine Fisheries Commission
FROM: Kathy Rawls, Fisheries Management Section Chief
SUBJECT: Rule Suspensions

Attached is the temporary rule suspension information for the August 2018 meeting. In accordance with the North Carolina Division of Marine Fisheries Resource Management Policy Number 2014-2, the North Carolina Marine Fisheries Commission will vote on any new rule suspensions that have occurred since the last meeting of the commission. The following rule suspension occurred since the May 2018 meeting, is subject to approval and noted as an action item on the agenda:

- Suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03M .0301 Spanish and King Mackerel, to a date certain. Suspension of this rule allows the division to reduce the minimum size limit for Spanish mackerel in the commercial pound net fishery to reduce seasonal dead discards in this fishery. These restrictions were implemented in FF-25-2018, effective July 1, 2018 until midnight September 30, 2018.

In accordance with the policy, the division will report current rule suspensions previously approved by the commission as non-action, items. The current rule suspensions are as follows:

- Continued suspension of North Carolina Marine Fisheries Commission Rule 15A NCAC 03M .0516 Cobia, for an indefinite period of time. This continued suspension allows the division to manage the commercial and recreational cobia fisheries in accordance with management actions taken by the commission and in accordance with Framework Amendment 4 to the federal Coastal Migratory Pelagics Fishery Management Plan. This suspension was continued in Proclamation FF-10-2018.
- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03J .0301 Pots, for an indefinite period of time. This continued suspension allows the division to implement the crab pot escape ring requirements adopted by the

commission in the May 2016 Revision to Amendment 2 of the North Carolina Blue Crab Fishery Management Plan. This suspension was effective January 15, 2017, implemented in Proclamation M-11-2016.

- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03L .0201 Crab Harvest Restrictions, and portions of 03L .203 Crab Dredging, for an indefinite period of time. This continued suspension allows the division to implement the blue crab harvest restrictions adopted by the commission in the May 2016 Revision to Amendment 2 of the North Carolina Blue Crab Fishery Management Plan. These suspensions were implemented in Proclamation M-11-2016.
- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03J .0501 Definitions and Standards for Pound Nets and Pound Net Sets, for an indefinite period of time. Continued suspension of portions of this rule allows the division to increase the minimum mesh size of escape panels for flounder pound nets in accordance with Supplement A to Amendment 1 of the North Carolina Southern Flounder Fishery Management Plan. This suspension was implemented in Proclamation M-34-2015.
- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03M .0519 Shad and 03Q .0107 Special Regulations: Joint Waters, for an indefinite period of time. Continued suspension of portions of these rules allows the division to change the season and creel limit for American shad under the management framework of the North Carolina American Shad Sustainable Fishery Plan. These suspensions were continued in Proclamation FF-15-2018.