



May 2023 Briefing Materials



N.C. Marine Fisheries Commission
Business Meeting
May 24-26, 2023
Beaufort, NC

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AGENDA

Beaufort Hotel, Beaufort, NC

May 24-26, 2023

N.C.G.S. 138A-15(e) mandates at the beginning of any meeting of a board, the chair shall remind all members of their duty to avoid conflicts of interest under Chapter 138. The chair also shall inquire as to whether there is any known conflict of interest with respect to any matters coming before the board at that time.

N.C.G.S. 143B-289.54.(g)(2) states a member of the Marine Fisheries Commission shall not vote on any issue before the Commission that would have a "significant and predictable effect" on the member's financial interest. For purposes of this subdivision, "significant and predictable effect" means there is or may be a close causal link between the decision of the Commission and an expected disproportionate financial benefit to the member that is shared only by a minority of persons within the same industry sector or gear group. A member of the Commission shall also abstain from voting on any petition submitted by an advocacy group of which the member is an officer or sits as a member of the advocacy group's board of directors. A member of the Commission shall not use the member's official position as a member of the Commission to secure any special privilege or exemption of substantial value for any person. No member of the Commission shall, by the member's conduct, create an appearance that any person could improperly influence the member in the performance of the member's official duties.

Commissioners having questions about a conflict of interest or appearance of conflict should consult with counsel to the Marine Fisheries Commission or the secretary's ethics liaison. Upon discovering a conflict, the commissioner should inform the chair of the commission in accordance with N.C.G.S. 138A-15(e).

Wednesday, May 24th

6:00 p.m. Public Comment Period

Thursday, May 25th

9:00 a.m. Public Comment Period

9:30 a.m. Preliminary Matters

- Commission Call to Order* - Rob Bizzell, Chairman
- Moment of Silence and Pledge of Allegiance
- Conflict of Interest Reminder
- Roll Call
- **Approval of Agenda ****
- **Approval of Meeting Minutes****

9:40 a.m. Chairman's Report

- Letters and Online Comments
- Ethics Training and Statement of Economic Interest Reminder
- 2023 Meeting Schedule
- Commission Committee Assignments
- Committee Reports

10:00 a.m. Director's Report

Presentation of Life Saving Award to Sergeant Brian Long by Marine Patrol Colonel Carter Witten

Reports and updates on recent Division of Marine Fisheries activities.

*** Times indicated are merely for guidance. The commission will proceed through the agenda until completed.**

****Probable Action Items**

Marine Fisheries Commission Business Meeting Agenda - May 2023

- Division of Marine Fisheries Quarterly Update - Kathy Rawls, Director
- Councils and Commission Update – Chris Batsavage
- Marine Patrol Update – Col. Carter Witten
- Shellfish Lease Program Update – Owen Mulvey-McFerron
- CHPP Implementation – Anne Deaton
- Informational Materials:
 - MFC Workplan
 - Protected Resources Update and Reports

11:00 a.m. False Albacore Data Update – McLean Seward, Anne Markwith

12:00 p.m. Salt Marsh Action Plan Presentation – Claire Rapp, NC Coastal Federation

12:30 p.m. Lunch

2:00 p.m. Allocation as a Management Tool in Fisheries – Chris Batsavage

2:40 p.m. Fishery Management Plans

- Status of ongoing plans – Corrin Flora
- Blue Crab FMP Amendment 2 Adaptive Management Revision Update – Joe Facendola, Robert Corbett
- Estuarine Striped Bass Stock Assessment Update Overview– Laura Lee, Nathaniel Hancock
- Spotted Seatrout FMP Amendment 1– Lucas Pensinger, Jason Rock
 - Scoping Period Overview
 - **Review and Vote on Approval of FMP Goal and Objectives****

Friday, May 26th

9:00 a.m. Fishery Management Plans Continued...

- Striped Mullet FMP – Dan Zapf, Jeff Dobbs, Willow Patten
 - Supplement to Amendment 1 of the Striped Mullet FMP
 - **Vote on final approval****

10:00 a.m. Rules

- **Rule Suspensions – Steve Poland****
- Rulemaking Update – Catherine Blum
 - 2021-2022 Annual Rulemaking Cycle Update
 - 2022-2023 Annual Rulemaking Cycle Update
 - 2023-2024 Annual Rulemaking Cycle
 - **Vote on Notice of Text for Rulemaking to readopt per G.S. 150B-21.3A, amend, adopt, and repeal 15A NCAC 03K .0110, 18A .0301, .0302, .0305, .0401-.0424, .0426-.0430, .0432-.0439, .0501-.0504, .0601-.0621, .0701-.0713, .0801-.0806****
 - **Vote on Notice of Text for Rulemaking to amend 15A NCAC 03I .0113, 03O .0101, .0109, .0112, .0301 for Data Collection and Harassment Prevention for the Conservation of Marine and Estuarine Resources****

** Times indicated are merely for guidance. The commission will proceed through the agenda until completed.*

***Probable Action Items*

Marine Fisheries Commission Business Meeting Agenda - May 2023

- **Vote on Notice of Text for Rulemaking to amend 15A NCAC 03R .0117 for Oyster Sanctuary Changes****
- **Vote on Notice of Text for Rulemaking to amend and repeal 15A NCAC 03I .0101, 03K .0101, .0104, .0301, .0401, .0403, .0405, 03O .0201, .0501, .0503, 18A .0901, .0906 for Conforming Changes for Shellfish Relay Program and Shellfish Leases and Franchises****

10:40 a.m. Issues from Commissioners

11:30 a.m. Meeting Assignments and Preview of Agenda Items for Next Meeting – Lara Klibansky

12:00 p.m. Adjourn

** Times indicated are merely for guidance. The commission will proceed through the agenda until completed.*

***Probable Action Items*

Marine Fisheries Commission Business Meeting Minutes
DRAFT
DoubleTree New Bern
New Bern, North Carolina
Feb. 22-24, 2023

The commission held a business meeting Feb.22-24 at the DoubleTree New Bern Riverfront Hotel in New Bern, North Carolina. In addition to the public comment session, members of the public submitted public comment online or via U.S. mail. To view the public comment, go to: <https://deq.nc.gov/media/35002/open>

The briefing materials, presentations, and full audio from this meeting are available at: <https://deq.nc.gov/about/divisions/marine-fisheries/marine-fisheries-commission/marine-fisheries-commission-meetings#QuarterlyBusinessMeeting-February22-242023-11589>

Actions and motions from the meeting are listed in **bolded** type.

BUSINESS MEETING - MOTIONS AND ACTIONS

On Feb. 22, a public comment session was held beginning at 6 p.m. and ended at 6:22 p.m. and the following comments were received:

Public Comment Period

Joyce Ingraham, of Wilmington, said her husband is a commercial fisherman. She said their livelihood is being threatened by the very people they have been trusting to look after their interests. In recent years, more and more restrictions on their fishing activities are being enacted. She said three or four years ago, Spanish mackerel fishing was shut down one week after they began catching them in the southern part of the state; before that it was trout and shad. She said the northern sector of the state filled the quota of Spanish mackerel before the fish even arrived in their area, and all they were allowed was the bycatch allowance. She said last year it was decided to close spot fishing Dec. 10 and croaker fishing Dec. 16, once again before most of the fish had come down to their waters, cutting them out again; she said they make most of their income then. She said they have a major problem with the striped mullet proposal; they have never started fishing for popeye mullet until Oct. 30 and it has always been that way. She said her husband remembers from his childhood that while the kids were trick or treating, his parents were picking out their first run of mullet. She said records have shown a decrease in landings, but it is not because of overfishing but because they weren't being fished for at the time because other species were paying more; you can't leave making three or four thousand dollars to try and catch something you might not catch. She said these regulations are based on flawed data. Virginia and other states north of here are opening up the species and the commission is shutting it down here. She said people fail to take into consideration the number of juvenile mullets being caught by the millions for bait for recreational fishermen; those obviously account for fewer adults available for the fishery, so she asked why not

limit that. She said they pay the same amount for their licenses as all the other fishermen, but she asked why they aren't getting any representation down here. She said they are being left out in the cold. She said her husband is 63 and he has fished since he was 14 years old, even earlier with his father; he has done nothing else and it is too late for him to try to find a new occupation. She asked the commission to please give them some help.

Taylor Barefoot, a commercial fisherman from Wilmington, said he logs about 300 days; the trip tickets and the log requirements the commission is trying to put on commercial fishermen right now is a hard thing to do to be able to plan for the future. He said he plans for the future based on what he is doing now, not what he thinks he can do. He said the commissioners make their house payments with their jobs, but if the commission cuts commercial fishermen out of a job, it is hard to make things like a house payment, and that hurts their families too; most commercial fishermen are family people. He said commercial fishermen and their families depend on the fish that they catch, just like the commissioners' families depend on their jobs; it's hard to swallow the pill of cutting out the fishery. He said he has questions about the flawed data; the fisheries are so limited, like Spanish mackerel that the previous speaker talked about, and spot and croaker that closed this past December 7. He said when North Carolina marine fisheries make bad call like this, they need to be held accountable and be questioned. He said an equal reaction needs to happen when a bad call gets made because when commercial fishermen get put out of business, something needs to happen with the decision makers too. He said he gets three minutes to talk, but the fishery is closed for a lifetime; once the commission closes something it never comes back. He didn't know if any of the commissioners have ever been fired, but when something is taken away that you love to do, like mullet fishing, it is the worse feeling that has ever been. He hoped the commission really thinks about this and about how it really affects the people behind the fishery; it's not just something you sign and then it's done, it's a lifetime.

Stuart Creighton spoke about the development of the Spotted Seatrout FMP amendment. He said the stock remains in relatively good shape, as it's not overfished, but it should be no surprise that spotted seatrout are experiencing overfishing because they are carrying inshore fishing right now with other fisheries under severe harvest restrictions. He said both user groups are increasing the pressure placed on spotted seatrout. He said overfishing can be adequately addressed by first removing gill nets and replacing them with hook and line for commercial fishermen. He said it is a high-capacity fishery with a 75 fish per day limit, so hook and line would be a viable and affordable replacement; included in that must be a cap or freeze on the licenses, to prevent people entering the fishery just to escape recreational limits. Second, he suggested the commission maintain the recreational limit of four fish per person per day, but create a full slot limit across both user groups from 14 to 22 inches to protect larger fish to improve recruitment capacity and efficiency. Next, he said recreational discards are high, and that is a concern, so he suggested the commission require the use of circle hooks when using natural bait, and either inline hooks or compressed barbs on trebles for artificial bait; these adjustments should drastically reduce dead discards from deep hooked fish. Next, he suggested the commission remove the personal consumption loophole on the commercial side. He said this encourages significant, unreported effort and would finally reform the requirements for holding a SCFL to reduce the effort from the 60% of current license holders that never report a single trip ticket. He moved to another topic and said during the commission meeting, the commission will be discussing a well written and comprehensive paper on the false albacore fishery. He said he did not know the action that led to this report, but he reminded the

commission of the importance of the false albacore fishery to the recreational community. He told the commission any future management decisions should be made with abundance in mind. He reminded the commissioners of the email he sent requesting revisions to the current rules regarding pound net sets; he said he was serious about that and expects the commission to follow up on that.

Sam Romano said he is a commercial fisherman, owner of Seaview Crab Company in Wilmington, and a former member of the Marine Fisheries Commission. He said he wanted to communicate some surprising and somewhat unsettling facts. During his time as a commissioner, he saw a haphazard pace and lack of understanding when it comes to the adoption of rules that he found particularly alarming. He said the fishing industry is among the most regulated in the country and shares similar amounts of regulations as pharmaceutical and transportation industries. He said instead of enhancing collaboration for the betterment of fisheries, he spent his term playing defense against overregulation and being the voice of the hard-working men and women of the seafood industry and the underrepresented seafood consumer. He said every time there is a new fishery management plan, there is a new opportunity for rulemaking, and there seemed to be an agenda against commercial fishing in whatever species were discussed. He said it baffled him; as a seafood entrepreneur he came to realize that the North Carolina commercial fishing industry is shrinking; he has to do whatever he can to promote and stabilize our food network and get seafood to the people. He and his fellow commissioners would point out data gaps in logical flaws in many stock assessments and proposed reductions, but for some, taking action meant making rules rather than making new research goals, filling data gaps, and addressing stock and habitat enhancement, water quality, proactivity, and a general curiosity about these valuable stocks. He said many times, stock assessments would run completely contrary to what fishermen of all types were seeing on the water. He said the commission is seeing this in real time with the perception of the stock abundance of mullet most of the time; economic and cultural implications are ignored prior to rulemaking and most are vulnerable and then workers and consumers suffer. He said worse yet, when these drastic reductions are made, seldom does the commission go back and see if the reductions are actually doing what was expected to happen. He said he is a humble, curious, commercial fisherman and he has spent hours of time speaking with the most experienced veteran fishermen he knows and he is convinced there are long term cycles in these fisheries outside of our understanding. He said most times, making rules is ineffective and is a waste of resources, time, and energy. He said during implementation of these rules, Marine Patrol has a ludicrous burden of enforcement on a case by case basis with a huge book of overly complicated rules. He said each rule leads to more bickering among user groups and a total distrust of the system. Commercial fishermen throw out their gear with no compensation; they have to totally rehash their strategy every year to make a profit, which is leading to an unsettling lack of recruitment of young people in these fisheries and destabilization of our local food network at its core. He asked the commission, when it comes time to vote on these new rules, to be humble, curious, and thoughtful about the implications of your actions. He thanked all the commercial fishermen for their continuing commitment to providing seafood for the community.

Tim Hergenrader said he is a recreational fisherman and conservationist from Pamlico County. He spoke about the dismay and disgust he has about the decision to apply for renewal of the Incidental Take Permit; it is a travesty. He said an Incidental Take Permit is not needed and large mesh gill nets are not needed to harvest flounder; flounder can be harvested with much cleaner methods using pound nets and gigs, and even recreational fishing. He said the ITP is not needed

and it is an embarrassment. He sees posts on Facebook by all kinds of groups that help sea turtles that are working up and down the East Coast to help the sea turtles. These groups make efforts to bring them back from near death from frost, cold water, hooks, and nets, and they are working their tails off, and then North Carolina is trying to find new ways to kill the sea turtles. He said he can't believe we do that as grown human beings and we don't need to do that.

Donald Willis said he has been in the tackle industry since 1986 and has seen a lot of fisheries go away in that time. Now, spotted seatrout is going to be addressed later this year. He said this is a very important fish for the tackle industry and the fishing guides; they've got to have them. He said they are down to one drum and four trout, so it is something they really need to keep, especially for these rivers and the people that are making their money that way. As far as trout go, he said pushing barbs down is a great thing to do. He said all of his trout rigs are single hooks with the barbs pressed down on all his mirror lures and everything else he uses. He said he finds it easy to release the fish without even bringing the fish out of the water; he can just put his hand under the fish, shake it, and it's gone. Next, he spoke about false albacore. He said he would like to see the commission be proactive on that because it is a very important recreational fish up and down the coast. He said they need that fish, and he asked the commission to make wise decisions to keep that fish abundant.

Al Hearren, a commercial fisherman, said he doesn't think a lot about knocking off the tail end of the mullet season. He said mullet love to stay up the rivers the whole summer and then make a short run out to sea and that's it. He said he watches the mullet all summer when he is crab potting and there are literally thousands of them, but you can't fish for them up there; that fishery is dead, and the few that he catches scattered here and there don't amount to anything. He said commercial fishermen have that one little run that happens at the tail end of the year; if the commission wants to see the catch ratio drop a lot, if the commission knocks out a few weeks at the end of the year the landings will go down substantially. He also suggested the commission see where the fish really are.

Ken Siegler, a retired commercial fisherman from Hubert, shared his concerns about closing mullet on November 7. He said maybe the commission and the biologists don't realize that there are two different fisheries on mullet: a northern fishery and a southern fishery. He said for the northern fishery, when the mullet get to be 15 cm they can be cut, but south of Bogue Sound is two to three weeks behind that. He said those two or three weeks are when the mullet ripen up and are growing roe before it is beneficial for them to go to market; they don't bother with them before that because the market doesn't want them. He said the commission wants to achieve a 20% reduction, but the entire reduction will come from south of Bogue Sound while the northern fishery operates as normal. He suggested that some of the fishermen from the southern part of the state with boats and equipment will move up to the northern area, and then there will likely be controversy, a problem the commission will have caused. He said shutting down the fishery for the southern part of the state is not efficient; there are much better ways and hopefully those are in the upcoming FMP. He said there are a lot of good things that can come out of it, but in this process the 146 data was eliminated, and for the Beaufort Bridge survey data, the data from the last three years is not included, which is the most current data. He said this stock assessment is not a good one at all; it doesn't effectively address the issues that should be addressed but aren't being addressed and the only thing that it's doing is shutting down the fishery for the southern part of the state. He said this

can't be allowed to happen. At one of the January advisory committee meetings he listened to, he said there was a man on one of the committees that said the commission has to get rid of the nets and that there can't be a roe fishery and expect it to do any good. Mr. Siegler said he wonders how that man feels about flounder, because that's exactly what is being prosecuted on; flounder is a roe fishery that occurs in the fall, so he asked why mullet is the only fish being targeted for closing.

[9 speakers]

End 6:22 p.m.

Feb. 23

Chairman Rob Bizzell convened the Marine Fisheries Commission business meeting at 9 a.m. on Feb. 23 with the Public comment Period. The Public comment session was held beginning at 9:00 a.m. until 9:15 a.m. and the following comments were received:

Public Comment Period

Ron McCoy, of Wilmington, said he grew up surf and pier fishing on the Crystal Coast when he said there were lots of fish. Today, he fishes at Topsail Beach and he said there are not lots of fish. In November, he attended the commission meeting and ended his public comments by advising the commission to learn from other Atlantic and Gulf states. He said the commission spends years and months deciding where to put gill nets; the commission should learn from Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, and South Carolina and make gill nets illegal in our rivers and sounds. He said the commission spends years and months deciding where to allow trawling; the commission should learn from Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, and South Carolina and put large ocean shrimp trawlers only in the ocean where they belong. He said the commission spends years and months deciding who should get a commercial license; the commission should learn from Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, and South Carolina and only sell commercial licenses to true commercial fishermen that report all of their landings on trip tickets. He said out of 5,000 plus commercial licenses sold, less than 50% report their landings on trip tickets. And the recreational fishermen too lazy to bait a hook; the commission should stop letting them get a commercial license. He asked about there being too many recreational fishermen killing too many fish; the commission should learn from Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, and South Carolina and better define who can own a recreational license at what price and with what gear for how many fish can be caught in a season. He said the commission must think these 7 other states are wrong and the commission is right, but these 7 states made hard decisions in the 1980s and 1990s. That's 30 or more years ago, during which time he and the commission have seen declines of 80%. He said the commission should stop protecting user groups, stop hiding behind fishery management plans, and make hard decisions on gill nets, trawls, commercial licenses, and recreational licenses. Regarding the Incidental Take Permit application, he said gill nets are killing innocent sea turtles and he shamed the commission.

Brent Fulcher, chair of the North Carolina Fisheries Association and business owner, said he received a summary of commercial striped mullet landings from the division, including the estimated 2022 landings that have not yet been verified. He also received a summary for one fish

house, in one location, showing that from September 1 through the end of the year. He said this one fish house had landings of over 512,000 pounds of striped mullet. For 2022, there was more than 2.7 million pounds landed, which is the fifth largest year in history. He said 1993 was the largest year on record at three million pounds. He said the 2022 landings were only 10% below the largest historical landings yet the commission is talking about a supplement to the plan to put a timeframe on that. He said a November cut-off date will penalize every fisherman from Morehead City south; those fishermen won't get the opportunity to catch fish, which is arbitrary and unfair. He said by then everybody North of that will have already harvested and the fish will have moved South. He asked the commission to take a good look at the data and think about the supplement decision; it should be shot down. The amendment is being developed and the stock is not in trouble. He said you can see over the last three years that the stock has been increasing. There have been hurricanes in the past few years, weather is a factor, and there have been huge amounts of shrimp that displaced fishermen into that other fishery, so they did not participate in the striped mullet fishery. He said he hopes the commission makes the right decision.

Lisa McCracken, a concerned citizen from Havelock, said she came to talk about submerged aquatic vegetation or SAV, what it is, and its benefits. SAV consists of aquatic grasses and attached microalgae and it is crucial to our aquatic environment and economy. According to the Albemarle-Pamlico National Estuary Partnership SAV helps maintain the diversity, health, and sustainability of the estuaries. She said one acre of SAV supports 40,000 fish and 50 million small invertebrates. As a nursery habitat, SAV greatly enhances juvenile density, growth, and survival when compared to other nearby habitats comprised of sand bottom. For the environment SAV provides sediment stabilization, coastline preservation, and better water quality. She proceeded to explain why the commission should care. She lives on Clubfoot Creek, which is classified as a Primary Nursery Area and a Secondary Nursery Area; it has water depths of one to five feet. She said gill net fishermen use bottom disturbing gear in the nursery areas to cause fish to move and get entangled in gill nets. She said that in an issue paper published in April 2008, originated by the MFC Chairman, Marine Patrol officers surveyed reported that the most prevalent bottom disturbing device was the use of boat and motors to run alongside and inside the net. She said she has pictures of prop marks in shallow water. She said according to APNEP, major threats to SAV include excessive sediment that blocks sunlight, pollution, and human activities that disturb the bottom. These activities can cause sediment resuspension which results in increased turbidity and the release of toxins and pollutants into the water column. It has been documented that the increased suspended sediment cause clogging of the gill surfaces and mortality. She said juvenile fish are impacted to a higher degree. She said she believes this type of bottom disturbing activity is happening in Clubfoot Creek. She said this should be a concern to commercial and recreational fishermen since the health and nursery habitat is in direct relation to the fishery stock. She said that due to the fact that Clubfoot Creek is shallow, it is more prone to SAV and bottom damage. In the original North Carolina Marine Fisheries 1977 rule that described the scope and proposal of nursery areas the following language was included: "nursery areas are necessary to the early growth and development of virtually all North Carolina's important seafood species. Nurseries need to be maintained as much as possible in their natural state and the populations within them must be permitted to develop in a normal matter with as little interference from man as possible" (time).

Glenn Skinner, Executive Director of the North Carolina Fisheries Association and commercial fisherman, spoke about the striped mullet supplement. He said looking at the data, commercial

landings have been increasing over the last three years with 2022 landings being the fifth highest on record. He said that if you take that and with the division sampling as it is, they are showing an increased abundance of this stock. He said he can't understand how the commission is considering a supplement. He said a supplement is an emergency management measure taken when the long-term viability of the stock is being jeopardized, which is not the case here. He said every sign, from recreational fishermen speaking at commission meetings from the south and north and saying they are seeing an expanded stock. Recreational and commercial fishermen from across the state are all seeing an expanded stock. He said the stock assessment does not include the last three years of data and the division's independent gill net survey is the only abundance data included. He said that the methodology used in the independent gillnet survey is not adequate to assess the overall abundance of spawning stock biomass of striped mullet. He said they don't sample in the areas where the mullets are throughout the year, the gear used is not appropriate, and the way it is deployed is not appropriate. He said this is why striped mullet is overfished with overfishing occurring. He said all other data points to an expanded stock, so this result has to be false. He urged the commission to think hard about this being an emergency measure. He reminded the commission there will be another year of data available before the amendment is completed. He said if you have 4 years of increasing data from the division and increasing harvest data in the commercial sector, you know something is wrong with the stock assessment. He asked the commission to hold off on the supplement and proceed with the amendment. He said he is not aware of any other time in history where there is an overfished stock and then three years of increases from independent and dependent sampling. On another issue, he has heard a lot of comments about the Incidental Take Permit. North Carolina is in direct violation of the Endangered Species Act when it comes to recreational fishing. He said we have over 400 documented hook and line interactions for the last 10 years from 2012 through 2021, there was no ITP, no observers, and absolutely no measures to reduce those interactions, but the commission has penalized the only fishery that has done these things, the commercial fishery. (Time)

David Sneed, Executive Director of the North Carolina Coastal Conservation Association, said he was reading the striped mullet plan decision document and there were several questions that stuck out to him. The first was about the preferred management strategy in relation to the estimated recreational harvest reduction. He said the answer to that question in the document is "we cannot calculate an estimate it for recreational harvest reduction because the data available for recreational harvest is not captured with enough precision to accurately calculate daily landings in recreational mullet harvest, both white and striped mullet for bait". So, he summarized that it is fair to say the estimated harvest reduction is unknown. Another question in the document addresses why the recreational fishery would also close; the answer provided states it is to be equitable across all fisheries and to reduce management complexity to improve enforceability. He said this hardly sounds equitable, it sounds punitive to him. On another note, he congratulated the commission on being proactive by looking at false albacore. He said it is nice to see the commission being proactive for a change to conserve the abundance of a fishery and not waiting for it to be in the toilet to react.

[5 speakers]

End 9:15 a.m.

Preliminary Matters

Following the public comment period the Chairman called the meeting to order. He began the meeting with a moment of silence followed by the pledge of allegiance. He also reminded commissioners of their conflict of interest and ethics requirements.

The following commission members were in attendance: Rob Bizzell-Chairman, Mike Blanton, Sarah Gardner, Doug Cross, Donald Huggins, Tom Roller, and Ana Shellem. Doug Rader and Robert McNeill participated via Teams.

The Chairman asked for a roll call since some commissioners were joining virtually. MFC Liaison Lara Klibansky called roll and all commissioners were present either in-person or via Teams.

The Chairman introduced the agenda and called for a motion to approve the meeting agenda.

Motion by Commissioner Roller to approve the agenda.

Second by Commissioner Cross.

Motion passes unanimously.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Chairman referenced the minutes from the November 2022 MFC Business Meeting and called for a motion to approve the minutes.

Motion by Commissioner Shellem to approve the minute of the November 2022 MFC Business Meeting.

Second by Commissioner Roller.

Motion passes unanimously.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Chairman’s Report

Chairman Bizzell explained that all items are included in the briefing materials. He referenced conversations between the WRC and MFC about striped bass and informed the commissioners that the latest letter from the WRC was included in the materials for their review.

Coastal Habitat Resolution

Chairman Bizzell explained that the MFC has been asked to be part of a resolution relating to coastal habitat protection. He asked who would be introducing the resolution and MFC Liaison Lara Klibansky explained that Commissioner Huggins would be introducing the resolution.

Commissioner Huggins introduced the Collaborative Coastal Habitat Initiative Resolution. He explained that the resolution is focused on seeking additional state level funding for voluntary cost share programs relating to coastal water quality. He explained that this resolution came out of the CHPP and was also being presented to sister agencies including EMC and CRC for their support. Commissioner Huggins also explained that neighboring states have historically allocated much higher amounts of funding than NC. The CHPP Steering Committee is hopeful that support from the three commissions will help motivate state officials to allocate additional funds.

Chairman Bizzell opened the floor for discussion of the resolution. Commissioners discussed the difference between formal and informal support and ultimately decided that a vote would be a way to show formal support.

Motion by Commissioner Roller to formally support the Coastal Habitat Resolution.

Second by Commissioner Shellem.

Motion passes unanimously.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Director's Report

Director Rawls mentioned that the legislative long session began January 11th and explained that staff have been working to provide any information requested. She also gave a brief update regarding the CCA lawsuit mentioning denial of the state's motion to dismiss and that responses from the state were submitted January 17th.

Director Rawls went on to discuss DMF's outreach initiative, specifically focusing on DMF's new social media pages. She explained that having pages separate from DEQ will allow the division to keep people better informed about fisheries management. Director Rawls also stated that she encourages anyone with questions or concerns to reach out to DMF staff to discuss these items. Staff, including herself, are always willing to answer questions so please call and set up an appointment to talk with them.

Director Rawls also mentioned the 200-year jamboree which will take place June 10th at DMF headquarters. She opened the invitation to all commissioners and all attending and listening to the meeting.

Commissioner Roller applauded the division for their social media initiative. He mentioned that it provides a simple and quick way to communicate with the public.

Chris Batsavage gave verbal updates on the Mid-Atlantic Fishery Management Council and Atlantic States Marine Fisheries Commission meetings. He summarized the recent meetings for each council and gave updates regarding upcoming management actions and discussions.

Trish Murphey gave a verbal update on the latest meeting of the South Atlantic Fishery Management Council.

Colonel Carter Witten gave an update regarding 2022 Marine Patrol accomplishments. He mentioned two large grants received by Marine Patrol as well as their 2022 statistics regarding enforcement.

Owen Mulvey-McFerron gave an update regarding the Shellfish Lease and Aquaculture Program. He specifically mentioned changes to improve program efficiency.

Director Rawls took a moment to thank Commissioner Cross for his input and assistance working with staff in the Shellfish Lease and Aquaculture Program to aid in process updates.

Zach Harrison provided a brief presentation as an update on the conclusion of the Shellfish Relay Program.

To view the presentation, go to: <https://deq.nc.gov/media/35056/open>

Anne Deaton provided a verbal update on the Coastal Habitat Protection Plan, specifically regarding actions that have come out of the recent CHPP amendment.

Barbie Byrd provided a presentation on the Protected Resources program, specifically about the ITP application process and development of the new Observer Trip Scheduling System (OTSS).

To view the presentation, go to: <https://deq.nc.gov/media/35053/open>

Jeff Dobbs provided a brief verbal update regarding bay scallop sampling protocols in response to questions and comments from Commissioner Cross.

Anne Markwith gave a presentation about the Southern Flounder fishery, specifically focused on impacts of management measures in amendment 3.

To view the presentation, go to: <https://deq.nc.gov/media/35055/open>

False Albacore Information Paper

McLean Seward gave a presentation about the False Albacore fishery, specifically current fishery status and management related to federal councils.

To view the presentation, go to: <https://deq.nc.gov/media/35051/open>

Following the presentation there was discussion amongst the commissioners regarding potential management actions for False Albacore.

Motion by Commissioner Roller to begin rulemaking on False Albacore. Cap commercial harvest at 350,000 lbs. per year, 1000 lb. trip limit, keep allowable gears at gillnet, hook and line. With a recreational bag limit of 5 per person. In addition make sure that the rule provides adaptive management by proclamation if more data is available that can inform management. The intent of this rule is to maintain the status quo of the fishery.

Second by Commissioner McNeill.

Motion withdrawn.

Second by Commissioner McNeill.

Substitute motion by Commissioner Blanton to further investigate the impacts and management actions that could be considered for False Albacore if the commercial industry lands more than 500,000 lbs. Further, if the recreational industry continues to expand at a rate that is double what landings are currently then further management action could be considered.

Second by Commissioner Cross.

Motion withdrawn.

Second by Commissioner Cross.

Motion by Commissioner Roller to ask staff to come forward with rulemaking language with management options for False Albacore starting with status quo and allowing for growth at various percentage points.

Second by Commissioner Blanton.

Motion passes unanimously.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Fisheries Management Plans

The Division's Fishery Management Plan Coordinator, Corrin Flora, presented the status of ongoing plans.

To view the presentation, go to: <https://deq.nc.gov/media/35054/open>

Spotted Seatrout Fishery Overview

Spotted seatrout lead biologist, Lucas Pensinger, gave an overview of the fishery including a breakdown of commercial versus recreational fishing efforts.

To view the presentation, go to: <https://deq.nc.gov/media/35052/open>

Commissioner Cross provided a document outlining potential Spotted Seatrout management strategies to DMF staff for review.

Striped Mullet FMP

Striped Mullet lead biologist Jeff Dobbs presented an overview the Striped Mullet fishery. The presentation included results from the most recent stock assessment.

To view the presentation, go to: <https://deq.nc.gov/media/35050/open>

Supplement A to Amendment 1 of the Striped Mullet FMP

Striped Mullet lead biologist Dan Zapf presented information regarding Supplement A to Amendment 1 of the Striped Mullet FMP. The presentation included review of the public comment about the supplement.

To view the presentation, go to: <https://deq.nc.gov/media/35057/open>

Motion by Commissioner Cross to vote down Supplement A to Amendment 1 of the Striped Mullet FMP and continue with the amendment process.

Second by Commissioner Shellem.

Motion fails by lack of supermajority.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substitute motion my Commissioner McNeill to accept Option 2 of Supplement A to Amendment 1 of the Striped Mullet FMP.

Second my Commissioner Roller.

Motion fails 4-5.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Shellem	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Motion by Commissioner McNeill to approve option 3 of Supplement A to Amendment 1 of the Striped Mullet FMP.

Second by Commissioner Roller.

Motion fails 4-5.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Meeting recessed until 9:00 a.m. on Feb. 24.

Feb. 24

Chairman reconvened the meeting at 9:00 a.m.

Rulemaking Update

The Division’s Rulemaking Coordinator, Catherine Blum, provided updates on three rulemaking cycles, including an update of ongoing rulemaking for the 2022 – 2023 rulemaking cycles. She also provided a preview on upcoming items for the 2023-2024 rulemaking cycle.

Mutilated Finfish Rule, Mooring Areas, and Other Docking Facilities Rule

Motion by Commissioner Roller to give final approval of amendments to the Mutilated Finfish Rule (15A NCAC 03M .0101), and readoption of the Marinas, Mooring Areas, and Other Docking Facilities Rule (15A NCAC 18A .0911) in accordance with N.C.G.S. 150B-21.3A.

Seconded by Commissioner Cross.

Motion passes unanimously.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

“Data Collection and Harassment Prevention for the Conservation and Marine and Estuarine Resources” issue

“Oyster Sanctuary Rule Changes” Issue

“Conforming Rule Changes for the Shellfish Relay Program and Shellfish Leases and Franchises” Issue

Motion by Commissioner Roller to select option 2, amend the rules, as the preferred management option and associated proposed language for rulemaking for the “Data Collection and Harassment Prevention for the Conservation of Marine and Estuarine Resources” issue; to select option 2, amend the rules, as the preferred management option and associated proposed language for rulemaking for the “Oyster Sanctuary Rule Changes” issue; and to support the single option presented to amend the rules, consistent with the requirements of the North Carolina Administrative Procedure Act, as the preferred management option and associated proposed language for rulemaking for the "Conforming Rule Changes for the Shellfish Relay Program and Shellfish Leases and Franchises" issue.

Second by Commissioner McNeill

Motion passes unanimously.

ROLL CALL VOTE				
Member	Aye	Nay	Abstain	Absent
Cross	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gardner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huggins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
McNeill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rader	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellem	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bizzell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Issues from Commissioners

Chairman Bizzell referenced a question about pound nets from Commissioner Roller from the November 2022 MFC Business Meeting. Steve Poland and Casey Knight came up to speak on the issue. A printed table was provided to the commissioners with pound net data.

Commissioner Cross commented on the ITP, particularly the portrayal of turtle interactions across the commercial versus recreational sectors. He requested that DMF staff provide incidental take data to include:

- How many turtles are caught and what species for the recreational hook and line fishery
- An opinion on the legality of interacting with sea turtles due to lack of an ITP for the recreational sector
- What recreational gear are known to incidentally take sea turtles
- What has the recreational industry done itself to reduce incidental takes

He referenced data from WRC regarding incidental takes of sea turtles from 2012 – 2021.

Commissioner Roller mentioned that there are other commercial fisheries that do not have ITPs and mentioned past lawsuits about this topic. He asked for updates regarding his request to look at enforcement regarding federal permits in NC, particularly for the for-hire sector since there is no joint enforcement authority which he believes is jeopardizing the potential economic impacts of the industry in the future.

Chairman Bizzell mentioned the fact that the commissioners continually state that they do not believe the data. He stated that the commissioners are not scientists (except for Dr. Rader). He stated that it is the best data that the commission has in their toolbox and they have to trust DMF staff. He requested that questions about the data be addressed before the meetings, directly with staff, etc.

Commissioner Roller referenced the conversation about False Albacore and referenced management of Sheepshead as a comparison. He asked if there could be some sort of template to look at managing unregulated or data poor species, possibly based on Sheepshead.

Commissioner Rader commented on stock assessment models and suggested there may be a systematic answer that the commission and DMF could explore to help answer questions.

Commissioner Blanton spoke about his experience as a commercial fisherman regarding gear and data collection knowledge. He expressed that he feels there is a gap between those collecting data (DMF) and those interpreting data (MFC). He suggested that DMF share how they collect data with the commission to help build confidence in the data. He also suggested that data collection could be contracted out to fishermen to help ensure accuracy and lessen doubt. He explained how important it is to tune gear the right way for what you want to catch and expressed his concerns about improving data collection.

Commissioner Cross mentioned that on the commercial side there is always a question of adaptation and experience. He suggested that DMF could match up experienced fishermen from the recreational or commercial side with biological sampling staff.

Commissioner Rader commented that fishermen count as scientists as well based on their knowledge. He explained that the issue is not so much the data itself as how all the information being collected comes together to create a complete picture and inform management. He explained that data collected by fishermen would be biased due to their knowledge of where the fish are and sampling areas they know will have fish. He explained that there are biases in both fisheries dependent and fisheries independent data. Fisheries independent and dependent data are purposefully combined to try to counteract these biases.

Review of MFC Workplan, Meeting Assignments and Preview of Agenda Items for Next Meeting
Lara Klibansky reviewed meeting assignments and provided an overview of the February meeting items.

Having no further business to conduct, the meeting adjourned at 10:25 a.m.

Chairman's Report

May 2023 Business Meeting

01 Letters

03 State Ethics Education Reminder

04 2023 Annual Meeting Calendar

05 2022 Committee Assignments

07 Committee Reports

From: Serena Parsons [REDACTED]
Sent: Thursday, March 16, 2023 12:25 AM
To: Bizzell, Rob <r.bizzell.mfc@ncdenr.gov>
Subject: [External]

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Hello my name is Cody Atkinson I am in the Duplin County NC area and have fished coastal and inland waters all of my life. I'm looking to find out about this BS "CATCH AND QUIT" fishery that Doug Cross is looking to pass for Speckled trout. I don't understand how that can even be a debate people buy licenses, registration, etc. How can the people be told NOT to fish? We're law abiding citizens trying to enjoy some freedoms we still have, Sounds like Doug Cross the "Commercial fisherman" is trying to push the recreational fisherman out for good. I do not keep fish I'm 100% catch and release I do not understand how this can happen and would like more information.

Hello my name is Cody Atkinson I am in the Duplin County NC area and have fished coastal and inland waters all of my life. I'm looking to find out about this BS "CATCH AND QUIT" fishery that Doug Cross is looking to pass for Speckled trout. I don't understand how that can even be a debate people buy licenses, registration, etc. How can the people be told NOT to fish? We're law abiding citizens trying to enjoy some freedoms we still have, Sounds like Doug Cross the "Commercial fisherman" is trying to push the recreational fisherman out for good. I do not keep fish I'm 100% catch and release I do not understand how this can happen and would like more information.

From: Wood Farless [REDACTED]
Sent: Monday, March 27, 2023 6:59 AM
To: Bizzell, Rob <r.bizzell.mfc@ncdenr.gov>
Subject: [External] South Carolina Spotted Seatrout Regulations

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to Report Spam.<<mailto:report.spam@nc.gov>>

Rob please check out the regulations South Carolina has put in place and how well their speckled trout numbers are doing since the specs can not be targeted by commercial fishermen with nets. There are plenty of other species of seafood that the non fishing consumers can purchase. It seems this issue has become very political and which side throws the most money at certain commissioners will win the battle.

Wood Farless

Sent from my iPhone



EDUCATION REQUIREMENTS FOR PUBLIC SERVANTS

Public Servants must complete the Ethics and Lobbying Education program provided by the N.C. State Ethics Commission within **six months** of their election, appointment, or employment. We recommend that this be completed as soon as possible, but the training must be repeated every two years after the initial session.

Since Adobe Flash was terminated on December 31, 2020, our online program is not available. A new and shorter online program will be available in the near future. The new program will be compatible with portable devices such as phones and tablets.

Live webinar presentations are being offered monthly and registration information for the live presentations can be found [here](#). These presentations are about 90 minutes long and give you the opportunity to ask questions of the speaker.

For questions or additional information concerning the Ethics Education requirements, please contact Dottie Benz at (919) 389-1383.

Marine Fisheries Commission 2023 Annual Calendar

Dates are subject to change.

January						
Su	Mo	Tu	We	Th	Fr	Sa
1		3	4	5	6	7
8	9	10	11	12	13	14
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29	30	31				

February						
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26	27	28				

March						
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April						
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30						

May						
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28		30	31			

June						
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July						
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30	31					

August						
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27	28	29	30			

September						
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24	25	26	27	28	29	30

October						
Su	Mo	Tu	We	Th	Fr	Sa
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29	30	31				

November						
Su	Mo	Tu	We	Th	Fr	Sa
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26	27	28	29	30		

December						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24				28	29	30
31						

2023 MFC Meeting Dates

MFC Business Meetings

February 22-24
May 24-26
August 23-25
November 15-17

Northern Regional AC

January 10
April 11
July 11
October 10

Southern Regional AC

January 11
April 12
July 12
October 11

Finfish Standing AC

January 12
April 13
July 13
October 12

Shellfish/Crustacean Standing AC

January 17
April 18
July 18
October 19

Habitat and Water Quality Standing AC

January 18
April 19
July 19
October 18

Calendar Key

	MFC		Northern Regional AC
	ASMFC		Southern Regional AC
	SAFMC		Finfish Standing AC
	MAFMC		Habitat and Water Quality Standing AC
	State Holiday		Shellfish/Crustacean Standing AC

2022 Committee Assignments for Marine Fisheries Commissioners

09/1/2022

FINFISH ADVISORY COMMITTEE

Statutorily required standing committee comprised of commissioners and advisers that considers matters related to finfish.

Commissioners: Tom Roller – co-chair, Sarah Gardner – co-chair, Mike Blanton – vice chair

DMF Staff Lead: Lee Paramore - lee.paramore@ncdenr.gov

Meeting Frequency: Can meet quarterly, depending on assignments from MFC

HABITAT AND WATER QUALITY ADVISORY COMMITTEE & COASTAL HABITAT PROTECTION PLAN STEERING COMMITTEE

Statutorily required standing committee comprised of commissioners and advisers that considers matters concerning habitat and water quality that may affect coastal fisheries resources.

Commissioners: Doug Rader – chair, Ana Shellem– vice chair

DMF Staff Lead: Anne Deaton - anne.deaton@ncdenr.gov

Meeting Frequency: Committee can meet quarterly, depending on assignments from MFC. CHPP Steering Committee can meet a couple of times a year.

SHELLFISH/CRUSTACEAN ADVISORY COMMITTEE

Statutorily required standing committee comprised of commissioners and advisers that considers matters concerning oysters, clams, scallops and other molluscan shellfish, shrimp and crabs.

Commissioners: Ana Shellem – co-chair, Mike Blanton – co-chair, Doug Cross – vice chair

DMF Staff Lead: Tina Moore - tina.moore@ncdenr.gov

Meeting Frequency: Can meet quarterly, depending on assignments from MFC

CONSERVATION FUND COMMITTEE

Committee comprised of commissioners that makes recommendations to the MFC for administering funds to be used for marine and estuarine resources management, including education about the importance of conservation.

Commissioners: Doug Rader - chair, and Robert McNeill

DMF Staff Lead: Steve Poland – steve.poland@ncdenr.gov

Meeting Frequency: Meets as needed

LAW ENFORCEMENT AND CIVIL PENALTY COMMITTEE

Statutorily required committee comprised of commissioners that makes final agency decisions on civil penalty remission requests.

Commissioners: Rob Bizzell - chair, Doug Cross

DMF Staff Lead: Col. Carter Witten – carter.witten@ncdenr.gov

Meeting Frequency: Meets as needed

COASTAL RECREATIONAL FISHING LICENSE TRUST COMMITTEE

Committee consisting of the three recreational seats and the science seat to provide the DMF advice on the projects and grants issued using Coastal Recreational Fishing License trust funds.

Commissioners: Robert McNeill– chair, Rob Bizzell, Tom Roller, and Doug Rader

DMF Staff Lead: Jamie Botinovch - jamie.botinovch@ncdenr.gov

Meeting Frequency: Meets as needed

NOMINATING COMMITTEE

Committee comprised of commissioners that makes recommendations to the MFC on at-large and obligatory nominees for the Mid- and South Atlantic Fishery Management Councils.

Commissioners: Robert McNeill – chair, Ana Shellem, Tom Roller and Mike Blanton

DMF Staff Lead: Chris Batsavage - chris.batsavage@ncdenr.gov

Meeting Frequency: Typically meets once a year

STANDARD COMMERCIAL FISHING LICENSE ELIGIBILITY BOARD

Statutorily required three-person board consisting of DEQ, DMF and MFC designees who apply eligibility criteria to determine whether an applicant is eligible for a SCFL.

Commission Designee: Mike Blanton

DMF Staff Lead: Marine Patrol Capt. Garland Yopp – garland.yopp@ncdenr.gov

Meeting Frequency: Meets two to three times a year, could need to meet more often depending on volume of applications

N.C. COMMERCIAL FISHING RESOURCE FUND COMMITTEE

Committee comprised of commissioners that the commission has given authority to make funding decisions on projects to develop and support sustainable commercial fishing in the state.

Commissioners: Doug Cross – chair, Mike Blanton, Ana Shellem

DMF Staff Lead: William Brantley – william.brantley@ncdenr.gov

Meeting Frequency: Meets two to three times a year

WRC/MFC JOINT COMMITTEE ON DELINEATION OF FISHING WATERS

Committee formed to help integrate the work of the two commissions as they fulfill their statutory responsibilities to jointly determine the boundaries that define North Carolina's Inland, Coastal and Joint Fishing Waters as the agencies go through a statutorily defined periodic review of existing rules.

MFC Commissioners: Rob Bizzell, Donald Huggins, Sarah Gardner

DMF Staff Lead: Anne Deaton - anne.deaton@ncdenr.gov

Meeting Frequency: Meets as needed

SHELLFISH CULTIVATION LEASE REVIEW COMMITTEE

Three-member committee formed to hear appeals of decisions of the Secretary regarding shellfish cultivation leases issued under G.S. 113-202.

MFC Commissioners: Rob Bizzell

DMF Staff Lead: Jacob Boyd – jacob.boyd@ncdenr.gov

Meeting Frequency: Meets as needed

COASTAL HABITAT PROTECTION PLAN STEERING COMMITTEE

The CHPP Steering Committee, which consists of two commissioners from the Marine Fisheries, Coastal Management and Environmental Management commissions reviews and approves the plan, recommendations, and implementation actions.

MFC Commissioners: Doug Rader, Donald Huggins

DMF Staff Lead: Anne Deaton – anne.deaton@ncdenr.gov

Meeting Frequency: Meets as needed



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 5, 2023

MEMORANDUM

TO: Marine Fisheries Commission
Northern Region Advisory Committee

FROM: Charlton Godwin, Biologist Supervisor
Lee Paramore, Northern District Manager
Fisheries Management Section

SUBJECT: Meeting of the Marine Fisheries Commission's Northern Region Advisory Committee

The Marine Fisheries Commission's (MFC) Northern Region Advisory Committee (AC) held a hybrid meeting on Apr. 11, 2023, at the North Carolina Estuarium in Washington. The meeting was also live streamed on YouTube. Advisory Committee members could attend in person or on WebEx and could communicate with other committee members.

The following Advisory Committee members were in attendance in person: Sara Winslow, Carl Hacker, Jon Worthington, Keith Bruno; the following attended via WebEx: Everette Blake, Thomas Newman, Carl Hacker, Jamie Lane, Roger Rulifson, Dale Martin (arrived late). Absent: Melissa Clark

Division of Marine Fisheries (DMF) Staff: Kathy Rawls, Carter Witten, Candace Rose, Lara Klibansky, Debbie Manley, Charlton Godwin, Lee Paramore, Corrin Flora, Dan Zapf, Lucas Pensinger, Jason Rock

Public: Three members of the public attended in person and 25 viewers watched on YouTube. No members of the public provided public comment.

The Northern Region AC had nine members in attendance and a quorum was met.

Northern Region AC Chair Sara Winslow called the meeting to order at 6:02 p.m.

APPROVAL OF THE AGENDA AND APPROVAL OF JAN. 2023 MEETING MINUTES

A motion was made by Jonathan Worthington to approve the agenda for tonight's meeting. Second by Keith Bruno. The motion passed 9-0.

A motion was made by Jonathan Worthington to approve the minutes from the Northern Region AC meeting held on January 10, 2023. Second by Herman Dunbar. The motion passed by unanimous consent.

MARINE FISHERIES COMMISSION UPDATE

Lara Klibansky provided an update on the February 2023 MFC business meeting.

False Albacore (Common name: little tunny *Euthynnus alletteratus*)

In February, the Commission reviewed a False Albacore Information Paper the Division had prepared at their request. This was an update to a 2017 paper that was a general review of information about the false albacore fishery in North Carolina. Following quite a bit of discussion on the information in that paper, the Commission ultimately did pass a motion; asking staff to develop rulemaking language with management options for false albacore starting with the status quo and allowing for growth in the fishery at various percentage points. Staff are reviewing available data to define some of those terms, for example what is "status quo". The Division will be presenting its initial analysis at the Commission's May 2023 business meeting. The final issue paper, with rule language options, is anticipated for either the August or November commission meeting.

Spotted Seatrout

In February, the staff leads presented an overview of the spotted seatrout fishery to the MFC and received input from commissioners on items for consideration in fishery management plan (FMP) development. Just as a reminder, we just completed the scoping period for spotted seatrout. So, we are at the very beginning of the FMP development process. Staff are now going to take the feedback they received during the scoping meetings, from the February MFC business meeting and will begin to develop the draft plan. Lara noted that the Northern AC members also have the opportunity to provide feedback tonight if there are management strategies they'd like staff to consider as they begin the first draft that management plan. Lara acknowledged the feedback provided by Commissioner Cross was a bit more comprehensive than we generally see at this point and we do have space on the agenda to discuss it all with the leads, and it will indeed be discussed more thoroughly at future meetings but staff can provide the AC the input that was received from Commissioner Cross. Public input is a huge part of fisheries management here in North Carolina.

Striped Mullet

In November of 2022, the commission selected their preferred management option for Supplement A to the Striped Mullet FMP, and that was for a state-wide November 7–December 31 season closure which is estimated to result in a 22.1% reduction in harvest compared to the last year of data used in the assessment, which is 2019. In February, the Commission heard the outcome of the public comment period and based on that input they requested the division consider developing regionally specific seasons. Staff are currently working on that. Staff reminded the AC, a supplement is meant to address overfishing immediately, utilizing a simple approach (e.g. a seasonal harvest closure, or area closure), while more comprehensive management will be developed in an amendment that is currently under development. So in May the Commission will be continuing their discussion of the management options provided in Supplement A.

Coastal Habitat Protection Plan (CHPP)

Relating to the CHPP, the Commission unanimously approved a motion supporting the Coastal Habitat Initiative Resolution which came from the Stakeholder Engagement for Collaborative Coastal Habitats Initiative (SECCHI). This resolution was focused on encouraging the State to increase funding for voluntary cost share programs to help improve water quality. As a reminder, DMF and the Albemarle-Pamlico National Estuary Partnership worked collaboratively with a core team of non-governmental organizations to form a public-private partnership which is the Stakeholder Engagement for Collaborative Coastal Habitats Initiative (SECCHI) which was a recommendation from the 2021 CHPP Amendment. The resolution was also supported by the Coastal Resources Commission (CRC) and the Environmental Management Commission (EMC) at their recent meetings.

May MFC Meeting

The May Commission meeting is scheduled for May 24–26 at the Beaufort Hotel in Beaufort. Lara noted that in addition to the update she just provided tonight on striped mullet, spotted seatrout and false

albacore, which are all on the May agenda, if the AC members would like to see a more complete overview of what is expected to be on the agenda in May, Lara encouraged them to review the MFC Workplan. That is updated for each MFC business meeting and is included as part of the briefing materials for each meeting. February's workplan is the most up to date version available.

Staff finished the update and the Chair opened the floor for questions from the AC. The AC asked if false albacore management was going to be addressed by any plans from the South Atlantic Fishery Management Council. DMF staff noted it is going to come up at the Atlantic States Marine Fisheries Commission (ASMFC). AC member Thomas Newman noted the South Atlantic Fishery Management Council chose not to manage little tunny at this time but would look at trends in harvest and catch data every three years. In recent years little tunny has become a fish that is targeted by the recreational sector due to its great fighting ability when hooked. It is rarely eaten in the U.S. The AC asked if our state chose to manage little tunny would we have to get together an AC and develop an FMP or how would that work? DMF noted the MFC has asked us to develop some options that would be more like guardrails, to allow for some expansion in utilization of the stock within pre-determined limits, but not really an FMP at this time. DMF staff noted at the state-level any regulations would need to go through the full rulemaking process before anything can be put in place. If ASMFC includes little tunny in a coastwide FMP and required management, we could use North Carolina's Interjurisdictional FMP as a way to implement regulations, otherwise any rules at the state-level will need to go through the rule making process. The AC asked if all three commissions (MFC, CRC, and EMC) were working together to implement the CHPP? DMF staff noted yes and each agency is needed to carry out any action from the CHPP that falls under their respective authority.

SPOTTED SEATROUT FMP SCOPING UPDATE

Lucas Pensinger and Jason Rock gave a brief overview of comments received during the March 13–24 spotted seatrout scoping period. Overall, there was a lot of participation with over 700 people providing comments online or in person. Comments ranging from strongly “for” and “against” and everything in between. Regarding sustainable harvest, comments ranged from no quota/quota, seasonal closures, bag limit reduction, trip limit reduction, and increase in minimum size. For recreational management there was support for making spotted seatrout a game fish, outreach for catch and release best practices, ending the use of recreational commercial gear licenses, boat limits, eliminating captain and crew limits, and limited entry. General recreational comments included reducing the impact of catch and release tournaments, and gear requirements. Commercial comments included making it entirely a hook and line fishery with limited entry. General commercial comments included gill net limits, closing the personal consumption loophole, area limits, subsidizes to phase out gill nets, increased gill net mesh size, gill net attendance regardless of area or time, and limited entry. Regarding protecting spawning stock biomass, comments included bag limit reductions, increase minimum size, and modifying cold stun protocols. Area management came up quite a lot during the scoping period and included closing certain areas to gill nets and/or all spotted seatrout fishing, and regional management. Commissioner Cross's strategy was also discussed at the scoping meetings and the public was overwhelming against quota allocation. Overall, there was general opposition to a quota and ending catch and release fishing. Multispecies management, stocking, increasing enforcement, considering management in other states, and developing a recreational reporting app (mandatory and optional reporting) were also brought up.

Staff finished the verbal update and the Chair opened the floor for questions from the AC. An AC member asked and suggested we investigate using CRFL funds through a University to conduct research on the catch-and-release delayed mortality rate for spotted seatrout. There was some question as to the accuracy of the 10% delayed mortality rate assigned to spotted seatrout recreational releases. DMF staff pointed out the studies conducted by the Division used methods that are in line with other peer reviewed studies and values used by other states, even though the Division studies were not published in a peer reviewed paper. Staff also reminded the AC the study that was cited for the mortality rate used in the

spotted seatrout stock assessment was peer reviewed, and the results were in line with many other peer reviewed literature on hook-and-release delayed mortality. Staff pointed out there is a table in the stock assessment (Table 1.8) that is a summary of recreational fishery delayed release mortality estimates from a review of the literature. Mortality estimates range from 4.6%–55.6%. An AC member pointed out 10% was comparatively low relative to the other studies referenced in the stock assessment. The AC asked about the potential to reduce discard mortality by restricting the hook type used, e.g. limiting anglers to single barbless hooks, etc. Staff pointed out that while that may decrease mortality, there would be no way to calculate the exact reduction in mortality because we would need to know the current angler use by all the possible hook types, which we do not know that information. There was then some discussion from AC members about various options for a closed recreational season by waterbody jurisdictions, such as closing inland fishing waters during winter months. Another suggestion was to close recreational harvest in joint waters during the week when commercial harvest was open and allow recreational harvest on the weekends when commercial harvest was closed. Discussion among AC members then moved to the commercial daily trip limit. It was noted the reason you don't see all commercial trips landing exactly 75 fish is that once they get close to the limit, e.g. if a fishermen makes a set and gets 50–60 fish, they are not going to make another set to try and get just a few more fish knowing they would likely have to throw back many more just to get to the 75 daily allowable limit. Commercial fishermen don't want to catch what they can't keep and have to throw fish back.

AC members asked about the timeline. Staff responded that at the May 2023 MFC meeting they would review the information obtained during the Scoping process and approve the Goals and Objectives for the FMP. After that staff would work on developing a first draft of the plan with numerous options. The MFC would appoint an FMP AC to work with the division to revise that first draft and fully develop the issue papers. If all things go as scheduled the FMP AC would start meeting with division staff in the fall of 2023.

ESTUARINE STRIPED BASS SEASON UPDATE

Division staff updated the AC on landings to date for striped bass in the Albemarle Sound Management Area. The commercial sector landed 20,460 pounds of their 25,608 lb total allowable landings (TAL) and was open March 3–March 17. The recreational sector landed 9,511 pounds of their 12,804 lb TAL and was open January 1–March 12. Staff informed the AC the WRC harvest season in the Roanoke River was going to be April 14–17 and April 22–23. There were no questions from the AC.

PUBLIC COMMENT

No public comment occurred.

PLAN AGENDA ITEMS FOR THE NEXT MEETING

Lara Klibansky provided one additional update about wind energy. Trish Murphey will provide an update to the AC at a future meeting.

Lastly staff discussed the July Joint MFC AC Workshop. We have decided to schedule the meeting on Monday July 10th based on questionnaire results. Over 50% of those who responded to the survey preferred this date. The meeting will take place at the N.C. Aquarium at Pine Knoll Shores. Staff recognizes this will require quite a bit of travel for many of you and one reason that we chose the aquarium is because we are able to use the space at a reduced cost allowing us to portion more funds for travel and hotels. The aquarium is also a beautiful venue which we feel will help the tone of the meeting. The overall goal of this workshop is to bring members from all five ACs (Northern and Southern Regional ACs, and Finfish, Habitat and Water Quality, and Shellfish/Crustacean Standing ACs) together for open discussion and to hear from DMF staff and others about key topics of interest. For example, we've had a number of requests from different advisors for overviews on stock assessments, the FMP

process, etc. We hope it will be an opportunity for networking, discussion, and collaborative learning. We are still in the planning stages and will update all advisors as those plans solidify.

ISSUES FROM AC MEMBERS

There were no issues from AC Members.

APPROVAL TO ADJOURN

A motion was made at 7:06 by Jonathan Worthington to adjourn the meeting. Second by Herman Dunbar. The motion passed by unanimous consent.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

April 28, 2023

MEMORANDUM

TO: Marine Fisheries Commission
Southern Regional Advisory Committee

FROM: Chris Stewart, Biologist Supervisor
Tina Moore, Southern District Manager
Fisheries Management Section

SUBJECT: Meeting of the Marine Fisheries Commission's Southern Regional Advisory Committee, Apr. 12, 2023 for updates.

The Marine Fisheries Commission's (MFC) Southern Regional Advisory Committee (AC) held a meeting on Apr. 12, 2023, at the Division of Marine Fisheries Central District Office, Morehead City, North Carolina and via webinar. Advisory Committee members could attend in either setting and communicate with other committee members.

The following Advisory Committee members were in attendance: Fred Scharf, Samuel Boyce, Jason Fowler, Tom Smith (came online at 6:10 pm), Pam Morris, Jerry James, Kenneth Siegler, Michael Yates (Absent – Scott (Jeff) Harrell, Truby Proctor, Tim Wilson).

Division of Marine Fisheries (DMF) Staff: Chris Stewart, Paula Farnell, Corrin Flora, Hope Wade, Garland Yopp, Ashley Bishop, Jason Rock, Lucas Pensinger, Jessie Bissette

Public: No public were in attendance at the Central District Office. Twenty-five viewers watched on YouTube.

The Southern Regional AC had eight members present at the start of the meeting and a quorum was met.

Southern Regional AC Chair Fred Scharf called the meeting to order at 6:00 p.m. The Chair opened the floor for the AC members and DMF staff to provide introductions.

APPROVAL OF THE AGENDA AND APPROVAL OF THE MINUTES

A motion was made to approve the agenda by Jason Fowler. Second by Pam Morris. The motion passed without objection.

A motion was made to approve the minutes from the Southern Regional AC meeting held on Jan. 11, 2023. Motion by Jerry James to approve the minutes. Second by Jason Fowler. The motion passed without objection.

MARINE FISHERIES COMMISSION UPDATE

Lara Klibansky could not attend, Paula Farnell gave the update. The Feb. MFC business meeting was held in New Bern. A recording of the meeting can be found on the NC Department of Environmental Quality YouTube channel and additional information can be found on the Division's website. The commission reviewed a false albacore information paper specific to North Carolina. This paper was prepared at the commission's request and is an update to the 2017 false albacore information paper. A motion was made to develop state-level rulemaking language with management options starting with status quo and allowing for growth for the fishery at various percentage points. Staff are evaluating data, defining terms (i.e., status quo), and will present the analysis at the MFC's May meeting. A final issue paper with management options will be presented at the Aug. or Nov. 2023 business meetings. At the Northern AC, a question was asked about the South Atlantic Marine Fisheries Management Council (SAFMC) and the Atlantic States Marine Fisheries Commission (ASMFC) stance on false albacore. Currently, there has only been discussion and no action has been taken; however, if management measures are taken through either the SAFMC or ASMFC, NC can implement measures through current proclamation authority. The information paper being developed by staff is specific to NC.

Staff gave the commission an overview of the spotted seatrout fishery. The commission provided input on the development of the FMP and Commissioner Cross gave specific management options for consideration. The scoping period for spotted sea trout recently closed and staff will provide you all an overview later tonight. Public input is a very important part of the FMP process.

The development of the striped mullet supplement and amendment were also discussed at the February MFC meeting. In November, the commission unanimously approved Supplement A to Amendment 1 for striped mullet which includes a Nov. 7th – Dec. 31st closure to achieve a 22.1% reduction. At the February meeting, the commission was to make its final approval of the supplement; however, after much discussion, no decision was made. Staff are currently working on regional options at the request of the commission to be presented at the May business meeting. Supplement A will only be a temporary measure to address overfishing and will potentially only impact the 2023 season while comprehensive management is developed through Amendment 2, which should be complete prior to the 2024 season.

The Coastal Habitat Protection Plan (CHPP) Amendment was adopted in 2021 and initiated the development of the Stakeholder Engagement for Collaborative Coastal Habitat Initiative (SECCHI). This initiative is meant to develop a public-private partnership to encourage stakeholder engagement. Recently, a coastal habitat resolution was developed and brought before the Marine Fisheries, Environmental Management, and Coastal Resources commission to get additional cost share funding specific to water quality issues such as nutrient loading and run-off. The MFC voted to support this resolution for more funding and get people to participate in these types of programs to improve water quality. The CRC and EMC also chose to support this resolution.

Questions from AC members

Scharf asked the dates of the next MFC meeting. Staff indicated that it is May 24-26 at the Beaufort Hotel. James asked if the division is looking at grants for water quality. Staff will provide more information at the next meeting. James indicated the Attorney General's office has an enhancement grant that closes in May that should be considered. Boyce asked for more information on false albacore and if there is a large commercial component to the fishery. Staff noted that the presentation is on the web. Regarding commercial fishery, most fish are caught incidentally while targeting other species and sold mostly for cut bait. Recreationally, it's mostly a catch and release fishery. Several AC members commented that they typically just throw them back.

Farnell noted that the southern AC will receive a brief update on fish passage in the Cape Fear and will receive a more in-depth presentation at a later date. She further indicated that staff are working on topics for the joint AC July workshop which may include stock assessment and FMP development. The next FMP to be discussed by the Southern AC will be striped mullet later this fall, there will be several other FMPs that will come to the ACs in early 2024. Staff will send an updated workplan that outlines the timeline for each FMP. Bycatch and bycatch reduction keeps coming up as well as how various fishing gears impact habitat and water quality; thus, you all may receive a presentation in future on these topics. Farnell encouraged the members to send any additional topics to staff so we can utilize these meetings when there are no action items. Scharf noted that Director Rawls has made a push to increase communication between the division and the ACs as well as get more input from the ACs on agenda items to be discussed at our quarterly meetings.

JULY JOINT MFC ADVISORY COMMITTEES MEETING PLANNING

Scharf asked if there was a framework or agenda for the July meeting. Farnell indicated that the meeting will be held on Monday July 10th at the Pine Knoll Shores Aquarium and will likely be held from 10 am to 3 pm. There will be a virtual option and travel will be covered. The goal is to have presentations on some of the topics discussed earlier (stock assessment, FMP development, bycatch, etc.). There may be one or two outside presentations (water quality, climate change). We want discussion amongst the ACs and staff. The event will be recorded if you can't be there in person or virtual. James asked if it would be open to the public. Farnell indicated it would be on the web to be viewed by the public only. James discussed the need to get more public involvement, particularly from the recreational sector. Several AC members noted that there has been an influx of comments from recreational fishermen on the division's social media pages; however, most of it has been critical. Fowler noted that we need to get more people to provide comments at the meeting in lieu of posting negative comments on social media. Scharf indicated that he liked the idea of the joint meeting being more informal so that members can build working relationships across the ACs. He further noted that it was a great opportunity to get to know other members and develop solutions to common problems faced by the ACs. Farnell agreed that many of the issues overlap, and it is a great way for the AC members to interact.

SPOTTED SEATROUT SCOPING PERIOD

Lucas Pensinger and Jason Rock gave a brief overview of comments received during March 13-24 spotted seatrout scoping period. Overall, there was a lot of participation with over 700 people providing comments online or in person. Comments ranging from strongly "for" and "against" and everything in between. Regarding sustainable harvest, comments ranged from no quota/quota, seasonal closures, bag limit reduction, trip limit reduction, and increase in minimum size. For recreational management there was support for making spotted seatrout a game fish, outreach for catch and release best practices, ending the use of recreational commercial gear licenses, boat limits, eliminating captain and crew limits, and limited entry. General recreational comments included reducing the impact of catch and release tournaments, and gear requirements. Commercial comments included making it entirely a hook and line fishery with limited entry. General commercial comments included gill net limits, closing the personal consumption loophole, area limits, subsidies to phase out gill nets, increased gill net mesh size, gill net attendance regardless of area or time, and limited entry. Regarding protecting spawning stock biomass, comments included bag limit reductions, increase minimum size, and modifying cold stun protocols. Area management came up quite a lot during the scoping period and included closing certain areas to gill nets and/or all spotted seatrout fishing, and regional management. Commissioner Cross's strategy was also discussed at the scoping meetings and the public was overwhelming against quota allocation. Overall, there was general opposition to a quota and ending catch and release fishing. Multispecies management, stocking, increasing enforcement, considering management in other states, and developing a recreational reporting app (mandatory and optional reporting) were also brought up.

James asked if there was a lot of support for commercial hook and line. Pensinger noted there were a few people who supported it; however, there were very few comments received from commercial fishermen. Staff are in the process of tallying all the numbers. Morris commented that most fish pass through the large mesh used in the commercial fishery and that most don't catch 75 fish. She further noted that since it's mostly a recreational fishery, there is no real need to put any further restriction on the commercial fishery. Morris asked staff about the benchmark stock assessment, noting that she had major concerns with using the most recent three years to assess the stock. Rock noted that assessment had data up to 2019 and the peer reviewers recommended using the average from 2017-2019 to base management off of; specifically when looking at fishing mortality and biomass. Rock further noted that only the model changed to better track cold stuns and that the reference points did not change. The AC had a brief discussion on the impact of cold stuns. Staff indicated the last cold stun closure occurred in 2018. While cold stuns can have an impact, the stock is not overfished, the biomass is there; however, fishing mortality is too high, thus overfishing is occurring. Boyce noted that while the stock assessment ends in 2019, the catch has continued to increase, and he expressed concern that there were not enough fish to sustain the fishery. Pensinger indicated that may be an argument for more conservative management to err on the side of caution. The AC further discussed how the fishery has grown in recent years and noted that there were both more fish available as well as more effort (trips). Pensinger noted that the trend is there, we saw effort increasing up to 2019. Flora noted that from a process point all management will be based on the three-year average and effort is monitored in the FMP update each July. Boyce asked if adaptive management could be used to address increases in effort. Flora noted that adaptive management will be included in all upcoming plans. Boyce next asked about ecosystem management and if adaptive management could be used when stricter regulations for other species (i.e., flounder) drives effort up in other fisheries such as trout. Staff noted that we can't predict how effort will change and that we would be hard pressed to put further restrictions on another fishery based on how effort may shift. Smith further cited the need for more regional management and that the effort will always be there. Rock noted that adaptive management usually revolves around the outcome of a stock assessment; however, triggers could be added into the plans to help get in front of a problem before the FMP is back under review. The AC next discussed developing conservation easements or buffers. Staff indicated to do something along those lines would require a quota. Morris indicated that she was against a quota. She further noted that it seems that every time a model is updated there are different results. The AC all agreed that technology has gotten better, and effort has increased.

Scharf asked staff to comment on how the public inputs are used to make changes to the management strategies that are present to the MFC. Pensinger noted that if you look at the scoping document you will see that some of the options changed. For example, the area closures consideration came up enough during the scoping period and now added where it wasn't a consideration at first. Regarding the timeframe of the process, as we gather the input from the ACs we will draft issue papers, Amendment 1, etc. The spotted sea trout AC meetings are likely going to happen late Oct. or Nov. 2023 and we will come back to the MFC next Aug. for them to approve. Scharf asked if the issue papers will come back to the ACs. Rock noted that once we have the Spotted Seatrout AC comments, we will make final revisions and then need to get approval from the MFC to take the plan out to the public, and then back to the regional and standing ACs. Flora noted that the southern AC will likely review the FMP in Jan. 2024.

James asked if there was a way to regulate areas where small trout are aggregated and if more information on ethical angling could be added to the plan. Pensinger and Marine Patrol noted it would be almost impossible to keep people out of areas where small trout are aggregated and stressed the need for public outreach. Boyce and Yates agreed the public needs to be better informed about catch and release mortality.

CAPE FEAR FISH PASSAGE OVERVIEW

Scharf gave a brief history on the inception of the locks and dams on the Cape Fear River, noting that the Army Corps of Engineers (ACOE) originally built the structures for shipping and commerce. Currently, the locks are not functional, and the dams are used to store water for local municipalities and industry as well as control flooding. These structures restrict access to historic spawning grounds for anadromous fish populations such as American shad, striped bass, and Atlantic sturgeon. Ten years ago, a rock arch ramp (swim-way) was built at Lock and Dam #1 to allow fish passage; however, the structure was not built to the original specifications due to funding limitation. Over the course of 2013-2015, it was evaluated for fish passage (striped bass, American shad, flathead catfish). American shad did reasonably well (~55-65% passage); however, it did not work very well for striped bass (~20% passage). In 2021, the Cape Fear River Water was funded from the Coastal Recreational Fishing License Grant Program to modify the rock arch. Scharf is currently working with Clemson University researchers and ACOE to re-evaluate if the new modifications have improved fish passage. Preliminary data from the spring of 2022 indicates moderate increase in passage (~40%) by striped bass; however, more tags need to be put out to fully evaluate passage. The goal is to have 100 striped bass and 100 American shad tagged to match the original study. His lab is also currently tagging and tracking Atlantic sturgeon and collecting eggs. Using high resolution acoustic receivers, they have been able to track fine and broad scale movement of sturgeon on the spawning grounds. The goal is to have the work completed by the summer, and hopefully have something to share with the AC this fall. His lab is also tracking the movement and habitat preference of juvenile Atlantic sturgeon in the rivers; juvenile sturgeon remain in their natal rivers for up to three years. The goal with this project is to develop conservation measures to limit the impact of ship strikes. Scharf is also collecting genetic information on Atlantic sturgeon in the Cape Fear River to examine mixing of sub-adults in the southern rivers along the Atlantic coast.

Smith asked about the pulse flows. Scharf noted that the e-flows are environmental pulse of water being release from Jordan Lake to fully submerge the dams. Initial data from the Clemson University study has indicated the e-flows have increased passage. Using acoustic receivers above and below the dams they can further track movement during these flows. Smith asked for more information on how far fish have to go for the eggs to be viable. Scharf indicated they have caught sturgeon eggs at their mats below the dams. He is hopeful the e-flows will promote passage of striped bass above locks and dams 2 and 3 and will further promote better spawning success. Scharf noted there is a federal infrastructure bill, that will allow the locking structures to be repaired, which would enable the ACOE to do conservation locking in the spring. Smith expressed his concern that if we can't show spawning is occurring that the Wildlife Resource Commission will stop stocking striped bass. Scharf noted that there is a lot of opposition to this and there is discussion to try a different brood stock. Smith further noted how big the striped bass fishery once was and how important it is today. Boyce asked about spawning in the Northeast Cape Fear and if there has been any evidence of a spawning population. Stewart indicated that the division has caught two juveniles in survey and data from telemetry work indicates the fish appear to make spawning runs in both the mainstem Cape Fear and Northeast. Stewart further noted that genetic samples show evidence of wild spawned fish. Smith next inquired about the distance needed for the eggs to be suspended in the water column to be viable. Stewart indicated elevated salinities in the river in recent years may be further impacting the distance needed. Smith asked if sturgeon faced the same difficulties associated with egg buoyancy. Scharf noted they are demersal and stick to the bottom and his lab is able to collect them using egg mats. His lab has seen gravid female sturgeon and has collected eggs at lock and dam #1. Our next goal is to determine the number of adults that come back to spawn each year. The AC further discussed the difficulties for sturgeon to get over the dams due to their size and although it would be difficult to do, it would be best to remove the dams as done in other systems.

PUBLIC COMMENT

No public signed up in advance to speak.

ISSUES FROM AC MEMBERS

Farnell and Scharf encouraged the AC to provide staff with topics to be discussed at future meetings as well as the joint July meeting. Farnell reminded the AC they can join staff in the field. Morris and Farnell reminded the AC to come to the upcoming 200th DMF Anniversary Celebration on June 10th.

Tom Smith motioned to adjourn; it was seconded by Ken Siegler. The meeting adjourned at 7:49 p.m.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 5, 2023

MEMORANDUM

TO: Marine Fisheries Commission
Finfish Advisory Committee

FROM: Jason Rock, Biologist Supervisor
Lee Paramore, Northern District Manager
Fisheries Management Section

SUBJECT: Meeting of the Marine Fisheries Commission's Finfish Advisory Committee, April 13, 2023

The Marine Fisheries Commission's (MFC) Finfish Advisory Committee (AC) held a meeting in person on Apr. 13, 2023, at the Division of Marine Fisheries, Central District Office, Morehead City. There was also an option for AC members and the public to join the meeting via WebEx and the meeting was live streamed on YouTube. Advisory Committee members could attend in person or on WebEx and could communicate with other committee members. Public comment was available to online attendees if they signed up in advance and was available to the public attending in person.

The following Advisory Committee members were in attendance: Tom Roller, Sarah Gardner, Bill Tarplee, Allyn Powell, Lewis Dunn, Larry Lord, David Mense, Brent Fulcher, and Jeff Buckel. Mike Blanton, Scott Whitley, Randy Proctor, and Chris Hickman attended virtually (Absent: Thomas Brewer).

Division of Marine Fisheries (DMF) Staff: Lara Klibansky, Lee Paramore, Corrin Flora, Justin Lott, Lucas Pensinger, and Debbie Manley.

Public: Online via Webex: Al Adam and David Sneed. No public were in attendance at the listening station. Seventeen viewers watched on YouTube.

The Finfish AC had 13 members present and a quorum was met.

Finfish AC Co-Chair Sarah Gardner called the meeting to order at 6:05 p.m.

APPROVAL OF THE AGENDA AND APPROVAL OF THE MINUTES

A motion was made to approve the agenda by Lewis Dunn. Second by Jeff Buckel. The motion passed unanimously.

A motion was made to approve the minutes from the Finfish AC meeting held on January 12, 2023. Motion by Bill Tarplee to approve the minutes. Second by Lewis Dunn. The motion passed unanimously.

MARINE FISHERIES COMMISSION UPDATE

Lara Klibansky provided an update on the February MFC meeting. The February MFC business meeting was held in New Bern. A recording of the meeting can be found on the NC Department of Environmental Quality YouTube channel and additional information can be found on the Division's website. The commission reviewed a false albacore information paper specific to North Carolina. This paper was prepared at the commission's request and is an update to the 2017 false albacore information paper. A motion was made to develop state-level rulemaking language with management options starting with status quo and allowing for growth for the fishery at various percentage points. Staff are evaluating data, defining terms (i.e., status quo), and will present the analysis at the MFC's May meeting. A final issue paper with management options will be presented at the August or November 2023 business meetings.

Staff gave the commission an overview of the spotted seatrout fishery. The commission provided input on the development of the FMP and Commissioner Cross gave specific management options for consideration. The scoping period for spotted seatrout recently closed and staff will provide the AC an overview later tonight. Public input is a very important part of the FMP process.

The development of the striped mullet supplement and amendment were also discussed at the February MFC meeting. In November, the commission unanimously approved Supplement A to Amendment 1 to go out for public comment for striped mullet which includes a November 7 – December 31 closure to achieve a 22.1% reduction. At the February meeting, the commission was to make its final approval of the supplement; however, after much discussion, no decision was made but the MFC directed the Division to develop regional considerations in the supplement. Staff are currently working on adding regional options to the supplement that will be presented at the May business meeting. Supplement A will only be a temporary measure to address overfishing and will potentially only impact the 2023 season while comprehensive management is developed through Amendment 2, which should be complete prior to the 2024 season.

The Coastal Habitat Protection Plan (CHPP) Amendment was adopted in 2021 and initiated the development of the Stakeholder Engagement for Collaborative Coastal Habitat Initiative (SECCHI). This initiative is meant to develop a public-private partnership to encourage stakeholder engagement. Recently, the SECCHI drafted a coastal habitat resolution requesting the state legislature provide additional cost share funding specific to water quality issues such as nutrient loading and run-off. The resolution was brought before the Marine Fisheries, Environmental Management, Coastal Resources, and Soil and Water Conservation commissions. The MFC as well as the other commissions voted to support this resolution for more funding and encourage people to participate in these types of programs to improve water quality.

A member of the AC enquired if a supplement was the appropriate action at this time given that striped mullet landings in 2022 had increased dramatically and was the fifth largest in history. It seems the stock does not require immediate action. Staff noted that landings are high in 2022 but also cautioned that landings don't always correlate to fishing mortality and while 2022 did see an increase, the assessment still shows a history of overfishing and is in an overfished state and that led to the determination to pursue a supplement to immediately address overfishing. The Division will be going back to the MFC with the supplement in May for their consideration. An AC member noted the unusual number of large fish, particularly males in the harvest in the last year and noted that this was further evidence that a supplement may not be warranted. Staff noted age data are still being looked at for 2022 but recent data does indicate some truncation of the age structure and most of harvest comes from a couple of age classes. An additional comment was made as to why the assessment for striped mullet did not include a continuity run and why there were such differences between the prior assessment and the current assessment. It was noted that the striped mullet leads and assessment staff had addressed this issue and had put together some information related to this topic and that they could be consulted to provide more details. Staff did

note that the assessment does go before an independent peer review panel and they do review the appropriateness of the data and model. The panel did conclude that the current assessment was a stable model that provided sound management advice on the condition of the striped mullet stock. There was additional discussion on data used in the models. It was noted the maturity index was updated in the current model based on newer data. The gill net survey and electrofishing survey were also discussed. The AC asked about the timeline of Amendment 2 and the next assessment. Staff noted that Amendment 2 could potentially be implemented before the fall fishery in 2024 and any new assessment would ideally have a few years of management to assess impacts to spawning stock.

JULY JOINT MFC ADVISORY COMMITTEES MEETING PLANNING

Klibansky noted the meeting will be held on Monday July 10th at the Pine Knoll Shores Aquarium and will likely be held from 10 a.m. to 3 p.m. There will be a virtual option and travel will be covered. The goal is to have presentations on some of the topics discussed earlier (stock assessment, FMP development, bycatch, etc.). There may be one or two outside presentations (water quality, climate change). We want discussion amongst the ACs and staff. The event will be recorded if you can't be there in person or virtual and it will be on the web to be viewed by the public only.

The AC discussed the July AC meeting, and several spoke to the opportunity this would be to help educate on various aspects of management and interact with various groups/ACs and discuss various challenges related to both the commercial and recreational fisheries in a structured way. The AC also talked about including more discussions about habitat and how it is impacting the life history of the various species that have FMPs. Staff noted that this is something that the Habitat and Water Quality AC has asked for specifically in their meetings.

SPOTTED SEATROUT SCOPING SUMMARY AND DISCUSSION

Lucas Pensinger gave an introduction as the spotted seatrout co-lead. He reviewed the scoping process and noted that over 700 individuals participated, either through attending a scoping meeting, submitting written comments or participating in the online questionnaire. For most of the topics brought up, comments varied from support for to support against, and often, everything in between. Lucas reminded the AC this would be a great time to hear their input for potential management strategies.

Lucas proceeded to provide an update on the following comments as they relate to each potential management strategy:

Sustainable harvest options suggested included:

- No quota
- Seasonal closures
- Bag limit reduction
- Trip limit reduction
- Increase minimum size

Recreational management options suggested included:

- Seatrout specific
 - Gamefish
 - Outreach re: catch and release best practices
 - No RCGL harvest
 - Boat limits
 - Eliminate captain/crew limit
 - Limit entry

- General
 - Reduce tournament impact
 - Gear requirements

Commercial Management options suggested included:

- Seatrout specific
 - Hook and line fishery
 - Limited entry
- General options suggested included:
 - Reduce gill net effort
 - Reduce all commercial effort
 - Close personal consumption loophole
 - Commercial subsidies to phase out gill nets
 - Area limits
 - Increase gill net mesh size
 - Required gill net attendance

Protect Spawning Stock Biomass options suggested included:

- Slot limit
- Bag limit
- Increase minimum size
- Cold stun closures

Area Management options suggested included:

- Close areas to gill nets
- Close areas to all spotted seatrout fishing
- Regional/localized management

Commissioner Cross's Proposal

- Overwhelmingly comments were against and felt it was unnecessary
- No quota
- Do not end catch-and-release fishing

General Ideas

- Ecosystem/multi-species management
- Stock fish
- Increase enforcement efforts
- Look at management in other states
- Recreational reporting app

Once the summary was complete, the Chair opened the floor to questions. An AC member asked what other states regionally manage spotted seatrout, specifically with FMP development. Staff noted that most states do not develop FMP's like NC. An ASMFC plan does exist and it was noted that it only has the requirement of setting a minimum size limit of no less than 12 inches. Staff also noted that in N.C. our legislation through the Fisheries Reform Act (FRA) mandates management for sustainable harvest through an FMP. The FRA is the basis for our stock assessments and FMPs. Another AC member asked what other states have stock assessments. Staff provided a quick overview of assessments and stock status of the spotted seatrout fisheries in other south Atlantic and Gulf states. Discussion ensued on the various management strategies of the other states including strategies like slot limits and seasonal closures.

An AC member asked about the impact of release mortality on a species like spotted seatrout and why can't we just have a bag limit and no size limit. Given that many of the fish will die from release is it reasonable to have a minimum size limit? Staff noted that the studies in N.C. indicate that around 10% of fish released are assumed to die so we conclude that 90% will survive. Given this, a minimum size limit does allow a large portion of the population to spawn at least once prior to harvest or being subjected to release mortality. Staff also noted that most anglers will defer from catching small spotted seatrout if they are below the legal-size limit. There was additional discussion on hook and line release mortality studies and the factors that contribute to higher release mortality. It was noted that hook and release mortality is a significant source of removals relative to commercial discards. Some additional discussion occurred on the idea of removing size limits and only allowing what is captured to be harvested until a bag limit is attained. This was noted as an idea for exploration for the plan. It was noted that there is some question on enforceability of such a measure although it does provide some biological merit in theory. Some AC members noted that catch and release is a significant portion of this fishery and this would be highly impactful. How release mortality impacts a slot limit as a management option was discussed. In some cases, you could be creating more discards because an angler now has to catch more fish to capture a limit of fish in the slot. Staff noted that this a good example of how regulations sometimes impact behavior and that is very difficult to account for when trying to meet expected reductions. The AC further acknowledged that this discussion emphasizes the importance of promoting fishing practices that minimize release mortality through education of the angling public. The idea is for continued access to the resource but in doing so we have to figure out how to minimize the impact to the greatest extent possible. This philosophy of catch and release and ethical angling has been well established in freshwater but needs further development with the public in saltwater.

An AC member asked about the timing of the assessment and the impact of COVID. Staff noted that the terminal year of the assessment pre-dated COVID. The AC member noted that we saw a spike in effort during COVID that is not typical of the fishery and those few years should not be considered the norm. An AC member noted that this stock is not heavily managed by ASMFC and he suspects it is due to the stock's vulnerability to cold stuns and that management is really just a moving target since the cold kills are the driving factor on abundance. Staff clarified that ASMFC has had some limited discussion on not retaining a plan for spotted seatrout, this was not related to cold kills but to the lack of the stock being highly migratory. Some states preferred to keep management at the ASMFC level because this was the basis for their management on spotted seatrout.

An AC member commented on how we manage fisheries and stated that in most fisheries we are primarily managing with our regulations for a scenario that creates discards and then we have to manage for the waste that the regulations create. The Division needs to work harder to manage the waste and learn how not to create it. The AC member commented that he did not buy into the hook and line study results because the studies conducted need to mimic the practices in the fishery and not a best-case scenario. Staff agreed that mimicking how fishing occurs is the best sample design to a hook and line release mortality study. The member noted that we need to limit access to resource on the recreational side because effort is not sustainable and the discard mortality in the future will limit the fishery. Most education on how to catch and release goes on deaf ears. Just let them keep their limit and go to the dock and that would be enforceable. Another AC member disagreed with the idea of a catch and quit management strategy and said this type of strategy in an inshore fishery that has a large catch and release component requires a different approach. There was additional discussion on gear size and selectivity in the commercial fishery primarily centered around ways to manage fisheries different by allowing retention outside of typical size limits to reduce discard mortality. Red drum and flounder were given as examples of FMPs where size limits were creating discards, and this is a major contributor to fishing mortality and the spotted seatrout may be an FMP where other ideas can be explored to avoid this issue.

An AC member asked what data exist relative to spotted seatrout that would indicate that there is an issue with the stock. Staff noted that biomass in the stock is not the issue. The stock is above the target. What we have seen in the fishery is an increase in fishing effort and that fishing mortality in the terminal year was above the threshold. The higher effort in the fishery has also corresponded to a period of higher abundance and it shows the capacity to exploit the stock exists with increased effort during times of abundance and good angler success. A member asked why we need a stock assessment when winter kills can be such a factor and why can't we just use fishery independent indices to set management from. Staff noted that the most current stock assessment addressed the research need from the prior assessment which was to account for natural mortality from winter kills. This new approach incorporates information on the natural mortality of cold stuns and the model was able to pick up on those signals. This was an improvement over our prior stock assessment. There was additional discussion on cold kills and how it impacts the stock across all sizes of fish in the population. Staff noted that as opposed to indices of abundance a stock assessment provides a much broader picture based on more data inputs. It allows us to quantify fishing mortality and biomass as opposed to just trends. An AC member noted that based on his look at the data from the prior assessment, it did not appear that closures of the fishery after a cold kill have had any impact on stock recovery. Staff responded that they felt it would be best to look at results from the current stock assessment where variable natural mortality from cold kill is part of the assessment. The member noted it may also have been more of the recruitment after a spawn following a cold kill was not different before or after the cold kill regulation. Staff noted they appreciated the input and could look further into this observation.

Another AC member suggested that there are techniques such as Management Strategy Evaluations to look at an iterative process to determine what management strategies may perform best. In the modeling one of the techniques is to go out and scope the public on what they would want to see in the fishery and then evaluate how that strategy may perform. Through scoping did we see much support for some of the ACs suggestion for a catch and quit strategy or was catch and release more widely requested? Staff noted that catch and quit was not a popular idea during scoping. There was interest in a trophy fishery and particularly in allowing a slot limit with a trophy fish. Most spoke directly in opposition to catch and quit in reference to the Cross proposal. The AC member then further noted that if catch and release is a preferred management strategy of the public and that if the fishery continues to expand, it is possible other measures such as limiting effort could be required in some scenarios and these are all things to be evaluated.

An AC member asked about reproductive capacity of spotted seatrout related to size and if there is a size limit or slot limit that could be set to maximize reproductive potential. Staff noted that this is possible but not sure we have the data to determine the exact size where this could be maximized. Staff noted that specific fecundity data is not readily available in N.C. but that in general fecundity increases at a high rate as size increases. An AC member noted that it is not just the size of the fish but the abundance of the fish across sizes that is important in determining egg production. Further discussion provided some examples of management for other species where fecundity data does allow for measures of spawner potential and egg production to be used as a measure of stock status.

Another AC member commented that the effectiveness of any rule and regulation is directly tied to the ability to enforce those measures. He noted that he has had a lot of feedback and it was also brought up during scoping meetings that enforcement seems to be lacking in coastal N.C. How can we as a committee step up any weaknesses in enforcement to make the Commission aware of this issue? Staff noted that the Division has limited officers and the best course of action is to make your legislators aware of the need for increased enforcement to protect our coastal fishery resources. It is the prerogative of the AC if they desire to make a statement to the MFC. Staff noted that comments from the AC would be captured in the minutes and provided to the MFC at their May meeting and that three MFC members were

present and serve as members of the Finfish AC. There was some discussion on reciprocity with WRC officers on water and if that existed. Staff noted that there is overlap in joint waters but generally fishery regulations don't overlap as each agency has their own regulations and jurisdictions. Staff noted that Marine Patrol does work closely with WRC officers in various situations. Additional discussion centered around the need for stability with not just Marine Patrol but also with other positions across the Division and the high rate of turnover that occurs and losing talented staff.

An AC member noted that while we often disagree on issues and come from different sectors it should be noted that we have great fisheries and the level and quality of data provided by the Division should be commended. Based on experience at the federal level on various committees, many other states look to N.C. for the data they provide and that is something we should be proud of.

PUBLIC COMMENT

There was no public comment.

The meeting adjourned at 8:22 p.m.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

Apr. 20, 2023

MEMORANDUM

TO: Marine Fisheries Commission
Shellfish/Crustacean Advisory Committee

FROM: Anne Deaton, Habitat Program Manager, Habitat and Enhancement Section
Tina Moore, Southern District Manager, Fisheries Management Section

SUBJECT: Meeting of the Marine Fisheries Commission's Shellfish Crustacean Advisory Committee, April 18, 2023

The Marine Fisheries Commission's Shellfish/Crustacean advisory committee (AC) held an in-person meeting on Apr. 18, 2023, at the Division of Marine Fisheries, Central District Office, Morehead City, NC, or attend virtually if needed.

The following AC members were in attendance: Ana Shellem, Mike Marshall, Ted Wilgis. Online: Lauren Burch, Jim Hardin, Tim Willis, Mike Blanton, Doug Cross. Absent: Brian Shepard, Adam Tyler, Bruce Morris, Mary Sue Hamann,

Division of Marine Fisheries (DMF) Staff: Lara Klibansky, Paula Farnell, Hope Wade, Corrin Flora, Tina Moore, Anne Deaton, Carter Witten, Jason Rock

Public: Kelly Schoolcraft, Glen Skinner. Five viewers watched on YouTube.

Shellfish/Crustacean AC Chair Ana Shellem called the meeting to order at 6:08 p.m.

Chair Shellem provided some introductory remarks and let AC members introduce themselves. The Shellfish/Crustacean AC did not meet quorum initially but did once three AC members arrived late.

APPROVAL OF AGENDA AND APPROVAL OF THE MINUTES

A motion was made by Mike Marshall to approve the agenda. Second by Jim Hardin. The motion passed without objection.

A motion was made by Mike Marshall to approve the minutes from the Shellfish/Crustacean AC meeting held on Jan. 17, 2023. Second by Jim Hardin. The motion passed without objection.

MARINE FISHERIES COMMISSION UPDATE

Lara Klibansky provided an update on the February MFC meeting. The Feb. MFC business meeting was held in New Bern. A recording of the meeting can be found on the NC Department of Environmental Quality YouTube channel and additional information can be found on the Division's website. The commission reviewed a false albacore information paper specific to North Carolina. This paper was

prepared at the commission's request and is an update to the 2017 false albacore information paper. A motion was made to develop state-level rulemaking language with management options starting with status quo and allowing for growth for the fishery at various percentage points. Staff are evaluating data, defining terms (i.e., status quo), and will present the analysis at the MFC's May meeting. A final issue paper with management options will be presented at the Aug. or Nov. 2023 business meetings.

Staff gave the commission an overview of the spotted sea trout fishery. The commission provided input on the development of the FMP and Commissioner Cross gave specific management options for consideration. The scoping period for spotted sea trout recently closed and staff will provide the AC an overview later tonight. Public input is a very important part of the FMP process.

The development of the striped mullet supplement and amendment were also discussed at the February MFC meeting. In November, the commission unanimously approved Supplement A to Amendment 1 to go out for public comment for striped mullet which includes a Nov. 7th – Dec. 31st closure to achieve a 22.1% reduction. At the February meeting, the commission was to make its final approval of the supplement; however, after much discussion, no decision was made. Staff are currently working on regional options at the request of the commission to be presented at the May business meeting. Supplement A will only be a temporary measure to address overfishing and will potentially only impact the 2023 season while comprehensive management is developed through Amendment 2, which should be complete prior to the 2024 season.

The Coastal Habitat Protection Plan (CHPP) Amendment was adopted in 2021 and initiated the development of the Stakeholder Engagement for Collaborative Coastal Habitat Initiative (SECCHI). This initiative is meant to develop a public-private partnership to encourage stakeholder engagement. Recently, the SECCHI drafted a coastal habitat resolution requesting the state legislature provide additional cost share funding specific to water quality issues such as nutrient loading and run-off. The resolution was brought before the Marine Fisheries, Environmental Management, Coastal Resources, and Soil and Water Conservation commissions. The MFC as well as the other commissions voted to support this resolution for more funding and encourage people to participate in these types of programs to improve water quality.

SHELLFISH LEASE PROGRAM AND ENTERPRISE AREAS

Owen Mulvey-McFerron, Shellfish Lease Coordinator, provided an overview of lease application activity and recent changes in the shellfish lease program to improve program efficiency. He summarized past application activity – in 2022 DMF received 84 shellfish lease applications. From February through April 2023, public hearings were held in Carteret, Onslow, Pamlico, Pender, Hyde, and Dare counties. Final determination on those lease applications is pending. The 2023 shellfish lease application period opened on March 1st, and will close on August 1st. So far, DMF has received five applications and it's expected to be another busy application season.

Procedural changes in the shellfish lease program included consolidating the annual rent notices, production reports, and work authorizations into a single mailing which is sent to all leaseholders in January. A one-page summary of newly adopted rules was included in the mailouts so leaseholders are aware of any impacts these rule changes may have on their operations.

Shellfish lease renewal packets, which are sent out at the end of the 10-year shellfish lease contract period, will now include copies of the original shellfish lease application and management plan for reference to aid the leaseholders in filling the renewal application. On a similar note, staff developed template forms to assist leaseholders with, and expedite the shellfish lease transfer process, which has shown increased interest over the past few years. They are also increasing the availability of lease siting, storm preparedness, gear and marine debris management, and technical guidance resources for applicants

and leaseholders, developing new resource guides, and making new and existing resources available on the website.

The Aquaculture Operations Permit (AOP) renewal packet was streamlined with a one-page renewal form, fillable PDFs, and digital filing. This has facilitated a 10-day turnaround time for AOPs, as well as a 48 hour to 72 hour turnaround for Intro and Aquaculture Seed Transplant Permits. Lastly, the development of the AOP inspection tool will facilitate expedited inspections and ensure consistency throughout the annual inspection process.

Zach Harrison, Aquaculture Permits Coordinator, provided an update to the relay program. The Relay Program allows Shellfish Lease and Franchise holders to harvest shellfish in designated polluted areas and transport them to their lease or franchise between April 1 and May 15. In 2022, DMF made the public aware that phasing out the Relay Program had begun, with three final seasons. The Relay Program is being phased out for several factors:

- The 2019 Aquaculture Bill removed the ability of shellfish lease and franchise holders from meeting annual production requirements through the Relay Program.
- The National Shellfish Sanitation Program's (NSSP) requires all shellfish moved from polluted areas to be monitored by Marine Patrol. Officers must oversee the harvest, transport, and placement of relayed shellfish. Marine Patrol staff shortages have made this requirement challenging, particularly due to the relatively low participation rates.
- There has been a continuous decrease in the participation of this program in the past ten years.

As a result of these last two factors, DMF limited the relay season in 2019 to two days per week in two areas. 2021 Relay season included three locations in Carteret County and three locations in the Southern Onslow Bay counties, New Hanover, Pender, and Onslow. Based on input from participants, the 2022 season was modified to incorporate three additional southern locations that were rotated. Relay activity remained limited to two days/week for six weeks. A limiting factor with the extent of relay is availability of Marine Patrol officers. There were 32 participants in 2021 and 37 in 2022, with daily average participation across all locations at five to eight transplanter per day, and the daily average by location was three and four transplanters. The end date for relay is set for May 1, 2024.

At the February 2022 MFC meeting, a commissioner voiced concern that phasing out the relay program would eliminate a means for bottom lease holders to produce shellfish without cages/gear. Harrison explained that the total number of bottom and water column leases in the past four years increased but the total number of bottom-only leases has remained steady and that the majority of bottom leases and franchises are meeting production without utilizing the relay program.

Committee members had specific questions on the locations relayed in 2022 and the reporting requirements for the relayed oysters. Tim Willis noted the benefits of oysters to improve water quality and if DMF is considering adding more leases to the systems due to the benefits to the ecosystem? Mulvey-McFerron agreed on the benefits of oysters to improving water quality and indicated the number of lease applications annually has been growing. Shellem said she exclusively harvests wild shellfish and would be discouraged if all harvest was exclusive to private bottom. Ted Wilgis had questions about the different amounts relayed between districts. Harrison noted it depends on the proximity to leases; for example there is no relay occurring in Pamlico Sound due to the distances to travel to transport to a lease. District 3 counties – Onslow, Pender, and New Hanover – tend to have more relay activity due to the more compressed waterbodies and proximity to active leases. Wilgis asked if a red tide happened again would the rules allow relay to open up again? Harrison noted the style of leases have diversified and are more like farming, so there should not be as much risk as in the past. The Aquaculture Bill allows production to come from planting seed, but relay will no longer count. Wilgis noted research has identified polluted areas act like sanctuaries so long as the oysters are healthy. Mike Marshall asked what

the mechanism was to remove relay? Harrison identified rule changes are in process to remove relay and Seed Oyster Management Areas (SOMA) are still in effect to relay seed to leases. Marshall noted the red tide relay did not work in most areas, only in small creeks down south. It was more a means to keep fishermen employed. Marshall noted both relay from polluted areas and SOMA originated well before the red tide event in 1987/88.

SPOTTED SEATROUT SCOPING PERIOD DISCUSSION

Jason Rock gave a brief overview of comments received during the March 14-24 spotted sea trout scoping period. Overall, there was a lot of participation with over 700 people providing comments online or in person. Comments ranged from strongly “for” or “against” and everything in between. Regarding sustainable harvest, comments included arguments for and against a quota, seasonal closures, bag limit reduction, trip limit reduction, and an increase in minimum size. For recreational management there was support for making spotted seatrout a game fish, outreach for catch and release best practices, ending the use of recreational commercial gear licenses, boat limits, eliminating captain and crew limits, and limited entry into the fishery. General recreational comments included reducing the impact of catch and release tournaments and implementation of gear requirements. Commercial comments included making it entirely a hook and line fishery with limited entry. General commercial comments included gill net limits, closing the personal consumption loophole, area limits, phasing out gill net limits, increased gill net mesh size, gill net attendance regardless of area or time, and limited entry. Regarding protecting spawning stock biomass, comments included bag limit reductions, increased minimum size, and modifying cold stun protocols. Area management came up quite a lot during the scoping period and included closing certain areas to gill nets and/or all spotted sea trout fishing as well as regional management. Commissioner Cross’s strategy was also discussed at the scoping meetings and the public was overwhelmingly against quota allocation. Overall, there was general opposition to a quota and ending catch and release fishing. Multispecies management, stocking, increasing enforcement, considering management in other states, and developing a recreational reporting app (mandatory and optional reporting) were also brought up.

Wilgis asked how the CHPP plays into the spotted seatrout amendment. Anne Deaton responded staff continue to work on Strategic Habitat Areas (SHA) ground truthing. Sampling has been completed in the SHAs from Core Sound south to the SC/NC line and staff are working on the report. There is higher diversity in SHAs than non-SHAs. Habitat staff on the spotted seatrout PDT will provide a literature update on habitats known to be used by the species in the amendment.

JULY JOINT MFC ADVISORY COMMITTEES MEETING PLANNING

Klibansky noted the meeting will be held on Monday July 10th at the Pine Knoll Shores Aquarium and will likely be held from 10 am to 3 pm. There will be a virtual option and travel will be covered. The goal is to have presentations on some of the topics discussed earlier (stock assessment, FMP development, bycatch, etc.). There may be one or two outside presentations (water quality, climate change). We want discussion amongst the ACs and staff. The event will be recorded if you can’t be there in person or virtual and it will be on the web to be viewed by the public only.

PUBLIC COMMENT

Kelly Schoolcraft runs a charter boat business out of Hatteras where he has customers go clamming, shelling, and fishing on a trip. Every year he is seeing an increase in bay scallops. He can’t understand why Carteret County has had an opening for bay scallops this season but not in Pamlico Sound with the abundance of scallops. He would like to see an opening to bay scallops in his area especially in the warmer months (April – August) so he can have his customers enjoy their harvest. He has seen hundreds of small bay scallops. It is a public resource that people should access. Tina Moore, former bay scallop

biologist, noted bay scallops are annual and the opening to harvest is timed to winter (late Jan. through Apr.) when adults are present from that one cohort and less overlap with next year's juveniles. We are trying to get them back to historic levels present prior to the red tide. In the Bay Scallop FMP there are regional triggers associated with DMF sampling in Oct-Dec to determine if sampling abundance meets the required thresholds for opening the third Monday in Jan. through Apr. 1. She provided an overview of the sampling of set sites as well as at-will sites which we will go to based on information from what people see on the water and would appreciate coordinates of any known areas with scallops. Schoolcraft noted some areas where he observed scallops included Sandy Bay, behind the bath house at Frisco, and behind Portsmouth Island. The last opening to harvest bay scallops in the Pamlico Sound region was in 2009. Moore noted that scallops are often concentrated in patches but overall there is not enough to meet the trigger threshold for opening when sampling across the region. Staff will follow up with Mr. Schoolcraft. Shellem noted she has seen bay scallops where she shellfishes down south as well and asked Mr. Schoolcraft if he has tried harvesting ribbed mussels. She said a hori hori knife is an excellent tool for taking the mussels from their attachment.

Glen Skinner wanted to clarify that it wasn't accurate to say that there was no appetite for doing away with catch and release. Skinner said he did say at one of the scoping meetings there is a problem with dead discards because of the amount of catch and release ongoing in the recreational fishery. He noted that the biggest problem for spotted seatrout is the amount of dead discards, which has to be addressed. We cannot just cut landings.

ISSUES FROM AC MEMBERS

Ted Wilgis mentioned Oyster Summit May 9-10 in Raleigh. Can go to NCCoast.org to get information and register. Lara mentioned the DMF Jamboree will occur June 10th at the DMF Headquarters office location in Morehead City.

PLAN AGENDA ITEMS FOR THE NEXT MEETING

No additional items were requested.

The meeting adjourned by consensus at 7:21 p.m.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

Apr 20, 2023

MEMORANDUM

TO: Marine Fisheries Commission
Habitat and Water Quality Advisory Committee

FROM: Anne Deaton, Habitat Program Manager, Habitat and Enhancement Section
Jimmy Harrison, Fisheries Resource Specialist, Habitat and Enhancement Section

SUBJECT: Meeting of the Marine Fisheries Commission's Habitat and Water Quality Advisory Committee,
Apr 19, 2023

The Marine Fisheries Commission's (MFC) Habitat and Water Quality Advisory Committee (AC) held an in-person meeting on Apr 19, 2023, at the Division of Marine Fisheries, Central District Office, Morehead City, NC, or could attend virtually.

The following AC members were in attendance: Ana Shellem, Bart Durham, David Glenn, Nathan Hall, Scott Leahy, Mark Sonder. Online: Doug Rader, Lisa Rider (Absent: Markham Parrish, Joel Fodrie; James Hall has resigned)

Division of Marine Fisheries (DMF) Staff: Paula Farnell, Debbie Manley, Corrin Flora, Anne Deaton, Jimmy Harrison, Jason Parker, Lucas Pensinger, Jason Rock, Andy Haines, Tina Moore, Mike Loeffler, Garland Yopp

Public: None in attendance, two viewers watched on YouTube.

Habitat and Water Quality Chair Ana Shellem called the meeting to order at 6:05 p.m.

The chair invited members to introduce themselves and a quorum was met.

APPROVAL OF AGENDA AND APPROVAL OF THE MINUTES

A motion was made by Scott Leahy to approve the minutes from the Habitat and Water Quality AC meeting held on January 18, 2023. Second by Mark Sonder. Motion passed unanimously.

MARINE FISHERIES COMMISSION UPDATE

Paula Farnell provided an update on the February MFC meeting held in New Bern. Similar to AC meetings, MFC meetings are recorded and available on the Department of Environmental Quality (DEQ) YouTube channel and through DMF website. The next meeting is May 24 at the Beaufort Hotel in Beaufort.

The Commission reviewed a false albacore information paper that was prepared by the Division at the direction of the MFC. This was an update to a 2017 information paper reviewing the overall fishery in North Carolina. The MFC passed a motion asking staff to develop rulemaking language with management options for false albacore, starting with the status quo and allowing for growth in the fishery at various percentage points. Staff have been reviewing available data and will present information at various upcoming meetings.

In February, Spotted Seatrout staff leads presented an overview of the spotted seatrout fishery and received input from commissioners on items for consideration in FMP development. The scoping period recently closed, so FMP development is in very early stages.

In November 2022, the Commission selected their preferred management option for Striped Mullet Supplement A, which was for state-wide November 7 to December 31 season closure, estimated to result in a 22.1% reduction. At the February meeting, the commission was to make its final approval of the supplement but after discussion, no decision was made. Staff are currently working on regional options at the request of the commission to be presented at the May business meeting. Supplement A will only be a temporary measure to address overfishing and will potentially only impact the 2023 season while comprehensive management is developed through Amendment 2, which should be complete prior to the 2024 season.

The Coastal Habitat Protection Plan (CHPP) Amendment was adopted in 2021 and initiated the development of the Stakeholder Engagement for Collaborative Coastal Habitat Initiative (SECCHI). This initiative is meant to develop a public-private partnership to encourage stakeholder engagement. Recently, the SECCHI drafted a coastal habitat resolution requesting the state legislature provide additional cost share funding specific to water quality issues such as nutrient loading and run-off. The resolution was brought before the Marine Fisheries, Environmental Management, Coastal Resources, and Soil and Water Conservation commissions. The MFC as well as the other commissions voted to support this resolution for more funding and encourage people to participate in these types of programs to improve water quality.

JULY JOINT MFC ADVISORY COMMITTEES MEETING PLANNING

The Joint AC meeting will be July 10 at the NC Aquarium at Pine Knoll Shores and will be from approximately 10 a.m. - 3 p.m. The aquarium has agreed to a reduced rate, allowing for funds to be available for hotel rooms. Purpose of the joint AC meeting is collaboration and cross-sharing of information and expertise. Stock assessments, FMPs, AC role in FMP process, etc.

SPOTTED SEATROUT SCOPING PERIOD

Lucas Pensinger and Jason Rock reviewed discussion from the four Spotted Seatrout scoping meetings held in March. The scoping period was March 13 through 24 and over 700 people participated (attending or submitting comments). Pensinger gave a brief overview of comments received during the scoping period. Comments ranging from strongly “for” and “against” and everything in between. Regarding sustainable harvest, comments ranged from no quota/quota, seasonal closures, bag limit reduction, trip limit reduction, and increase in minimum size. For recreational management there was support for making spotted seatrout a game fish, outreach for catch and release best practices, ending the use of recreational commercial gear licenses, boat limits, eliminating captain and crew limits, and limited entry. General recreational comments included reducing the impact of catch and release tournaments, and gear requirements. Commercial comments included making it entirely a hook and line fishery with limited entry. General commercial comments included gill net limits, closing the personal consumption loophole, area limits, phasing out gill net limits, increased gill net mesh size, gill net attendance regardless of area

or time, and limited entry. Regarding protecting spawning stock biomass, comments included bag limit reductions, increase minimum size, and modifying cold stun protocols. Area management came up quite a lot during the scoping period and included closing certain areas to gill nets and/or all spotted sea trout fishing, and regional management. Commissioner Cross's strategy was also discussed at the scoping meetings and the public was overwhelming against quota allocation. Overall, there was general opposition to a quota and ending catch and release fishing. Multispecies management, stocking, increasing enforcement, considering management in other states, and developing a recreational reporting app (mandatory and optional reporting) were also brought up.

Scott Leahy asked how catch and release mortality was determined. Staff replied it is delayed mortality, and the rate was determined by a study done in NC. Average mortality is ten percent, but it depends on time of year, temperature, and handling. Doug Rader asked if they received any comments on habitat or water quality issues at various life history stages. They did not. Rader noted that spotted seatrout is an estuarine-dependent species and will likely be stressed by estuarine nursery area stresses. Rader also asked if we know if habitat needs are being met. Pensinger said that based on high spawning stock biomass (SSB), their habitat needs appear to be met. The fishery is above target and threshold levels. Rader noted that's based on current conditions, but what about over time as climate change impacts continue, such as increased temperature and habitat change. Will there be bottlenecks. Rock said there seems to be good recruitment now. Anne Deaton mentioned NOAA Fisheries conducted a climate vulnerability assessment for South Atlantic fish and spotted seatrout was included in the assessment. The final report has not been finished yet. Rader said the HWQ AC would like to help as questions develop.

SHELLFISH SANITATION ON SHELLFISH HARVEST CLOSURES

Andy Haines gave an overview of the Shellfish Sanitation and Recreational Water Quality Section (SSRQ). He focused on methods to classify waters for shellfish harvest and inspect shellfish plants. They are a public health agency responsible for assuring shellfish are safe for consumption. The recreational water quality sampling assesses safety for human activity such as swimming. Because shellfish filter 25-50 gallons of water per day, they are susceptible to accumulating pollutants. They can concentrate pathogens up to 100 times greater than ambient waters. They need to make sure shellfish come from healthy waters because they're typically eaten raw.

Monitoring shellfish for consumption suitability began in 1925 due to typhoid outbreaks. The SSRQ is part of the National Shellfish Sanitation Program (NSSP), and therefore must be in compliance with criteria contained in the NSSP Guide for Control of Molluscan Shellfish Model Ordinance.

Haines reviewed the growing areas and how staff samples, conducts shoreline surveys to identify pollutant sources, and hydrographic surveys to look at pollutant dispersal. Shoreline surveys look at on-site systems, functionality of WWTPs, marina, development, ditch and stormwater outfalls that could be carrying runoff to shellfish waters. These pollutant sources are mapped in the field. Hydrographic studies inject fluorescent dye into waste stream to track contaminant dispersion/dilution to determine closure boundaries. For bacteriological sampling, they are required to sample each area at least 6 times/yr. They analyze fecal coliform, an indicator of other bacteria and contaminants nearby.

Stormwater runoff, particularly from large storm/rain events, can impact water quality and therefore shellfish bacteria levels. Haines explained the effect of rain and that certain thresholds of rain (e.g., 1-2.5 inches) in shellfish harvest classifications cause temporary closures until resampling finds acceptable levels. Maps are available to see permanent and temporary closures (<https://www.deq.nc.gov/about/divisions/marine-fisheries/shellfish-sanitation-and-recreational-water-quality>). There are 22 growing areas under conditional management (42,857 acres). Increased rainfall quantities correlate with increased number of closure days; also results in increased work taking samples

to re-open. The program collects approximately 5,500 samples per year, and rainfall events result in additional samples – roughly 1,400 per year depending on frequency of rain events.

Bart Durham asked about the percent of onsite systems they find during shoreline surveys that are failing. Haines said about 3-5 within a watershed, with rural watersheds having more. There can also be underground issues that can't be observed. Durham also asked about frequency of wastewater treatment plant failures and whether they can dump a percent of the sewage. Haines noted that many treatment plants have been upgraded over the past 20 years, resulting in fewer failures, and they are not allowed to discharge untreated sewage in NC. He also said that infiltration from leaky collection pipes is not as bad anymore. Durham asked where is most of the bacteria coming from; Haines replied wildlife, birds, and pet waste that are carried into the water with runoff. Durham said based on problems he has seen at Falls Lake and inland, that systems further up may not be working as well. Deaton noted that pollution from wastewater treatment plants and their collection lines was addressed in the 2021 CHPP. The Division of Water Resources (DWR) has said that issues with collection pipes and treatment plants are still an issue because there are so many, and its expense to maintain or upgrade. The Division of Water Infrastructure (DWI) received a large increase in funding this year from federal infrastructure money and the state. Local entities have to apply for the funding. The AC discussed other pollutants that could impact human health, including toxins.

Commissioner Shellem mentioned seeing a large number of birds fly over the marsh and oysters, land and die suddenly, possibly due to bird flu. Mark Sonders asked if hog lagoon waste could reach the coast and impact shellfish. Lisa Rider said they just started a study to look at that and will be using DNA tracking to see if they can detect wild or farm raised hog waste in the New River. Sonders asked about effect of drought and increased salinity on water quality and Haines said they see improvements in bacteria counts when dry and can sometimes open Conditionally Approved Closed areas. The AC discussed sources of rainfall data to assist Shellfish Sanitation. David Glen mentioned that the public can volunteer to record rainfall with the Community Collaboration Rain, Hail, and Snow Network (CoCoRaHS; <https://www.cocorahs.org/>), and they especially need more volunteers in rural areas.

DEVELOPMENT OF A WATER CLARITY STANDARD IN NC

Nathan Hall, AC member and scientist at UNC- Chapel Hill, gave a presentation on evaluation of water clarity metrics for protection of SAV in Albemarle-Pamlico estuarine system. He began by explaining that this work was initiated due to recommendations in the 2021 CHPP SAV Issue Paper that call for developing water clarity and nutrient standards sufficient for SAV survival. Light requirements differ between the high and low salinity grasses due to differences in underground biomass and plant canopy structure. He reviewed minimum light requirements for both at their documented maximum depth. The Nutrient Criteria Development Plan Scientific Advisory Council has agreed on targets for water clarity standards for all waterbodies that have supported SAV during the growing season (May – October). Light is attenuated by chlorophyll a, turbidity, and tannins (color from dissolved organic matter – C-DOM). Hall explained that once you know how much light is needed, you can determine maximum values for these light-affecting parameters. His role for the APNEP project was to validate and refine as needed an existing optical model with NC data, in both high and low salinity waters. By doing that, it can be determined if existing chlorophyll a, and turbidity standards are sufficient and what is the light climate for SAV in NC. He found that the model worked good in high salinity waters but underestimated in low salinity waters. He is working to re-calibrate for these areas and had to collect more data on chlorophyll and C-DOM in low salinity waters. For high salinity, he estimated C-DOM from salinity. Results found that the existing chlorophyll standard was alright, but turbidity standard is too high. Since turbidity is harder to control (wind), chlorophyll as well as turbidity will need to be lowered to result in SAV improvement. Hall showed graphs of exiting water quality data for Albemarle Sound, Neuse, and Pamlico rivers. Some rivers do have SAV present in upstream areas. For the most part, Chowan and Albemarle

stations are not meeting the criteria. Upstream water is typically not as clear and not going to meet the standard, while downstream will. Bogue Sound was mostly above proposed criteria. Core Sound is basically ideal for SAV because of less development and proximity to inlets. He will be continuing to work on re-calibrating the model for low salinity waters. While we have a lot of secchi data, which indicates most of the waters are not meeting the water clarity target, more precise water clarity data (Photosynthetic Active Radiation (PAR), chlorophyll a, C-DOM) is needed for assessing the standard. Rader asked if one could use citizen science to get more data. Hall noted one limitation of that is the high cost of the equipment.

PUBLIC COMMENT

There was no public comment.

ISSUES FROM AC MEMBERS

Sonde said a dolphin had its tail cut off and found dead. A necropsy is being done, but he guesses it was from a commercial fisherman. He asked if there could be a way to prevent entanglement, similar to a “TED” for gillnets. Farnell said she would check. Leahy said that further north (e.g., New Jersey) they use pingers to deter whales. As another issue, Leahy would like the AC to look into mitigating strategies for new development. He is voluntarily working on a living shoreline but was told he cannot add live oysters to it because the waters were closed to shellfish harvest. He is voicing his frustration over the fact that property owners cannot voluntarily mitigate impacts by placing shellfish on their property (for water quality improvement) in closed waters.

It was noted that links would be included in a post-meeting follow-up email.

The meeting adjourned at 8:05 p.m.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

April 5, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: William Brantley, Grants Program Manager, Administrative and Maintenance Services Section

SUBJECT: March 10, 2023 MFC CRFL Advisory Committee Meeting

Issue

The N.C. Marine Fisheries Commission Advisory Committee (MFC AC) met at 1 p.m. on Friday, March 10, 2023 to review and provide advice on the applications received in response to the 2022-2023 Coastal Recreational Fishing License (CRFL) Request for Proposals (RFP).

Findings

The MFC AC reviewed and provided advice on 7 RFP applications received that are under consideration for funding. Each of these proposals are focused on outreach and education.

Action Needed

For informational purposes only, **no action is needed at this time.**

Attachments

- 1) Draft meeting minutes from the March 10, 2023 MFC CRFL AC meeting



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

MEMORANDUM

TO: Marine Fisheries Commission Coastal Recreational Fishing License Advisory Committee (MFC AC)

FROM: William Brantley, Grants Program Manager
Division of Marine Fisheries, NCDEQ

DATE: March 27, 2023

SUBJECT: NC MFC AC Meeting

The Marine Fisheries Commission Coastal Recreational Fishing License Advisory Committee (MFC AC) met at 1 p.m. on Friday, March 10, 2023 via Microsoft Teams. The meeting was livestreamed on YouTube. A listening station was available at the North Carolina Division of Marine Fisheries Headquarters Office. The following attended the meeting:

MFC AC: Chairman Robert McNeil, Rob Bizzell, Tom Roller, Doug Raider

DMF Staff: William Brantley, Beth Govoni, Lara Klibansky, Mike Loeffler

APPROVAL OF AGENDA

Chairman Robert McNeil called the meeting to order, and William Brantley read a reminder of the duty to avoid conflicts of interest (N.C.G.S. 138A-15e). No known conflicts of interest were noted.

Lara Klibansky called role.

Rob Bizzell made a motion to approve the meeting agenda. Tom Roller seconded the motion. The motion carried unanimously with present members voting.

Tom Roller made a motion to approve the minutes. Rob Bizzell seconded the motion. The motion carried unanimously with present members voting.

PUBLIC COMMENT

Two public comments were received for this meeting and distributed to AC members.

COMMITTEE BRIEF ON THE MFC CRFL AC ROLES

William Brantley briefed the team on the MFC AC's role in providing advice on the proposals received during the 2022-2023 Request for Proposal (RFP) process. This included the reason for the committee's implementation, their role in providing advice, and other applicable details. Brantley discussed the role of the MFC AC's past advice in funding projects, and that information from the meeting would be presented to the DMF Director's Office for consideration in funding new proposals.

DISCUSSION ON PROPOSALS

Military Appreciation Day

This project was submitted by Military Appreciation Day, Inc. and Chris Milks. Requested funding for this project, over a period of 3 years, is \$75,000, and the applicant is providing match in the amount of \$75,000 over 3 years. This organization's mission and proposal is to support events where they get volunteer captains to take active-duty troops fishing for a day and hold a large family style picnic after their day of fishing.

Motion by Rob Bizzell to recommend funding for the project titled "Military Appreciation Day" with due consideration given to whether or not it should be 3-year funding. Second by Tom Roller. The motion carried unanimously with present members voting.

Hooked on the New River Oyster Highway – A public guide to fishing and water quality on the New River

This project was submitted by the City of Jacksonville and Pat Donovan-Brandenburg. Requested funding for this project, over a period of 3 years, is \$152,139.76, and the applicant is providing match in the amount of \$26,260 over 3 years. This City's proposal is to introduce members of the fishing public to the angling opportunities that currently exist through actual in-person fishing seminars and on water fishing activities. The program will be supplemented with a printed guide and app that identifies aquatic species.

Motion by Rob Bizzell to recommend funding for the project titled "Hooked on the New River Oyster Highway – A public guide to fishing and water quality on the New River." Second by Tom Roller. Motion carries unanimously.

Expanding recreational fishing access by enhancing the Morris Landing Clean Water Reserve Pier

This project was submitted by the Town of Holly Ridge and Audrey Madia. Requested funding for this project over a period of 1.5 years is \$154,425. The Town's proposal is to replace the deck boards and hand railings on the Morris Landing Clean Water Reserve pier, add a "T" at the end of the pier, extend a walk-way into the marsh area, bring the current pier into ADA compliance, install bollards, and develop/install signage to educate visitors. Further discussion was focused on providing credit through signage to DMF and the CRFL program as well as potentialities for the future development.

Motion by Rob Bizzell to recommend funding for the project titled “Expanding recreational fishing access by enhancing the Morris Landing Clean Water Reserve pier.” Second by Tom Roller. Motion carries unanimously.

Surf City Boating Access Area Renovation

This project was submitted by the NC Wildlife Resources Commission and Gary Gardner. Requested funding for this project, over a period of 9 months, is \$301,850. The WRC’s proposal is for the improvement of the Surf City Boating Access Area and would replace fixed docks with floating docks. This application also proposes to offer appropriate ADA parking and pave heavy use portions of the site. Further discussion was focused on providing credit through signage to DMF and the CRFL program on site at the ramp, and ensure signage at previously funded ramps.

Concerns were issued over the amount of match provided, and DMF carrying the full costs. The two organizations may have the opportunity to work together more closely. Future maintenance of these projects should not exceed 50% of the budgeted costs from DMF.

Motion by Tom Roller to recommend funding for the project titled “Surf City Boating Access Area renovation.” Motion withdrawn.

Motion by Robert Bizzell to recommend funding for the project titled “Surf City Boating Access Area renovation at 50% of the funding request.” Second by Tom Roller. Motion carries unanimously.

Midway Drive Boating Access Area – Replacement of Bulkhead/Breakwater

This project was submitted by the NC Wildlife Resources Commission and Ben Soloman. Requested funding for the Midway Drive project, over a period of 15 months, is \$75,000 and \$2,000 in match is provided. The application proposes to provide marine based improvements to the damaged bulkheading and breakwater.

Cannon’s Ferry Boating Access Area -Breakwater Replacement

This project was submitted by the NC Wildlife Resources Commission and Ben Soloman. Requested funding for the Cannon’s Ferry project, over a period of 7 months, is \$75,000 and \$2,000 in match is provided. This application proposes to provide marine based improvements to the damaged breakwater.

Motion by Rob Bizzell recommends funding the projects titled “Midway Drive Boating Access Area – Replacement of Bulkhead/Breakwater” and “Cannon’s Ferry Boating Access Area -Breakwater Replacement”. Second by Tom Roller. Motion carries unanimously.

Lowland Marina Acquisition

This project was submitted by the NC Wildlife Resources Commission and Ben Soloman. Requested funding for the Lowland Marina Acquisition project, over a period of 17 months, is \$730,000 and \$21,100 in match is provided. This application proposes to purchase the Lowland

Marina property located in Pamlico County, near the mouth of the Pamlico River and adjacent sound. Current access to the area is through a pay-per-use ramp.

Further discussion was held on the importance of being involved in the design and implementation of the boating access project. Consultation with DMF for ongoing implementation for this project, and others like it, should be occurring. DMF should be given credit for their role in the purchase of the facility, if CRFL funds are used. Concerns over CAMA permits were discussed. The importance of access in rural areas was also maintained throughout the conversation. This could lead to future partnerships and joint projects through further development and planning.

Motion by Rob Bizzell to recommend funding for the project titled “Lowland Marina Acquisition” as long as we are fully involved in the design of the facility, with an expense projection for completing the project, and a determination for where these funds will come from, and an update on CAMA permits. Second by Tom Roller. Motion carries unanimously.

ADJOURNMENT

Motion by Tom Roller to adjourn. Second by Doug Rader.

WB



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

April 28, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: William Brantley, Grants Program Manager, Administrative and Maintenance Services Section

SUBJECT: March 1, 2023 Commercial Fishing Resource Fund Committee Meeting

Issue

The N.C. Commercial Fishing Resource Funding Committee met jointly with the N.C. Marine Fisheries Commission Commercial Resource Fund Committee at 6:00 p.m. on Wednesday, March 1, 2023, through Webex to discuss their 2023 Request for Proposals (RFP).

Findings

The joint committees discussed specific project objectives to be included in the 2023 RFP.

Action Needed

For informational purposes only, **no action is needed at this time.**

Attachments

- 1) Draft meeting minutes from the March 1, 2023 joint meeting



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

MEMORANDUM

TO: N.C. Marine Fisheries Commission Commercial Resource Fund Committee and the Funding Committee for the N.C. Commercial Fishing Resource Fund

FROM: William Brantley, Grants Program Manager
Division of Marine Fisheries, NCDEQ

DATE: April 5, 2023

SUBJECT: MFC Commercial Resource Fund Committee and Funding Committee for the N.C. Commercial Fishing Resource Fund Meeting Minutes

The MFC Commercial Resource Fund Committee and the Funding Committee for the N.C. Commercial Fishing Resource Fund met at 6:00 p.m. on Wednesday, March 1, 2023, through Webex. The following members attended:

MFC Commercial Resource Fund Committee: Chairman Doug Cross, Mike Blanton, Ana Shellem

Funding Committee for the N.C. Commercial Fishing Resource Fund Members: Chairman Ernest Doshier, Glenn Skinner, Britton Shackelford, and Gilbert Baccus.

Absent: Doug Todd, Steve Weeks

Public Comment: No public comments were received for this meeting.

Approval of Agenda and Minutes

Chairmen Ernest Doshier and Doug Cross called the meeting to order for the Funding Committee for the N.C. Commercial Fishing Resource Fund and the MFC Commercial Resource Fund Committee. William Brantley read the conflict-of-interest reminder, and no conflicts were noted by the Chairmen. Brantley conducted a roll call for both committees. Two members were absent from the Funding Committee for the N.C. Commercial Fishing Resource Fund.

The meeting agenda and minutes were reviewed.

Motion by Ana Shellem to approve the agenda. Second by Mike Blanton. Motion passed unanimously through a roll call vote.

Motion by Glenn Skinner to approve the agenda. Second by Gilbert Baccus. Motion passed unanimously through a roll call vote of present members.

Motion by Glenn Skinner to approve the minutes from the December 8, 2022 meeting. Second by Britton Shackelford. Motion passed unanimously through a roll call vote of present members.

Motion by Ana Shellem approve the minutes from the December 8, 2022 meeting. Second by Mike Blanton. Motion passed unanimously through a roll call vote.

Brantley briefed the committees on the scope of the meeting, which was to begin development of a new request for proposals from the NC Commercial Fishing Resource Fund. Project concepts would be discussed, the NC Division of Marine Fisheries (NCDMF) would draft the document after this meeting, and the joint Committees would meet at a later date to approve the request for proposals before publication.

CFRF REQUEST FOR PROPOSALS (RFP) DEVELOPMENT

Members asked for an option for applicants to be available for in-person discussion during final proposal reviews. Other administrative options for the RFP development included no blanketed funding limits for proposals unless specified, personnel costs would be permitted in proposals, and discussion that years of funding for proposals would not be restricted beyond the NC Department of Environmental Quality's purchasing guidelines. Proposed costs in proposals should be focused directly on the proposal, with an appropriate level of justification.

Skinner asked for discussion on a project to study the characterization of the targeted, recreational, large red drum fishery. This could include effort, abundance, size, discards, definition, bycatch, weights, mortality rates, etc. This would be for a biological characterization study, not socioeconomic. Skinner asked the Division to weigh in on the RFP language, or even consider the project itself, to make the data applicable for use down the road.

Skinner asked for an opportunity to extend the Always NC Fresh campaign with tiers of funding options / engagements; or, to extend the Fund's marketing and education campaign with annual tiers of funding / engagement options. Chairman Cross noted that the Committees needed to look at the campaign in order to substantiate the program in the future, potentially through throttling back efforts to not cripple the ability to fund other projects.

Blanton asked for a project or white paper on a blue crab abundance and/or juvenile survey design for the State of North Carolina. This would examine what an independent survey would look like for the state on an annual basis, and potential costs for the survey. It would need to include environmental parameters such as water quality impacts, variability in ecosystem fluctuations, and may include an option to be contracted out.

Collectively among both Committees, annual requests for projects to assist in water quality was discussed, specific to sustainable commercial fishing. This would be a generalized topic, with a

funding cap and matching funds requirement. Proposals should look for synergistic effects or offer a plan to chip away at water quality issues. Localized water quality assessments and impacts should also be considered. Proposals are not limited to, but may include, recommendations from the Coastal Habitat Protection Plan. Blanton asked Brantley to look at prior proposals that the Committees received that examined water quality issues. This would provide a means to determine an average cost of water quality based proposals, so the Committees could work toward a funding cap. Shellem asked for consideration in including water quality objectives in each proposal that the Committees receive, and noted that members should examine funding amounts that were spent toward public relations versus other issues facing the joint Committees.

Chairman Cross requested proposals to consider trial trawling studies, in areas above the ferry lines, to examine the benefits of trawling in the sound or rivers. Skinner stated he was in favor of the study, and noted that the NCDMF would need to weigh in if certain areas would be available for a trawling study. NC DMF Deputy Director Loeffler stated he would need to look at what had been discussed by the Marine Fisheries Commission, and stated that permits would be required for anyone conducting research. Permits would be considered on a case-by-case basis. Chairman Cross stated that the Commission had looked at two grids for studies in the Pamlico and Neuse Rivers, above the ferry lines previously, and this study may target these areas.

Skinner asked about the next steps on the Satellite Flounder Tagging Study. Deputy Director Mike Loeffler stated that the project report was being developed, and NCDMF staff continue to work with UNCW researchers for a full analysis. The timeline for report completion and understanding the next steps was estimated to be one year.

Issues from Committee Members

Chairman Cross brought up aquaculture concerns, and the need for forward-thinking growth of the industry.

ADJOURNMENT

Motion by Mike Blanton to adjourn. Second by Ana Shellem. Motion passed unanimously through a roll call vote.

Motion by Gilbert Baccus to adjourn. Second by Glenn Skinner. Motion passed unanimously through roll call vote of present members.

Meeting adjourned.

WB

Director's Report

May 2023 Business Meeting

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Atlantic States Marine Fisheries Commission

2023 Spring Meeting Summary

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

2023 Spring Meeting
May 1 – 3, 2023

For more information, please
contact Toni Kerns, ISFMP,
Tina Berger, Communications
or the identified individual at
703.842.0740

Meeting Summaries, Press Releases and Motions

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Press Release

**American Lobster Board Approves Addendum XXVII
*Addendum Establishes Measures to Increase Protection
of Spawning Stock Biomass of the Gulf of Maine/Georges Bank Stock***

Arlington, VA – The Commission’s American Lobster Management Board approved Addendum XXVII to Amendment 3 to the Interstate Fishery Management Plan for American Lobster. The Addendum establishes a trigger mechanism to implement management measures – specifically gauge and escape vent sizes – to provide additional protection of the Gulf of Maine/Georges Bank (GOM/GBK) spawning stock biomass (SSB). It also implements changes to management measures for Lobster Conservation Management Areas (LCMAs) 1, 3, and Outer Cape Cod (OCC) to improve the consistency of measures across the GOM/GBK stock.

The Board initiated the Addendum as a proactive measure to improve the resiliency of the GOM/GBK stock. Since the early 2000s, landings in the GOM/GBK stock have rapidly increased. In Maine alone, landings have increased from 57 million pounds in 2000 to a record high of 132.6 million pounds in 2016. Maine landings have declined slightly but were still high at 97.9 million and 108.9 million in 2020 and 2021, respectively. However, since 2012, lobster settlement surveys throughout the GOM have generally been below the time series averages in all areas. These surveys, which measure trends in the abundance of juvenile lobsters, can be used to track populations and potentially forecast future landings. Persistent low settlement could foreshadow declines in recruitment and landings. In the most recent years of the time series, declines in recruitment indices have also been observed.

In response to these trends, Addendum XXVII establishes a mechanism where changes to the current gauge and escape vent sizes in LCMAs 1, 3 and OCC will be implemented automatically based on observed changes in recruit abundance indices. If the index of recruit abundance declines by 35% from the reference level (equal to the three-year average from 2016-2018), a series of gradual changes to gauge and vent size will be initiated in the following fishing year. These include two increases to the minimum gauge size in LCMA 1 (Gulf of Maine) and a single decrease to the maximum gauge size in LCMA 3 (offshore federal waters) and OCC. The gauge and escape vent size changes are intended to increase the proportion of the population that is able to reproduce before being harvested, and to enhance stock resiliency by protecting larger lobsters of both sexes.

Additionally, Addendum XXVII implements measures that resolve discrepancies between the regulations for state and federal permit-holders, provide a more consistent conservation strategy, and simplify interstate commerce and enforcement across management areas. Specifically, the Addendum implements a standard v-notch definition of 1/8” with or without setal hairs in LCMA 3 and OCC, and a standard maximum gauge size of 6 ¾” for LCMA 3 and state and federal permit holders in OCC. It also modifies the management program such that for LCMA 1 and 3 permit holders, states must limit the issuance of trap tags to equal the harvester trap tag allocations unless trap losses are documented. The implementation date for these changes is January 1, 2024.

The following table specifies the timing of management changes for each of the three LCMA's addressed under Addendum XXVII.

When change(s) will be implemented	What change will be implemented		
	LCMA 1	LCMA 3	Outer Cape Cod
January 1, 2024	Trap tags issuance limited to harvester allocation		v-notch definition: 1/8" with or without setal hairs; Maximum gauge size: 6 3/4"
Fishing year following an observed 35% decline in the trigger index (Year 1)	Minimum gauge size: 3 5/16"		
Year 3	Minimum gauge size: 3 3/8"		
Year 4	Escape vent size: 2 x 5 3/4" rectangular; 2 5/8" circular		
Year 5		Maximum gauge size: 6 1/2"	Maximum gauge size: 6 1/2"

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

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PR23-08

Meeting Summary

In addition to approving Addendum XXVII, the Board also received a brief update on the implementation of Addendum XXIX. The work group tasked with reviewing and approving tracking devices for use in the federal American lobster and Jonah crab fishery has approved four devices, and is working with the states to establish processes for administrating the electronic tracking program.

Staff also provided a progress update on the ongoing benchmark stock assessment for Jonah crab. The assessment workshop was held in April 2023, and the assessment is on track to be completed and peer reviewed for Board consideration at the Annual Meeting.

Given concerns about potential economic impacts associated with the management measures adopted under Addendum XXVII, the Board requested the Interstate Fisheries Management Policy Board create a subcommittee to communicate with Canada’s Department of Fisheries and Oceans. The subcommittee would discuss transboundary issues related to the importation of lobster as it relates to different minimum gauge sizes in the two countries.

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

Motions

Main Motion

Move to select under Issue 2, Option B a trigger level of 38%.

Motion made by Mr. Keliher and seconded by Mr. Grout. Motion amended.

Motion to Amend

Motion to amend to select under Issue 2, Option B a trigger level of 35%.

Motion made by Ms. Patterson and seconded by Mr. McKiernan. Motion passes (Roll Call: In Favor – NH, RI, CT, NY, NJ; Opposed – MA; Abstentions – DE, MD, VA, NMFS; Null – ME)

Motion to select under Issue 2, Option B a trigger level of 35%.

Motion passes (10 in favor and one abstention from NMFS).

Main Motion

Move to select under Issue 2, Option B a modified “Measures Option 2” in which LMA3 and OCC move to a 6½ maximum gauge size in the final year of changes and do not decrease their maximum gauge size further. Initial changes to the gauge sizes for all GOM/GBK management areas should occur on June 1st in the following year. For example, if a trigger is tripped at the fall Annual meeting in 2023, a minimum gauge size change would be implemented June 1, 2024. Should a future stock assessment conclude that the GOM and GBK stocks are not a single biological stock, the Board can revisit the max gauge size decrease in OCC and LMA 3.

Motion made by Mr. Keliher and seconded by Ms. Patterson.

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	Min: 3 5/16” (84mm) Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	Min: 3 3/8” (86mm) Max: Status quo Vent: 2x5 3/4” rect; 2 5/8” circular	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Final gauge size (Year 5 implementation)	Min: 3 3/8” (86mm) Max: Status quo Vent: status quo	Min: Status quo Max: 6 ½” Vent: Status quo	Min: Status quo Max: 6 ½” Vent: Status quo

Motion to Amend

Move to amend that the increase in the escape vent size in LCMA 1 be implemented in year 5 after the trigger has been reached.

Motion made by Mr. Grout and seconded by Mr. Train. Motion fails (3 in favor, 5 opposed, 3 abstentions).

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	Min: 3 5/16” (84mm) Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	Min: 3 3/8” (86mm) Max: Status quo Vent: status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Final gauge size (Year 5 implementation)	Min: 3 3/8” (86mm) Max: Status quo Vent: 2x5 3/4” rect; 2 5/8” circular	Min: Status quo Max: 6 ½” Vent: Status quo	Min: Status quo Max: 6 ½” Vent: Status quo

Motion to Amend

Move to amend that the increase in the escape vent size in LCMA 1 be implemented in year 4 after the trigger has been reached.

Motion made by Mr. Borden and seconded by Mr. Train. Motion passes (10 in favor, 1 abstention).

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	Min: 3 5/16" (84mm) Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	Min: 3 3/8" (86mm) Max: Status quo Vent: status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Year 4	Vent: 2x5 3/4" rect; 2 5/8" circular		
Final gauge size (Year 5 implementation)	Min: 3 3/8" (86mm) Max: Status quo	Min: Status quo Max: 6 1/2" Vent: Status quo	Min: Status quo Max: 6 1/2" Vent: Status quo

Main Motion as Amended

Move to select under Issue 2, Option B a modified "Measures Option 2" in which LMA3 and OCC move to a 6 1/2 maximum gauge size in the final year of changes and do not decrease their maximum gauge size further. Initial changes to the gauge sizes for all GOM/GBK management areas should occur on June 1st in the following year. For example, if a trigger is tripped at the fall Annual meeting in 2023, a minimum gauge size change would be implemented June 1, 2024. Should a future stock assessment conclude that the GOM and GBK stocks are not a single biological stock, the Board can revisit the max gauge size decrease in OCC and LMA 3. The increase in the escape vent size in LCMA 1 would be implemented in year 4 after the trigger has been reached.

Motion to Amend

Motion to amend to strip the motion of the maximum size changes in OCC and LCMA 3 that are scheduled to go in this motion.

Motion made by Mr. McKiernan and seconded by Mr. Borden. Motion fails (4 in favor, 6 opposed, 1 abstention).

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	Min: 3 5/16" (84mm) Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	Min: 3 3/8" (86mm) Max: Status quo Vent: status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Year 4	Min: 3 3/8" (86mm) Max: Status quo Vent: 2x5 3/4" rect; 2 5/8" circular		

Final gauge size (Year 5 implementation)	Min: 3 3/8" (86mm) Max: Status quo	Min: Status quo Max: 6 1/2" Vent: Status quo	Min: Status quo Max: 6 1/2" Vent: Status quo
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Main Motion as Amended

Move to select under Issue 2, Option B a modified “Measures Option 2” in which LMA3 and OCC move to a 6½ maximum gauge size in the final year of changes and do not decrease their maximum gauge size further. Initial changes to the gauge sizes for all GOM/GBK management areas should occur on June 1st in the following year. For example, if a trigger is tripped at the fall Annual meeting in 2023, a minimum gauge size change would be implemented June 1, 2024. Should a future stock assessment conclude that the GOM and GBK stocks are not a single biological stock, the Board can revisit the max gauge size decrease in OCC and LMA 3. The increase in the escape vent size in LCMA 1 would be implemented in year 4 after the trigger has been reached.

Motion passes 9 in favor, 1 opposed, 1 abstention.

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	Min: 3 5/16" (84mm) Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	Min: 3 3/8" (86mm) Max: Status quo Vent: status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Year 4	Vent: 2x5 3/4" rect; 2 5/8" circular		
Final gauge size (Year 5 implementation)	Min: 3 3/8" (86mm) Max: Status quo	Min: Status quo Max: 6 1/2" Vent: Status quo	Min: Status quo Max: 6 1/2" Vent: Status quo

Move to approve Issue 1, sub-option B1 and sub-option B4. This combination of options will set a standard v-notch definition of 1/8" in LCMAs 3 and OCC, maintain the zero tolerance definition in LCMA1, and establish a maximum gauge size in OCC of 6 3/4" for state and federal permit holders. It will also limit the issuance of trap tags to equal harvester trap tag allocations.

Motion by Mr. Keliher, second by Mr. Borden. Motion separated.

Move to Separate

Motion to separate B1 and B4.

Motion by Mr. Borden, second by Mr. McKiernan. Motion passes by consent.

Move to approve Issue 1, sub-option B1. This option will set a standard v-notch definition of 1/8" in LCMAs 3 and OCC, maintain the zero tolerance definition in LCMA1, and establish a maximum gauge size in OCC of 6 3/4" for state and federal permit holders.

Motion passes (8 in favor, 1 opposed, 1 abstention).

Main Motion

Move to approve Issue 1, sub-option B4. This will limit the issuance of trap tags to equal harvester trap tag allocations.

Motion to Amend

Move to amend to exempt the OCC from this requirement.

Motion made by Mr. McKiernan and seconded by Mr. Keliher. Motion passes (6 in favor, 5 abstentions).

Main Motion as Amended

Move to approve Issue 1, sub-option B4, except for OCC. This will limit the issuance of trap tags to equal harvester trap tag allocations for LCMA 1 and LCMA 3.

Motion passes (3 in favor, 1 opposed, 7 abstentions).

Move to approve Lobster Addendum XXVII, as modified today, with an implementation date of January 1, 2024.

Motion made by Ms. Patterson and seconded by Mr. Hasbrouck. Motion passes (10 in favor and one vote in opposition from MA).

Move to request the Interstate Fisheries Management Policy Board approve the creation of a subcommittee to engage Canada's Department of Fisheries and Oceans to discuss transboundary issues related to the importation of lobster as it relates to different minimum gauge sizes in the two countries. The subcommittee shall be made up of up to four members of the Lobster Management Board who have license holders that fish in Area 1 and/or 3, one representative from the National Marine Fisheries Service, and the Commission's Executive Director or his designee.

Motion made by Mr. Keliher and seconded by Mr. Borden. Motion passes by consent with one abstention from NMFS.

ATLANTIC MENHADEN MANAGEMENT BOARD (MAY 1, 2023)

Meeting Summary

The Atlantic Menhaden Management Board met to review a report by the Commonwealth of Virginia on recent developments in the management of its menhaden fishery, receive an update on the Atlantic menhaden single-species and Ecological Reference Point (ERP) stock assessments, and consider approval of the Draft Terms of Reference (TORs) for the ERP Benchmark Stock Assessment.

In response to public comments at recent Board meetings, the Board requested a report from the Commonwealth of Virginia on recent menhaden management in the state. Virginia representative Pat Geer updated the Board on the proposed and enacted legislative and regulatory changes since 2019, as well as management responses to recent fish kill events.

The Board received an update on the Atlantic menhaden single-species and ERP stock assessments. The Stock Assessment Subcommittee (SAS) and Assessment Science Committee recommended converting the single-species assessment from a benchmark to an update, since the model has been peer-reviewed several times and no new data sources were identified that would necessitate utilizing the benchmark process. Additionally, the Board considered and approved the Draft TORs for the ERP Benchmark Stock Assessment. The Single-Species Assessment Update and ERP Benchmark Stock Assessment are scheduled to be presented to the Board at the Annual Meeting in 2025.

For more information, please contact James Boyle, Fishery Management Plan Coordinator, at jboyle@asmfc.org.

Motions

Move to approve the Terms of Reference for the 2025 Atlantic Menhaden Ecological Reference Point Benchmark Stock Assessment and Peer Review.

Motion made by Dr. McManus and seconded by Mr. Kane. Motion carries unanimously.

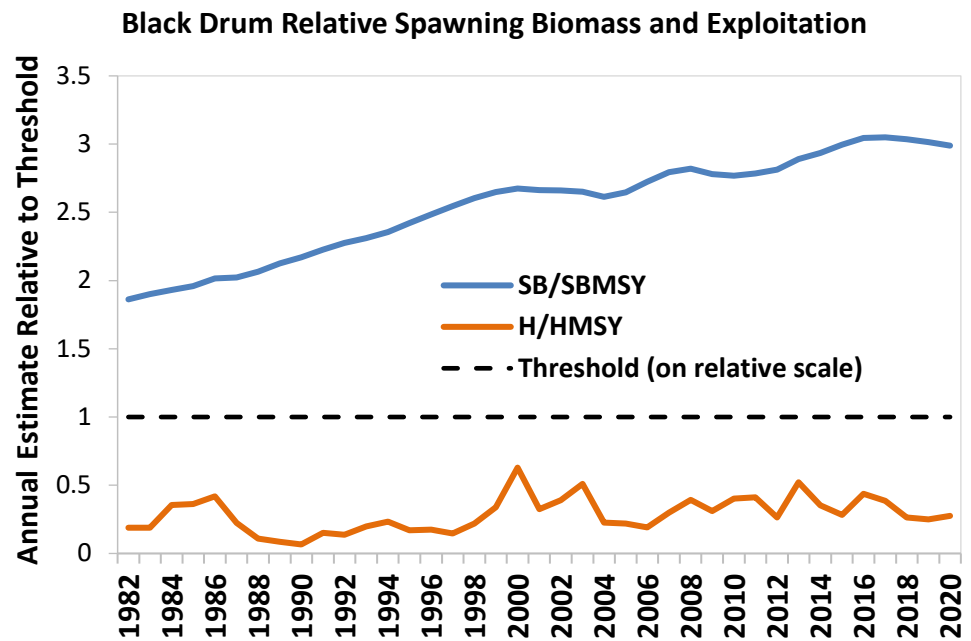
SCIAENIDS MANAGEMENT BOARD (MAY 1, 2023)

Press Release

Black Drum Benchmark Stock Assessment and Peer Review Find Stock to be Not Overfished nor Experiencing Overfishing

Arlington, VA – The 2023 Black Drum Stock Assessment and Peer Review Report indicates the Atlantic coastal stock of black drum are not overfished and not experiencing overfishing. The Commission’s Sciaenids Management Board approved the benchmark stock assessment and peer review report for management use. No management action was taken because there were no major concerns with the stock.

The assessment estimates annual spawning biomass (SB) and exploitation (H; i.e., the proportion of stock biomass removed by fishing). Estimates from the last year of the assessment (2020) are compared to the spawning biomass and exploitation associated with maximum sustainable yield¹ (MSY), SB_{MSY} , and H_{MSY} respectively, to determine stock status.



This assessment also developed indicators of stock abundance, and stock and fishery characteristics. The abundance indicators include several fishery-independent indices from the Mid-Atlantic and South Atlantic regions that track young-of-year and sub-adult fish. There is also one coastwide fishery-dependent index calculated from the Marine Recreational Information Program catch-per-unit-effort (CPUE) that tracks all exploitable sizes of black drum. A majority of the indices show no clear trend, although the CPUE has been increasing throughout the time series (1982-2020). Several of the indices in the Mid-Atlantic saw greater recruitment events in the 1990s and 2000s than observed in more

¹ MSY is the largest average catch that can be taken from a stock over time without negatively impacting the reproductive capacity of the stock.

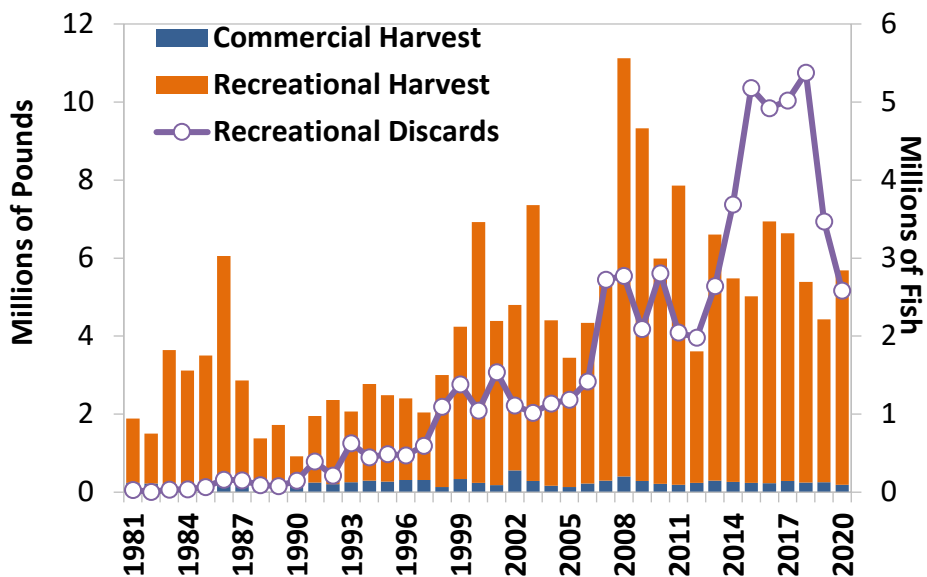
recent years. One index, the New Jersey Ocean Trawl, will serve as an indicator of range expansion, as black drum are becoming more common in the northern areas of their range.

Recreational harvest and discards, as well as commercial landings, will serve as indicators of fishery characteristics. Overall, there has been increased harvest in the past 20 years. The recreational fishery contributes a majority of the total harvest, with a smaller-scale commercial fishery occurring primarily in North Carolina and northward. Recreational harvest was moderately high in the mid-1980s and increased again starting around 2000, peaking in 2008 at 11 million pounds and has remained relatively high, especially in the South Atlantic. A majority of the recreational harvest occurs in Florida. Recreational discards had been steadily increasing and peaked in 2018 at 5.4 million fish, after which they declined.

Commercial landings have been fluctuating without trend in recent years, with peaks in 2002 and 2008 at roughly 555,000 pounds and 400,000 pounds, respectively. Gill nets, pound nets, and haul seines are the primary gears used in the commercial fishery. Overall, the indicators do not show negative conditions, but will be monitored annually. Should any concerning trends occur, the Black Drum Technical Committee may recommend an expedited assessment in advance of the next benchmark stock assessment (tentatively 2028).

A stock assessment overview, which provides a more detailed description of assessment results, as well as the stock assessment and peer review report will be available on the Commission’s website at <https://asmfc.org/species/black-drum> under Stock Assessment Reports. For more information on the stock assessment, please contact Jeff Kipp, Senior Stock Assessment Scientist, at jkipp@asmfc.org; and for more information on black drum management, please contact Tracey Bauer, Fishery Management Plan Coordinator, at tbauer@asmfc.org.

Black Drum Recreational and Commercial Harvest and Recreational Discards



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PR23-09

Meeting Summary

In addition to reviewing the 2023 Black Drum Stock Assessment and Peer Review Report and accepting it for management use (see above press release), the Board also considered an update on the 2023 Atlantic croaker and spot Traffic Light Analyses (TLAs). The TLAs, as established in Addendum III, evaluate a harvest metric and an adult abundance metric. Metrics are evaluated annually using a color proportion of green, yellow, or red based on comparing the most recent year of data to a reference period, and management

action is triggered if the proportion of red exceeds specific thresholds. Staff updated the Board with a proposal to not conduct the Atlantic croaker and spot TLAs in 2023. Benchmark stock assessments for Atlantic croaker and spot are currently underway to be completed in 2024. Not conducting the TLAs in 2023 will reduce the workload and allow the Atlantic Croaker and Spot Technical Committees to focus on conducting the benchmark stock assessments for these two species. In addition, it is uncertain if a key dataset for the TLAs will be available this year. If the TLAs are conducted without these data, the results would not be very informative. The Board agreed to not conduct the Atlantic croaker and spot TLAs in 2023. The TLAs will be conducted next year with the completion of the 2024 benchmark stock assessments for Atlantic croaker and spot. Atlantic croaker and spot management measures put into place in 2021 will remain status quo until the TLAs can be reevaluated in 2024.

For more information, please contact Tracey Bauer, Fishery Management Plan Coordinator, at TBauer@asmfc.org.

Motions

Move to accept the 2023 Black Drum Stock Assessment and Peer Review Report for management use.
Motion made by Mr. Clark and seconded by Ms. Fegley. Motion carries by unanimous consent.

Main Motion

Move to have the Technical Committee annually present the indicators, as described in the black drum 2023 Stock Assessment and Peer Review Report.

Motion made by Mr. Brust and seconded by Ms. Madsen. Motion amended.

Motion to Amend

Motion to amend by adding to inform the need for a new stock assessment

Motion made by Ms. Burgess and seconded by Mr. Bell. Motion carries without objection.

Main Motion as Amended

Move to have the Technical Committee annually present the indicators, as described in the black drum 2023 Stock Assessment and Peer Review Report to inform the need for a new stock assessment.

Motion passes by unanimous consent.

ATLANTIC STRIPED BASS MANAGEMENT BOARD (MAY 2, 2023)

Press Release

ASMFC Atlantic Striped Bass Board Acts to Support Stock Rebuilding through Emergency Action and Addendum II Initiation *Addendum I Approved to Allow Ocean Commercial Quota Transfers Contingent on Stock Status*

Arlington, VA – The Commission’s Atlantic Striped Bass Management Board approved an emergency action to implement a 31-inch maximum size limit for striped bass recreational fisheries, effective immediately for 180 days (through October 28, 2023). This action responds to the unprecedented magnitude of 2022 recreational harvest, which is nearly double that of 2021, and new stock rebuilding projections, which estimate the probability of the spawning stock rebuilding to its biomass target by

2029 drops from 97% under the lower 2021 fishing mortality rate to less than 15% if the higher 2022 fishing mortality rate continues each year.

“Based on concern for the stock and the long-term interests of its stakeholders, the Board acted decisively to protect one of the few remaining strong year classes,” said Board Chair Marty Gary with the Potomac River Fisheries Commission. “The public is concerned about stock rebuilding and has urged the Board to expeditiously respond to the new stock projections. Striped bass is one of the flagship species of the Commission, and this action sends a strong signal that the Board is firmly committed to rebuilding the stock for current and future generations. At the same time, the Board recognizes that this action will have a profound impact on the for-hire industry and recreational anglers, however, it feels it is a necessary step to ensure rebuilding.”

As outlined in the Commission’s Interstate Fisheries Management Program Charter, a management board can take emergency action to address circumstances under which public health or the conservation of coastal fishery resources or attainment of fishery management objectives has been placed substantially at risk by unanticipated changes in the ecosystem, the stock, or the fishery.

The Board implemented the emergency 31-inch maximum size limit for 2023 to reduce harvest of the strong 2015-year class. The 31-inch maximum size limit applies to all existing recreational fishery regulations where a higher (or no) maximum size applies, excluding the May Chesapeake Bay trophy fisheries which already prohibit harvest of fish less than 35 inches. All bag limits, seasons, and gear restrictions will remain the same. Jurisdictions are required to implement the required measure as soon as possible but no later than July 2, 2023. If it deems necessary, the Board may extend the emergency action for two additional periods of up to one year each at a future Board meeting.

The Commission will hold at least four virtual public hearings in mid- to late May to inform the public about the emergency action and identify next steps for management. A subsequent press release will provide the details of the public hearing schedule and webinar information.

Draft Addendum II Initiated

To address the concerns about increased removals and stock rebuilding beyond 2023, the Board initiated Addendum II to Amendment 7 to the Interstate Fishery Management Plan. The Draft Addendum will consider 2024 management measures designed to reduce fishing mortality to the target. Specifically, the Draft Addendum will propose options for the ocean recreational fishery, including modifications to the slot limit with harvest season closures as a secondary non-preferred option. It will also propose options for the Chesapeake Bay recreational fisheries, as well all commercial fisheries, including maximum size limits. Board members emphasized the importance of soliciting public input through the addendum process for 2024 measures following the 2023 emergency action.

For measures beyond 2024, the Board intends to consider the results of the upcoming 2024 stock assessment update to inform subsequent management action. To enable an expedited management response to the 2024 stock assessment update, the Draft Addendum will propose a provision that would enable the Board to respond to the results of the stock assessment updates via Board action if the stock is projected to not rebuild by 2029. The Board will consider the Draft Addendum at the

Summer Meeting, when it will either approve the document for public comment, or provide feedback for further development of the document.

Addendum I Approved

The Board also approved Addendum I to Amendment 7. When the stock is not overfished, the Addendum enables the Board to decide every one to two years whether it will allow voluntary transfers of ocean commercial quota. The Board can also set criteria for allowable transfers, including a limit on how much and when quota can be transferred in a given year, and the eligibility of state to request a transfer based on its landings. When the stock is overfished, no quota transfers will be allowed.

To inform final action on this Addendum, the Board considered public comments, Advisory Panel input, and a Technical Committee report addressing the impact of additional quota utilization on stock rebuilding.

“The Board’s decision on Addendum I balances the commercial industry’s desire for a quota transfer mechanism with the need for caution when the stock is overfished,” said Board Chair Gary. “This was the most restrictive option for allowing transfers, giving the Board the ability to establish boundaries around quota transfers, as needed.”

Addendum I will be available by the end of May on the Commission website at <http://www.asmfc.org/species/atlantic-stripped-bass> under Management Plans and FMP Reviews. For more information, please contact Emilie Franke, Fishery Management Plan Coordinator, at efranke@asmfc.org or 703.842.0740.

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PR23-10

Motions

Main Motion

Move to initiate an Addendum to implement commercial and recreational measures for the ocean and Chesapeake Bay fisheries in 2024 that in aggregate are projected to achieve F-target from the 2022 stock assessment update (F = 0.17). Potential measures for the ocean recreational fishery should include modifications to the Addendum VI standard slot limit of 28-35” with harvest season closures as a secondary non-preferred option. Potential measures for Chesapeake Bay recreational fisheries, as well as ocean and Bay commercial fisheries should include maximum size limits.

Motion made by Dr. Davis and seconded by Mr. Hasbrouck. Motion amended.

Motion to Amend

Move to add “The addendum will include an option for a provision enabling the Board to respond via Board action to the results of the upcoming stock assessment updates (e.g., currently scheduled for 2024, 2026) if the stock is not projected to rebuild by 2029 with a probability greater than or equal to 50%.”

Motion made by Dr. Armstrong and seconded by Mr. Borden. Motion passes unanimously.

Main Motion as Amended

Move to initiate an Addendum to implement commercial and recreational measures for the ocean and Chesapeake Bay fisheries in 2024 that in aggregate are projected to achieve F-target from the 2022 stock assessment update (F = 0.17). Potential measures for the ocean recreational fishery should include modifications to the Addendum VI standard slot limit of 28-35" with harvest season closures as a secondary non-preferred option. Potential measures for Chesapeake Bay recreational fisheries, as well as ocean and Bay commercial fisheries should include maximum size limits. The addendum will include an option for a provision enabling the Board to respond via Board action to the results of the upcoming stock assessment updates (e.g. currently scheduled for 2024, 2026) if the stock is not projected to rebuild by 2029 with a probability greater than or equal to 50%."

Motion passes unanimously.

Main Motion

Move that the Striped Bass Board, by emergency action as outlined in the Commission's ISFMP Charter, implement a 31" maximum size to all existing recreational fishery regulations where a higher (or no) maximum size applies, excluding the Chesapeake Bay trophy fisheries. All other recreational size limits, possession limits, seasons, gear restrictions, and spawning protections remain in place. Jurisdictions are required to implement compliant measures as soon as possible and no later than July 2, 2023.

Motion made by Dr. Armstrong and seconded by Mr. Borden.

Motion to Amend

Move to amend to add "Measures for the for-hire sector will remain status quo. In the event the Board extends the emergency action past the initial 180-day effective period, the for-hire sector exemption from emergency measures cannot be extended."

Motion made by Dr. Davis and seconded by Mr. Reid. Motion fails (Roll Call: In Favor – RI, CT, NY, NJ; Opposed – MA, PRFC, PA, NC, VA, DC, MD, DE, ME, NH; Abstentions – NOAA, USFWS; Null – None).

Main Motion

Move that the Striped Bass Board, by emergency action as outlined in the Commission's ISFMP Charter, implement a 31" maximum size to all existing recreational fishery regulations where a higher (or no) maximum size applies, excluding the Chesapeake Bay trophy fisheries. All other recreational size limits, possession limits, seasons, gear restrictions, and spawning protections remain in place. Jurisdictions are required to implement compliant measures as soon as possible and no later than July 2, 2023.

Motion made by Dr. Armstrong and seconded by Mr. Borden.

Motion to Postpone

Motion to postpone until the Summer Meeting.

Motion made by Mr. Nowalsky and seconded by Mr. Pugh. Motion fails (2 in favor, 14 opposed).

Main Motion

Move that the Striped Bass Board, by emergency action as outlined in the Commission's ISFMP Charter, implement a 31" maximum size to all existing recreational fishery regulations where a higher (or no) maximum size applies, excluding the Chesapeake Bay trophy fisheries. All other recreational size limits, possession limits, seasons, gear restrictions, and spawning protections remain in place.

Jurisdictions are required to implement compliant measures as soon as possible and no later than July 2, 2023.

Motion made by Dr. Armstrong and seconded by Mr. Borden. Motion carries (15 in favor, 1 opposed).

January 2023 Board Motion

Move to postpone action on Addendum I and task the Technical Committee with running two population projections:

- **One which assumes harvest of the entire ocean commercial quota from all states**
- **One which assumes harvest of the ocean commercial quota from all states except New Jersey (since their quota is reallocated out of the commercial fishery)**

The Technical Committee may use their expert judgement on other needed assumptions for the projections (i.e., selectivity) to produce the most realistic output for consideration by the Board.

Move to approve Option E (Board discretion of commercial quota transfer provision except no transfers if stock is overfished).

Motion made by Mr. Clark and seconded by Dr. Davis. Motion passes (10 in favor, 1 opposed, 2 abstentions, 3 null).

Move to approve Addendum I as modified today with an implementation date effective today.

Motion made by Mr. Clark and seconded by Mr. Kane. Motion passes unanimously.

LAW ENFORCEMENT COMMITTEE (May 2, 2023)

Meeting Summary

The Law Enforcement Committee (LEC) met to discuss a number of items, including law enforcement activities related to species management actions, possible revisions to Guidelines for Resource Managers, and receive a presentation on the National Association Conservation Law Enforcement Leadership Academy/International Conservation Chiefs Academy (NACLELA/ICCA) Wildlife Officer Exchange Program. The LEC welcomed alternate representatives Lt. Sean Reilly from NY and Lt. Bo Hale from the US Coast Guard.

Species Issues

American Lobster - Members of ASMFC/ACCSP updated the LEC on the status of vessel monitoring system (VMS) implementation in the lobster fishery under Addendum XXIX to Amendment 3 of the American Lobster Fishery Management Plan. Specifically, a review of the current software program in use for this management measure and a review of the approved hardware vendors for VMS systems. ASMFC staff will continue to include LEC input to working group discussions regarding further VMS development and use in the lobster fishery.

The LEC discussed the current proposals under Addendum XXVII of Amendment 3. Specific discussion was about the consistency of management measures across specific Lobster Conservation Management Areas. The LEC recognizes the uniqueness of certain LCMAs but continues to support consistent management measures within each of the LCMAs.

Atlantic Striped Bass – The LEC discussed the current findings of the Technical Committee – Stock Assessment Subcommittee as reported at the May 2023 meeting of the Atlantic Striped Bass Management Board. Specifically, the technical Committee and Stock Assessment Subcommittee reported that there was a 40% increase of recreational removals, with a 33% estimated removal over both sectors of this fishery. Recognizing that the board may wish to act on these findings, the LEC discussed how a mid-season regulatory change would affect enforcement efforts in this fishery. Specifically, members reported that regulations have been promulgated and advertised for the current fishing year. This may cause confusion among fishers and a potential enforcement concern with the inability to effectively enforce the regulatory change.

Law enforcement compliance reporting for the annual Atlantic Striped Bass Management Plan Review process was discussed by the committee. In the recent plan review the Plan Review Team (PRT) identified an inconsistency in how state law enforcement was reporting patrol activity. Some states would provide specific patrol data of inspections, citations, and seizures. Where others would report current trends and observations within the fishery. In working with the FMP Coordinator and the PRT, it was agreed by all that a narrative Identifying common striped bass violations in the current year and any new or emerging enforcement issues would be beneficial. Quantitative information is optional as most states do not collect species specific data.

Tautog Tagging Study – The LEC was briefed on an ongoing survey by ASMFC and the State of New York in reference to tautog tagging. The survey will assess the varied types of tags in different environments. The goal behind this study is to identify a tag for use that will not damage a fish in the live market and hold the appropriate information necessary for tracking in the fishery.

Other issues

Members reviewed the current ASMFC document “Guidelines for Resource Managers on the Enforceability of Fishery Management Measures (August 2015)”. This document has not been reviewed since 2015. With the always evolving strategies to address the development of fishery management plans, the LEC wished to keep this document relevant for the fishery managers of today. Our review focused on the relevance of past management measures and new and emerging management measures. Consideration of re-scoring each of the past management measures while scoring and updating newly identified measures was discussed by the committee. It was agreed by consensus that there would be no need to completely rewrite the document. The document was still relevant but needed updating of newly identified management measures. The committee will move forward with updating this document, with a plan to have Policy Board approval in the Fall of 2023.

A presentation about the NACLELA/ICCA Wildlife Officer Exchange Program. This program is of interest as the Chair of the LEC, Deputy Chief Jason Snellbaker (NJ) was invited by the organizers to participate in this program in his role as a state officer and a NACLELA graduate. This exchange was with an ICCA graduate from the Fisheries Compliance and Enforcement agency of Belize. This shared experience helped to increase international collaboration and individual capacity to address wildlife crime globally.

A closed session of our meeting was afforded to openly discuss new and emerging law enforcement issues.

Respective agencies were provided time to highlight their agencies and offer current enforcement efforts. For more information, please contact Kurt Blanchard, LEC Coordinator, at kurt.blanchard@verizon.net.

ATLANTIC COASTAL COOPERATIVE STATISTICS PROGRAM COORDINATING COUNCIL (MAY 2, 2023)

Meeting Summary

The ACCSP Coordinating Council met to review and take action on the FY2024 ACCSP Funding Decision Document and Request for Proposals package. The Council was provided an overview of the updated documents to support approximately \$1.6 million for Partner and Committee projects. The approved RFP is now open for proposal submissions through June 16, 2023. See <https://www.accsp.org/what-we-do/partner-project-funding> for more information. All proposals will be evaluated and ranked on merit according to the schedule in the RFP.

The Council was also provided an ACCSP Program update that included a summary of activities involving accountability and commercial data validation workshops, software projects, activities related to the Atlantic recreational implementation plan, the Data Warehouse spring load, stock assessments support, current funding and staffing. For more information, contact Geoff White, ACCSP Director, at geoff.white@accsp.org.

Motions

Move to approve the FY24 Funding Decision Document and RFP as presented to the ACCSP Coordinating Council.

Motion made by Mr. Bell and seconded by Ms. Zobel. Motion passes (17 in favor).

COASTAL SHARKS MANAGEMENT BOARD (MAY 2, 2023)

Meeting Summary

The Coastal Sharks Management Board received a presentation from NOAA Fisheries on several recent and ongoing actions related to coastal sharks. Final Amendment 14 to the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) was published in January 2022. Amendment 14 establishes a new framework to use to implement acceptable biological catch (ABCs) and annual catch limits (ACLs) for Atlantic shark fisheries, with the option to phase in new ABCs. It also allows for ACL management of recreational fisheries, removes linkages between commercial quotas, and changes quota carry-over provision.

NOAA Fisheries recently published the Atlantic Shark Fishery Review (SHARE) document. The SHARE document is a review of the state of the Atlantic shark fishery as a whole that may be used to help develop future management measures. It identifies areas of success, concerns, and potential future modifications to regulations and management measures, and assesses external factors affecting the fishery.

A proposed rule was published in March 2023 to consider prohibiting retention of oceanic whitetip sharks in US Atlantic waters. Oceanic whitetip sharks are listed as threatened under the Endangered

Species Act. Thus, the rule proposes adding oceanic whitetip sharks to the prohibited species group. NOAA Fisheries is seeking public comment on this action by **May 22, 2023**.

Over the next few months, NOAA Fisheries will also be scoping for Amendment 16 to the HMS FMP. The scoping document will consider a range of issues and options, including a variety of commercial and recreational fishery options based on the framework established under Amendment 14, potential revisions of shark management groups and quotas, and commercial and recreational management measures.

A proposed rule will be published later this month for Draft Amendment 15 to the HMS FMP, which considers two issues: (1) modification, data collection, and assessment of four commercial longline spatial management areas, and (2) administration and funding of the HMS pelagic longline electronic monitoring program.

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

Motions

No motions made.

ANNUAL AWARDS OF EXCELLENCE RECEPTION (MAY 2, 2023)

Press Release

ASMFC Presents 2023 Annual Awards of Excellence

Arlington, VA - The Atlantic States Marine Fisheries Commission presented its Annual Awards of Excellence to a number of individuals for their outstanding contributions to congressional/legislative issues, fisheries science, and law enforcement along the Atlantic coast. Specifically, the 2023 award recipients were Miranda Peterson for congressional/legislative contributions; Carol Hoffman for technical and scientific contributions; and Region 3 New York State Department of Conservation Police from for law enforcement contributions.



From left to right: ASMFC Executive Director Bob Beal, Environmental Conservation Officer Lieutenant Sean Reilly, Carol Hoffman, Awards Committee Chair Jim Gilmore, and ASMFC Chair Spud Woodward

“Every year a great many people contribute to the success of fisheries management along the Atlantic coast. The Commission’s Annual Awards of Excellence recognize outstanding efforts by professionals who have made a difference in the way we manage and conserve our fisheries,” said ASMFC Chair Spud Woodward of Georgia. “I am humbled by the breadth and extent of accomplishments of the recipients and am grateful for their dedication to Atlantic coast fisheries.”

Congressional and Legislative Contributions

Miranda Peterson, Legislative Assistant for Representative Frank Pallone

As a Legislative Assistant in Representative Frank Pallone's office, Miranda Peterson has consistently gone above and beyond to help secure funding for the Virginia Tech Mid-Atlantic Horseshoe Crab Trawl Survey. Understanding the importance of the sustainable management of this species, Miranda has worked diligently to help fund this program. In 2023, she secured the signatures of seven U.S. Representatives on a Dear Colleague letter, which was an all-time high in signatories who support funding the survey.

The Virginia Tech Trawl Survey is necessary for the effective and timely management of horseshoe crabs in the Delaware Bay. The survey has been in operation since 2002, but lost funding for several years which complicated the stock assessment and management in the region. Since 2016, Congress has annually instructed NOAA Fisheries to fund this survey to provide a consistent time series. A healthy Delaware Bay population supports the economically and ecologically important birding, fishing, and biomedical communities. The continuation of this yearly data is due in a large part to Miranda's efforts.

In addition to these efforts, Miranda's in-depth knowledge of coastal and marine issues, including commercial and recreational fisheries, marine mammals, and offshore energy development is not only an asset to Representative Pallone and New Jersey constituents, but also to the management of marine resources along the Atlantic coast.

Scientific and Technical Contributions

Carol Hoffman, (retired) New York State Department of Environmental Conservation

Carol Hoffman, previously with the New York State Department of Environmental Conservation, was recognized for her longstanding scientific and technical contributions to the management of Atlantic striped bass and American eel. Her keen understanding of fishery management plans and strong analytical abilities helped to ensure that New York manages these species in consideration of both state and coastwide needs. Carol's thorough and detailed approach to data analysis and report development has been key to maintaining New York's high quality of work. Her unmatched ability to meticulously remember the Commission's procedures and timelines ensured that New York consistently fulfills its interstate management responsibilities.

A strong communicator and dedicated team player, Carol fostered strong relationships not only within the marine district, but also with New York's inland and Hudson River fisheries. She developed vital working relationships with her neighboring states of New Jersey and Connecticut which allowed striped bass and eel to be monitored and managed successfully on a regional level. Particularly for eel, Carol worked tirelessly to provide alternative data sets from a citizen science group and a power plant in New York, both of which are now used to assess the species.

Not only has Carol delivered timely and accurate data analyses and compliance reports, she has also been instrumental in the extensive process of regulation formulation that supports the Commission's mandates. Her efforts contributed to New York being an active and dedicated participant in the Commission's fisheries management process.

Law Enforcement Contributions

New York State Department of Environmental Conservation Police, Region 3

The last award of the evening was presented to the New York State Department of Environmental Conservation Police for their efforts in the protection of the Atlantic striped bass along the spawning grounds of the Hudson River. Over the past three years, Region 3 officers have conducted patrols of the Western, Putnam, Orange, and Rockland Counties for recreational fishery compliance inspections.

Throughout February and March, the Environmental Conservation Police dedicated its resources to the protection of migrating striped bass. During 14 dedicated patrols in 2023 alone, officers issued 430 tickets for violations of striped bass regulations and other associated violations. Officers also seized 184 illegally possessed striped bass during their patrols; these fish were later donated to a local zoo. The dedicated patrols were conducted at varied times of the day and night. Officers used specialized night vision gear to aid in the detection of anglers. Over the course of this operation, violations included: fishing without a marine registration; failure to use circle hooks; exceeding the possession and size limits; and targeting striped bass during a closed season.

With the opening of the season on April 1, the dedicated patrols have ended, but officers continue to diligently monitor the fishery. Through their efforts, these officers have helped to ensure that fishing regulations are upheld and the resource is given its best chance to rebuild.

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PR23-11

EXECUTIVE COMMITTEE (MAY 3, 2023)

Meeting Summary

The Executive Committee met to discuss several issues, including the proposed FY24 Budget; the potential for a Legislative and Governors Appointee Commissioner (LGA) stipend; potential changes to the Conservation Equivalency Policy; a Legislative Committee update and the Executive Director's Performance review. The following action items resulted from the Committee's discussions:

- Staff presented the proposed FY24 Commission budget which was reviewed by the Executive Committee, which was unanimously approved by the Committee.
- Staff presented an update on the potential for a LGA members stipend. It was determined there is not a way for ASMFC to offer a tax break or benefit for participation in the Commission's meetings. Additionally, the determination of who is eligible and who would accept a stipend needs to be worked through. Ultimately, the Committee decided that LGA Commissioners will continue to serve on a volunteer basis and not receive a stipend from the Commission.
- Staff presented the work group's recommended revisions to the Commission's Conservation Equivalency Policy. There was considerable discussion on the proposed revision, and a bit of concern about the revision being too prescriptive and not flexible enough. The Chair requested that staff work on a further revision of the Policy, and set aside time at a future meeting to go through the Policy step-by-step to determine the appropriate revisions to the Policy.
- Staff presented on four bills that the Executive Committee should be aware of. These included: the Federally Integrated Species Health Act (FISH Act, H.R. 872), National Oceanic and Atmospheric Administration Act of 2023 (H.R. not yet assigned), Restoring Effective Science-

based Conservation Under Environmental laws protecting Whales Act of 2023 (RESCUE Whales Act, H.R. 1213), and the Recovering America's Wildlife Act (S. 1149). Bill Hyatt, the Chair of the Legislative Committee, noted that the Reinvesting in Shoreline Economies and Ecosystems (RISEE, S.373 and H.R.913). Act has been reintroduced in the 118th Congress and should continue to be monitored.

- The Executive Committee went into a closed session to discuss the Executive Director's Performance Review.

For more information, please contact Laura Leach, Director of Finance & Administration, at lleach@asmfc.org or 703.842.0740.

Motions

Move approval of the FY24 Budget.

Motion made by Mr. Keliher and seconded by Ms. Patterson. Motion passed unanimously.

Move moved to accept Option 1 of the Stipend White Paper, which states "the LGA Commissioners will continue to serve on a volunteer basis and not receive a stipend from the Commission."

Motion made by Mr. Keliher and seconded by Mr. Gilmore. Motions passes (14 in favor, 1 opposed).

INTERSTATE FISHERIES MANAGEMENT PROGRAM POLICY BOARD (MAY 3, 2023)

Meeting Summary

The ISFMP Policy Board met to receive an update from Executive Committee; discuss follow up from the 2022 Commissioner Survey results; consider options for possible paths for Atlantic bonito and false albacore management; receive an update on the next addendum for the harvest control rule; discuss the future of the Mid-Atlantic Fishery Management Council's (MAFMC or Council) Research Set-Aside Program (RSA), receive Assessment Science Committee (ASC) and Law Enforcement Committee reports; receive and update on the East Coast Climate Change Scenario Planning Initiative; consider a recommendation from the American Lobster Management Board; and review a request from New York regarding tautog tags, and a request to streamline the commercial quota transfer request process.

The Commission Chair, Spud Woodard, presented the Executive Committee Report to the Policy Board (for more details see Executive Committee meeting summary earlier in this document).

Commissioner Survey

Commissioners completed a survey of Commission performance in 2022, which measures Commissioners' opinions regarding the progress and actions of the Commission in 2022. The Policy Board discussed the results of the survey in February. The Board reviewed possible short- and long-term issues and drivers of change from the survey results. These include issues such as improving meeting efficiency, summaries of lengthy documents, greater incorporation of ecological consideration in decision making, conflicts with offshore wind, and stocks not responding to management decisions. No action was taken at this time.

Management of Atlantic Bonito and False Albacore

In February, the Policy Board tasked staff to present an options paper on possible paths forward for management of Atlantic bonito and false albacore after concerns were raised regarding increased recreational catch of juvenile fish in some state waters. There is currently no federal or Commission fishery management plan for either species. Staff presented three possible options for developing different paths to management for both Atlantic bonito and false albacore including limitations to state processes. These included states developing measures on their own, development of a white paper, or the initiation of a fishery improvement project (FIP). It was noted if additional species were added to the Commission portfolio, it would increase the workload for Commission and state staff, some of which are already at full capacity. Staff noted there was an extensive literature review of both species submitted as public comment by American Saltwater Guides Association. Some Policy Board members were concerned with the Commission directing the states regarding these species because their states have determined management is not needed at this point. While there are some states that would like to further explore possible management due to concerns of what increased harvest could do to an unregulated species. Those states with an interest will work together to explore state management and report back to the Policy Board if they find further action by the Commission may need to be discussed.

Next Steps in Recreation Management Reform Initiative

In June 2022, Policy Board and the MAFMC passed a motion when taking final action on the Harvest Control Rule Framework/Addenda to start a new draft management document to further develop the approved percent change approach for recreational management of summer flounder, scup, black sea bass and bluefish, in addition to two of the other options in the document that had gone out for public comment. Staff presented a timeline for the new draft addendum/framework and Recreational Amendment (addressing sector management and recreational accountability for summer flounder, scup, black sea bass and bluefish). The Board also approved the Plan Development Team (PDT) membership to work on developing the draft addendum. Approved PDT membership includes Corrine Truesdale, Rachel Sysak, Mike Celestino, Alexa Galvan, and Sam Truesdall. The Board also approved a work group of Commissioners and Council members to provide direction to the PDT/Fishery Management Action Team in developing the draft addendum.

MAFMC Research Set-Aside Program

In 2014, MAFMC suspended the RSA Program due to concerns associated with administrative, enforcement, and science issues. The Council is considering the potential redevelopment of the RSA program. From July 2021 through February 2022, the Research Steering Committee (RSC) held a series of four exploration workshops focusing on the key issues of RSA research, funding mechanisms, and enforcement, monitoring, and administration. Based on input from the workshops, the RSC developed a draft framework for a potentially revised RSA program that would seek to address the issues of the original RSA program. At its August meeting, Council staff will provide the Council with a presentation on a potential draft RSA framework, draft RSA program elements, and recommendations developed by the RSC for Council consideration. Any potential management action considered by the Council through a management document would need to be developed cooperatively with the Commission for jointly managed species to ensure a consistent and compatible RSA program across FMPs. Policy Board members were concerned there was not sufficient time to discuss and recommend a position on re-establishing the RSA program. A webinar

will be held prior to the Council's August meeting for Board members to continue the discussion and develop recommendations.

Assessment Science Committee Recommendations

The Assessment Science Committee met on April 17th to discuss and approve a revised Commission Stock Assessment Schedule, in anticipation of overwhelming stock assessment subcommittees workloads for 2023-2025. The Board approved the following recommended changes to the schedule: Atlantic menhaden and Atlantic sturgeon will switch from benchmark stock assessment to an assessment update, and while river herring will still be peer-reviewed in 2023, the results will not be presented to the Board until early 2024.

Staff presented a report of the Law Enforcement Committee (LEC) work (more details can be found in the LEC meeting summary earlier in this document)

Commerce of American Lobster between the US and Canada & Tautog Tagging

Under other business, the Policy Board approved a motion establishing a subcommittee that will find solutions that are beneficial to both the sustainability of the lobster stock and commerce between the US and Canada and then work with Canada on implementing those solutions.

New York reported the state will be conducting a new tagging study to look at additional tag types for the tautog program. While the new study is conducted, New York requested the ability to tag fish in a different location for this fishing season, if needed to address concerns raised by industry. The Policy Board had no issues with the requested change. Lastly, a Policy Board member requested staff to look into possible ways to simplify the quota transfer communication process, if allowed by the FMPs.

For more information, please contact Toni Kerns, Fisheries Policy Director, at tkerns@asmfc.org.

Motions

Move that the Commission establish a temporary technical committee to review the two papers on Atlantic bonito and little tunny that were submitted by the American Saltwater Guide Association. The Commission will inform the State Directors of this proposal and ask them to nominate a scientific staff member of their choice to join the review. The review will assess the technical quality of the papers, the relevance of the information, and suggest possible revisions, data gaps, and management implications and options. The committee will convene online, elect their own chairperson, and prepare a report with their findings and recommendations for presentation to the ISFMP Policy Board at the Summer Meeting.

Motion made by Mr. Borden and seconded by Dr. Davis. Motion fails (2 in favor, 11 opposed, 3 abstentions, 1 null).

Move to approve the ASMFC Stock Assessment Schedule as presented today.

Motion made by Mr. Fote and seconded by Mr. Bell. Motion carries unanimously.

On behalf of the American Lobster Board, recommend ISFMP Policy Board approve the creation of a subcommittee to engage Canada's Department of Fisheries and Oceans to discuss transboundary issues related to the importation of lobster as it relates to different minimum

gauge sizes in the two countries. The subcommittee shall be made up of up to four members of the Lobster Management Board who have license holders that fish in Area 1 and/or 3, one representative from the National Marine Fisheries Service, and the Commission's Executive Director or his designee.

Motion made by Dr. McNamee on behalf of the American Lobster Management Board.

Motion to substitute to request the ISFMP Policy Board create a subcommittee to be made up of up to four members of the American Lobster Management Board who have license holders that fish in LCMA 1 and/or 3 and at least one representative from NMFS and the Commission's Executive Director or his designee. The Subcommittee, prior to the engagement with parties in Canada who have an interest in lobster management and commerce, shall discuss and develop an approach on how best to find solutions that would be beneficial to both the sustainability of the lobster stock and commerce between the countries.

Motion made by Mr. Ruccio and seconded by Mr. Keliher. Motion passes by unanimous consent.

HORSESHOE CRAB MANAGEMENT BOARD (MAY 3, 2023)

Press Release

Horseshoe Crab Board Approves Best Management Practices for the Biomedical Industry

Arlington, VA – The Commission's Horseshoe Crab Management Board accepted revisions to a guidance document on *Best Management Practices (BMPs) for Handling Horseshoe Crabs for Biomedical Purposes*. The document recommends broadly applicable industry standards that are expected to minimize mortality and injury of horseshoe crabs associated with the biomedical process. It also provides background on the horseshoe crab biomedical fishery, information on current regulations in the Interstate Fishery Management Plan (FMP) for Horseshoe Crab related to biomedical collections, and research recommendations that could further inform the BMPs and potentially further reduce mortality or injury of biomedical horseshoe crabs.

The revised document is the product of a Board-appointed work group that was tasked with reviewing and updating the BMPs for handling biomedical catch since over a decade has passed since the BMPs were originally developed. The work group included technical committee and advisory panel members with expertise in horseshoe crab biology, ecology, and biomedical processing.

It is the Board's intention to keep this document up-to-date, with periodic updates in the future. The final document will be posted to the horseshoe crab webpage at <https://asmfc.org/species/horseshoe-crab> under quick links by the end of May.

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

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PR23-12

Meeting Summary

In addition to accepting the revised *Best Management Practices for Handling Biomedical Catch of Horseshoe Crabs*, the Board also discussed potential approaches for evaluating management objectives for the Delaware Bay horseshoe crab bait fishery. The Board agreed to form a work group to develop a survey that will be distributed to stakeholders including bait harvesters and dealers, biomedical fishery and industry participants, and environmental groups. The results of the survey will inform the Board on whether to consider future changes to horseshoe management for the Delaware Bay region.

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

Motions

To move to accept the draft BMP document as final and publish it on the ASMFC website.

Motion made by Mr. McKiernan and seconded by Mr. Bell. Motion approved by consent.

Move to pursue option 1 from the memo dated April 17, 2023 with the intent to include a wide range of stakeholders in a survey formulated by a workgroup of board members.

Motion made by Ms. Madsen and seconded by Mr. Jacobson. Motion approved by consent.



February 2023 Council Meeting Summary

The Mid-Atlantic Fishery Management Council met February 7-9, 2023, in Washington, DC. Presentations, briefing materials, motions, and webinar recordings are available at <http://www.mafmc.org/briefing/february-2023>.

HIGHLIGHTS

During this meeting, the Council:

- Approved 2023-2025 monkfish specifications and revised 2023-2024 monkfish priorities
- Continued discussion regarding follow-up action to address disapproved sections of Amendment 22
- Received an update on development of the Surfclam and Ocean Quahog Species Separation Amendment and reviewed additional suggestions submitted by the Advisory Panel and industry members
- Reviewed the results of the 2022 Bluefish and Dogfish Research Track Assessments
- Received information presentations on a variety of topics
- Reappointed four members to the Council's Scientific and Statistical Committee

Monkfish 2023-2025 Specifications

The Council approved the same monkfish specifications for 2023-2025 as recommended by the New England Fishery Management Council (NEFMC) at their January 2023 meeting. The new Acceptable Biological Catches (ABCs) – 6,224 metric tons for the Northern Management Area and 5,861 for the Southern Management Area – represent substantial reductions from current ABCs but are close to the most recent 3-year average catches in each area. Maximum usable Days as Sea Allocations (DAS) would remain the same (46), but there would be limits for using up to 35 DAS in the Northern Area and 37 DAS in the Southern Area. No trip limit changes were adopted. Both Councils approved a 12" minimum mesh size for monkfish gillnets starting in the 2026 fishing year. Additional background on these recommendations is available in the [NEFMC press release](#). In addition, the Council approved revised research priorities for a 2023-2024 Monkfish Research Set-Aside (RSA) funding opportunity. For additional information and updates, please visit the [NEFMC monkfish web page](#).

Illex Permit Action Follow Up

The Council continued its discussions regarding a possible follow-up action related to the disapproved sections of Amendment 22. The Council discussed a potential action that would consider establishing a volumetric hold baseline and upgrade restriction for *Illex* squid permits to control further increases in fleet capitalization. The Council will decide whether to pursue this and/or other actions focused on capitalization in the *Illex* fishery after receiving additional input from NMFS and Council staff at the April 2023 Council meeting (including a response to the Council's [request for clarification from NMFS](#) on several aspects of the disapproval of capacity-related measures in a previous Amendment).

Atlantic Surfclam and Ocean Quahog Species Separation Issues

Industry Presentation

The Council received a presentation from Dr. Roger Mann, Site Director for SCMFIS at the Virginia Institute of Marine Science, which summarized their survey examining the composition and size of surfclam and quahog in clam beds from Ocean City, MD to south of Hudson Canyon. In addition, a 9-minute video developed for SCMFIS,

by Stove Boat Communications, was shown that highlighted survey footage onboard the vessel and discussed some of the challenges associated with the mixing of surfclam and ocean quahog in fishery catches.

Species Separation Requirements Amendment Update

The Council received an update on the ongoing development of an amendment to consider potential modifications to the species separation requirements in the surfclam and ocean quahog fisheries. The Council reviewed an updated timeline for ongoing work, which is expected to occur in 2023 into 2024, and a summary of input provided by the Advisory Panel and industry on additional types of solutions/approaches that could be considered for the amendment. These included suggestions such as sorting and reporting mixed surfclam and quahog catches at the dealer/processor, limited sorting onboard the vessel on eVTRs to provide hail weights, modification of the current 32-bushel cage tagging system, among other possible approaches.

Bluefish and Dogfish Research Track Assessments

Russ Brown (NOAA Fisheries Northeast Fisheries Science Center (NEFSC)) presented the results of the Bluefish and Spiny Dogfish research track assessments that were peer reviewed in December 2022. The working groups for the research track assessments considered new datasets, modeling frameworks, and other aspects of the biology for these species. It was noted that in the last years of the bluefish assessment, the bluefish stock was below its target biomass, above the overfished threshold, and slightly increasing (with overfishing not occurring). In the last years of the spiny dogfish assessment, the spiny dogfish stock was below its target biomass, above the overfished threshold, and decreasing (with overfishing occurring). Both assessments passed peer review and will form the foundation for the upcoming 2023 management track assessments, which will integrate updated data to determine official stock statuses and future catch limits.

Highly Migratory Species Update

Randy Blankinship (NOAA Fisheries Atlantic Highly Migratory Species (HMS) Management Division) presented an update on recent and ongoing HMS management initiatives. Some recent HMS management initiatives include adjusting bluefin tuna quotas, implementing retention limits for shortfin mako sharks, and establishing a new framework to implement acceptable biological catch and annual catch limits for sharks. The presentation also included a summary of the November 2022 International Commission for Conservation of Atlantic Tunas meeting and some of the major outcomes from that meeting.

Atlantic Large Whale Take Reduction Team

The Council received an update from NMFS Protected Resources staff on the recent Atlantic Large Whale Take Reduction Team (team) meeting and recent whale strandings and entanglements. At their meeting, the team provided recommendations on gillnet and trap/pot measures to reduce the risk of right whale entanglement in fishing gear. Some of these measures include weak rope and use of one endline on nets and trap trawls. Because of this, it was discussed that there is more work to be done regarding the potential for gear conflict due to less markings and increased use of ropeless technology. The Council heard from the NEFMC Chair, Eric Reid, regarding the NEFMC's recent decision to form a working group to address gear conflict. The Council agreed to coordinate with the NEFMC and participate on that working group.

Northeast Trawl Advisory Panel

The Council received an update on the Northeast Trawl Advisory Panel (NTAP). NTAP is a joint advisory panel of the Mid-Atlantic and New England Fishery Management Councils. It is composed of Council members, as well as fishing industry, academic, and government and non-government fisheries experts who provide advice and direction on the conduct of trawl research. The presentation provided background information on NTAP as well as a summary of the recently held hybrid meeting.

Squid Squad

The Council received a presentation from NEFSC staff on ongoing efforts to use a collaborative framework to improve squid science, focusing recently on oceanographic indicators of *lllex* squid productivity. The group integrates industry, science, and management perspectives to facilitate collaborative efforts for squid science given the many challenges of modeling these short lived and highly dynamic stocks. Pending research interests include additional fieldwork and modeling regarding oceanographic indicators, examination of metrics for the shelf slope front and cross-shelf exchange, and enhanced biological sampling for both *lllex* and longfin squids.

Lessons Learned – Squid Jigging

Dr. David Bethoney of the Commercial Fisheries Research Foundation (CFRF) summarized a research project testing the potential use of automatic jigging equipment in the commercial longfin squid fishery in southern New England. Catch rates were very low during research trips, but a variety of *lessons-learned* were reviewed and CFRF may consider additional related research after consulting with international contacts in other squid fisheries that use jigging.

Northeast Commercial Fishing Vessel Cost Survey

The Council received a presentation from Samantha Werner (NEFSC Social Science Branch) on the Northeast Commercial Fishing Vessel Cost Survey. The voluntary cost surveys are routinely conducted by the NEFSC to collect commercial fishing business costs from vessel owners in the Greater Atlantic Region. Upcoming survey will be implemented in March/April of 2023 for costs incurred in 2022. Collected data is used for understanding trends, tracking economic performance of fleets, and generating analyses that inform management decisions. Learn more at [Commercial Fishing Business Cost Survey](#).

Marine Recreational Education Program (MREP)

Lauren O'Brien, Senior Program Manager of the Marine Resource Education Program (based at the Gulf of Maine Research Institute), reviewed the goals and successes of MREP, which is designed to help fishermen engage in the fishery management process. The program provides supported travel to workshops focused on either fisheries science or the management process. In our area, a 2-part workshop series is held once per year, and applications are accepted on a rolling basis. Visit the [MREP web page](#) for details or to apply for the 2024 workshop series.

Other Business

The Council reappointed four members of its Scientific and Statistical Committee (SSC) to another three-year term effective March 2023. The Council also thanked Dr. Lee Anderson, professor emeritus from University of Delaware, for his numerous contributions and accomplishments during his more than 40 years associated with the Council and SSC. Dr Anderson is stepping down from his role on the SSC to enjoy retirement and his family. The Council is [soliciting new SSC candidates](#) to fill the vacancy. The deadline to apply is March 17, 2023.

Next Meeting

The next Council meeting will be held **April 4-6, 2023, in Durham, NC**. A complete list of upcoming meetings can be found at <https://www.mafmc.org/council-events>.



April 2023 Council Meeting Summary

The Mid-Atlantic Fishery Management Council met April 4-6, 2023, in Durham, NC. Presentations, briefing materials, motions, and webinar recordings are available at <http://www.mafmc.org/briefing/april-2023>.

HIGHLIGHTS

During this meeting, the Council:

- Reviewed *Illex* squid specifications for 2023 (no changes needed) and approved specifications for 2024-2025
- Initiated a framework action to consider a volumetric vessel hold baseline requirement and upgrade restriction for all *Illex* limited access permits
- Reviewed recent action by the ASMFC's Summer Flounder, Scup, and Black Sea Bass Board and decided against asking NOAA Fisheries to reconsider the January 1-April 30 closure of the federal recreational scup fishery
- Reviewed the 2023 Mid-Atlantic State of the Ecosystem Report
- Discussed outcomes and next steps from the East Coast Scenario Planning Summit Meeting
- Reviewed preliminary results of a research project to develop and test a new and innovative modeling approach for short-term forecasts of climate-driven species distributions
- Reviewed the results of a pilot project to consider the feasibility of using video recordings to track fishing effort out of the Ocean City, MD inlet
- Received presentations on several relevant topics, including regional habitat activities, recreational data collection updates and priorities, and NOAA's National Seafood Strategy
- Appointed Dr. Andrew Scheld to the Scientific and Statistical Committee

Illex Squid 2023-2025 Specifications

The Council reviewed *Illex* squid specifications for 2023 and set specifications for 2024-2025. Last year, the Council set a preliminary acceptable biological catch (ABC) of 40,000 metric tons (MT) for 2023 with the plan to revisit this recommendation after updated analyses were available. During this meeting, the Council reviewed these analyses and agreed that no modifications to the 2023 ABC are warranted. Although the *Illex* stock status remains unknown, Council-sponsored research indicates that overfishing is unlikely to occur at an ABC of 40,000 MT. After deducting for estimated discards, this results in a 2023 quota of 38,192 MT (the same as 2022). For 2024-2025, the Council recommended maintaining the ABC at 40,000 MT with a quota of 38,631 MT (less discards will be deducted for 2024-2025 based on updated discard data).

Illex Permit Action Follow-Up

The Council continued its discussions regarding a possible follow-up action related to NMFS' disapproval of an amendment to further restrict permitting in the *Illex* fishery. After reviewing additional communications from NMFS, the Council voted to initiate and develop a framework action to consider a volumetric vessel hold baseline requirement and upgrade restriction for all *Illex* limited access permits. This action is intended to control future increases in capacity. Staff noted that a similar volumetric requirement is in place for the directed mackerel fishery, and most regional limited access programs have baselines to control increases in fishing power/capacity (generally horsepower and length). Staff will schedule Committee and Advisory Panel meetings to develop alternatives for initial review by the Council later this year (likely in June or August 2023).

Scup Federal Recreational Season

The Council discussed a recent recommendation made by the Atlantic States Marine Fisheries Commission's (ASMFC) Summer Flounder, Scup, and Black Sea Bass Board (Board) regarding the federal recreational season for scup. The new Percent Change Approach requires a 10% reduction in recreational harvest of scup in 2023. In December 2022, the Council and Board jointly agreed to reduce the federal recreational possession limit from 50 to 40 fish and shorten the federal-waters season from a year-round open season to a May 1–December 31 open season. These measures did not achieve the full 10% reduction in harvest required, so the Council and Board also agreed that the states would further modify state measures through the Commission process.

On March 2, 2023, the Board met and reviewed proposed measures for state waters. After determining that the proposed state adjustments meet virtually the full 10% reduction in coastwide harvest, the Board agreed to recommend that NOAA Fisheries reconsider the scup federal waters closure (January 1–April 30).

During this meeting, the Council discussed the Board's recommendation and considered taking similar action prior to the publication of the final rule. The Council noted that due to the timing of federal rule making, the modified federal season would not go into effect until 2024, therefore having no impact on 2023 harvest. After much discussion, the Council agreed to revisit the discussion after the updated management track stock assessment is available later this year. The Regional Administrator indicated that if the forthcoming management track assessment indicates that a shortened season is no longer needed, NOAA Fisheries can publish a rule by the end of 2023 to modify the federal season for 2024.

2023 Mid-Atlantic State of the Ecosystem Report

Dr. Sarah Gaichas (NEFSC) presented the key results and findings of the 2023 Mid-Atlantic State of the Ecosystem report. The report is provided to the Council each April and gives an overview of ecosystem-level indicators that evaluate the status and trends of ecological, environmental, economic, and social components of the Mid-Atlantic ecosystem. These ecosystem-level indicators consider their performance relative to fishery management objectives and the potential risks they pose to meeting management goals and objectives. Some of the key findings of the 2023 report include:

- Commercial landings in the Mid-Atlantic are at the lowest point observed, driven by recent declines in species not managed by the Mid-Atlantic Council.
- Recreational harvest remains below the long-term average; while recreational effort was near average and recreational catch diversity remains above average.
- The oceanographic conditions in the Mid-Atlantic Bight continue to change with implications for habitat, fish productivity and condition, and stock distributions.
- The proposed development of 31 different offshore wind projects is anticipated to result in a range of economic, habitat, protected species, and science risks to meeting the Council's management objectives.

East Coast Climate Change Scenario Planning Update

Council staff provided a recap of the East Coast Scenario Planning Summit Meeting, which was held February 15-16, 2023, in Arlington, Virginia. Attended by over 50 representatives of East coast fishery management organizations, the summit served as a capstone to the East Coast Climate Change Scenario Planning Initiative. The goal of the summit was to develop a set of potential governance and management actions resulting from scenario-based exploration of the future. The final report is still under development and will be reviewed by the Northeast Region Coordination Council (NRCC) at its May 9-10 meeting, along with a draft "action plan" being developed by the core team. Later in 2023, the Council will review the final summit report and NRCC recommendations and consider how to incorporate potential actions from this process into their 2024 implementation plan and future strategic plans/implementation plans.

Short-Term Forecasts of Species Distributions for Fisheries Management Project

The Council received a presentation from Dr. Malin Pinsky (Rutgers University) and Dr. Alexa Fredston (University of California Santa Cruz) on the preliminary results of a research project to develop and test a new and innovative modeling approach for short-term forecasts of climate-driven species distributions. This collaborative research project with the Council seeks to understand the drivers and processes associated with short-term (e.g., over 1-10 years) distribution changes that more closely align with management timelines. The research team developed a suite of dynamic range models that include a temperature effect on population dynamic variables such as recruitment, growth, natural mortality, and adult movement. The model has been fully developed and tested for summer flounder and will also be built for spiny dogfish, *Illex* squid, and gray triggerfish.

Preliminary results indicate that 1) dynamic range models can forecast distribution changes with reasonable skill, 2) the interannual and short-term changes in distribution are highly variable, and 3) non-climate factors (e.g., fishing pressure and dispersal) have a substantial influence on short-term distribution changes. To date, models have been built and evaluated using a retrospective forecasting approach where data from the past is used to test if the models can predict distribution changes with known information. Further model development, including the development of oceanographic condition models, will be needed to create future distribution forecasts (i.e., 2024 onward).

The Council was supportive of the modeling efforts and research results and identified a range of potential opportunities to incorporate this information into different Council initiatives and actions. The Council also identified a number of recommendations for future model development and research considerations.

Ocean City Video Boat Count Project

The Council reviewed the results of a pilot project to consider the feasibility of using video recordings to track fishing effort out of the Ocean City, MD inlet. Various “lessons learned” were considered and discussed. Challenges with COVID-19 (the project started in 2020) and equipment limited the overlap with Marine Recreational Information Program (MRIP) 2-month “waves,” which made it difficult to draw comparative conclusions between the video-based counts and MRIP estimates – the MRIP estimates at this scale have very wide confidence intervals and overlapped the ranges produced via the video counting.

Updates and Presentations

Habitat Activities Update

The Council received a presentation from Kevin Madley, Jessie Murray, and Sue Tuxbury from the Greater Atlantic Regional Fisheries Office Habitat and Ecosystem Services Division. Their presentation highlighted aquaculture, offshore wind, and coastal storm risk management projects underway in the region. They also highlighted NOAA’s activities associated with the Bipartisan Infrastructure Law and results of a scenario planning exercise on the Susquehanna River where state and federal agencies are seeking ways to balance the passage of anadromous fish over four dams with the prevention of the expansion of aquatic invasive species such as the northern snakehead. Following the meeting, the Council plans to post additional details on the Council’s aquaculture webpage on how to sign up directly for notices from aquaculture project developers.

Marine Recreational Information Program (MRIP)

Katherine Papacostas, MRIP Program Manager and Branch Chief, provided an update on 2023 MRIP priorities and two reports to Congress regarding National Academies of Sciences recommendations. 2023 MRIP priorities include:

- Support for regional priorities (see ACCSP item above)
- Data methods certifications
- Implementation of Survey and Data Standards
- Ongoing data collection research

The two reports are 1) an every-other-year progress report on improving recreational data and 2) a report on how MRIP meets the needs of in-season management (and how MRIP could be improved in that regard and/or management strategies might be modified to better meet those needs).

More information on these topics can be found at <https://www.fisheries.noaa.gov/recreational-fishing-data/about-marine-recreational-information-program>.

Atlantic Recreational Data Implementation Plan

Geoff White, Director of the Atlantic Coastal Cooperative Statistics Program (ACCSP), gave a presentation on the MRIP Regional Implementation Plan for the Atlantic Coast. The plan will be used by ACCSP and NOAA Fisheries to guide data needs and funding priorities over the next five years. Priorities for 2023-2027 include:

- Improved precision and presentation of MRIP estimates
- Comprehensive for-hire data collection and monitoring
- Improved recreational fishery discard and release data
- Improved timeliness of MRIP recreational catch and harvest estimates
- Expanded biological sampling of recreational fisheries
- Improved in-season monitoring

Details may be found at <https://www.accsp.org/accsp-noaa-fisheries-release-plan-to-improve-atlantic-recreational-fisheries-data/>.

NOAA's National Seafood Strategy

Michael Rubino (NOAA Fisheries) presented an overview of NOAA's Draft National Seafood Strategy. The draft strategy, which was available for public comment from February 14 to March 31, describes NOAA Fisheries' approach to enhancing the resilience of the seafood sector in the face of climate change and other stressors.

Other Business

The Council appointed Dr. Andrew Scheld, an associate professor and fisheries economist with Virginia Institute of Marine Sciences, Dept. of Fisheries Science, to be a member of its Scientific and Statistical Committee (SSC). Dr. Scheld is filling the vacancy on the SSC due to the recent departure of Dr. Lee Anderson (professor emeritus, University of Delaware) and will begin serving a three-year term effective May 1, 2023.

Next Meeting

The next Council meeting will be held **June 6-8, 2023, in Virginia Beach, VA**. A complete list of upcoming meetings can be found at <https://www.mafmc.org/council-events>.



South Atlantic Fishery Management Council

News Release

FOR IMMEDIATE RELEASE
March 15, 2023

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Council Approves Management Measures for Red Snapper, Gag, and Black Grouper During March Meeting



Members of the South Atlantic Fishery Management Council approved measures to reduce the annual catch limit for Red Snapper and help address release mortality for Red Snapper and other species managed as part of the snapper grouper complex. Snapper Grouper Regulatory Amendment 35 would reduce the total Annual Catch Limit from 42,510 fish to 28,000 fish once implemented. The catch limit reduction is required to address the overfishing status of the stock, primarily due to the continued high number of fish being released by recreational fishermen as the stock continues to rebuild. To help address release mortality, the amendment would limit recreational anglers fishing for snapper grouper species to one hook per line when using natural baits in federal waters in the South Atlantic. If approved by the Secretary of Commerce, the measures are expected to go into place later this year. NOAA Fisheries will make an announcement regarding the 2023 fishing seasons for Red Snapper prior to any opening in July.

Approval of Regulatory Amendment 35 is part of the Council's multi-step approach to address management of red snapper and the entire snapper grouper fishery. A Management Strategy Evaluation (MSE) is being developed for the snapper grouper fishery, exploring various management tools in a holistic approach to management. The Council received a presentation on development of the MSE during the meeting. Additional information is now available from the Council's website <https://safmc.net/science-sedar/snapper-grouper-management-strategy-evaluation/>. In addition, the Council is moving forward with Snapper Grouper Amendment 46 to establish a private recreational permit for the South Atlantic snapper grouper fishery. Public scoping meetings were held earlier this year and the Council will continue to receive input from its advisory panels as the amendment is developed.

The Council also approved Snapper Grouper Amendment 53 to end overfishing for Gag grouper and establish a rebuilding plan. The Council considered public hearing comments before recommending the amendment for Secretarial approval. The amendment will modify annual catch limits and allocations for Gag and create a recreational vessel limit for both Gag and Black Grouper of 2 fish per day or two fish per trip, not to exceed the daily bag limit of 1 fish (either Gag or Black Grouper) per person per day, whichever is more restrictive. The amendment would also prohibit retention of Gag and Black Grouper by the captain and crew of federally permitted for-hire vessels. Black Grouper are included in the measures because of concerns over misidentification between Gag and Black Grouper in the recreational sector. The amendment would also reduce the commercial trip limit for Gag to 300 pounds gutted weight.

(Continued)

Management Measures Approved (*continued*)

Other Business

The Council expressed frustration with the ongoing lack of management advice for Atlantic Spanish Mackerel. NOAA Fisheries Southeast Fisheries Science Center informed the Council that additional assessment analyses requested by the Council's Scientific and Statistical Committee would not be prepared, and that the SSC should base its catch level recommendations on the existing stock assessment. The Council stressed the importance of receiving catch level recommendations at their June 2023 meeting to move forward with management decisions. The Council's Scientific and Statistical Committee will once again review the assessment during its upcoming meeting, April 18-20, 2023.

Based on recommendations from the Mackerel Cobia Advisory Panel, the Council is moving forward with plans to conduct port meetings for King and Spanish Mackerel to gain a comprehensive understanding of the fisheries to improve management efforts. The meetings will be open to the public and include opportunities for input from both commercial and recreational fishermen. The advisory panel will meet this spring to provide additional input and port meetings may be scheduled for later this year or early 2024.

Information about the March 2023 Council meeting, including final committee reports, public comments, and meeting materials is available from the Council's website at: <https://safmc.net/events/march-2023-council-meeting/>. The next meeting of the Council is scheduled for June 12-16, 2023 in St. Augustine, Florida.

Photo Credit: NC Sea Grant

The South Atlantic Fishery Management Council, one of eight regional councils, conserves and manages fish stocks from three to 200 miles offshore of North Carolina, South Carolina, Georgia and east Florida.

**South Atlantic Fishery Management Council
Full Council and Committee Reports
SUMMARY MOTIONS
March 6-10, 2023**

This is a summary of the motions approved by the Council. Motions addressing actions and alternatives for FMP amendments are followed by text showing the result of the approved motion. Complete details on motions and other committee recommendations are provided in the Committee Reports available on the SAFMC website.

Full Council Session I (Closed)

MOTION 1: MOVE TO APPROVE THE AP POLICY AS MODIFIED.
APPROVED BY COUNCIL

MOTION 2: APPROVE THE ADMINISTRATIVE HANDBOOK AS MODIFIED.
APPROVED BY COUNCIL

MOTION 3: MOVE TO APPROVE TABLE 1 AND TABLE 2 AS TOPICAL WORKING GROUP MEMBER PARTICIPANTS, DATA PROVIDERS, AND OBSERVERS FOR SEDAR 89 AND 92.

Table 1. SEDAR 89 South Atlantic Tilefish Topical Working Group participants and observers.

Name	Affiliation	Function	Travel funds needed
Technical Appointees			
Mike Rinaldi	ACCSP	TWG	No
Kevin Spanik	SCDNR	TWG	No
Jeff Moore	NCDMF	TWG	No
Michael Thompson	NCDMF	TWG	No
Kevin Thompson	FLFWC	TWG	No
Eric Hiltz	SCDNR	D	No
Elizabeth Gooding	SCDNR	D	No
Amy Dukes	SCDNR	D	No
Chris Bradshaw	FLFWC	D	No
Bev Sauls	FLFWC	D	No
Bridget Cermek	FLFWC	D	No
COUNT		5	0
SSC			
Marcel Reichert	SCC	TWG	No
Wally Bubley	SCC	TWG	No
COUNT		2	0
Stakeholders			
Vincent Bonura	SGAP	TWG	No
Mike Freeman	LEAP/Industry Rep	TWG	No
COUNT		2	0

Council & Staff Observers			
Tim Griner & Laurilee Thompson	Council Rep	O	No
Chip Collier	Council Staff	O	No
COUNT		3	0

Table 2. SEDAR 92 Blueline Tilefish Topical working group members participants and observers.

Name	Affiliation	Function	Travel funds needed
Technical Appointees			
Wally Bublely	SCDNR	TWG	No
Kevin Spanik	SCDNR	TWG	No
Mike Rinaldi	ACCSP	TWG	No
Meredith Whitten	NCDMF	TWG	No
Bev Sauls	FLFWC	TWG	No
Michelle Willis	SCDNR	D	No
Chris Bradshaw	FLFWC	D	No
Bridget Cermack	FLFWC	D	No
COUNT		5	0
SSC			
Scott Crosson	SSC	TWG	No
George Sedberry	SSC	TWG	No
COUNT		2	0
Stakeholders			
Byron Shults	Industry Rep	TWG	No
Dewey Hemilright	Industry Rep	TWG	No
COUNT		2	0
Council & Staff Observers			
Trish Murphey	SAFMC Rep	O	No
Hannah Hart	MAFMC Staff	O	No
Judd Curtis	SAFMC Staff	O	No
COUNT		2	0

MOTION 4: MOVE TO APPOINT BYRON SHULTS TO THE SEDAR POOL AP EFFECTIVE APRIL 1, 2023 AND MOVE TO APPOINT ANNE MARKWITH TO THE NC DMF SEAT ON THE SSC EFFECTIVE APRIL 1, 2023 THROUGH JUNE 30, 2024.

Full Council Session I (Session)

MOTION 5: APPROVE THE COMMERCIAL ELECTRONIC LOGBOOK AMENDMENT, AS MODIFIED, FOR PUBLIC HEARINGS.

SEDAR Committee

MOTION 6: APPROVE SEDAR 92 ATLANTIC BLUELINE TILEFISH OPERATIONAL ASSESSMENT TERMS OF REFERENCE AS MODIFIED.

MOTION 7: APPROVE SEDAR 89 ATLANTIC TILEFISH OPERATIONAL ASSESSMENT TERMS OF REFERENCE.

MOTION 8: APPROVE SCOPES OF WORK FOR RED PORGY, GAG, AND KING MACKEREL IN 2025, AS MODIFIED.

Snapper Grouper Committee

Release Mortality Reduction & Red Snapper Catch Levels (Regulatory Amendment 35)

MOTION 9: APPROVE THE REVISED LANGUAGE FOR PREFERRED ALTERNATIVE 2. *Action 1. Reduce the acceptable biological catch, total annual catch limit, and sector annual catch limits, and establish an annual optimum yield for South Atlantic red snapper*

Preferred Alternative 2. Reduce the red snapper acceptable biological catch and set it equal to the most recent recommendation from the Scientific and Statistical Committee. Reduce the total annual catch limit and establish an annual optimum yield for red snapper and set them **equal to** the recommended acceptable biological catch. Reduce the sector annual catch limits according to the revised total annual catch limit, current allocation method, and average weight estimates from the most recent stock assessment. Red snapper may only be harvested or possessed in or from the South Atlantic exclusive economic zone during the commercial and recreational fishing seasons. The 2027 total annual catch limit and annual optimum yield would remain in place until modified.

Fishing Year	ABC (numbers of fish)	Annual OY=Total ACL (numbers of fish)	Commercial ACL (lbs ww)	Recreational ACL (numbers of fish)
2023	28,000	28,000	77,016	19,119
2024	31,000	31,000	85,268	21,167
2025	33,000	33,000	90,769	22,533
2026	35,000	35,000	96,270	23,899
2027+	36,000	36,000	99,021	24,581

MOTION 10: SELECT ALTERNATIVE 2 AS PREFERRED UNDER ACTION 2.

Action 2. Prohibit the use of more than one hook per line for the snapper grouper recreational sector

Alternative 2. The recreational sector is required to use one non-offset, non-stainless steel circle hook per line when fishing for South Atlantic snapper grouper species with hook-and-line gear and natural baits north of 28° N latitude, and no more than one hook per line may be used. The recreational sector is required to use one non-stainless steel hook per line when

fishing for South Atlantic snapper grouper species with hook-and-line gear and natural baits south of 28° N latitude, and no more than one hook per line may be used.

MOTION 11: DIRECT NOAA FISHERIES TO PRESENT DATA ON THE SPATIAL AND TEMPORAL DISTRIBUTION OF SG CATCH, BY SECTOR, IN THE SOUTH ATLANTIC REGION.

MOTION 12: APPROVE REGULATORY AMENDMENT 35 TO THE FISHERY MANAGEMENT PLAN FOR THE SNAPPER GROUPE FISHERY OF THE SOUTH ATLANTIC REGION FOR FORMAL SECRETARIAL REVIEW AND DEEM THE CODIFIED TEXT AS NECESSARY AND APPROPRIATE. GIVE STAFF EDITORIAL LICENSE TO MAKE ANY NECESSARY EDITORIAL CHANGES TO THE DOCUMENT/CODIFIED TEXT AND GIVE THE COUNCIL CHAIR AUTHORITY TO APPROVE THE REVISIONS AND RE-DEEM THE CODIFIED TEXT.
APPROVED BY COUNCIL

Scamp and Yellowmouth Grouper Assessment

MOTION 13: INITIATE DEVELOPMENT OF AN AMENDMENT IN RESPONSE TO SEDAR 68 TO MODIFY MANAGEMENT OF SCAMP AND YELLOWMOUTH GROUPE.

Gag and Black Grouper (Amendment 53)

MOTION 14: APPROVE THE PURPOSE AND NEED, AS MODIFIED.

The *purpose* of this fishery management plan amendment is to establish a rebuilding plan, and revise the acceptable biological catch, annual catch limits and sector allocations for South Atlantic gag based on the results of the most recent stock assessment. This plan amendment would also make modifications to management measures for South Atlantic gag and black grouper and recreational accountability measures for South Atlantic gag.

The *need* for this fishery management plan amendment is to end overfishing of South Atlantic gag, rebuild the stock, and achieve optimum yield while minimizing, to the extent practicable, adverse social and economic effects.

MOTION 15: APPROVE ALL ACTIONS AS MODIFIED IN SNAPPER GROUPE AMENDMENT 53.

MOTION 16: APPROVE AMENDMENT 53 TO THE FISHERY MANAGEMENT PLAN FOR THE SNAPPER GROUPE FISHERY OF THE SOUTH ATLANTIC REGION FOR FORMAL SECRETARIAL REVIEW AND DEEM THE CODIFIED TEXT AS NECESSARY AND APPROPRIATE. GIVE STAFF EDITORIAL LICENSE TO MAKE ANY NECESSARY EDITORIAL CHANGES TO THE DOCUMENT/CODIFIED TEXT AND GIVE THE COUNCIL CHAIR AUTHORITY TO APPROVE THE REVISIONS AND RE-DEEM THE CODIFIED TEXT.

Wreckfish (Amendment 48)

MOTION 17: CHANGE THE PREFERRED ALTERNATIVE UNDER SUB-ACTION 7-2 TO ALTERNATIVE 4

Sub-Action 7-2. Collection of wreckfish individual transferable quota program cost recovery fees.

Alternative 4. Fees will be collected in the last quarter of the calendar year in which the fish is harvested.

MOTION 18: CHANGE THE PREFERRED ALTERNATIVE UNDER SUB-ACTION 7-3 TO ALTERNATIVE 2.

Sub-Action 7-3. Frequency of wreckfish individual transferable quota program cost recovery fee submission.

Alternative 2. Cost recovery fee will be submitted once per year.

MOTION 19: REMOVE ACTION 5 AND SEND TO THE CONSIDERED BUT REJECTED APPENDIX.

Action 5. Require all commercial vessels with a South Atlantic Unlimited Snapper-Grouper Permit participating in the wreckfish portion of the snapper grouper fishery to be equipped with vessel monitoring systems.

Alternative 1 (No Action). Commercial vessels with a South Atlantic Unlimited Snapper-Grouper Permit are not required to be equipped with vessel monitoring systems when participating in the wreckfish portion of the snapper grouper fishery.

Alternative 2. Require all commercial vessels with a South Atlantic Unlimited Snapper-Grouper Permit participating in the wreckfish portion of the snapper grouper fishery to be equipped with vessel monitoring systems.

MOTION 20: DIRECT STAFF TO INCLUDE A HAIL-IN/HAIL-OUT PROVISION AND BRING THAT BACK TO THE JUNE 2023 COUNCIL MEETING.

Timing and Tasks

MOTION 21: DIRECT STAFF TO DO THE FOLLOWING:

- Develop a guidance document or road map for the development of the Management Strategy Evaluation.
- Finalize and submit Regulatory Amendment 35 (Release Mortality Reduction and Red Snapper) and Amendment 53 (Gag and Black Grouper) for formal secretarial review.
- Continue developing Amendment 46 (Private Recreational Permitting) for review at the June 2023 meeting.
 - Convene Recreational Permitting and Reporting Technical AP to review and provide recommendations on actions and alternatives in the amendment (either before the June or September 2023 Council meetings).
- Begin development of a plan amendment to adjust catch levels for scamp and yellowmouth grouper based on SEDAR 68.
- Continue developing Amendment 48 (Wreckfish) for final action at the September 2023 meeting but review actions pertaining to offloading site and times requirements at the June 2023 meeting.

- Per request from the Gulf Council, try and move Yellowtail Snapper Amendment as fast as possible before the data are too old again.
- Request the SSC initiate discussion (or form a workgroup) of how regime shifts might affect the snapper grouper fishery and discuss with the Council.
 - Have Council staff brief the Council on how regime shifts could affect fisheries management.
 - Investigate what is allowed and not allowed in the MSA.
- Schedule presentation from SERO on gag management in the Gulf and Sue Barbieri research on gag life history. – schedule for *after* Gulf’s SSC presentation in summer 2023.
- Request a presentation from the SEFSC on the handling of discards and landings in assessment projections be provided to the SSC.
 - Review how projections have been prepared in the past and address the recommendation that estimated discards will be tied to management action in future projections.
 - Address how this could impact the development of management actions, sector allocations, and ACLs in future amendments.
 - Include discussion of how to communicate better between Science Center, SSC, and Council to coordinate planned management actions with projection assumptions.

Mackerel Cobia Committee

MOTION 22: ADOPT THE FOLLOWING TIMING AND TASKS:

1. Have the SSC provide catch level recommendations for Atlantic Spanish mackerel, discuss what approaches should be included in the South Atlantic ABC Control Rule, and weigh in on the prioritization of an Atlantic Spanish mackerel research track assessment.
2. Continue developing a plan for conducting port meetings along the Gulf and Atlantic coast, seeking input from the Gulf of Mexico, Mid-Atlantic and New England Fishery Management Councils and the Atlantic States Marine Fisheries Commission.
3. Convene a meeting of the Mackerel Cobia AP this spring to discuss mackerel port meetings, Council research recommendations, and Space Center operation impacts.
4. Work with the SEFSC and state agencies to provide the Council information on tournament landings, the number of tournaments by state, and tournament participation. Additionally, provide information on the historic rationale for allowing donation of tournament caught fish.

Habitat Protection & Ecosystem-based Management Committee

MOTION 23: ADOPT THE FOLLOWING TIMING AND TASKS:

- Beach Policy to Habitat Ecosystem AP for additional review.
 - Obtain POC from FWC to engage FL Department of Environmental Protection on beach renourishment
 - Engage other appropriate state agency personnel to obtain input on beach renourishment

- Set up a joint Habitat Ecosystem AP and Coral AP webinar to discuss overlapping agenda items.
- Provide point of contact for ATB to Jessica for FWC team so they can engage further at state level.
- Request a presentation from the fisheries liaison officer updating the Council on Carolina Long Bay Offshore wind lease.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 25th, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission
FROM: Col. Carter Witten
SUBJECT: Law Enforcement Report

Issue

Law Enforcement report update.

Action Needed

For informational purposes only, **no action is needed at this time.**

Overview

The Marine Patrol has been busy so far in 2023 with several trainings, outreach events, and multiple team-building sessions.

Marine Patrol officers cover 2.5 million acres of water and as a rule rely heavily on each other. To strengthen their ability to work as a team through all situations that they may encounter, officers participated in a team-building event on March 29th and 30th. Officers traveled to Salemburg, NC for a full day of challenges that required them to work together to be successful.

In addition to the team-building training, officers also took part in Subject Control/Arrest Technique (SCAT) training, regular firearms training and in March members of the Swiftwater Rescue Team participated in NC Helicopter Aquatic Rescue Team (NCHART) training. These trainings help Marine Patrol be prepared to handle many different types of situations as well as preparing the Swiftwater Rescue Team for specialized rescues.

Outreach is a regular part of Marine Patrol's work, educating citizens about the importance of the regulations in place to protect the state's marine and estuarine resources. In addition to our daily outreach with people on the water, we also participated in two additional outreach events. We had an informational booth at the Dixie Deer Classic which was held at the NC State Fairgrounds in Raleigh from March 3rd through March 5th. We also participated in the "Touch-a-Truck" event for area students on April 25th in Morehead City.

In between training and outreach events, a contingent of Marine Patrol attended the Interstate Shellfish Sanitation Conference in New Orleans, LA from March 18th through March 24th along

with staff from the division. The Marine Patrol has also been busy coordinating with division staff to make sure all permits are handled properly and efficiently. And finally, as we are currently in the 2023 legislative long session, Marine Patrol has been coordinating with our division's legislative liaison and DEQ legislative staff to respond to legislative requests.

There are also two Marine Patrol officers we would like to recognize for their exceptional service to the citizens of North Carolina. First, retired Marine Patrol Officer Michelle Turner was named to the Order of the Longleaf Pine on March 8th. And Sergeant Brian Long was recognized earlier this morning with a Lifesaving Award. These are just two examples of our exceptional Marine Patrol officers and the great work they do on a regular basis.

2023		FEB				TOTAL	MAR				TOTAL	APR				TOTAL
		DI	DII	DIII	A/C		DI	DII	DIII	A/C		DI	DII	DIII	A/C	
SECTION I (MAJOR AREAS)																
Boat Patrol	230	342	330			431	423	479			1333	230	398	434		1062
Aircraft Patrol	2	25	8	25		13	10	5	10		38	2	31		31	64
CITATIONS/CHECKS																
Number Citations	10	20	7			37	9	3	3		15	10	4	8		22
Number Warnings	6	19	20			45	3	11	33		47	6	24	18		48
Number Assists	9	31	13			53	7		10		17	9	21	9		39
NUMBER OF CHECKS																
Gill Net Observations	6	3				9	52	1			53	8	4	2		14
Dealer Inspections	149	124	155			428	139	190	196		525	118	162	131		411
Vehicle Inspections	47	29	29			105	79	28	44		151	52	32	30		114
Individual without License	30	60	65			155	37	68	75		180	28	52	44		124
Shellfish License	23	76	44			143	49	23	60		132	20	16	30		66
C.F.V.R.Checks	253	235	123			611	310	178	211		699	172	182	128		482
S.C.F.L. Checks	300	276	95			671	407	182	200		789	238	185	103		526
R.C.G.L. Checks	7		1			8	4		7		11	7	5	7		19
C.R.F.L. Checks	426	1108	787			2321	729	1353	1234		3316	1343	1227	965		3535
Recreational Boat Checks	126	433	451			1010	154	456	618		1228	180	368	444		992
Charter Boat Checks	37	5	20			62	38	10	41		89	72	5	37		114



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 5, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Barbie Byrd, Biologist Supervisor
Protected Resources Program, Fisheries Management Section

SUBJECT: Protected Resources Program Update

Issue

Summary information is provided from the Division's Protected Resources Program for the most recent annual reports for Atlantic Sturgeon and Sea Turtle ESA Section 10 Incidental Take Permits (ITPs). The reports were submitted in February to the National Marine Fisheries Service (NMFS) as required for the 2022 ITP Year (September 1, 2021 – August 31, 2022). Note that the annual reports include preliminary Trip Ticket Program data for 2022, and updates can occur in addendums to these reports submitted to NMFS in June 2023.

Additionally, the Division is working with NMFS to edit the ESA Section 10 ITP application in response to public comments. The revised application and NMFS' response to public comments should be made available to the public when the draft Environmental Assessment is published later this year. Separately, NMFS will initiate an ESA Section 7 consultation, which is an interagency process *"..designed to assist federal agencies in fulfilling their duty to ensure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat"* (<https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultations-greater-atlantic-region>). If NMFS renews the ITP, it will publish the final EA and Section 7 Biological Opinion upon issuance of the ITP (<https://www.ecfr.gov/current/title-50/chapter-II/subchapter-C/part-222/subpart-C/section-222.307>).

The Division continues to coordinate with NC Department of Information Technology to develop the Observer Trip Scheduling System (OTSS) whereby fishermen would call an automated system to report upcoming fishing activities planned for a given week and some portion of the fishermen will be randomly selected to take an observer. All fishermen that call in for a given week will be alerted to whether or not they have been selected through an automated system (i.e., phone call, text message, and/or email). The target date to begin testing the system is this upcoming fall 2023. Five regional public meetings were scheduled to provide updates and gather input on the development and implementation for the OTSS. Once the OTSS is fully implemented observed

trips should be distributed more evenly among participants and help ensure that ITP observer coverage requirements are met.

Action Needed

For informational purposes only; **no action is needed at this time.**

Overview of the ITP annual reports

During the 2022 ITP year, take levels of Atlantic Sturgeon and sea turtles in anchored estuarine gill nets did not reach or exceed allowable thresholds for any combination of species and management unit. There were 366 observations of large-mesh (≥ 5 -inch stretched mesh) gill net trips and 190 observations of small-mesh (< 5 -inch stretched mesh) gill net trips. Required observer coverage was met across all seasons and managements except for the following:

Spring: Management Unit C large-mesh gill nets (0% coverage)

Fall: Management Unit C small-mesh gill nets (0.8% coverage)

Spring: Management Unit D1 small-mesh gill nets (0% coverage)

Observers documented 15 Atlantic Sturgeon in large-mesh and 15 Atlantic Sturgeon in small-mesh gill nets. Six sturgeon that could not be identified to species were also observed, all in large-mesh gill nets. Two self-reported sturgeon interactions were received by the Observer Program from small-mesh gill nets. Most sturgeon takes were released alive (Atlantic Sturgeon 24 out of 30; unidentified sturgeon 5 of 6). Interactions occurred primarily during spring (~61%; 22 of 36) but were relatively equal among Management Units A (~39%; 14 of 36), B (~33%; 12 of 36), and C (~28%; 10 of 36).

Observers documented 12 sea turtles (7 Green Sea Turtles, 3 Kemp's Ridley Sea Turtles, and 2 unidentified sea turtles) in large-mesh gill nets and one Green Sea Turtle in a small-mesh gill net. No self-reported sea turtle interactions were received by the Observer Program. Most (12 of 13) of the observed sea turtle interactions occurred during fall in large-mesh gill nets (7 Green Sea Turtles, 3 Kemp's Ridley Sea Turtles, and 2 unidentified sea turtles). All but one of these 12 observed interactions occurred in Management Unit B, with the other interactions occurring in Management Unit E. There was one observed sea turtle interaction in a small-mesh gill net, a Green Sea Turtle in Management Unit D2 (Table 12). Overall, 69% (9 of 13) observed interactions were alive. Both unidentified sea turtles fell out of the net before a positive species identification could be made. Observers could see that one was alive and moving while the other animal was not and, therefore, presumed dead.

The Observer Program continues to have difficulty scheduling observed trips with fishers. Out of 1,178 phone calls and in-person contacts across all seasons, observers spoke with a fisher 36% (n=426) of the time but were only successful in scheduling a trip 3.6% (n=42 trips) out of the 1,178 phone calls. Observers and Marine Patrol officers made an additional 1,284 (160 and 1,124, respectively) unsuccessful attempts to find and observe a trip using alternative platform across all seasons.

During the 2022 ITP Year, Marine Patrol officers issued 46 citations (Fall=34, Winter=4, Spring=6, Summer=2) and 12 NOVs (Fall=10, Spring=2).

The final documents can be found at the following links:

[2022 Annual Sea Turtle ITP Report](#)

[2022 Annual Atlantic Sturgeon ITP Report](#)



Annual Sea Turtle Interaction Monitoring of the Anchored Gill-Net Fisheries
in North Carolina for Incidental Take Permit Year 2022
(1 September 2021–31 August 2022)

Annual Completion Report for Activities under Endangered Species Act
Section 10 Incidental Take Permit No. 16230

Barbie L. Byrd, Matthew R. Doster, and Dave Ushakow

North Carolina Department of Environmental Quality
North Carolina Division of Marine Fisheries
Protected Resources Program
3441 Arendell Street
Morehead City, NC 28557

28 February 2023

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1 INTRODUCTION

The North Carolina Division of Marine Fisheries (NCDMF) has actively addressed the incidental take of sea turtles in commercial estuarine gill nets since 2000. Between 2000 and 2011, the NCDMF had a series of Incidental Take Permits (ITPs) from the National Marine Fisheries Service (NMFS) under Section 10(a)(1)(B) of the Endangered Species Act (ESA) of 1973 (Public Law 93-205) to “minimize, monitor, and mitigate” sea turtle interactions in anchored gill nets primarily in Pamlico Sound (see Daniel 2013). Five species of sea turtles can occur in North Carolina: the Green Sea Turtle (*Chelonia mydas*), Kemp’s Ridley Sea Turtle (*Lepidochelys kempii*), Loggerhead Sea Turtle (*Caretta caretta*), Hawksbill Sea Turtle (*Eretmochelys imbricata*), and Leatherback Sea Turtle (*Dermochelys coriacea*). Anchored gill nets are passive sets deployed with an anchor, stake, or boat at one or both ends of the net string; they do not include run-around, strike, drop, or drift gill nets. For this report, the term “gill net” refers to anchored gill net and mesh sizes are provided as inches stretched mesh (ISM) unless stated otherwise.

Evidence of incidental takes of sea turtles outside of Pamlico Sound was documented in June 2009 by NMFS observations of gill-net fisheries operating in Core Sound and nearby waterbodies (Byrd et al. 2016). These takes resulted in a series of temporary measures to address sea turtle interactions until the NCDMF obtained an ITP from NMFS for gill-net fisheries state-wide (see McConnaughey et al. 2019). On 11 September 2013, the NCDMF received the Sea Turtle ITP (No. 16230), which expires on 31 August 2023 (78 FR 57132¹). The permit defined an ITP Year as 1 September through 31 August of the following year, defined mesh size categories as large-mesh (≥ 4 ISM) and small-mesh (< 4 ISM), and included only three seasons (fall, spring, and summer). The permit also established annual authorized levels of incidental takes for the two mesh-size categories and six geographic regions defined as Management Units A, B, C, D1, D2, and E (Tables 1–5; Figure 1). The ITP included a Conservation Plan to monitor, minimize, and mitigate incidental takes of sea turtles in otherwise lawful gill-net fisheries operating in North Carolina estuarine waters. Part of the plan outlined a state-wide estuarine gill-net observer program to monitor interactions that can be counted and, when applicable, extrapolated across the fishery within a given season and management unit. Required observer coverage thresholds were set for each management unit within each season as a minimum of 7% with a goal of 10% for large-mesh gill nets and a minimum of 1% with a goal of 2% for small-mesh gill nets. If observer data indicated that takes were approaching or exceeding authorized thresholds, the NCDMF could use an adaptive management approach to mitigate incidental takes by implementing temporary management options when needed using the NCDMF director’s proclamation authority (General Statute 143B-289.52; NCGS § 113-221.1).

To maintain incidental takes below authorized levels, the Conservation Plan consisted of a variety of measures for gill nets operating in estuarine waters across the state. These measures primarily included the continuation of restrictions implemented previously as temporary measures for the large-mesh gill-net fishery for Southern Flounder (*Paralichthys lethostigma*). These restrictions are implemented through proclamation. They include mitigation measures such as restricting soak time and days of the week, limiting net lengths, requiring separations between net shots in a single string, requiring low-profile net configurations, and implementing time/area closures (Table 6). However, based on historical information on where risk of incidental takes of sea turtles was the greatest, not all regulations for nets ≥ 4 ISM are applied in the same manner in each management unit. Additionally, NCDMF mirrors by proclamation the federal deep-water closure in Pamlico

¹ <https://www.federalregister.gov/documents/2013/09/17/2013-22592/endangered-species-file-no-16230>

Sound from September 1 through December 15 (50 C.F.R. § 223.206 (d)(7) Exceptions to prohibitions relating to sea turtles). The Conservation Plan also requires the continuation of seasonal attendance requirements for anchored small-mesh gill nets that were outlined in the original application.

In May 2020, the NCDMF contacted the NMFS to request clarification of tagging protocols for sea turtles. Although the ITP requires that incidental sea turtles be tagged, staff at the NMFS Southeast Fisheries Science Center (SEFSC, Beaufort, NC) communicated to the NCDMF that there had been recent changes to their tagging protocols. These changes affected the type of training that SEFSC provided, which meant that observers did not have the training necessary to fulfill the tagging requirement per the ITP. On 1 September 2020, the NMFS provided a notification letter to the NCDMF modifying ITP permit 16230 to remove the requirement for observers to apply flipper and Passive Integrated Transponders (PIT) tags to incidentally captured sea turtles (Byrd et al. 2021). This modification applies to the remainder of the current permit.

After the issuance of the Sea Turtle ITP in 2013, the NCDMF also received an ITP (No. 18102) in 2014 to address incidental takes of Atlantic Sturgeon (*Acipenser oxyrinchus*) in gill-net fisheries operating in estuarine waters across the state (79 FR 43716²). Although the Atlantic Sturgeon and Sea Turtle ITPs and their Conservation Plans addressed different taxa, the fisheries included therein were the same. Both ITPs were reliant on observer coverage to document incidental takes and to estimate total incidental takes where possible. Data from observed trips are used for both ITPs. Notably, however, the ITPs defined large mesh differently; the Sea Turtle ITP defined large-mesh gill nets as ≥ 4 ISM and the Atlantic Sturgeon ITP defined them as ≥ 5 ISM. The Atlantic Sturgeon ITP also required observer coverage thresholds to be met across all management units within a season rather than within each management unit within each season. Finally, the Atlantic Sturgeon ITP included required observer coverage and authorized take levels during winter.

In recent years, regulatory changes related to several Fishery Management Plans (FMPs) have significantly reduced fishing effort using anchored large-mesh gill nets. One such example is the adoption of Amendment 2 of the Southern Flounder FMP on 23 August 2019 (NCDMF 2019). Regulatory measures in this amendment were a result of the most recent Southern Flounder stock assessment, which indicated that the stock was overfished and overfishing was occurring. North Carolina state law requires management actions be taken to end overfishing within two years and to recover the stock from an overfished condition within 10 years. To meet these legal requirements, the NCDMF determined that a 62% reduction in overall harvest was necessary for 2019 and a 72% reduction would be needed beginning in 2020. These reductions were achieved through a variety of regulations for commercial and recreational sectors.

For the commercial gill-net fishery, these regulations severely limited where and when large-mesh gill nets harvesting flounder were allowed. For example, since fall 2019 the Southern Flounder commercial fisheries have been constrained by setting specific dates in the fall when fishing was allowed across three flounder management areas: Northern, Central, and Southern (Figure 1). The flounder management areas generally aligned with the ITP management units except for the Core Sound portion of Management Unit B, which was split into a different flounder management area (Southern) than the rest of Management Unit B (Central; Figure 1). Prior to fall 2019, the fishery was most active during the fall, but could operate January through November. Since the fall 2019, the number of days the fishery was open per management area has been reduced (Byrd et al. 2021,

² <https://www.federalregister.gov/documents/2014/07/28/2014-17645/endangered-species-file-no-18102>

Byrd and Pensinger 2022). Other regulations included 25% reductions in allowed yardage of large-mesh gill nets and soak-time limits of large-mesh gill nets to overnight soaks state-wide where before this was not required for nets in Management Units A and C.

Regulatory changes related to the management of American Shad (*Alosa sapidissima*) and Striped Bass (*Morone saxatilis*) have also affected anchored large-mesh gill-net fisheries in the areas where these fisheries occur: Management Units A and C. The NC American Shad Sustainable Fishery Plan, which set sustainability parameters (i.e., biological reference points) for the American Shad stock in coastal rivers, was approved by the MFC in 2013. Due to sustainability parameters being exceeded in Management Unit A, the allowed season for anchored gill nets configured for harvesting American Shad in Management Unit A was limited initially to 1 February–14 April and then further reduced in 2014 to March 3–24 (NCDMF and North Carolina Wildlife Resources Commission [NCWRC] 2017). The season has been further constrained at times due to the concurrent harvest of the Albemarle Sound-Roanoke River (A-R) stock of Striped Bass in this fishery. Striped Bass are a desirable bycatch species in the American Shad fishery in Management Unit A. Because Striped Bass are managed by a quota, bycatch in the shad fishery can force the fishery to close early if the quota is met before the defined end to the shad season. Striped Bass management has also led to recent regulatory changes due to the adoption of the 2020 Revision of Amendment 1 of the North Carolina Estuarine Striped Bass Fishery Management Plan (FMP) (NCDMF and NCWRC 2020). For example, total allowable landings (TAL) was reduced from 275,000 pounds to 51,216 pounds, effective 1 January 2021. An area closure was implemented mid-season in 2021, closing the lower Chowan River and western Albemarle Sound to the use of gill nets based on historical bycatch of Striped Bass in that area (Proclamation M-9-2021; Table 4). Nevertheless, shad season closed on 18 March because the Striped Bass TAL was met (Proclamations M-7-2021, M-9-2021, M-10-2021; Table 7).

Regulations implemented in Management Unit C have all but ended anchored large-mesh gill-net fishery for shad there. Since 15 March 2019, all gill nets are prohibited in upstream portions of the Pamlico and Neuse rivers, greatly reducing the areas of Management Unit C open to gill nets (Proclamation M-6-2019; Table 7). Additionally, tie-down and distance-from-shore restrictions remain in place for large-mesh gill nets in the western Pamlico Sound and rivers as an effort to minimize Striped Bass bycatch in accordance with Supplement A to Amendment 1 of the Estuarine Striped Bass Fishery Management Plan (NCDMF and NCWRC 2019). These restrictions reportedly make it difficult to successfully target and catch shad using anchored gill-net gear in Management Unit C. Decreasing trends in the number of reported trips support this effect on fishing effort as reported large-mesh gill-net trips in Management Unit C went from an average of 966 trips during spring between 2016–2018 to an average of 17 trips between 2019–2021.

Per the ITP requirements, the Observer Program provides weekly, seasonal, and annual reports to the NMFS for a given ITP year. As required, weekly progress reports were provided for any week in which a sea turtle interaction occurred. Seasonal reports for the 2022 ITP Year also were provided for fall (September–November 2021; Byrd 2021), spring (March–May 2022; Byrd and Pensinger 2022), and summer (June–August 2022; Byrd and Doster 2022). In contrast to the Atlantic Sturgeon ITP, the Sea Turtle ITP does not require observer coverage or seasonal reports for winter because sea turtles are less likely to be present in North Carolina estuarine waters during this time. This annual report outlines observer activity, fishing activity, and total or estimated takes of sea turtles for three seasons during the 2022 ITP Year, 1 September 2021–31 August 2022. Fishing activity was measured as the number of reported fishing trips; these data

are finalized only for fall 2021. After the preliminary data for spring and summer 2022 are finalized in May 2023, observer coverage and authorized estimated sea turtle takes will be recalculated and finalized estimates will be provided to the NMFS in the form of an addendum.

2 METHODS

2.1 Observer Activity

A sea-day schedule of projected observer trips for each season by month and management unit during the 2022 ITP Year was developed during the prior season. The number of projected observer trips was based on the maximum goal for coverage outlined in the Conservation Plan: 10% coverage of total large-mesh gill-net fishing trips and 2% coverage of total small-mesh gill-net fishing trips. Data on commercial fishing effort come from the NCDMF Trip Ticket Program (TTP), whereby fish dealers complete a trip ticket every time a commercial fisher sells finfish and/or shellfish. Trip tickets record information such as gear type, area fished, species harvested, and total weight by species. For anchored gill nets, the TTP defines large-mesh as ≥ 5 ISM and small-mesh as < 5 ISM. It is uncommon, however, for gill nets to have a mesh size between these two sizes and in many cases those mesh sizes are prohibited; therefore, we assumed effort by mesh categories in the TTP dataset would not be greatly affected by the difference in definitions of mesh size. As such, projected observer trips were stratified across each month within three seasons and six management units proportional to TTP data of reported fishing trips. The seasons crossed calendar years and were defined as follows: fall (September–November 2021), spring (March–May 2022), and summer (June–August 2022). Consistent with federal rule (50 C.F.R. § 223.206 (d)(7)), large-mesh gill nets operating in Pamlico Sound (Management Unit B) from 1 September through 15 December were confined to specific subunits (Shallow Water Gill-Net Restricted Areas 1-4, and Mainland Gill-Net Restricted Area), effectively closing the fishery in the deep waters of Pamlico Sound and in corridors near Ocracoke, Hatteras, and Oregon inlets (Proclamation M-17-2021; Table 7; Figure 1).

Projecting observer trips for the sea-day schedule typically has been calculated based on the average of reported small-mesh and large-mesh gill-net trips by month and management unit from the previous five years. (e.g., 2016–2020 for the 2021 fall season). This method was not always a viable prediction of large-mesh fishing effort during the 2022 ITP Year due to changes in fisheries regulations for anchored large-mesh gill-net fisheries described above. For the fall flounder fishery, reported fishing trips for each of the previous five years were compared to the number of possible fishing days that year for each management unit separately. The resulting average of fishing trips per fishing day across the five years was applied to the number of days that the fishery would be open during fall 2021. These estimates of fishing effort were compared to the traditional five-year average; whichever number was greater was used to estimate the number of observed trips needed. The estimate of fishing effort in Management Unit D1 was set to zero because it has been closed to anchored large-mesh gill nets since 9 November 2017, when estimated Green Sea Turtle takes exceeded the authorized threshold (McConnaughey et al. 2019, Byrd et al. 2020). For the American Shad fishery in Management Unit C, only the last three years (2019–2021) of reported fishing trips were used to project observer trips based on the precipitous drop in reported trips starting in 2019. This decrease was not apparent in reported trips in Management Unit A, so the five-year average between 2017–2021 was used instead. Outside of these seasons and areas, projected large-mesh observer trips were set to zero because large-mesh gill nets were not allowed.

The only accommodation that had to be made in estimating anchored small-mesh gill-net effort was for D1, which was closed to small-mesh gill nets starting on 20 April 2020 through 31

September 2021 (Proclamations M-4-2020, M-19-2021; Table 7. The number of estimated fishing trips was set to zero for September when D1 was closed. Otherwise, the average reported fishing trips was calculated excluding the months of April-December 2020 and January through August 2021.

During the 2022 ITP Year, impacts to the observer program from the COVID-19 pandemic began to diminish. On 5 April 2022, NMFS withdrew the waiver of monitoring requirements for the NCDMF' ITP Permits that had been provided on 23 March 2020 due to concerns about the transmission of COVID-19 (Appendix A). On 20 April 2022, NCDMF issued a news release announcing the plan to resume onboard observations starting 1 May 2022 (Appendix B). Nevertheless, scheduling onboard observations was difficult to obtain. All observed trips before 1 May 2022 and many trips afterward were alternative platform trips whereby observers used a state-owned vessel to observe at a distance.

The constrained seasons for the large-mesh gill-net fisheries concentrate fishing effort and the required observer effort to sufficiently cover the fisheries. Recent changes to the hiring climate have made it difficult for NCDMF to hire seasonal observers to the extent needed. As a result, other NCDMF programs provided staff to help observe during the fall flounder and spring shad fisheries. The sea-day schedule was shared with Marine Patrol officers as in past years, who contribute to the total number of observed trips (all alternative platform) as part of their regular duties year around.

Obtaining observer trips was facilitated by the requirement for fishers participating in estuarine anchored gill-net fisheries to obtain an Estuarine Gill-Net Permit (EGNP; M-24-2014; Table 7). As part of this permit, fishers provide their contact information so that observers can call and schedule an observed trip. However, the permit is free, and many fishers get an EGNP but do not report trips using estuarine gill nets (Byrd et al. 2021, Byrd and Pensinger 2022). To streamline the contact attempts by observers, the License and Statistics Section of NCDMF provided data on EGNP holders that had reported estuarine anchored fishing trips during the last three years. The dataset included number of reported trips by TTP mesh-size category (large and small) and management unit along with the name and contact information for the permit holder. This dataset was used to create a priority call list that was divided among observers. Other outreach efforts, such as visiting fish houses, were limited during the 2022 ITP Year. The website for the Observer Program (<https://deq.nc.gov/about/divisions/marine-fisheries/science-and-statistics/observer-program>) was available, but fishers were not necessarily reminded to access it.

Observers were trained to identify, measure, evaluate the condition of, and resuscitate sea turtles by experienced NCDMF staff. Data collected on observed sea turtles included: date, time, location (latitude and longitude, when possible), certain gear parameters, condition (e.g., no apparent harm, injury including a description of the nature of the injury, or mortality), species, sex (if determinable), curved carapace length (CCL, mm), and curved carapace width (CCW, mm). Photographs of the turtles and environmental parameters (e.g., salinity, water temperature) were also collected when feasible. Dead and debilitated sea turtles were retained by the observer when possible and delivered to the North Carolina Wildlife Resource Commission (NCWRC) sea turtle biologist for necropsy or rehabilitation. Individual reports of observed interactions were communicated with NMFS and WRC within 24 hours.

Observers also collected data on location and gear parameters. Alternative platform trips do not collect additional data on fish catch and bycatch. However, onboard observations resumed at the

end of the ITP year and catch and bycatch data were collected on these trips. Limited data such as date and waterbodies surveyed were also collected for unsuccessful alternative platform attempts (hereafter termed “No Contact” trips) by observers and Marine Patrol. All data were coded onto NCDMF data sheets and uploaded to the NCDMF Biological Database for analysis. Observers and Marine Patrol also log data into a mobile ArcGIS application, Collector, in real time including set locations, gear parameters, and Atlantic Sturgeon and Sea Turtle interactions to provide daily total counts and estimates of bycatch.

Ongoing estimates of observer coverage were calculated by comparing the number of observed trips logged into Collector to the predicted number of fishing trips by mesh-size category and month. The numbers of No Contact trips were not included in these calculations. At the end of the calendar year, the TTP provided actual numbers of reported fishing trips to calculate observer coverage. The TTP data for 2021 (September–December) were finalized, but the data for 2022 (January–August) were preliminary. As a result, observer coverage calculated for winter, spring, and summer were considered estimates.

2.2 Incidental Takes

The ITP outlines authorized levels of incidental takes expressed as either estimated total takes based on observer data or counts of observed takes (Tables 1–5). Both types (estimated and counted) were necessary in the development of authorized levels because there were insufficient data available for modeling predicted estimated takes in the ITP application for some combinations of species, management unit, and mesh-size category (Daniel 2013). As a result, authorized levels of annual estimated interactions were only available for green and Kemp’s Ridley Sea Turtles in Management Units B, D1, and E in the large-mesh gill-net fishery, and for Kemp’s Ridley Sea Turtles in D2 in the large-mesh gill-net fishery. Authorized levels for all other combinations were based on counts of actual observed (i.e., not estimated) takes. Therefore, comparisons of interactions during the 2022 ITP Year to authorized interactions were based either on annual counts of observed sea turtle takes or annual estimates of sea turtle takes. During summer 2015, a minor modification to the ITP was enacted through the NMFS combining authorized takes for Management Units A (n=4) and C (n=4) for a total authorized take limit of eight sea turtles from large-mesh or small-mesh gill nets and any species or disposition (Boyd 2016). Estimates of incidental take as outlined above were calculated using the stratified ratio method where the bycatch rate calculated from observer data (sea turtles caught per observed trip) was multiplied by the total reported fishing trips.

$$\text{Estimated interactions} = \left(\frac{\text{sea turtle interactions observed}}{\text{gill-net trips observed}} \right) * \text{gill-net trips reported}$$

Throughout each month, this calculation was employed for each incidental take to determine the estimated number of interactions by date of capture, management unit, species, and disposition. For the real-time estimates, the predicted number of fishing trips was used. Estimated numbers of interactions and running totals of observed interactions were additive across interaction dates to determine if interactions were approaching authorized take thresholds. The ongoing comparisons allowed for the implementation of management measures to prevent interactions from exceeding authorized levels. The estimated and/or total observed interactions were provided in weekly (when required), monthly, and seasonal reports.

At the end of the ITP year, the estimated number of interactions was recalculated using actual number of trips, albeit preliminary for 2022, reported in the TTP. Nonparametric confidence

intervals (95%) were calculated using standard bootstrapping techniques (Efron and Tibshirani 1993) using the ‘boot’ package in R (Canty and Ripley 2015; Davison and Hinkley 1997; R Core Team 2019). Bootstrap replicates were generated by sampling observer trips with replacement 5,000 times within strata (mesh/season/management unit).

2.3 Compliance

The Observer Program used various methods to contact fishers to schedule trips. The most common method was by phone, due to fishers leaving from private launches and overall efficiency. For each contact made to obtain a trip (phone call, text message, or in-person), observers logged the contact in a database, assigning a category of the response and noting any additional information (e.g., fisher stated they did not fish until October). Contact response categories included the following: 1) Left message with someone else; 2) Not fishing general; 3) Fishing other gear; 4) Not fishing because of weather; 5) Not fishing because of boat issues; 6) Not fishing because of medical issues; 7) Booked trip; 8) Hung up, got angry, trip refused; 9) Call back later time/date; 10) Saw in person; 11) Disconnected; 12) Wrong number; 13) No answer; 14) No answer, left voicemail; 15) Not fishing because of natural disaster (e.g., hurricane). Observers also documented calls returned from fishers, including the response category and notes. Contact log data were summarized by season and response category to determine the percentage of contacts that resulted in observer trips.

As part of their regular duties, Marine Patrol officers checked gill nets for compliance. Citations and/or Notice of Violations (NOVs) were issued to fishers when gear or fishing practices were out of compliance. A citation is an enforcement action taken by a Marine Patrol officer for person(s) found to be in violation of General Statutes, Rules, or Proclamations under the authority of the Marine Fisheries Commission and is considered a proceeding for District Court. An NOV is the NCDMF administrative process to suspend a permit (e.g., EGNP) and is initiated by an officer or NCDMF employee when a permit holder is found to be in violation of general or specific permit conditions. A citation and NOV may both be initiated by the same violation; however, they are two separate actions. For this report, citations and NOVs under the codes “EGNP” and “NETG” were compiled, as they are applicable to the EGNP and gill-net violations.

3 RESULTS

3.1 Observer Activity

Overall observer coverage during the three seasons covered for 2022 ITP Year was 13.9% of the large-mesh gill-net fishery and 2.5% of the small-mesh gill-net fishery (Tables 8 and 9; Figure 2). This level of coverage was based on 365 observed large-mesh gill-net trips and 131 observed small-mesh gill-net trips during fall, spring, and summer. Additionally, there were 944 No Contact trips (Table 10). When anchored gill nets could not be found, occasional observations of drift (n=3) and runaround (n=41) gill-net trips occurred (Table 11).

During the 496 observed trips, observers documented 12 sea turtles (7 Green Sea Turtles, 3 Kemp’s Ridley Sea Turtles, and 2 unidentified sea turtles) in large-mesh gill nets and one Green Sea Turtle in a small-mesh gill net (Table 12; Figures 2, 4, 7, and 10). No self-reported interactions were received by the Observer Program.

Proclamations relative to anchored gill-net fisheries are listed in Table 7.

3.1.1 Fall 2021

On 1 October, Management Unit D1 was re-opened to anchored small-mesh gill nets (Proclamation M-19-2021; Table 7).

During fall 2021 (September–November), the Observer Program achieved 14.6% state-wide coverage of large-mesh gill-net trips, exceeding 7% in each management unit (Table 8; Figures 3–7). For small-mesh gill nets, the Observer Program achieved 3.1% state-wide coverage, exceeding 1% coverage in each management units except Management Unit C where observer coverage was 0.8% (Table 9; Figures 3–7). There were 228 No Contact trips, three observed drift gill-net trips, and nine observed runaround gill-net trips (Tables 10 and 11).

Twelve of thirteen observed sea turtle interactions occurred during fall, all in large-mesh gill nets (Table 12; Figures 4 and 7). The 12 interactions included seven Green (5 alive; 2 dead), three Kemp’s Ridley (all alive), and two unidentified (1 alive, 1 dead) sea turtles. The majority of interactions occurred in Management Unit B (11 out of 12) with one other interaction in Management Unit E.

3.1.2 Spring 2022

Management Unit A was opened originally to anchored large-mesh gill nets from 3–24 March; however, allowed yardage was limited to 700 yards and the lower Chowan River and western Albemarle Sound were kept closed (Proclamation M-5-2022; Table 7). The shad large-mesh gill-net fishery closed early on 15 March because the A-R Striped Bass TAL was met (Proclamation M-6-2022; Table 7). Management Unit C closed to anchored large-mesh gill nets on 15 April (Proclamation M-8-2022; Table 7).

During spring 2022 (March–May), the Observer Program achieved an estimated 11.2% state-wide coverage of large-mesh gill-net trips (Table 8; Figures 8–11). Only Management Units A and C were open to large-mesh gill nets. While estimated observer coverage of large-mesh gill-net trips in Management Unit A was 11.9%, no observed trips occurred in Management Unit C because no effort could be found, despite 78 No Contact trips that occurred there looking for effort (Table 10). For small-mesh gill-net trips, the Observer Program achieved an estimated 1.7% state-wide coverage exceeding 1% observer coverage in each management unit except D1 where no effort could be found (Table 9). There were 385 No Contact trips and 12 observed runaround gill-net trips (Tables 10 and 11).

Management Unit A was closed to all anchored gill nets on 28 April 2022 because the estimated dead Atlantic Sturgeon interactions (52) from a single observed interaction in a small-mesh gill net was near the authorized number of 55 (Proclamation M-10-2022 Table 7). The closure was effective for the remainder of the ITP year.

There was one observed Green Sea Turtle interaction (dead) during spring in a small-mesh gill net in Management Unit D2 (Table 12; Figure 10).

3.1.3 Summer 2022

During summer 2022 (June–August), the Observer Program did not observe any large-mesh gill-net trips as the gear was prohibited state-wide (Table 8; Figures 12–14). For small-mesh gill-net trips, the Observer Program achieved an estimated 3.6% coverage across all open management units (B, C, D1, D2, and E), exceeding 1.0% in each one (Table 9). There were 331 No Contact trips and 20 observed runaround gill-net trips (Tables 10 and 11).

There were no observed sea turtle interactions in gill nets during summer.

3.2 Incidental Takes

Most (12 of 13) of the observed sea turtle interactions occurred during fall in large-mesh gill nets (7 Green Sea Turtles, 3 Kemp's Ridley Sea Turtles, and 2 unidentified sea turtles) (Table 12; Figures 2, 4, 7, and 10). All but one of these 12 observed interactions occurred in Management Unit B, with the other interactions occurred in Management Unit E. There was one observed sea turtle interaction in a small-mesh gill net, a Green Sea Turtle in Management Unit D2 (Table 12). Overall, 69% (9 of 13) observed interactions were alive. Of the two unidentified sea turtles, both fell out of the net before a positive species identification could be made. Observers could see that one was alive and moving while the other animal was not and therefore presumed dead.

Measured Green Sea Turtles (n=6 of 8) ranged from 292 to 390 mm CCL (mean=336.2, SD=38.2) and 254 to 333 mm CCW (mean=276.0, SD=33.1; Figure 15). Measured Kemp's Ridley Sea Turtles (n=3 of 3) ranged from 355 to 457 mm CCL (mean=417.3, SD=54.6) and 304 to 400 mm CCW (mean=344.7, SD=49.7; Figure 15).

Observed take levels during the 2022 ITP Year did not reach the thresholds of allowed takes for any species or management unit (Tables 1–5). Overall for observed and estimated interactions, Green Sea Turtle takes reached 3.4% of the live threshold and 2.3% of the dead threshold, and Kemp's Ridley Sea Turtle takes reached 4.6% of the live threshold.

No self-reported interactions were received by the Observer Program.

3.3 Compliance

During the 2022 ITP Year, there were 2,606 fishers with an EGNP; 90% (n=2,347) of the permit holders were commercial fishers (i.e., had a Standard Commercial Fishing License [SCFL] or Retired Standard Commercial Fishing License [RSCFL]) and 10% (n=259) were recreational fishers (i.e., had a Recreational Commercial Gear License [RCGL]). Of the commercial fishing permit holders, only 610 (26%) reported trips using anchored estuarine gill-net gear.

Using the priority call list of EGNP holders, 721 contact attempts were made with 38% (n=271) representing occasions where observers and fishers communicated. Of the 271 conversations, 60 (22%) resulted from fishers returning observer phone calls. Nevertheless, only 5.8% (n=42) of the 721 contact attempts resulted in a booked trip (Figure 16). The greatest number of calls occurred during fall, and the fewest number of calls occurred in summer.

During the 2022 ITP Year, Marine Patrol officers issued 42 citations (Fall=34, Spring=6, Summer=2; Table 13) and 12 NOV's (Fall=10 and Spring=2; Table 14).

3.4 Marine Mammals

There was no observed marine mammal interaction during the 2022 ITP Year.

4 DISCUSSION

Incidental takes of sea turtles during the 2022 ITP Year were below authorized levels. The NCDMF observer program uses a combination of real-time monitoring of sea turtle interactions and an adaptive management approach when necessary to successfully control the number of interactions in estuarine anchored gill-net fisheries. No new proclamations needed to be imposed, however, during the 2022 ITP Year to maintain take levels below thresholds. Overall, most observed sea turtles were released alive, thereby limiting negative effects of these interactions. Interactions continue to be more common in anchored large-mesh than small-mesh gill nets. This

trend may be a result of differences in interaction rates between the two mesh-size categories and the fact that more than twice as many large-mesh gill nets are observed.

During the 2022 ITP Year, the Observer Program worked with other NCDMF programs and Marine Patrol to leverage assistance in obtaining coverage. Observer coverage of large-mesh gill nets exceeded 10% coverage in all management units during each season except for Management Unit C during spring. For this season, no large-mesh gill-net trips were arranged in advance or found through alternative platform methods in Management Unit C despite significant effort making phone calls and looking for effort on the water. Of the reported fishing trips there, all occurred before the observer waiver ended. Observer coverage of small-mesh gill nets exceeded minimum coverage levels in all management units during each season except for Management Unit C during fall (0.8% coverage) and Management Unit D1 during spring (0%). For Management Unit C, fall observer coverage based on estimated fishing effort was 1.3% but using actual reported fishing trips observer coverage decreased to 0.8%. This does not mean, however, that the Observer Program stopped trying to observe additional trips as the program always aims for the maximum observer coverage level (i.e., 10% of large-mesh and 2% of small-mesh). For Management Unit D1, there were no observed small-mesh gill-net trips booked in advance or found through alternative platform methods.

Scheduling observed trips continues to be a challenge for the NC Observer Program, not unlike other observer programs (e.g., Lyssikatos and Garrison 2018). The EGNP is a useful tool to improve compliance by including specific permit conditions requiring fishers to allow observers aboard their vessels to monitor catches and by providing contact information for permit holders. Phone calls made to EGNP holders contributed some to observers scheduling trips, but the success rate of observers even talking to a fisher is low (~38%). The success rate did not improve much over last year even with the use of a priority call list for EGNP holders that reported fishing trips during the last several years. The NCDMF is in the beginning stages of developing a call-in system whereby fishers would be required to contact the Observer Program prior to fishing to determine if they were selected to take an observer for a given period of time (e.g., week).

Although onboard observations are the preferred method, alternative platform observations played a critical role to the continuation of observing gill nets during the 2022 ITP Year. There are several advantages to an alternative platform approach. For example, this approach does not rely on previous contact with fishers to obtain an observable trip. Alternative platform observations also allow Marine Patrol to conduct observations as part of their daily patrols; their observed trips contribute a substantial portion of the total alternative platform observations. Even for fishers who would willingly take an observer, many vessels used by gillnetters in estuarine waters are too small to easily accommodate an observer, making alternative platform observations ideal for capturing trips with this size class of vessel (Kolkmeier et al. 2007). Nevertheless, the alternative platform method has several drawbacks. First, it requires two observers, halving observer effort and program efficiency. Obtaining alternative platform observations does not always compensate for the difficulty in scheduling trips in advance. Because few observer trips were scheduled in advance, a significant amount of time was spent searching for fishing activity, especially when fishing activity was less concentrated. However, this effort by observers and Marine Patrol officers was sometimes unsuccessful at finding trips to observe. Outreach activities are an ongoing necessity to improve fisher compliance even when a call-in system is implemented. Outreach activities are planned for the second half of the 2023 calendar year.

When comparing the numbers of estimated fishing trips to the number of reported fishing trips, sometimes reported fishing trips were higher than the estimated and other times they were lower. The most consistent trend in the differences was during the fall flounder fishery when the numbers of reported large-mesh gill-net trips were higher in four out of five open management units. Had the Observer Program only attempted to get 7% of estimated fishing trips, the minimum observer coverage would not have been met in those four management units. In fact, had the Observer Program stopped after getting 10% of estimated fishing trips, the minimum observer coverage would not have been met in two of those four management units. Significant changes to fishing regulations can result in changes to fishing behavior in ways that are difficult to predict. The Observer Program has made some adjustments already to how best to project observer trips needed to meet coverage requirements outlined in the ITP. Additional adjustments to the approach of estimating fishing effort are being assessed, especially for the fall flounder fishery to ensure that ITP observer coverage requirements are met.

5 LITERATURE CITED

- Boyd, J. B. 2016. North Carolina Division of Marine Fisheries Incidental Take Permit Annual Report for ITP Year 2015 Section 10 ITP # 16230 (September 1, 2014–August 31, 2015). North Carolina Department of Environmental Quality, NCDMF. Annual Report for Incidental Take Permit # 16230, Morehead City, NC.
- Byrd, B. L. 2021. 2021 Fall Seasonal Progress Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230 September 1–November 30, 2021 ITP Year 2022. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC.
- Byrd, B. L., and L. G. Pensinger. 2022. 2022 Spring Seasonal Progress Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230 March 1–May 31, 2022 ITP Year 2022. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC.
- Byrd, B. L., and M. R. Doster. 2022. 2022 Summer Seasonal Progress Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230 June 1–August 31, 2022 ITP Year 2022. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC.
- Byrd, B. L., L. R. Goshe, T. Kolkmeier, and A. A. Hohn. 2016. Sea turtle bycatch in the large-mesh gillnet flounder fishery in Carteret County, North Carolina, USA, June–November 2009. *Journal of the North Carolina Academy of Science*, 132(1):10–24.
- Byrd, B. L., M. P. Gahm, J. K. McConnaughey, and S. A. Smith. 2021. Annual sea turtle interaction monitoring of the gill-net fisheries in North Carolina for Incidental Take Permit year 2020 (1 September 2019–31 August 2020). Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit # 16230. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC.
- Byrd, B. L., J. K. McConnaughey, and S. A. Smith. 2020. Annual sea turtle interaction monitoring of the gill-net fisheries in North Carolina for Incidental Take Permit year 2019 (1 September 2018–31 August 2019). Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit # 16230. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC.
- Canty, A., and B. Ripley. 2015. Boot: bootstrap R (S-Plus) functions. R package version 1.3-17.
- Daniel, L. B. 2013. Application for an Individual Incidental Take Permit under the Endangered Species Act of 1973 for Atlantic sea turtle populations of: loggerhead, *Caretta caretta*, green, *Chelonia mydas*, Kemp’s ridley, *Lepidochelys kempii*, leatherback, *Dermochelys coriacea*, hawksbill, *Eretmochelys imbricata*. 13 June 2013. NCDMF, Morehead City, NC. (<https://www.fisheries.noaa.gov/webdam/download/66756029>)
- Davison, A. C., and D. V. Hinkley. 1997. *Bootstrap Methods and their Applications*. Cambridge University Press, Cambridge.
- Efron, B., and R. J. Tibshirani. 1993. *An Introduction to the Bootstrap*. Chapman and Hall, New York.

- Kolkmeier, T., B. Guthrie, B. L. Byrd, and A. A. Hohn. 2007. Report on the alternative platform observer program in North Carolina: March 2006 to March 2007. NOAA Technical Memorandum. National Marine Fisheries Service (NMFS), NMFS-SEFSC-558, Beaufort, NC. 20 p.
- Lyssikatos, M. C., and L. P. Garrison. 2018. Common bottlenose dolphin (*Tursiops truncatus*) gillnet bycatch estimates along the US Mid-Atlantic coast, 2007–2015. NMFS, Northeast Fisheries Science Center Reference Document 18-07. Woods Hole, MA. 37 p.
- McConnaughey, J. K., J. Boyd, and L. Klibansky. 2019. Annual sea turtle interaction monitoring of the gill-net fisheries in North Carolina for Incidental Take Permit year 2018. Annual Completion Report for activities under Endangered Species Act Section 10 Incidental Take Permit # 16230. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 58 p.
- North Carolina Division of Marine Fisheries (NCDMF). 2019. North Carolina Southern Flounder (*Paralichthys lethostigma*) Fishery Management Plan Amendment 2. September 2019. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 62 p. Available (February 2023): <https://deq.nc.gov/media/30856/open>
- NCDMF and North Carolina Wildlife Resources Commission (NCWRC). 2017. North Carolina American Shad Sustainable Fishery Plan. North Carolina Division of Marine Fisheries. Morehead City, NC. 52 p. Updated 2020. Available (November 2022): http://www.asafc.org/files/Shad%20SFMPs/NC_AmShad_SFMP_2020.pdf
- NCDMF and NCWRC. 2019. Supplement A to Amendment 1 to the North Carolina Estuarine Striped Bass Fishery (NCWRC) Management Plan. Morehead City, NC. 40 p. Available (February 2023): <https://deq.nc.gov/media/30767/open>
- NCDMF and NCWRC. 2020. November 2020 Revision to Amendment 1 to the North Carolina Estuarine Striped Bass Fishery Management Plan. Morehead City, NC. 12 p. Available
- R Core Team. 2019. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.

6 TABLES

Table 1. For large-mesh (≥ 4 inches stretched mesh) gill nets, annual estimated authorized and actual takes of sea turtles by species and Management Unit (B, D1, D2, and E) for the 2022 ITP Year. Estimated actual takes were calculated from observer data; 95% confidence intervals are provided in parentheses. Takes of Green Sea Turtles in Management Unit D2 are denoted as not applicable (n/a) because authorized takes in the ITP are expressed as counts not estimated takes (see Table 2).

Species	B				D1				D2			
	Estimated Takes				Estimated Takes				Estimated Takes			
	Authorized		Actual		Authorized		Actual		Authorized		Actual	
	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead
Green	225	112	6.8 (0.0, 25.5)	3.3 (0.0, 10.0)	9	5	0	0	n/a	n/a	n/a	n/a
Kemp's Ridley	53	26	5.1 (0.0, 18.6)	0	15	7	0	0	6	3	0	0
Total	278	138	11.9	3.3	24	12	0	0	6	3	0	0

Species	E				Total			
	Estimated Takes				Estimated Takes			
	Authorized		Actual		Authorized		Actual	
	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead
Green	96	48	4.0 (0.0, 12.0)	0	330	165	10.8	3.3
Kemp's Ridley	24	13	0	0	98	49	5.1	0.0
Total	120	61	4.0	0	428	214	15.9	3.3

Table 2. For large-mesh (≥ 4 inches stretched mesh) gill nets, annual authorized and actual counts of observed (not estimated) takes of sea turtles by species and Management Unit (B, D1, D2, and E) for the 2022 ITP Year. Takes of Kemp’s Ridley Sea Turtles in Management Units B, D1, D2, and E and Green Sea Turtles in Management Units B, D1, and E are denoted as not applicable (n/a) because authorized takes in the ITP are expressed as estimated takes for the fishery, not counts of observed takes (see Table 1). This table is provided for consistency, but no observed interactions occurred that met the criteria to be included in this table.

Species	B		D1		D2		E		Total	
	Observed (live/dead)		Observed (live/dead)		Observed (live/dead)		Observed (live/dead)		Observed (live/dead)	
	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual
Green	n/a	n/a	n/a	n/a	6	0	n/a	n/a	6	0
Kemp's Ridley	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hawksbill	1	0	1	0	1	0	1	0	4	0
Leatherback	1	0	1	0	1	0	1	0	4	0
Loggerhead	3	0	3	0	3	0	3	0	12	0
Total	5	0	5	0	11	0	5	0	26	0

Table 3. For large-mesh (≥ 4 inches stretched mesh) and small-mesh (< 4 inches stretched mesh) gill nets combined, annual authorized and actual counts of observed (not estimated) takes of sea turtles by Management Unit (A and C) for the 2022 ITP Year. Authorized levels per management unit are four sea turtles of any species. This table is provided for consistency, but no observed interactions occurred that met the criteria to be included in this table.

Species	A		C		Total	
	Authorized (live/dead)	Actual (live/dead)	Authorized (live/dead)	Actual (live/dead)	Authorized (live/dead)	Actual (live/dead)
Green		0		0		0
Kemp's Ridley		0		0		0
Hawksbill	4 (any species)	0	4 (any species)	0	8 (any species)	0
Leatherback		0		0		0
Loggerhead		0		0		0

Table 4. For small-mesh (< 4 inches stretched mesh) gill nets, annual authorized and actual counts of observed (not estimated) takes of sea turtles by species and Management Unit (B, D1, D2, and E) for the 2022 ITP Year.

Species	B		D1		D2		E		Total	
	Observed (live/dead)		Observed (live/dead)		Observed (live/dead)		Observed (live/dead)		Observed (live/dead)	
	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual
Green	3	0	3	0	3	1	3	0	12	1
Hawksbill	1	0	1	0	1	0	1	0	4	0
Kemp's Ridley	3	0	3	0	3	0	3	0	12	0
Leatherback	1	0	1	0	1	0	1	0	4	0
Loggerhead	3	0	3	0	3	0	3	0	12	0
Total	11	0	11	0	11	1	11	0	44	1

Table 5. Total annual authorized and actual takes (either counts of observed or estimated) of sea turtles by species and, for estimated takes, by condition for the 2022 ITP Year. Takes expressed as estimated numbers are denoted as not applicable (n/a) for species whose authorized takes in the ITP are expressed only as counts. The two observed sea turtle interactions that were unidentified (Management Unit B, large-mesh [≥ 4 inches stretched mesh] gill nets, 1 live and 1 dead) are listed under Any Species.

Species	Observed (live/dead)		Estimated			
	Authorized	Actual	Authorized		Actual	
	Live/Dead	Live/Dead	Alive	Dead	Alive	Dead
Green	18	1	330	165	10.8	3.3
Hawksbill	8	0	n/a	n/a	n/a	n/a
Kemp's Ridley	12	0	98	49	5.1	0
Leatherback	8	0	n/a	n/a	n/a	n/a
Loggerhead	24	0	n/a	n/a	n/a	n/a
Any Species	8	2	n/a	n/a	n/a	n/a
Total	78	3	428	214	15.9	3.3

Table 6. Restrictions implemented for estuarine anchored gill nets ≥ 4 inches stretched mesh included in the current NCDMF Sea Turtle (No. 16230) and Atlantic Sturgeon (No.18102) Incidental Take Permits. Cells highlighted in gray had no restrictions per the ITPs. MU = Management Unit.

MU	Soak time	Days of the week	Net Length	Gear configuration	Low-profile requirements	Time/Area Closure
A north of US Hwy 64 bridge	Must be <24 hours soak time and fished before noon each day		Maximum net length per fishing operation is 2,000 yd (1.83 km).			Western Albemarle Sound in the vicinity of the mouth of the Roanoke River including the entire Roanoke River up to the dam in Weldon, permanently closed to all gill nets
A south of US Hwy 64 bridge	one hour before sunset to one hour after sunrise	Monday night - Friday morning	Maximum net length per fishing operation is 2,000 yd (1.83 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	
B	one hour before sunset to one hour after sunrise	Monday night - Friday morning	Maximum net length per fishing operation is 2,000 yd (1.83 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	Prohibition of large-mesh gill nets in the deep-water portions of the Pamlico Sound and in Oregon, Hatteras, and Ocracoke inlets 1 September through 15 December
C	Must be <24 hours soak time and fished before noon each day		Maximum net length per fishing operation is 2,000 yd (1.83 km).			
D1	one hour before sunset to one hour after sunrise	Monday night - Friday morning	Maximum net length per fishing operation is 2,000 yd (1.83 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	Closed 8 May through 14 October
D2	one hour before sunset to one hour after sunrise	Sunday night - Friday morning	Maximum net length per fishing operation is 1,000 yd (0.91 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	
E	one hour before sunset to one hour after sunrise	Sunday night - Friday morning	Maximum net length per fishing operation is 1,000 yd (0.91 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	

Table 7. Regulations by effective date for estuarine anchored gill nets during the 2022 ITP Year or referenced in the text for previous ITP years. Proclamations during winter months affected fishing effort in subsequent months.

Year	Effective Date	Proclamation Number	Regulation
2014	1-Sep	M-24-2014	This proclamation established the requirement that makes it unlawful for holders of a Standard Commercial Fishing License (SCFL), Retired Standard Commercial Fishing License (RSCFL), or Recreational Commercial Gear License (RCGL) to deploy gill nets in Internal Coastal Waters with an exception for run around, strike, drop or drift gill nets, without possessing a valid Estuarine Gill Net Permit issued by the Division of Marine Fisheries.
2019	18-Mar	M-6-2019	This proclamation supersedes proclamation M-5-2019, dated March 7, 2019. This proclamation prohibits the use of ALL gill nets upstream of the ferry lines from the Bayview Ferry to Aurora Ferry on the Pamlico River and the Minnesott Beach Ferry to Cherry Branch Ferry on the Neuse River. It maintains tie-down (vertical net height restrictions) and distance from shore restrictions for gill nets with a stretched mesh length 5 inches and greater in the western Pamlico Sound and rivers (excluding the areas described in Section I. B.) in accordance with Supplement A to Amendment 1 to the N.C. Estuarine Striped Bass Fishery Management Plan.
2020	20-Apr	M-4-2020	This proclamation implements yardage and time-setting restrictions for gill nets with a stretched mesh length less than 4 inches and attendance restrictions for gill nets with a stretched mesh length less than 5 inches in the Internal Coastal Waters of the state, south of Management Unit A. Yardage limit increases will be considered for the May-October Spanish mackerel drift gill net fishery. Those increases will be implemented by proclamation at a later time.
2021	2-Mar	M-7-2021	This proclamation supersedes proclamation M-5-2021 dated January 29, 2021. It opens a portion of Management Unit A to the use of floating gill nets configured for harvesting American shad by removing vertical height and setting restrictions for all gill nets with stretched mesh lengths of 5 ¼ through 6 ½ inches.
2021	12-Mar	M-9-2021	This proclamation supersedes proclamation M-7-2021 dated February 25, 2021. It closes a portion of Management Unit A to the use of all gill nets and reduces the maximum amount of yards allowed for gill nets configured for harvesting American shad.

Table 7 continued

Year	Effective Date	Proclamation Number	Regulation
2021	18-Mar	M-10-2021	This proclamation supersedes proclamation M-9-2021 dated March 9, 2021. In Management Unit A, it removes gill nets configured for harvesting American shad. It maintains that it is unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 ¼ inches, and opens a portion of Management Unit A to the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish.
2021	14-Sep	M-16-2021	This proclamation supersedes proclamation M-12-2021 dated April 30, 2021. It opens Management Unit A to the use of gill nets for the purpose of harvesting flounder in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles. It maintains the exempted areas in MUA open to the use of runaround, strike, drop, and trammel gill nets to harvest blue catfish. It also maintains small mesh gill net attendance requirements in the entirety of Management Unit A
2021	15-Sep	FF-40-2021	This proclamation supersedes Proclamation FF-25-2020, dated June 15, 2020. It establishes commercial flounder season dates for Internal Coastal Waters by Flounder Management Area. It maintains a 15-inch total length minimum size limit. It also maintains the regulation making it unlawful to possess flounder taken from anchored large mesh gill nets with a stretched mesh length less than 6 inches. It makes it unlawful for a commercial fishing operation to possess flounder from the Atlantic Ocean Waters taken by any method other than trawls. This action is being taken to comply with the requirements of Amendment 2 to the N.C. Southern Flounder Fishery Management Plan
2021	1-Oct	M-17-2021	This proclamation supersedes proclamation M-11-2021 dated April 9, 2021. This proclamation opens Management Units B (subunits only), C, D2 and E to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section III.) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles
2021	1-Oct	M-18-2021	This proclamation supersedes proclamation M-16-2021 dated September 2, 2021. It closes Management Unit A to the use of large mesh gill nets with overnight soaks for the purpose of harvesting flounder and keeps open a portion of Management Unit A to the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish. It maintains small mesh gill net attendance requirements in the entirety of Management Unit A.
2021	1-Oct	M-19-2021	This proclamation supersedes proclamation M-14-2021 dated June 25, 2021. It opens Management Unit D1 to the use of gill nets with a stretched mesh length of less than 4 inches

Table 7 continued

Year	Effective Date	Proclamation Number	Regulation
2021	19-Oct	M-22-2021	This proclamation supersedes proclamation M-17-2021 dated September 24, 2021. This proclamation closes Management Unit B (subunits SGNRA 1-4, MGNRA and portions of CGNRA) and Management Unit C to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section III.) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles
2021	21-Oct	M-23-2021	This proclamation supersedes proclamation M-22-2021 dated October 14, 2021. This proclamation closes all management units south of Management Unit A to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section III.) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles
2021	1-Dec	M-24-2021	This proclamation supersedes proclamation M-18-2021 dated September 28, 2021. In Management Unit A, it removes attendance requirements and imposes vertical height restrictions for anchored gill nets with a stretched mesh length of 3 inches through 3 ¾ inches. It maintains the exempted portion of Management Unit A that allows the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches to harvest blue catfish.
2022	1-Jan	M-2-2022	This proclamation supersedes proclamation M-24-2021 dated November 30, 2021. In Management Unit A, it is unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 ¾ inches. It maintains the exempted portion of Management Unit A that allows the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches to harvest blue catfish.
2022	15-Feb	M-4-2022 (REVISED)	This proclamation supersedes proclamation M-23-2021 dated October 14, 2021. This proclamation opens Management Unit C to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches and implements gear exemptions for the shad fishery in all areas south of Management Unit A in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan.
2022	2-Mar	M-5-2022	This proclamation supersedes proclamation M-2-2022 dated December 17, 2021. It opens a portion of Management Unit A to the use of floating gill nets configured for harvesting American shad by removing vertical height and setting restrictions for all gill nets with stretched mesh lengths of 5 ¼ through 6 inches

Table 7 continued

Year	Effective Date	Proclamation Number	Regulation
2022	15-Mar	M-6-2022	This proclamation supersedes proclamation M-5-2022 dated February 22, 2022. In Management Unit A, it removes gill nets configured for harvesting American shad and it remains unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 ¼ inches. It opens an exempted portion of Management Unit A that allows the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches to harvest blue catfish.
2022	15-Apr	M-8-2022	This proclamation supersedes proclamation M-4-2022 (REVISED), dated February 11, 2022. This proclamation closes all of Management Unit C and maintains closures in all other management units south of Management Unit A to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section II.: coincides with the commercial shad fishery closure) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan.
2022	28-Apr	M-10-2022	This proclamation supersedes proclamation M-9-2022 dated April 26, 2022. This proclamation makes it unlawful to use fixed or stationary gill nets of any mesh size in Management Unit A due to dead sturgeon takes nearing the authorized amount for Management Unit A. A portion of Management Unit A remains open to the use of run-around, strike and drop gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish. Run-around, strike and drop gill nets with a stretched mesh length of 3 inches through 4 inches may also still be used in portions of Management Unit A. This action is being taken to comply with the Division of Marine Fisheries' Federal Incidental Take Permit for endangered Atlantic sturgeon.
2022	1-May	<u>M-9-2022</u>	This proclamation supersedes proclamation M-6-2022 dated March 11, 2022. In Management Unit A, it implements small mesh gill net attendance requirements. It stipulates that it is unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 inches through 3 ¾ inches and keeps open a portion of Management Unit A to the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish.
2022	2-May	M-11-2022	This proclamation supersedes proclamation M-19-2021 dated September 28, 2021. It increases the yardage limits for the commercial Spanish mackerel drift gill net fishery in Management Unit B.
2022	21-Jun	M-13-2022	This proclamation supersedes proclamation M-11-2022 dated April 29, 2022. It decreases the yardage limits for the commercial Spanish mackerel drift gill net fishery in Management Unit B.

Table 8. For anchored large-mesh gill nets, observer coverage (observed trips/fishing trips) calculated from observer data (≥ 4 inches stretch mesh) and reported trips from the Trip Ticket Program (≥ 5 inches stretch mesh) by season and management unit for the 2022 ITP Year. Anchored large-mesh gill nets were prohibited in Management Unit D1 during all seasons and other management units during one or more seasons (“closed”). Trip Ticket Program data are considered finalized for 2021 and preliminary for 2022.

Season	Management Unit	Large Mesh				
		Estimated Fishing Trips	Reported Fishing Trips	Observed Trips	Coverage - Estimated Fishing Trips	Coverage - Reported Fishing Trips
Fall 2021	A	563	723	102	18.1	14.1
	B	397	643	85	21.4	13.2
	C	189	198	34	18.0	17.2
	D1	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	D2	111	80	23	20.7	28.8
	E	282	493	67	23.8	13.6
	Overall	1,542	2,137	311	20.2	14.6
Spring 2022	A	752	453	54	7.2	11.9
	B	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	C	9	30	0	0.0	0.0
	D1	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	D2	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	E	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	Overall	761	483	54	7.1	11.2
Summer 2022	A	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	B	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	C	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	D1	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	D2	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	E	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	Overall	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
Annual		2,303	2,620	365	15.8	13.9

Table 9. For anchored small-mesh gill nets, observer coverage (observed trips/fishing trips) calculated from observer trips (<4 inches stretched mesh) and reported trips from the Trip Ticket Program (<5 inches stretched mesh) by season and management unit for the 2022 ITP Year. Small-mesh gill nets were prohibited in Management Unit A (“closed”) during all of summer. Trip Ticket Program data are considered finalized for 2021 and preliminary for 2022.

Season	Management Unit	Small Mesh				
		Estimated Fishing Trips	Reported Fishing Trips	Observed Trips	Coverage - Estimated Fishing Trips	Coverage - Reported Fishing Trips
Fall 2021	A	294	241	5	1.7	2.1
	B	920	956	20	2.2	2.1
	C	150	239	2	1.3	0.8
	D1	48	20	3	6.3	15.0
	D2	167	80	5	3.0	6.3
	E	412	259	21	5.1	8.1
	Overall	1,991	1,795	56	2.8	3.1
Spring 2022	A	636	399	8	1.3	2.0
	B	1,254	1,862	20	1.6	1.1
	C	172	298	5	2.9	1.7
	D1	26	24	0	0.0	0.0
	D2	23	13	1	4.3	7.7
	E	104	118	13	12.5	11.0
	Overall	2,215	2,714	47	2.1	1.7
Summer 2022	A	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	B	896	514	13	1.5	2.5
	C	66	112	2	3.0	1.8
	D1	8	3	1	12.5	33.3
	D2	22	12	2	9.1	16.7
	E	189	147	10	5.3	6.8
	Overall	1,181	788	28	2.4	3.6
Annual		5,387	5,297	131	2.4	2.5

Table 10. Number of "No Contact" trips by season and management unit completed by Marine Patrol and observers during the 2022 ITP Year. No Contact refers to unsuccessful attempts to find and observe anchored gill-net effort. Anchored gill nets were prohibited in Management Unit A (“*closed*”) during all of summer.

Season	Management Unit	Marine Patrol No Contact Trips	Observer No Contact Trips	Total No Contact Trips
Fall 2021	A	38	10	48
	B	6	11	17
	C	27	3	30
	D1	2	2	4
	D2	4	2	6
	E	123	0	123
	Overall	200	28	228
Spring 2022	A	45	4	49
	B	28	19	47
	C	65	13	78
	D1	12	1	13
	D2	12	11	23
	E	174	1	175
	Overall	336	49	385
Summer 2022	A	<i>closed</i>	<i>closed</i>	<i>closed</i>
	B	44	23	67
	C	63	11	74
	D1	8	1	9
	D2	10	6	16
	E	165	0	165
	Overall	290	41	331
Annual		826	118	944

Table 11. Number of drift and runaround gill-net observations by season and management unit completed by Marine Patrol and observers during the 2022 ITP Year.

Season	Management Unit	Observed Drift Gill-net Trips	Observed Runaround Gill-net Trips	Total Observed Trips
Fall 2021	A	3	0	3
	B	0	1	1
	C	0	5	5
	D1	0	0	0
	D2	0	2	2
	E	0	1	1
	Overall	3	9	12
Spring 2022	A	0	1	1
	B	0	1	1
	C	0	8	8
	D1	0	0	0
	D2	0	2	2
	E	0	0	0
	Overall	0	12	12
Summer 2022	A	0	0	0
	B	0	5	5
	C	0	13	13
	D1	0	0	0
	D2	0	1	1
	E	0	1	1
	Overall	0	20	20
Annual		3	41	44

Table 12. Summary of observed sea turtle interactions (n=12) in large-mesh (≥ 4 inches stretched mesh) and (n=1) in small-mesh (< 4 inches stretched mesh) gill nets during the 2022 ITP Year. Tags were not applied. CCL= Curved Carapace Length. CCW= Curved Carapace Width.

Date	Management Unit	Mesh-Size Category	Latitude (N)	Longitude (W)	Species	Disposition	CCL (mm)	CCW (mm)
10/4/2021	E	Large	34.53236	77.36574	Green	alive	n/r	n/r
10/5/2021	B	Large	34.97902	76.26725	Green	alive	355	300
10/5/2021	B	Large	34.87402	76.30605	Green	alive	330	254
10/5/2021	B	Large	34.82266	76.37554	Green	alive	355	254
10/5/2021	B	Large	35.13364	75.99060	Kemp's Ridley	alive	400	440
10/5/2021	B	Large	34.82423	76.37454	Kemp's Ridley	alive	355	304
10/5/2021	B	Large	35.30612	75.60244	Unidentified	alive	n/r	n/r
10/6/2021	B	Large	34.92164	76.24176	Green	alive	n/r	n/r
10/6/2021	B	Large	34.92164	76.24176	Green	dead	295	258
10/6/2021	B	Large	34.91981	76.24410	Green	dead	292	257
10/6/2021	B	Large	34.91684	76.24782	Unidentified	dead	n/r	n/r
10/6/2021	B	Large	34.87088	76.30989	Kemp's Ridley	alive	457	330
4/29/2022	D2	Small	34.72613	76.86498	Green	dead	390	333

Table 13. Citations (n=42) written by Marine Patrol officers for estuarine anchored gill nets by violation date and code during the 2022 ITP Year.

Season	Date	Code	Description
Fall	9/17/2021	NETG60	Use gill nets with a mesh size of more than 6.5 inches (stretched mesh) in violation of proclamation M-7-12
Fall	9/30/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	9/30/2021	NETG55	Violate the provisions of Proclamation M-30-2011 to wit set gill nets before one hour before sunset Proclamation M-30-11
Fall	9/30/2021	NETG44	Use large mesh gill nets w/out leaving a space of at least 25 yards between separate lengths of net Proclamation M-8-2010
Fall	9/30/2021	NETG55	Violate the provisions of Proclamation M-30-2011 to wit set gill nets before one hour before sunset Proclamation M-30-11
Fall	9/30/2021	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday Proclamation M-8-2010
Fall	9/30/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	10/1/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/4/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/4/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/4/2021	NETG10	Gill net with illegal mesh size
Fall	10/4/2021	NETG10	Gill net with illegal mesh size
Fall	10/5/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	10/5/2021	NETG62	Take flounder from large mesh less than 6 inches Proclamation FF-40-2021
Fall	10/5/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	10/6/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/6/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/6/2021	NETG30	Leave RCGL gill net unattended 3O.09302
Fall	10/6/2021	NETG54	Violate provisions of Proclamation M-30-2011 to wit failed to have 25 yard space between nets 3H.0103
Fall	10/6/2021	NETG22	Improperly set gill net
Fall	10/12/2021	NETG03	Using gill net with improper buoys or identification
Fall	10/12/2021	NETG39	Use large mesh gill nets more than 15 meshes in height and w/out lead core or leaded bottomline Proclamation M-8-2010
Fall	10/14/2021	NETG22	Improperly set gill net

Table 13 continued

Season	Date	Code	Description
Fall	10/19/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/19/2021	EGNP10	Set more than the legal length of gill net
Fall	10/19/2021	NETG22	Improperly set gill net
Fall	10/19/2021	NETG46	Set or retrieve large mesh gill nets later than one hour after sunrise on Tuesday through Friday Proclamation M-8-2010
Fall	11/9/2021	NETG01	Leave gill net in coastal waters unattended
Fall	11/9/2021	NETG02	Using gill net without buoys or identification
Fall	11/10/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	11/10/2021	NETG01	Leave gill net in coastal waters unattended
Fall	11/10/2021	NETG02	Using gill net without buoys or identification
Fall	11/10/2021	NETG30	Leave RCGL gill net unattended 3O.09302
Fall	11/30/2021	NETG29	RCGL gear without proper buoys 3J.0103(c)
Spring	3/1/2022	NETG55	Violate the provisions of Proclamation M-30-2011 to wit set gill nets before one hour before sunset Proclamation M-30-11
Spring	3/1/2022	NETG03	Using gill net with improper buoys or identification
Spring	3/22/2022	NETG02	Using gill net without buoys or identification
Spring	4/6/2022	NETG22	Improperly set gill net
Spring	4/6/2022	NETG01	Leave gill net in coastal waters unattended
Spring	5/22/2022	NETG04	Leave gill net in waters when could not be legally fished
Summer	6/1/2022	NETG12	Net in middle third of marked navigational channel
Summer	6/14/2022	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit

Table 14. Notice of Violations (n=12) written by Marine Patrol officers for estuarine anchored gill nets by violation date and code during the 2022 ITP Year.

Season	Date	Code	Description
Fall	9/17/2021	EGNP10	Set more than the legal length of gill net
Fall	9/18/2021	EGNP25	Refuse to allow fisheries observers onboard or collect data
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP30	Failure to comply with gill net configurations outlined in proclamation
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP10	Set more than the legal length of gill net
Fall	11/9/2021	EGNP99	Failure to comply with statutes(s), rules(s), and/or proclamation(s)
Fall	11/9/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Spring	4/6/2022	EGNP11	Failure to attend nets
Spring	5/22/2022	EGNP99	Failure to comply with statutes(s), rules(s), and/or proclamation(s)

7 FIGURES

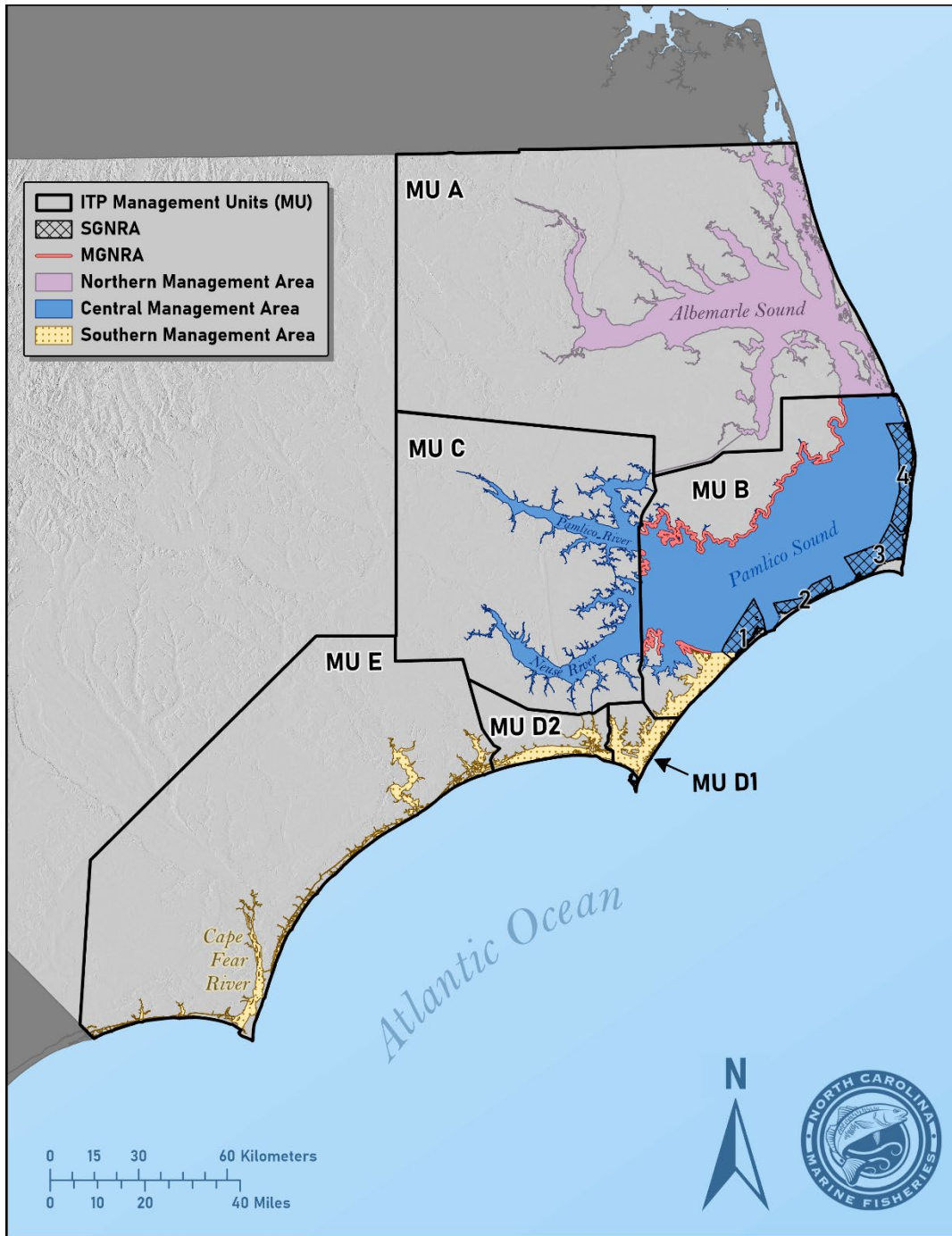


Figure 1. Management Units (A, B, C, D1, D2, and E) as outlined in the Incidental Take Permit (ITP) Conservation Plan and used by the Observer Program for the 2022 ITP Year. In the Pamlico Sound portion of B, large-mesh (≥ 4 inches stretched mesh) gill nets were confined to Shallow Water Gillnet Restricted Areas (SGNRA) 1-4 and the Mainland Gillnet Restricted Area (200 yards from shore) from 1 September through December 15. The three Southern Flounder Management Areas are shown with different colored backgrounds: northern (pink), central (blue) and southern (yellow).

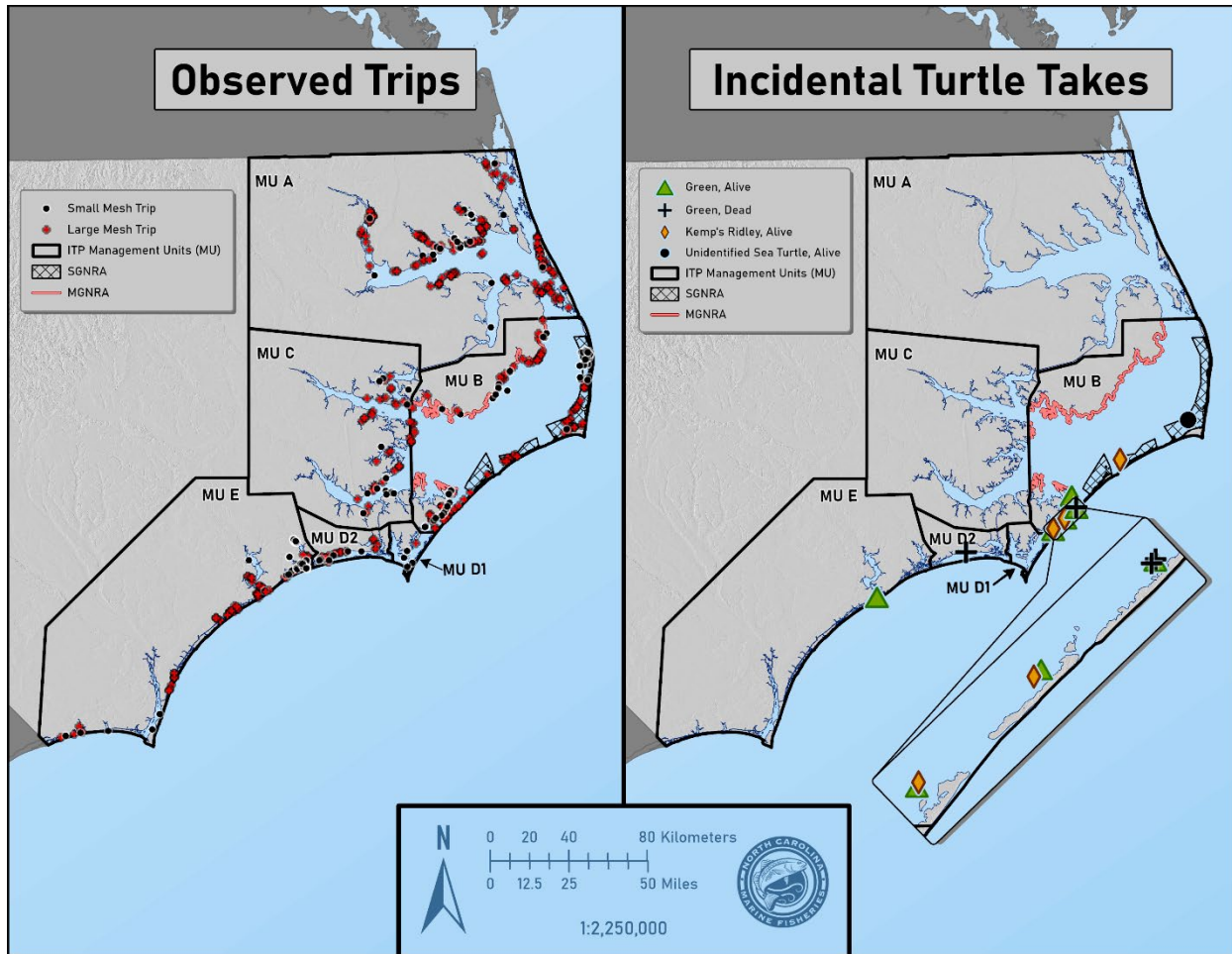


Figure 2. For the entire 2022 ITP Year, observed gill-net trips (left) by mesh-size category (365 large mesh [≥ 4 inches stretched mesh]; 131 small mesh [< 4 inches stretched mesh]) and sea turtle interactions (right) by species and disposition (alive, $n=9$; dead, $n=4$) across management units.

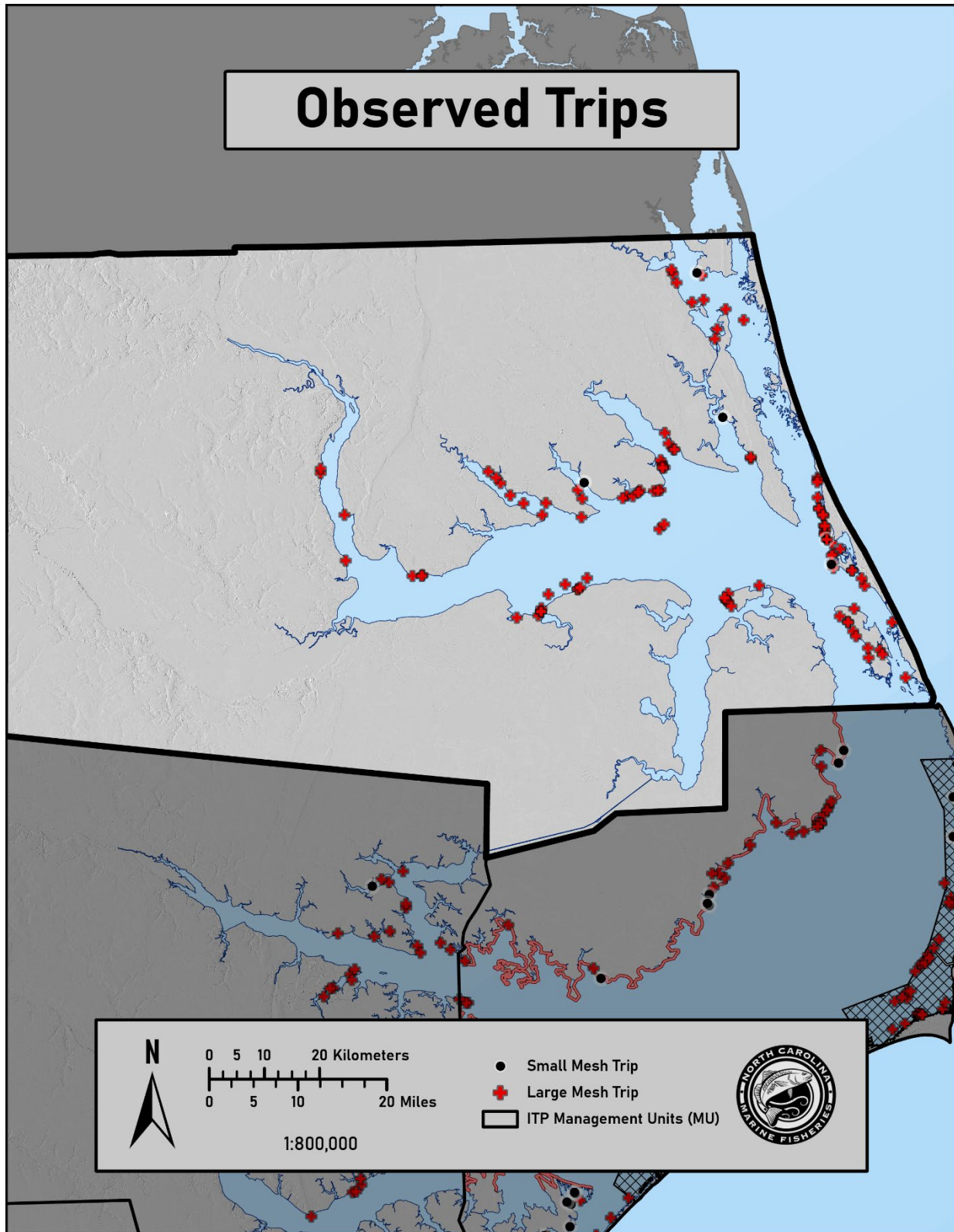


Figure 3. For fall 2021, observed gill-net trips by mesh-size category for Management Unit A (102 large mesh [≥ 4 inches stretched mesh]; 5 small mesh [< 4 inches stretched mesh]). No sea turtle interactions were observed in Management Unit A.

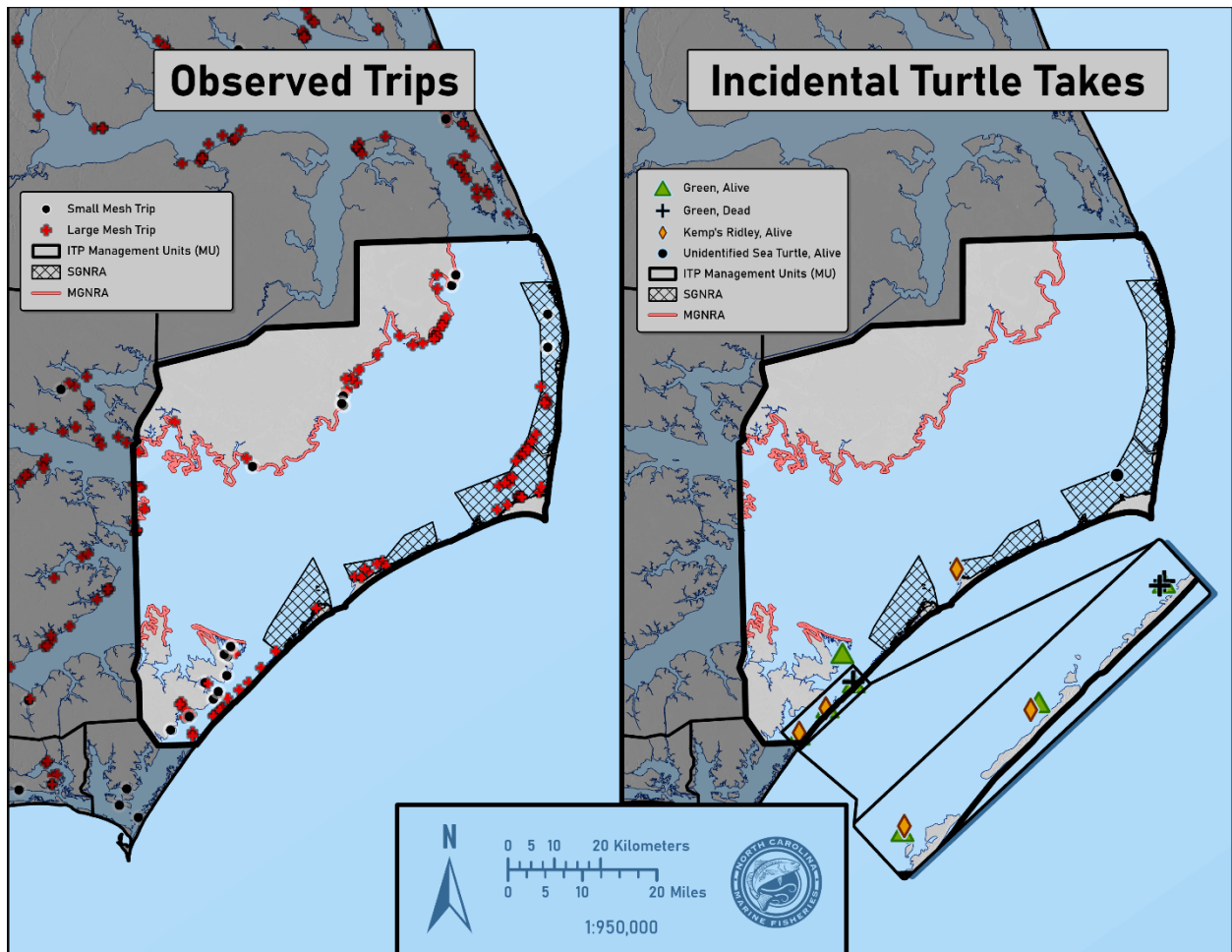


Figure 4. For fall 2021, observed gill-net trips (left) by mesh-size category (85 large mesh [≥ 4 inches stretched mesh]; 20 small mesh [< 4 inches stretched mesh]) and sea turtle interactions (right) by species and disposition (alive, $n=9$; dead, $n=3$) for Management Unit B.

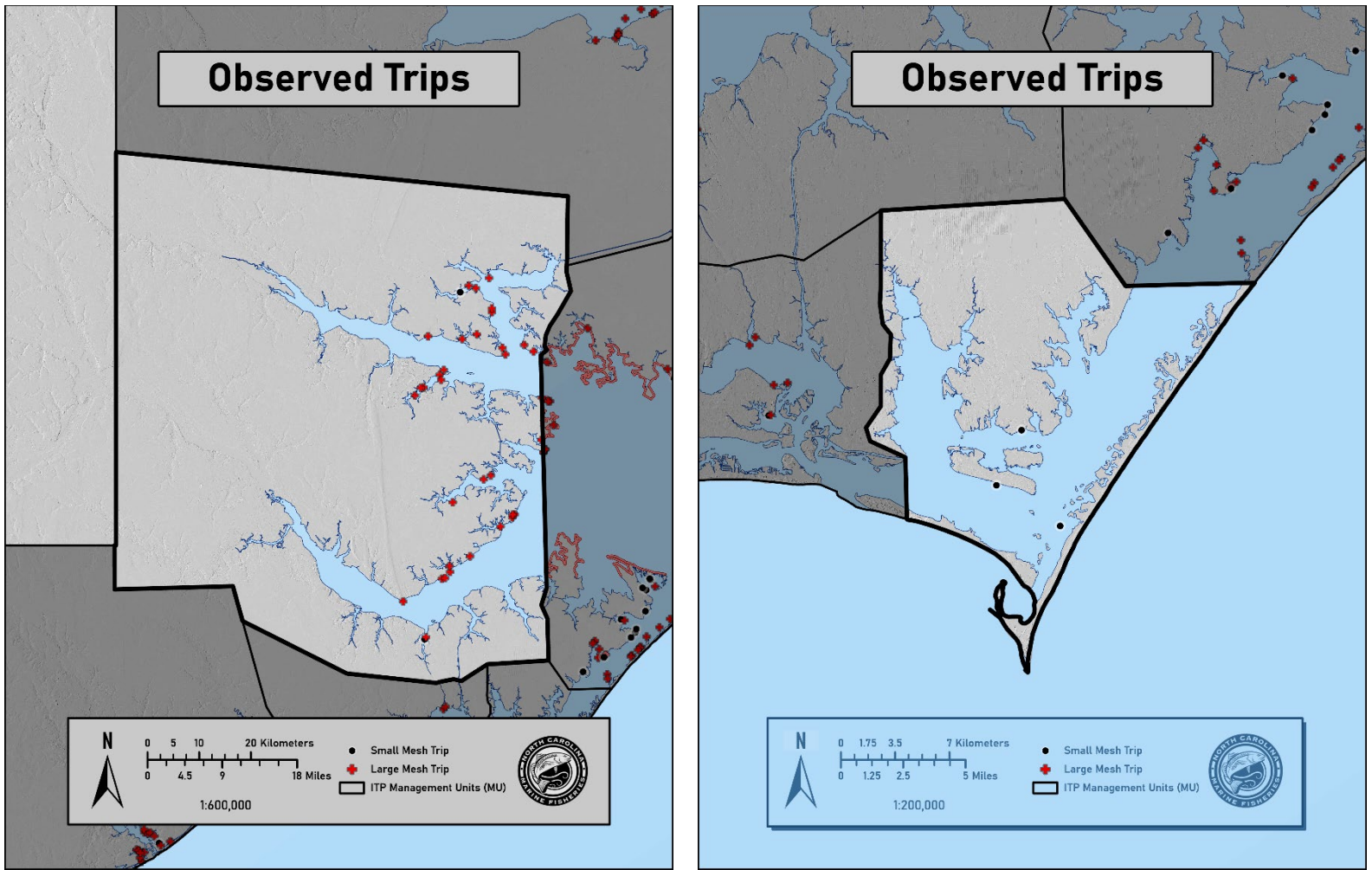


Figure 5. For fall 2021, observed gill-net trips by mesh-size category (large mesh [≥ 4 inches stretched mesh]; small mesh [< 4 inches stretched mesh]) for Management Unit C (left; 34 large mesh; 2 small mesh) and Management Unit D1 (right; 0 large mesh; 4 small mesh). Management Unit D1 was closed to large-mesh gill nets. No sea turtle interactions were observed in either management unit.

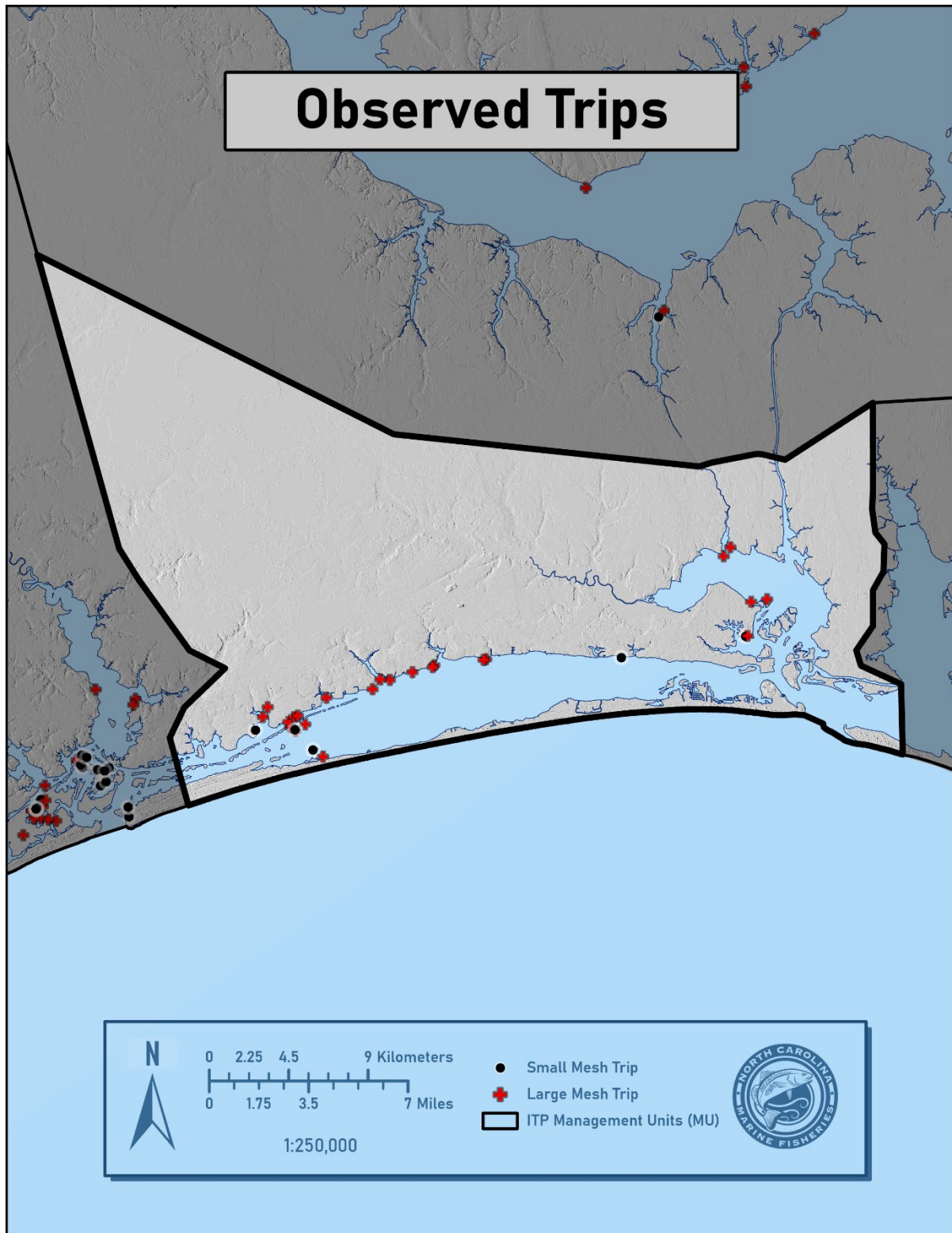


Figure 6. For fall 2021, observed gill-net trips (left) by mesh-size category (23 large mesh [≥ 4 inches stretched mesh]; 5 small mesh [< 4 inches stretched mesh]) for Management Unit D2. No sea turtle interactions were observed in Management Unit D2.

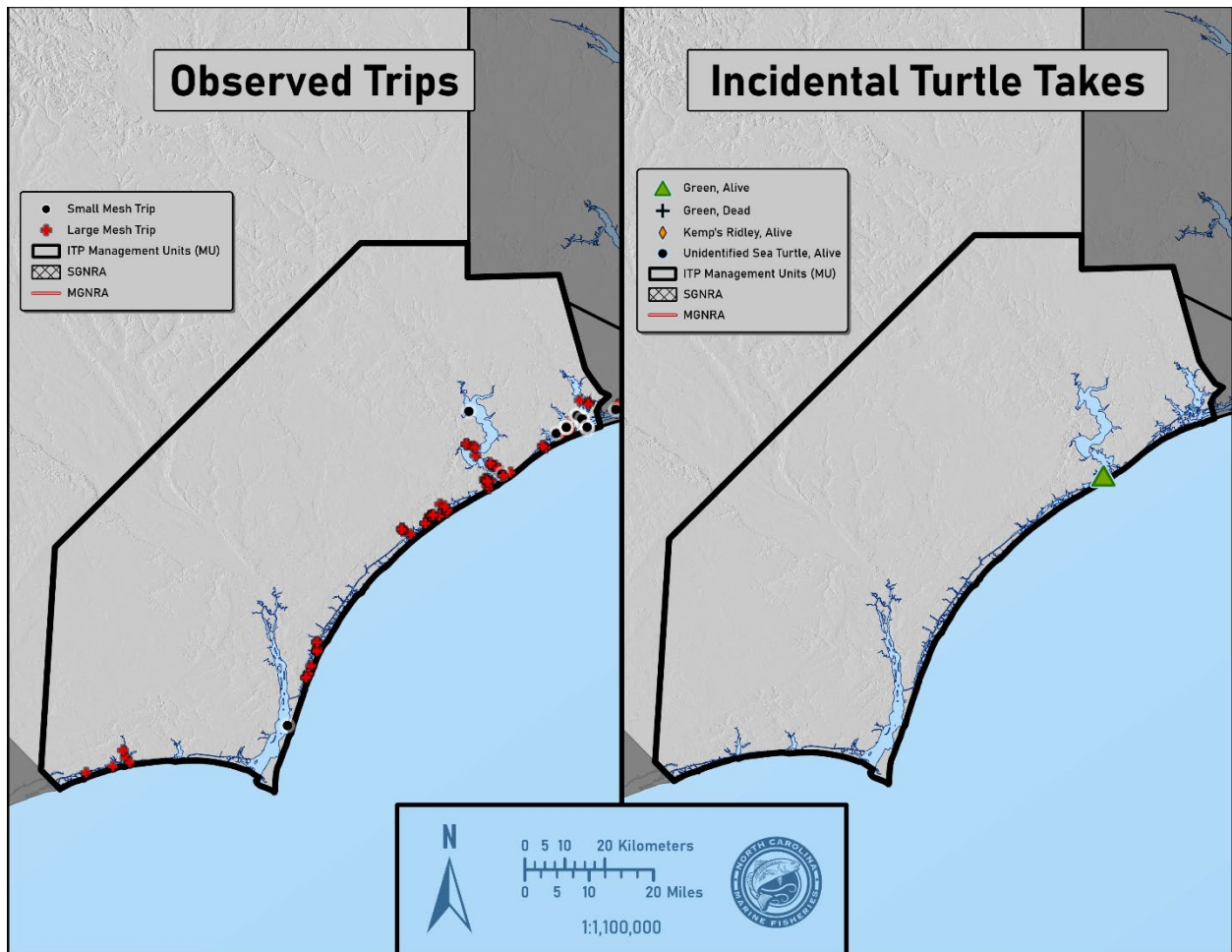


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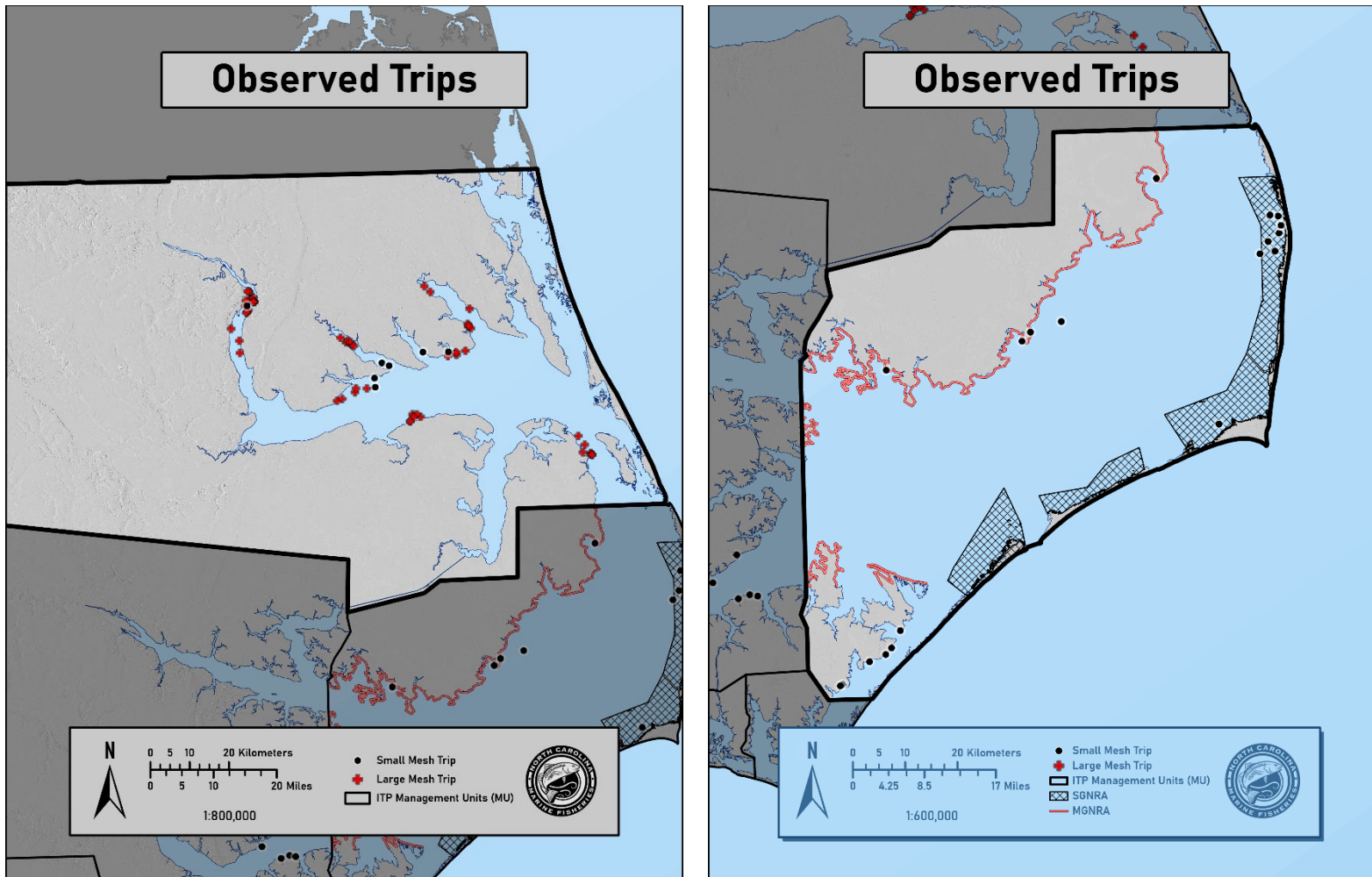


Figure 8. For spring 2022, observed gill-net trips by mesh-size category (large mesh [≥ 4 inches stretched mesh]; small mesh [< 4 inches stretched mesh]) for Management Unit A (54 large mesh; 8 small mesh) and B (0 large mesh; 20 small mesh). Management Unit A was open to large-mesh gill nets during spring between March 2–15 only, but Management Unit B was not open to large-mesh gill nets at all. No sea turtle interactions were observed in either management unit.

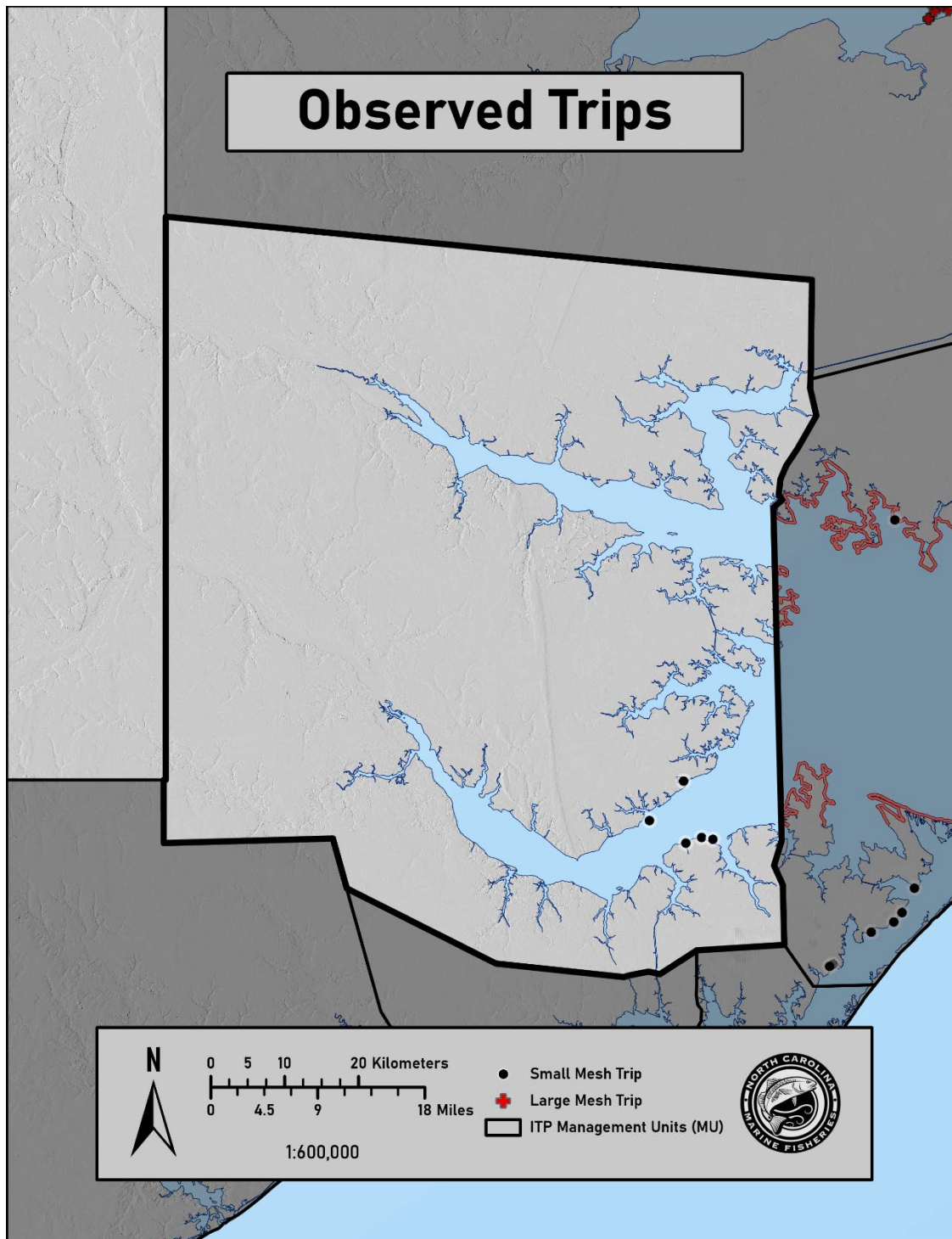


Figure 9. For spring 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit C (5 observed trips). Management Unit C closed to anchored large-mesh gill nets on 15 April. No sea turtle interactions were observed.

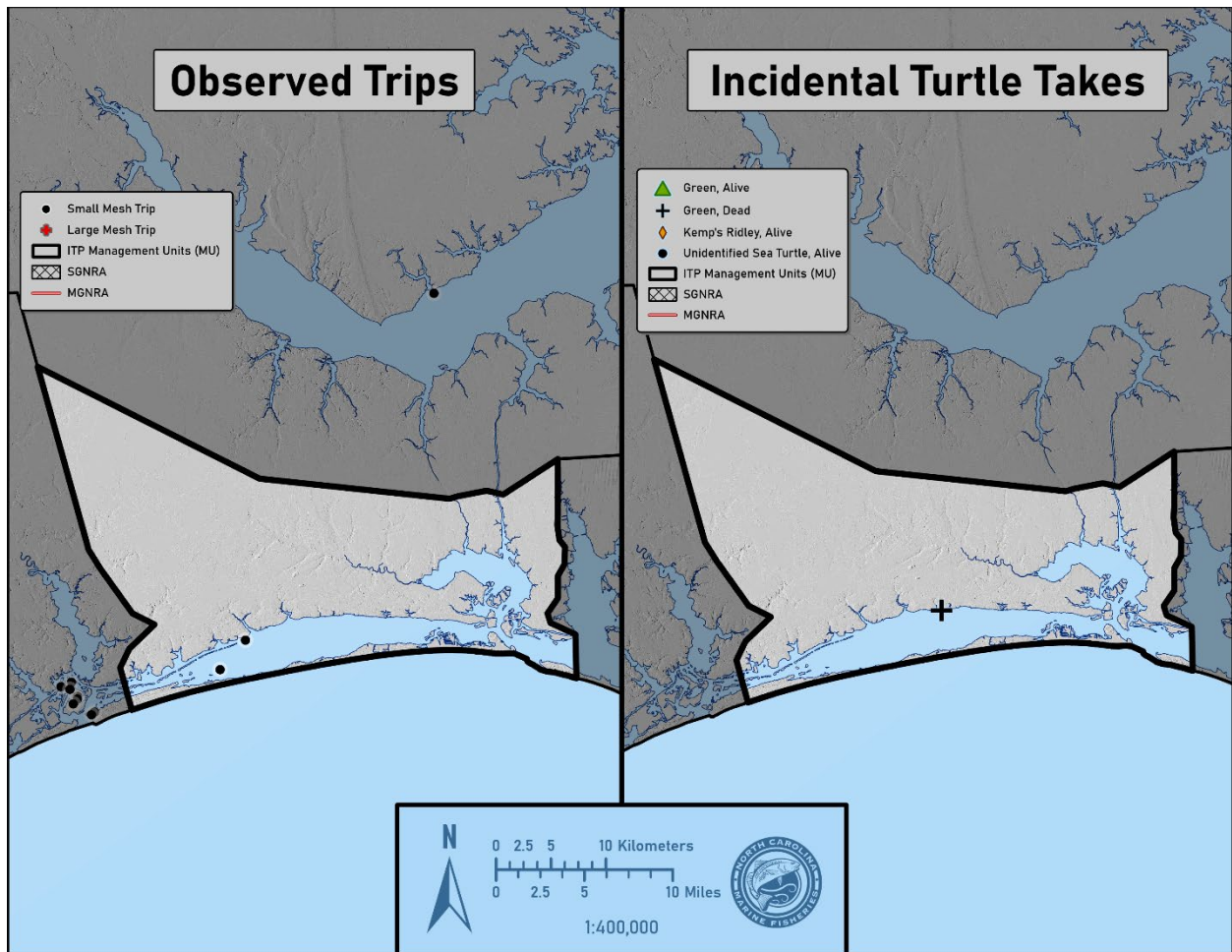


Figure 10. For spring 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips (left) (1 observed trip) and sea turtle interactions (right) by species and disposition (alive, n=0; dead, n=1) for Management Unit D2. Management Units D2 was closed to anchored large-mesh gill nets during spring.

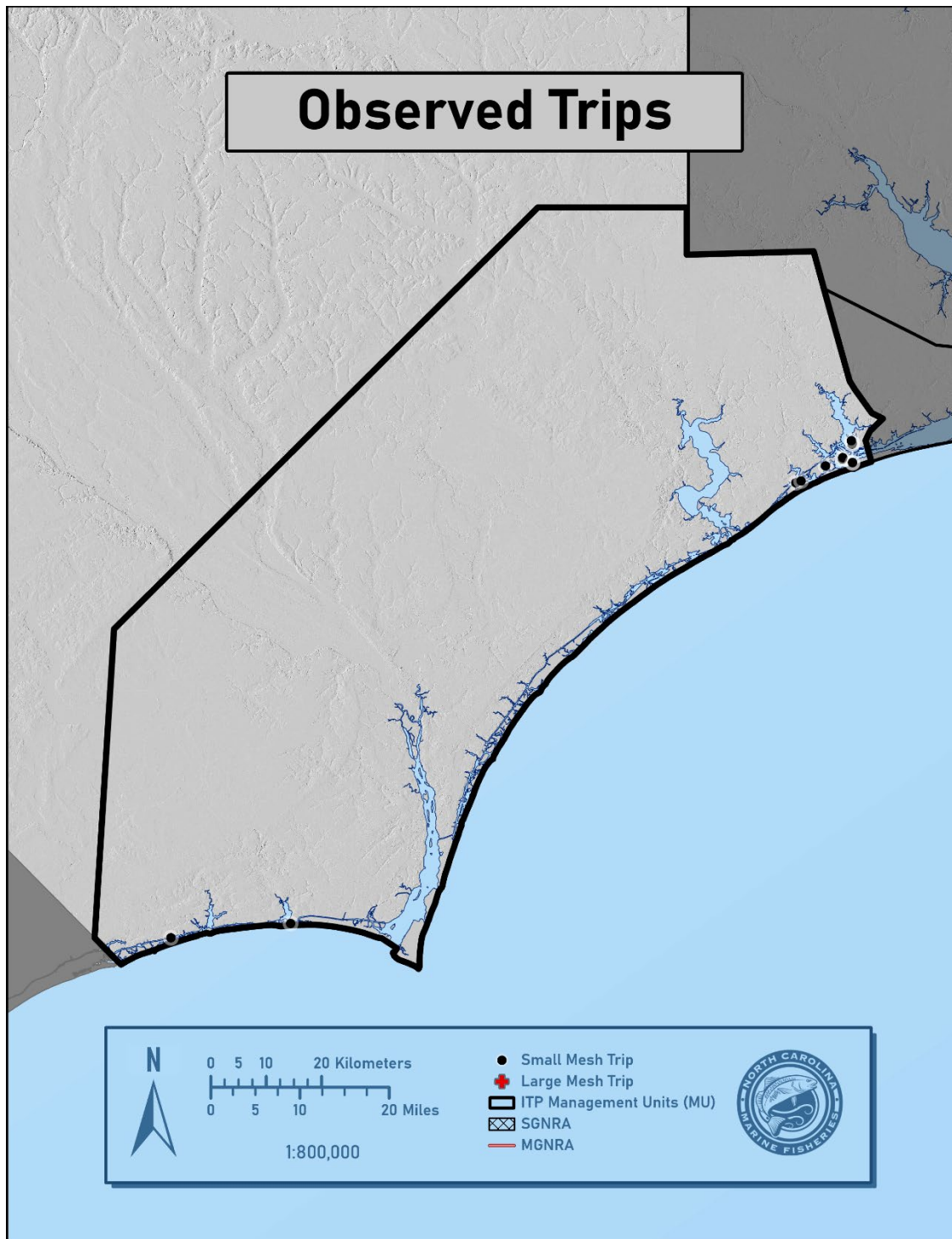


Figure 11. For spring 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit E (13 observed trips). No sea turtle interactions were observed. Management Unit E was closed to large-mesh gill nets during spring.

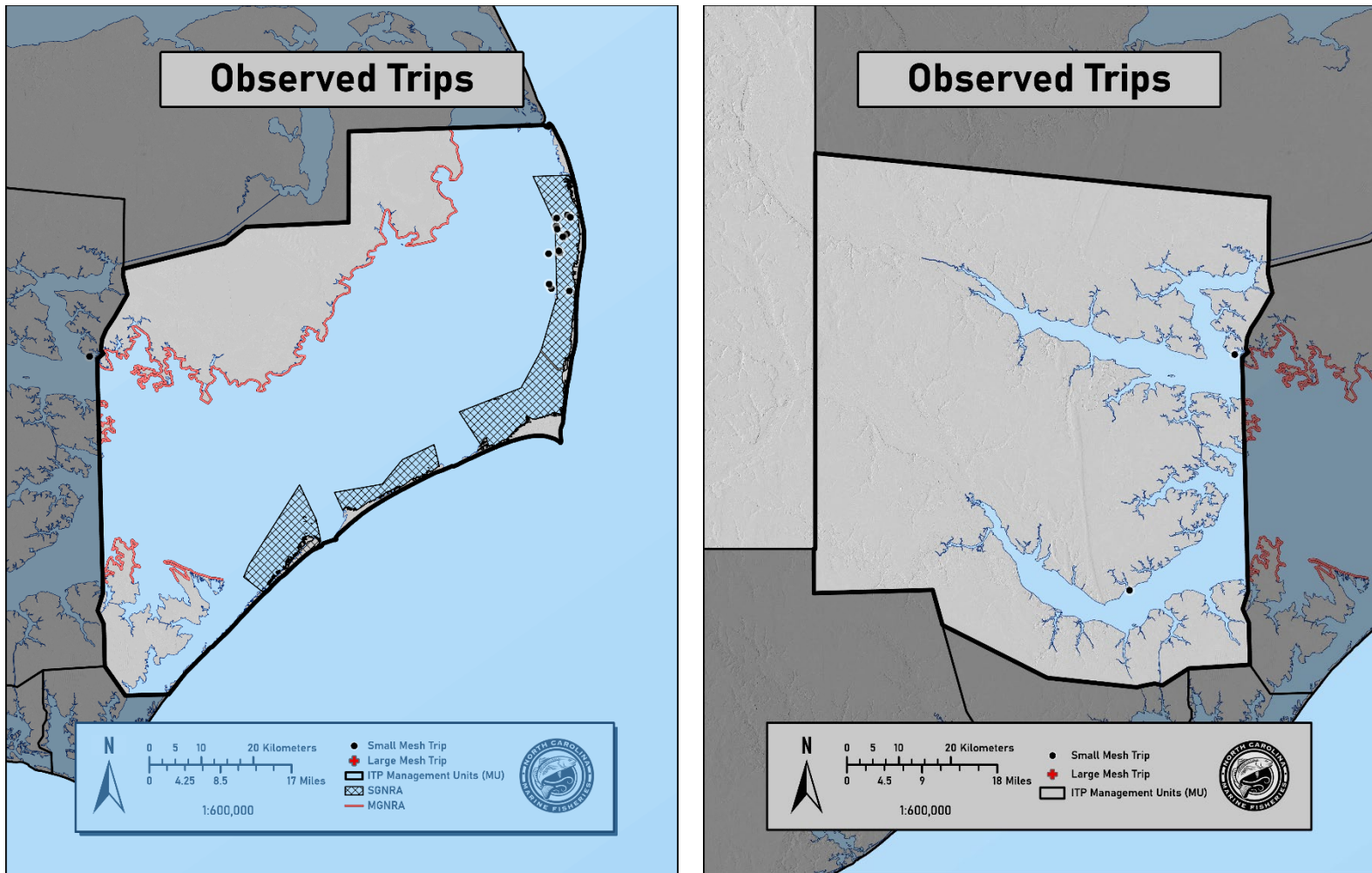


Figure 12. For summer 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit B (13 observed trips) and C (2 observed trip). No sea turtle interactions were observed in either management unit. Both management units were closed to large-mesh gill nets during spring. Maps for Management Unit A are not shown because it was closed to all anchored gill nets during summer.

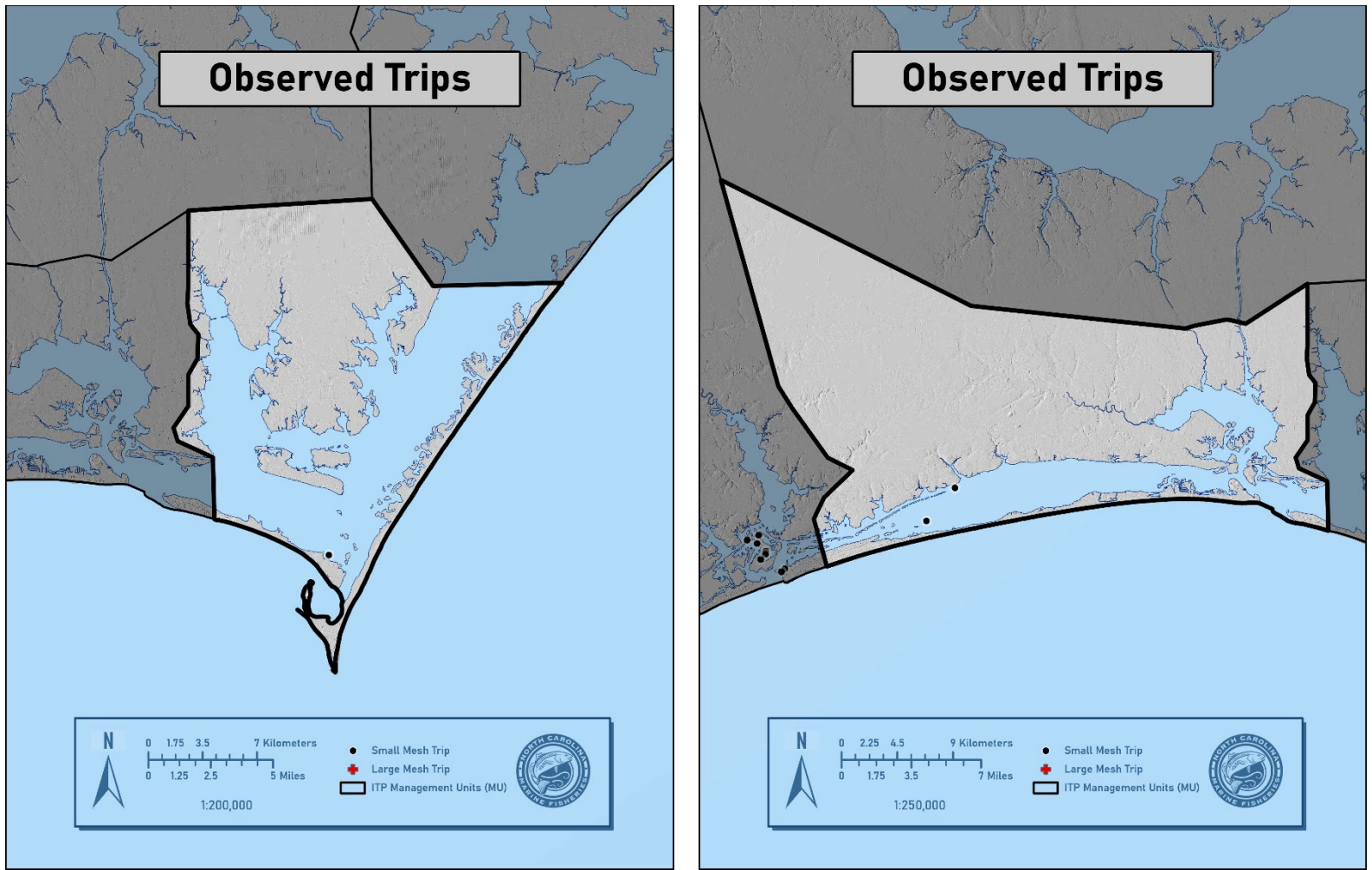


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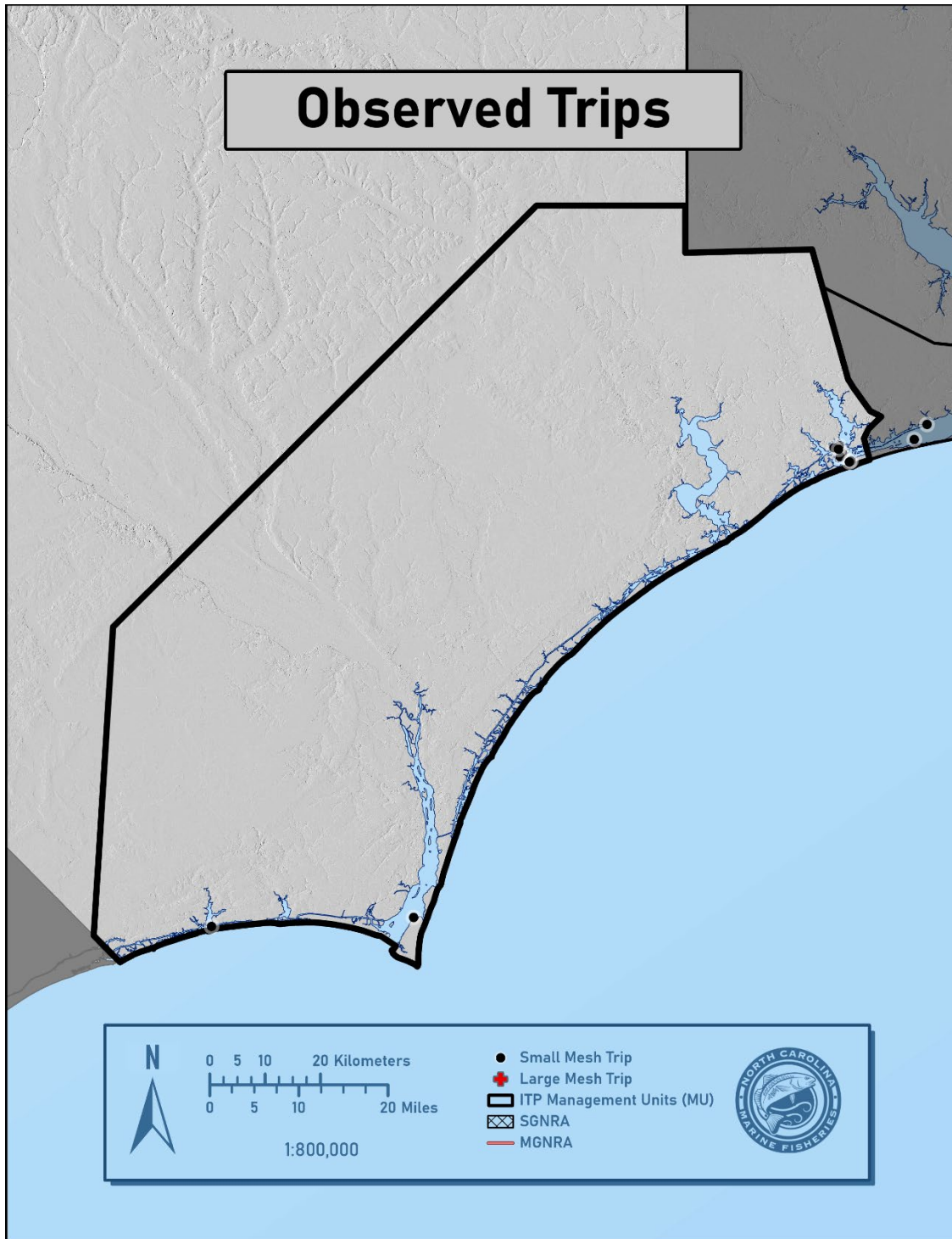


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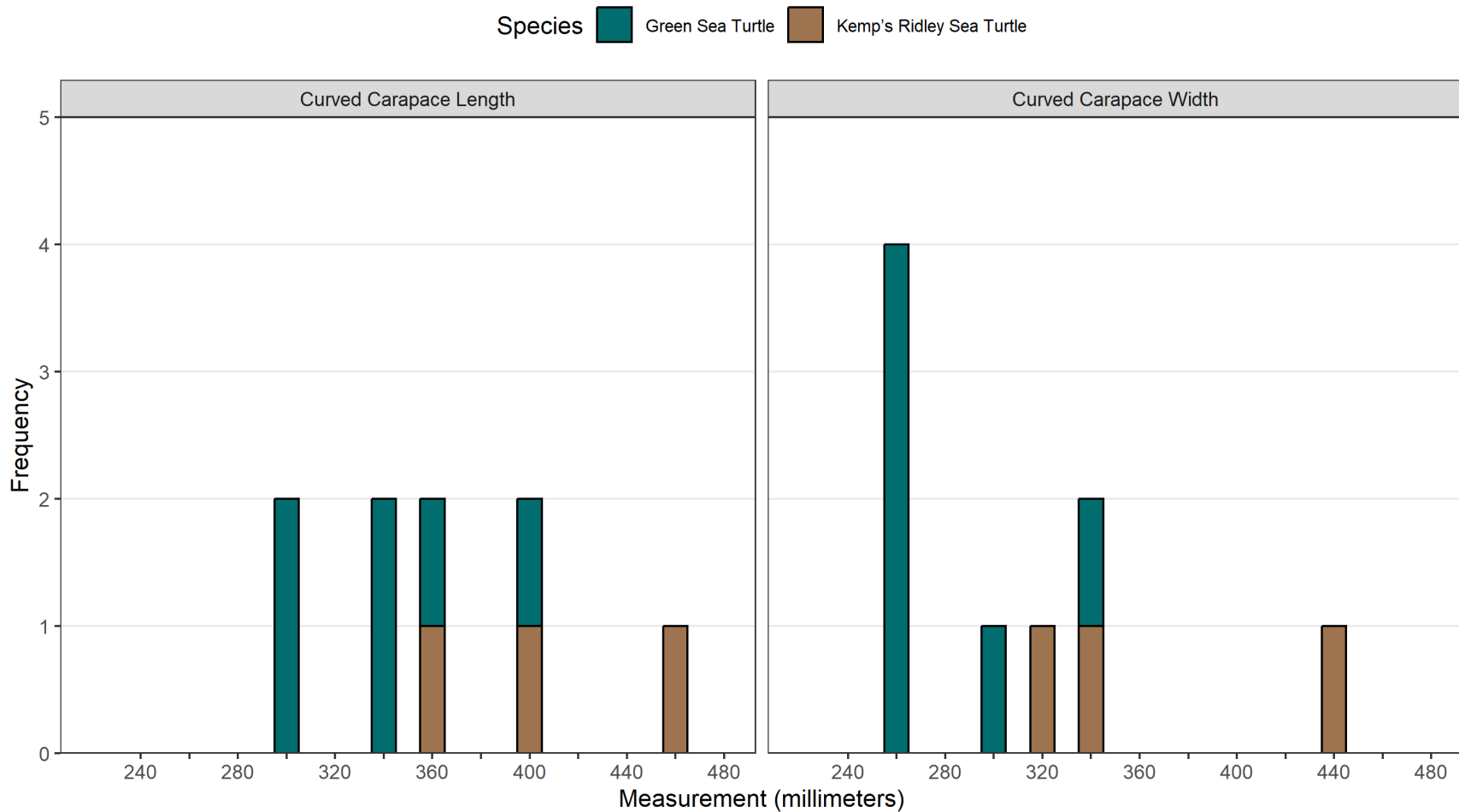


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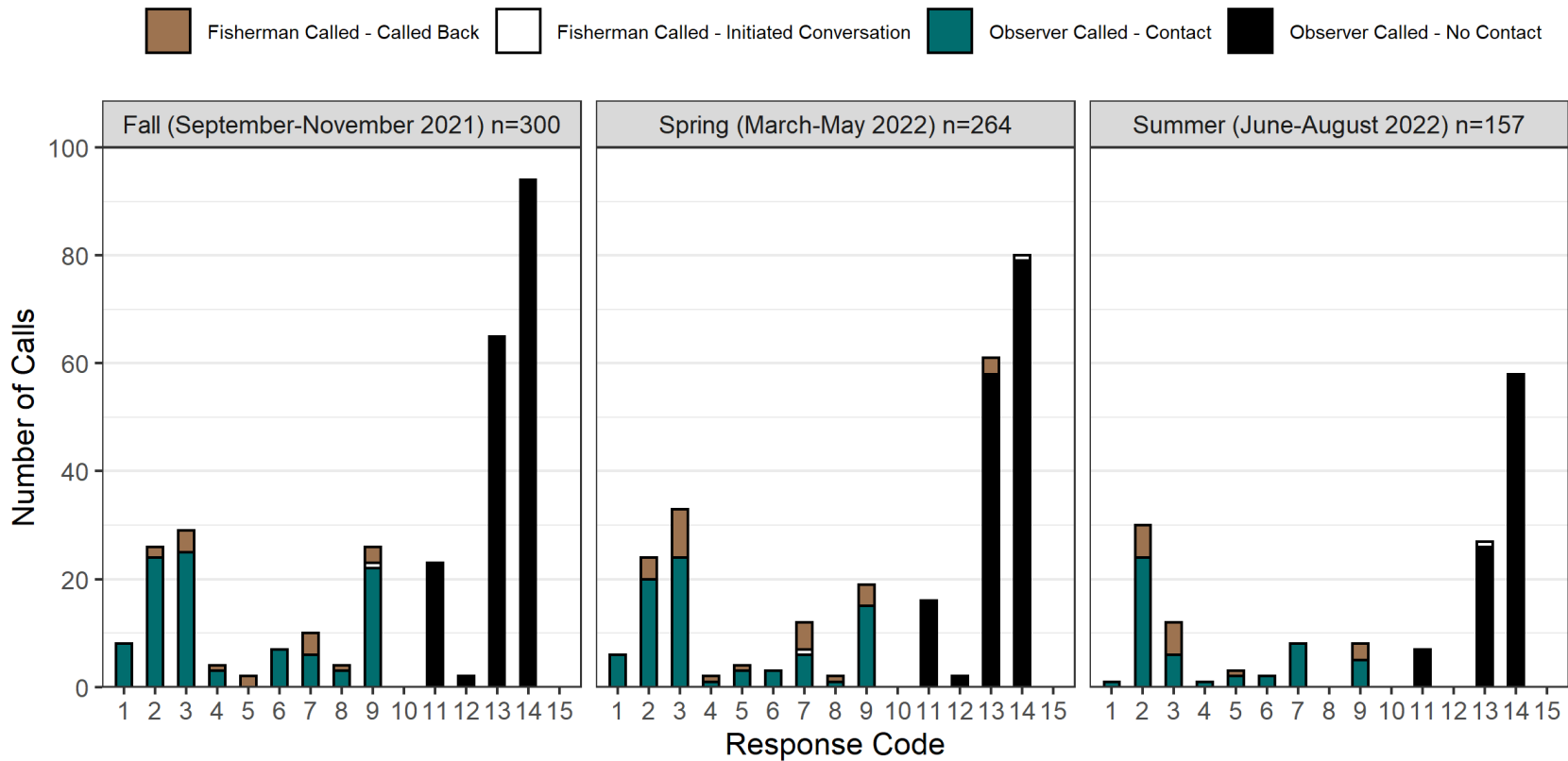


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8 APPENDICES

Appendix A. Withdrawal of Observer Waiver



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

Kathy Rawls
Director
North Carolina Division of Marine Fisheries
3441 Arendell Street
P.O. Box 769
Morehead City, NC 28557

April 5, 2022

Dear Ms. Rawls,

As part of the response to the COVID-19 pandemic, NOAA Fisheries temporarily waived requirements for federal fisheries in the Greater Atlantic Region to carry observers due to federal and state health guidance at that time. Consistent with that federal determination, on March 24, 2020, we temporarily waived the monitoring requirements for the North Carolina Division of Marine Fisheries' (NCDMF) Permits No. 16230 and No. 18102 issued under Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in internal North Carolina waters.

That approach was appropriate under the circumstances. However, in the United States and in North Carolina, the situation has changed and improved. COVID-19 vaccines are widely available and infection rates are declining. In response to the improved conditions, NMFS is withdrawing NCDMF's observer coverage waiver. This letter serves as NCDMF's 30-day notice to reinstate the monitoring requirements pursuant to these incidental take permits.

Please feel free to contact Wendy Piniak (wendy.piniak@noaa.gov) or Celeste Stout (celeste.stout@noaa.gov) with any questions.

We look forward to continuing to work with you on sea turtle and Atlantic sturgeon conservation in North Carolina.


Sincerely,

Kimberly Damon-Randall
Director,
Office of Protected Resources



Appendix A. continued

I acknowledge receipt of the correspondence above with regard to permit conditions and compliance under the Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in inshore waters of North Carolina.



Kathy B. Rawls
Director
N.C. Division of Marine Fisheries

4/11/2022

Date

Appendix B. NCDMF News release

Roy Cooper
Governor

Elizabeth S. Biser
Secretary DEQ



Kathy B. Rawls
Director

Release: Immediate
Date: April 20, 2021

Contact: [Patricia Smith](#)
Phone: 252-726-7021

Division of Marine Fisheries to resume onboard observations of estuarine gill net fisheries May 1

MOREHEAD CITY – The N.C. Division of Marine Fisheries will resume onboard observations of estuarine gill net fisheries beginning May 1. Onboard observations will be the primary method with limited use of alternative platform observations primarily conducted by Marine Patrol officers.

Division staff have been conducting alternate platform observations of estuarine gill net fisheries using division-owned boats since June 2020 in response to potential risks associated with COVID-19. The decision to resume onboard observations as the primary observation method is based on improved COVID-19 indicators. Under Executive Order 224 issued by Governor Roy Cooper for all cabinet agency employees, division staff are either fully vaccinated against COVID-19 or provide proof of weekly negative COVID-19 test results

Fishermen are reminded that an Estuarine Gill Net Permit (EGNP) is required to use anchored gill nets (large-mesh or small-mesh) in estuarine waters (commercially or recreationally), and one of the conditions of the EGNP is to allow division staff to observe gill net operations. Another condition of the EGNP is that fishermen must not avoid or mislead observers, which includes but is not limited to failing to return phone calls, failing to notify the division of a phone number change within 14 calendar days of such change, and providing incorrect information on fishing activity. Refusing to abide by permit conditions will result in suspension or revocation of the permit.

The EGNP is a critical step in meeting the requirements of the division's sea turtle and Atlantic sturgeon Incidental Take Permits issued by NOAA Fisheries under Section 10 of the Endangered Species Act.

Fishermen convicted of using anchored gill nets in internal coastal waters without holding an EGNP could be subject to a Class A1 misdemeanor.

The EGNP is available for free from the Division of Marine Fisheries. Fishermen can download an application [here](#). Completed applications may be emailed to License@ncdenr.gov or mailed to the Division of Marine Fishermen, License Office, P.O. Box 769, Morehead City 28557.

Fishermen also may submit completed applications in drop boxes provided at the following division offices:

DMF Headquarters
3441 Arendell St.
Morehead City
Phone: 252-726-7021 or 800-682-2632

Manteo Field Office
1021 Driftwood Dr.
Manteo
Phone 252-473-5734 or 800-405-7774

Website: <http://www.ncdenr.gov>
Facebook: <http://www.facebook.com/ncdeq>
Twitter: <http://twitter.com/NCDEQ>
RSS Feed: <http://portal.ncdenr.org/web/opa/news-releases-rss>
1601 Mail Service Center, Raleigh, NC 27699-1601

Appendix B. continued

Pamlico District Office

943 Washington Square Mall, Highway 17
Washington
Phone: 252-946-6481 or 800-338-7804

Southern District Office

127 Cardinal Drive Extension
Wilmington
Phone: 910-796-7215 or 800-248-4536

For more information about the Observer Program and observer coverage, contact the Protected Resources Program supervisor Barbie Byrd (phone: 252-808-8088; email: Barbie.Byrd@ncdenr.gov) or the Coastal Programs Manager, Casey Knight (phone: 252-808-8094; email: Casey.Knight@ncdenr.gov).

###

Website: <http://www.ncdenr.gov>
Facebook: <http://www.facebook.com/ncdeq>
Twitter: <http://twitter.com/NCDEQ>
RSS Feed: <http://portal.ncdenr.org/web/opa/news-releases-rss>
1601 Mail Service Center, Raleigh, NC 27699-1601



Annual Atlantic Sturgeon Interaction Monitoring of Anchored Gill-Net Fisheries
in North Carolina for Incidental Take Permit Year 2022
(1 September 2021–31 August 2022)

Annual Completion Report for Activities under Endangered Species Act
Section 10 Incidental Take Permit No. 18102

Barbie L. Byrd, Matthew R. Doster, and David J. Ushakow

North Carolina Department of Environmental Quality
North Carolina Division of Marine Fisheries
Protected Resources Program
3441 Arendell Street
Morehead City, NC 28557

28 February 2023

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1 INTRODUCTION

The North Carolina Division of Marine Fisheries (NCDMF) applied to National Marine Fisheries Service (NMFS) for an Incidental Take Permit (ITP) under Section 10(a)(1)(B) of the Endangered Species Act (ESA) of 1973 (Public Law 93-205, ESA) on 5 April 2012 for Atlantic Sturgeon (*Acipenser oxyrinchus*) interactions with anchored gill-net fisheries in North Carolina's estuarine waters. Anchored gill nets are a passive gear deployed with an anchor, stake, or boat at one or both ends of the net string or operation; they do not include run-around, strike, drop, or drift gill nets. The application for the ITP was prompted by notification from NMFS in February 2012 indicating the intent to list the Carolina Distinct Population Segment (DPS) of Atlantic Sturgeon as endangered under the ESA. The application proposed a Conservation Plan that ensured only an authorized level of Atlantic Sturgeon incidental takes would occur, while allowing North Carolina's estuarine anchored gill-net fisheries to operate. The ITP authorizes such takes that are incidental to otherwise lawful fishing activity. For this report, the term "gill net" refers to anchored gill nets and mesh sizes are provided as inches stretched mesh (ISM) unless stated otherwise.

The NCDMF received the Atlantic Sturgeon ITP (No. 18102) on 22 July 2014 after a final application was submitted on 2 January 2014, which included revisions on previous versions (79 FR 43716¹; McConnaughey et al. 2019a). The ITP had similarities with the Section 10 ITP (No. 16230) that NCDMF already had for incidental takes of sea turtles in estuarine anchored gill nets (78 FR 57132²). For example, the Atlantic Sturgeon ITP defined an ITP year as 1 September through 31 August of the following year, established annual authorized levels of incidental takes within geographic regions termed management units (Tables 1 and 2), and included a Conservation Plan to monitor, minimize, and mitigate incidental takes of Atlantic Sturgeon DPSs (i.e., of Gulf of Maine, New York Bight, Chesapeake, Carolina, and South Atlantic DPS) in otherwise lawful gill-net fisheries operating in North Carolina estuarine waters. The Conservation Plan in both ITPs included a state-wide estuarine gill-net observer program to monitor interactions that can be counted and extrapolated when applicable across the fishery within a given season and area. The ITPs required observer coverage thresholds as a minimum of 7% with a goal of 10% for large-mesh gill nets and a minimum of 1% with a goal of 2% for small-mesh gill nets. If observer data indicated that takes were approaching or exceeding authorized thresholds, the NCDMF could use an adaptive management approach to mitigate incidental takes by implementing temporary management options when needed using the NCDMF director's proclamation authority (143B-289.52; NCGS § 113-221.1).

There were a few differences, however, between the Atlantic Sturgeon and Sea Turtle ITPs. In contrast to the Sea Turtle ITP, the Atlantic Sturgeon ITP defined large-mesh gill nets as ≥ 5 ISM and small-mesh gill nets as < 5 ISM, included the winter season along with spring, summer, and fall, and defined five (A, B, C, D, and E) not six management units by combining the two Management Units D1 and D2 from the Sea Turtle ITP into a single unit (Figure 1). The Atlantic Sturgeon ITP also set observer coverage requirements across management units for a given season, not within each management unit in a season like the Sea Turtle ITP.

To maintain incidental takes below authorized levels, the Conservation Plan consisted of a variety of measures for gill nets operating in estuarine waters across the state. These measures primarily included the continuation of restrictions put in place for the anchored large-mesh gill-net fishery

¹ <https://www.federalregister.gov/documents/2014/07/28/2014-17645/endangered-species-file-no-18102>

² <https://www.federalregister.gov/documents/2013/09/17/2013-22592/endangered-species-file-no-16230>

for Southern Flounder (*Paralichthys lethostigma*) by the NCDMF Sea Turtle ITP²). These restrictions are implemented through proclamation. They include mitigation measures such as restricting soak time and days of the week, limiting net lengths, requiring separations between net shots in a single string, requiring low-profile net configurations, and implementing time/area closures (Table 3). However, based on historical information on where risk of incidental takes of sea turtles was the greatest, not all regulations for nets ≥ 4 ISM are applied in the same manner in each management unit. Additionally, NCDMF mirrors by proclamation the federal deep-water closure in Pamlico Sound from 1 September through 15 December (50 C.F.R. § 223.206 (d)(7) Exceptions to prohibitions relating to sea turtles). The Conservation Plan also requires the continuation of seasonal attendance requirements for anchored small-mesh gill nets that were outlined in the original application.

On 13 July 2017, the NCDMF requested a minor modification to the Atlantic Sturgeon ITP allocation of authorized takes in Management Units A and C to be listed as annual rather than seasonal takes. The NCDMF explained that annual take thresholds would provide greater flexibility in managing the fishery while minimizing the frequency of full seasonal closures. Further, the NCDMF emphasized that they would actively monitor fisheries and take levels daily to limit takes, particularly dead takes. On 19 July 2017, the NMFS sent a letter to the NCDMF agreeing with the request for the minor modification but encouraged staff to incorporate any further anticipated minor modifications into the application process for an updated ITP (McConnaughey et al. 2019a).

In recent years, regulatory changes related to several Fishery Management Plans (FMPs) have significantly reduced fishing effort using anchored large-mesh gill nets. One such example is the adoption of Amendment 2 of the Southern Flounder FMP on 23 August 2019 (NCDMF 2019). Regulatory measures in this amendment were a result of the most recent Southern Flounder stock assessment, which indicated that the stock was overfished, and overfishing was occurring. North Carolina state law requires management actions be taken to end overfishing within two years and to recover the stock from an overfished condition within 10 years. To meet these legal requirements, the NCDMF determined that a 62% reduction in overall harvest was necessary for 2019 and a 72% reduction would be needed beginning in 2020. These reductions were achieved through a variety of regulations for commercial and recreational sectors.

For the commercial gill-net fishery, these regulations severely limited where and when large-mesh gill nets harvesting flounder were allowed. For example, since fall 2019 the Southern Flounder commercial fisheries have been constrained by setting specific dates in the fall when fishing was allowed across three flounder management areas: Northern, Central, and Southern (Figure 1). The flounder management areas generally aligned with the ITP management units except for the Core Sound portion of Management Unit B, which was split into a different flounder management area (Southern) than the rest of Management Unit B (Central; Figure 1). Prior to fall 2019, the fishery was most active during the fall, but could operate January through November. Since the fall 2019, the number of days the fishery was open per management area has been reduced (Byrd et al. 2021, Byrd and Pensinger 2022). Other regulations included 25% reductions in allowed yardage of large-mesh gill nets and soak-time limits of large-mesh gill nets to overnight soaks state-wide where before this was not required for nets in Management Units A and C.

Regulatory changes related to the management of American Shad (*Alosa sapidissima*) and Striped Bass (*Morone saxatilis*) have also affected anchored large-mesh gill-net fisheries in the areas where these fisheries occur: Management Units A and C. The NC American Shad Sustainable Fishery Plan, which set sustainability parameters (i.e., biological reference points) for the American Shad stock in coastal rivers, was approved by the MFC in 2013. Due to sustainability parameters being exceeded in Management Unit A, the allowed season for anchored gill nets configured for harvesting American Shad in Management Unit A was limited initially to 1 February–14 April and then further reduced in 2014 to March 3–24 (NCDMF and North Carolina Wildlife Resources Commission [NCWRC] 2017). The season has been further constrained at times due to the concurrent harvest of the Albemarle Sound-Roanoke River (A-R) stock of Striped Bass in this fishery. Striped Bass are a desirable bycatch species in the American Shad fishery in Management Unit A. Because Striped Bass are managed by a quota, bycatch in the shad fishery can force the fishery to close early if the quota is met before the defined end to the shad season. Striped Bass management has also led to recent regulatory changes due to the adoption of the 2020 Revision of Amendment 1 of the North Carolina Estuarine Striped Bass Fishery Management Plan (FMP) (NCDMF and NCWRC 2020). For example, total allowable landings (TAL) was reduced from 275,000 pounds to 51,216 pounds, effective 1 January 2021. An area closure was implemented mid-season in 2021, closing the lower Chowan River and western Albemarle Sound to the use of gill nets based on historical bycatch of Striped Bass in that area (Proclamation M-9-2021; Table 4). Nevertheless, shad season closed on 18 March because the Striped Bass TAL was met (Proclamations M-7-2021, M-9-2021, M-10-2021; Table 4).

Regulations implemented in Management Unit C have all but ended anchored large-mesh gill-net fishery for shad there. Since 15 March 2019, all gill nets are prohibited in upstream portions of the Pamlico and Neuse rivers, greatly reducing the areas of Management Unit C open to gill nets (Proclamation M-6-2019; Table 4). Additionally, tie-down and distance from shore restrictions remain in place for large-mesh gill nets in the western Pamlico Sound and rivers as an effort to minimize Striped Bass bycatch in accordance with Supplement A to Amendment 1 of the Estuarine Striped Bass Fishery Management Plan (NCDMF and North Carolina Wildlife Resources Commission 2019). These restrictions reportedly make it difficult to successfully target and catch shad using anchored gill-net gear in Management Unit C. Decreasing trends in the number of reported trips support this effect on fishing effort as reported large-mesh gill-net trips in Management Unit C went from an average of 966 trips during spring between 2016–2018 to an average of 17 trips between 2019–2021.

This annual report outlines observer activity, fishing activity, and total or estimated takes of Atlantic Sturgeon for the 2022 ITP Year, 1 September 2021–31 August 2022. The original deadline for annual reports was 31 January per the ITP; however, in January 2017 the deadline was extended to the last day in February following a request by the NCDMF (McConnaughey et al. 2019a). Fishing activity was measured as the number of reported fishing trips; these data are finalized only for 2021 (fall and part of winter). After the preliminary data for 2022 are finalized in May 2023, observer coverage and authorized estimated Atlantic Sturgeon takes will be recalculated and finalized estimates will be provided to the NMFS in the form of an addendum.

2 METHODS

2.1 Observer Activity

A sea-day schedule of projected observer trips for each season by month and management unit during the 2022 ITP Year was developed during the prior season. The number of projected observer trips was based on the maximum goals for coverage outlined in the Conservation Plan: 10% coverage of total large-mesh gill-net fishing trips and 2% coverage of total small-mesh gill-net fishing trips. Data on commercial fishing effort come from the NCDMF Trip Ticket Program (TTP), whereby fish dealers complete a trip ticket every time a commercial fisher sells finfish and/or shellfish. Trip tickets record information such as gear type, area fished, species harvested, and total weight by species. For anchored gill nets, the TTP defines large-mesh (≥ 5 ISM) and small-mesh (< 5 ISM) gill nets the same as the Atlantic Sturgeon ITP. Projected observer trips were stratified across each month within four seasons and five management units proportional to the TTP data of reported fishing trips. The seasons crossed calendar years and were defined as follows: fall (September–November 2021), winter (December 2021–February 2022), spring (March–May 2022), and summer (June–August 2022). Although the Conservation Plan outlined in the Atlantic Sturgeon ITP identified five management units (A, B, C, D, and E), projected observer trips were allocated according to the Conservation Plan in the Sea Turtle ITP, which splits Management Unit D into D1 and D2 (Figure 1). Consistent with federal rule (50 C.F.R. § 223.206 (d)(7)), large-mesh gill nets operating in Pamlico Sound (Management Unit B) from 1 September through 15 December were confined to specific subunits (Shallow Water Gill-Net Restricted Areas 1-4, and Mainland Gill-Net Restricted Area), effectively closing the fishery in the deep waters of Pamlico Sound and in corridors near Ocracoke, Hatteras, and Oregon inlets (Proclamation M-17-2021; Table 4; Figure 1).

Projecting observer trips for the sea-day schedule typically has been calculated based on the average of reported small-mesh and large-mesh gill-net trips by month and management unit from the previous five years (e.g., 2016–2020 for the 2021 fall season). This method was not always a viable prediction of large-mesh fishing effort during the 2022 ITP Year due to changes in fisheries regulations for anchored large-mesh gill-net fisheries described above. For the fall flounder fishery, reported fishing trips for each of the previous five years were compared to the number of possible fishing days that year for each management unit separately. The resulting average of fishing trips per fishing day across the five years was applied to the number of days that the fishery would be open during fall 2021. These estimates of fishing effort were compared to the traditional five-year average; whichever number was greater was used to estimate the number of observed trips needed. The estimate of fishing effort in Management Unit D1 was set to zero because it has been closed to anchored large-mesh gill nets since 9 November 2017, when estimated Green Sea Turtle takes exceeded the authorized threshold (McConnaughey et al. 2019b, Byrd et al. 2020). For the American Shad fishery in Management Unit C, only the last three years (2019–2021) of reported fishing trips were used to project observer trips based on the precipitous drop in reported trips starting in 2019. This decrease was not apparent in reported trips in Management Unit A, so the five-year average between 2017–2021 was used instead. Outside of these seasons and areas, projected large-mesh observer trips were set to zero because large-mesh gill nets were not allowed.

The only accommodation that had to be made in estimating anchored small-mesh gill-net effort was for the D1 portion of Management Unit D. Management Unit D1 was closed to small-mesh gill nets starting on 20 April 2020 through 31 September 2021 (Proclamations M-4-2020, M-19-2021; Table 4). The number of estimated fishing trips was set to zero for September when D1 was

closed. Otherwise, the average reported fishing trips was calculated for D1 excluding the months of April–December 2020 and January–August 2021.

During the 2022 ITP Year, impacts to the observer program from the COVID-19 pandemic began to diminish. On 5 April 2022, NMFS withdrew the waiver of monitoring requirements for the NCDMF’ ITP Permits that had been provided on 23 March 2020 due to concerns about the transmission of COVID-19 (Appendix A). On 20 April 2022, NCDMF issued a news release announcing the plan to resume onboard observations starting 1 May 2022 (Appendix B). Nevertheless, scheduling onboard observations was difficult to obtain. All observed trips before 1 May 2022 and many trips afterward were alternative platform trips whereby two observers used a state-owned vessel to observe at a distance.

The constrained seasons for the large-mesh gill-net fisheries concentrate fishing effort and the required observer effort to sufficiently cover the fisheries. Recent changes to the hiring climate have made it difficult for NCDMF to hire seasonal observers to the extent needed. As a result, other NCDMF programs provided staff to help observe during the fall flounder and spring shad fisheries. The sea-day schedule was shared with Marine Patrol officers as in past years, who contribute to the total number of observed trips (all alternative platform) as part of their regular duties year around.

Obtaining observer trips was facilitated by the requirement for fishers participating in estuarine anchored gill-net fisheries to obtain an Estuarine Gill-Net Permit (EGNP; M-24-2014; Table 4). As part of this permit, fishers provide their contact information so that observers can call and schedule an observed trip. However, the permit is free, and many fishers get an EGNP but do not report trips using estuarine gill nets (Byrd et al. 2021, Byrd and Pensinger 2022). To streamline the contact attempts by observers, the License and Statistics Section of NCDMF provided data on EGNP holders that had reported anchored estuarine fishing trips during the last three years. The dataset included number of reported trips by mesh-size category (large and small) and management unit along with the name and contact information for the permit holder. This dataset was used to create a priority call list that was divided among observers. Other outreach efforts, such as visiting fish houses, were limited during the 2022 ITP Year. The website for the Observer Program (<https://deq.nc.gov/about/divisions/marine-fisheries/science-and-statistics/observer-program>) was available, but fishers were not necessarily reminded to access it.

Observers were trained by experienced NCDMF staff to identify, measure, evaluate condition of, and tag (with Passive Integrated Transponders [PIT]) Atlantic Sturgeon. Date, time, tag numbers, location (latitude and longitude), condition (e.g., no apparent harm, injury including a description of the nature of the injury, or mortality), total length (TL, mm), and fork length (FL, mm) were recorded for observed Atlantic Sturgeon interactions. Photographs, fin clips (for genetic analyses), and data on environmental parameters (e.g., salinity, water temperature) were also collected when feasible. Observers were instructed to retain any dead Atlantic Sturgeon when possible. Individual reports of observed interactions were communicated with NMFS within 24 hours

Observers also collected data on location and gear parameters. Alternative platform trips do not collect additional data on fish catch and bycatch. However, onboard observations resumed at the end of the ITP year and catch and bycatch data were collected on these trips. Limited data such as date and waterbodies surveyed were also collected for unsuccessful alternative platform attempts (hereafter termed “No Contact” trips) by observers and Marine Patrol. All data were coded onto NCDMF data sheets and uploaded to the NCDMF Biological Database for analysis. Observers and

Marine Patrol also log data into an ArcGIS application, Collector, in real time including set locations, gear parameters, and Atlantic Sturgeon interactions to provide daily total counts and estimates of bycatch.

Ongoing estimates of observer coverage were calculated by comparing the number of observed trips logged into Collector to the predicted number of fishing trips by mesh-size category and month. The numbers of ‘No Contact’ trips were not included in these calculations. At the end of the calendar year, the TTP provided actual numbers of reported trips to calculate observer coverage. The TTP data for 2021 (September–December) were finalized, but the data for 2022 (January–August) were preliminary. As a result, observer coverage calculated for winter, spring, and summer were considered estimates.

2.2 Incidental Takes

The ITP outlines authorized levels of incidental takes expressed as either estimated total takes based on observer data (Management Unit A) or counts of observed takes (Management Unit B, C, D, E) (Tables 1 and 2). Both types (estimated and counted) were necessary in the development of authorized levels because there were insufficient data available for modeling predicted estimated takes in the ITP application for some combinations of management unit and mesh-size category (Daniel 2014). To compare numbers of incidental takes of Atlantic Sturgeon during the 2022 ITP Year to authorized levels, actual observed takes were counted for Management Units B, C, D, E and estimated for Management Unit A. The DPS of the Atlantic Sturgeon could not be determined because genetic results were not available. Incidental take estimates for Management Unit A were calculated using the stratified ratio method where the bycatch rate (Atlantic Sturgeon caught per observed trip) calculated from observer data was multiplied by the total reported fishing trips.

$$\text{Estimated Interactions} = \left(\frac{\text{Atlantic Sturgeon interactions observed}}{\text{gill-net trips observed}} \right) * \text{total gill-net trips reported}$$

Throughout each month, this calculation was employed for each incidental take to determine the estimated number of interactions in Management Unit A by date of capture and disposition. For the real-time estimates, the projected number of fishing trips was used. Estimated numbers of interactions for Management Unit A and running totals of observed interactions in Management Units B, C, D, E were additive across interaction dates to determine if interactions were approaching authorized take thresholds. The ongoing comparisons allowed for the implementation of management measures, if needed, to prevent interactions from exceeding authorized levels. The estimated and/or total observed interactions were provided in weekly (when required) and monthly reports.

At the end of the ITP year, the estimated number of interactions for Management Unit A was recalculated using actual numbers of trips, albeit preliminary for 2022, reported in the TTP rather than the projected numbers of fishing trips. Nonparametric confidence intervals (95%) were calculated using standard bootstrapping techniques (Efron and Tibshirani 1993) using the ‘boot’ package in R (Canty and Ripley 2015; Davison and Hinkley 1997; R Core Team 2019). Bootstrap replicates were generated by sampling observer trips with replacement 5,000 times within strata (mesh/management unit).

2.3 Compliance

The Observer Program used various methods to contact fishers to schedule trips. The most common method was by phone, due to fishers leaving from private launches and overall efficiency. For each contact made to obtain a trip (phone call, text message, or in-person), observers logged the contact in a database, assigning a category of the response and noting any additional information (e.g., fisher stated they did not fish until October). Contact response categories included the following: 1) Left message with someone else; 2) Not fishing general; 3) Fishing other gear; 4) Not fishing because of weather; 5) Not fishing because of boat issues; 6) Not fishing because of medical issues; 7) Booked trip; 8) Hung up, got angry, trip refused; 9) Call back later time/date; 10) Saw in person; 11) Disconnected; 12) Wrong number; 13) No answer; 14) No answer, left voicemail; 15) Not fishing because of natural disaster (e.g., hurricane). Observers also documented calls returned from fishers, including the response category and notes. Contact log data were summarized by season and response category to determine the percentage of contacts that resulted in observer trips.

As part of their regular duties, Marine Patrol officers checked gill nets for compliance. Citations and/or Notice of Violations (NOVs) were issued to fishers when gear or fishing practices were out of compliance. A citation is an enforcement action taken by a Marine Patrol officer for person(s) found to be in violation of General Statutes, Rules, or Proclamations under the authority of the Marine Fisheries Commission and is considered a proceeding for District Court. An NOV is the NCDMF administrative process to suspend a permit (e.g., EGNP) and is initiated by an officer or NCDMF employee when a permit holder is found to be in violation of general or specific permit conditions. A citation and NOV may both be initiated by the same violation; however, they are two separate actions. For this report, citations and NOVs under the codes “EGNP” and “NETG” were compiled, as they are applicable to the EGNP and gill-net violations.

3 RESULTS

3.1 Observer Activity

Overall state-wide observer coverage during the 2022 ITP Year was 13.9% of the reported large-mesh gill-net trips and 2.7% of the small-mesh gill-net trips (Tables 5 and 6, Figure 2). This level of coverage was based on 366 observed large-mesh gill-net trips and 190 observed small-mesh gill-net trips. Additionally, there were 1,284 No Contact trips (Table 7). When anchored gill nets could not be found, occasional observations of drift (n=3) and runaround (n=49) gill-net trips occurred (Table 8).

During the 556 total observed trips, observers documented 15 Atlantic Sturgeon in large-mesh and 15 in small-mesh gill nets (Table 9, Figure 2). Six sturgeon that could not be identified to species were also observed, all in large-mesh gill nets. Two self-reported interactions were received by the Observer Program from small-mesh gill nets (Table 10).

Proclamations relative to anchored gill-net fisheries are listed in Table 4.

3.1.1 Fall 2021

On 1 October, Management Unit D1 was re-opened to anchored small-mesh gill nets (Proclamation M-19-2021; Table 4).

During fall 2021 (September–November), the Observer Program achieved 14.6% state-wide coverage of large-mesh gill-net trips, exceeding 7% coverage in each management unit (Table 5; Figure 3). For small-mesh gill nets, the Observer Program achieved 3.1% state-wide coverage, exceeding 1% observer coverage in each management unit except Management Unit C where observer coverage was 0.8% (Table 6; Figure 3). There also were 228 No Contact trips, three observed drift gill-net trips, and nine runaround gill-net trips (Tables 7 and 8).

Six of the 30 (20%) observed Atlantic Sturgeon interactions (4 alive, 2 dead) and one of the six (17%) observed unidentified sturgeon interactions (alive) occurred during fall (Table 9; Figure 3).

3.1.2 Winter 2021-2022

During winter 2021–2022 (December 2021–February 2022), the Observer Program achieved an estimated 16.7% state-wide coverage of large-mesh gill-net trips in the only open management unit, C (Table 5; Figure 4). For small-mesh gill nets, the Observer Program achieved an estimated 3.2% state-wide coverage, exceeding 1.0% in each management unit (Table 6; Figure 4). There were 340 No Contact trips and eight observed runaround gill-net trips (Tables 7 and 8).

Seven of the 30 (23%) observed Atlantic Sturgeon interactions (all alive) in gill nets occurred during winter (Table 9). All observed interactions occurred in Management Unit C with six observed in large-mesh gill nets and one observed in a small-mesh gill net. There were no observed interactions that could not be identified to species.

3.1.3 Spring 2022

Management Unit A was opened originally to anchored large-mesh gill nets from 3–24 March; however, allowed yardage was limited to 700 yards and the lower Chowan River and western Albemarle Sound were kept closed (Proclamation M-5-2022; Table 4). The shad large-mesh gill-net fishery closed early on 15 March because the A-R Striped Bass TAL was met (Proclamation M-6-2022; Table 4). Management Unit C closed to anchored large-mesh gill nets on 15 April (Proclamation M-8-2022; Table 4).

During spring 2022 (March–May), the Observer Program achieved an estimated 11.2% state-wide coverage of large-mesh gill-net trips (Table 5; Figure 5). Only Management Units A and C were open to large-mesh gill nets. While estimated observer coverage of large-mesh gill-net trips in Management Unit A was 11.9%, no observed trips occurred in Management Unit C because no effort could be found, despite 78 No Contact trips that occurred there looking for effort (Table 7). For small-mesh gill-net trips, the Observer Program achieved an estimated 1.7% state-wide coverage exceeding 1% observer coverage in each management unit (Table 6; Figure 5). There were 385 No Contact trips and 12 observed runaround gill-net trips (Tables 7 and 8).

Seventeen of the 30 (57%) observed Atlantic Sturgeon interactions (13 alive and 4 dead) and five of the six (83%) observed unidentified sturgeon interactions (4 alive, 1 dead) occurred during spring (Table 9, Figure 5). The two self-reported interactions were from small-mesh gill nets set during spring (Table 10). During April, a single take of a dead Atlantic Sturgeon in a small-mesh gill net in Management Unit A extrapolated to an estimated 52 dead Atlantic Sturgeon. This estimate was near the authorized number of 55 for small-mesh gill nets in the management unit. As a result, the NCDMF director issued Proclamation M-10-2022 closing Management Unit A to anchored gill nets regardless of mesh size on 28 April 2022 (Table 4). The closure was effective for the remainder of the ITP year.

3.1.4 Summer 2022

During summer 2022 (June–August), the Observer Program did not observe any large-mesh gill-net trips as the gear was prohibited state-wide (Table 5; Figure 6). For small-mesh gill-net trips, the Observer Program achieved an estimated 3.6% coverage across all open management units (B, C, D, and E), exceeding 1.0% in each one (Table 6; Figure 6). There were 331 No Contact trips and 20 observed runaround gill-net trips (Tables 7 and 8).

There were no observed Atlantic Sturgeon interactions in gill nets during summer.

3.2 Incidental Takes

Of the sturgeon takes during the 2022 ITP Year, most were released alive (Atlantic Sturgeon 24 out of 30; unidentified sturgeon 5 of 6; Table 9). Interactions occurred primarily during spring (~61%; 22 of 36), but were relatively equal among Management Units A (~39%; 14 of 36), B (~33%; 12 of 36), and C (~28%; 10 of 36). Of the 30 Atlantic Sturgeon interactions, half were observed small-mesh gill nets and half were observed in large-mesh gill nets (Table 9; Figures 2–6). The size range of Atlantic Sturgeon measured by observers was 510–1,117 mm TL (n=22, mean=763.0, SD=177.3) and 440–965 mm FL (n=21, mean=677.0, SD=159.5; Table 9; Figure 7). Of the eight Atlantic Sturgeon that were not measured, two fell out of the net and six (on three trips) were released by the fisher instead of given to the observer on the alternative platform vessel. All eight were positively identified as Atlantic Sturgeon by the observers. Additionally, the observers reminded the fishers of the requirement to give the animal to the observer. Of the six sturgeon that were not identified to species (all alive), five fell out of the net as it was being pulled in and one was released by the fisher before it could be identified. The fisher that released the unidentified sturgeon also was reminded of the requirement to give the animal to the observer. Observers noted that at times the fishers were eager to get the live sturgeon in the water and were concerned that it may die if it was given to the observer. In response to the number of times that the fishers did not give the sturgeon to an observer, the EGNP specific conditions form was edited in March 2022 to include explicit language to that fact: *“It is unlawful for an EGNP holder, as well as the master and crew members of the boat, to interfere with, or obstruct the observer in the course of collecting data or samples, which shall include refusal or failure to provide information on fishing gear parameters or to provide any captured finfish or sea turtle to division staff.”* It should be noted that depending on when the fisher renewed their EGNP during 2022, the condition form may or may not have included this updated language.

Observed take levels during the 2022 ITP Year did not reach the thresholds of allowed takes for any management unit (Tables 1 and 2). Using actual reported fishing trips (n=399) rather than estimated fishing trips (n=636), the estimated number of dead interactions in small-mesh gill nets in Management Unit A decreased from 52.0 to 32.5. The 30 observed Atlantic Sturgeon interactions resulted in an estimated 36.7 total live interactions and 29.1 total dead interactions in large-mesh gill nets and 13.0 total live interactions and 33.5 total dead interactions in small-mesh gill nets. The total live interactions in large-mesh gill nets represents 1.7% of the 2,203 allowable sturgeon takes; the total dead interactions in large-mesh gill nets represents 28.8% of the 101 allowable sturgeon takes. The total live interactions in small-mesh gill nets represents 1.8% of the 724 allowable sturgeon takes; the total dead interactions for small-mesh gill nets represents 49.3% of the 68 allowable sturgeon takes.

3.3 Compliance

During the 2022 ITP Year, there were 2,606 fishers with an EGNP; 90% (n=2,347) of the permit holders were commercial fishers (i.e., had a Standard Commercial Fishing License [SCFL] or Retired Standard Commercial Fishing License [RSCFL]) and 10% (n=259) were recreational fishers (i.e., had a Recreational Commercial Gear License [RCGL]). Of the commercial fishing permit holders, only 610 (26%) reported trips using anchored estuarine gill-net gear.

Using the priority call list of EGNP holders, 1,178 phone calls or in-person contacts were made with 36% (n=426) representing occasions where observers and fishers spoke to each other. Of the 426 conversations, 74 of them (17%) were a result of fishers returning observer phone calls. Nevertheless, only 3.6% (n=42) of the 1,178 contacts resulted in a booked trip (Figure 8). The greatest number of calls occurred during winter, and the least number of calls occurred in summer.

During the 2022 ITP Year, Marine Patrol officers issued 46 citations (Fall=34, Winter=4, Spring=6, Summer=2; Table 11) and 12 NOVs (Fall=10 and Spring=2; Table 12).

3.4 Marine Mammals

There was no observed marine mammal take during the 2022 ITP Year.

4 DISCUSSION

Incidental takes of Atlantic Sturgeon during the 2022 ITP Year were below authorized levels. The NCDMF observer program uses a combination of real-time monitoring of Atlantic Sturgeon interactions and an adaptive management approach to successfully control the number of interactions in estuarine anchored gill-net fisheries. Closing Management Unit A to gill nets during spring was a risk-adverse approach to maintain estimated take levels below those authorized. Though the estimated number of dead Atlantic Sturgeon interactions from a single take in a small-mesh gill net in Management Unit A was close to the number authorized in the permit, the estimate using reported fishing trips was more than 37% lower than the original estimate. Overall, most observed Atlantic Sturgeon were released alive, thereby limiting negative effects of these interactions on the DPSs. Including unidentified sturgeon, interactions continue to be more common in anchored large-mesh than small-mesh gill nets. This trend may be a result of differences in interaction rates between the two mesh-size categories and the fact that more than twice as many large-mesh gill nets are observed. The six observed sturgeon that could not be identified to species were likely Atlantic Sturgeon as the Observer Program has only documented two Shortnose Sturgeon, both in 2016 (Boyd 2017, 2018).

During the 2022 ITP Year, the Observer Program worked with other NCDMF programs and Marine Patrol to leverage assistance in obtaining coverage. Overall observer coverage during each season met or exceeded the minimum observer coverage levels outlined in the ITP for both mesh-size categories. When examining observer coverage at the management unit and season level, minimum levels were not met in Management Unit C for large-mesh gill nets during spring and in Management Unit C for small-mesh gill nets during fall. During spring, no large-mesh gill-net trips in Management Unit C were arranged in advance or found through alternative platform methods despite significant effort making phone calls and looking for effort on the water. Of the reported fishing trips there, all occurred before the observer waiver ended. During fall, observer coverage based on estimated fishing effort was 1.3% but using actual reported fishing trips observer coverage decreased to 0.8%. This does not mean, however, that the Observer Program

stopped trying to observe additional trips as the program always aims for the maximum observer coverage level (i.e., 10% of large-mesh and 2% of small-mesh).

Scheduling observed trips continues to be a challenge for the NCDMF Observer Program, not unlike other observer programs (e.g., Lyssikatos and Garrison 2018). The EGNP is a useful tool to improve compliance by including specific permit conditions requiring fishers to allow observers aboard their vessels to monitor catches and by providing contact information for permit holders. Phone calls made to EGNP holders contributed some to observers scheduling trips, but the success rate of observers even talking to a fisher was low (~36%) much less scheduling a trip. Although refusal of an observed trip by a fisher can result in a suspension of their EGNP, non-compliance typically does not include such a direct refusal. As such, non-compliance continues to be a hurdle for ensuring the observer coverage requirements for both ITPs are met. The NCDMF is in the beginning stages of developing a call-in system whereby fishers would be required to contact the Observer Program prior to fishing to determine if they were selected to take an observer for a given period of time (e.g., week).

Although onboard observations are the preferred method, alternative platform observations played a critical role to the continuation of observing gill nets during the 2022 ITP Year. There are several advantages to an alternative platform approach. For example, this approach does not rely on previous contact with fishers to obtain an observable trip. Alternative platform observations also allow Marine Patrol to conduct observations as part of their daily patrols; their observed trips contribute a substantial portion of the total alternative platform observations. Even for fishers who would willingly take an observer, many vessels used by gillnetters in estuarine waters are too small to easily accommodate an observer, making alternative platform observations ideal for capturing trips with this size class of vessel (Kolkmeier et al. 2007). Nevertheless, the alternative platform method has several drawbacks. First, it requires two observers, halving observer effort and program efficiency. Obtaining alternative platform observations does not always compensate for the difficulty in scheduling trips in advance. Because few observer trips were scheduled in advance, a significant amount of time was spent searching for fishing activity, especially when fishing activity was less concentrated. However, this effort by observers and Marine Patrol officers was sometimes unsuccessful at finding trips to observe. Outreach activities are an ongoing necessity to improve fisher compliance even when a call-in system is implemented. Outreach activities are planned for the second half of the 2023 calendar year.

When comparing the numbers of estimated fishing trips to the number of reported fishing trips, sometimes reported fishing trips were higher than the estimated and other times they were lower. The most consistent trend in the differences was during the fall flounder fishery when the numbers of reported large-mesh gill-net trips were higher in four out of five management units. Had the Observer Program only attempted to get 7% of estimated fishing trips, the minimum observer coverage would not have been met in those four management units. In fact, had the Observer Program stopped after getting 10% of estimated fishing trips, the minimum observer coverage would not have been met in two of those four management units. Significant changes to fishing regulations can result in changes to fishing behavior in ways that are difficult to predict. The Observer Program has made some adjustments already to how best to project observer trips needed to meet coverage requirements outlined in the ITP. Additional adjustments to the approach of estimating fishing effort are being assessed, especially for the fall flounder fishery to ensure that ITP observer coverage requirements are met.

5 LITERATURE CITED

- Boyd, J. 2017. Annual Atlantic sturgeon interaction monitoring of the anchored gill-net fisheries in North Carolina for Incidental Take Permit Year 2016. Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 18102. North Carolina Department of Environmental Quality, Division of Marine Fisheries. Morehead City, NC. 64 p.
- Boyd, J. 2018. Annual Atlantic sturgeon interaction monitoring of the anchored gill-net fisheries in North Carolina for Incidental Take Permit Year 2017. Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 18102. North Carolina Department of Environmental Quality, Division of Marine Fisheries. Morehead City, NC. 68 p.
- Byrd, B. L., J. K. McConnaughey, and S. A. Smith. 2020. Annual sea turtle interaction monitoring of the gill-net fisheries in North Carolina for Incidental Take Permit Year 2019 (1 September 2018–31 August 2019). Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230. North Carolina Department of Environmental Quality, North Carolina Division of Marine Fisheries (NCDMF), Morehead City, NC. 59 p.
- Byrd, B. L., J. K. McConnaughey, and S. A. Smith. 2021. Annual Atlantic Sturgeon interaction monitoring of anchored gill-net fisheries in North Carolina for Incidental Take Permit year 2020 (1 September 2019–31 August 2020). Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 41 p.
- Byrd, B. L., and L. G. Pensinger. 2022. Annual Atlantic Sturgeon interaction monitoring of anchored gill-net fisheries in North Carolina for Incidental Take Permit year 2021 (1 September 2020–31 August 2021). Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 37 p.
- Canty, A., and B. Ripley. 2015. Boot: bootstrap R (S-Plus) functions. R package version 1.3-17.
- Daniel, L. B. 2014. Application for an Individual Incidental Take Permit under the Endangered Species Act of 1973 for Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). NCDMF. Morehead City, NC. 2 January 2014. 165 p.
- Davison, A. C., and D. V. Hinkley. 1997. Bootstrap Methods and their Applications. Cambridge University Press, Cambridge.
- Efron, B., and R. J. Tibshirani. 1993. An Introduction to the Bootstrap. Chapman and Hall, New York.
- Kolkmeier, T., B. Guthrie, B. L. Byrd, and A. A. Hohn. 2007. Report on the alternative platform observer program in North Carolina: March 2006 to March 2007. NOAA Technical Memorandum. National Marine Fisheries Service (NMFS), NMFS-SEFSC-558, Beaufort, NC. 20 p.
- Lyssikatos, M. C., and L. P. Garrison. 2018. Common bottlenose dolphin (*Tursiops truncatus*) gillnet bycatch estimates along the US Mid-Atlantic coast, 2007-2015. NMFS, Northeast Fisheries Science Center, Reference Document 18-07, Woods Hole, MA. 37 p.

- McConnaughey, J. K., J. Boyd, and L. Klibansky. 2019a. Annual Atlantic Sturgeon interaction monitoring of the gill-net fisheries in North Carolina for Incidental Take Permit year 2018. Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 62 p.
- McConnaughey, J. K., J. Boyd, and L. Klibansky. 2019b. Annual sea turtle interaction monitoring of the gill-net fisheries in North Carolina for Incidental Take Permit year 2018. Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 16230. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 58 p.
- North Carolina Division of Marine Fisheries (NCDMF). 2019. North Carolina Southern Flounder (*Paralichthys lethostigma*) Fishery Management Plan Amendment 2. September 2019. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 62 p. Available (February 2023): <https://deq.nc.gov/media/30856/open>
- NCDMF and North Carolina Wildlife Resources Commission (NCWRC). 2017. North Carolina American Shad Sustainable Fishery Plan. North Carolina Division of Marine Fisheries. Morehead City, NC. 52 p. Updated 2020. Available (November 2022): http://www.asmfc.org/files/Shad%20SFMPs/NC_AmShad_SFMP_2020.pdf
- NCDMF and NCWRC. 2019. Supplement A to Amendment 1 to the North Carolina Estuarine Striped Bass Fishery Management Plan. Morehead City, NC. 40 p. Available (February 2023): <https://deq.nc.gov/media/30767/open>
- NCDMF and NCWRC. 2020. November 2020 Revision to Amendment 1 to the North Carolina Estuarine Striped Bass Fishery Management Plan. North Carolina Department of Environmental Quality, NCDMF, Morehead City, NC. 12 p. Available (February 2023): <https://deq.nc.gov/media/30772/open>.
- R Core Team. 2019. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.

6 TABLES

Table 1. For large-mesh (≥ 5 inches stretched mesh) gill nets, a comparison of actual (alive=11; dead=4) annual incidental takes of Atlantic Sturgeon by management unit during the 2022 ITP Year to authorized thresholds expressed as either estimated total takes based on observed takes (Management Unit A) or counts of actual observed takes (Management Units B–E). Authorized takes in Management Units D and E were for the Carolina Distinct Population Segment (DPS) only and listed as not applicable (n/a) for Other DPS. 95% confidence intervals are provided in brackets. Genetic results were not available to determine DPS of observed interactions.

Management Unit	Season	Authorized				Actual	
		Carolina DPS		Other DPS		All DPS	
		Alive	Dead	Alive	Dead	Alive	Dead
A	Annual	1,604	65	535	21	29.7 [6.5, 70.6]	29.1 [6.5, 92.7]
B	Annual	24	6	9	0	0	0
C	Annual	11	5	4	0	7	0
D	Annual	8	2	n/a	n/a	0	0
E	Annual	8	2	n/a	n/a	0	0
Total	Annual	1,655	80	548	21	36.7	29.1

Table 2. For small-mesh (<5 inches stretched mesh) gill nets, a comparison of actual (alive=13; dead=2) annual incidental takes of Atlantic Sturgeon by management unit during the 2022 ITP Year to authorized thresholds expressed as either total takes based on observed takes (Management Unit A) or counts of actual observed takes (Management Units B-E). Authorized takes in Management Units C, D, and E were for the Carolina Distinct Population Segment (DPS) only and listed as not applicable (n/a) for Other DPS. 95% confidence intervals are provided in brackets. Genetic results were not available to determine DPS of observed interactions.

Management Unit	Season	Authorized				Actual	
		Carolina DPS		Other DPS		All DPS	
		Alive	Dead	Alive	Dead	Alive	Dead
A	Annual	569	45	114	10	0	32.5 [0, 97.5]
B	Annual	14	5	3	0	10	1
C	Annual	8	4	n/a	n/a	3	0
D	Annual	8	2	n/a	n/a	0	0
E	Annual	8	2	n/a	n/a	0	0
Total	Annual	607	58	117	10	13.0	33.5

Table 3. Restrictions implemented for estuarine anchored gill nets ≥ 4 inches stretched mesh included in the current NCDMF Sea Turtle (No. 16230) and Atlantic Sturgeon (No.18102) Incidental Take Permits. Cells highlighted in gray had no restrictions per the ITPs. MU = Management Unit.

MU	Soak time	Days of the week	Net Length	Gear configuration	Low-profile requirements	Time/Area Closure
A north of US Hwy 64 bridge	Must be <24 hours soak time and fished before noon each day		Maximum net length per fishing operation is 2,000 yd (1.83 km).			Western Albemarle Sound in the vicinity of the mouth of the Roanoke River including the entire Roanoke River up to the dam in Weldon, permanently closed to all gill nets
A south of US Hwy 64 bridge	one hour before sunset to one hour after sunrise	Monday night – Friday morning	Maximum net length per fishing operation is 2,000 yd (1.83 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	
B	one hour before sunset to one hour after sunrise	Monday night - Friday morning	Maximum net length per fishing operation is 2,000 yd (1.83 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	Prohibition of large mesh gillnets in the deep-water portions of the Pamlico Sound and in Oregon, Hatteras, and Ocracoke inlets 1 September through 15 December
C	Must be <24 hours soak time and fished before noon each day		Maximum net length per fishing operation is 2,000 yd (1.83 km).			
D1	one hour before sunset to one hour after sunrise	Monday night – Friday morning	Maximum net length per fishing operation is 2,000 yd (1.83 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	Closed 8 May through 14 October
D2	one hour before sunset to one hour after sunrise	Sunday night – Friday morning	Maximum net length per fishing operation is 1,000 yd (0.91 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	
E	one hour before sunset to one hour after sunrise	Sunday night – Friday morning	Maximum net length per fishing operation is 1,000 yd (0.91 km).	Net-shot lengths < 100 yd with a 25-yd separation between each net-shot	Nets must not exceed 15 meshes in height and must have a lead core or leaded bottom line. Nets must not have cork, floats, or other buoys except those required for identification.	

Table 4. Regulations by effective date and regulation change for estuarine anchored gill nets during the 2022 ITP Year or referenced in the text for previous ITP years.

Year	Effective Date	Proclamation Number	Regulation
2014	1-Sep	M-24-2014	This proclamation established the requirement that makes it unlawful for holders of a Standard Commercial Fishing License (SCFL), Retired Standard Commercial Fishing License (RSCFL), or Recreational Commercial Gear License (RCGL) to deploy gill nets in Internal Coastal Waters with an exception for run around, strike, drop or drift gill nets, without possessing a valid Estuarine Gill Net Permit issued by the Division of Marine Fisheries.
2019	18-Mar	M-6-2019	This proclamation supersedes proclamation M-5-2019, dated March 7, 2019. This proclamation prohibits the use of ALL gill nets upstream of the ferry lines from the Bayview Ferry to Aurora Ferry on the Pamlico River and the Minnesott Beach Ferry to Cherry Branch Ferry on the Neuse River. It maintains tie-down (vertical net height restrictions) and distance from shore restrictions for gill nets with a stretched mesh length 5 inches and greater in the western Pamlico Sound and rivers (excluding the areas described in Section I. B.) in accordance with Supplement A to Amendment 1 to the N.C. Estuarine Striped Bass Fishery Management Plan.
2020	20-Apr	M-4-2020	This proclamation implements yardage and time-setting restrictions for gill nets with a stretched mesh length less than 4 inches and attendance restrictions for gill nets with a stretched mesh length less than 5 inches in the Internal Coastal Waters of the state, south of Management Unit A. Yardage limit increases will be considered for the May-October Spanish mackerel drift gill net fishery. Those increases will be implemented by proclamation at a later time.
2021	2-Mar	M-7-2021	This proclamation supersedes proclamation M-5-2021 dated January 29, 2021. It opens a portion of Management Unit A to the use of floating gill nets configured for harvesting American shad by removing vertical height and setting restrictions for all gill nets with stretched mesh lengths of 5 ¼ through 6 ½ inches.
2021	12-Mar	M-9-2021	This proclamation supersedes proclamation M-7-2021 dated February 25, 2021. It closes a portion of Management Unit A to the use of all gill nets and reduces the maximum amount of yards allowed for gill nets configured for harvesting American shad.

Table 4 continued

Year	Effective Date	Proclamation Number	Regulation
2021	18-Mar	M-10-2021	This proclamation supersedes proclamation M-9-2021 dated March 9, 2021. In Management Unit A, it removes gill nets configured for harvesting American shad. It maintains that it is unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 ¼ inches, and opens a portion of Management Unit A to the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish.
2021	14-Sep	M-16-2021	This proclamation supersedes proclamation M-12-2021 dated April 30, 2021. It opens Management Unit A to the use of gill nets for the purpose of harvesting flounder in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles. It maintains the exempted areas in MUA open to the use of runaround, strike, drop, and trammel gill nets to harvest blue catfish. It also maintains small mesh gill net attendance requirements in the entirety of Management Unit A
2021	15-Sep	FF-40-2021	This proclamation supersedes Proclamation FF-25-2020, dated June 15, 2020. It establishes commercial flounder season dates for Internal Coastal Waters by Flounder Management Area. It maintains a 15-inch total length minimum size limit. It also maintains the regulation making it unlawful to possess flounder taken from anchored large mesh gill nets with a stretched mesh length less than 6 inches. It makes it unlawful for a commercial fishing operation to possess flounder from the Atlantic Ocean Waters taken by any method other than trawls. This action is being taken to comply with the requirements of Amendment 2 to the N.C. Southern Flounder Fishery Management Plan
2021	1-Oct	M-17-2021	This proclamation supersedes proclamation M-11-2021 dated April 9, 2021. This proclamation opens Management Units B (subunits only), C, D2 and E to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section III.) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles
2021	1-Oct	M-18-2021	This proclamation supersedes proclamation M-16-2021 dated September 2, 2021. It closes Management Unit A to the use of large mesh gill nets with overnight soaks for the purpose of harvesting flounder and keeps open a portion of Management Unit A to the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish. It maintains small mesh gill net attendance requirements in the entirety of Management Unit A.
2021	1-Oct	M-19-2021	This proclamation supersedes proclamation M-14-2021 dated June 25, 2021. It opens Management Unit D1 to the use of gill nets with a stretched mesh length of less than 4 inches

Table 4 continued

Year	Effective Date	Proclamation Number	Regulation
2021	19-Oct	M-22-2021	This proclamation supersedes proclamation M-17-2021 dated September 24, 2021. This proclamation closes Management Unit B (subunits SGNRA 1-4, MGNRA and portions of CGNRA) and Management Unit C to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section III.) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles
2021	21-Oct	M-23-2021	This proclamation supersedes proclamation M-22-2021 dated October 14, 2021. This proclamation closes all management units south of Management Unit A to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section III.) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan and the Incidental Take Permit for Sea Turtles
2021	1-Dec	M-24-2021	This proclamation supersedes proclamation M-18-2021 dated September 28, 2021. In Management Unit A, it removes attendance requirements and imposes vertical height restrictions for anchored gill nets with a stretched mesh length of 3 inches through 3 ¾ inches. It maintains the exempted portion of Management Unit A that allows the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches to harvest blue catfish.
2022	1-Jan	M-2-2022	This proclamation supersedes proclamation M-24-2021 dated November 30, 2021. In Management Unit A, it is unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 ¼ inches. It maintains the exempted portion of Management Unit A that allows the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches to harvest blue catfish.
2022	15-Feb	M-4-2022 (REVISED)	This proclamation supersedes proclamation M-23-2021 dated October 14, 2021. This proclamation opens Management Unit C to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches and implements gear exemptions for the shad fishery in all areas south of Management Unit A in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan.
2022	2-Mar	M-5-2022	This proclamation supersedes proclamation M-2-2022 dated December 17, 2021. It opens a portion of Management Unit A to the use of floating gill nets configured for harvesting American shad by removing vertical height and setting restrictions for all gill nets with stretched mesh lengths of 5 ¼ through 6 inches

Table 4 continued

Year	Effective Date	Proclamation Number	Regulation
2022	15-Mar	M-6-2022	This proclamation supersedes proclamation M-5-2022 dated February 22, 2022. In Management Unit A, it removes gill nets configured for harvesting American shad and it remains unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 ¼ inches. It opens an exempted portion of Management Unit A that allows the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches to harvest blue catfish.
2022	15-Apr	M-8-2022	This proclamation supersedes proclamation M-4-2022 (REVISED), dated February 11, 2022. This proclamation closes all of Management Unit C and maintains closures in all other management units south of Management Unit A to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches (except as described in Section II.: coincides with the commercial shad fishery closure) in accordance with Amendment 2 to the N.C. Southern Flounder Fishery Management Plan.
2022	28-Apr	M-10-2022	This proclamation supersedes proclamation M-9-2022 dated April 26, 2022. This proclamation makes it unlawful to use fixed or stationary gill nets of any mesh size in Management Unit A due to dead sturgeon takes nearing the authorized amount for Management Unit A. A portion of Management Unit A remains open to the use of run-around, strike and drop gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish. Run-around, strike and drop gill nets with a stretched mesh length of 3 inches through 4 inches may also still be used in portions of Management Unit A. This action is being taken to comply with the Division of Marine Fisheries' Federal Incidental Take Permit for endangered Atlantic sturgeon.
2022	1-May	M-9-2022	This proclamation supersedes proclamation M-6-2022 dated March 11, 2022. In Management Unit A, it implements small mesh gill net attendance requirements. It stipulates that it is unlawful to use fixed or stationary gill nets with a stretched mesh length other than 3 inches through 3 ¾ inches and keeps open a portion of Management Unit A to the use of run-around, strike, drop, and trammel gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches for harvesting blue catfish.
2022	2-May	M-11-2022	This proclamation supersedes proclamation M-19-2021 dated September 28, 2021. It increases the yardage limits for the commercial Spanish mackerel drift gill net fishery in Management Unit B.
2022	21-Jun	M-13-2022	This proclamation supersedes proclamation M-11-2022 dated April 29, 2022. It decreases the yardage limits for the commercial Spanish mackerel drift gill net fishery in Management Unit B.

Table 5. For large-mesh (≥ 5 inches stretched mesh) gill nets, observer coverage (observed trips/fishing trips) calculated by season and management unit for the 2022 ITP Year. Observer coverage was calculated using estimated fishing trips based on the Trip Ticket Program data and actual reported trips from the program. Anchored large-mesh gill nets were prohibited in the eastern portion of Management Unit D during all seasons and were prohibited seasonally in whole management units during one or more seasons (“closed”). Trip Ticket Program data are considered finalized for 2021 and preliminary for 2022.

Season	Management Unit	Large Mesh				
		Estimated Fishing Trips	Reported Fishing Trips	Observed Trips	Coverage of Estimated Fishing Trips	Coverage of Reported Fishing Trips
Fall 2021	A	563	723	102	18.1	14.1
	B	397	643	85	21.4	13.2
	C	189	198	34	18.0	17.2
	D	111	80	23	20.7	28.8
	E	282	493	67	23.8	13.6
	Overall	1,542	2,137	311	20.2	14.6
Winter 2021- 2022	A	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	B	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	C	14	6	1	7.1	16.7
	D	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	E	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	Overall	14	6	1	7.1	16.7
Spring 2022	A	752	453	54	7.2	11.9
	B	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	C	9	30	0	0.0	0.0
	D	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	E	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	Overall	761	483	54	7.1	11.2
Summer 2022	A	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	B	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	C	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	D	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	E	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	Overall	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
Annual		2,317	2,626	366	15.8	13.9

Table 6. For small-mesh (<5 inches stretched mesh) gill nets, (observed trips/fishing trips) calculated by season and management unit for the 2022 ITP Year. Observer coverage was calculated using estimated fishing trips based on the Trip Ticket Program data and actual reported trips from the program. Anchored small-mesh gill nets were prohibited in the eastern portion of Management Unit D during September and in Management Unit A during part of spring (effective 28 April) and all of summer (“closed”). Trip Ticket Program data are considered finalized for 2021 and preliminary for 2022.

Season	Management Unit	Small Mesh				
		Estimated Fishing Trips	Reported Fishing Trips	Observed Trips	Coverage of Estimated Fishing Trips	Coverage of Reported Fishing Trips
Fall 2021	A	294	241	5	1.7	2.1
	B	920	956	20	2.2	2.1
	C	150	239	2	1.3	0.8
	D	215	100	8	3.7	8.0
	E	412	259	21	5.1	8.1
	Overall	1,991	1,795	56	2.8	3.1
Winter 2021- 2022	A	642	825	26	4.0	3.2
	B	599	669	7	1.2	1.0
	C	256	221	7	2.7	3.2
	D	47	3	2	4.3	66.7
	E	104	115	17	16.3	14.8
	Overall	1,648	1,833	59	3.6	3.2
Spring 2022	A	636	399	8	1.3	2.0
	B	1,254	1,862	20	1.6	1.1
	C	172	298	5	2.9	1.7
	D	49	37	1	2.0	2.7
	E	104	118	13	12.5	11.0
	Overall	2,215	2,714	47	2.1	1.7
Summer 2022	A	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>	<i>closed</i>
	B	896	514	13	1.5	2.5
	C	66	112	2	3.0	1.8
	D	30	15	3	10.0	20.0
	E	189	147	10	5.3	6.8
	Overall	1,181	788	28	2.4	3.6
Annual		7,035	7,130	190	2.7	2.7

Table 7. Number of “No Contact” trips (n=1,284) by season and management unit completed by Marine Patrol and observers during the 2022 ITP Year. No Contact refers to unsuccessful attempts to find and observe anchored gill-net effort.

Season	Management Unit	Marine Patrol No Contact Trips	Observer No Contact Trips	Total No Contact Trips
Fall 2021	A	38	10	48
	B	6	11	17
	C	27	3	30
	D	6	4	10
	E	123	0	123
	Overall	200	28	228
Winter 2021-2022	A	73	0	73
	B	32	17	49
	C	35	16	51
	D	26	9	35
	E	132	0	132
	Overall	298	42	340
Spring 2022	A	45	4	49
	B	28	19	47
	C	65	13	78
	D	24	12	36
	E	174	1	175
	Overall	336	49	385
Summer 2022	A	<i>closed</i>	<i>closed</i>	<i>closed</i>
	B	44	23	67
	C	63	11	74
	D	18	7	25
	E	165	0	165
	Overall	290	41	331
Annual		1,124	160	1,284

Table 8. Number of drift and runaround gill-net observations by season and management unit completed by Marine Patrol and observers during the 2022 ITP Year.

Season	Management Unit	Observed Drift Gill-net Trips	Observed Runaround Gill-net Trips	Total Observed Trips
Fall 2021	A	3	0	3
	B	0	1	1
	C	0	5	5
	D	0	2	2
	E	0	1	1
	Overall	3	9	12
Winter 2021-2022	A	0	0	0
	B	0	2	2
	C	0	6	6
	D	0	0	0
	E	0	0	0
	Overall	0	8	8
Spring 2022	A	0	1	1
	B	0	1	1
	C	0	8	8
	D	0	2	2
	E	0	0	0
	Overall	0	12	12
Summer 2022	A	0	0	0
	B	0	5	5
	C	0	13	13
	D	0	1	1
	E	0	1	1
	Overall	0	20	20
Annual		3	49	52

Table 9. Summary of observed Atlantic Sturgeon (AS: n=30) and unidentified sturgeon (US: n=6) interactions in large-mesh (≥ 5 inches stretched mesh) and small-mesh (< 5 inches stretched mesh) gill nets during the 2022 ITP Year. PIT=Passive Integrated Transponders. n/r=not recorded. TL=Total Length. FL=Fork Length.

Date	Season	Management Unit	Species	Mesh-size Category	Latitude (N)	Longitude (W)	Disposition	PIT Tag Number	TL (mm)	FL (mm)
9/29/2021	Fall	A	AS	Large	36.18149	76.06529	Alive	982000362189138	510	440
9/29/2021	Fall	A	AS	Large	36.17755	76.06398	Dead		n/r	n/r
9/30/2021	Fall	A	AS	Large	35.94724	75.93577	Dead		970	870
10/13/2021	Fall	C	AS	Large	35.47988	76.59851	Alive	982000410635526	732	650
10/19/2021	Fall	B	US	Large	35.43401	76.39879	Alive		n/r	n/r
11/28/2021	Fall	B	AS	Small	35.61118	75.52951	Alive		n/r	n/r
11/28/2021	Fall	B	AS	Small	35.61118	75.52951	Alive		n/r	n/r
2/16/2022	Winter	C	AS	Large	34.92714	76.77534	Alive	982000407680774	609	520
2/16/2022	Winter	C	AS	Large	34.92714	76.77534	Alive		685	584
2/16/2022	Winter	C	AS	Large	34.92714	76.77534	Alive	982000410599266	1,003	850
2/16/2022	Winter	C	AS	Large	34.92714	76.77493	Alive		622	558
2/16/2022	Winter	C	AS	Large	34.93110	76.74526	Alive	982000410637991	1,016	939
2/16/2022	Winter	C	AS	Large	34.93240	76.74508	Alive	982000410641556	1,117	965
2/17/2022	Winter	C	AS	Small	34.99394	76.64333	Alive	982000410638088	977	889
3/03/2022	Spring	A	AS	Large	36.03018	76.45561	Alive	982000362189138	863	n/r
3/03/2022	Spring	A	US	Large	35.91311	75.75770	Alive		n/r	n/r
3/10/2022	Spring	A	AS	Large	36.05578	76.36754	Alive		593	509
3/11/2022	Spring	A	US ^a	Large	35.89257	75.74147	Alive	982000410635526	n/r	n/r
3/11/2022	Spring	A	US ^a	Large	35.89257	75.74147	Alive		n/r	n/r
3/11/2022	Spring	A	US	Large	35.89606	75.76408	Alive		n/r	n/r
3/14/2022	Spring	A	AS ^b	Large	35.89153	75.73839	Dead		859	748

Table 9 continued

Date	Season	Management Unit	Species	Mesh-Size Category	Latitude (N)	Longitude (W)	Disposition	PIT Tag Number	TL (mm)	FL (mm)
3/14/2022	Spring	A	AS ^b	Large	35.89153	75.73839	Dead		716	609
3/14/2022	Spring	A	AS ^b	Large	35.89152	75.73830	Alive		990	870
3/14/2022	Spring	A	US ^b	Large	35.89013	75.73828	Dead		n/r	n/r
3/17/2022	Spring	C	AS ^c	Small	34.99171	76.61793	Alive		n/r	n/r
3/17/2022	Spring	C	AS ^c	Small	34.99171	76.61793	Alive		n/r	n/r
4/12/2022	Spring	B	AS	Small	35.58775	75.48206	Alive		605	510
4/13/2022	Spring	B	AS ^d	Small	35.61091	75.48332	Alive		n/r	n/r
4/13/2022	Spring	B	AS ^d	Small	35.61091	75.48332	Alive		n/r	n/r
4/13/2022	Spring	B	AS ^d	Small	35.60804	75.48349	Alive		n/r	n/r
4/26/2022	Spring	A	AS	Small	36.10834	76.30393	Dead		558	508
4/27/2022	Spring	B	AS	Small	35.60403	75.48025	Alive	982000362191909	635	561
4/28/2022	Spring	B	AS ^e	Small	35.60764	75.48148	Alive	982000410606734	687	610
4/28/2022	Spring	B	AS ^e	Small	35.60409	75.48047	Alive	982000362056178	683	650
4/28/2022	Spring	B	AS ^e	Small	35.60528	75.48118	Alive	982000362055998	685	615
5/06/2022	Spring	B	AS	Small	35.55478	75.52171	Dead		712	641

^a caught on the same trip

^b caught on the same trip

^c caught on the same trip

^d caught on the same trip

^e caught on the same trip

Table 10. Summary of Atlantic Sturgeon (AS: n=2) interactions in estuarine anchored gill nets reported by fishers during the 2022 ITP Year. small-mesh=<5 inches stretched mesh. n/r=not recorded. TL=Total Length. FL=Fork Length. An asterisk (*) represents estimated location by the fisher.

Date	Season	Management Unit	Species	Mesh-Size Category	Latitude (N)	Longitude (W)	Disposition	TL (mm)	FL (mm)
3/15/2022	Spring	C	AS	Small	n/r	n/r	Alive	n/r	n/r
4/25/2022	Spring	A	AS	Small	36.12840*	75.74747*	Alive	n/r	n/r

Table 11. Citations (n=46) written by Marine Patrol officers for estuarine anchored gill nets by violation date and code during the Incidental Take Permit Year 2022.

Season	Date	Code	Description
Fall	9/17/2021	NETG60	Use gill nets with a mesh size of more than 6.5 inches (stretched mesh) in violation of proclamation M-7-12
Fall	9/30/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	9/30/2021	NETG55	Violate the provisions of Proclamation M-30-2011 to wit set gill nets before one hour before sunset Proclamation M-30-11
Fall	9/30/2021	NETG44	Use large mesh gill nets w/out leaving a space of at least 25 yards between separate lengths of net Proclamation M-8-2010
Fall	9/30/2021	NETG55	Violate the provisions of Proclamation M-30-2011 to wit set gill nets before one hour before sunset Proclamation M-30-11
Fall	9/30/2021	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday Proclamation M-8-2010
Fall	9/30/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	10/1/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/4/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/4/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/4/2021	NETG10	Gill net with illegal mesh size
Fall	10/4/2021	NETG10	Gill net with illegal mesh size
Fall	10/5/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	10/5/2021	NETG62	Take flounder from large mesh less than 6 inches Proclamation FF-40-2021
Fall	10/5/2021	NETG04	Leave gill net in waters when could not be legally fished
Fall	10/6/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/6/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/6/2021	NETG30	Leave RCGL gill net unattended 3O.09302
Fall	10/6/2021	NETG54	Violate provisions of Proclamation M-30-2011 to wit failed to have 25-yard space between nets 3H.0103
Fall	10/6/2021	NETG22	Improperly set gill net
Fall	10/12/2021	NETG03	Using gill net with improper buoys or identification

Table 11 continued

Season	Date	Code	Description
Fall	10/12/2021	NETG39	Use large mesh gill nets more than 15 meshes in height and w/out lead core or leaded bottom-line Proclamation M-8-2010
Fall	10/14/2021	NETG22	Improperly set gill net
Fall	10/19/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/19/2021	EGNP10	Set more than the legal length of gill net
Fall	10/19/2021	NETG22	Improperly set gill net
Fall	10/19/2021	NETG46	Set or retrieve large mesh gill nets later than one hour after sunrise on Tuesday through Friday Proclamation M-8-2010
Fall	11/9/2021	NETG01	Leave gill net in coastal waters unattended
Fall	11/9/2021	NETG02	Using gill net without buoys or identification
Fall	11/10/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	11/10/2021	NETG01	Leave gill net in coastal waters unattended
Fall	11/10/2021	NETG02	Using gill net without buoys or identification
Fall	11/10/2021	NETG30	Leave RCGL gill net unattended 3O.09302
Fall	11/30/2021	NETG29	RCGL gear without proper buoys 3J.0103(c)
Winter	1/20/2022	NETG22	Improperly set gill net
Winter	2/1/2022	NETG09	Gill net set too close to bridge
Winter	2/3/2022	EGNP10	Set more than the legal length of gill net
Winter	2/3/2022	NETG03	Using gill net with improper buoys or identification
Spring	3/1/2022	NETG55	Violate the provisions of Proclamation M-30-2011 to wit set gill nets before one hour before sunset Proclamation M-30-11
Spring	3/1/2022	NETG03	Using gill net with improper buoys or identification
Spring	3/22/2022	NETG02	Using gill net without buoys or identification
Spring	4/6/2022	NETG22	Improperly set gill net
Spring	4/6/2022	NETG01	Leave gill net in coastal waters unattended
Spring	5/22/2022	NETG04	Leave gill net in waters when could not be legally fished
Summer	6/1/2022	NETG12	Net in middle third of marked navigational channel
Summer	6/14/2022	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit

Table 12. Notice of Violations (n=12) written by Marine Patrol officers for Estuarine Gill Net Permit (EGNP) holders using estuarine anchored gill nets by violation date and code during the Incidental Take Permit Year 2022.

Season	Date	Code	Description
Fall	9/17/2021	EGNP10	Set more than the legal length of gill net
Fall	9/18/2021	EGNP25	Refuse to allow fisheries observers onboard or collect data
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP30	Failure to comply with gill net configurations outlined in proclamation
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Fall	9/30/2021	EGNP10	Set more than the legal length of gill net
Fall	11/9/2021	EGNP99	Failure to comply with statutes(s), rules(s), and/or proclamation(s)
Fall	11/9/2021	EGNP09	Failure to set or retrieve nets in accordance with time restrictions.
Spring	4/6/2022	EGNP11	Failure to attend nets
Spring	5/22/2022	EGNP99	Failure to comply with statutes(s), rules(s), and/or proclamation(s)

7 FIGURES

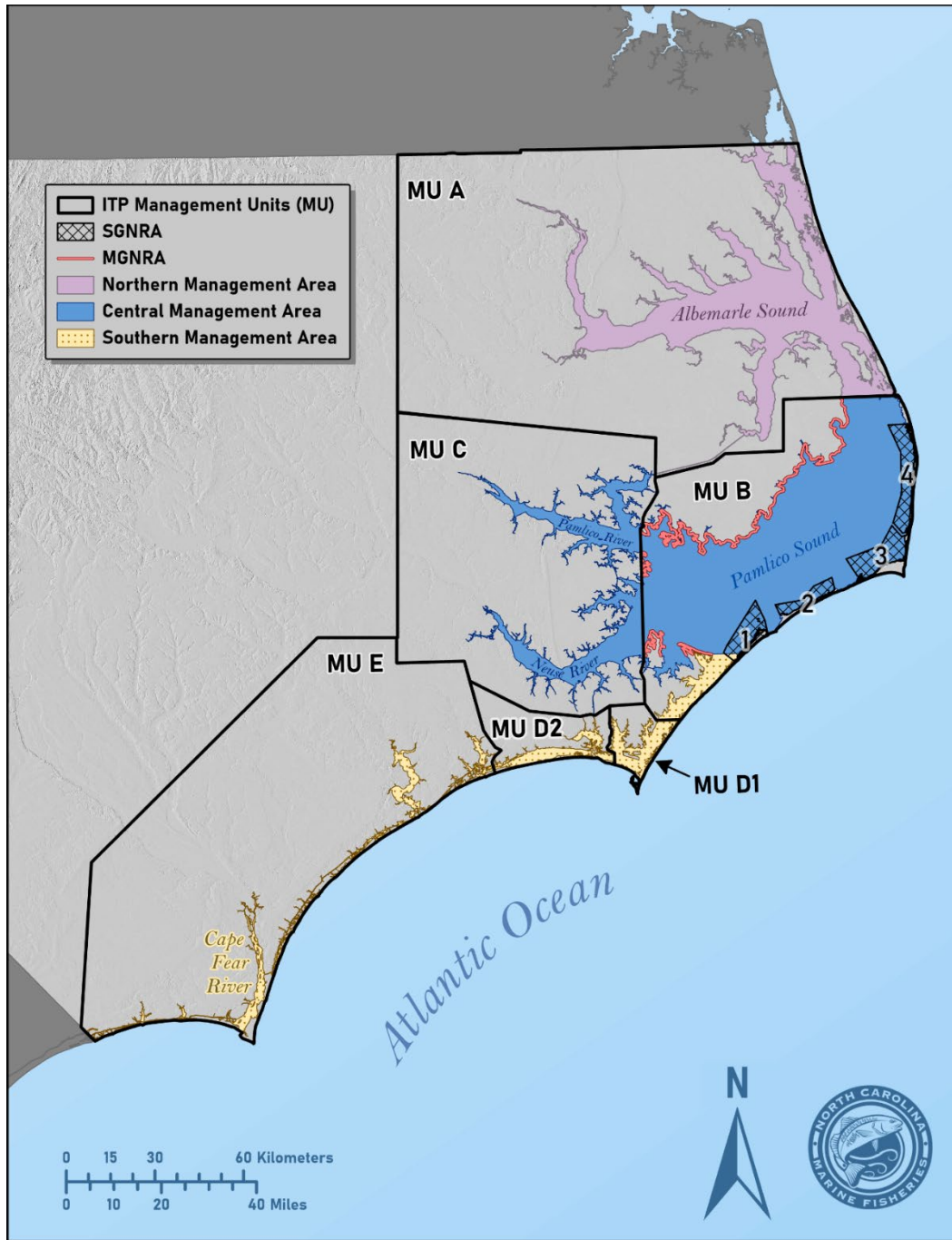


Figure 1. Management Units (A, B, C, D [D1 and D2], and E) as outlined in the Incidental Take Permit (ITP) Conservation Plan and used by the Observer Program during the 2022 ITP Year. In the Pamlico Sound portion of B, gill nets with a mesh size of ≥ 4 inches were confined to Shallow Water Gill-Net Restricted Areas (SGNRA) 1–4 and the Mainland Gill-net Restricted Area (200 yards from shore) from 1 September through December 15. The three Southern Flounder Management Areas are differentiated by color: northern (pink), central (blue), and southern (yellow).

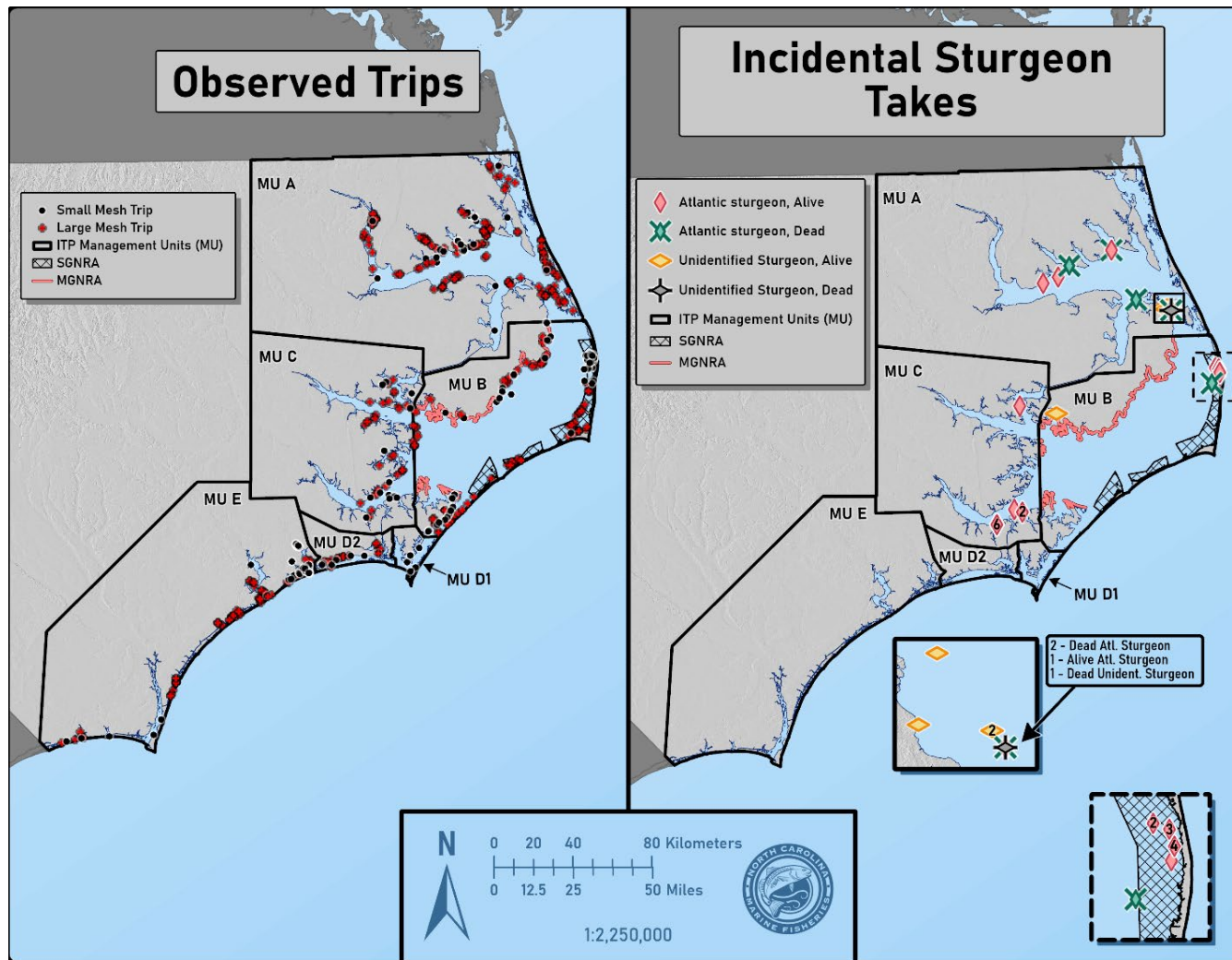


Figure 2. For the entire 2022 ITP Year, observed gill-net trips (left) by mesh-size category (366 large-mesh [≥ 5 inches stretched mesh]; 196 small-mesh [< 5 inches stretched mesh]) and sturgeon interactions (right) by species and disposition (Atlantic Sturgeon: 24 alive, 6 dead; unidentified sturgeon: 5 alive, 1 dead) across management units.

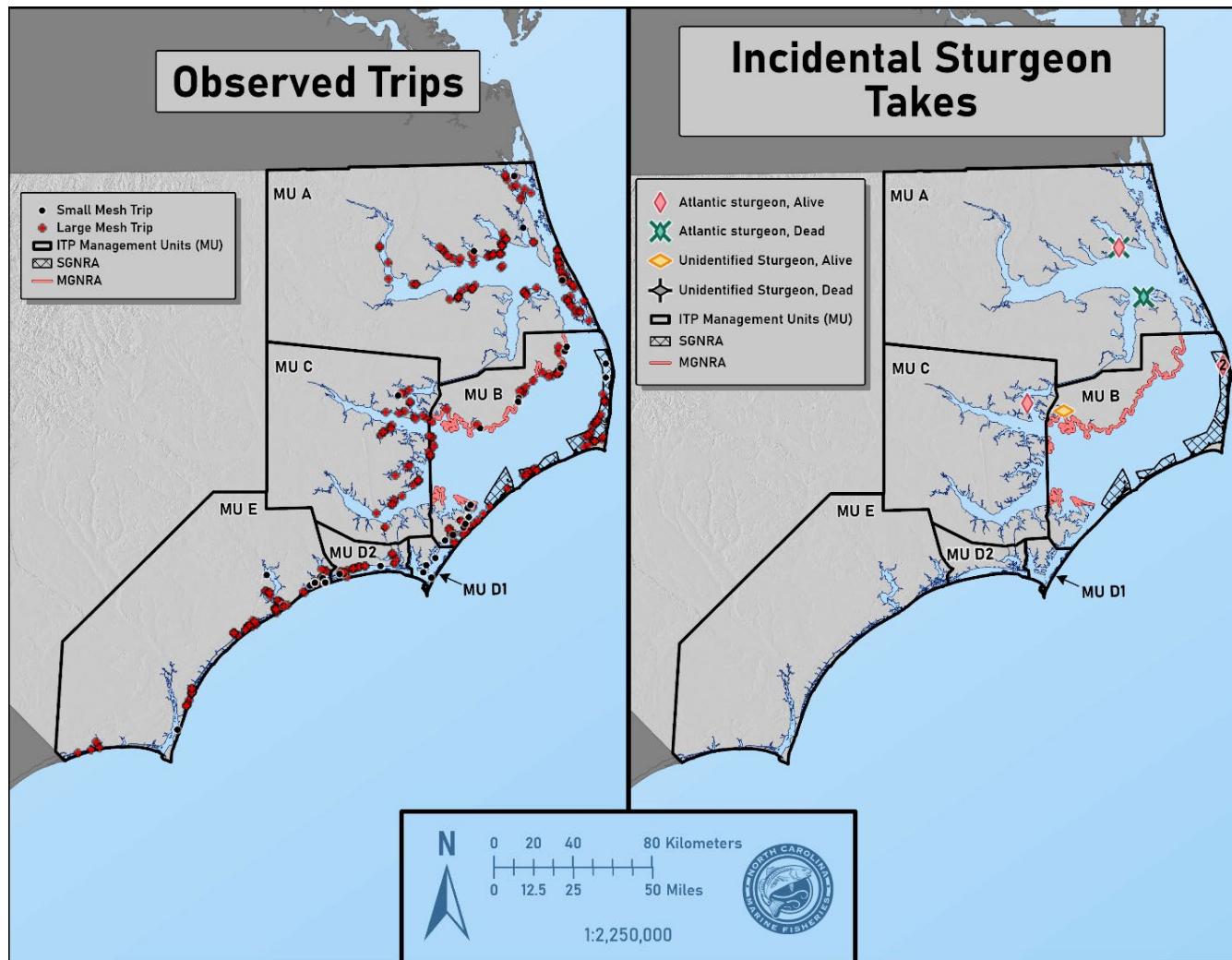


Figure 3. For fall 2021, observed gill-net trips (left) by mesh-size category (311 large-mesh [≥ 5 inches stretched mesh]; 62 small-mesh [< 5 inches stretched mesh]) and sturgeon interactions (right) by species and disposition (Atlantic Sturgeon: 4 alive, 2 dead; unidentified sturgeon: 1 alive, 0 dead) across management units.

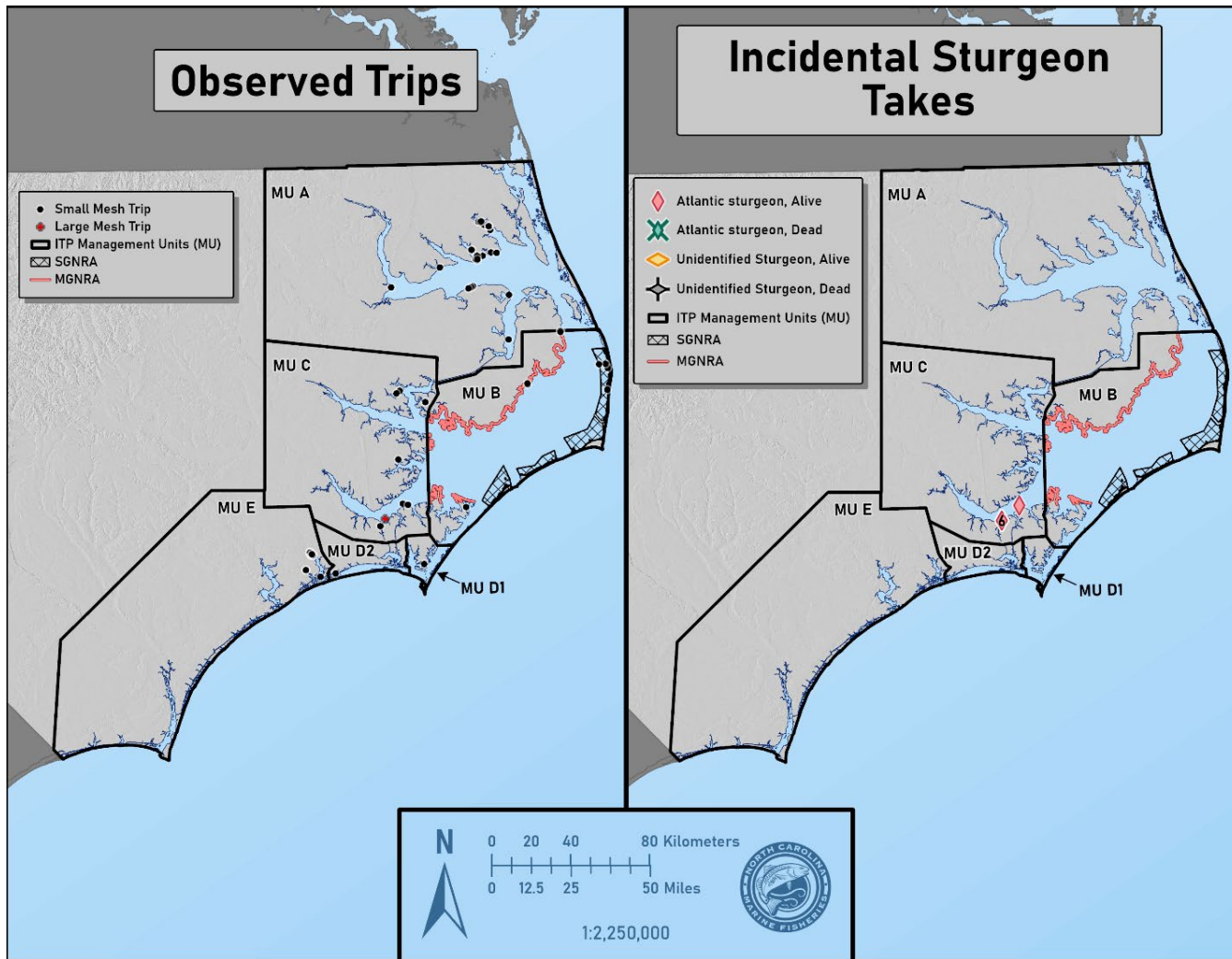


Figure 4. For winter 2021–2022, observed gill-net trips (left) by mesh-size category (1 large-mesh [≥ 5 inches stretched mesh]; 59 small-mesh [< 5 inches stretched mesh]) and Atlantic Sturgeon interactions (right) by disposition (7 alive, 0 dead) across management units.

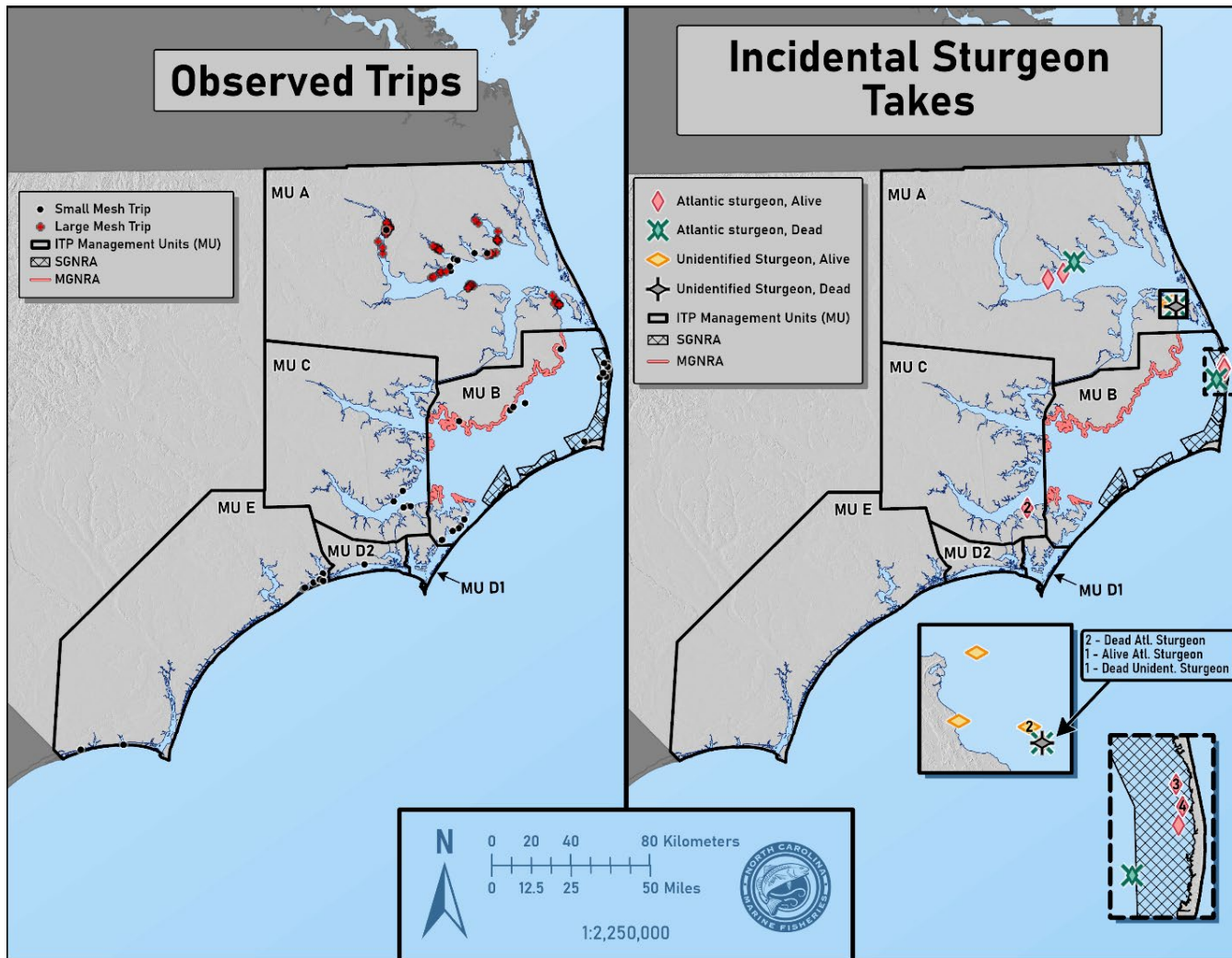


Figure 5. For spring 2022, observed gill-net trips (left) by mesh size-category (54 large-mesh [≥ 5 inches stretched mesh]; 47 small-mesh [< 5 inches stretched mesh]) and sturgeon interactions (right) by species and disposition (Atlantic Sturgeon: 24 alive, 6 dead; unidentified sturgeon: 2 alive, 0 dead) across management units.

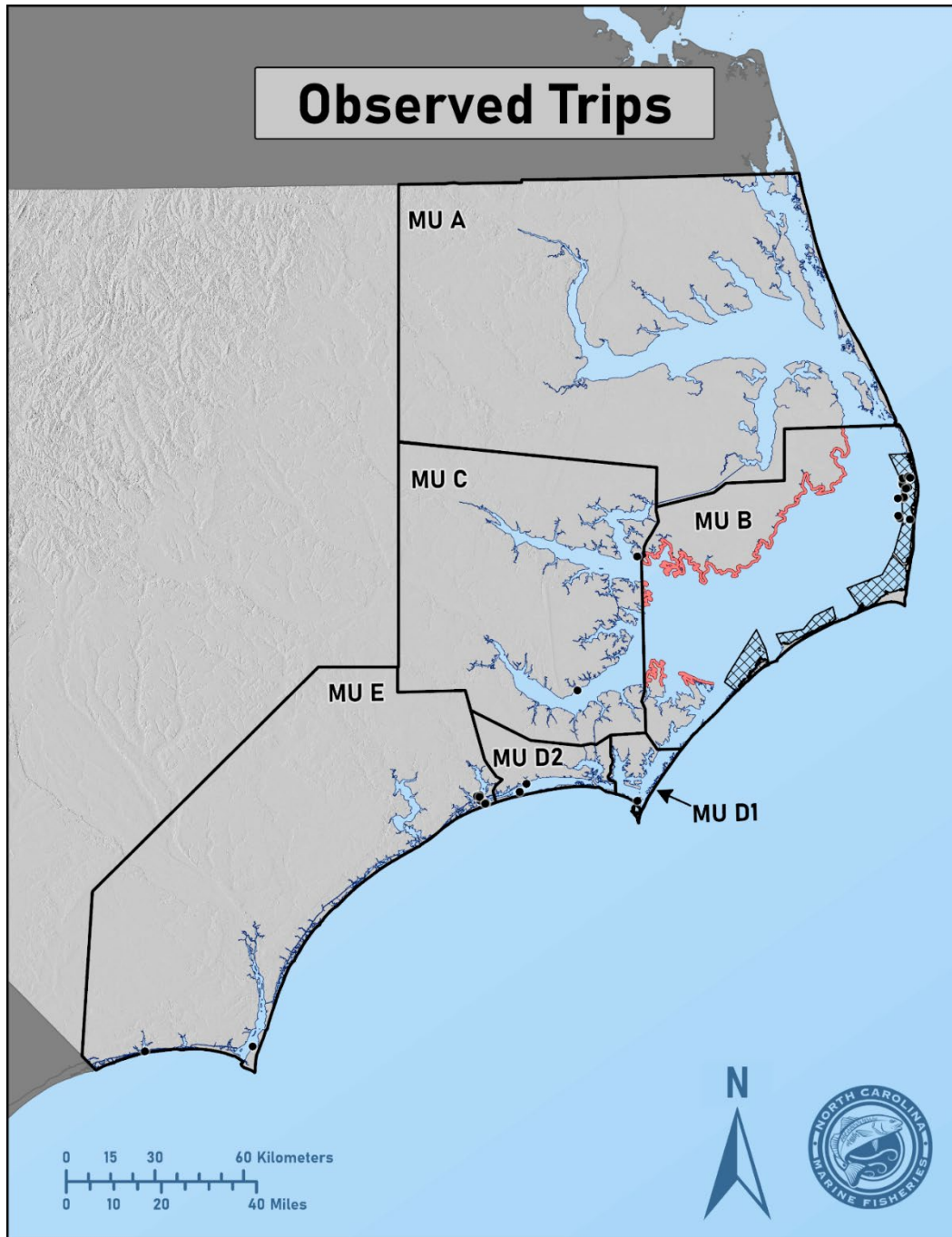


Figure 6. For summer 2022, observed gill-net trips by mesh-size category (0 large-mesh [≥ 5 inches stretched mesh]; 28 small-mesh [< 5 inches stretched mesh]). No sturgeon interactions were observed. Large-mesh gill nets were prohibited state-wide during summer.

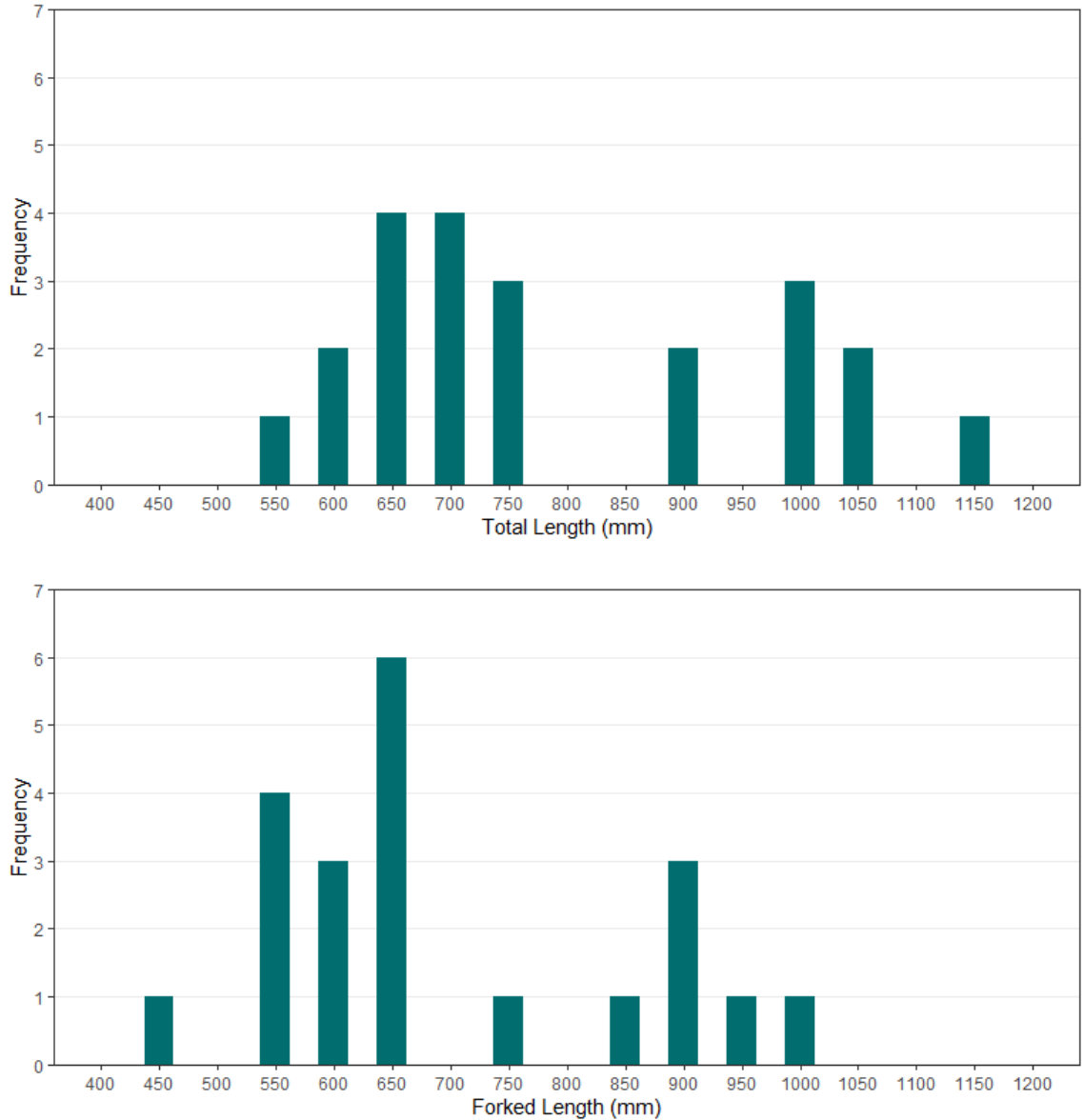


Figure 7. For observed and measured incidental takes of Atlantic Sturgeon during the 2022 ITP Year, binned length-frequency of (top) total length (TL, mm; n=22 of 30) and (bottom) fork length (FL, mm; n=21 of 30).

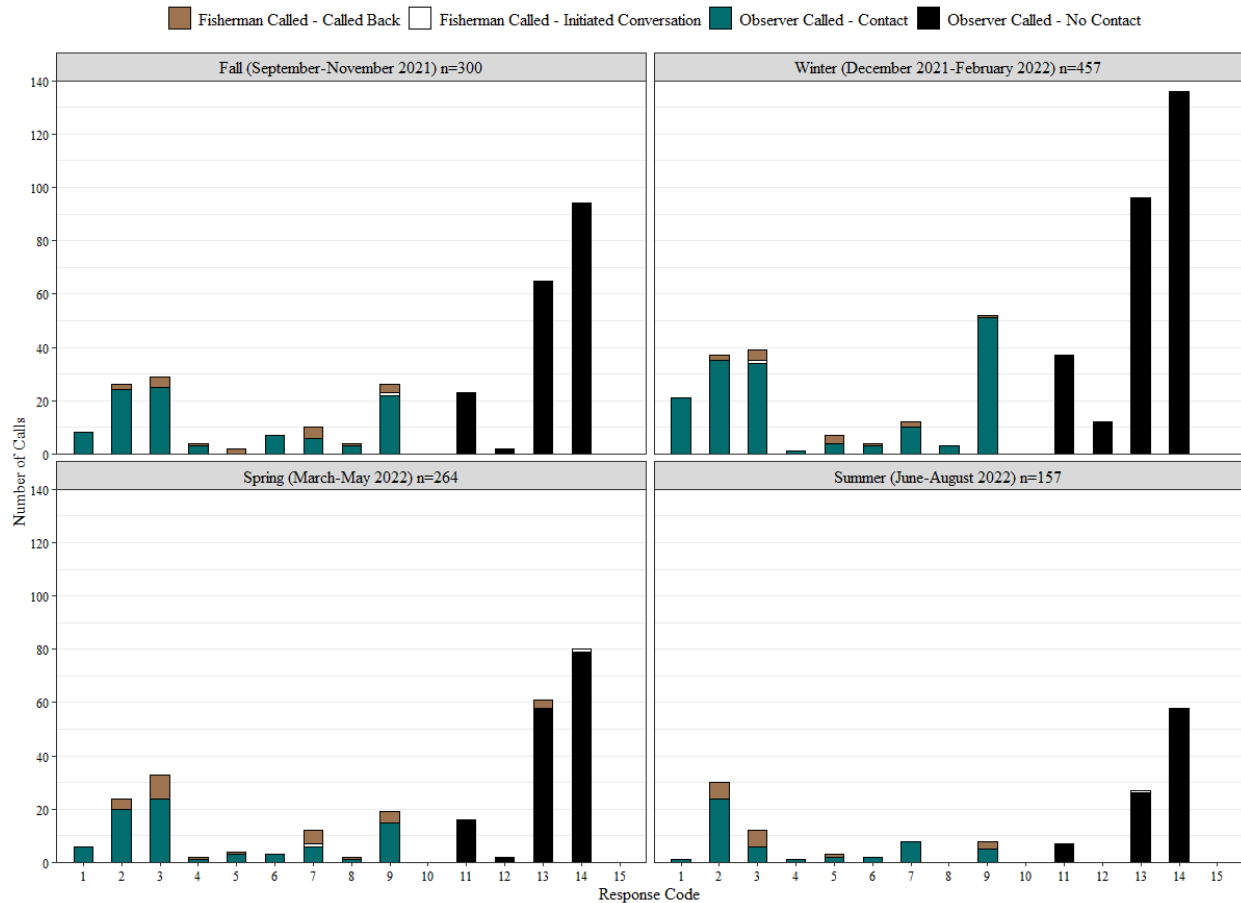


Figure 8. For the 2022 ITP Year, contacts attempted (n=1,178) by observers to schedule trips categorized by contact type (0-15) and presented as a percentage of the total for fall, winter, spring, and summer. Contact type categories include the following: 1) Left message with someone else; 2) Not fishing general; 3) Fishing other gear; 4) Not fishing because of weather; 5) Not fishing because of boat issues; 6) Not fishing because of medical issues; 7) Booked trip; 8) Hung up, got angry, trip refused; 9) Call back later time/date; 10) Saw in person; 11) Disconnected; 12) Wrong number; 13) No answer; 14) No answer, left voicemail; 15) Not fishing because of natural disaster (e.g., hurricane). Contact types are shown as those when the observer talked to a fisher (teal bars), when the observer did not (black bars), when the fisher initiated a conversation (white bars), and when a fisher returned an observer’s call (bronze bars).

8 APPENDICES

Appendix A. Withdrawal of Observer Waiver



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

Kathy Rawls
Director
North Carolina Division of Marine Fisheries
3441 Arendell Street
P.O. Box 769
Morehead City, NC 28557

April 5, 2022

Dear Ms. Rawls,

As part of the response to the COVID-19 pandemic, NOAA Fisheries temporarily waived requirements for federal fisheries in the Greater Atlantic Region to carry observers due to federal and state health guidance at that time. Consistent with that federal determination, on March 24, 2020, we temporarily waived the monitoring requirements for the North Carolina Division of Marine Fisheries' (NCDMF) Permits No. 16230 and No. 18102 issued under Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in internal North Carolina waters.

That approach was appropriate under the circumstances. However, in the United States and in North Carolina, the situation has changed and improved. COVID-19 vaccines are widely available and infection rates are declining. In response to the improved conditions, NMFS is withdrawing NCDMF's observer coverage waiver. This letter serves as NCDMF's 30-day notice to reinstate the monitoring requirements pursuant to these incidental take permits.

Please feel free to contact Wendy Piniak (wendy.piniak@noaa.gov) or Celeste Stout (celeste.stout@noaa.gov) with any questions.

We look forward to continuing to work with you on sea turtle and Atlantic sturgeon conservation in North Carolina.

Sincerely,


A handwritten signature in black ink, appearing to read "Kimberly B. Randall".

Kimberly Damon-Randall
Director,
Office of Protected Resources



Appendix A. continued

I acknowledge receipt of the correspondence above with regard to permit conditions and compliance under the Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in inshore waters of North Carolina.



Kathy B. Rawls
Director
N.C. Division of Marine Fisheries

4/11/2022

Date

Appendix B. NCDMF News release

Roy Cooper
Governor

Elizabeth S. Biser
Secretary DEQ



Kathy B. Rawls
Director

Release: Immediate
Date: April 20, 2021

Contact: [Patricia Smith](#)
Phone: 252-726-7021

Division of Marine Fisheries to resume onboard observations of estuarine gill net fisheries May 1

MOREHEAD CITY – The N.C. Division of Marine Fisheries will resume onboard observations of estuarine gill net fisheries beginning May 1. Onboard observations will be the primary method with limited use of alternative platform observations primarily conducted by Marine Patrol officers.

Division staff have been conducting alternate platform observations of estuarine gill net fisheries using division-owned boats since June 2020 in response to potential risks associated with COVID-19. The decision to resume onboard observations as the primary observation method is based on improved COVID-19 indicators. Under Executive Order 224 issued by Governor Roy Cooper for all cabinet agency employees, division staff are either fully vaccinated against COVID-19 or provide proof of weekly negative COVID-19 test results

Fishermen are reminded that an Estuarine Gill Net Permit (EGNP) is required to use anchored gill nets (large-mesh or small-mesh) in estuarine waters (commercially or recreationally), and one of the conditions of the EGNP is to allow division staff to observe gill net operations. Another condition of the EGNP is that fishermen must not avoid or mislead observers, which includes but is not limited to failing to return phone calls, failing to notify the division of a phone number change within 14 calendar days of such change, and providing incorrect information on fishing activity. Refusing to abide by permit conditions will result in suspension or revocation of the permit.

The EGNP is a critical step in meeting the requirements of the division's sea turtle and Atlantic sturgeon Incidental Take Permits issued by NOAA Fisheries under Section 10 of the Endangered Species Act.

Fishermen convicted of using anchored gill nets in internal coastal waters without holding an EGNP could be subject to a Class A1 misdemeanor.

The EGNP is available for free from the Division of Marine Fisheries. Fishermen can download an application [here](#). Completed applications may be emailed to License@ncdenr.gov or mailed to the Division of Marine Fishermen, License Office, P.O. Box 769, Morehead City 28557.

Fishermen also may submit completed applications in drop boxes provided at the following division offices:

DMF Headquarters
3441 Arendell St.
Morehead City
Phone: 252-726-7021 or 800-682-2632

Manteo Field Office
1021 Driftwood Dr.
Manteo
Phone 252-473-5734 or 800-405-7774

Website: <http://www.ncdenr.gov>
Facebook: <http://www.facebook.com/ncdeq>
Twitter: <http://twitter.com/NCDEQ>
RSS Feed: <http://portal.ncdenr.org/web/opa/news-releases-rss>
1601 Mail Service Center, Raleigh, NC 27699-1601

Appendix B. continued

Pamlico District Office

943 Washington Square Mall, Highway 17
Washington
Phone: 252-946-6481 or 800-338-7804

Southern District Office

127 Cardinal Drive Extension
Wilmington
Phone: 910-796-7215 or 800-248-4536

For more information about the Observer Program and observer coverage, contact the Protected Resources Program supervisor Barbie Byrd (phone: 252-808-8088; email: Barbie.Byrd@ncdenr.gov) or the Coastal Programs Manager, Casey Knight (phone: 252-808-8094; email: Casey.Knight@ncdenr.gov).

###

Website: <http://www.ncdenr.gov>
Facebook: <http://www.facebook.com/ncdeq>
Twitter: <http://twitter.com/NCDEQ>
RSS Feed: <http://portal.ncdenr.org/web/opa/news-releases-rss>
1601 Mail Service Center, Raleigh, NC 27699-1601

NC Marine Fisheries Commission

False Albacore Data Update

May 2023 Business Meeting

01 False Albacore Data Update Memo



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 5, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: McLean Seward, Fisheries Biologist
Anne Markwith, Fisheries Biologist

SUBJECT: False Albacore Growth Scenarios for Potential Management

Issue

At its February 2023 business meeting the North Carolina Marine Fisheries Commission (NCMFC) passed a motion that staff come forward with rulemaking language with management options for false albacore starting with status quo and allowing for growth at various percentage points.

Findings

- Management of false albacore is currently not pursued at the federal level, and any caps on harvest would affect North Carolina landings only.
- Currently (2012-2021), North Carolina recreational landings are 10% of coastwide recreational landings and North Carolina commercial landings are 39% of coastwide commercial landings.
- “Status quo” in the fishery is defined as the five-year average of landings. It was chosen as the preferred timeframe because it is the median of the three averages (3-, 5- and 10-year) investigated, while including enough years to smooth the abnormally high recreational landings in 2020.
- “Various Percentage Points of Growth” in the fishery as 125%, 150%, 175%, and 200% of status quo (i.e., 100% of the 2018-2022 five-year average).
- Research and data needs for this species include age and growth, sex and maturity, tagging studies, and stock structure. All of which could be used in an assessment to determine stock status.

Action Needed

Review and provide input on how NCDMF have defined status quo and growth for North Carolina’s recreational and commercial false albacore fisheries for the purposes of developing management options. This feedback will be incorporated as staff continue to draft the False Albacore Issue Paper, including management options with rulemaking language, for false albacore, as requested by the NCMFC.

Background

False albacore is a migratory schooling species typically found in tropical to temperate waters of the Atlantic Ocean. False albacore has become a more popular and targeted fishery in recent years, especially for the recreational sector. Participants associated with the fishery have expressed concern over increases in harvest and targeted trips of the species to both state and federal fisheries managers. Coastwide, there are no known commercial or recreational regulations in place to manage false albacore fisheries.

Management is not currently being pursued at the federal level, though it has been discussed at recent meetings. At its December 2022 meeting, the South Atlantic Fishery Management Council's (SAFMC) Mackerel Cobia Committee directed Council staff to develop a fishery performance report every three years rather than initiate management of the species. Most recently, at the May 2023 Atlantic States Marine Fisheries Commission (ASMFC) meeting, the Interstate Fisheries Management Policy Board voted not to pursue management of false albacore at the interstate level, but instead recommended states with an interest in false albacore management pursue it on their own.

From 2012 to 2021 North Carolina recreational landings of false albacore averaged 264,229 pounds which accounts for 10% of the coastwide recreational landings and 13% of the South Atlantic recreational landings. The average North Carolina commercial landings during this same time equaled 196,906 pounds and accounted for 39% of the coastwide commercial landings and 43% of the commercial landings in the South Atlantic.

The stock status of the false albacore fishery is unknown, primarily because there is very little data available on which to base a stock assessment. Age and growth, sex and maturity, and tagging studies would help fill these data gaps for false albacore in the western Atlantic, however, funding to complete these studies is limited. Also, because false albacore is highly migratory any data collection efforts would require cooperative research across state, federal and continental jurisdictions. Currently, the American Saltwater Guides Association, in collaboration with Cornell University, the New England Aquarium and National Oceanic and Atmospheric Administration (NOAA) Fisheries, have initiated several studies with the aim of addressing some of the coast-wide data gaps, including stock structure and migration patterns.

Status Quo & Growth Scenarios

At the request of the NCMFC, Division defined the current status quo of the false albacore fishery and proposed several scenarios to allow for growth in the fishery. While this is a coastwide-stock the landings used in the analyses below are only North Carolina recreational and commercial landings.

First, to define status quo, staff reviewed the average landings of false albacore in both sectors over different time periods (Table 1). The time-series analyzed to define status quo were: three-year (2020-2022), five-year (2018-2022), and ten-year (2013-2022; Figures 1 and 2). The five-year time series is preferred because the average landings during this time series are the median of the three time series averages analyzed and the time span was sufficient that the spike in recreational landings in 2020 was smoothed across the time series.

Next, staff defined various percentage points of growth in the fishery as 125%, 150%, 175%, and 200% of status quo (i.e., 100% of the five-year average). For the recreational sector, growth values range from 294,212 pounds at 100% (status quo) to 588,423 pounds at 200% (Table 1; Figure 3). Growth in the commercial fishery ranges from 184,059 pounds at 100% (status quo) to 368,119 at 200% (Table 1; Figure 4). These potential harvest caps on the fishery only apply to North Carolina and it is unknown how these limits will affect the overall coastal stock.

Once the status quo and various percentage points of growth are reviewed by the Commission, the issue paper for rulemaking will be drafted with management options for further consideration by the NCMFC. Implementation of any regulations would be dependent on rulemaking specific to this species, which would begin as part of the 2024-2025 rule-making cycle in May 2024.

Tables

Table 1. Growth scenarios for the North Carolina false albacore fishery based on 3-, 5-, and 10-year averages for the commercial and recreational sectors (Source: Marine Recreational Information Program and North Carolina Trip Ticket Program)

Percent of Average Landings	3-Year (2020-2022)		5-Year (2018-2022)		10-Year (2013-2022)	
	Recreational	Commercial	Recreational	Commercial	Recreational	Commercial
100% (status quo)	323,402	161,080	294,212	184,059	275,889	195,086
125%	404,253	201,350	367,765	230,074	344,862	243,858
150%	485,103	241,621	441,317	276,089	413,834	292,629
175%	565,954	281,891	514,870	322,104	482,806	341,401
200%	646,804	322,161	588,423	368,119	551,778	390,172

Figures

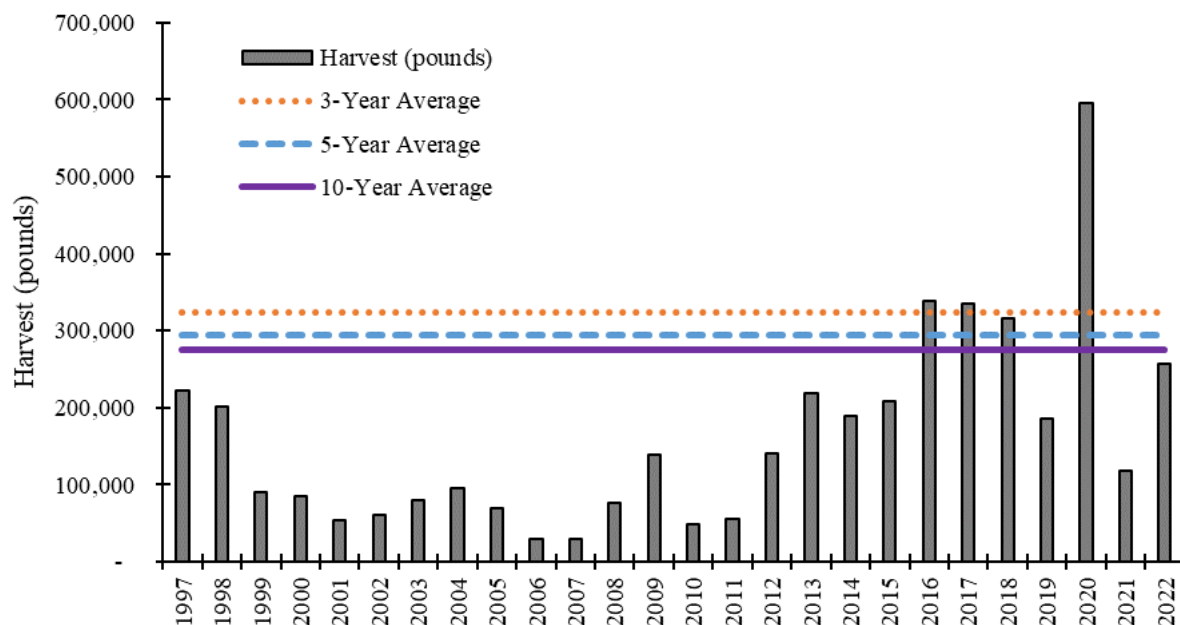


Figure 1. North Carolina recreational landings (pounds), 1997-2022. (Source: Marine Recreational Information Program).

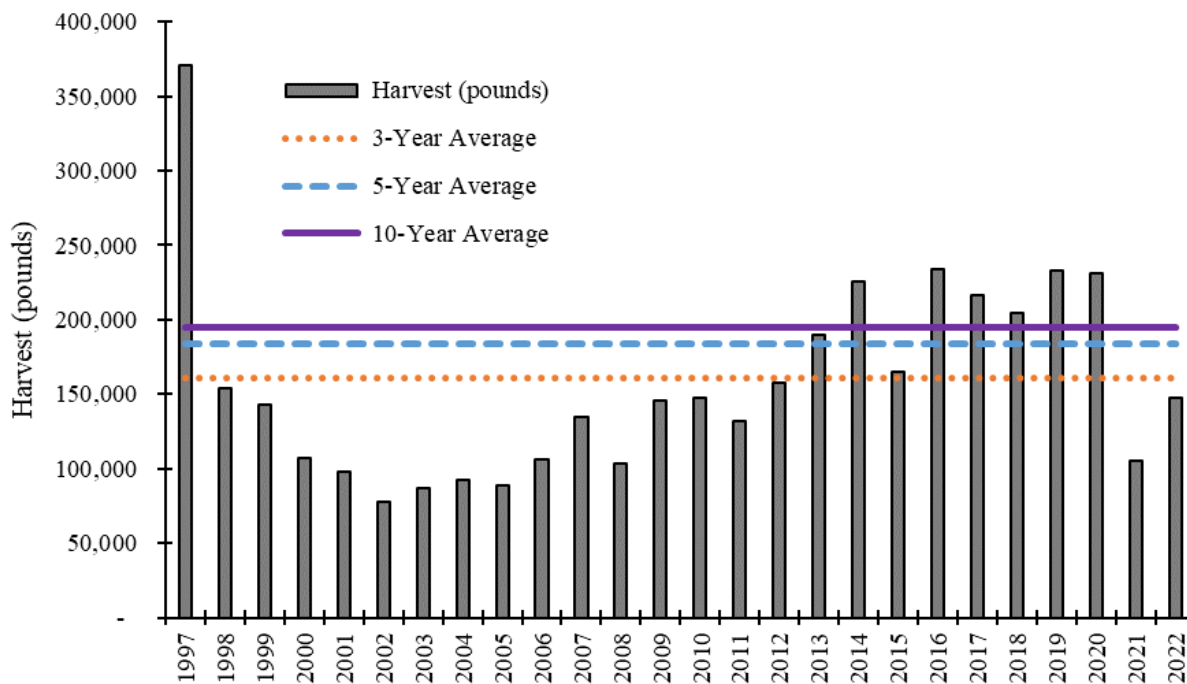


Figure 2. North Carolina commercial landings (pounds), 1997-2022. (Source: North Carolina Trip Ticket Program; Note, 2022 landings are preliminary as of 5/5/2023).

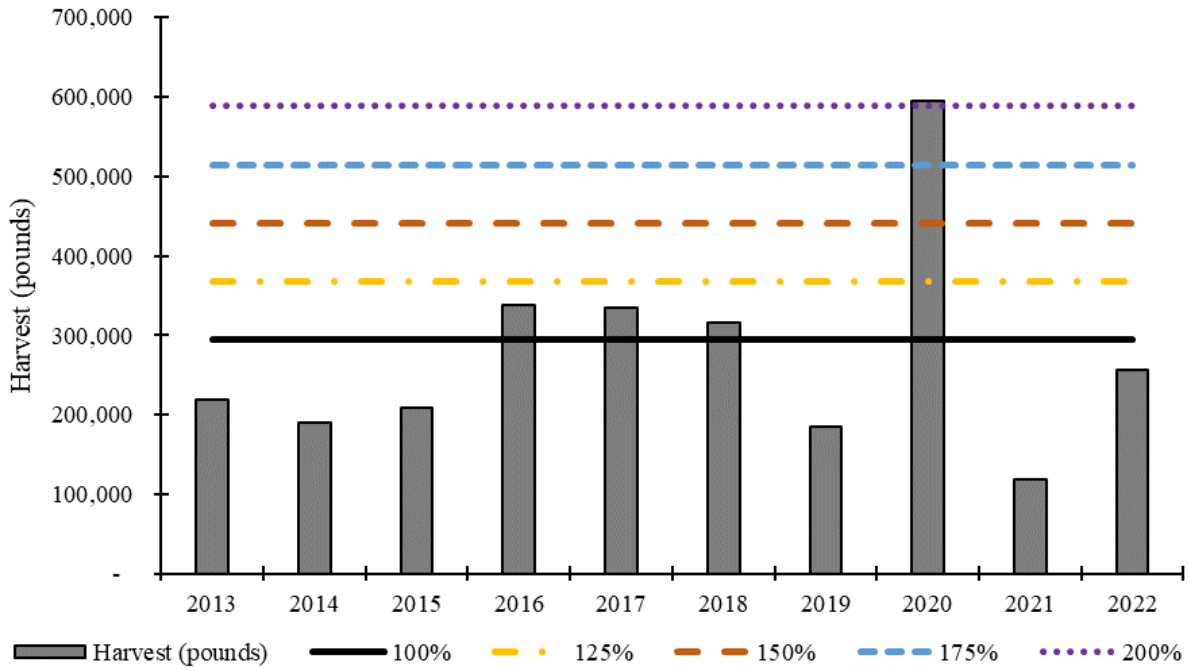


Figure 3. North Carolina recreational landings (pounds), 2013-2022 and percentages based on the 5-year average landings. (Source: Marine Recreational Information Program).

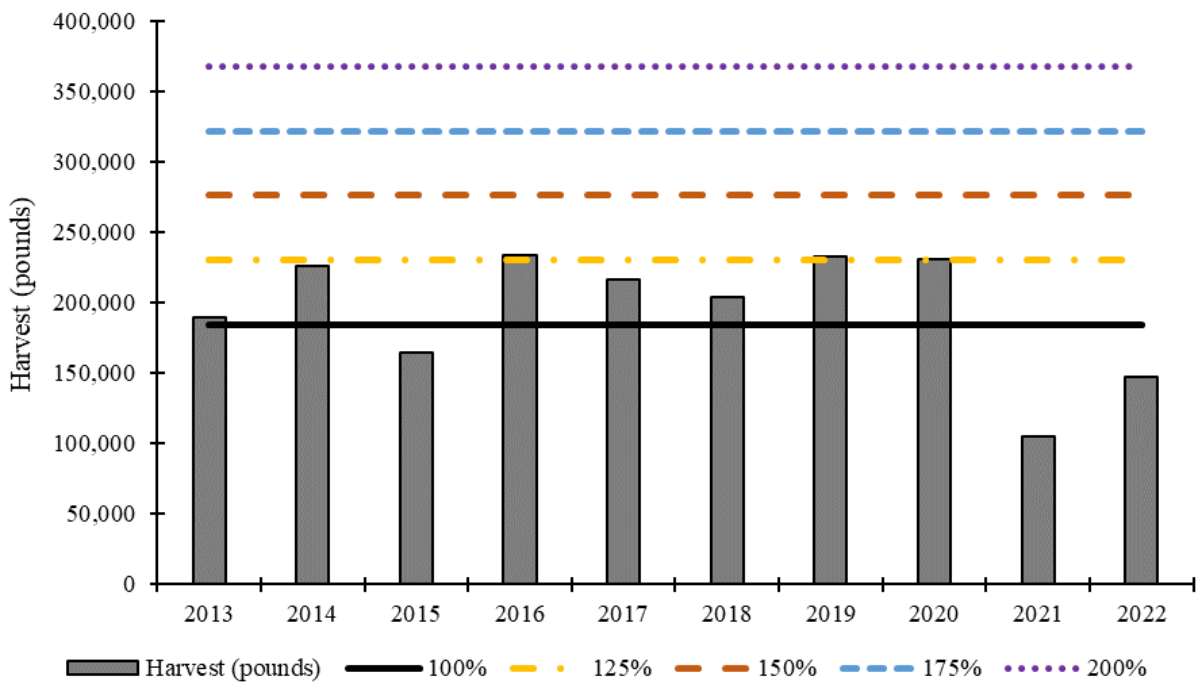


Figure 4. North Carolina commercial landings (pounds), 2013-2022 and percentages based on the 5-year average landings. (Source: North Carolina Trip Ticket Program; Note, 2022 landings are preliminary as of 5/5/2023).

Fishery Management Plans

May 2023 Business Meeting

01 MFC Workplan

02 Fishery Management Plan
(FMP) Update Memo

04 Blue Crab Amendment 3
Adaptive Management Revision

09 Estuarine Striped Bass Stock
Assessment Update Memo

13 Spotted Seatrout FMP Amendment 1 -
Goals and Objectives Memo

15 Striped Mullet FMP
Decision Document

21 Striped Mullet Supplement A
to Amendment 1

Marine Fisheries Commission 2023-2025 WORKPLAN

INCORPORATING ACTIVITY UNDERWAY AND UPCOMING ASSESSMENTS

General Timelines and Abbreviations							(See
"General Timelines" worksheet for details, Colored blocks below indicate MFC Action Point)							
Fishery Management Plans	(SA)	SAR	GO	(PD)	AC/Pub	PMO	A
Non-FMP Rule Development	Stock Assessment in Progress R	Stock Assessment Report Presented to MFC IP	Vote to Approve Goal and Objectives PR	Initial Plan Development by DMF/FMP AC RLO	Advisory Committee and Public Review PRL	Select Preferred Management Options	Vote on Final Approval
Rulemaking	Request Issue Development FA	Information Paper NOT	Decision to pursue rulemaking NCR/PH/PC	Issue paper with rule language options A	Select Preferred Rule Language		
MFC Committee Activity	Fiscal Analysis APR	Approve Notice of Text JUL	Publish in NC Register/Hold Public Hearing&Comment Period	MFC Review Public Comment & Vote on Approval			
	Meeting confirmed and scheduled	Meeting anticipated					

Quarterly Business Meeting

Topic	DMF Staff Lead(s)	May - 23	Aug - 23	Nov - 23	Feb - 24	May - 24	Aug - 24	Nov - 24	Feb - 25
Active Management Plans									
Estuarine Striped Bass Stock Assessment Update	Lee/Schlick	(SA)							
Striped Mullet FMP Amendment 1 Supplement	Zapf/Dobbs	A							
Striped Mullet FMP Amendment 2	Zapf/Dobbs	(PD)			AC/Pub	PMO	A		
Spotted Seatrout FMP Amendment 1	Behringer/Pensinger	G/O	(PD)		AC/Pub	PMO	A		
Hard Clam/Oyster	Dobbs/Facendola				G/O		(PD)	AC/Pub	PMO
Blue Crab FMP Amendment 2 Revision	Facendola/Corbett	Revision Update							A
Blue Crab Stock Assessment Update	Lee/Schlick		(SA)	SAR					
Status of Commission Requests									
Delineation of Fishing Waters Issue	Rawls/Klibansky		In progress						
Update False Albacore Informaiton Paper	Seward/Markwith		Reviewing Available Data	Present Issue Paper with Rule language					
Federal Permits - Review Feasibility of State Requirements	Murphey/Batsavage/Witten/Poland/Klibansky		In progress						
Rulemaking									
Periodic Review and Expiration of Existing Rules, per G.S. 150B-21.3A									
Subchapter 18A - Shellfish Sanitation (about 79 rules)	Blum/Walsh	NOT	NCR/PH/PC	A					
Other MFC Rulemaking									
MFC Committees Activity Overview									
	(Meeting date(s) in cell)								
CRFL Advisory Committee	Botinovch/Klibansky	10-Mar							
Nominating Committee	Batsavage/Farnell			11-Oct					
Advisory Committees Activity Overview									
	(Meeting date(s) in cell)	In-Person	In-Person	In-Person	Virtual	In-Person	Virtual		
Northern Regional Advisory	Behringer/Paramore	11-Apr		10-Oct	JAN	APR	JUL		
Southern Regional Advisory	Moore/Stewart	12-Apr	10-Jul	11-Oct	JAN	APR	JUL		
Finfish Standing Advisory	Paramore/Rock	13-Apr	(Workshop)	12-Oct	JAN	APR	JUL		
Shellfish/Crustacean Standing Advisory	Moore/Deaton	18-Apr		17-Oct	JAN	APR	JUL		
Habitat and Water Quality Standing Advisory	Deaton/Harrison	19-Apr		18-Oct	JAN	APR	JUL		



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

April 28, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Corrin Flora, Fishery Management Plan Coordinator
Fisheries Management Section

SUBJECT: Fishery Management Plan Update and Schedule Review

Issue

Update the N.C. Marine Fisheries Commission (MFC) on the status of North Carolina fishery management plans (FMPs).

Action Needed

For informational purposes only, **no action is needed at this time.**

Overview

This memo provides an overview on the status of four North Carolina FMPs for the May 2023 MFC business meeting.

Striped Mullet FMP

The peer reviewed benchmark stock assessment for striped mullet indicated the stock was overfished and experiencing overfishing in the terminal year of 2019. Due to overfishing concerns, the Secretary authorized the MFC to develop temporary management through a supplement. At its November 2022 business meeting, the MFC selected preferred management for Supplement A to the Striped Mullet FMP Amendment 1. At its May 2023 business meeting, the MFC requested additional management options with regional considerations be added to Supplement A. The MFC will have the opportunity to vote on final approval of Supplement A at its May 2023 business meeting.

Until new management is adopted, Striped Mullet are managed under the Striped Mullet FMP Amendment 1. At the November MFC business meeting, the MFC approved the Striped Mullet FMP Amendment 2 Goal and Objectives. Staff are currently drafting Amendment 2. A solicitation period calling for stakeholders to apply to serve on the Striped Mullet FMP Advisory Committee will occur from May 1-19, 2023. Advisors will be appointed by the MFC Chair. Advisory committee members and DMF staff will meet in late July for a workshop to further develop Amendment 2.

Spotted Seatrout FMP

The peer reviewed, benchmark stock assessment for spotted seatrout indicated the stock is not overfished but was experiencing overfishing in the terminal year of 2019. The DMF held scoping for the Spotted Seatrout FMP Amendment 1 from March 13-24, 2023. More than 700 stakeholders participated in scoping to inform the development of the draft plan. Amendment 1 will focus on ending overfishing and conservation measures to promote healthy spawning stock biomass. At its May 2023 business meeting, the MFC will receive a review of public scoping comment and have the opportunity to provide additional considerations and approve Amendment 1 Goal and Objectives.

Eastern Oyster and Hard Clam FMPs

The 2022 FMP Schedule includes reviews of the Eastern Oyster and Hard Clam FMPs. The Division Plan Development Team is identifying available data sources to assess the needs of the wild fisheries of North Carolina. Scoping will occur later in 2023.

Blue Crab FMP

The Blue Crab FMP Amendment 3 adaptive management framework included an update to the stock assessment at least once between full reviews of the FMP. The 2018 stock assessment indicated the stock was overfished and overfishing was occurring in the terminal year of 2016. Amendment 3 implemented management to address the stock status. A stock assessment update will begin in 2023 and will include data through 2022.

Amendment 3 adaptive management allows the Division, with Shellfish/Crustacean Advisory Committee consultation, to modify the Diamondback Terrapin Management Area allowed devices list. Based on research by the University of North Carolina Wilmington, the DMF is working to amend the approved devices list. The DMF consulted with the Shellfish/Crustacean Advisory Committee at its January 2023 meeting. The committee supported the modification to the device list and provided additional considerations to the DMF for implementation. Based on consultation, the DMF updated language in the 2023 Revision to the Blue Crab FMP Amendment 3 and is developing outreach materials. At its May business meeting, the DMF will present the 2023 Revision to the MFC.

Estuarine Striped Bass FMP

At its November 2022 meeting, the MFC adopted Amendment 2. The Division continues to implement management from Amendment 2.

Based on stock concerns identified during preparation of the 2022 Annual Review, specifically continued low juvenile abundance, the Division is updating the Albemarle-Roanoke stock assessment with data through 2022. Division and WRC staff consulted with a group of external experts to ensure the assessment continues to be the best available science. At its May business meeting, the MFC will receive an overview of the 2022 stock assessment update results.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

April 24, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Robert Corbett, Biologist NCDMF
Joe Facendola, Biologist NCDMF

SUBJECT: Blue Crab FMP Amendment 3 Adaptive Management Revision Update

Issue

Amendment 3 to the Blue Crab FMP allowed for additional or alternative devices and modified pot designs to be approved by NCDMF for use in Diamondback Terrapin Management Areas (DTMAs) in consultation with the Shellfish/Crustacean Advisory Committee, provided they have been shown to reduce impacts to blue crab catch or cost to fishers and maintain the level of diamondback terrapin protection offered by the previously approved excluder devices (see Attachment for DTMA framework step 1).

Action Needed

For informational purposes only, **no action is needed at this time.**

Overview

As an alternative to plastic or wire inserts, which reduce the dimensions of crab pot funnels to limit terrapin bycatch, North Carolina crabbers had proposed reducing the overall dimensions of crab pot funnels. This gear modification has an inner funnel opening with a circumference of 9 meshes (1.5 in. hexagon mesh) compared to a standard commercial crab pot funnel with an inner opening circumference of 12 meshes (Figure 1). In collaboration with NCDMF and a workgroup of commercial crabbing partners, researchers at the University of North Carolina Wilmington (funded via a North Carolina Commercial Fishing Resource Fund Grant) developed and extensively tested a narrow funnel design (NFD) in controlled field experiments and fisheries-dependent observations to assess effectiveness in reducing terrapin bycatch and determine any impacts to blue crab catch. The NFD significantly reduce bycatch of terrapins while having no impact on blue crab catch.

The fisheries-independent controlled experiment showed a significant reduction in the bycatch rate of terrapins per unit effort in NFD pots compared to standard crab pots, resulting in an overall 74% reduction in terrapin bycatch for NFD pots compared to standard crab pots. Results from the experimental field trials and fishery-dependent observer trips showed no significant

difference in blue crab catch per unit effort between NFD crab pots and standard crab pots (Figure 2). Results of the experimental trials also showed no significant difference in blue crab sizes captured between NFD and standard crab pots (Figure 3). The largest blue crabs captured during the field trials were also from NFD pots.

This gear modification can be done at the manufacturing stage of the crab pot and should not incur any additional cost or require increased gear handling time and maintenance.

Given the protection offered to terrapins by NFD pots, no negative impacts to blue crab catch, and the potential savings in cost to crabbers, the NFD meets all criteria in Amendment 3 for NCDMF approval for use in DTMAs. Therefore, NCDMF proposed changes to the approved devices for DTMAs, revised Amendment 3, and consulted with the Shellfish/Crustacean Advisory Committee. The 2023 Revision includes the NFD as an approved device, removes the 4x16 cm and 10-gauge wire devices, and removes “make rigid” language as it related to funnel dimensions. The Shellfish/Crustacean Advisory Committee supported the 2023 Revision and made recommendations to the NCDMF. Taking into consideration the recommendations, NCDMF developed a pattern for the construction of the NFD (Figure 4) and defined a maximum opening dimension 13.3 cm (5.25 in.) to ensure compliance and aid in enforcement.

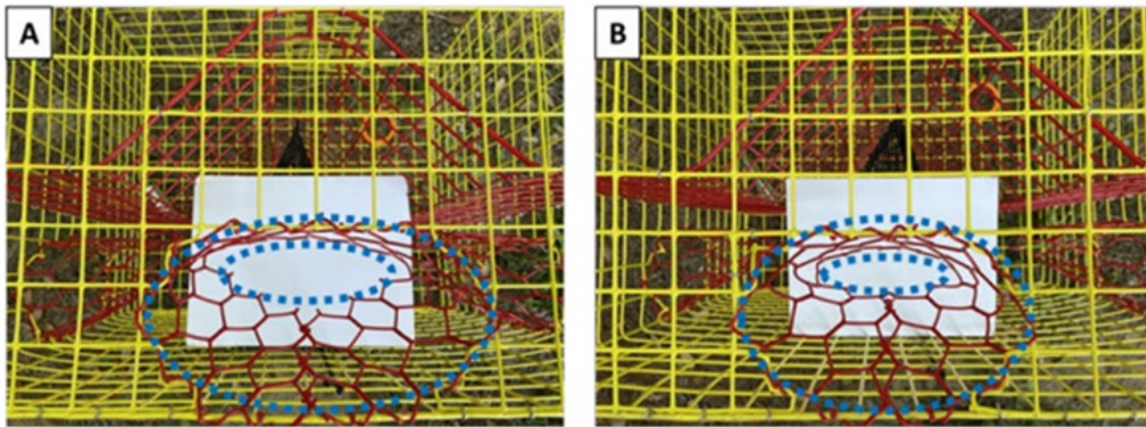


Figure 1. Crab pot funnels constructed out of 1.5 in. hexagon mesh. (A) “Standard Funnel” with an inner circumference of 12 meshes and an outer circumference of 14 meshes. (B) “Narrow Funnel Design” (NFD) with an inner circumference of 9 meshes and an outer circumference of 11 meshes.

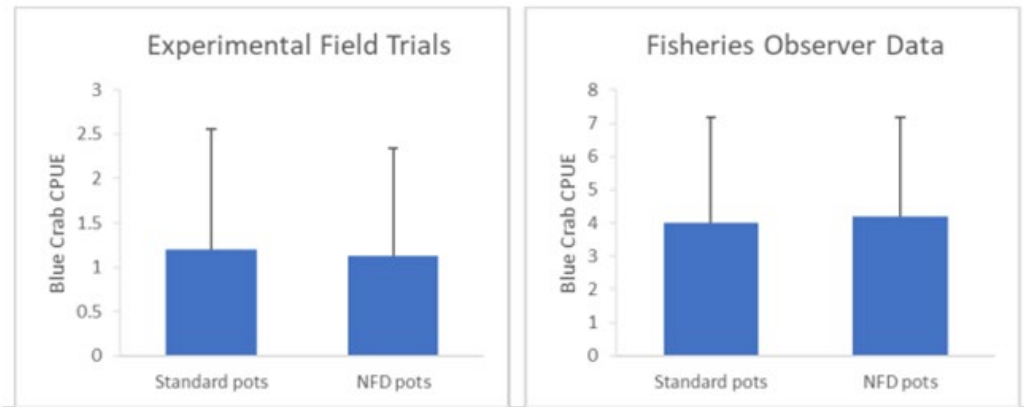


Figure 2. Blue crab CPUE for standard crab pots vs NFD pots for both fisheries-independent field trials, and fisheries-dependent observer trips. There was no significant difference in CPUE between standard and NFD pots in either data set.

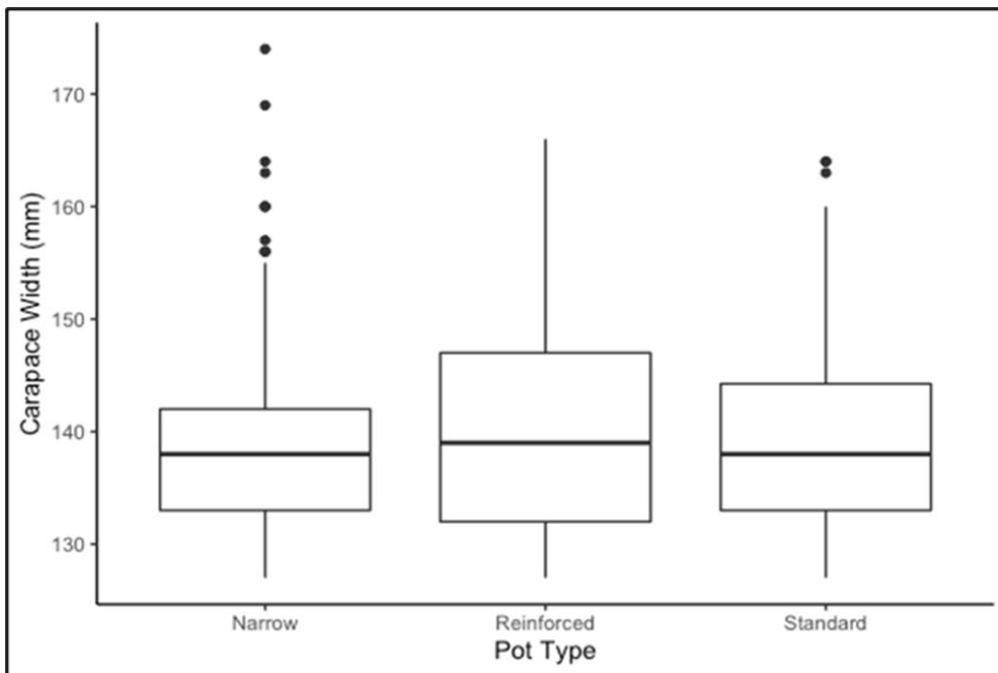


Figure 3. Carapace width of blue crabs caught in NFD, reinforced, and standard crab pots. There was no significant difference in carapace width between any of the pot types.

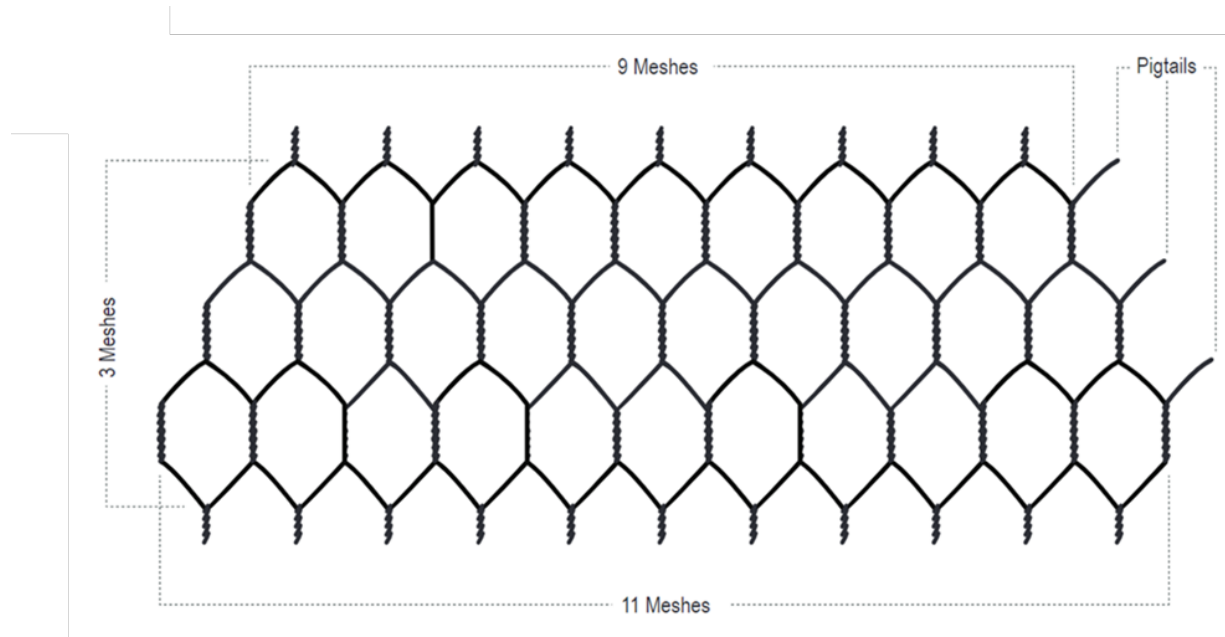


Figure 4. The pattern of 1.5 in. hexagon mesh used to construct the NFD showing the inner circumference of 9 meshes and an outer circumference of 11 meshes. Once the mesh is cut to these dimensions, it is rolled into a cylinder and secured to itself with the pigtails to form the tapered entrance funnel.

Attachment

Original Step 1 DTMA framework summary from Amendment 3:

Criteria defines the approved terrapin excluder device types and sizes required in crab pots fished within designated DTMA's. The following terrapin excluder devices shall be considered approved for use in DTMA's: any shell height limiting excluders made from at least 10-gauge galvanized wire and hog rings with an internal opening no larger than 4 x 16 cm (1.6 x 6.3 in.) height by width; any pre-made plastic shell height limiting excluder devices with an internal opening no larger than 4 x 16 cm (1.6 x 6.3 in.) height by width; or the pre-made plastic shell width limiting "SC design" measuring 5.1-6.4 x 7.7 cm (2-2.5 x 3.1 in.). Terrapin excluders will be securely affixed by at least each of the four corners of the device in each funnel opening of the crab pot, in a manner that restricts the maximum dimensions of any opening in the funnel. A separate terrapin excluder device would not be required in a crab pot fished within a DTMA if all funnel openings in that pot were modified to measure no larger than the maximum internal opening of an approved excluder device, and the funnel openings are made rigid in a manner to maintain these dimensions. A diamondback terrapin bycatch reduction workgroup of fishers, academic researchers, and managers will be created. Additional or alternative terrapin excluder devices or modified pot designs recommended through the workgroup may be approved by NCDMF, in consultation with the Shellfish/Crustacean Advisory Committee, provided they have been shown to reduce impacts to blue crab catch or cost to fishers and maintain the level of diamondback terrapin protection offered by the terrapin excluder devices initially approved and listed above. A revision to the current FMP Amendment will be developed as additional devices are approved.

New Step 1 DTMA framework summary from Amendment 3 adaptive management revision update:

Criteria defines the approved terrapin excluder device types and sizes required or gear modifications in crab pots fished within designated DTMA's. The following terrapin excluder device shall be considered approved for use in DTMA's: the pre-made plastic shell width limiting "SC design" measuring 5.1-6.4 x 7.7 cm (2-2.5 x 3.1 in.). Terrapin excluders will be securely affixed by at least each of the four corners of the device in each funnel opening of the crab pot, in a manner that restricts the maximum dimensions of any opening in the funnel. The following gear modification shall be considered for approved use as an alternative to excluder devices in DTMA's: "Narrow Funnel Design" (NFD) pots, where all funnel entrances of the pot are constructed out of 1.5 in. hexagon mesh, with each funnel having an inner opening of a circumference of 9 hexagon meshes and an outer opening of a circumference of 11 hexagon meshes, and maintained so the maximum inner opening dimension of all funnel entrances does not exceed 13.3 cm (5.25 in.). A diamondback terrapin bycatch reduction workgroup of fishers, academic researchers, and managers will be created. Additional or alternative terrapin excluder devices or modified pot designs recommended through the workgroup may be approved by NCDMF, in consultation with the Shellfish/Crustacean Advisory Committee, provided they have been shown to reduce impacts to blue crab catch or cost to fishers and maintain the level of diamondback terrapin protection offered by the terrapin excluder devices initially approved and listed above. A revision to the current FMP Amendment will be developed as additional devices are approved.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

April 28, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Laura Lee, Stock Assessment Program Manager
Nathaniel Hancock, Albemarle-Roanoke Striped Bass Species Lead, FMP Co-Lead
Fisheries Management Section

SUBJECT: Update on the Results of the Assessment of the Albemarle Sound-Roanoke River
Striped Bass Stock in North Carolina, 1991–2021

Issue

The stock assessment of the Albemarle Sound-Roanoke River (A-R) Striped Bass stock in North Carolina was updated with data through 2021. This memo provides a summary of the stock assessment update results and actions required under Amendment 2 to the North Carolina Estuarine Striped Bass Fishery Management Plan (FMP).

Action Needed

For informational purposes only, **no action is needed at this time.**

Findings

- The stock was modeled using data from 1991 to 2021.
- The stock is still undergoing overfishing.
- The stock is still overfished.
- An external peer review by a panel of experts and Division staff concluded the stock assessment is suitable for management use and is a credible representation of current stock status.
- The peer review panel recognized factors in addition to fishing mortality are likely responsible for the chronic poor recruitment observed since the early 2000s and the current low abundance of the stock. These factors may include river flow and/or blue catfish predation and competition.

	Target	Threshold	2021 Value	Status
Fishing Mortality	0.14	0.20	0.77	Overfishing
Female SSB	163.62 mt (360,720 lb)	124.87 mt (275,286 lb)	16.13 mt (35,566 lb)	Overfished

Overview

Results from the stock assessment update indicate the A-R striped bass stock is still undergoing overfishing and the stock is still overfished. The estimate of fishing mortality (*F*) in 2021 was 0.77, greater than the $F_{\text{Threshold}}$ of 0.20, indicating overfishing (Figure 1). The spawning stock biomass (SSB) was 35,566 pounds, less than the $SSB_{\text{Threshold}}$ of 275,286 pounds, indicating overfished status (Figure 2). Evaluation of the observed data and review of model predicted population trends indicate further concern for the stock. Both

observed and predicted recruitment of age-0 fish have been declining and are extremely low in recent years. Female SSB has been declining since 2004. Fisheries-dependent and fisheries-independent data indicate a recent decrease of both length at age and age structure of the stock and support the declining trend in overall population abundance observed since the mid-2000s.

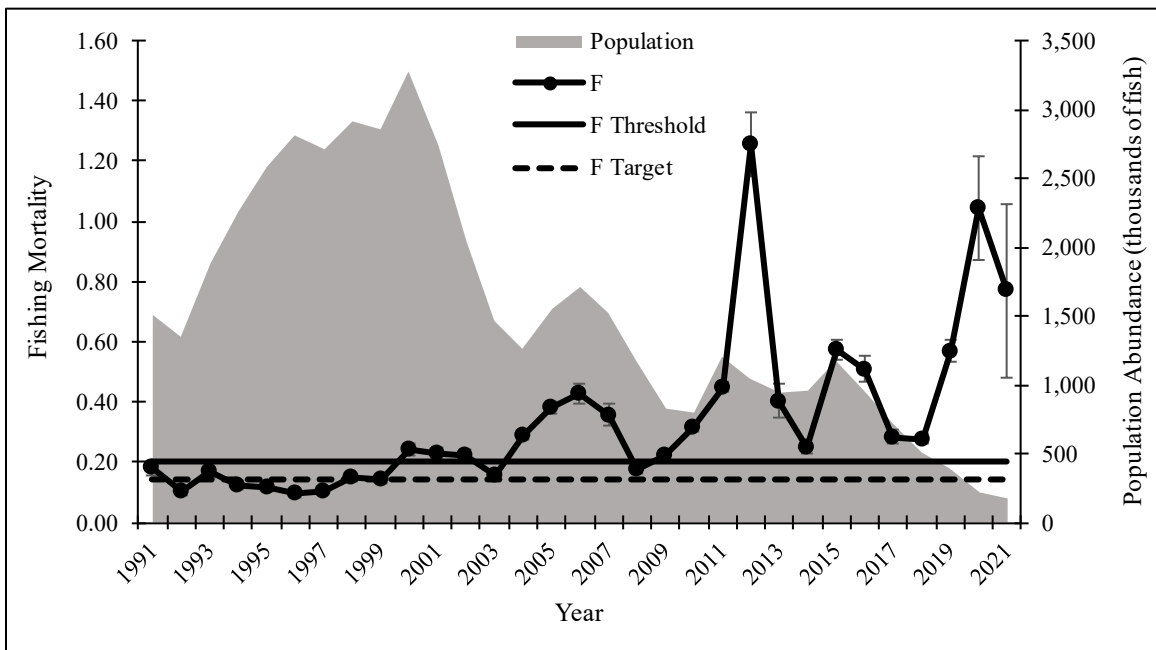


Figure 1. Estimates of fishing mortality (F) and population abundance for the Albemarle-Roanoke striped bass stock. Source: Update of the A-R striped bass stock assessment 2022.

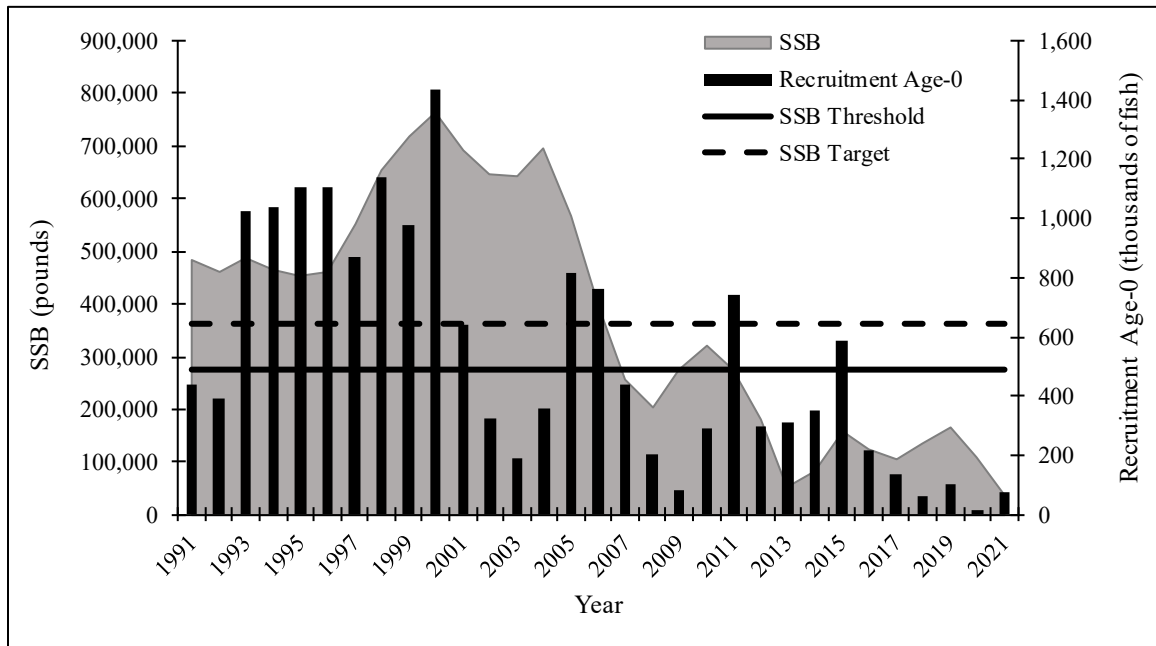


Figure 2. Estimates of spawning stock biomass (SSB) and recruitment of age-0 fish coming into the population each year for the Albemarle-Roanoke striped bass stock. Source: Update of the A-R striped bass stock assessment 2022.

Potential Causes for Recruitment Decline

While the peer review panel did recommend the updated stock assessment model for management use and were confident on the declining trend in recruitment based on assessment results and results from the Juvenile Abundance Survey (Figure 3), there was a great deal of uncertainty in the potential causes of the decline in recruitment. The benchmark review panel recognized that the decline in recruitment was not solely a result of reduced stock abundance due to harvest (i.e., overfishing). The review panel recommended that future assessments consider key abiotic and biotic drivers of recruitment. Spring flow conditions in the Roanoke River (the spawning grounds for A-R Striped Bass) are believed to influence recruitment and ultimately stock abundance and so was included as a high priority for further evaluation in the stock assessment's research recommendations. Another area of potential influence on the A-R striped bass stock is the prevalence of the non-native blue catfish. The population of blue catfish in the Roanoke River and western Albemarle Sound and tributaries has increased dramatically in recent years. The peer reviewers felt predation by blue catfishes could potentially impact recruitment of striped bass directly or could influence food resources for striped bass through competition for prey. The review panel recognized the degree to which this occurs is not known, but future assessments should consider this as a factor that may influence abundance but is not tied to striped bass harvest.

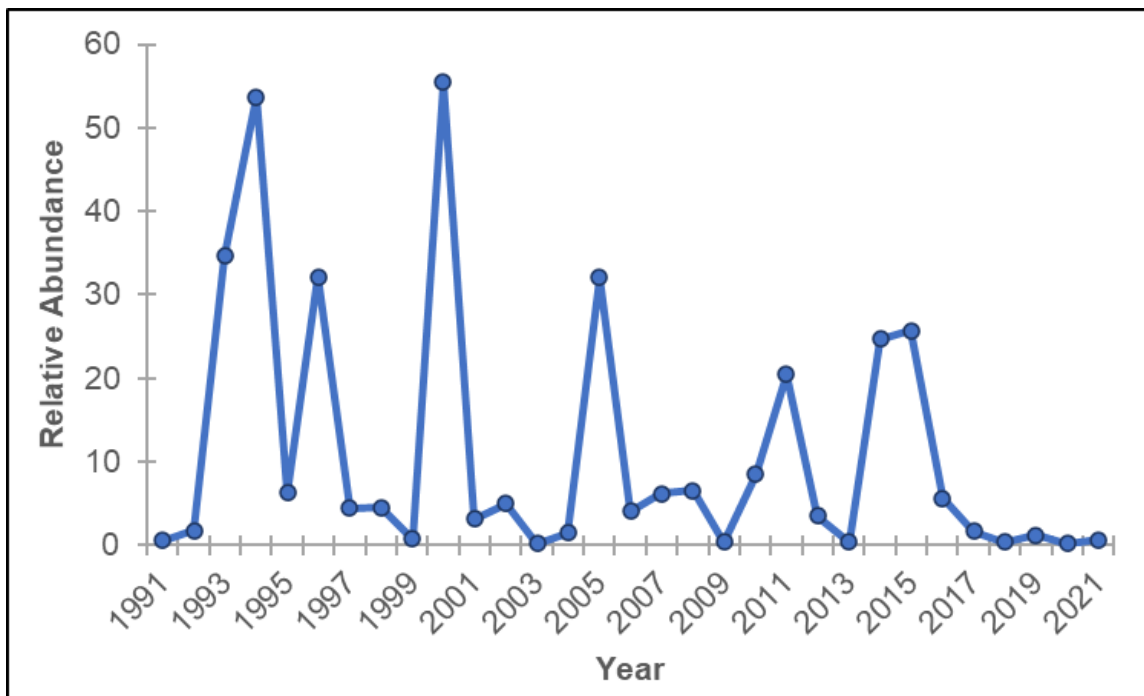


Figure 3. Annual index of relative age-0 abundance derived from the NCDMF Juvenile Abundance Survey, 1991–2017.

Traffic Light Analysis

A simple representation of the fisheries-independent survey indices that were input into the stock assessment model was developed using the Traffic Light approach. The Traffic Light assigns colors to data points based on the value relative to the time series. Green is used to indicate good or favorable conditions; yellow is used to represent uncertain or transitional conditions; and red is indicative of undesirable conditions. A Traffic Light was created for each of the fisheries-independent survey indices used in the stock assessment update as well as an overall combined Traffic Light that integrates the information from

all four of those indices (Figure 4). The Traffic Light analysis shows that the stock has exhibited undesirable conditions in all the survey indices since at least 2016.

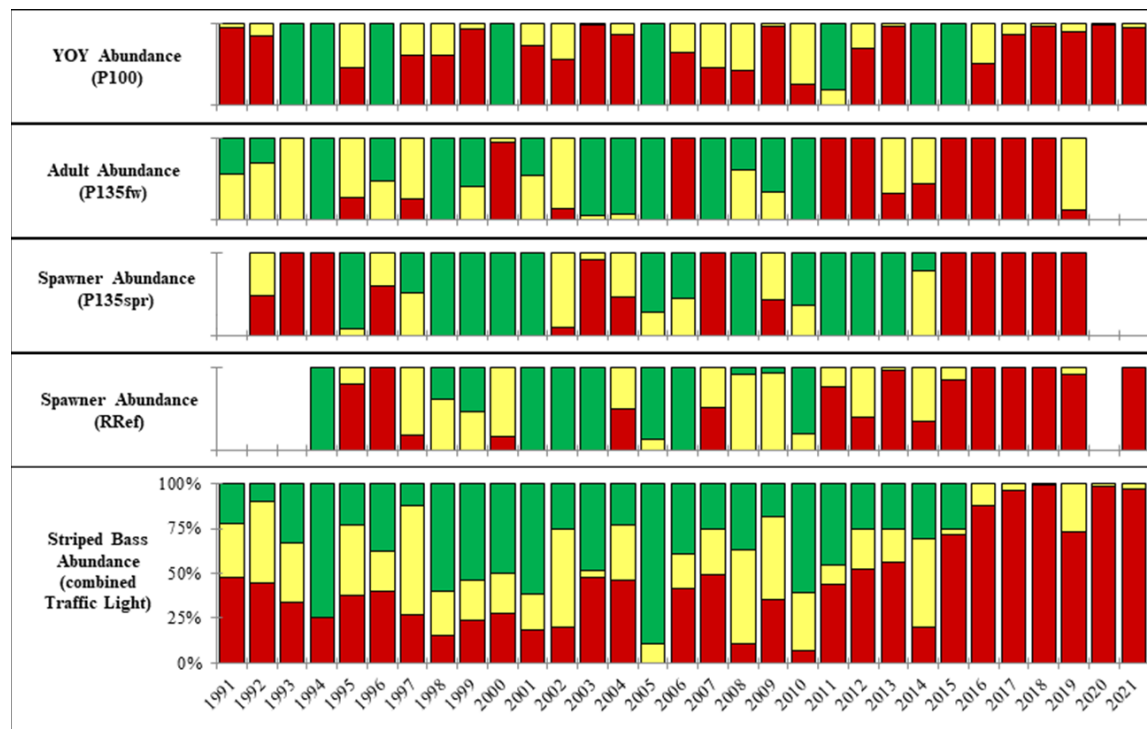


Figure 4. Traffic Light depiction of the fisheries-independent survey indices that were input into the A-R striped bass stock assessment update.

Adaptive Management actions required under Amendment 2 to lower fishing mortality to the target

Amendment 2 adaptive management states:

- Use peer reviewed stock assessments and updates to recalculate the BRPs and/or TAL. The current TAL of 51,216 lb remains in place until a new TAL is determined. Stock assessments will be updated at least once between benchmarks. Increases or decreases in the TAL will be implemented through Adaptive Management. A harvest moratorium could be necessary if stock assessment results calculate a TAL that is too low to effectively manage, and/or the stock continues to experience spawning failures.
- Use estimates of F from stock assessments to compare to the F BRP and if F exceeds the F_{Target} reduce the TAL to achieve the F_{Target} through Adaptive Management.

Implementing a new, lower harvest level accomplishes the adaptive management directive in Amendment 2 to the North Carolina Estuarine Striped Bass FMP. This management tool was used in the November 2020 Revision to Amendment 1 that reduced the TAL from 275,000 lb to 51,216 lb based on projections starting from the terminal year (2017) of the that stock assessment.

Based on this most recent stock assessment update, a TAL of 8,349 lb is necessary to reduce F to the F_{Target} .



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 24, 2023

MEMORANDUM

TO: North Carolina Marine Fisheries Commission

FROM: Lucas Pensinger and Jason Rock
Spotted Seatrout Fishery Management Plan Co-Leads

SUBJECT: Spotted Seatrout Fishery Management Plan Amendment 1

Issue

Review the Spotted Seatrout Fishery Management Plan (FMP) Amendment 1 draft goal and objectives and discuss potential management strategies.

Action Needed

Vote on approval of Spotted Seatrout FMP Amendment 1 Goal and Objectives

Background

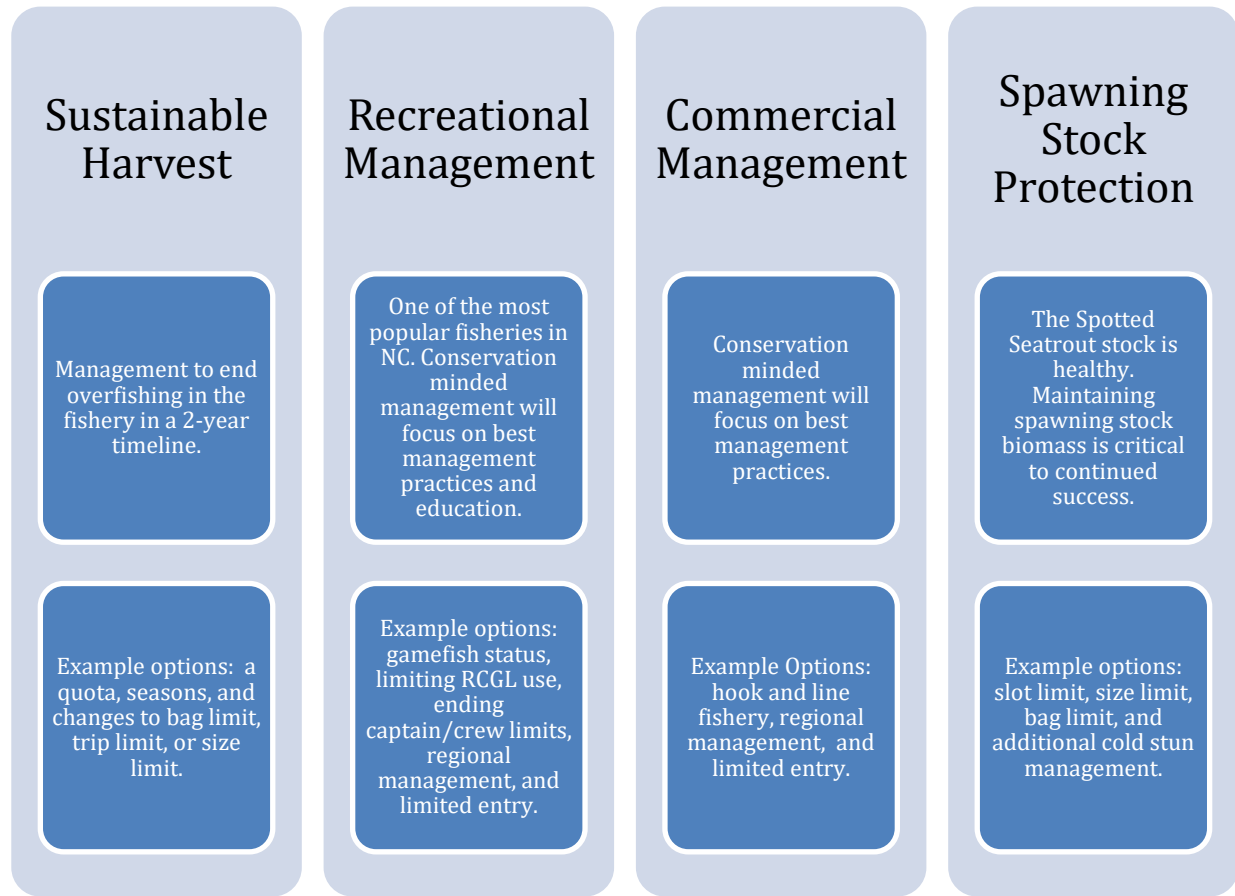
Results of the [2022 Spotted Seatrout Benchmark Stock Assessment](#) were presented to the Marine Fisheries Commission (MFC) at its November 2022 business meeting. The peer reviewed stock assessment was approved for management use and indicates the combined North Carolina and Virginia spotted seatrout stock is not overfished but overfishing was occurring in the terminal year of the assessment (2019). Management actions in Amendment 1 will focus on ending overfishing to provide sustainable harvest.

The division has completed the scoping period for Amendment 1. The next step in the FMP process is for the MFC to approve the Amendment 1 Goal and Objectives. The division will develop Amendment 1 to achieve the goal and objectives in collaboration with the Spotted Seatrout FMP Advisory Committee.

Scoping Period

The Division developed a [scoping document](#) identifying potential management strategies and held a public scoping period for Amendment 1, Mar. 13-Mar. 24, 2023. In addition to accepting comments through an online questionnaire and U.S. Mail, the Division held one hybrid meeting and three in-person meetings in Raleigh (hybrid), Barco, New Bern, and Wilmington. Over 700 stakeholders participated by attending in-person meetings or submitting comments online. The Division received input from meeting attendees, 36 written comments, and 352 online comments. The Division identified four potential management strategies for scoping including Sustainable Harvest, Reducing Recreational Release Mortality, Management for the Small Mesh Gill Net Fishery, and Protecting Spawning Stock Biomass. However, based on public input received during scoping, potential management strategies will include Sustainable Harvest, Recreational Management, Commercial Management, and Protecting Spawning Stock Biomass.

Potential Spotted Seatrout FMP Amendment 1 Management Strategies



The draft Goal and Objectives for the Spotted Seatrout FMP Amendment 1 are:

Goal:

The goal of this plan is to manage the Spotted Seatrout (*Cynoscion nebulosus*) fishery to maintain a self-sustaining population that provides sustainable harvest based on science-based decision-making processes. The following objectives will be used to achieve this goal.

Objectives:

- Implement management within North Carolina that ends overfishing and maintains the Spotted Seatrout spawning stock abundance and recruitment potential.
- Promote restoration, enhancement, and protection of critical habitat and environmental quality in a manner consistent with the Coastal Habitat Protection Plan, to maintain or increase growth, survival, and reproduction of the Spotted Seatrout stock.
- Monitor and manage the fishery in a manner that utilizes biological, socioeconomic, fishery, habitat, and environmental data.
- Promote outreach and interjurisdictional cooperation regarding the status and management of the Spotted Seatrout stock in North Carolina and Virginia waters, including practices that minimize bycatch and discard mortality.

DECISION DOCUMENT

Striped Mullet Fishery Management Plan

Supplement A to Amendment 1



This document was developed to help the MFC track previous activity and prepare for upcoming actions on the Striped Mullet Supplement A.

May 10, 2023

Summary of Need

The current striped mullet stock assessment, terminal year 2019, determined the stock is overfished and overfishing is occurring. There are no current management measures directly limiting harvest of striped mullet commercially and the recreational harvest is limited by a daily possession limit of 200 mullet (white and striped in aggregate). Management measures to address the stock status through Amendment 2 to the FMP will not be completed until at least 2024. A supplement to Amendment 1 will allow immediate implementation of temporary management measures to end overfishing of the striped mullet stock while the more long-term measures addressing sustainable harvest and stock rebuilding are explored and implemented through Amendment 2. Any supplemental management measures will remain in place until Amendment 2 is adopted unless they are adopted as part of that amendment.

Peak striped mullet commercial landings occur in October and November (approximately 55% of landings), with most landings occurring from approximately October 15-November 15. The increase in landings during this time period coincides with the migration of striped mullet from estuarine waters to offshore spawning areas. A season closure during this time extending through the end of the year would provide the greatest harvest reduction over the shortest period of time. In addition, an end of year season closure would ensure there is no recoupment of catch that year, increasing the probability of the management measure successfully reducing harvest and ending overfishing.

Regarding the development of a Supplement, General Statute 113-182.1 (e1) states:

“If the Secretary determines that it is in the interest of the long-term viability of a fishery, the Secretary may authorize the Commission to develop temporary management measures to supplement an existing Fishery Management Plan pursuant to this subsection. Development of temporary management measures pursuant to this subsection is exempt from subsections (c), (c1), and (e) of this section and the Priority List, Schedule and guidance criteria established by the Marine Fisheries Commission under G.S. 143B-289.52. During the next review period for a Fishery Management Plan supplemented pursuant to this subsection, the Commission shall either incorporate the temporary management measures into the revised Fishery Management Plan or the temporary management measures shall expire on the date the revised Fishery Management Plan is adopted.”

Supplement Timing (Grey indicates the step is complete.)

August 2022	DMF Director requests approval from MFC to request Secretarial approval for a supplement to Striped Mullet FMP Amendment 1
November 2022	Draft Supplement A presented to MFC including management options. MFC Selected Option 2.
December 2022-January 2023	Public Comment Period
May 2023	MFC Review Public Comment and Final Vote on Approval of Supplement A

Decisions Points

Decision to Request a Supplement – August 2022

At the August MFC Business Meeting the DMF Director Kathy Rawls gave an update on Striped Mullet management, and requested the Commission support a request to the DEQ Secretary for approval of supplemental management of striped mullet while Amendment 2 is developed. The Commission discussed the issue. Highlights from that discussion are included below:

- What type of management would be considered?

A seasonal closure is the only practical option that would be considered for supplemental management, however, the Division will consider other options brought by the Commission or members of the public. Additionally, all other options will be considered for Amendment 2 management.

- What is the impact of supplement development on timing of development of Amendment 2?

The Division does not anticipate any impact on the timing of Amendment 2.

- How long is the temporary management expected to remain in place?

Based on the expected timeline of Amendment 2, the Division expects the supplemental management measures will remain in place for one year, but possibly up to two years.

Following the discussion, the Chairman asked if any Commissioner objected to pursuing a supplement. There were no objections. The Chairman indicated the Division had the endorsement of the Commission to request the DEQ Secretary approve development of supplemental management.

Following the meeting a request was sent to the Secretary of DEQ for review and approval. The Secretary approved development of a supplement, after which the Division drafted the supplement document.

Management Options in Supplement A – November 2022

End of year season closures are considered the most effective and efficient management option that can be implemented through the supplement process and be expected to successfully limit striped mullet harvest. An end of year season closure would be implemented as no possession across both commercial and recreational sectors with no additional modification or prohibition of gears. An end of year season closure, if approved by the MFC would be implemented via proclamation.

At the November 2022 MFC business meeting Division staff presented the draft Striped Mullet Supplement A document including three season closure management scenarios that are estimated to end overfishing. These are shown below in Table 6 from the draft Supplement document.

DMF Recommended Management Strategy

The DMF recommended supplemental management measure of either option 1 or 2. To achieve a 20-33% reduction, any end of year season closure must begin no sooner than October 29 and no later than November 7 and continue through December 31. The Division supports a 20-33% reduction to exceed the threshold and either meet or approach the target. This reduction level increases the probability of, at a minimum, ending overfishing even if there is variability in fishing effort, market demand, striped mullet availability to the fishery, or recruitment fluctuations.

Table 6. Management options that satisfy the 9.9% commercial harvest reduction and 9.3% reduction overall to end overfishing. All reductions are calculated from 2019 commercial harvest levels (terminal year of stock assessment).

Single Management Measures that Satisfy Reduction	Management Measure	Estimated Commercial Harvest Reduction (%)
Season Closures		
1	October 29 – December 31	33.7
2	November 7 – December 31	22.1
3	November 13 - December 31	10.9

*All closures would apply to recreational and commercial sectors

Decision to Select Preferred Management Strategy

Following the presentation by staff, the Commission engaged with DMF staff in a lengthy discussion after which a number of motions were made, discussed and voted on. Below are highlights from that discussion:

- What is the estimated recreational harvest reduction?

We cannot calculate an estimate for recreational harvest reduction because the data available for the recreational harvest is not captured with enough precision to accurately calculate daily landings and the recreational mullet harvest, both white and striped, is for bait.

- Why is recreational harvest being closed?

To be equitable across all fisheries and to reduce management complexity to improve enforceability.

- Can the reductions be taken from the rest of the year instead of from the fall row season?

In the context of the biology of the fish and the dominant fishery, the Division does not believe reductions at other times of the year would be successful. The demand and effort is primarily focused during the spawning period, it is likely that even if we closed striped mullet for the rest of the year, we would expect any reductions achieved to be recouped during the fall row mullet fishery.

- Is commercial harvest used to determine abundance? Specifically, the commercial harvest has been up the last couple of years, doesn't that mean we should wait to see if that changes the need for this supplement?

Stock assessments, which use commercial harvest, Division survey data and life history data are used to estimate fishing mortality and stock abundance. Commercial harvest is not equivalent to stock abundance because it is impacted by factors including but not limited to fisherman effort and market demand. However, when compared, commercial landings and abundance trends from Division sampling programs do show a similar pattern over time.

*Regarding recent increases in harvest, we cannot tell if fishing mortality is lower or if spawning stock biomass is higher, that can only be determined through a stock assessment update. We can only say that abundance observed in the Division's sampling programs and harvest has increased over the last two years.**

- Is the Division confident in the current stock assessment?

Yes, we are confident in the assessment. The Division has observed an increase in landings over the last two years, however, this does not necessarily translate into a change in the stock status. The only way to determine if the stock status has changed is to update the stock assessment.*

* Striped mullet abundance in the independent gill net survey (Program 915) increased in 2021 but decreased in 2022. Commercial harvest increased in 2021 and increased again in 2022.

Motion

Delay Implementation of the Supplement A to Amendment 1 of the striped Mullet Fishery Management Plan.

Motion Failed

Motion

Approve supplement A to Amendment 1 of the Striped Mullet Fishery Management Plan with option 1, with the caveat that allows recreational possession in the whole year.

Motion fails for lack of second.

Motion

Approve Supplement A to Amendment 1 of the Striped Mullet Fishery Management Plan with Option 2.

Substitute Motion

Approve Supplement A to Amendment 1 of the Striped Mullet Fishery Management Plan with Option 1.

Motion failed.

→ Motion Approved Unanimously.

[Public Comment Review and Vote on Management Options – February 2023](#)

Following the selection of Option 2 (see Table 6 above) as their preferred management option in Supplement A, a 30-day public comment period was held. At their February 2023 business meeting the Commission reviewed the public comments and continued their discussion on the available management options for Supplement A.

Many of the public comments were not in favor of any of the supplemental management options, generally citing a good fishing year currently and a lack of confidence in the stock assessment. Following a brief discussion, motions were made, discussed and voted on. None of the Options presented by the Division were selected during the meeting, however, some members of the Commission requested additional options with seasonal closures by region be brought back to the Commission for further consideration. Below are highlights from the discussion:

- Is there more information the Division can provide to the Commission about the Striped Mullet fishery? Further data or information to help clarify some of the concerns?

We can provide specific sampling program information to look at trends in the fishery and have done so in the past, however, all of those pieces of information go into the stock assessment to determine the stock status of the fishery. Providing any of these pieces on their own will not provide better information to make this decision on. The stock assessment provides the most complete picture of the fishery at this time, and over time, and it is the measure of stock status that the Division and the Commission has at this point to use for development of this Supplement and for development of Amendment 2.

Motion

Vote down Supplement A to Amendment 1 of the Striped Mullet FMP and continue with the amendment process.

Substitute Motion

Accept Option 2 of Supplement A to Amendment 1 of the Striped Mullet FMP.

Motion failed.

▶ Motion failed by lack of super majority.

Motion

Approve Option 3 of Supplement A to Amendment 1 of the Striped Mullet FMP.

Motion failed.

Next Steps

The Chairman indicated the Commission will take up this discussion and a possible vote on Supplement A at their May 2023 meeting. In addition, some members of the Commission requested the Division develop additional regionally-specific management options for Supplement A. These will be reviewed during their May 2023 business meeting and a potential vote on final action taken.

Striped Mullet FMP Amendment 1 Supplement A

Complete List of Management Options

Table 6. Management options that satisfy the 9.9% commercial harvest reduction and 9.3% reduction overall to end overfishing. All reductions are calculated from 2019 commercial harvest levels (terminal year of stock assessment).

Option	Management Measure	Estimated Commercial Harvest Reduction (%)
Season Closures		
1	October 29 – December 31	33.7
2	November 7 – December 31	22.1
3	November 13 - December 31	10.9

*All closures would apply to recreational and commercial sectors

Table 7. Management options that satisfy the 9.9% commercial harvest reduction and 9.3% reduction overall to end overfishing by splitting the seasons between north and south. All reductions are calculated from 2019 commercial harvest levels (terminal year of stock assessment).

Season Closure			
Option	North	South	Minimum Reduction
4	October 28 – December 31	October 30 – December 31	35.6
5	November 7 – December 31	November 10 – December 31	21.7
6	November 13 – December 31	November 21 – December 31	10.1

*All closures would apply to recreational and commercial sectors

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SUPPLEMENT A TO AMENDMENT 1 TO THE N.C. STRIPED MULLET FISHERY MANAGEMENT PLAN

May 2023

ISSUE

Consideration of Supplement A to Amendment 1 to the N.C. Striped Mullet Fishery Management Plan (FMP) to implement temporary management measures to immediately address overfishing of the striped mullet stock while Amendment 2 is developed.

ORIGINATION

The North Carolina Division of Marine Fisheries (DMF).

BACKGROUND

The North Carolina striped mullet stock is overfished and overfishing is occurring in 2019, the terminal year of the stock assessment (NCDMF 2022). As statutorily required, management measures will be developed through Amendment 2 to end overfishing and rebuild spawning stock biomass. Development of Amendment 2 is underway, with final adoption and implementation tentatively scheduled for 2024. Because of the timeline of FMP development, there will be four-years between the terminal year of the stock assessment and implementation of management measures to address the stock status. The supplement allows for implementation of temporary management measures to supplement Amendment 1 until Amendment 2 is adopted.

General Statute 113-182.1 provides a mechanism to supplement management under a Fishery Management Plan (FMP) between scheduled reviews when the Secretary of the Department of Environmental Quality (DEQ) determines it is in the interest of the long-term viability of the fishery. The draft supplement contains analysis of the proposed management change, projected outcomes, and proposed rules or proclamation measures necessary to implement the management change. The North Carolina Marine Fisheries Commission (MFC) may only consider a single management issue for each draft supplement. The supplement allows for implementation of temporary management measures to supplement Amendment 1 until Amendment 2 is adopted. NCMFC Rule 15A NCAC 03M .0502 provides the Director proclamation authority to implement restrictions in the taking of mullet. In accordance with the MFC FMP Guidelines, the MFC will review the draft supplement and reject (end of process), approve, or modify and approve it for public comment.

The North Carolina Striped Mullet FMP was adopted in April 2006 and established minimum and maximum commercial landings triggers of 1.3 and 3.1 million pounds (NCDMF 2006). If annual landings fall below the minimum trigger, the DMF would determine whether the decrease in landings is attributed to stock decline, decreased fishing effort, or both. If annual landings exceed the maximum trigger, DMF would determine whether harvest is sustainable and what factors are driving the increase in harvest. The Striped Mullet FMP established a daily possession limit of 200 mullets (white and striped combined) per person per day in the recreational fishery, through NCMFC Rule 15A NCAC 03M .0502.

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The Striped Mullet FMP Amendment 1 was adopted in November 2015. The associated rules from Amendment 1 were implemented in April 2016; to resolve issues with Newport River gill net attendance and mitigate known user group conflicts. Amendment 1 also updated the management framework and updated minimum and maximum commercial landings triggers to 1.13 and 2.76 million pounds (NCDMF 2015). Amendment 1 maintains the recreational fishery limit. Other than the recreational daily possession limit there are no management measures directly limiting harvest of striped mullet.

Stock assessments for the North Carolina striped mullet stock were conducted by the DMF in 2006 (NCDMF 2006), 2013 (NCDMF 2015), 2018 (NCDMF 2018), and 2022 (NCDMF 2022). In each assessment, a fishing mortality threshold of $F_{25\%}$ was used to determine if overfishing was occurring. The 2022 assessment also used a spawning stock biomass (SSB) threshold of $SSB_{25\%}$ to determine if the stock was overfished. Stock assessments in 2006, 2013, and 2017 determined overfishing was not occurring but could not determine whether the stock was overfished. While these assessments concluded overfishing was not occurring, each noted concerning trends, data uncertainty, and the potential impact of future poor recruitment events. Given this concern, the commercial landings triggers and adaptive management framework were approved in the Striped Mullet FMP and updated in Amendment 1.

Commercial landings in 2016 were 965,198 pounds, less than the minimum commercial landings trigger. As required under the FMP, the DMF initiated data analysis and ultimately recommended updating the 2013 stock assessment with data through 2017 prior to considering any management action. 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. The 2018 stock assessment concluded overfishing was not occurring in 2017 but indicated declining spawning stock biomass, declining recruitment, and increasing fishing mortality. A major concern in the 2017 assessment was lack of contrast in commercial landings data and lack of contrast and high variability associated with fishery-independent indices including the Fishery-Independent Gill Net Survey (Program 915), the Striped Mullet Electrofishing Survey (Program 146), and the Striped Bass Independent Gill Net Survey (Program 135). Also of concern were the poor fits to survey data and length compositions.

At its August 2018 business meeting, the DMF presented its recommendation along with recommendations from the Northern, Southern, and Finfish Advisory Committees to the NCMFC that no management action be taken since the stock assessment update indicated overfishing was not occurring. The DMF would, however, continue to monitor trends in the commercial fishery and fishery-independent indices. The recommendation was approved by the MFC.

For the 2022 striped mullet stock assessment, a F threshold of $F_{25\%}$ and a target of $F_{35\%}$ were maintained from the prior assessment since the commercial fishery continues to target mature female fish during the spawning season and the ecological importance of striped mullet. Complementary reference points for stock size were adopted based on female SSB, with a threshold of $SSB_{25\%}$ and a target of $SSB_{35\%}$. The stock assessment model estimated a value of 0.37 for the $F_{25\%}$ threshold and a value of 0.26 for the $F_{35\%}$ target. In 2019, the terminal year of the assessment, F was 0.42, higher than the $F_{25\%}$ threshold, indicating overfishing is occurring (Figure 1). The model estimated a value of 1,364,895 pounds for the $SSB_{25\%}$ threshold and a value of 2,238,075 pounds for the $SSB_{35\%}$ target. Female SSB in 2019 was estimated at 579,915 pounds, smaller than the $SSB_{25\%}$ threshold, indicating the stock is overfished (Figure 2).

An external peer review workshop was held in April 2022. The panel concluded the assessment model and results are suitable for providing management advice for at least the next five years. The panel considers the current model a substantial improvement from the previous assessment, representing the best scientific information available for the stock.

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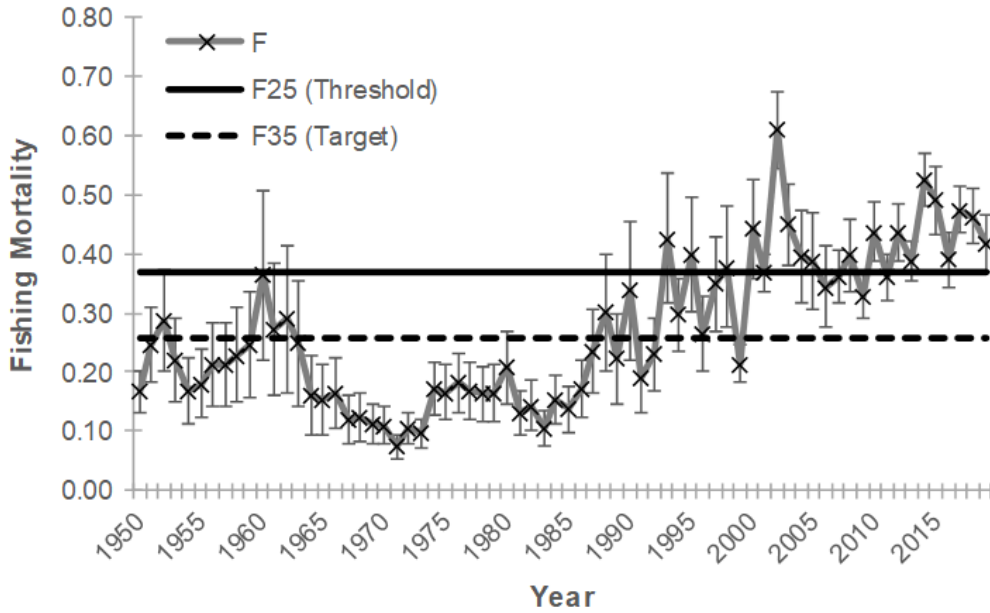


Figure 1. Comparison of annual estimates of fishing mortality (numbers weighted, ages 1-5) to the fishing mortality target (F35%) and threshold (F25%). Error bars represent ± 2 standard deviations.

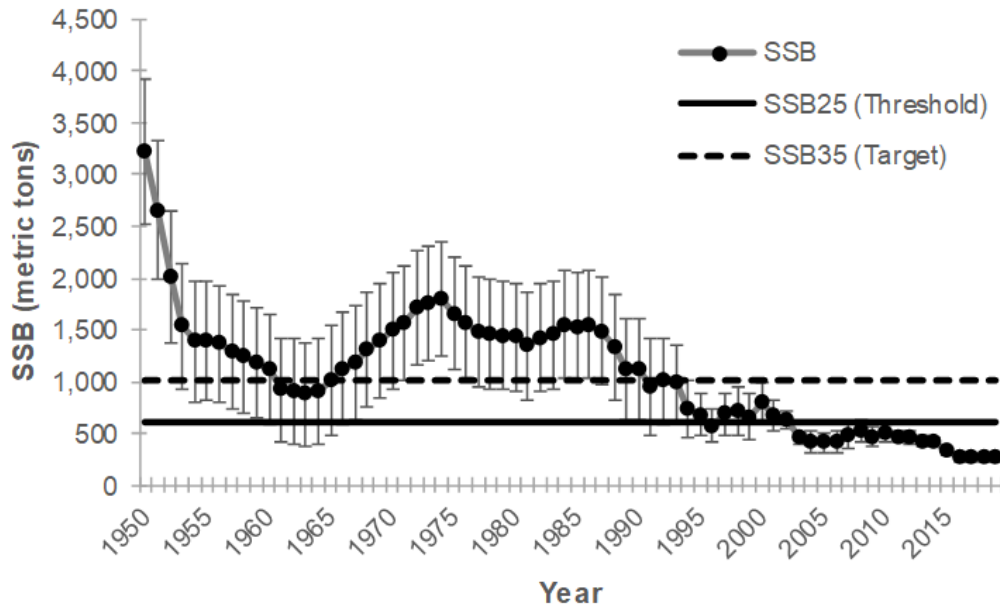


Figure 2. Comparison of annual estimates of female spawning stock biomass (SSB) to the SSB target (SSB35%) and threshold (SSB25%). Error bars represent ± 2 standard deviations.

AUTHORITY

- G.S. 113-134 RULES
- G.S. 113-182 REGULATION OF FISHING AND FISHERIES
- G.S. 113-182.1 FISHERY MANAGEMENT PLANS
- G.S. 113-221.1. PROCLAMATIONS; EMERGENCY REVIEW
- G.S. 143B-289.52 MARINE FISHERIES COMMISSION-POWERS AND DUTIES
- 15A NCAC 03M .0502 MULLET
- 15A NCAC 03H .0103 PROCLAMATIONS, GENERAL

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DISCUSSION

The 2022 stock assessment (NCDMF 2022) indicates recruitment has not only declined but has been below average since 2009 (Figure 3). The decline in recruitment coincides with declining spawning stock biomass while fishing mortality has increased (Figures 1-2).

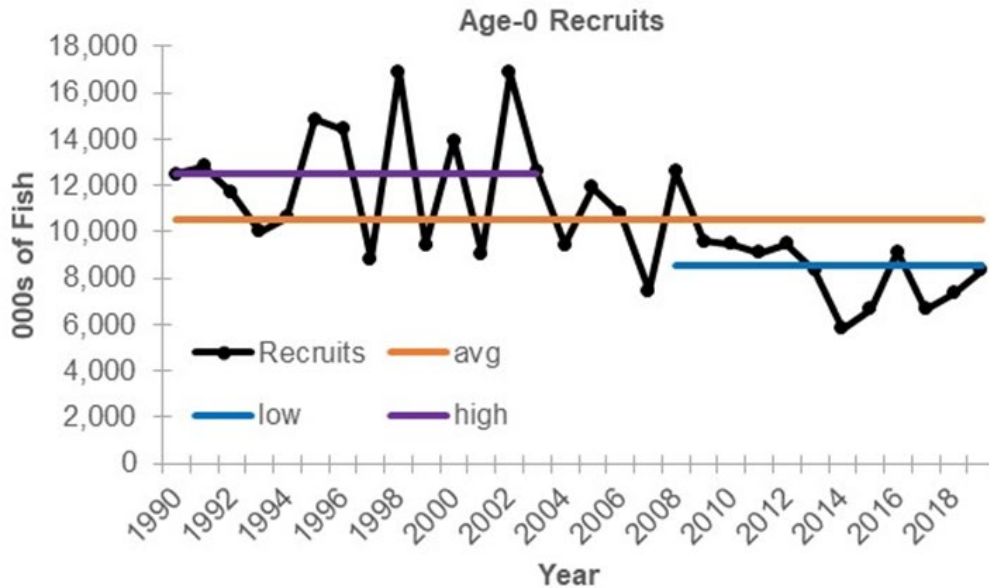


Figure 3. Estimates of striped mullet recruitment from the 2022 striped mullet stock assessment (NCDMF 2022). Average recruitment is the average number of recruits from 1990 to 2019, high recruitment is the average number of recruits from 1990 to 2003, and low recruitment is the average number of recruits from 2008 to 2019.

A 9.3% reduction in total removals relative to landings in 2019 is needed to reduce fishing mortality to the threshold and a 33% reduction is needed to reach the target. Amendment 1 to the Striped Mullet FMP included adaptive management allowing for implementation of management measures if commercial landings exceeded or fell below commercial landings triggers. Because neither the minimum or maximum commercial landings triggers were exceeded in 2022, adaptive management cannot be used to immediately implement management measures. A supplement to Amendment 1 is the only option to immediately implement management measures to end overfishing of the striped mullet stock. Given the stock is overfished and overfishing is occurring, ending overfishing immediately is in the long-term interest of the fishery because it begins rebuilding spawning stock biomass and meets the statutory requirement to end overfishing in two years. Measures addressing sustainable harvest and stock recovery will be explored and implemented through Amendment 2.

Implementation of quotas, seasons, size limits, area closures, gear restrictions, and harvest limits were discussed in Amendment 1 (NCDMF 2015). However, because management measures implemented through a supplement are intended to address a single issue, in this case ending overfishing, size limits, area closures, and gear restrictions are not considered viable options, and are not recommended, because they are unlikely to result in necessary harvest reductions without other measures in being place. A harvest quota would result in necessary harvest reductions and should be considered as a practical long-term option for management of the striped mullet fishery. However, because of the time needed to develop a quota monitoring framework and update infrastructure it is not considered a practical option through the supplement process and is not recommended. Trip limits, in conjunction with other options, could result in necessary reductions but given the high-volume nature of the striped mullet fishery may result in excessive

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dead discards. Trip limits should be explored during Amendment 2 but are not recommended for the supplement.

Given the inherent seasonality of the striped mullet fishery and life history characteristics that make striped mullet more vulnerable to the fishery during certain times of year, season closures are considered the most effective and efficient method to achieve the necessary reductions that can be implemented immediately through a supplement. Striped mullet are highly fecund (upwards of 4 million eggs for a large female; Bichy 2000) and spawn in large groups near inlets and in offshore areas (Collins and Stender 1989). Spawning individuals have been reported from September to March; however, peak spawning activity occurs from October to early December (Bichy 2000). Prior to spawning, striped mullet form large schools in estuaries and can be easily spotted near the surface making them particularly vulnerable to harvest. Closing a portion of the fall season to possession of striped mullet would reduce landings in the targeted striped mullet fishery, where most effort occurs. Targeting a season closure to the period of peak striped mullet harvest minimizes the length of the closure and the numbers of discards that might occur in other fisheries.

Characterization of the Fishery

Recreational Fishery

The federal Marine Recreational Information Program (MRIP) is primarily designed to sample anglers who use rod and reel as the mode of capture. Since most striped mullet are caught with cast nets for bait, striped mullet recreational harvest data are imprecise. In addition, angler misidentification between striped mullet and white mullet is common, and bait mullet are usually released by anglers before visual verification by creel clerks is possible. As such, mullets are not identified to the species level in MRIP data (Catch Type B). Beginning in 2002, MRIP began deferring to mullet genus to classify unobserved type B1 (harvested/unavailable catch) and B2 (released/unavailable catch) catch. As a result, the magnitude of recreational mullet genus harvest far exceeds that of both striped mullet and white mullet. This methodological improvement increased the precision of mullet harvest estimates albeit without species level resolution. As such, estimates of recreational harvest for mullet prior to 2002 are considered unreliable.

The 2022 striped mullet stock assessment used the sum of recreational striped mullet harvest and a proportion of the recreational harvest of mullet genus to estimate removals by the recreational fleet (NCDMF 2022). The proportion of mullet genus assumed to be striped mullet in the recreational harvest was 29%, a value derived from a DMF striped mullet recreational cast net harvest study (NCDMF 2006).

Recreational harvest peaked in 2002 and 2003 at greater than four million fish harvested (Table 1). From 2004 to 2017 recreational harvest remained stable at around one million fish before declining in 2018, 2019 and 2020 to around 500,000 fish. This decline was likely related to decreased abundance of striped mullet and regulations that drastically shortened the recreational fishing season for southern flounder, a fishery where live mullet is a popular bait. Recreational harvest in 2021 was 1,484,850 fish.

Generally, most recreational striped mullet harvest occurs during the late summer and early fall. From 2017 to 2021 most recreational harvest occurred during September/October with some harvest during July/August (Figure 4). Based on MRIP harvest estimates very few, if any, striped mullet are harvested recreationally during the January/February or March/April waves (Table 2).

Striped mullet harvest data from the Recreational Commercial Gear License (RCGL) were collected from 2002 to 2008. The program was discontinued in 2009 due to a lack of funding and the minimal contributions

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from RCGL to overall harvest. From 2002 through 2008, an average of 41,512 pounds of striped mullet were harvested per year using a RCGL (Table 3).

Table 1. Recreational harvest (number of fish landed) of striped mullet and mullet genus estimated from MRIP sampling, 2002-2021. Based on results of a DMF cast net study (NCDMF 2006), 29% of the mullet genus harvested are assumed to be striped mullet.

Year	Striped Mullet		Mullet Genus		Striped Mullet from Mullet Genus (29%)	Striped Mullet + Mullet Genus
	Harvest		Harvest (B1)		Harvest (B1)	Striped Mullet Total Harvest
	(A+B1)	PSE		PSE		
2002	4,668,427	18.0	4,480,197	36.3	1,299,257	5,967,684
2003	3,368,881	29.6	2,487,885	20.4	721,487	4,090,368
2004	5,496	101.7	4,790,382	16.1	1,389,211	1,394,707
2005	10,795	61.5	4,487,719	21.4	1,301,439	1,312,234
2006	15,706	63.5	3,599,098	21.4	1,043,738	1,059,444
2007	301,004	81.3	5,052,995	22.3	1,465,369	1,766,373
2008	3,458	65.0	4,097,156	14.4	1,188,175	1,191,633
2009	83,480	90.6	3,736,571	14.3	1,083,606	1,167,086
2010	126,250	44.7	4,113,171	14.3	1,192,820	1,319,070
2011	80,267	28.6	3,653,514	14.3	1,059,519	1,139,786
2012	351,960	79.5	3,510,395	16.3	1,018,015	1,369,975
2013	150,020	53.9	4,493,166	20.5	1,303,018	1,453,038
2014	50,381	67.0	4,490,722	26.2	1,302,309	1,352,690
2015	142,696	64.5	4,405,800	21.5	1,277,682	1,420,378
2016	29,965	50.6	5,039,891	55.6	1,461,568	1,491,533
2017	37,791	43.9	5,170,318	55.2	1,499,392	1,537,183
2018	35,565	59.3	1,564,676	31.7	453,756	489,321
2019	324,986	52.0	817,596	25.3	237,103	562,089
2020	323,102	43.2	719,908	23.2	208,773	531,875
2021	1,194,213	73.6	1,002,195	31.6	290,637	1,484,850

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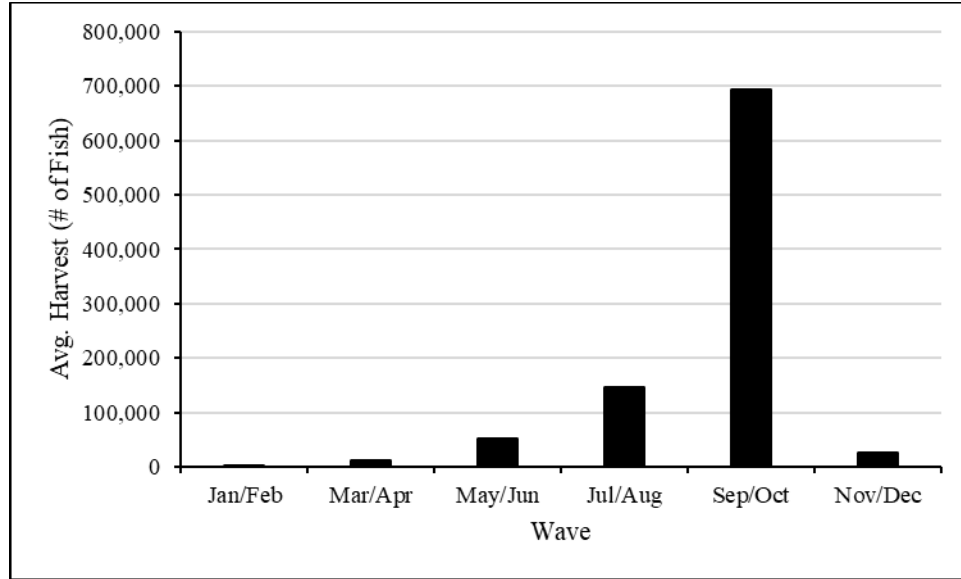


Figure 4. Average number of striped mullet harvested by the recreational fishery by wave based on MRIP estimates, 2017-2021.

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Table 2. Recreational harvest (number of fish landed) of striped mullet and mullet genus by wave estimated from MRIP sampling, 2002-2021. Striped mullet assumed as 29% of mullet genus.

Year	Wave	Striped Mullet	Mullet Genus	Striped Mullet from Mullet Genus (29%)	Striped Mullet + Mullet Genus
		Harvest (A+B1)	Harvest (B1)	Harvest (B1)	Striped Mullet Total Harvest
2017	January/February	.	.	.	.
2017	March/April	.	82,931	24,050	24,050
2017	May/June	27,708	284,430	82,485	110,193
2017	July/August	8,505	354,629	102,842	111,347
2017	September/October	1,579	4,432,737	1,285,494	1,287,073
2017	November/December	.	15,590	4,521	4,521
2018	January/February	.	.	.	.
2018	March/April	.	.	.	.
2018	May/June	2,239	136,595	39,613	41,852
2018	July/August	18,993	750,891	217,758	236,751
2018	September/October	13,505	457,709	132,736	146,241
2018	November/December	828	219,480	63,649	64,477
2019	January/February	.	.	.	.
2019	March/April	.	32,700	9,483	9,483
2019	May/June	11,773	86,637	25,125	36,898
2019	July/August	82,801	280,921	81,467	164,268
2019	September/October	217,317	367,020	106,436	323,753
2019	November/December	13,096	50,318	14,592	27,688
2020	January/February	1,648	1,540	447	2,095
2020	March/April	.	21,050	6,105	6,105
2020	May/June	6,308	78,303	22,708	29,016
2020	July/August	40,470	239,694	69,511	109,981
2020	September/October	274,675	370,617	107,479	382,154
2020	November/December	.	8,704	2,524	2,524
2021	January/February	.	6,340	1,839	1,839
2021	March/April	7,087	.	.	7,087
2021	May/June	1,336	144,319	41,853	43,189
2021	July/August	21,670	292,846	84,925	106,595
2021	September/October	1,164,119	558,690	162,020	1,326,139
2021	November/December

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Table 3. North Carolina Recreational Commercial Gear License (RCGL) survey estimates of the number of striped mullet harvested, pounds harvested, number released, and total number caught. The survey was discontinued in 2009.

Year	Number Harvested	Pounds Harvested	Number Released	Total Number
2002	66,305	64,213	6,549	72,854
2003	28,757	24,774	3,514	32,270
2004	34,736	35,947	2,875	37,611
2005	35,888	36,314	3,492	39,380
2006	38,175	37,385	5,352	43,527
2007	35,472	40,168	7,449	42,921
2008	51,465	51,785	9,207	60,672

Commercial Fishery

Since 1972, striped mullet commercial landings have ranged from a low of 965,198 pounds in 2016 to a high of 3,063,853 pounds in 1993 (Figure 5). From 2003 to 2009, landings were stable between 1,598,617 and 1,728,607 pounds before increasing to 2,082,832 pounds in 2010. Landings fluctuated annually between 1.5 and 2.0 million pounds from 2010 to 2014 before declining in 2015 and again in 2016, dropping below the minimum commercial landings trigger established by Amendment 1. Commercial landings in 2021 increased to 2,135,952 pounds, which is 1,005,952 pounds above the minimum commercial landings trigger.

Historically, beach seines and gill nets were the two primary gear types used in the striped mullet commercial fishery, with most commercial landings prior to 1978 coming from the beach seine fishery. Gill nets (runaround, set, and drift) replaced seines as the dominant commercial gear type in 1979 and since 2017 runaround gill nets have accounted for most (>70%) striped mullet commercial landings (Figure 6).

Because the commercial fishery primarily targets striped mullet for roe, the fishery is seasonal with the highest demand and landings occurring in October and November when large schools form during their spawning migration to the ocean and females are ripe with eggs (Figures 7-8). Striped mullet are primarily targeted commercially using runaround gill nets in the estuarine and ocean waters of North Carolina. The striped mullet beach seine fishery primarily occurs in conjunction with the Bogue Banks stop net fishery. The stop net fishery has operated under fixed seasons and net and area restrictions since 1993. Currently, stop nets are limited in number (four), length (400 yards), and mesh sizes (minimum eight inches outside panels, six inches middle section). Stop nets have typically been permitted along Bogue Banks (Carteret County) in the Atlantic Ocean from October 1 to November 30. However, the stop net season was extended to include December 3 to December 17 in 2015 due to minimal landings of striped mullet (Proclamation M-28-2015). In 2020 and 2021, the stop net fishery was open from October 15 through December 31 (Proclamations M-17-2020 and M-21-2021). Due to the schooling nature of striped mullet, the beach seine fishery has the potential to be, and historically has been, a high-volume fishery with thousands of pounds landed during a single trip. In addition, the use of cast nets in the striped mullet commercial fishery has been increasing since around 2003.

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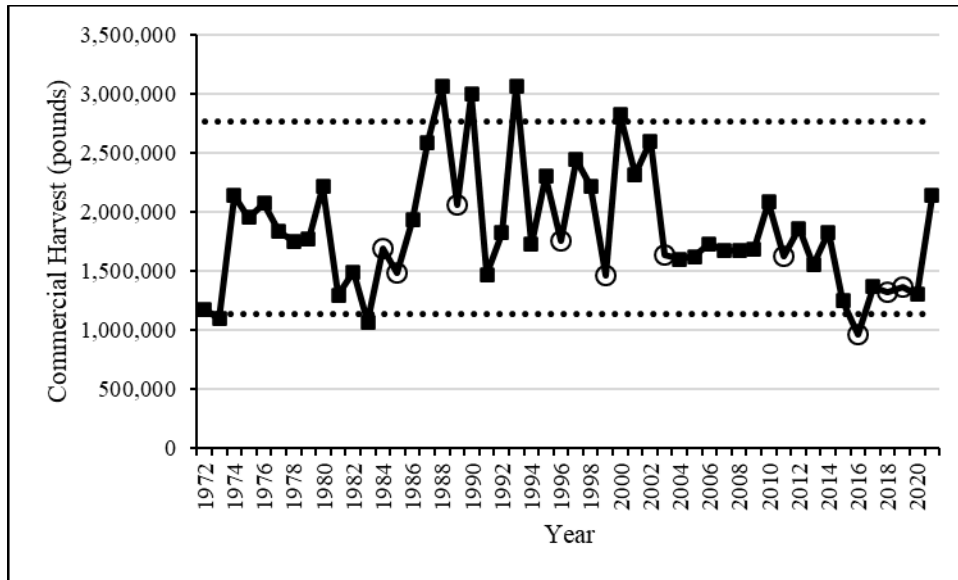


Figure 5. Striped mullet commercial landings (pounds) reported through the North Carolina Trip Ticket Program, 1972–2021 Lower dashed line (1.13 million lb.) and upper dashed line (2.76 million lb.) represent landings limits that trigger closer examination of data. Open circles represent years with significant hurricanes of storms.

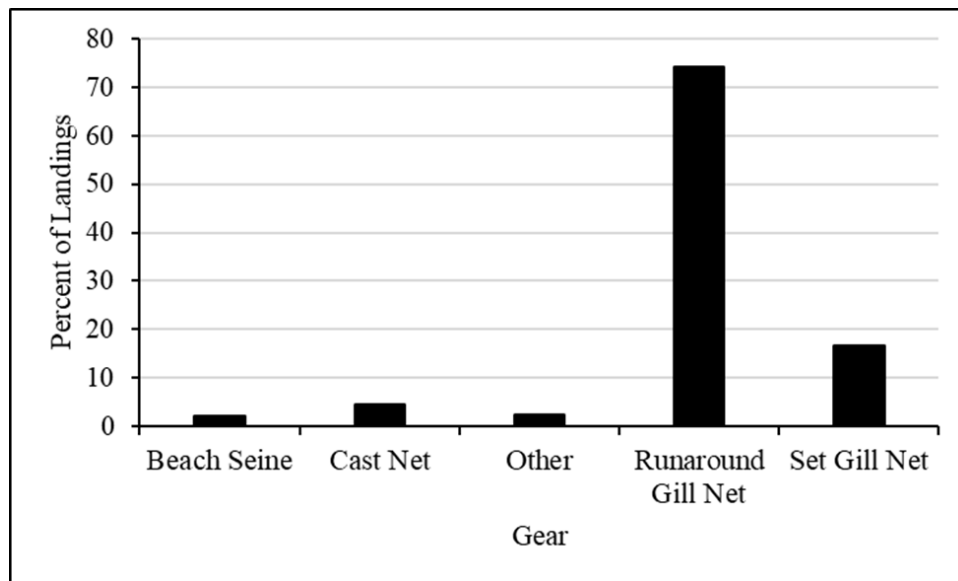


Figure 6. Percent of striped mullet commercial landings reported through the North Carolina Trip Ticket Program by gear, 2017–2021.

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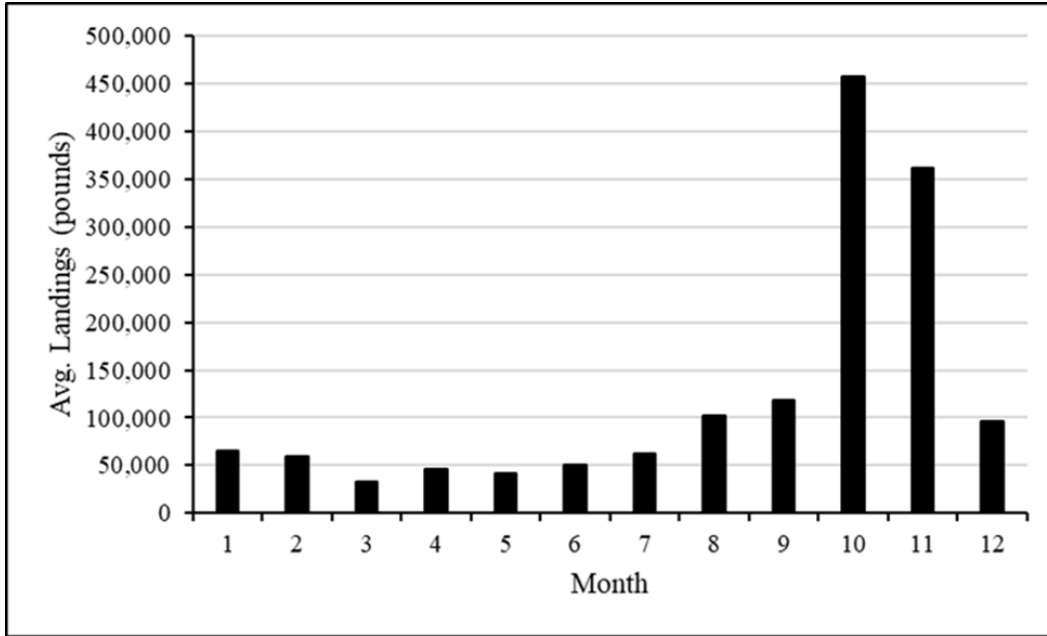


Figure 7. Average commercial landings of striped mullet by month, 2017-2021.

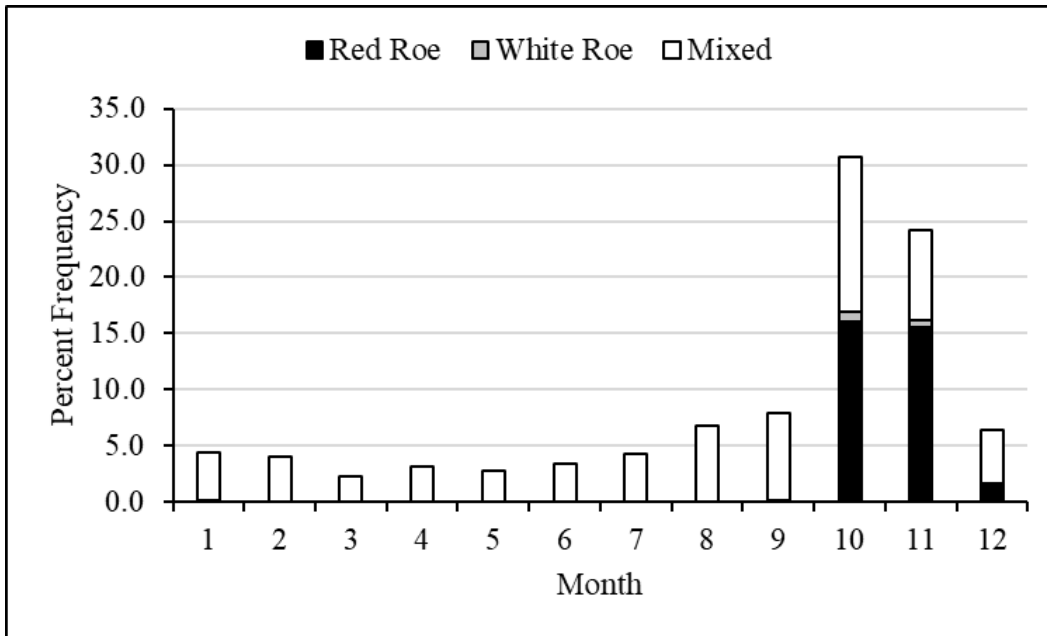


Figure 8. Percent frequency of striped mullet commercial landings by market grade and month, 2017-2021. Red Roe includes striped mullet graded as Red Roe and Roe. White Roe includes striped mullet graded as White Roe. Mixed includes striped mullet graded as Jumbo, Large, Medium, Mixed, Small, and X-Small.

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PROPOSED MANAGEMENT OPTIONS

The goal of this supplement is to reduce fishing mortality and end overfishing with simple quantifiable measures as quickly as possible. A 9.3% reduction in total removals relative to landings in 2019 is needed to reduce fishing mortality to the threshold and a 33% reduction is needed to reach the target. The Division recommends harvest reductions of 20-33% to exceed the F threshold and either reach or approach the F target. This level of reduction increases the probability of, at a minimum, ending overfishing even if there is variability in fishing effort, market demand, striped mullet availability to the fishery, or recruitment.

Non-quantifiable measures such as gear restrictions, area closures, size limits, and recreational specific measures were not considered because they may not quantifiably reduce harvest. A quota system was not considered because the infrastructure is not in place to quickly implement this type of management. Management strategies such as daily trip limits, day of the week closures, and early or mid-season closures were not considered because the risk of recouped catches would likely limit the realized reductions of these management measures. Rather than reduce harvest, measures like early season closures would likely just act to delay harvest.

End of year season closures are considered the most effective and efficient management option that can be implemented through the supplement process and be expected to successfully limit striped mullet harvest. An end of year season closure would be implemented as no possession across both commercial and recreational sectors with no additional modification or prohibition of gears. Despite the closure occurring across all sectors, reductions cannot be quantified for the recreational sector due to data limitations. Therefore, overall reduction calculations are based solely on striped mullet landings from the commercial fishery. A 9.3% overall reduction equates to a 9.9% reduction in commercial harvest, and a 20-33% overall reduction equates to a 21.3-35.4% reduction in commercial harvest. All management options are presented as percent reductions to the commercial harvest relative to commercial landings in 2019 (terminal year of the stock assessment).

End of Year Closures

Historically, peak striped mullet roe landings have occurred in October-November, with most landings occurring from approximately October 15-November 15. An end of year season closure during this time provides the greatest reduction over the shortest period. The closure occurring at the end of the year, does not allow for recoument of catch that year, increasing the probability of successfully reducing harvest, and ending overfishing. The closure must occur during the peak fall roe harvest season, which impacts the most economically valuable segment of the striped mullet fishery. An end of year closure also creates regulatory discards associated with fisheries that do not target striped mullet during the closed period. However, much of the striped mullet harvest during this time comes from directed trips where runaround gill nets are used to capture visible, schooling striped mullet so discards in other fisheries are unlikely to be excessive. A wrap-around end of year closure extending into January was not considered because of the minimal benefit to striped mullet and to avoid creating striped mullet discards in other fisheries. A closure extending into January would not yield any significant extension to the fall striped mullet season and would likely increase pressure on other fisheries, like spotted seatrout. An end of year closure is most likely to achieve the necessary reductions because recoument would be less significant than other management options not considered in this supplement.

Summary of Economic Impacts

Modeling software, IMPLAN, is used to estimate the economic impacts of an industry to the state at-large, accounting for revenues and participation. For a detailed explanation of the methodology used to estimate

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the economic impacts please refer to DMF’s License and Statistics Section Annual Report on the Fisheries Statistics page (NCDMF 2021). Due to the management options being considered, this analysis focuses on the commercial industry.

Commercial landings and effort data collected through the DMF Trip Ticket Program are used to estimate the economic impact of the commercial fishing industry. For commercial fishing output, total impacts are estimated by incorporating modifiers from NOAA’s Fisheries Economics of the United States report (NMFS 2022), which account for proportional expenditures and spillover impacts from related industries. By assuming the striped mullet fishery’s contribution to expenditure categories at a proportion equal to its contribution to total commercial ex-vessel values, it is possible to generate an estimate of the total economic impact of striped mullet statewide.

From 2011 to 2021 striped mullet ex-vessel value has been about \$1 million dollars and impacts about 800 jobs annually (Table 4). Annual sales impacts have varied but averaged \$3.6 million from 2011 to 2021. In general, these estimates demonstrate the striped mullet fishery contributes to about 1% of commercial fishing sales impact statewide.

Table 4. Annual commercial estimates of annual economic impact to the state of North Carolina from striped mullet harvest, 2011-2021. Economic impacts are reported in 2020 dollars.

Year	Pounds Landed	Ex-Vessel Value	Job Impacts	Income Impacts	Value-Added Impacts	Sales Impacts
2021	2,135,952	\$ 1,333,475	714	\$ 1,860,564	\$ 3,503,122	\$ 4,004,336
2020	1,299,464	\$ 651,104	658	\$ 1,330,677	\$ 2,257,282	\$ 2,912,396
2019	1,362,212	\$ 929,282	673	\$ 1,502,372	\$ 2,344,706	\$ 3,475,378
2018	1,312,121	\$ 953,667	731	\$ 1,502,185	\$ 2,686,226	\$ 3,303,076
2017	1,366,338	\$ 1,037,526	802	\$ 1,571,518	\$ 2,564,816	\$ 3,559,251
2016	965,337	\$ 669,843	716	\$ 1,006,728	\$ 1,739,854	\$ 2,240,287
2015	1,247,044	\$ 804,675	784	\$ 1,203,068	\$ 2,086,467	\$ 2,663,251
2014	1,828,351	\$ 1,112,465	912	\$ 1,735,047	\$ 3,293,379	\$ 3,936,322
2013	1,549,157	\$ 1,402,914	1,042	\$ 2,318,409	\$ 3,902,777	\$ 5,173,187
2012	1,859,587	\$ 1,041,659	948	\$ 1,957,469	\$ 3,167,843	\$ 4,390,261
2011	1,627,894	\$ 1,015,852	885	\$ 1,890,316	\$ 3,371,858	\$ 4,175,332
Average	1,504,860	\$ 995,678	806	\$ 1,625,305	\$ 2,810,757	\$ 3,621,189

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Table 5. Monthly commercial estimates of annual economic impact to the state of North Carolina from striped mullet harvest over five years, 2017-2021. Economic impacts are reported in 2020 dollars.

Month	Pounds Landed	Ex-Vessel Value	Job Impacts	Income Impacts	Value Added Impacts	Sales Impacts
1	65,170	\$ 36,107.03	130	\$ 53,057.71	\$ 98,355.14	\$ 114,549.45
2	59,618	\$ 33,227.53	129	\$ 49,108.96	\$ 90,877.25	\$ 106,053.22
3	32,731	\$ 18,569.84	122	\$ 28,460.61	\$ 52,101.53	\$ 61,568.49
4	45,885	\$ 25,851.76	141	\$ 39,856.46	\$ 72,837.04	\$ 86,245.48
5	41,826	\$ 23,508.17	121	\$ 35,221.68	\$ 64,912.23	\$ 76,114.04
6	50,157	\$ 28,058.94	131	\$ 43,466.77	\$ 79,323.84	\$ 94,077.95
7	62,675	\$ 36,047.32	139	\$ 54,151.74	\$ 99,720.97	\$ 117,036.20
8	101,967	\$ 60,393.25	179	\$ 91,585.84	\$ 168,184.68	\$ 198,027.77
9	118,860	\$ 69,487.04	210	\$ 103,726.30	\$ 191,374.87	\$ 224,109.33
10	458,246	\$ 328,837.30	361	\$ 485,746.18	\$ 899,026.44	\$ 1,048,966.80
11	362,172	\$ 261,014.19	297	\$ 357,945.86	\$ 688,459.22	\$ 766,383.96
12	95,910	\$ 59,908.44	176	\$ 83,266.89	\$ 157,024.20	\$ 179,263.56

To further understand the dynamics of the striped mullet fishery the monthly economic impacts over the last five years are reported in Table 5. The striped mullet commercial fishery is driven by seasonal changes in population availability. The estimated change in job impacts and sales impacts reflect the availability of striped mullet throughout the year. Most of the harvest and economic impacts are concentrated in October and November of each year.

Management Option Scenarios

Management options for consideration include end of year closures that end December 31 (Table 6). All options provided in Table 6 meet the statutory requirement to end overfishing.

Table 6. Management options that satisfy the 9.9% commercial harvest reduction to end overfishing. All reductions are calculated from 2019 commercial harvest levels (terminal year of stock assessment).

Single Management Measures that Satisfy Reduction	Management Measure	Estimated Commercial Harvest Reduction (%)
Season Closures		
1	October 29 – December 31	33.7
2	November 7 – December 31	22.1
3	November 13 - December 31	10.9

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End of Year Season Closure (options 1 and 2)

(+ potential positive impact of action)

(- potential negative impact of action)

- + No additional resources required to implement
- + No additional reporting burden on fishermen or dealers
- + Reduces effort from current level
- + High likelihood of ending overfishing
- + Increases probability of ending overfishing stock or fishery conditions are variable
- Weather may prevent fishing during open periods
- Effort may increase during the open period reducing the effectiveness of the closure
- Reduction in fishing mortality may not be achieved
- Overfishing may still occur if recruitment is low
- May adversely impact some fisheries and fishermen more than others
- Create regulatory discards in the closed period

End of Year Season Closure (option 3)

(+ potential positive impact of action)

(- potential negative impact of action)

- + No additional resources required to implement
- + No additional reporting burden on fishermen or dealers
- + Reduces effort from current level
- + Could potentially end overfishing
- No buffer to increase probability of ending overfishing if stock or fishery conditions are variable
- Weather may prevent fishing during open periods
- Effort may increase during the open period reducing the effectiveness of the closure
- Reduction in fishing mortality may not be achieved
- Overfishing may still occur if recruitment is low
- May adversely impact some fisheries and fishermen more than others
- Create regulatory discards in the closed period

Based on public comment received prior to and during the February 2023 MFC business meeting, additional management options accommodating regional end of season closures were examined and added. Regional splits were examined using two methods:

1. Using the “waterbody fished” field from the trip ticket and assigning all trips in internal waters south of Bogue Sound and the ocean south of Cape Hatteras as “Southern Region”, and everywhere else as “Northern Region”.
2. Using the “county of landing” field to assign every coastal county south of Carteret (Brunswick, New Hanover, Onslow, Pender) as “Southern Region” and all other counties as “Northern Region”.

Generally, the split between north and south was considered to be the Highway 58 Bridge to Emerald Isle. The two methods of splitting regions produced similar results for overall commercial landings. However,

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the method of splitting using “county of landings” was considered a more accurate representation because assigning all commercial landings south of Cape Hatteras to the “southern region”, if the regional split is the Highway 58 Bridge, likely overestimates commercial landings for the Southern Region. Because of similarity between methods and concerns about waterbody assignments, the county of landing method was used to split landings between regions and calculate regional seasons. From 2017-2021 the northern region accounted for 92.8% of commercial landings and the southern region accounted for 7.2% of commercial landings. In 2019, the northern region accounted for 94.1% of commercial landings and the south accounted for 6.0%. Essentially, even if all striped mullet commercial fishing in the south was closed, the minimum 9.9% reduction needed to end overfishing would not be met.

In every month, commercial landings in the north far exceed commercial landings in the south (Figure 9). However, peak striped mullet commercial landings in the north occur in October whereas peak landings in the south occur in November (Figure 10). Despite peak commercial landings in the south occurring in November, the north landed 1,628,282 pounds compared to 182,579 in the south during November from 2017-2021.

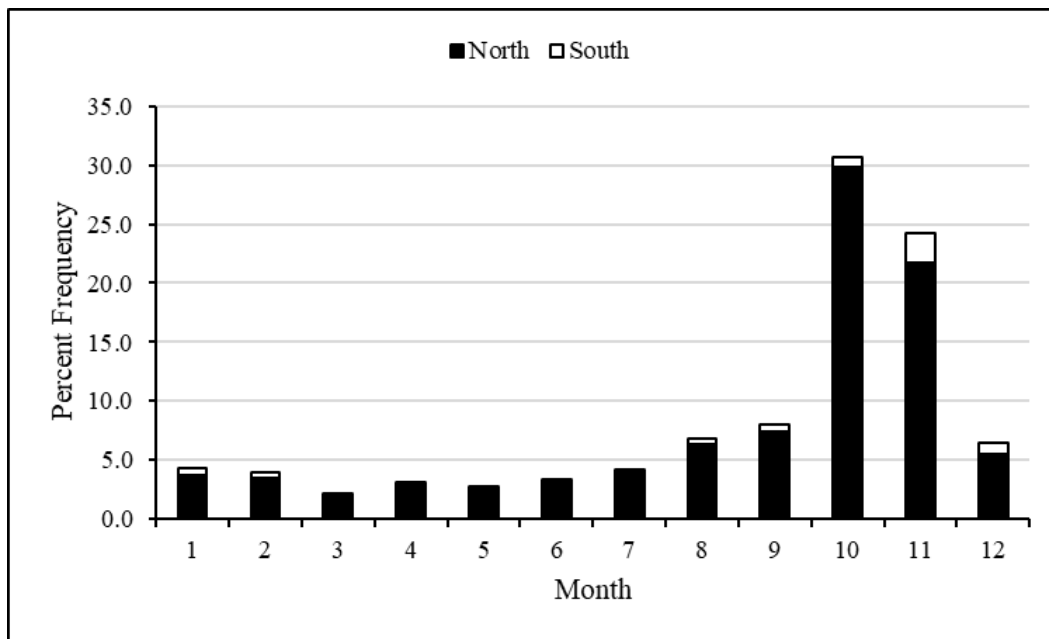


Figure 9. Percent frequency of striped mullet commercial landings by region (north and south) and month, 2017-2021.

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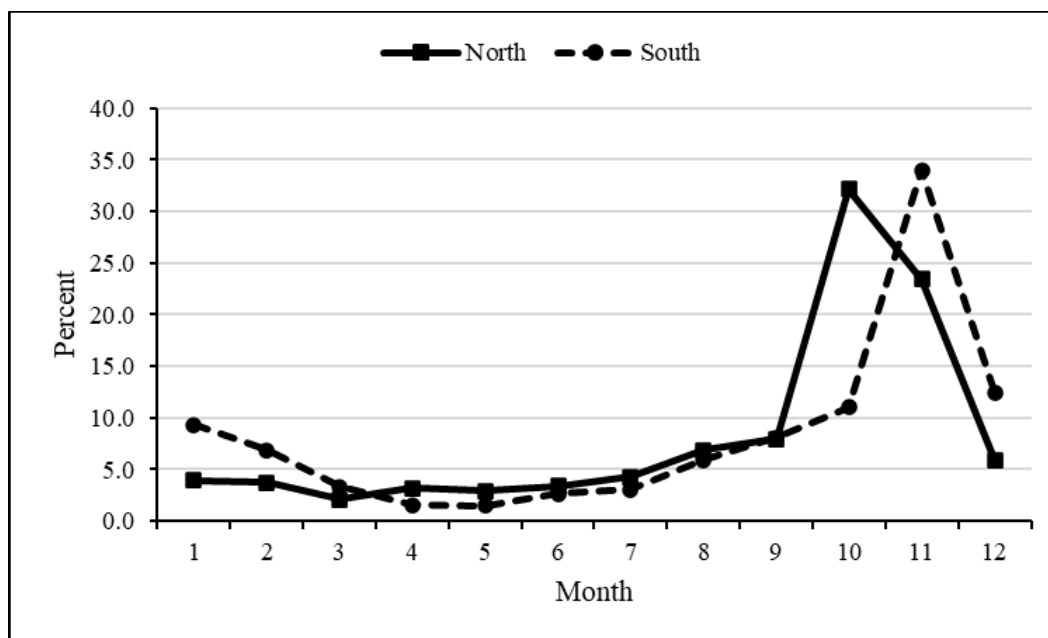


Figure 10. Percent of striped mullet commercial landings by region (north and south) and month, 2017-2021.

To better account for the perceived discrepancy in management impact between the two regions, options for region specific season closures were developed. In November 2022 the MFC passed a motion selecting a statewide season closure from November 7 – December 31 as the preferred strategy to end overfishing. Options for region specific season are shown in Table 7.

Table 7. Management options that satisfy the 9.9% commercial harvest reduction to end overfishing by splitting the seasons between north and south. All reductions are calculated from 2019 commercial harvest levels (terminal year of stock assessment).

Option	Season Closure		Minimum Reduction
	North	South	
4	October 28 – December 31	October 30 – December 31	35.6
5	November 7 – December 31	November 10 – December 31	21.7
6	November 13 – December 31	November 21 – December 31	10.1

Participation in the two regions is strongly skewed toward the north with 269 unique participants in the north compared to 60 in the south during November and December 2019. There were 325 total unique participants during that time, meaning there were only four participants who landed striped mullet in both regions (Table 8). Total value lost and value lost per participant at different reduction levels is also strongly skewed toward the north.

Under all reduction scenarios, splitting the season regionally could allow for as many as eight additional fishing days in the south. Under a split season, effort could shift from north to south and expected harvest reductions may not be realized.

Table 8. Striped mullet commercial fishery participants and value lost by region at various commercial reduction levels based on 2019 data.

Reduction	9.9%		21.3%		35.4%	
	North	South	North	South	North	South
Distinct Count of PID	269	60	269	60	269	60

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Value lost per person	\$342	\$85	\$742	\$241	\$1,278	\$342
Total Value lost	\$92,059	\$5,125	\$199,701	\$14,466	\$343,829	\$20,491

Region Specific End of Year Season Closure (Options 1-3)

(+ potential positive impact of action)

(- potential negative impact of action)

- + No additional resources required to implement
- + No additional reporting burden on fishermen or dealers
- + Reduces effort from current level
- + High likelihood of ending overfishing
- + Increases probability of ending overfishing stock or fishery conditions are variable
- Weather may prevent fishing during open periods
- Effort may increase during the open period or open regions reducing the effectiveness of the closure
- Reduction in fishing mortality may not be achieved
- Overfishing may still occur if recruitment is low
- May adversely impact some fisheries and fishermen more than others
- Create regulatory discards in the closed period
- Depending on option, no buffer to increase probability of ending overfishing if stock or fishery conditions are variable

RECOMMENDATION

DMF Recommended Management Strategy:

The DMF recommends approval of Supplement A to implement either option 1, 2, 4, or 5. To achieve a 20-33% reduction, any statewide end of year season closure must begin no sooner than October 29 and no later than November 7 and continue through December 31. Any end of year split season closure would need to begin no sooner than October 28 in the north and October 30 in the south and no later than November 13 in the north and November 21 in the south.

The Division recommends a 20-33% reduction to exceed the threshold and either meet or approach the target. This reduction level increases the probability of, at a minimum, ending overfishing even if there is variability in fishing effort, market demand, striped mullet availability to the fishery, or recruitment fluctuations.

MFC Selected Management Strategy:

At its November 2022 business meeting, the MFC voted to approve Supplement A and selected the preferred management option. At that time, the MFC unanimously (9-0) passed a motion to “approve Supplement A to Amendment 1 of the Striped Mullet Fishery Management Plan with Option 2”. Option two would end overfishing by implementing a season closure from November 7-December 31 to achieve a 22.1% commercial harvest reduction. Following the November 2022 business meeting, the Division

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received public comment from December 19, 2022 through January 19, 2023 pertaining to Supplement A and the MFC preferred management option.

At its February 2023 business meeting, the MFC were presented with a summary of public comment and given the opportunity to vote on adoption of Supplement A to Amendment 1 of the Striped Mullet FMP. A motion to vote down Supplement A failed by lack of supermajority (5-4). A substitute motion to accept Supplement A with option 2 failed by a 4-5 vote. A motion to approve Supplement A with option 3 (season closure from November 13-December 31 to achieve a 10.9% commercial harvest reduction) failed by a 4-5 vote. No additional motions were made, and Supplement A was not adopted. Within the absence of a majority vote, the matter remains in front of the commission. Therefore, the MFC chair placed consideration of Supplement A to the agenda for the May 2023 business meeting.

LITERATURE CITED

- Bichy, J. 2000. Reproductive biology of Striped Mullet, *Mugil cephalus*, in North Carolina. Final Report to North Carolina Sea Grant. Fishery Resource Grant Project No. 97-FEG-09. 90 pp.
- Collins, M.R., and B.W. Stender. 1989. Larval Striped Mullet (*Mugil cephalus*) and white mullet (*Mugil curema*) off the southeastern United States. *Bulletin of Marine Science* 45(3):580–589.
- NCDMF (North Carolina Division of Marine Fisheries). 2006. North Carolina Fishery Management Plan—Striped Mullet. NCDMF, Morehead City, North Carolina. 202 pp.
- NCDMF. 2015. North Carolina Striped Mullet Fishery Management Plan Amendment 1. NCDMF, Morehead City, North Carolina. 388 pp.
- NCDMF. 2018. Stock assessment of Striped Mullet (*Mugil cephalus*) in North Carolina waters. NCDMF, Morehead City, North Carolina. 129 pp.
- NCDMF. 2021. 2021 License and statistics annual report. NCDMF, Morehead City, North Carolina. 531 pp.
- NCDMF. 2022. Stock assessment of Striped Mullet (*Mugil cephalus*) in North Carolina waters, 2022. North Carolina Division of Marine Fisheries, NCDMF SAP-SAR-2022-01, Morehead City, North Carolina. 183 pp.
- NMFS (National Marine Fisheries Service). 2022. Fisheries economics of the United States, 2019. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-229A. 236 pp.

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April 11, 2023

Rulemaking

May 2023 Business Meeting

01 Rules Suspensions Memo

04 Rulemaking Update Memo

08 2022-2023 Rulemaking
Cycle Timeline

09 2023-2024 Rulemaking
Cycle Timeline

10 18A_Rules Readoption
Fiscal Analysis

97 "Data Collection and
Harassment Prevention for
the Conservation of Marine
and Estuarine Resources"
Fiscal Analysis

117 "Oyster Sanctuary Rule
Changes" Fiscal Analysis

131 "Conforming Rule Changes
for Shellfish Relay Program
and Shellfish Leases and
Franchises" Fiscal Analysis



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 5th, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Steve Poland, Fisheries Management Section Chief

SUBJECT: Temporary Rule Suspensions

Issue

In accordance with the North Carolina Division of Marine Fisheries Resource Management Policy Number 2014-2, Temporary Rule Suspension, the North Carolina Marine Fisheries Commission will vote on any new rule suspensions that have occurred since the last meeting of the commission.

Findings

North Carolina Marine Fisheries Commission Rules 15A NCAC 03R .0110 and 15A NCAC 03L .0201 were amended to revise boundary descriptions for crab spawning sanctuaries and update requirements for the blue crab fishery in accordance with Amendment 3 to the N.C. Blue Crab Fishery Management Plan. Proclamations [M-12-2022](#) and [M-1-2021](#) have been rescinded and the temporary rule suspensions for the above mentioned rules are no longer in effect.

The Division recently developed a Shellfish Relocation Permit that will allow the relocation of shellfish for protection purposes in an area closed to harvest that would otherwise be destroyed due to maintenance dredging, construction, or other development activity. The requirement to relocate shellfish will come as a condition in the Division of Coastal Management (DCM) permit for a development activity. The receiving sites for the relocated shellfish would be designated by the Fisheries Resource Specialist involved with the DCM permit and all designated receiving sites would also be in areas closed to harvest. Proclamation [SF-5-2023](#) establishes the Shellfish Relocation Permit.

Rule 15A NCAC 03O .0501 establishes procedures and requirements for individuals to obtain permits issued by the Division of Marine Fisheries. This rule includes specific criteria for permittees to obtain permits such as license requirements. The establishment of this permit causes a potential issue as the permittees for DCM permits likely would not have any commercial fishing or shellfish licenses to allow the collection and transport of polluted shellfish under the Shellfish Relocation Permit. As a result, the division determined the need to suspend 03O .0501 (e)(4) so that Shellfish Relocation Permit holders can relocate oysters without a commercial fishing and/or shellfish license. Proclamation [M-11-2023](#) suspends the portion of the rule to allow the Shellfish Relocation Permit to be fully utilized and requests an indefinite suspension.

Action Needed

****Vote to suspend subsection (4) of section (e) of NCMFC Rule 15A NCAC 03O .0501 PROCEDURES AND REQUIREMENTS TO OBTAIN PERMITS for an indefinite period****

Overview

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

NCMFC 15A NCAC 03R .0117 (c), (i), and (j) of section (1) OYSTER SANCTUARIES

Suspension of portion of this rule for an indefinite period. Suspension of this rule allows the division to publish correct coordinates for the Pea Island, Raccoon Island, and Swan Island Oyster Sanctuaries to ensure that the sanctuaries continue to be protected according to the FMP restrictions while the rule is modified to reflect the correct boundary coordinates. This suspension was implemented in Proclamation [SF-6-2022](#).

NCMFC Rule 15A NCAC 03M .0515 (a)(2) Dolphin

Suspension of portion of this rule for an indefinite period. Suspension of this rule allows the division to adjust the recreational vessel limit to complement management of dolphin under the South Atlantic Fishery Management Council's Amendment 10 to the Fishery Management Plan for the Dolphin and Wahoo Fishery of the Atlantic. This suspension was implemented in Proclamation [FF-30-2022](#).

NCMFC Rule 15A NCAC 03L .0105 (2) Recreational Shrimp Limits

Suspension of portion of this rule for an indefinite period. Suspension of this rule allows the division to modify the recreational possession limit of shrimp by removing the four quarts heads on and two and a half quarts heads off prohibition from waters closed to shrimping in accordance with Amendment 2 to the North Carolina Shrimp Fishery Management Plan. This suspension was implemented in Proclamation [SH-4-2022](#).

NCMFC Rule 15A NCAC 03J .0103 (h) Gill Nets, Seines, Identification, Restrictions

Continued suspension a portion of this rule for an indefinite period. Suspension of this rule allows the division to implement year-round small mesh gill net attendance requirements in certain areas of the Tar-Pamlico and Neuse rivers systems. This action was taken as part of a department initiative to review existing small mesh gill net rules to limit yardage and address attendance requirements in certain areas of the state. This suspension continues in Proclamation [M-3-2023](#).

NCMFC Rule 15A NCAC 03L .0103 (a)(1) Prohibited Nets, Mesh Lengths and Areas

Continued suspension of portions of this rule for an indefinite period. This allows the division to adjust trawl net minimum mesh size requirements in accordance with the

Amendment 2 to the North Carolina Shrimp Fishery Management Plan. This suspension was implemented in proclamation SH-3-2019 and continues in [SH-1-2022](#).

NCMFC Rule 15A NCAC 03J .0501 (e)(2) Definitions and Standards for Pound Nets and Pound Net Sets

Continued suspension portions of this rule for an indefinite period. This allows the division to increase the minimum mesh size of escape panels for flounder pound nets in accordance with Amendment 2 of the North Carolina Southern Flounder Fishery Management Plan. This suspension was implemented in Proclamation [M-34-2015](#).

NCMFC Rule 15A NCAC 03M .0519 (a) and (b) Shad & 03Q .0107 (4) Special Regulations: Joint Waters

Continued suspension portions of these rules for an indefinite period. This 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-67-2021\(Revised\)](#)



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

April 28, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Catherine Blum, Rulemaking Coordinator
Marine Fisheries Commission Office

SUBJECT: Rulemaking Update

Issue

Update the N.C. Marine Fisheries Commission (MFC) on the status of rulemaking in support of the Periodic Review and Expiration of Existing Rules per N.C.G.S. § 150B-21.3A. Request the MFC vote on approval of Notice of Text for Rulemaking to begin the process for 103 rules in the 2023-2024 rulemaking cycle.

Findings

- Periodic Review and Readoption of Rules – Requirements
 - North Carolina G.S. § 150B-21.3A, enacted in 2013, requires state agencies to review existing rules every 10 years in accordance with a prescribed process that includes rule readoption. For 15A NCAC 03 (Marine Fisheries), the MFC completed the rule readoption process.
 - For 15A NCAC 18A (Sanitation), the MFC has 79 rules remaining for readoption. On Jan. 16, 2020, the Rules Review Commission (RRC) approved the readoption schedule of June 30, 2024, for these rules.
 - The MFC must readopt the remaining rules by this deadline or the rules will expire and be removed from the N.C. Administrative Code.
- At its May meeting, the MFC is scheduled to receive an update about three ongoing packages of proposed rules and vote to begin rulemaking for a fourth package of rules.

Action Needed

The MFC is scheduled to vote on approval of Notice of Text for Rulemaking to begin the process for 103 rules, covering four subjects.

Recommendation

The Division of Marine Fisheries (DMF) recommends the MFC vote on approval to begin the rulemaking process for 103 rules. For more information, please refer to the rulemaking section of the briefing materials.

2021-2022 Annual Rulemaking Cycle Update (69 rules)

The MFC had 69 proposed rules from "Package B" and "Package C" that were automatically subject to legislative review during the 2023 long session. These rules covered the following subjects:

- Shellfish leasing regulations;
- 15A NCAC 03 rules with conforming changes;
- 15A NCAC 03I, 03J, 03K, 03O, and 03R for imported species, recordkeeping, gear, marketing shellfish, and licenses;
- Commercial blue crab harvest and gear regulations;
- Permit and license suspensions and revocations and pound net gears;
- 15A NCAC 03K and 18A crustacea and shellfish; and
- Special regulations for joint fishing waters.

All 69 rules became effective March 15, 2023, which was the 31st legislative day of the 2023 long session. A news release and rulebook supplement were distributed. The rule packages are complete.

2022-2023 Annual Rulemaking Cycle Update (2 rules)

At its August 2022 business meeting, the MFC approved Notice of Text for Rulemaking to begin the process to amend 15A NCAC 03M .0101 (Mutilated Finfish) and readopt 15A NCAC 18A .0911 (Marinas, Docking Facilities, and Other Mooring Areas). A table showing the steps in the process is provided in the briefing materials. The MFC gave final approval of the rules at its February 2023 business meeting. The rules are anticipated to be reviewed at the May 18, 2023, Rules Review Commission meeting for final approval. The mutilated finfish rule is automatically subject to legislative review pursuant to Session Law 2019-198 and N.C.G.S. § 14-4.1 and would not be reviewed until the 2024 short session. The earliest effective date of the marinas, docking facilities, and other mooring areas rule is June 1, 2023.

2023-2024 Annual Rulemaking Cycle (103 rules)

Periodic Review and Expiration of Existing Rules – Vote on Approval of Notice of Text for Rulemaking

At its May 2023 business meeting, the MFC is scheduled to vote on approval of Notice of Text for Rulemaking to begin the process for 103 rules. A summary of the proposed rules by subject is provided below. Please refer to the documents for the 2023-2024 rulemaking cycle in the rulemaking section of the briefing materials, including a table showing the timing of the steps in the process and the fiscal analysis of each subject. The proposed rules are appended to each respective fiscal analysis. Proposed rules would have an earliest effective date of April 1, 2024, except for rules automatically subject to legislative review per Session Law 2019-198 and N.C.G.S. § 14-4.1. Rules that are subject would likely be available for review during the 2024 short session.

READOPTON OF SHELLFISH PLANT AND INSPECTION RULES IN 15A NCAC 18A .0300 THROUGH .0800 (85 rules)

Pursuant to N.C.G.S. § 150B-21.3A, this package of 85 rules in 15A NCAC 03K and 18A is proposed for the readoption of 56 rules with amendments, repeal through readoption of 23 rules, adoption of three rules, and the repeal of one rule. Proposed changes would help ensure that North Carolina remains in full compliance with national requirements, provide efficiencies for the DMF in the process of implementing and enforcing the rules, and clarify and update the rules for stakeholders. North Carolina is part of the National Shellfish Sanitation Program (NSSP), which is a

federal/state cooperative program designed to "promote and improve the sanitation of shellfish (oysters, clams, mussels, and scallops) moving in interstate commerce" as stated in Section I, page 2 of the NSSP Guide for the Control of Molluscan Shellfish (Guide). DMF staff work together with representatives from other states, the federal government, and industry through the Interstate Shellfish Sanitation Conference to develop guidelines for all state shellfish programs that are summarized in the Guide.

North Carolina must meet the minimum standards included in the Guide for N.C. shellfish to be able to be sold through interstate commerce and protect N.C. shellfish consumers within and outside of the State. The requirements are already being enforced by the DMF consistent with the Guide. Overall, the rules are expected to increase consumer confidence in the safety of N.C. shellfish products, achieve efficiencies in implementing and enforcing the rules, and clarify the requirements for stakeholders.

DATA COLLECTION AND HARASSMENT PREVENTION FOR THE CONSERVATION OF MARINE AND ESTUARINE RESOURCES (5 rules)

Due to the increasing occurrence and severity of harassment during, and decreasing participation in, DMF data collection initiatives, amendments are proposed to five MFC rules. Proposed amendments set requirements to address harassment by any person engaged in regulated activity under Chapter 113, Subchapter IV, of the General Statutes (e.g., fishing), not just licensees, of DMF employees that occurs in the process of obtaining data for the conservation of marine and estuarine resources, and data for the protection of public health related to the public health programs that fall under the authority of the MFC. Additional amendments more fully characterize the types of data that may be collected.

The amendments would support the importance of participation by persons engaged in regulated fishing activity in DMF data collection and provide a safer working environment for DMF employees. Data collected from the commercial and recreational fishing sectors are essential in fisheries management for the state and play a vital role in federal fisheries management, as well. The proposed amendments to these rules broaden the scope of enforceability to enhance protections for DMF employees as they collect data. Such protections not only enhance the DMF's data collection efforts, but also improve DMF's ability to provide a workplace that is free from unlawful harassment, which typically leads to higher employee satisfaction, lower turnover, and better recruitment. Overall, the rules are expected to enhance fisheries management and create a safer working environment for DMF employees.

OYSTER SANCTUARY RULE CHANGES (1 rule)

Proposed amendments add the boundaries of the two newest oyster sanctuaries (Cedar Island and Gull Shoal) and correct boundaries for three other oyster sanctuaries (Pea Island, Raccoon Island, and Swan Island) where published coordinates were recently found to be inconsistent with permitted and marked reef boundaries. These changes to permanent rule would protect oysters from bottom disturbing gear so they can serve their intended management function as oyster broodstock sanctuaries, as well as safeguard boaters navigating the sanctuaries; the changes are already in place via the Fisheries Director's proclamation authority (SF-6-2022). Additionally, coordinates for three sanctuaries are proposed to be reorganized to standardize the cardinal directions, for consistency; there are no changes to the overall sanctuaries, nor the coordinate pairs themselves.

CONFORMING RULE CHANGES FOR SHELLFISH RELAY PROGRAM AND SHELLFISH LEASES AND FRANCHISES (12 rules)

In 2021, the DMF began the process of discontinuing its Shellfish Relay Program (relaying of shellfish from certain polluted areas) due primarily to insufficient resources to run the program and lack of widespread use. The Shellfish Relay Program will end effective May 1, 2024. The MFC received information about the discontinuation of the Shellfish Relay Program at its February 2022 business meeting. DMF informed the MFC that more information would be provided at its February 2023 business meeting, including corresponding proposed rule amendments. DMF identified 11 rules relating to the Shellfish Relay Program that set specific requirements for relaying of shellfish from certain polluted areas. Changes are proposed to amend portions of rules or repeal rules consistent with rulemaking requirements in the APA.

Additional proposed changes for shellfish lease and franchise requirements are proposed to 15A NCAC 03O .0201 to conform to requirements of Session Law 2019-37 (Act to Provide Further Support to the Shellfish Aquaculture Industry in North Carolina). Section 3 of the Act increased production and planting requirements for shellfish leases and franchises. Subsection 3 (d) of the Act requires the MFC to amend 15A NCAC 03O .0201 consistent with Subsection 3 (c) of the Act that sets shellfish production and planting requirements for leases granted July 1, 2019, and after. Changes are proposed to conform this rule to the requirements of this law.

Background Information

Periodic Review and Expiration of Existing Rules per N.C.G.S. § 150B-21.3A

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 N.C.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, which has concluded, followed by the readoption of rules. An evaluation of the rules under the authority of the MFC was undertaken in two lots (see Figure 1.) The MFC has 211 rules in Chapter 03 (Marine Fisheries), of which 172 are subject to readoption, and 164 rules in Chapter 18, Subchapter 18A (Sanitation) that are also subject to readoption. The MFC is the body with the authority for the approval steps prescribed in the process.

Rules	2017	2018	2019	2020	2021	2022	2023	2024
Chapter 03 (172 rules)	Report	41 Rules Readopted	2 Rules Readopted	13 Rules Readopted	116 Rules Readopted	6/30/22 deadline		
Subchapter 18A (164 rules)			Report	42 Rules Readopted	42 Rules Readopted	1 Rule Readopted	Rule Readoption (79)	6/30/24 deadline

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

N.C. Marine Fisheries Commission 2022-2023 Annual Rulemaking Cycle

May 2023

Time of Year	Action
February-July 2022	Fiscal analysis of rules prepared by DMF staff and approved by Office of State Budget and Management
Aug. 19, 2022	MFC approved Notice of Text for Rulemaking
Oct. 3, 2022	Publication of proposed rules in the <i>North Carolina Register</i>
Oct. 3-Dec. 16, 2022	Public comment period held *
Dec. 16, 2022	Public hearing held **
Feb. 22-24, 2023	MFC approved permanent rules
May 18, 2023	Rules reviewed by Office of Administrative Hearings/ Rules Review Commission
June 1, 2023	Proposed effective date of 1 rule not subject to legislative review
June 1, 2023	Rulebook supplement available online
2024 legislative session	Possible effective date of 1 rule subject to legislative review per S.L. 2019-198 and G.S. 14-4.1.
June 30, 2024	Readoption deadline for 15A NCAC 18A

*The public comment period for these rules was extended from December 2, 2022, to December 16, 2022, at 5 p.m.

**The Marine Fisheries Commission had technical difficulties with the public hearing on proposed rules 15A NCAC 03M .0101 and 18A .0911 scheduled for November 1, 2022, at 6 p.m. via WebEx with a listening station at the Division of Marine Fisheries Central District Office, 5285 Highway 70 West, Morehead City, NC 28557. The public hearing on these rules was rescheduled for December 16, 2022, at 1 p.m. at the same location; no virtual access was provided.

N.C. Marine Fisheries Commission 2023-2024 Annual Rulemaking Cycle

May 2023

Time of Year	Action
February-April 2023	Fiscal analysis of rules prepared by DMF staff and approved by Office of State Budget and Management
May 26, 2023	MFC votes on approval of Notice of Text for Rulemaking
Aug. 1, 2023	Publication of proposed rules in the <i>North Carolina Register</i>
Aug. 1-Oct. 2, 2023	Public comment period held
Aug. 16, 2023	Public hearing held via WebEx with listening station
Nov. 17, 2023	MFC receives public comments and votes on final approval of permanent rules
Jan. 18, 2024	Rules reviewed by Office of Administrative Hearings/ Rules Review Commission
April 1, 2024	Proposed effective date of rules not subject to legislative review
April 1, 2024	Rulebook supplement available online
2024 legislative session	Possible effective date of rules subject to legislative review per S.L. 2019-198 and G.S. 14-4.1.
June 30, 2024	Readoption deadline for 15A NCAC 18A

Fiscal Impact Analysis of Proposed Readoption of 15A NCAC 18A Rule Package

Rule Amendments: 15A NCAC 03K .0110, 18A .0301, .0302, .0305, .0401-.0424, .0426-.0430, .0432-.0439, .0501-.0504, .0601-.0621, .0701-.0713, .0801-.0806 (readoption, repeal through readoption, amendment, adoption, and repeal)

Name of Commission: N.C. Marine Fisheries Commission

Agency Contact: Jason Walsh, Fisheries Economics Program Manager
N.C. Division of Marine Fisheries
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Impact Summary: State government: Minimal
Local government: No
Federal government: No
Substantial impact: No

AUTHORITY

<u>N.C. General Statutes</u>	
N.C.G.S. § 113-134.	Rules.
N.C.G.S. § 113-182.	Regulation of fishing and fisheries.
N.C.G.S. § 113-221.2.	Additional rules to establish sanitation requirements for scallops, shellfish, and crustacea; permits and permit fees authorized.
N.C.G.S. § 113-221.4.	Embargo.
N.C.G.S. § 143B-289.52.	Marine Fisheries Commission – powers and duties.

Necessity: General Statute 150B-21.3A requires State agencies to review their existing rules every 10 years to determine which rules are still necessary, and to either readopt or repeal each rule as appropriate. This package of 85 rules in 15A NCAC 03 and 18A (see Appendix I), is proposed for the readoption of one rule with no changes, readoption of 55 rules with amendments, repeal through readoption of 23 rules, amendment of two rules, adoption of three rules, and the repeal of one rule pursuant to this requirement. Proposed changes would help ensure that North Carolina remains in full compliance with national requirements, allow the Division of Marine Fisheries (DMF) to increase clarity of rules for stakeholders, and allow the DMF to efficiently support and enforce rules.

I. Background

The 85 rules in this package all relate to standards for commercial shellfish sanitation and processing procedures. Session Law 2011-145 abolished the Division of Environmental Health and transferred the Shellfish Sanitation and Recreational Water Quality sections to the DMF under a Type I transfer. As a result, N.C.G.S. § 130A-230 was repealed and the authority for

rulemaking for the sanitation requirements for harvesting, processing, and handling of scallops, shellfish, and crustaceans was transferred to the Marine Fisheries Commission (MFC), which is now contained in N.C.G.S. § 113-221.2.

The purpose of the MFC is to manage, restore, develop, cultivate, conserve, protect, and regulate the marine and estuarine resources within its jurisdiction, as described in N.C.G.S. § 113-132, including commercial and recreational fisheries resources (Chapter 143B, Article 7, Part 5D). For the protection of public health, the MFC is also required to adopt rules establishing sanitation requirements for the harvesting, processing, and handling of scallops, shellfish, and crustacea of in-state origin. The rules of the MFC may also regulate scallops, shellfish, and crustacea shipped into North Carolina (N.C.G.S. § 113-221.2). Additionally, the MFC has authority to define conduct as a crime in the N.C. Administrative Code (Chapter 113 of the N.C. General Statutes) and does so for the most egregious infractions that threaten the public health. The associated rules in this package are described in this analysis.

North Carolina is part of the National Shellfish Sanitation Program (NSSP), which is a federal/state cooperative program designed to “promote and improve the sanitation of shellfish (oysters, clams, mussels, and scallops) moving in interstate commerce” as stated in Section I, page 2 of the NSSP Guide for the Control of Molluscan Shellfish ([Guide](#)). DMF employees work together with representatives from other states, the federal government, and industry through the Interstate Shellfish Sanitation Conference to develop guidelines for all state shellfish programs that are summarized in the Guide. North Carolina must meet the minimum standards included in the Guide for N.C. shellfish to be able to be sold through interstate commerce and protect N.C. shellfish consumers within and outside of the State.

II. Proposed Rule Changes

The MFC is proposing 85 rules for either readoption with no changes, readoption with amendments, repeal through readoption, amendment, adoption, or repeal. These 85 rules are rules that introduce unlawful language into rule, are proposed to be newly adopted rules, codify existing practices in rules, incorporate material by reference, add requirements from other rules, are rules proposed to be repealed, are proposed to be readopted with minor language changes, or are proposed to be readopted without any changes. Adopting the below described rule readoptions, repeals through readoption, amendments, adoptions, or repeals would help ensure that North Carolina remains in full compliance with national requirements included in the Guide and would bring organization and clarity to the shellfish sanitation rules in 15A NCAC 18A.

i. Rules that add “unlawful” language to rule:

There are three rules proposed for readoption that propose the addition of "unlawful" language for failing to meet certain requirements for 1) vessels and vehicles used for the commercial harvest and transport of shellfish (15A NCAC 18A .0419), 2) temperature controls of shellfish during harvest (15A NCAC 18A .0420), and 3) temperature controls for storage of shellfish (15A NCAC 18A .0427).

For the first two of these rules, the "unlawful" requirements are currently being implemented and enforced through proclamation authority delegated to the Fisheries Director in 15A NCAC 03K

.0110 for issuance of proclamations for the protection of public health. Similarly, the requirement to not allow dogs or other animals in or on vessels or vehicles engaged in the commercial harvest and transport of shellfish is currently being implemented and enforced via proclamation. Initially, these requirements were implemented via proclamation to address variable conditions, consistent with N.C.G.S. § 113-221.1 and 15A NCAC 03H .0103. Proclamations are available and maintained through the DMF website and announced through an opt-in list serve. Additionally, N.C.G.S. § 113-221.1 states that stakeholders are under a duty to keep themselves informed of current proclamations; the agency's stakeholders are familiar with the proclamation process. Now that the conditions are no longer variable, associated "unlawful" requirements and the requirement about animals are proposed to be added to the rules for clarity.

The "unlawful" language is proposed to be added to these two rules for emphasis and clarity. Failure to meet the shellfish sanitation requirements is considered to pose an imminent threat to public health. The added clarifying language could result in incremental improvements in compliance which would enhance the protection of public health related to the consumption of shellfish. In turn, this could help to bolster consumer confidence in N.C. shellfish. As compared to the regulatory baseline, the proposed changes will not require any procedural changes and should not result in any additional costs.

For the third rule, the requirements for temperature controls for storage of shellfish are already set forth in the rule. Proposed changes add associated "unlawful" requirements, which establishes more protection of public health related to the consumption of shellfish and helps to bolster consumer confidence in N.C. shellfish. Proposed changes to the third rule also clarify that the rule may be superseded by proclamation issued under the authority of 15A NCAC 03K .0110 or further specified in the Hazard Analysis Critical Control Point (HACCP) plan (15A NCAC 18A .0434). Adding the "unlawful" requirements to this rule may produce small costs to stakeholders who are caught violating a rule. Increasing consumer confidence in N.C. shellfish through rule is expected to outweigh any small costs infractions could bring to stakeholders.

ii. Rules proposed for adoption:

The three rules proposed for adoption are consistent with requirements of the Guide and are currently enforced by other MFC rules and compliance with the Guide. Placing the requirements in discrete permanent rules would help to ensure clarity amongst stakeholders and DMF employees. The proposed rule 15A NCAC 18A .0437 is bringing into rule already enforced requirements for a relatively new product of in-shell shellfish. In-shell shellfish is a product that is already shucked and then returned to the half shell. This product is a relatively novel and popular approach to selling shellfish. Currently in-shell product is subject to all other shellfish sanitation rules, but this proposed rule provides clarity to stakeholders that are participating in providing in-shell product to the market. The proposed rule 15A NCAC 18A .0438 provides clarity for when a shellfish dealer is found out of compliance. Currently shellfish dealers can be penalized for not being in compliance through the recertification of their permit. Explaining the steps and requirements in rule for dealers to get into compliance allows for clarity for stakeholders.

Further, the proposed rule provides a clear time schedule that ensures stakeholders have complete timeline information when they are working towards meeting compliance in the case of items that do not pose an immediate threat to consumers. This timeline is currently enforced through the Guide and is being brought into rule for stakeholder clarity. The proposed rule 15A NCAC 18A .0439 brings clear recall procedures into rule and references the FDA Enforcement Policy on Recalls CFR Title 21, Chapter 1, Subchapter A., Part 7-Enforcement Policy. Providing the reference in rule allows for stakeholders to best understand recall procedures and requirements.

The proposed changes to rules 15A NCAC 18A .0437, 15A NCAC 18A .0438, and 15A NCAC 18A .0439 will not require any procedural changes and are not expected to have quantifiable economic impact on stakeholders nor the state of North Carolina. The proposed rules could result in incremental improvements in compliance with shellfish sanitation requirements which would enhance the protection of public health related to the consumption of shellfish. In turn, this could help to bolster consumer confidence in N.C. shellfish.

iii. Rules that codify existing practices:

There is a group of 21 rules proposed for readoption that codify existing practices in rule, consistent with the Guide, enabling North Carolina to remain compliant and continue participating in interstate commerce of shellfish. The proposed changes are not expected to have quantifiable economic impact on stakeholders nor the state of North Carolina because the practices are already occurring and being enforced in accordance with proclamation or the Guide. Due to the improved clarity of the requirements, unquantifiable incremental benefits are possible in terms of enhanced protection of public health and increased consumer confidence in the safety of North Carolina shellfish.

- 15A NCAC 18A .0301 provides updated definitions for sections .0300 through .0800.
- 15A NCAC 18A .0405 explicitly states that if a facility is flooded the shellfish plant shall discontinue operation and clarifies that all contaminated shellfish product shall be destroyed, bringing practice, required by the Guide, into rule for clarity amongst stakeholders.
- 15A NCAC 18A .0406 clarifies language about flooring requirements and ensures stakeholders are aware that floors cannot allow for leakage where shellfish is stored.
- 15A NCAC 18A .0407 clarifies language about the cleanliness of wall and ceiling materials.
- 15A NCAC 18A .0408 specifies the minimum lighting requirements in shellfish plants. The minimum lighting level is 25 foot-candles in packing and shucking rooms and 10 foot-candles throughout the rest of the shellfish plant. These changes help to bring clarity to the rule, which is otherwise vague on minimum lighting requirements. The current requirements, set out by the Guide, state that a “dealer shall provide lighting throughout the facility that is sufficient...” The agency reviewed the requirement and determined the above-described minimums are sufficient and are readily met by current stakeholders. The minimum requirements are not expected to result in increases needed for lighting in existing shellfish plants but allows for clarity for existing and future stakeholders.

- 15A NCAC 18A .0409 provides more details about the hazards that the ventilation requirements are intended to prevent from occurring.
- 15A NCAC 18A .0415 clarifies that the rule applies to the shellfish plant and the area around the plant.
- 15A NCAC 18A .0416 reorganizes and clarifies hygiene requirements for employees while working in the shellfish plant.
- 15A NCAC 18A .0418 clarifies the requirements for where chemicals shall be stored in a shellfish plant.
- 15A NCAC 18A .0422 clarifies the requirements for water that can be used to clean shellstock and points to two other rules where related requirements are set, to ensure regulated stakeholders are informed.
- 15A NCAC 18A .0424 clarifies who can receive shellfish and how that shellfish can be received. More detail is provided in this rule but is not in addition to current practices enforced by the DMF in accordance with the Guide.
- 15A NCAC 18A .0426 clarifies under which circumstances bulk shipments between shellfish dealers are permitted.
- 15A NCAC 18A .0429 points to the rule where requirements are for determining if shellfish is adulterated (15A NCAC 18A .0438). Proposed changes also clarify that the authority of marine fisheries inspectors to seize shellfish under separate statutory authority (N.C.G.S. § 113-137) shall not be affected by requirements for embargo in the rule. The practice of voluntary disposal of adulterated shellfish is also accounted for, which is the most common outcome for adulterated shellfish, consistent with the Guide.
- 15A NCAC 18A .0432 provides clarity on requirements for consumer advisory warnings on public-facing products.
- 15A NCAC 18A .0504 clarifies that reshippers can only buy from shellfish dealers. This requirement is already in place but can only be determined indirectly through a combination of rules with defined terms and applicability rules.
- 15A NCAC 18A .0612 provides clarification that equipment used in the handling of ice shall only be used to handle ice.
- 15A NCAC 18A .0614 clarifies requirements for labeling of shellfish containers. Proposed changes are not in excess of requirements of the Guide and consolidate requirements in one rule for stakeholders.
- 15A NCAC 18A .0615 provides clarification for shellfish cooling requirements. The amendments reflect a change for the temperature for shucked shellfish and in-shell product of 40° F or below to 45° F or below, consistent with a change in the Guide. Proposed changes are not in excess of requirements of the Guide and consolidate requirements in one rule for stakeholders.
- 15A NCAC 18A .0618 provides clarification that the heat shock process shall be listed and posted in a viewable location.
- 15A NCAC 18A .0619 clarifies requirements for labeling and repacking of shellfish. Proposed changes are not in excess of requirements of the Guide and consolidate requirements in one rule for stakeholders.

- 15A NCAC 18A .0620 provides clarification for the amount of time that thawed shellfish can exceed 45° F. Proposed changes are not in excess of requirements of the Guide and consolidate requirements in one rule for stakeholders.

iv. Rules that incorporate material by reference:

There are changes to 12 rules proposed for readoption that bring clarity to the rule by incorporating material in the rule by reference, pursuant to N.C.G.S. § 150B-21.6. The proposed changes are not expected to have quantifiable economic impact on stakeholders nor the state of North Carolina.

Proposed rule changes in 15A NCAC 18A .0301 include a definition for the state shellfish control "authority" from the National Shellfish Sanitation Program (NSSP), "easily cleanable" from the 2017 U.S. Food Code, and "sanitize" from 21 CFR 110.3.

Rules in 15A NCAC 18A .0400 apply to shellfish dealers, depuration facilities, shellstock plants, shucking and packing plants, repacking plants, reshippers, permittees with facilities approved for wet storage, and all other businesses and persons that buy, sell, transport, or ship shellfish. The proposed changes are as follows:

- 15A NCAC 18A .0402 organize and clarify general requirements for operation. Standards for food contact surface equipment are incorporated by reference from the Guide.
- 15A NCAC 18A .0403 organize and clarify supervision and training requirements. Principles of food hygiene and food safety are incorporated by reference from the Code of Federal Regulations.
- 15A NCAC 18A .0413 organize and clarify requirements for the water supply. Standards for the water supply and standards for certification of a laboratory other than the State Laboratory of Public Health for testing a water supply from a private source are incorporated by reference from the N.C. Administrative Code.
- 15A NCAC 18A .0414 organize and clarify requirements for toilet facilities. Standards for disposal of toilet wastes and other sewage are incorporated by reference from the N.C. Administrative Code.
- 15A NCAC 18A .0428 clarify requirements for sampling and testing of shellfish. Standards for poisonous or deleterious substances are incorporated by reference from the Guide.
- 15A NCAC 18A .0430 organize and clarify requirements for bacteriological and contamination standards for shellfish. Standards for contaminants that render shellfish unsafe for human consumption are incorporated by reference from the Guide.
- 15A NCAC 18A .0433 clarify requirements for conducting a hazard analysis to determine food safety hazards. The definition of "reasonably likely to occur" is incorporated by reference from the Code of Federal Regulations.
- 15A NCAC 18A .0434 organize and clarify requirements for a Hazard Analysis Critical Control Point (HACCP) plan. The definition of "reasonably likely to occur" is incorporated by reference from the Code of Federal Regulations. Proposed changes also

incorporate by reference standards for taking corrective action from the Code of Federal Regulations.

The proposed rule changes in 15A NCAC 18A .0610 clarify requirements for equipment sanitation for shucking and packing plants and repacking plants. Standards for sanitizing solutions are incorporated by reference from the Code of Federal Regulations.

The proposed rule changes in 15A NCAC 18A .0701 organize and clarify requirements for operation of depuration facilities; there are no active depuration facilities in North Carolina. Standards for depuration are incorporated by reference from the Guide. Requirements are also added from another rule proposed for repeal (15A NCAC 18A .0704; see next section for description.)

The proposed rule changes in 15A NCAC 18A .0801 organize and clarify requirements for facilities approved for wet storage; there are no active facilities approved for wet storage in North Carolina. Standards for wet storage are incorporated by reference from the Guide.

v. **Rules that move requirements from other rules:** (see also "Repealed rules")

Requirements from six rules are proposed to be moved to eight other rules proposed for re-adoption (one previously discussed) and one rule proposed for adoption (previously discussed) for efficiency and clarity. Aggregating related requirements in fewer rules allows stakeholders to access the requirements more easily and makes the requirements clearer. The proposed changes are not expected to have quantifiable economic impact on stakeholders nor the state of North Carolina.

- 15A NCAC 18A .0410 is proposed to be renamed as "Pest Control", retaining current requirements for the control of flies, and adding requirements from 15A NCAC 18A .0411 for rodents and animals, which is proposed for repeal. A definition of "pests" is proposed to be added to 15A NCAC 18A .0301 (previously discussed).
- 15A NCAC 18A .0434 (HACCP Plan) and 15A NCAC 18A .0435 (Sanitation Monitoring Requirements) are each proposed to add requirements from 15A NCAC 18A .0436 (Monitoring Records), which is proposed for repeal.
- 15A NCAC 18A .0502 (Grading Shellstock and Commingling) is proposed to add requirements for graders from 15A NCAC 18A .0503 (Grader), which is proposed for repeal.
- 15A NCAC 18A .0412 (Plumbing) applies broadly to shellfish dealers, depuration facilities, shellstock plants, shucking and packing plants, repacking plants, reshippers, permittees with facilities approved for wet storage, and all other businesses and persons that buy, sell, transport, or ship shellfish. Amendments are proposed to add requirements for hand washing from 15A NCAC 18A .0604 (Handwashing Facilities), which only applies to shucking and packing plants and repacking plants. As a result, 15A NCAC 18A .0412 is proposed to be renamed as "Plumbing and Hand Washing Facilities" and 15A NCAC 18A .0604 is proposed for repeal. Another rule, 15A NCAC 18A .0416 (Personal Hygiene) currently sets requirements for hand washing and hand washing facilities in the context of an employee's personal hygiene and is also broadly applicable to all shellfish

dealers. These are not new requirements, and it is appropriate for the hand washing requirements to be included in the "Plumbing" and "Personal Hygiene" rules.

- 15A NCAC 18A .0420 (Transporting Shellfish) and 15A NCAC 18A .0421 (Records) are each proposed to add requirements from 15A NCAC 18A .0617 (Shipping), which is proposed for repeal.
- 15A NCAC 18A .0439 (Recall Procedure) is proposed for adoption (previously discussed) to set requirements for conducting recalls of adulterated or misbranded shellfish that applies broadly to shellfish dealers, depuration facilities, shellstock plants, shucking and packing plants, repacking plants, reshippers, permittees with facilities approved for wet storage, and all other businesses and persons that buy, sell, transport, or ship shellfish. This makes moot 15A NCAC 18A .0621 (Recall Procedure), which only applies to shucking and packing plants and repacking plants; this rule is proposed for repeal.

vi. Rules proposed for repeal: (see also "Rules that move requirements from other rules")

There are 23 rules proposed for repeal through readoption and one rule that was previously readopted that is proposed for repeal (15A NCAC 18A .0704). Most of these rules pertain to depuration facilities (12 rules) and wet storage of shellstock (five rules), neither of which are actively occurring nor anticipated to occur in North Carolina. Should this change, amendments to remaining rules (15A NCAC 18A .0701 and .0801) incorporate by reference requirements in the Guide for these practices. Requirements from six rules are proposed to be added to other rules for efficiency and clarity (15A NCAC 18A .0411, .0436, .0503, .0604, .0617, .0621). The remaining rule (15A NCAC 18A .0305) is duplicative of another MFC rule (15A NCAC 03P .0102). No economic impacts are expected from the proposed repeals of these rules.

vii. Rules that only contain minor language changes:

There is a group of 15 rules proposed for readoption that make small changes to rules to bring clarity and modern language into rule or to make conforming changes across the package of rules. The affected rules are: 15A NCAC 03K .0110, 18A .0302, .0401, .0404, .0417, .0501, .0601, .0602, .0603, .0605, .0606, .0607, .0608, .0609, .0611, .0613, and .0616. The proposed changes are not expected to have quantifiable economic impact on stakeholders nor the state of North Carolina.

viii. Rules proposed for readoption without changes:

The proposed rule 15A NCAC 18A .0423, is proposed for readoption without changes and is not expected to have any economic impact on stakeholders nor the state of North Carolina.

III. Economic Impact Summary

The overarching effect of these proposed rule amendments is to conform rule language with current state proclamations and national requirements so as to remain compliant and continue participating in interstate commerce of shellfish. As compared to the regulatory baseline, the

proposed amendments will not require any procedural changes and should not result in any additional costs to the state. Adding the "unlawful" requirements to the rule for temperature controls for storage of shellfish (15A NCAC 18A .0427) may produce small costs to stakeholders who are caught violating the rule. No other costs to the regulated community are expected. The proposed amendments will help to clarify the shellfish sanitation requirements for the regulated community. The improved clarity could provide a small benefit to DMF in the form of reduced time spent providing technical assistance. The added clarifying language could result in unquantifiable, incremental improvements in compliance with shellfish sanitation requirements which would enhance the protection of public health related to the consumption of shellfish. In turn, this could help to bolster consumer confidence in N.C. shellfish.

1 15A NCAC 03K .0110 is proposed for amendment as follows:

2

3 **15A NCAC 03K .0110 PUBLIC HEALTH AND CONTROL OF OYSTERS, CLAMS, SCALLOPS, AND**
 4 **MUSSELS**

5 (a) The National Shellfish Sanitation Program Guide for Control of Molluscan Shellfish, Section II: Model Ordinance
 6 (Model Ordinance) includes requirements for the sale or distribution of shellfish from approved areas or ~~shellstock~~
 7 shellfish dealers, as defined in 15A NCAC 18A .0301, and to ensure that shellfish have not been adulterated or
 8 ~~mislabeled-misbranded~~ during cultivation, harvesting, processing, storage, or transport. To protect public health, the
 9 Fisheries Director may, by proclamation, impose requirements of the Model Ordinance as set forth in Paragraph (b)
 10 of this Rule on any of the following:

11 (1) the cultivation, distribution, harvesting, processing, sale, storage, or transport ~~of~~ of:

12 (A) oysters;

13 (B) clams;

14 (C) scallops; ~~or~~ and

15 (D) mussels;

16 (2) areas used to store shellfish;

17 (3) means and methods to take shellfish;

18 (4) vessels used to take shellfish; ~~or~~ and

19 (5) shellstock conveyances as defined in 15A NCAC 18A .0301.

20 (b) Proclamations issued under this Rule may impose any of the following requirements:

21 (1) specify time and temperature controls;

22 (2) specify sanitation requirements to prevent a food safety hazard, as defined in 15A NCAC 18A .0301,
 23 or cross-contamination or adulteration of shellfish;

24 (3) specify sanitation control procedures set forth in 21 ~~Code of Federal Regulations (CFR) Part~~ CFR
 25 123.11;

26 (4) specify Hazard Analysis Critical Control Point (HACCP) requirements set forth in 21 ~~CFR~~
 27 Part:CFR:

28 (A) 123.3 Definitions;

29 (B) 123.6 HACCP Plan;

30 (C) 123.7 Corrective Actions;

31 (D) 123.8 Verification;

32 (E) 123.9 Records; and

33 (F) 123.28 Source Controls;

34 (5) specify tagging and labeling requirements;

35 (6) implement the National Shellfish Sanitation Program's training requirements for shellfish harvesters
 36 and certified shellfish dealers;

1 (7) require sales records and collection and submission of information to provide a mechanism for
2 tracing shellfish product back to the water body of origin; and

3 (8) require product recall and specify recall procedures.

4 21 CFR 123.3, 123.6-9, 123.11, and 123.28 are ~~hereby~~ incorporated by reference, including subsequent amendments
5 and editions. A copy of the reference ~~materials—material~~ can be found at ~~http://www.ecfr.gov/cgi-bin/text-~~
6 ~~idx?SID=f4edd666e75f54ccda1d9938f4edd9ab&mc=true&tpl=/ecfrbrowse/Title21/21tab_02.tpl, free of charge.~~
7 <https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-123?toc=1>, at no cost.

8 (c) Proclamations issued under this Rule shall suspend appropriate rules or portions of rules under the authority of
9 the Marine Fisheries Commission as specified in the proclamation. The provisions of 15A NCAC 03I .0102
10 terminating suspension of a rule pending the next Marine Fisheries Commission meeting and requiring review by the
11 Marine Fisheries Commission at the next meeting shall not apply to proclamations issued under this Rule.

12
13 *History Note: Authority G.S. 113-134; 113-182; 113-201; 113-221.1; 113-221.2; 143B-289.52;*

14 *Eff. April 1, 2014;*

15 *Amended Eff. May 1, 2017;*

16 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. January 9,*
17 *2018-2018;*

18 *Amended Eff. April 1, 2024.*

1 15A NCAC 18A .0301 is proposed for readoption with substantive changes as follows:

2
3 **SECTION .0300 – SANITATION OF SHELLFISH - GENERAL**

4
5 **15A NCAC 18A .0301 DEFINITIONS**

6 The following definitions shall apply throughout Sections .0300 ~~to .0900~~ through .0800 of this Subchapter:

- 7 (1) "Adulterated" ~~means the following:~~ means:
- 8 (a) ~~Any any~~ shellfish that have been harvested from ~~prohibited areas;~~ polluted areas as defined
9 in 15A NCAC 03L .0101;
- 10 (b) ~~Any any~~ shellfish that have been shucked, packed, or otherwise processed in a plant ~~which~~
11 that has not been permitted by the Division of Marine Fisheries in accordance with these
12 Rules or by another state shellfish control "authority" as defined in the National Shellfish
13 Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish, Section I: Purposes
14 and Definitions, in accordance with these Rules; This definition is incorporated by reference,
15 including subsequent amendments and editions. A copy of the reference material can be
16 found at [https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-](https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp)
17 program-nssp, at no cost;
- 18 (c) any shellfish that may have been contaminated by flood waters in accordance with Rule .0405
19 of this Subchapter;
- 20 ~~(e)(d)~~ ~~Any any~~ shellfish ~~which that~~ exceed the ~~bacteriological~~ standards in Rule .0430 of this
21 Subchapter; and
- 22 ~~(d)(c)~~ ~~Any any~~ shellfish ~~which are that~~ have been deemed to be an imminent ~~hazard;~~ hazard.
- 23 (2) ~~"Approved area" means an area determined suitable for the harvest of shellfish for direct market~~
24 ~~purposes.~~
- 25 (3) ~~"Bulk shipment" means a shipment of loose shellstock.~~
- 26 (4) ~~"Buy boat or buy truck" means any boat which that~~ complies with Rule .0419 of this Subchapter or
27 truck which complies with Rule .0420 of this Subchapter that is used by a person permitted under these
28 Rules to transport shellstock from one or more harvesters to a facility permitted under these Rules.
- 29 ~~(5)(2)~~ "Certification number" means the unique identification number assigned by the state shellfish control
30 agency to each certified shellfish ~~dealer.~~ dealer for each location. It consists of a ~~one to five digit one-~~
31 ~~to-five-digit~~ number preceded by the ~~two letter~~ two-letter state abbreviation and followed by the ~~two~~
32 ~~letter symbol~~ two-letter abbreviation designating the type of operation certified.
- 33 (3) "Clean" means free from dirt, debris, dust, marks, stains, waste materials, litter, or foreign material.
- 34 ~~(6)(4)~~ "Critical control point" means a point, ~~step~~ step, or procedure in a food process at which control can
35 be applied, and a food safety hazard can as a result be prevented, ~~eliminated~~ eliminated, or reduced to
36 acceptable levels.

- 1 ~~(7)~~(5) "Critical limit" means the maximum or minimum value to which a physical, ~~biological~~ ~~biological~~, or
2 chemical parameter must be controlled at a critical control point to prevent, ~~eliminate~~ ~~eliminate~~, or
3 reduce to an acceptable level the occurrence of the identified food safety hazard.
- 4 ~~(8)~~(6) "Depurate" or "Depuration" "deputation" means ~~mechanical purification or the removal of adulteration~~
5 ~~from live shellstock by any artificially controlled means~~ the process of reducing the pathogenic
6 organisms that may be present in shellstock by using a controlled aquatic environment as the treatment
7 process.
- 8 ~~(9)~~(7) "Depuration facility" means ~~the physical structure wherein depuration is accomplished, including all~~
9 ~~the appurtenances necessary to the effective operation thereof~~ any establishment or place where the
10 depuration of shellfish occurs by a shellfish dealer.
- 11 ~~(10)~~(8) "Division" means the Division of ~~Environmental Health or its authorized agent~~ Marine Fisheries.
- 12 (9) "Easily cleanable" has the same meaning as defined in the 2017 U.S. Food Code. This definition is
13 incorporated by reference, not including subsequent amendments and editions. A copy of the
14 reference material can be found at <https://www.fda.gov/food/fda-food-code/food-code-2017>, at no
15 cost.
- 16 (10) "Food contact surface" means the parts of equipment, including auxiliary equipment, that may be in
17 contact with the food being processed, or that may drain into the portion of equipment with which
18 food is in contact.
- 19 (11) "Food safety hazard" means any biological, ~~chemical~~ ~~chemical~~, or physical property that may cause a
20 food to be unsafe for human consumption.
- 21 (12) "Good repair" means maintained to function as designed and without defect.
- 22 ~~(12)~~(13) "HACCP plan" means a written document that delineates the procedures a shellfish dealer follows to
23 implement food safety controls.
- 24 ~~(13)~~(14) "Hazard analysis critical control point (HACCP)" means a system of inspection, ~~control~~ ~~control~~, and
25 monitoring measures initiated by a shellfish dealer to identify microbiological, ~~chemical~~ ~~chemical~~, or
26 physical food safety hazards ~~which that~~ are likely to occur in shellfish products produced by the dealer.
- 27 ~~(14)~~(15) "Heat shock process" means the practice of heating shellstock to facilitate removal of the shellfish
28 meat from the shell.
- 29 ~~(15)~~(16) "Imminent hazard" means ~~a situation which is likely to cause an immediate threat to human life, and~~
30 ~~immediate threat of serious physical injury, an immediate threat of serious physical adverse health~~
31 ~~effects, or a serious risk of irreparable damage to the environment if no immediate action is taken~~ has
32 the same meaning as defined in G.S. 130A-2.
- 33 ~~(14)~~(17) "In-shell product" means non-living, processed shellfish with one or both shells present.
- 34 ~~(16)~~(18) "Misbranded" means ~~the following:~~ as defined in G.S. 106-30 shall include any shellfish that are not
35 labeled in compliance with these Rules.
- 36 (a) — Any shellfish which are not labeled with a valid identification number awarded by regulatory
37 authority of the state or territory of origin of the shellfish; or

~~(b) — Any shellfish which are not labeled as required by these Rules.~~

- (19) "National Shellfish Sanitation Program (NSSP)" means the cooperative federal-state-industry program for the sanitary control of shellfish that is adequate to ensure that the shellfish produced in accordance with the NSSP Guide For The Control Of Molluscan Shellfish will be safe and sanitary.
- ~~(17) "Operating season" means the season of the year during which a shellfish product is processed.~~
- ~~(18) "Person" means an individual, corporation, company, association, partnership, unit of government or other legal entity.~~
- (20) "Pests" means animals or insects, including, but not limited to dogs, cats, birds, rodents, flies, and larvae.
- (21) "Plant" means the establishment or place where shellfish processing occurs by shellfish dealers.
- (22) "Processing" or "processed" means any activity associated with the handling, shucking, freezing, packing, labeling, or storing of shellfish in preparation for distribution. This includes the activities of a shellstock shipper, shucker-packer, repacker, reshipper, or depuration processor.
- ~~(19) "Prohibited area" means an area unsuitable for the harvesting of shellfish for direct market purposes.~~
- ~~(20)(23) "Recall procedure" means the detailed procedure the permitted shellfish dealer will use to retrieve product from the market when it is determined that the product may not be safe for human consumption as determined by the State Health Director is adulterated or misbranded.~~
- ~~(21) "Relaying or transplanting" means the act of removing shellfish from one growing area or shellfish grounds to another area or ground for any purpose.~~
- ~~(22)(24) "Repacking plant" means a shipper, the establishment or place where a shellfish dealer, other than the original shucker-packer, who repacks shucked shellfish into other containers for delivery to the consumer containers.~~
- ~~(23)(25) "Reshipper" means a shipper who ships shucked shellfish in original containers, or shellstock, from permitted shellstock dealers to other dealers or to consumers-person that purchases shellfish from a shellfish dealer and sells the product without repacking or relabeling to another shellfish dealer, wholesaler, or retailer.~~
- (26) "Responsible individual" means the individual present at a shellfish dealer that is the supervisor at the time of the inspection. If no individual is the supervisor, then any employee is the responsible individual.
- ~~(24) "Sanitary survey" means the evaluation of factors having a bearing on the sanitary quality of a shellfish growing area including sources of pollution, the effects of wind, tides and currents in the distribution and dilution of polluting materials, and the bacteriological quality of water.~~
- ~~(25)(27) "Sanitize" means the a bactericidal treatment by a process which meets the temperature and chemical concentration levels in 15A NCAC 18A .2619, has the same meaning as defined in 21 CFR 110.3, which is incorporated by reference including subsequent amendments and editions. A copy of the reference material can be found at <https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-110/subpart-A/section-110.3>, at no cost.~~

1 ~~(26)~~(28) "SELL BY date" means a date ~~conspicuously~~ placed on a container or tag by which a consumer is
2 informed of the latest date the product will remain suitable for sale.

3 ~~(27)~~(29) "Shellfish" means oysters, mussels, ~~scallops~~ scallops, and all varieties of ~~clams~~. However, ~~clams~~,
4 whether shucked or in the shell, fresh, frozen, whole, or in part. ~~the term~~ The requirements of Sections
5 .0300 through .0800 of this Subchapter shall not ~~include~~ apply to scallops ~~when~~ if the final product is
6 the shucked adductor muscle only.

7 (30) "Shellfish dealer" means a plant to which a Shellfish Dealer Permit and Certificate of Compliance is
8 issued by the Division for the activities of shellstock shipping, shucking or packing, repacking,
9 reshipping, or depuration.

10 ~~(28)~~(31) "Shellstock" means any live molluscan shellfish ~~which that~~ remain in their shells.

11 ~~(29)~~(32) "Shellstock conveyance" means all trucks, vessels, trailers, or other conveyances used to transport
12 shellstock.

13 (30) "~~Shellstock dealer~~" means a person who buys, sells, stores, or transports or causes to be transported
14 shellstock which was not obtained from a person permitted under these Rules.

15 ~~(31)~~(33) "Shellstock plant" means any establishment or place where shellstock are washed, packed, or
16 otherwise prepared for ~~sale~~ sale by a shellfish dealer.

17 ~~(32)~~(34) "Shucking and packing plant" means any establishment or place where shellfish are shucked and
18 packed for ~~sale~~ sale by a shellfish dealer.

19 (35) "Use" means employ, set, operate, or permit to be operated or employed.

20 ~~(33)~~(36) "Wet storage" means the ~~temporary placement~~ storage by a shellfish dealer of shellstock from
21 approved areas, a growing area in the open status and classified as "approved" or "conditionally
22 approved" as defined in Rule .0901 of this Subchapter, in containers or floats in natural bodies of ~~water~~
23 water, or in tanks containing natural or synthetic sea ~~water~~ water at any permitted land-based activity
24 or facility.

25
26 *History Note:* Authority G.S. 130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;

27 Eff. February 1, 1987;

28 Amended Eff. August 1, 2000; August 1, 1998; February 1, 1997; January 4, 1994; September 1,
29 1990; December 1, ~~1987-1987~~;

30 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0302 is proposed for amendment as follows:

2

3 **15A NCAC 18A .0302 PERMITS**

4 (a) It shall be unlawful to operate any of the following facilities without first obtaining a Shellfish Dealer Permit
5 and Certificate of Compliance from the Division of Marine Fisheries:

- 6 (1) depuration facilities;
7 (2) repacking plants;
8 (3) shellstock plants; and
9 (4) shucking and packing plants.

10 (b) It shall be unlawful to operate as a ~~shellstock~~ shellfish dealer without first obtaining a Shellfish Dealer Permit
11 and Certificate of Compliance from the Division.

12 (c) It shall be unlawful to operate as a reshipper without first obtaining a Shellfish Dealer Permit and Certificate of
13 Compliance from the Division if shellfish are purchased and shipped out of state.

14 (d) Approval for wet storage of shellstock shall be granted only to persons permitted pursuant to this Rule.

15 (e) Application for a permit shall be submitted in writing to the Division. Application forms may be obtained from
16 the Division, P.O. Box 769, 3441 Arendell Street, Morehead City, NC 28557.

17 (f) No permit shall be issued by the Division until an inspection by the Division shows that the facility and
18 equipment comply with all applicable Rules in Sections .0300 through .0800 of this Subchapter. The owner or
19 responsible ~~person~~ individual shall sign the completed inspection sheet to acknowledge receipt of the inspection
20 sheet.

21 (g) All permits shall be posted in a conspicuous place in the facility.

22 (h) All permits shall expire on April 30 of each year and are non-transferrable.

23 (i) Plans and specifications for proposed new construction, expansion of operations, or changes in operating
24 processes shall be submitted to the Division for review and approval prior to beginning construction or making a
25 change.

26 (j) A permit may be revoked or suspended in accordance with 15A NCAC 03O .0504.

27

28 *History Note: Authority G.S. 113-134; 113-182; 113-221.2; 143B-289.52;*

29 *Eff. February 1, 1987;*

30 *Amended Eff. April 1, 1997;*

31 *Readopted Eff. March 15, ~~2023~~, 2023;*

32 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 18A .0305 is proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0305 APPEALS PROCEDURE**

4

5 *History Note: Authority G.S. 130A-230;*

6 *Eff. February 1, 1987;*

7 *Amended Eff. September 1, ~~1990~~1990;*

8 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0401 is proposed for reoption with substantive changes as follows:

2

3

SECTION .0400 - SANITATION OF SHELLFISH - GENERAL OPERATION STANDARDS

4

5 ~~Rules .0401—.0431 of Title 15A Subchapter 18A of the North Carolina Administrative Code (T15A.18A .0401—~~
6 ~~.0431); has been transferred and recodified from Rules .0901—.0931 of Title 10 Subchapter 10B of the North Carolina~~
7 ~~Administrative Code (T10.10B .0901—.0931), effective April 4, 1990.~~

8

9

15A NCAC 18A .0401 APPLICABILITY OF RULES

10 The rules in this Section shall apply to the operation of all facilities and persons permitted in Rule .0302 of this
11 Subchapter, including shellfish dealers, shellstock plants, reshippers, shucking and packing plants, repacking plants,
12 deputation facilities, permittees with facilities approved for wet storage, and all other businesses and persons that buy,
13 sell, transport, or ship shellfish. ~~These Rules do~~ rules shall not apply to persons ~~individuals~~ possessing shellfish for
14 personal use.

15

16 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

17

Eff. February 1, 1987;

18

Amended Eff. April 1, 1997; December 1, ~~1987-1987;~~

19

Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0402 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 18A .0402 GENERAL REQUIREMENTS FOR OPERATION**

4 ~~(a) During the operating season the plant shall be used for no purpose other than the handling of shellfish. All unnecessary equipment and materials shall be removed from the plant and the floors kept clear for thorough cleaning.~~

5
6 ~~(b) (a) All floors, walls, shucking benches and stools, shucking blocks, tables, skimmers, blowers, colanders, buckets, or any other equipment or utensils used in the processing operation shall be cleaned and sanitized daily, or more frequently as may be necessary during the day's operation to prevent the introduction of undesirable microbiological organisms and filth into the shellfish product. Shellfish dealers shall provide mechanical refrigeration that is capable of maintaining an ambient temperature of 45°F or less and be sized to handle one day's production. The mechanical refrigeration shall include an automatic temperature regulating control and be equipped with an accurate, operating thermometer in the refrigerated storage area. If the sole means of refrigeration is a portable unit, that unit shall be capable of operating utilizing alternating current electrical power that will allow the unit to be plugged into a power supply during transport and at the certified facility.~~

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15 ~~(e) (b) Ceilings and windows shall also be kept clean. Refrigerators, refrigeration rooms, and ice boxes shall be washed and sanitized. Food contact surfaces shall be easily cleanable, corrosion-resistant, constructed of non-toxic and food-grade materials, and shall be kept in good repair. Shellfish dealers shall only use food contact surface equipment that conforms to standards found in the guidance document within the National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish, Section II: Model Ordinance titled "Shellfish Industry Equipment Construction Guide", which is incorporated by reference, including subsequent amendments and editions. A copy of the reference material can be found at <https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp> at no cost.~~

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23 ~~(c) Food contact surfaces of equipment, utensils, and containers shall be cleaned at the end of each day or operation and shall be sanitized prior to the start-up of each day's activities. Food contact surfaces shall also be cleaned and sanitized following any interruption during which the surfaces have become contaminated.~~

24
25
26 ~~(d) Non-food contact surfaces such as equipment, floors, walls, ceilings, and windows shall be kept clean and in good repair.~~

27
28 ~~(d) (e) Wheelbarrows, measures, baskets, shovels, and other implements used in the handling of shellstock shall not be used for any other purpose and shall be cleaned and stored in the shellstock room when not in prior to use.~~

29
30 ~~(f) Shellfish dealers shall provide a temperature measuring device accurate to +/- 2°F for use in monitoring product temperatures.~~

31
32
33 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*
34 *Eff. February 1, 1987-1987;*
35 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0403 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0403 SUPERVISION AND TRAINING**

4 (a) The ~~owner~~ shellfish dealer shall personally supervise or shall designate ~~an~~ a responsible individual whose principal
5 duty shall be to supervise and be responsible for compliance with the ~~Rules~~ rules of this Subchapter. No unauthorized
6 ~~persons~~ individuals shall be allowed in any processing area of the plant during periods of operation. For the purpose
7 of this Rule, "unauthorized individual" shall mean an individual that is not designated and trained by the shellfish
8 dealer or responsible individual to perform specific processing tasks in the facility.

9 (b) The shellfish dealer shall ensure that all employees that manufacture, process, pack, or hold food obtain training
10 in the principles of food hygiene and food safety, including the importance of employee health and personal hygiene,
11 in accordance with 21 CFR 117.4, which is incorporated by reference, including subsequent amendments and editions.
12 A copy of the reference material can be found at [https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-](https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-117/subpart-A/section-117.4)
13 117/subpart-A/section-117.4 at no cost. Employees shall complete the training within 30 days following the initial
14 hire date. The shellfish dealer or responsible individual shall maintain a record of the completed training.

15

16 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

17 *Eff. February 1, ~~1987~~1987;*

18 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0404 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0404 CONSTRUCTION**

4 Shellfish plants shall be ~~adequate in size and construction~~ sized and constructed to permit compliance with the
5 operational provisions of Sections .0300 through .0800 of this Subchapter.

6

7 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

8 *Eff. February 1, ~~1987-1987;~~*

9 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0405 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0405 ~~PLANT LOCATION FACILITY FLOODING~~**

4 (a) Shellfish plants shall be located so that they will not be subject to flooding by high tides.

5 (b) If the facility floors are flooded, processing shall be discontinued until flood waters have receded and the facility
6 and equipment are cleaned and sanitized.

7 (c) Any shellfish that may have been contaminated by flood waters shall be deemed adulterated and shall be destroyed.

8

9 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 113-221.4; 143B-289.52;~~*

10 *Eff. February 1, ~~1987~~1987;*

11 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0406 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0406 FLOORS**

4 Floors shall be ~~of~~ concrete or other equally impervious material, constructed so that they ~~may be~~ are easily and
5 ~~thoroughly cleaned~~ cleanable, and shall be sloped so that water drains ~~completely and rapidly~~. For new construction,
6 ~~the joints between walls and floors shall be rounded to expedite cleaning~~, completely, and kept in good repair. The
7 junction between floors and walls shall be sealed to render them impervious to water in areas where the floor gets wet
8 and is used to store shellfish, process food, or clean equipment and utensils.

9

10 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

11 *Eff. February 1, ~~1987~~ 1987;*

12 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0407 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0407 WALLS AND CEILINGS**

4 ~~Walls to a height of at least two feet above the floor shall be constructed of smooth concrete or other equally~~
5 ~~impervious material. The remainder of the walls and ceilings shall be smooth concrete, cement plaster, or other~~
6 ~~material approved by the Division and shall be painted with a light color washable paint.~~

7 (a) Walls and ceilings in areas where shellfish are stored, handled, processed, or packaged or where food handling
8 equipment or packaging materials are stored shall be constructed of smooth, easily cleanable, non-corrosive,
9 impervious material. The walls and ceilings in these areas shall also be light-colored, such as white in color, so that
10 unclean surfaces can be detected.

11 (b) Doors and windows shall be tightly fitted and kept in good repair so as to keep pests and weather out of the facility.

12

13 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

14 *Eff. February 1, ~~1987-1987;~~*

15 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0408 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0408 LIGHTING**

4 (a) Natural or artificial lighting shall be provided in all parts of the plant. Light bulbs, fixtures, or other glass suspended
5 within the plant shall be safety type or otherwise protected to prevent contamination in case of breakage. Lighting
6 intensities shall be a minimum of 25 ~~foot-candles~~ foot-candles on working surfaces in packing and shucking ~~rooms.~~
7 rooms and a minimum of 10 foot-candles measured at a height of 30 inches above the floor throughout the rest of the
8 processing portion of the facility.

9 (b) Light bulbs, fixtures, or other glass within the plant shall be shatterproof or shielded to prevent food contamination
10 in case of breakage.

11

12 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

13 *Eff. February 1, ~~1987~~ 1987;*

14 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0409 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0409 VENTILATION**

4 Ventilation shall be provided to ~~eliminate~~prevent odors and ~~condensation~~condensation from contaminating shellfish,
5 food contact surfaces, or food packaging materials.

6

7 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

8 *Eff. February 1, ~~1987-1987;~~*

9 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0410 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0410 FLY-PEST CONTROL**

4 (a) All ~~outside-exterior~~ openings shall be ~~screened~~, screened or provided with wind ~~curtains~~ curtains, or be provided
5 with other fly control methods approved by the Division, to prevent the entrance of pests. All screens shall be kept in
6 good repair. All ~~outside-exterior~~ doors shall open outward and shall be self-closing.

7 (b) The use and storage of pesticides and rodenticides shall comply with all applicable ~~state~~ State and federal
8 guidelines, laws and rules.

9 (c) No pets or other animals shall be allowed in those portions of the facility where shellfish, food handling equipment,
10 or packaging materials are stored, handled, processed, or packaged.

11

12 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

13 *Eff. February 1, ~~1987~~ 1987;*

14 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0411 is proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0411 RODENT AND ANIMAL CONTROL**

4

5 *History Note: Authority G.S. 130A-230;*

6 *Eff. February 1, ~~1987~~1987;*

7 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0412 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0412 PLUMBING AND HAND WASHING FACILITIES**

4 (a) All plumbing shall be in compliance with applicable plumbing codes.

5 (b) Hand washing facilities shall be provided with running water at a minimum temperature of 100°F dispensed from
6 a hot and cold combination faucet.

7 (c) Hand washing facilities shall be provided in or adjacent to each bathroom and in shucking and packing rooms.
8 Hand washing facilities in packing areas shall be located where supervisors can observe employee use.

9 (d) Hand washing facilities shall be separate from three-compartment or other sinks used for cleaning equipment and
10 utensils.

11 (e) Soap, single service towels in protected dispensers, and an easily cleanable waste receptacle shall be available and
12 used at hand washing facilities. Other hand drying devices may be used if approved by the Division of Marine Fisheries
13 based upon being equally effective at drying hands without the potential for recontamination.

14

15 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

16 *Eff. February 1, ~~1987-1987;~~*

17 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0413 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0413 WATER SUPPLY**

4 ~~(a) The water supply shall be from a source approved by the Division.~~

5 ~~(b) The water supply used shall be located, constructed, maintained, and operated in accordance with the Commission~~
6 ~~for Public Health's rules governing water supplies. Copies of 15A NCAC 18A .1700 and 15A NCAC 18C may be~~
7 ~~obtained from the Division.~~

8 (a) The water supply used shall be in accordance with 15A NCAC 18A .1720 through .1728, 15A NCAC 18C, or 02
9 NCAC 09C .0703, which are incorporated by reference, including subsequent amendments.

10 (b) If the water supply is from a private source, samples for bacteriological analysis shall be collected by the Division
11 of Marine Fisheries prior to use and after the water supply has been repaired or disinfected, and submitted for analysis
12 to the State Laboratory of Public Health or other laboratory that is certified in accordance with 10A NCAC 42C .0102,
13 which is incorporated by reference, including subsequent amendments.

14 (c) Cross-connections with unapproved water supplies shall be prohibited. A backflow or back siphonage of a solid,
15 liquid, or gas containment into the water supply shall be precluded by use of an air gap or backflow prevention device
16 in accordance with applicable plumbing codes.

17 (d) Hot and cold running water under pressure shall be provided to food preparation, utensil, and hand washing areas
18 and any other areas in which water is required for cleaning. Running water under pressure shall be provided in
19 sufficient quantity to carry out all food preparation, utensil washing, hand washing, cleaning, and other water-using
20 operations.

21

22 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

23 *Eff. February 1, 1987;*

24 *Amended Eff. September 1, ~~1990~~1990;*

25 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0414 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0414 TOILET FACILITIES**

4 ~~Separate and convenient toilet facilities shall be provided for each sex employed and shall comply with the N.C. State~~
5 ~~Building Code, Volume 2, Plumbing. Floors, walls, and ceilings shall be smooth, easily cleanable and kept clean.~~
6 ~~Fixtures shall be kept clean. All toilet wastes and other sewage shall be disposed of in a public sewer system or in the~~
7 ~~absence of a public sewer system, by an on-site sewage disposal system approved by the Department in accordance~~
8 ~~with G.S. 130A-335.~~

9 (a) Toilets shall be provided in the plant by the owner or responsible individual and shall be kept clean and in good
10 repair.

11 (b) Toilet tissue, in a holder, shall be provided by the owner or responsible individual.

12 (c) Toilet room doors shall not open directly into a processing area and shall be tight-fitting and self-closing.

13 (d) All toilet wastes and other sewage shall be disposed of in accordance with 15A NCAC 18A .1900 or 15A NCAC
14 02H .0200, which are incorporated by reference, including subsequent amendments.

15

16 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

17 *Eff. February 1, 1987;*

18 *Amended Eff. September 1, ~~1990; 1990;~~*

19 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0415 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0415 ~~WASTE DISPOSAL~~PREMISES**

4 ~~Shells, washings, and other wastes shall be disposed of in a sanitary landfill or in a sanitary manner approved by the~~
5 ~~Division.~~

6 (a) The premises shall be maintained free from conditions that may constitute an attractant, breeding place, or
7 harborage for pests such as unmowed weeds or grass, uncontained litter or waste, or unused equipment.

8 (b) To prevent pests and odors, shells and other solid waste shall not be permitted to accumulate on the premises.

9

10 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

11 *Eff. February 1, ~~1987.~~1987;*

12 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0416 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0416 PERSONAL HYGIENE**

4 (a) All employees shall wash their hands thoroughly with soap and running water before beginning work and again
5 after each ~~interruption.~~interruption or if their hands may have become soiled or contaminated. Signs to this effect
6 shall be posted in conspicuous places in the plant by the operator. Hand washing signs shall be posted by the owner or
7 responsible individual at each hand washing facility in a language understood by employees.

8 ~~(b) All persons handling shucked shellfish shall sanitize their hands before beginning work and again after each~~
9 ~~interruption.~~

10 ~~(c)~~(b) All ~~persons~~individuals employed or engaged in the ~~handling, shucking, or packing~~packing, or repacking of
11 shellfish shall wear clean, washable outer clothing. Clean plastic or rubber aprons, overalls, and rubber gloves shall
12 be considered satisfactory.

13 (c) All individuals employed or engaged in the shucking, packing, or repacking of shellfish shall wear hair restraints
14 and have clean fingernails free from nail polish and that are short enough to not extend past the fingertips. Employees
15 shall not wear jewelry other than easily cleanable rings. The use of absorbent wraps or absorbent finger cots shall not
16 be permitted.

17 (d) Employees shall not eat, drink, use electronic cigarettes or vaping products, or use tobacco in any form in the
18 rooms where shellfish are stored, processed, or handled.

19 ~~(e) All persons~~An individual known to be a carrier of any disease ~~which that~~ can be transmitted through the handling
20 of shellfish or who ~~have~~has an infected wound or open lesion on any exposed portion of ~~their bodies~~the body shall
21 be prohibited from handling ~~shellfish.~~shellfish or coming into contact with food contact surfaces.

22

23 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

24 *Eff. February 1, ~~1987-1987;~~*

25 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0417 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0417 ~~LOCKER~~EMPLOYEES' PERSONAL ARTICLES**

4 ~~A separate room or locker shall be provided for storing employees' street clothing, aprons, gloves, and personal~~
5 ~~articles. Employees' street clothing, aprons, gloves, food, drink, and personal articles shall be stored in a room or~~
6 ~~locker separate from any area where shellfish are shucked or packed or any area that is used for the cleaning or storage~~
7 ~~of utensils.~~

8

9 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

10 *Eff. February 1, ~~1987-1987;~~*

11 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0418 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0418 SUPPLY STORAGE**

4 ~~(a) Storage room shall be provided for storing shipping containers, tags, and other supplies. Shipping containers,~~
5 ~~boxes, and other supplies shall be stored in a storage room or area. The storage room or area shall be kept clean.~~

6 (b) Pesticides, rodenticides, chemical agents, sanitizers, and other toxic substances shall be stored separate from
7 processing areas or food contact surfaces. Each of the following categories of toxic substances shall be stored separate
8 from one another:

9 (1) pesticides and rodenticides;

10 (2) detergents, sanitizers, and cleaning agents; and

11 (3) caustic acids, polishes, and other chemicals.

12 (c) Cleaning compounds, sanitizers, and other toxic substances shall be labeled and used in accordance with the
13 manufacturer's label directions.

14

15 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

16 *Eff. February 1, ~~1987-1987;~~*

17 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0419 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0419 HARVEST ~~BOATS~~VESSELS AND VEHICLES**

4 ~~All boats used in the harvesting and handling of shellstock shall be kept clean and repaired such that the shellstock~~
5 ~~thereon shall not be subject to adulteration by bilge water, by leakage of water from prohibited areas, or by other~~
6 ~~means. Decks, holds, or bins used for shellstock on boats shall not be washed with water from prohibited areas. Human~~
7 ~~wastes shall not be discharged into shellfish waters.~~

8 (a) It shall be unlawful to use vessels or vehicles that are engaged in the commercial harvest, handling, or transport
9 of shellstock in such a manner that allows contact of shellstock with bilge water, standing water, or other sources of
10 contamination in the vessel or vehicle.

11 (b) It shall be unlawful to allow dogs or other animals on or inside vessels or vehicles that are engaged in the
12 commercial harvest or transport of shellstock.

13 (c) It shall be unlawful to discharge human waste overboard from vessels or vehicles used in the harvesting of
14 shellstock.

15

16 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

17 *Eff. February 1, ~~1987-1987;~~*

18 *Readopted Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 18A .0420 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0420 TRANSPORTING SHELLSTOCKSHELLFISH**

4 (a) All ~~shellstock shellfish~~ storage areas in trucks, ~~buy boats, buy trucks, vessels,~~ trailers, and other conveyances used
5 for transporting ~~shellstock shellfish~~ shall be enclosed, tightly constructed, ~~painted with a light color washable paint,~~
6 kept clean, and shall be subject to inspection by the ~~Division.~~ Division of Marine Fisheries.

7 (b) ~~Shellstock shall be shipped under temperature and sanitary conditions in accordance with these Rules which will~~
8 ~~keep them alive and clean and will prevent adulteration or deterioration. All shellstock shall be kept under mechanical~~
9 ~~refrigeration at a temperature of 45°F (7.1°C) or below. All conveyances used to transport shellstock shall be equipped~~
10 ~~with an operating thermometer. It shall be unlawful to transport shellstock and in-shell product unless shipped under~~
11 ~~mechanical refrigeration and the shipping conveyance is pre-chilled and maintained at an ambient temperature of 45°F~~
12 ~~or below. The storage area of the shipping conveyance shall be equipped with an accurate, operating thermometer.~~

13 (c) ~~Buy boats and buy trucks shall be kept clean with water from a source approved by the Division under Rule .0413~~
14 ~~of this Subchapter. Buy boats and buy trucks shall provide storage space for clean shipping containers, identification~~
15 ~~tags, and records. It shall be unlawful to transport shucked shellfish unless maintained under temperature control of~~
16 ~~45°F or below.~~

17

18 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

19 *Eff. February 1, 1987;*

20 *Amended Eff. May 1, ~~1994-1994;~~*

21 *Readopted Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 18A .0421 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 18A .0421 ~~DAILY RECORD~~RECORDS**

4 (a) All ~~permitted persons shellfish dealers~~ who conduct any business of buying, selling, or shipping shellfish shall
5 keep an accurate, daily record ~~which that~~ shall show the names ~~and addresses~~ of all persons from whom shellfish are
6 received, ~~the address of any shellfish dealer from whom shellfish are received,~~ the location of the source of shellfish,
7 and the names and addresses of all persons to whom shellfish are sold or ~~shipped,~~ shipped with the exception of retail
8 sales. These records ~~shall be recorded and~~ shall be kept on file for a minimum of one year, ~~year for fresh shellfish,~~
9 and a minimum of two years for frozen shellfish. All records shall be open to inspection by the Division of Marine
10 Fisheries at the dealer facility at any time during business hours.

11 (b) All shellfish dealers who receive shellstock from licensed harvesters shall record the following information at the
12 time of receipt:

- 13 (1) harvester name;
14 (2) harvest area;
15 (3) time of the start of harvest;
16 (4) quantity and type of shellfish received;
17 (5) time shellfish were received; and
18 (6) time shellfish were mechanically refrigerated.

19 (c) Each shellfish shipment shipped by a shellfish dealer shall be accompanied by a shipping document that includes:

- 20 (1) name, address, and certification number of shipping dealer;
21 (2) name and address of major consignee;
22 (3) type and quantity of shellfish product;
23 (4) date and time of shipment;
24 (5) documentation that shipping conveyance is pre-chilled at 45°F or below prior to shipment; and
25 (6) temperature of shellstock recorded by shipping dealer at time of shipment.

26 (d) A dealer receiving a shellfish shipment from another shellfish dealer shall record the temperature of the shipping
27 conveyance and the temperature of the shellfish product received. These records shall be kept on file for a minimum
28 of one year for fresh shellfish, and a minimum of two years for frozen shellfish. All records shall be open to inspection
29 by the Division at the dealer facility at any time during business hours.

30 (e) Within 72 hours of any purchase or sale of shellfish, each purchase or sale shall be entered into a permanently
31 bound ledger book, computer record, or any other method that permanently records the information and is organized
32 so that it can be reviewed by the Division.

33
34 *History Note: Authority G.S. 130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;*
35 *Eff. February 1, 1987;*
36 *Amended Eff. August 1, ~~1998-1998;~~*
37 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0422 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0422 SHELLSTOCK CLEANING**

4 No person shall offer for sale any shellstock ~~which~~that have not been washed free of ~~bottom harvest area~~ sediments
5 and detritus. Water used for shellstock washing shall be obtained from a water source in accordance with Rule .0413
6 of this Section or from a growing area in the open status and classified as "approved" or "conditionally approved" as
7 defined in Rule .0901 of this Subchapter.

8

9 *History Note:* Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~

10 Eff. February 1, ~~1987-1987;~~

11 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0423 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 18A .0423 SALE OF LIVE SHELLSTOCK**

4 Only live shellstock shall be offered for sale.

5

6 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

7 *Eff. February 1, ~~1987-1987;~~*

8 *Readopted Eff. April 1, 2024.*

9

1 15A NCAC 18A .0424 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0424 SHELLFISH RECEIVING**

4 No ~~person shellfish dealer~~ shall receive or ~~accept~~-accept:

5 (1) any ~~shellfish~~ shellstock from:

6 (a) a licensed shellfish harvester ~~unless~~-unless:

7 (i) the container or package bears the harvest tag or label required by these Rules, as
 8 required in Rule 15A NCAC 03K .0109 and in accordance with the HACCP plan;
 9 and

10 (ii) the shellstock was harvested from a growing area in the open status and classified
 11 as "approved" or "conditionally approved" as defined in Rule .0901 of this
 12 Subchapter and as indicated on the harvest tag; or

13 (b) another shellfish dealer unless the container or package bears the tag as required in Rule
 14 .0425 of this Section or, in the case of a bulk shipment, Rule .0426 of this Section; and

15 (2) any shellfish from another shellfish dealer unless:

16 (a) it is accompanied by the documentation required in Rule .0421(c) of this Section; and

17 (b) the shellfish temperature and other critical limits are in compliance with the HACCP plan.

18

19 *History Note:* Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~
 20 Eff. February 1, 1987;
 21 Amended Eff. April 1, ~~1997~~.1997;
 22 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0426 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0426 BULK SHIPMENTS BETWEEN SHELLFISH DEALERS**

4 (a) For the purpose of this Rule:

5 (1) "bulk shipment" shall mean a shipment of a shellstock lot between shellfish dealers.

6 (2) "shellstock lot" shall mean a single type of bulk shellstock or containers of shellstock of no more
7 than one day's harvest from a single growing area harvested by one or more harvesters.

8 ~~(b) Shipment in bulk~~ Bulk shipments shall not be made except where if the shipment is from only one consignor to
9 one consignee and accompanied by the uniform shipping tag-consignee, both of which shall be shellfish dealers.

10 (c) When a shellstock lot is shipped, if multiple containers are used they shall be on a wrapped pallet, in a tote, in a
11 net bailer, or other container and the unit shall be tagged with a single tag in accordance with Rule .0425 of this
12 Section. The single tag shall also include a statement that "All shellstock containers in this lot have the same harvest
13 date and area of harvest" and shall include the number of individual containers in the unit.

14 (d) The shellfish dealer shall provide a transaction record that accompanies the bulk shipment that contains the same
15 information required on a dealer's tag in Rule .0425 of this Section and additionally states the name of the consignee,
16 which shall be a shellfish dealer.

17 (e) Bulk shipments shall be kept above the floor using pallets to prevent the shellstock from becoming contaminated,
18 unless the shipping conveyance has a channeled floor.

19

20 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

21 *Eff. February 1, ~~1987~~1987;*

22 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0427 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0427 SHELLSTOCK ~~SHELLFISH~~ STORAGE**

4 ~~Shellstock held in wet or dry storage must be kept so that they will not become adulterated. All shellstock held in dry~~
5 ~~storage shall be kept under mechanical refrigeration at a temperature of 45°F (7.1°C) or below. All refrigerated~~
6 ~~shellstock storage areas shall be equipped with an operating thermometer.~~

7 (a) It shall be unlawful to fail to keep shellstock and in-shell product under mechanical refrigeration at a temperature
8 of 45°F or below unless otherwise required by proclamation issued under the authority of Rule 15A NCAC 03K .0110
9 or otherwise specified in the HACCP plan.

10 (b) Refrigerated storage areas shall be equipped with an accurate, operating thermometer.

11 (c) It shall be unlawful to fail to keep shucked shellfish under temperature control at a temperature of 45°F or below.

12

13 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

14 *Eff. February 1, 1987;*

15 *Amended Eff. May 1, 1994; December 1, ~~1987, 1987;~~*

16 *Readopted Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 18A .0428 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0428 SAMPLING AND TESTING**

4 Samples of shellfish may be taken and ~~bacteriologically~~ examined for any public health reason under the authority of
5 the Marine Fisheries Commission by agents of the Division of Marine Fisheries at any time or place. This may include
6 bacteriological examination or analysis for poisonous or deleterious substances as listed in the latest approved edition
7 of the National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish, Section IV:
8 Guidance Documents, Chapter II: Growing Areas; Action Levels, Tolerances and Guidance Levels for Poisonous or
9 Deleterious Substances in Seafood, which is incorporated by reference, including subsequent amendments and
10 editions. A copy of the reference material can be found at [https://www.fda.gov/food/federalstate-food-](https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp)
11 programs/national-shellfish-sanitation-program-nssp, at no cost. Samples of shellfish shall be furnished, upon ~~request,~~
12 request of the Division, by operators of plants, trucks, carriers, stores, restaurants, and other places where shellfish are
13 sold.

14

15 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

16 *Eff. February 1, ~~1987-1987;~~*

17 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0429 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0429 ~~STOPSALE~~ EMBARGO OR DISPOSAL OF SHELLFISH**

4 (a) When it has been determined by the Division of Marine Fisheries that shellfish have not been grown, harvested,
5 stored, treated, transported, handled, shucked, ~~packed~~ packed, or offered for sale in compliance with ~~15A NCAC 18A~~
6 Sections .0300 through .0900 of this Subchapter, those shellfish shall ~~may~~ be deemed ~~adulterated~~ adulterated in
7 accordance with Rule .0438 of this Section, except as required in Rules .0405 and .0430 of this Section.

8 (b) Shellfish or shellfish products processed or prepared for sale to the public determined to be adulterated or
9 misbranded shall be subject to ~~stopsale or disposal by the Division. The Division may temporarily or permanently~~
10 ~~issue an order to stop sale or condemn, destroy, or otherwise dispose of all shellfish or shellfish containers found to~~
11 ~~be adulterated or misbranded.~~ embargo or disposal by the Division in accordance with G.S. 113-221.4. The authority
12 of marine fisheries inspectors to seize shellfish or shellfish products pursuant to G.S. 113-137 shall not be affected by
13 this Rule.

14 ~~(c) All shellfish shall be disposed of in a manner prescribed by the Division or by a court of appropriate jurisdiction.~~

15 (c) If voluntary disposal of adulterated or misbranded shellfish or shellfish products is alternatively chosen by the
16 shellfish dealer, responsible individual, or other person or facility specified in Rule .0401 of this Section, the product
17 disposal shall be observed by a Division employee.

18

19 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 113-221.4; 143B-289.52;~~*
20 *Eff. February 1, ~~1987~~ 1987;*
21 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0430 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0430 BACTERIOLOGICAL AND CONTAMINATION STANDARDS**

4 Shellfish shucked or in the shell and intended or offered for sale ~~in North Carolina that exceed an Escherichia coli~~
5 ~~Most Probable Number of 230 per 100 grams of sample or a total bacteria count of more than 500,000 per gram or~~
6 ~~contain pathogenic organisms in sufficient numbers to be hazardous to the public health shall be deemed adulterated~~
7 ~~by the Division. Shellfish contaminated by any other substance which renders it unsafe for human consumption shall~~
8 ~~be deemed adulterated by the Division.~~ shall be deemed adulterated by the Division of Marine Fisheries if:

9 (1) the concentration of Escherichia coli exceeds a Most Probable Number (MPN), as defined in Rule

10 .0901 of this Subchapter, of 230 per 100 grams of sample;

11 (2) the total bacteria count, as determined by a standard plate count, exceeds 500,000 colony-forming
12 units, as defined in Rule .0901 of this Subchapter; or

13 (3) the shellfish contain any contaminant that renders it unsafe for human consumption in accordance
14 with the latest approved edition of the National Shellfish Sanitation Program (NSSP) Guide for the
15 Control of Molluscan Shellfish, Section IV: Guidance Documents, Chapter II: Growing Areas;
16 Action Levels, Tolerances and Guidance Levels for Poisonous or Deleterious Substances in
17 Seafood, which is incorporated by reference, including subsequent amendments and editions. A
18 copy of the reference material can be found at [https://www.fda.gov/food/federalstate-food-](https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp)
19 programs/national-shellfish-sanitation-program-nssp, at no cost.

20

21 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

22 *Eff. February 1, ~~1987-1987;~~*

23 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0432 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0432 PUBLIC DISPLAY OF CONSUMER ADVISORY**

4 All ~~facilities and persons~~ shellfish dealers permitted ~~in~~ by Rule .0302 of this Subchapter and all other businesses and
 5 persons that sell or serve raw shellfish shall post one of the following consumer advisories or an equivalent statement
 6 in a conspicuous place where it may be readily observed by the public ~~the following consumer advisory:~~ in the area
 7 where raw shellfish is sold or served:

8 (1) "Consumer Advisory

9 Eating raw or undercooked oysters, ~~clams-clams,~~ whole scallops, or mussels
 10 may cause severe illness. People with the following conditions are at
 11 especially high risk: liver disease, alcoholism, diabetes, cancer, stomach or
 12 blood disorder, or weakened immune system. Ask your doctor if you are
 13 unsure of your risk. If you eat shellfish and become sick, see a doctor
 14 ~~immediately."~~ immediately."; or

15 (2) "Consuming raw or undercooked meats, poultry, seafood, shellfish, or eggs
 16 may increase your risk of foodborne illness, especially if you have certain
 17 medical conditions."

18 Nothing in this Rule is intended to supersede regulation of restaurants or other establishments subject to 15A
 19 NCAC 18A Section .2600 or the U.S. Food Code.

20

21 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

22 *Temporary Adoption Eff. October 12, 1998; February 1, 1998;*

23 *Eff. April 1, ~~1999-1999;~~*

24 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0433 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0433 HAZARD ANALYSIS**

4 Each shellfish dealer shall conduct a hazard analysis to determine the food safety hazards that are reasonably likely to
5 occur for each kind of shellfish product processed by that dealer and to identify the preventative measures that the
6 dealer can apply to control those hazards. For the purpose of this Rule, "reasonably likely to occur" shall mean a food
7 safety hazard for which a processor would establish controls because experience, illness data, scientific reports, or
8 other information provide a basis to conclude that there is a reasonable possibility that it will occur in the absence of
9 those controls, as defined in 21 CFR 123.6, which is incorporated by reference, including subsequent amendments
10 and editions. A copy of the reference material can be found at [https://www.ecfr.gov/current/title-21/chapter-
11 1/subchapter-B/part-123](https://www.ecfr.gov/current/title-21/chapter-1/subchapter-B/part-123), at no cost.

12

13 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

14 *Eff. August 1, ~~2000; 2000;~~*

15 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0434 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 18A .0434 HACCP PLAN**

4 (a) Each shellfish dealer shall have and implement a written HACCP ~~Plan~~ plan specific to each kind of shellfish
5 product processed. The owner or authorized ~~designee individual~~ shall sign the plan when ~~implemented and after any~~
6 modification. ~~implemented~~, which shall signify that the plan has been accepted for implementation by the dealer. The
7 HACCP plan shall also be signed by the owner or authorized individual after any modification or verification of the
8 plan as required by this Rule. ~~The plan shall be reviewed and updated, if necessary, at least annually.~~ The plan shall,
9 at a minimum:

- 10 (1) ~~List~~ list the food safety hazards that are reasonably likely to occur;
- 11 (2) ~~List~~ list the critical control points for each of the food safety hazards;
- 12 (3) ~~List~~ list the critical limits that must be met for each of the critical control points;
- 13 (4) ~~List~~ list the procedures, and frequency thereof, that will be used to monitor each of the critical
14 control points to ensure compliance with the critical limits;
- 15 (5) ~~List~~ list any corrective action plans to be followed in response to deviations from critical limits at
16 critical control points;
- 17 (6) ~~Provide~~ provide a record keeping system that documents critical control point monitoring; and
- 18 (7) ~~List~~ list the verification procedures, and frequency thereof, that the dealer will use.

19 For the purpose of this Rule, "reasonably likely to occur" shall mean a food safety hazard for which a processor would
20 establish controls because experience, illness data, scientific reports, or other information provide a basis to conclude
21 that there is a reasonable possibility that it will occur in the absence of those controls, as defined in 21 CFR 123.6,
22 which is incorporated by reference, including subsequent amendments and editions. A copy of the reference material
23 can be found at <https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-123>, at no cost.

24 (b) With the exception of a shellfish dealer that has not been permitted for interstate commerce, the following
25 functions shall be performed by an individual who has successfully completed training in the application of HACCP
26 principles to shellfish processing:

- 27 (1) developing a HACCP plan;
- 28 (2) reassessing and modifying the HACCP plan; and
- 29 (3) performing the record review specified in Paragraph (d) of this Rule.

30 (c) If a deviation from a critical limit occurs, the shellfish dealer shall take corrective action in accordance with 21
31 CFR 123.7, which is incorporated by reference, including subsequent amendments and editions. A copy of the
32 reference material can be found at [https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-123/subpart-](https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-123/subpart-A/section-123.7#p-123.7(b))
33 A/section-123.7#p-123.7(b), at no cost.

34 (d) At least annually, each shellfish dealer shall verify that the HACCP plan is being implemented to control food
35 safety hazards. Verification procedures shall include:

- 36 (1) a reassessment of the plan when a change occurs that could affect the hazard analysis, and a review
37 of any consumer complaints that have been received; and

1 (2) a review, including signing and dating by the trained individual or responsible individual, of the
2 records that document the monitoring of critical control points, the taking of corrective actions, and
3 the calibrating of any process-monitoring instruments. This review shall occur within one week of
4 the day that the records are made.

5 (e) All records required by this Rule shall be retained at the dealer facility for at least one year after the date they were
6 prepared in the case of refrigerated products, and at least two years after the date they were prepared in the case of
7 frozen products and shall include:

8 (1) the name and location of the dealer;

9 (2) the date and time of the activity that the record reflects;

10 (3) the signature or initials of the individual performing the operation; and

11 (4) the identity of the product and the production code, if any.

12

13 *History Note:* Authority G.S. ~~130A-230~~; 113-134; 113-182; 113-221.2; 113-221.4; 143B-289.52;

14 Eff. August 1, ~~2000~~-2000;

15 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0435 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0435 SANITATION MONITORING REQUIREMENTS**

4 (a) Each shellfish dealer shall monitor, at a minimum, monitor the following sanitation ~~items~~items when the plant is
5 operational:

6 (1) ~~Safety~~safety of water;

7 (2) ~~Condition~~condition and cleanliness of food contact surfaces;

8 (3) ~~Prevention~~prevention of cross-contamination~~;cross-contamination~~;

9 (4) ~~Maintenance~~maintenance of hand washing, hand ~~sanitizing~~sanitizing, and toilet facilities;

10 (5) ~~Protection~~protection of shellfish, shellfish packaging ~~materials~~materials, and food contact surfaces
11 from adulteration~~;becoming adulterated~~;

12 (6) ~~Proper~~proper labeling, ~~storage~~storage, and use of toxic compounds;

13 (7) ~~Control~~control of employees with adverse health conditions; and

14 (8) ~~Exclusion~~exclusion of pests from the facility.

15 (b) Monitoring records of these sanitation items shall be recorded at least daily and shall include the date and time of
16 the activity that the record reflects, and the signature or initials of the individual performing the operation. The records
17 shall be reviewed and signed by the owner or designated individual within one week of recording.

18

19 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*
20 *Eff. August 1, ~~2000~~2000;*
21 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0436 is proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0436 MONITORING RECORDS**

4

5 *History Note: Authority G.S. 130A-230;*

6 *Eff. August 1, ~~2002~~2002;*

7 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0437 is proposed for adoption as follows:

2
3 **15A NCAC 18A .0437 IN-SHELL PRODUCT**

4 (a) In-shell product shall be kept under mechanical refrigeration at a temperature of 45°F or below.

5 (b) In-shell product shall be tagged or labeled to contain the following indelible and legible information listed in
6 sequential order:

7 (1) the shellfish dealer's name, address, and certification number assigned by the shellfish control
8 agency in the state of the shellfish dealer's location;

9 (2) the original shipper's certification number, except if the in-shell product is deperated, the original
10 shipper's certification number is not required;

11 (3) a "SELL BY DATE" that indicates the shelf-life or the words "BEST IF USED BY" followed by a
12 date when the product would be expected to reach the end of its shelf-life. The date shall include
13 month, day, and year;

14 (4) if the in-shell product is deperated, the deperation cycle number or lot number;

15 (5) the most precise identification of the harvest location as is practicable, including the initials of the
16 state of harvest, and the state or local shellfish control authority's designation of the growing area
17 by indexing, administrative, or geographic designation. If the authority in another state has not
18 indexed growing areas, then a geographical or administrative designation shall be used (e.g., Long
19 Bay, shellfish lease or franchise number, or lot number);

20 (6) the type and quantity of in-shell product; and

21 (7) the following statement in bold type on each tag or label: "THIS TAG IS REQUIRED TO BE
22 ATTACHED UNTIL CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT
23 ON FILE, IN CHRONOLOGICAL ORDER, FOR 90 DAYS." "RETAILERS: DATE WHEN
24 LAST SHELLFISH FROM THIS CONTAINER SOLD OR SERVED (INSERT
25 DATE) _____." OR "THIS LABEL IS REQUIRED TO BE ATTACHED UNTIL
26 CONTAINER IS EMPTY OR IS RELABELED AND THEREAFTER KEPT ON FILE, IN
27 CHRONOLOGICAL ORDER, FOR 90 DAYS." "RETAILERS: DATE WHEN LAST
28 SHELLFISH FROM THIS CONTAINER SOLD OR SERVED (INSERT DATE) _____."

29 (c) In-shell product shall include one of the following consumer advisories, or equivalent statement:

30 (1) "Consumer Advisory

31 Eating raw or undercooked oysters, clams, whole scallops, or mussels may cause severe illness.
32 People with the following conditions are at especially high risk: liver disease, alcoholism, diabetes,
33 cancer, stomach or blood disorder, or weakened immune system. Ask your doctor if you are unsure
34 of your risk. If you eat shellfish and become sick, see a doctor immediately."

35 (2) "Consuming raw or undercooked meats, poultry, seafood, shellfish, or eggs may increase your risk
36 of foodborne illness, especially if you have certain medical conditions."

37 (d) The statement "Keep Refrigerated" or an equivalent statement shall be included on the tag or label.

1 (e) If in-shell product for retail sale is packed in individual containers of five pounds or less and shipped in a master
2 container that includes a tag in compliance with Paragraph (b) of this Rule, the individual containers of five pounds
3 or less shall not require tags as specified in Paragraph (b) of this Rule if a lot code number is included on each container
4 that allows traceback of the in-shell product to the master container. A consumer advisory shall be included on each
5 retail package in accordance with Paragraph (c) of this Rule.

6
7 History Note: Authority G.S. 113-134; 113-182; 113-221.2; 143B-289.52;

8 Adopted Eff. April 1, 2024.

1 15A NCAC 18A .0438 is proposed for adoption as follows:

2
3 **15A NCAC 18A .0438 INSPECTIONS AND COMPLIANCE SCHEDULE**

4 (a) If a critical deficiency is detected during an inspection of a shellfish dealer by a Division of Marine Fisheries
5 inspector:

6 (1) the deficiency shall be corrected by the shellfish dealer during that inspection; or

7 (2) the shellfish dealer shall immediately cease production affected by the deficiency.

8 If the shellfish dealer fails to correct the deficiency during the inspection, the Division shall initiate the suspension or
9 revocation process for the Shellfish Dealer Permit and Certificate of Compliance as set forth in 15A NCAC 03O .0504.

10 For the purpose of this Rule, "critical deficiency" shall mean a condition or practice that results in the production of a
11 shellfish product that is adulterated or presents a threat to the health or safety of the consumer.

12 (b) Shellfish products affected by a critical deficiency shall be controlled to prevent adulterated product from reaching
13 consumers. The Division shall:

14 (1) embargo or destroy adulterated shellfish in accordance with 15A NCAC 18A .0429;

15 (2) initiate a recall of adulterated shellfish; and

16 (3) notify enforcement officials for the United States Food and Drug Administration, as well as shellfish
17 control authorities in states that are known to have received adulterated shellfish.

18 (c) If a key or other deficiency is detected during an inspection of a shellfish dealer by a Division inspector, a
19 compliance schedule shall be issued by the Division inspector that provides a time frame by which the deficiency shall
20 be corrected by the shellfish dealer. For the purpose of this Rule, "key or other deficiency" shall mean a deficiency
21 other than a critical deficiency.

22 (d) If a shellfish dealer fails to meet the compliance schedule, the Division shall proceed with one of the following
23 options:

24 (1) revise the existing compliance schedule;

25 (2) initiate the suspension or revocation process for the Shellfish Dealer Permit and Certificate of
26 Compliance as set forth in 15A NCAC 03O .0504; or

27 (3) seek other administrative remedies.

28 (e) Nothing in this Rule shall be construed to limit or make null any option for remedy in accordance with Rule 15A
29 NCAC 03O .0504 or other available administrative remedy.

30
31 History Note: Authority G.S. 113-134; 113-182; 113-221.2; 113-221.4; 143B-289.52;

32 Adopted Eff. April 1, 2024.

1 15A NCAC 18A .0439 is proposed for adoption as follows:

2

3 **15A NCAC 18A .0439 RECALL PROCEDURE**

4 Each shellfish dealer shall adopt and adhere to a written procedure for conducting recalls of adulterated or misbranded
5 shellfish products. This written procedure shall be based on, and complementary to, the FDA Enforcement Policy on
6 Recalls, CFR Title 21, Chapter 1, Subchapter A., Part 7-Enforcement Policy. This procedure shall include shellfish
7 dealers notifying the Division of Marine Fisheries and any consignee receiving affected product when a recall begins,
8 as well as removal or correction of the affected product.

9

10 *History Note:* Authority G.S. 113-134; 113-182; 113-221.2; 143B-289.52;

11 Adopted Eff. April 1, 2024.

1 15A NCAC 18A .0501 is proposed for readoption with substantive changes as follows:

2

3

SECTION .0500 - OPERATION OF SHELLSTOCK PLANTS AND RESHIPPERS

4

5 ~~Rules .0501—.0504 of Title 15A Subchapter 18A of the North Carolina Administrative Code (T15A.18A~~
6 ~~.0501—.0504); has been transferred and recodified from Rules .1001—.1004 of Title 10 Subchapter 10B of the North~~
7 ~~Carolina Administrative Code (T10.10B .1001—.1004), effective April 4, 1990.~~

8

9 **15A NCAC 18A .0501** ~~GENERAL REQUIREMENTS~~ FOR SHELLSTOCK PLANTS AND RESHIPPERS

10 The rules in Section .0400 and the Rules of this Section shall apply for the operation of shellstock plants and reshippers.

11

12 *History Note:* Authority G.S. ~~130A-230~~; 113-134; 113-182; 113-221.2; 143B-289.52;

13 Eff. February 1, ~~1987~~.1987;

14 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0502 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0502 GRADING SHELLSTOCK AND COMMINGLING**

4 (a) For the purpose of this Rule:

5 (1) "commingling" shall mean the act of combining different lots of shellfish harvested on different
6 days in the same growing area or combining different lots of shellstock harvested from different
7 growing areas.

8 (2) "lot" shall mean clams from one day's harvest, from a single growing area, harvested by one or more
9 harvesters.

10 ~~(a)~~(b) The grading of shellstock by a shellfish dealer shall be conducted only in a permitted shellstock plant.

11 ~~(b)~~(c) A ~~separate~~ grading room or area separate from other processing operations shall be required for the grading of
12 shellstock.

13 (d) The grader used to grade shellstock, and any other accessories or tables used in the grading operation, shall be
14 constructed to be easily cleanable and shall be kept in good repair.

15 (e) Shellfish dealers shall not commingle any shellfish, except for clams with prior approval of a commingling plan
16 by the Division of Marine Fisheries. A commingling plan shall be approved by the Division based on limiting the
17 dates of harvest and growing areas and maintaining lot identity so that each individual lot of shellfish can be traced
18 back to its harvest source.

19

20 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

21 *Eff. February 1, ~~1987~~1987;*

22 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0503 is proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0503 GRADER**

4

5 *History Note: Authority G.S. 130A-230;*

6 *Eff. February 1, ~~1987~~1987;*

7 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0504 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0504 RESHIPPER**

4 ~~(a) Reshippers shall meet all applicable requirements for shellstock plants. When shucked shellfish are reshipped,~~
5 ~~they shall be obtained from a permitted shipper. The shucked shellfish shall be received in approved shipping~~
6 ~~containers at a temperature of 40°F (4°C) or below. The temperature of the shellfish shall not exceed 40°F (4°C)~~
7 ~~during the holding and shipping periods.~~

8 ~~(b) Reshippers shall keep adequate and accurate records indicating the source from which shellfish were purchased,~~
9 ~~the date purchased, the name of the waters from which the shellfish were harvested, and the names and addresses of~~
10 ~~persons to whom the shellfish were sold for a period of one year.~~

11 Reshippers shall only purchase shellfish from other shellfish dealers and sell the product to other shellfish dealers,
12 wholesalers, or retailers without repacking or relabeling.

13

14 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

15 *Eff. February 1, 1987;*

16 *Amended Eff. September 1, ~~1990~~1990;*

17 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0601 is proposed for re adoption with substantive changes as follows:
2

3 **SECTION .0600 - OPERATION OF SHELLFISH SHUCKING AND PACKING PLANTS AND**
4 **REPACKING PLANTS**
5

6 ~~Rules .0601—.0619 of Title 15A Subchapter 18A of the North Carolina Administrative Code (T15A.18A~~
7 ~~.0601—.0619); has been transferred and recodified from Rules .1101—.1119 of Title 10 Subchapter 10B of the North~~
8 ~~Carolina Administrative Code (T10.10B .1101—.1119), effective April 4, 1990.~~
9

10 **15A NCAC 18A .0601 ~~GENERAL REQUIREMENTS~~ FOR SHUCKING AND PACKING PLANTS AND**
11 **REPACKING PLANTS**

12 The rules in Section .0400 and the Rules of this Section shall apply for the operation of shucking and packing plants
13 and repacking plants.
14

15 *History Note:* Authority G.S. 130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;
16 Eff. February 1, 1987-1987;
17 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0602 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0602 SEPARATION OF OPERATIONS**

4 A shucking and packing plant shall provide separate ~~rooms~~ areas for shellstock storage, shucking, heat shock, and
5 general storage. A ~~separate packing area with delivery shelf~~ that is separate from other processing areas and with a
6 delivery window or shelf as set forth in Rule .0605 of this Section shall be required.

7

8 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

9 *Eff. February 1, ~~1987-1987;~~*

10 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0603 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0603 HOT WATER SYSTEM**

4 An automatically regulated hot water system shall be provided ~~which~~that has ~~sufficient~~ capacity to furnish water at a
5 temperature of at least 130°F (~~54°C~~) during all hours of shucking and packing plant operation.

6

7 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

8 *Eff. February 1, ~~1987-1987;~~*

9 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0604 is proposed for repeal through readoption as follows:

2

3 ~~15A NCAC 18A .0604 — HANDWASHING FACILITIES~~

4

5 *History Note: Authority G.S. 130A-230;*

6 *Eff. February 1, ~~1987~~1987;*

7 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0605 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0605 DELIVERY WINDOW OR SHELF**

4 (a) A delivery window or a non-corrosive shelf shall be installed in the partition between the shucking room area and
5 packing area. No shuckers or unauthorized personnel shall be allowed in the packing room or area. The
6 If a delivery window is used it shall be equipped with a shelf completely covered with smooth, non-corrosive metal or other
7 impervious material approved by the Division for such purpose, and shall be sloped to drain towards the shucking
8 room area.

9 (b) No shuckers or individuals that are not designated as packers by the owner or responsible individual shall be
10 allowed in the packing area.

11

12 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

13 *Eff. February 1, ~~1987~~1987;*

14 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0606 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0606 NON-FOOD CONTACT SURFACES**

4 All non-food contact surfaces of equipment such as cabinets and shelving shall be ~~non-absorbent, impervious~~ and
5 constructed to be easily ~~cleaned~~ cleanable.

6

7 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

8 *Eff. February 1, ~~1987-1987;~~*

9 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0607 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0607 SHUCKING BENCHES**

4 Shucking benches, tables, and contiguous walls to a height of at least two feet above the bench top, shall be of smooth
5 concrete, non-corrosive metal, or other durable ~~non-absorbent~~ impervious material, free from cracks and pits, and ~~so~~
6 constructed so that drainage is complete and rapid and is directed away from the stored shellfish. Shucking blocks
7 shall be solid, one-piece construction, removable, and easily cleanable. The stands, ~~stalls~~ stalls, and stools shall be of
8 smooth material and shall be painted with a ~~light-colored~~ light-colored washable paint, such as white in color,
9 so that unclean surfaces can be detected.

10

11 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

12 *Eff. February 1, ~~1987~~.1987;*

13 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0608 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0608 EQUIPMENT CONSTRUCTION**

4 (a) All pails, skimmers, measures, tanks, tubs, blowers, paddles, and other equipment, ~~which that~~ come into contact
5 with shucked shellfish or with ice used for direct cooling of shellfish, shall be made of smooth, non-corrosive,
6 impervious materials and constructed so as to be easily cleanable and shall be kept clean and in good repair.

7 (b) All equipment, including external and internal blower lines and hoses below a point two inches above the overflow
8 level of the tank and blower drain valves, shall be constructed as to be easily ~~cleanable;~~ cleanable and there shall be
9 no V-type threads in the food-product zone of the blower.

10 (c) The blower and skimmer drain shall not be directly connected with the sewer. There shall be an air ~~gap, approved~~
11 ~~by the Division,~~ gap between the blower and skimmer outlets. A floor drain shall be provided.

12 (d) Air-pump intakes shall be located in a place protected from dirt and other contamination, and shall be equipped
13 with filters.

14

15 *History Note: Authority G.S. ~~130A-230;~~ 113-134; 113-182; 113-221.2; 143B-289.52;*

16 *Eff. February 1, 1987;*

17 *Amended Eff. September 1, ~~1990;~~ 1990;*

18 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0609 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0609 SANITIZING EQUIPMENT**

4 Washing and sanitizing facilities, including a three-compartment wash sink of adequate size to wash the largest
5 utensils used in the ~~plant-shucking and packing plant~~, shall be provided in a section of the plant ~~convenient to so that~~
6 it can service the work areas. The sink shall be kept in good repair. Permanent hot and cold water connections, with
7 combination supply faucets, shall be installed so that all vats may receive hot and cold water. Either steam, hot water,
8 or a sanitizing solution shall be used to sanitize utensils and equipment.

9

10 *History Note:* Authority ~~G.S. 130A-230;~~ 113-134; 113-182; 113-221.2; 143B-289.52;

11 *Eff. February 1, 1987;*

12 *Amended Eff. December 1, ~~1987~~1987;*

13 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0610 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 18A .0610 EQUIPMENT SANITATION**

4 All utensils and tools, such as opening knives, shucking pails, measures, skimmers, colanders, tanks, tubs, paddles,
5 and containers ~~which that~~ come in contact with ~~the~~ shellfish shall be thoroughly cleaned and then ~~sanitized~~:sanitized
6 by:

- 7 (1) ~~by~~ steam in a steam chamber or box equipped with an indicating thermometer located in the coldest
8 zone, by exposure to a temperature of 170°F (~~76°C~~) for at least 15 minutes, or to a temperature of
9 200°F (~~93°C~~) for at least five minutes;
- 10 (2) ~~by~~ immersion in hot water at a temperature of 170°F (~~76°C~~) for at least two ~~minutes (a thermometer~~
11 ~~is required)~~:minutes;
- 12 (3) ~~by~~ immersion for at least one minute in, or exposure for at least one minute ~~to,~~ to a constant flow ~~of~~
13 of a solution containing not less than 100 parts per million chlorine residual. Utensils and equipment
14 ~~which have to that must~~ be washed in place ~~will shall~~ require washing, rinsing, and sanitizing; or
- 15 (4) ~~by a bactericidal treatment method which will provide equivalent sanitization to that provided by~~
16 ~~the methods authorized in (1), (2), or (3), as determined by the Division. If the bactericidal~~
17 ~~immersion or spray treatment is employed, testing kits shall be used to ensure that minimum solution~~
18 ~~strengths are maintained throughout the cleaning process.~~other equivalent products and procedures
19 approved in 21 CFR 178.1010, which is incorporated by reference, including subsequent
20 amendments and editions. A copy of the reference material can be found at
21 [https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-178/subpart-B/section-](https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-178/subpart-B/section-178.1010)
22 178.1010, at no cost.

23 A testing method or equipment shall be available and used to test chemical sanitizers to ensure minimum prescribed
24 strengths.

25
26 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*
27 *Eff. February 1, ~~1987-1987;~~*
28 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0611 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0611 EQUIPMENT STORAGE**

4 Equipment and utensils ~~which that~~ have been cleaned and ~~given bactericidal treatment~~ sanitized shall be stored in a
5 manner to protect against prevent contamination.

6

7 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

8 *Eff. February 1, ~~1987-1987;~~*

9 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0612 is proposed for re adoption with substantive changes as follows:

2

3 **15A NCAC 18A .0612 ICE**

4 (a) Ice shall be obtained from a water supply approved by the Division of Marine Fisheries pursuant to Rule .0413 of
5 this Subchapter and shall be stored and handled in a ~~sanitary manner~~ manner to prevent contamination and keep the
6 ice clean.

7 (b) All equipment used in the handling of ice shall be used for no other purpose and shall be cleaned and sanitized at
8 least once each day the facility is in operation.

9

10 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

11 *Eff. February 1, ~~1987~~1987;*

12 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0613 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0613 SHELLFISH SHUCKING**

4 (a) Shellfish shall be shucked in a manner ~~that they are not subject to adulteration to prevent contamination.~~ Shellstock
5 shall be ~~reasonably~~ free of ~~mud when excessive sediment prior to being~~ shucked. Only live shellstock shall be shucked.

6 (b) Shucking of shellstock shall only be permitted on ~~approved~~ shucking tables or ~~benches~~ benches in accordance
7 with Rules .0402 and .0607 of this Subchapter. Floors ~~used by shuckers~~ shall not be used for the storage of shellfish
8 or the retention of shucking pails or other food contact containers.

9 (c) When shellstock are stored in the shucking room, protection shall be provided for the storage space to prevent
10 ~~possible adulteration~~ the shellstock from becoming adulterated from wash water wastes and from the feet of the
11 employees.

12 (d) Shucking pails shall be placed so as to exclude the drippings from shells and from the hands of shuckers. The
13 pails shall be rinsed with running tap water before each filling.

14 (e) Shucked ~~shellfish, when washed,~~ shellfish shall be ~~thoroughly~~ washed on a skimmer or a container approved by
15 the Division of Marine Fisheries with cold running water from a source ~~approved by the Division under~~ in accordance
16 with Rule .0413 of this Subchapter.

17 (f) The return of excess shucked shellfish from the packing room shall not be allowed. All shucked shellfish shall be
18 packed before ~~leaving it leaves~~ the packing room.

19 (g) If blowers are used for cleansing, the total time that shellfish are in contact with water after leaving the shucker,
20 including the time of washing, rinsing, and any other contact with ~~water-water,~~ shall not be more than 30 minutes. In
21 computing the time of contact with water, the length of time that shellfish are in contact with water that is ~~agitated,~~
22 agitated shall be calculated at twice ~~its the actual length-~~ length of time that the shellfish are in contact with the water.
23 Before packing into containers for shipment or delivery for consumption, the shellfish shall be ~~drained and packed~~
24 drained. Shellfish shall be packed without any added substance.

25 (h) ~~Pre-cooling of shucked shellfish shall be done in equipment which meets National Sanitation Foundation standards~~
26 ~~or the equivalent.~~

27

28 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

29 *Eff. February 1, 1987;*

30 *Amended Eff. September 1, ~~1990~~1990;*

31 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0614 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0614 CONTAINERS**

4 (a) Containers used for transporting shucked shellfish shall be made from ~~food safe materials approved by the United~~
5 ~~States Food and Drug Administration,~~food-safe materials. These containers shall not be reused for packing shellfish.

6 (b) ~~Shucked shellfish shall be packed and shipped in containers, sealed so that tampering can be detected. Each~~
7 ~~individual container shall have permanently recorded container, so as to be conspicuous, the shuckerpacker's,~~
8 ~~repacker's, or distributor's name and address, and the shuckerpacker's or repacker's certification number.~~The shucker-
9 packer's or repacker's name and address and certification number shall be permanently and visibly recorded on the
10 label of each container used for shucked shellfish.

11 (c) Any container of shucked shellfish ~~which that~~ has a capacity of 64 fluid ounces or more shall ~~be dated as of the~~
12 ~~date shucked~~include the words "DATE SHUCKED" followed by the date shucked permanently recorded on both the
13 lid and sidewall or bottom.bottom of the container. The date shall consist of either the abbreviation for the month and
14 number of the day of the month or the Julian format (YDDD), the last digit of the four-digit year and the three-digit
15 number corresponding to the day of the year.

16 (d) Any container of shucked shellfish ~~which that~~ has a capacity of less than 64 fluid ounces shall ~~indicate a SELL~~
17 ~~BY date~~include the words "SELL BY" or "BEST IF USED BY" followed by a date when the product will reach the
18 end of its projected shelf life. The date shall consist of the abbreviation for the month and number of the day of the
19 month.

20 (e) For fresh frozen shellfish, the year shall be added to the date for non-Julian format. If fresh frozen, the container
21 shall be labeled as frozen in equal size type immediately adjacent to the type of shellfish. If a frozen container of
22 shucked shellfish is thawed and repacked, the container shall be labeled as previously frozen.

23 (f) Each container of shucked shellfish shall include a consumer advisory. The following statement, or an equivalent
24 statement, shall be included on all containers: "Consuming raw or undercooked meats, poultry, seafood, shellfish, or
25 eggs may increase your risk of foodborne illness, especially if you have certain medical conditions."

26 ~~(d)(g)~~ No person shall use containers bearing a certification number other than the number assigned to ~~him~~him or
27 her.

28

29 *History Note:* Authority G.S. 130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;

30 Eff. February 1, 1987;

31 Amended Eff. August 1, 1998; February 1, 1997; December 1, 1987-1987;

32 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0615 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0615 SHELLFISH COOLING**

4 ~~Shucked shellfish shall be cooled to an internal temperature of 45°F (7°C) or less within two hours after delivery to~~
5 ~~the packing room. Storage temperatures shall be 40° F (4° C) or below. No ice or other foreign substance shall be~~
6 ~~allowed to come into contact with the shellfish after processing has been completed.~~

7 (a) For shellstock that has not been refrigerated prior to processing, shucked meats and in-shell product shall be chilled
8 to an internal temperature of 45°F or less within three hours of shucking or processing.

9 (b) For shellstock that has been refrigerated prior to processing, shucked meats and in-shell product shall be chilled
10 to an internal temperature of 45°F or less within four hours after removal from refrigeration.

11 (c) If heat shock is used, once shellstock is shucked, the shucked shellfish meats shall be cooled to an internal
12 temperature of 45°F or less within two hours from the time of heat shock.

13 (d) Shucked and packed shellfish shall be stored in covered containers at an ambient temperature of 45°F or less or
14 covered in ice.

15

16 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

17 *Eff. February 1, 1987;*

18 *Amended Eff. April 1, ~~1997-1997;~~*

19 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0616 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 18A .0616 SHELLFISH FREEZING**

4 (a) If shellfish are to be frozen, they shall be frozen within three days of shucking and ~~packing and the shucked date~~
5 ~~shall be preceded by the letter (F),~~ packing. Containers of frozen shellfish shall be labeled in accordance with Rule
6 .0614 of this Section.

7 (b) A temperature of ~~0° F (-18° C)~~ 0° F or less shall be maintained in the frozen storage rooms.

8

9 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

10 *Eff. February 1, 1987;*

11 *Amended Eff. April 1, 1997; December 1, ~~1987-1987;~~*

12 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0617 is proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0617 SHIPPING**

4

5 *History Note: Authority G.S. 130A-230;*

6 *Eff. February 1, 1987;*

7 *Amended Eff. April 1, ~~1997-1997~~;*

8 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0618 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0618 HEAT SHOCK METHOD OF PREPARATION OF SHELLFISH**

4 (a) ~~Facilities.~~—If a shucking and packing plant uses the heat shock process, it shall be done in a separate room adjacent
5 to the shellstock storage room and the shucking room.

6 (b) ~~Tank construction.~~—The heat shock tank shall be constructed of smooth, non-corrosive metal, designed to drain
7 ~~quickly and completely and to be easily and thoroughly cleaned.~~ cleanable.

8 (c) ~~Booster heaters.~~—All heat shock tanks shall be equipped with booster heaters that are thermostatically controlled.

9 (d) ~~Shellstock washing.~~—All shellstock subjected to the heat shock process shall be ~~thoroughly~~ washed with flowing
10 potable water immediately prior to the heat shock operation.

11 (e) ~~Water temperature.~~—During the heat shock process the water shall be maintained at not less than 140°F (60°C) or
12 more than ~~150°F (65°C).~~ 150°F. An accurate thermometer shall be available and used to determine the temperature
13 during the heat shock process. ~~The heat shock tanks shall be drained and cleaned at the end of each day's operation.~~

14 (f) ~~Alternatives to heat shock method.~~—Nothing in ~~these Rules~~ this Rule shall be construed to prohibit any other
15 process ~~which that~~ has been found by the Division of Marine Fisheries to be equally effective.

16 (g) ~~Water requirements.~~—At least eight gallons of heat shock water shall be maintained in the tank for each ~~one half~~
17 one-half bushel of shellstock being treated. All water used in the heat shock process shall be from a source approved
18 by the Division ~~under in accordance with~~ Rule .0413 of this Subchapter.

19 (h) ~~Cooling.~~—Immediately after the heat shock process, all treated shellstock shall be subjected to a cool-down with
20 flowing potable ~~tap~~ water. All ~~heat shocked~~ heat-shocked shellstock shall be handled in a manner to prevent
21 ~~adulteration of the product.~~ the product from becoming adulterated. Shellfish ~~which that~~ have been subjected to the
22 heat shock process shall be cooled to an internal temperature of 45°F (7°C) or below within two hours after this process
23 and shall be placed in storage at ~~40°F (4°C)~~ 45°F or below.

24 (i) ~~Cleaning.~~—At the close of each day's operation, the heat shock tank shall be completely emptied of all water, mud,
25 and detritus, and ~~thoroughly~~ cleaned and then rinsed with flowing potable water.

26 (j) ~~Sanitizing.~~—All heat shock tanks shall be sanitized immediately before starting each day's operation.

27 (k) The procedure for the heat shock process shall be posted in a location that can be viewed by employees to help
28 ensure the correct procedure can be followed.

29

30 *History Note:* Authority G.S. 130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;

31 Eff. February 1, 1987;

32 Amended Eff. August 1, 2002; August 1, 1998; February 1, 1997; September 1, 1990-1990;

33 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0619 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0619 REPACKING OF SHELLFISH**

4 (a) If repacking is practiced, it shall be ~~done strictly conducted~~ in accordance with all the requirements ~~stipulated~~ for
5 shucking and packing plants in the Rules of this Section except ~~those for requirements~~ related to shucking.

6 (b) The shucked shellfish to be repacked shall be received at the repacking plant ~~in approved shipping containers~~ at a
7 temperature of ~~32°-40°F (0°-4°C)~~ 45°F or less.

8 (c) Shellfish shall not be repacked more than one time.

9 (d) The temperature of the shellfish shall not exceed an internal temperature of 45°F (7°C) ~~for more than two hours~~
10 during the repacking process.

11 ~~Containers with a capacity of 64 fluid ounces or less in which shucked shellfish are repacked shall indicate a SELL~~
12 ~~BY date preceded by the letter R. Containers with a capacity above 64 fluid ounces in which shucked shellfish are~~
13 ~~repacked shall be dated to show the original shucking date and repacking date, which will be preceded by the letter~~
14 ~~(R).~~ Containers of repacked shellfish shall be repacked and labeled in accordance with Rule .0614 of this Section,
15 except that the original date of shucking shall be added to the new repacked container or the original date of shucking
16 shall be used in establishing the "SELL BY" or "BEST IF USED BY" date.

17 (f) Repackers shall keep ~~accurate~~ records indicating the source from which shellfish were purchased, the date packed,
18 the date of purchase, ~~the area within the state or territory from which the shellfish were harvested,~~ and the names and
19 addresses of ~~persons~~ shellfish dealers to whom ~~the~~ shellfish were sold.

20

21 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

22 *Eff. February 1, 1987;*

23 *Amended Eff. December 1, ~~1987~~ 1987;*

24 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0620 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 18A .0620 SHELLFISH THAWING AND REPACKING**

4 (a) Frozen shellfish shall be thawed ~~under temperatures not to exceed 45° F (7° C)~~ at a temperature of 45°F or less.

5 (b) Shellfish held for thawing shall be separated from other shellfish.

6 (c) Thawed shellfish shall not exceed ~~45° F (7° C)~~ 45°F for more than two hours during the repacking process.

7 (d) Containers of repacked, thawed shellfish shall be labeled as required in Rule .0619 of this Section and shall also
8 be labeled as "PREVIOUSLY FROZEN", or equivalent.

9 (e) Thawed ~~shellfish, which shellfish that~~ shellfish that remain in original containers, containers shall be labeled as required in Rule
10 .0614 of this Section and shall also be labeled as "PREVIOUSLY FROZEN", or equivalent.

11

12 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*

13 *Eff. April 1, ~~1997-1997;~~*

14 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0621 is proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0621 RECALL PROCEDURE**

4

5 *History Note: Authority G.S. 130A-230;*

6 *Eff. August 1, ~~1998~~1998;*

7 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0701 is proposed for readoption with substantive changes as follows:

2
3 **SECTION .0700 - OPERATION OF DEPURATION (MECHANICAL PURIFICATION) FACILITIES**

4
5 ~~Rules .0701—.0713 of Title 15A Subchapter 18A of the North Carolina Administrative Code (T15A.18A~~
6 ~~.0701—.0713); has been transferred and recodified from Rules .1201—.1213 of Title 10 Subchapter 10B of the North~~
7 ~~Carolina Administrative Code (T10.10B .1201—.1213), effective April 4, 1990.~~

8
9 **15A NCAC 18A .0701 ~~GENERAL REQUIREMENTS~~ FOR DEPURATION**

10 ~~(a) The Rules in Section .0400 shall apply for the operation of depuration facilities.~~ In addition to and to the extent
11 not inconsistent with other applicable provisions of North Carolina Marine Fisheries Commission rules, requirements
12 for depuration shall be in accordance with the 2019 Revision of the National Shellfish Sanitation Program (NSSP)
13 Guide for the Control of Molluscan Shellfish chapter titled "Depuration", which is incorporated by reference, not
14 including subsequent amendments and editions. A copy of the reference material is available online at:
15 <https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp>, at no cost.

16 (b) All laboratory analyses used to evaluate the effectiveness of the depuration process shall be performed by a
17 laboratory found by a Food and Drug Administration (FDA) Shellfish Laboratory Evaluation Officer or by an FDA-
18 certified State Shellfish Laboratory Evaluation Officer to conform or provisionally conform to the requirements
19 established under the National Shellfish Sanitation Program (NSSP).

20 (c) If there is an immediate or ongoing critical need for a method for the analysis of depuration process water and
21 shellfish that are used to evaluate the effectiveness of the depuration process and no method approved for use within
22 the NSSP exists, the following may be used:

- 23 (1) a validated Association of Analytical Communities, Bacteriological Analysis Manual, or
24 Environmental Protection Agency method; or
25 (2) an Emergency Use Method as set forth in the latest approved edition of the NSSP Guide for the
26 Control of Molluscan Shellfish.

27
28 *History Note: Authority G.S. ~~130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;~~*
29 *Eff. February 1, ~~1987~~1987;*
30 *Readopted Eff. April 1, 2024.*

1 15A NCAC 18A .0702 - .0703 are proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0702 FACILITY SUPERVISION**

4 **15A NCAC 18A .0703 FACILITY DESIGN AND SANITATION**

5

6 *History Note: Authority G.S. 130A-230;*

7 *Eff. February 1, ~~1987~~1987;*

8 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0704 is proposed for repeal as follows:

2

3 **15A NCAC 18A .0704 LABORATORY PROCEDURES**

4

5 *History Note: Authority G.S. 113-134; 113-182; 113-221.2; 143B-289.52;*

6 *Eff. February 1, 1987;*

7 *Amended Eff. September 1, 1991; September 1, 1990;*

8 *Readopted Eff. May 1, ~~2021-2021~~;*

9 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0705 - .0713 are proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0705 FACILITY OPERATIONS**

4 **15A NCAC 18A .0706 SHELLFISH SAMPLING PROCEDURES**

5 **15A NCAC 18A .0707 DEPURATION PROCESS WATER CONTROL - SAMPLING PROCEDURES**

6 **15A NCAC 18A .0708 DEPURATION TREATMENT PROCESS WATER - STANDARDS**

7 **15A NCAC 18A .0709 DEPURATION - SHELLFISH MEAT STANDARDS**

8 **15A NCAC 18A .0710 ULTRAVIOLET UNIT**

9 **15A NCAC 18A .0711 SHELLSTOCK STORAGE**

10 **15A NCAC 18A .0712 DEPURATION - TAGGING AND RELEASE OF SHELLFISH**

11 **15A NCAC 18A .0713 DEPURATION - RECORDS**

12

13 *History Note: Authority G.S. 130A-230;*

14 *Eff. February 1, 1987;*

15 *Amended Eff. September 1, 1990(Rules .0705, .0706); December 1, ~~1987-1987~~(Rule .0705);*

16 *Repealed Eff. April 1, 2024.*

1 15A NCAC 18A .0801 is proposed for readoption with substantive changes as follows:

2
3 **SECTION .0800 - WET STORAGE OF SHELLSTOCK**

4
5 ~~Rules .0801—.0806 of Title 15A Subchapter 10B of the North Carolina Administrative Code (T15A.10B~~
6 ~~.0801—.0806); has been transferred and recodified from Rules .1301—.1306 of Title 10 Subchapter 10B of the North~~
7 ~~Carolina Administrative Code (T10.10B .1301—.1306), effective April 4, 1990.~~

8
9 **15A NCAC 18A .0801 ~~GENERAL REQUIREMENTS~~ GENERAL REQUIREMENTS FOR WET STORAGE OF SHELLSTOCK**

10 ~~The rules in Section .0400 shall apply for wet storage of shellstock.~~ (a) In addition to and to the extent not inconsistent
11 with other applicable provisions of North Carolina Marine Fisheries Commission Rules, requirements for wet storage
12 shall be in accordance with the 2019 Revision of the National Shellfish Sanitation Program (NSSP) Guide for the
13 Control of Molluscan Shellfish (hereinafter referred to as "Model Ordinance") chapter titled "Wet Storage in Approved
14 and Conditionally Approved Growing Areas", which is incorporated by reference except as provided in Paragraph (b)
15 of this Rule, not including subsequent amendments and editions. A copy of the reference material is available online
16 at: <https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp>, at no cost.

17 (b) Amendments and exceptions to the Model Ordinance chapter titled "Wet Storage in Approved and Conditionally
18 Approved Growing Areas" incorporated by reference include:

19 (1) Section @.01, .04, C(1)(a) is amended to read: "Except for a water source in accordance with Rule
20 .0413 of this Subchapter, the quality of the surface source water prior to treatment shall meet, at a
21 minimum, the bacteriological standards for the conditionally approved classification in the open
22 status. Water classified as prohibited or restricted shall not be used as source water."

23 (2) the following sections are not incorporated by reference and shall not apply: Sections @.01, .04,
24 C(2)(a)(ii), @.01, .04, C(2)(b), @.01, .04, C(2)(c), and @.01, .04, C(2)(d).

25
26 *History Note:* Authority G.S. 130A-230; 113-134; 113-182; 113-221.2; 143B-289.52;
27 Eff. February 1, 1987-1987;
28 Readopted Eff. April 1, 2024.

1 15A NCAC 18A .0802 - .0806 are proposed for repeal through readoption as follows:

2

3 **15A NCAC 18A .0802 PLANT DESIGN: SANITATION: AND WET STORAGE**

4 **15A NCAC 18A .0803 WET STORAGE WATER**

5 **15A NCAC 18A .0804 SHELLSTOCK CLEANING**

6 **15A NCAC 18A .0805 WET STORAGE TANKS**

7 **15A NCAC 18A .0806 SHELLSTOCK CONTAINERS**

8

9 *History Note: Authority G.S. 130A-230;*

10 *Eff. February 1, ~~1987~~1987;*

11 *Repealed Eff. April 1, 2024.*

Fiscal Impact Analysis of Proposed Amendments to Data Collection and Harassment Prevention for the Conservation of Marine and Estuarine Resources Rule Package

Rule Amendments: 15A NCAC 03I .0113 Data Collection
15A NCAC 03O .0101 Procedures and Requirements to Obtain Licenses, Endorsements, and Commercial Fishing Vessel Registrations
15A NCAC 03O .0109 Assignment of Standard Commercial Fishing License
15A NCAC 03O .0112 For-Hire License Requirements
15A NCAC 03O .0301 Eligibility and Requirements for Recreational Commercial Gear Licenses

Name of Commission: N.C. Marine Fisheries Commission

Agency Contact: Jason Walsh, Fisheries Economics Program Manager
N.C. Division of Marine Fisheries
3441 Arendell Street
Morehead City, NC 28557
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252-269-9299

Impact Summary: State government: Yes
Local government: No
Federal government: No
Substantial impact: No

Authority:

50 CFR § 600.725. General prohibitions.

N.C.G.S. § 113-130. Definitions relating to activities of public.
N.C.G.S. § 113-134. Rules.
N.C.G.S. § 113-170.3. Record-keeping requirements.
N.C.G.S. § 113-174.1. License required; general provisions governing licenses.
N.C.G.S. § 113-181. Duties and powers of Department.
N.C.G.S. § 113-182. Regulation of fishing and fisheries.
N.C.G.S. § 113-221.2. Additional rules to establish sanitation requirements for scallops, shellfish, and crustacea; permits and permit fees authorized.
N.C.G.S. § 143B-289.52. Marine Fisheries Commission – Powers and Duties.

Necessity: Due to the increasing occurrence and severity of harassment and decreasing participation in Division of Marine Fisheries (DMF) data collection initiatives, amendments are proposed to several Marine Fisheries Commission (MFC) rules. The amendments add requirements to broaden and enhance protections for DMF employees from harassment that could occur in the process of obtaining data about fishing activity. The amendments also broaden

the applicability of the requirements beyond fish in the licensee's possession by including anyone engaged in these regulated activities. Proposed amendments also list the types of data that may be collected. A detailed description of the changes proposed to each affected rule follows.

I. Background

Responsible fisheries management requires a variety of data inputs collected directly from commercial and recreational activities (dependent sampling) and also from separate sampling programs conducted by researchers (independent sampling). These sampling programs provide information on the health of the targeted and non-targeted fish populations, harvest methods that minimize unintended impacts, demographics of participants in commercial and recreational activities, and the economic contribution of these activities to the people and businesses in the state. Successful collection of data from dependent sampling programs relies on participation of the people involved in these activities and outreach on these programs is a necessary component that can contribute to improvements of willful participation. Many stakeholders and members of the public willingly participate in DMF's data collection initiatives. Nevertheless, there have been instances where individuals refuse to answer survey questions or allow DMF employees to obtain samples, and these instances have escalated in recent years. A portion of these interactions also have been hostile and have bordered on being unsafe. Current rules are not comprehensive in their requirement for participation in data collection programs or in their protection against hostile or offensive interactions with DMF employees for these programs. DMF has a duty to ensure its employees can perform their job functions in an environment that is both physically safe and free from unlawful harassment. In light of this duty, and of recent incidences of harassment of federal and state observers, the DMF is proposing several rule amendments to broaden and enhance protections for its employees, consistent with existing protections for federal employees.

Two recent incidents have highlighted the need to address these rule limitations, both involving samplers with DMF's Marine Recreational Information Program (MRIP). The MRIP is a dependent sampling program designed to collect data about recreational fisheries. MRIP samplers conduct in-person interviews with recreational participants to answer survey questions and collect biological samples from their catch.

In June 2022, there were two incidences in northern North Carolina where individuals associated with for-hire operations harassed MRIP samplers and interfered with data collection. The first incident involved an MRIP sampler intercepting anglers coming off for-hire vessels after their fishing trips. The MRIP sampler witnessed several mates on the for-hire vessels tell the anglers not to answer any of the sampler's questions, and the anglers refused to participate in the survey or provide biological samples. The second incident involved a female MRIP sampler trying to intercept anglers at the same location as the previous incident. When the MRIP sampler attempted to collect biological samples from the fish caught on the trip, the captain made an explicit statement with a sexual connotation while he was video recording her with his phone. The MRIP sampler left the site immediately and was unable to collect any biological samples or survey data. Although these incidents were reported to DMF's Marine Patrol, it was determined that the requirement for participation in biological sampling found in MFC Rule 15A NCAC 03I .0113 could only be enforced with license holders. Because the anglers were allowed to fish under the charter business's Blanket For-Hire Vessel Coastal Recreational Fishing License

(CRFL), they did not hold a license and, therefore, could not be held to the requirements of the rule. It was also determined by Marine Patrol that there were no enforceable requirements that would protect DMF employees from harassment or offensive actions.

For-hire data have become increasingly important as for-hire license sales have steadily increased in recent years. As these new participants enter the recreational for-hire fleet, they may not be familiar with standard DMF sampling events and data collection processes, leading to decreased participation in the MRIP survey. To address this, DMF employees have engaged in additional outreach efforts with the recreational for-hire industry. For example, DMF held two in-person outreach events in October 2022 in the northern area of the state. DMF employees were available to discuss the MRIP and provide an open platform so that for-hire guides and the public could ask questions and learn more about DMF and its data collection initiatives. These meetings served as a way for DMF to connect with its stakeholders on current topics and obtain feedback on how DMF can better collaborate with the for-hire industry in future endeavors. Participants commented that the outreach meetings were beneficial to both parties and should continue to occur.

Isolated incidents of harassment or refusal to participate in data collection efforts also have occurred with participants in commercial fishing operations. DMF employees collect data from commercial participants during fishing activities by fisheries observers and through sampling after fishing activities from landed catch at licensed seafood dealers. Fisheries observers collect a wide range of data for commercial and, to a lesser extent, recreational fisheries either while onboard the fishing vessel or from a DMF-owned (i.e., alternative platform) vessel nearby. Observations of fishing activities using estuarine anchored gill nets are a requirement of DMF's Endangered Species Act Section 10 Incidental Take Permits under the Endangered Species Act, which authorize limited numbers of sea turtle and Atlantic sturgeon interactions in otherwise lawful fishing operations using this gear in N.C. estuarine waters. Participants in the estuarine anchored gill net fishery must obtain an Estuarine Gill Net Permit (EGNP; M-24-2014; <http://portal.ncdenr.org/web/mf/proclamation-m-24-2014>), which facilitates communication from observers to the fishers to schedule observed trips.

Though rare, refusal by participants to provide information and harassment of fisheries observers have occurred. For example, in April 2021, a commercial fisherman was asked for information about his fishing gear by two DMF observers on an alternative platform vessel. The fisherman made an explicit statement with a sexual connotation and refused to provide the information being requested. The observers reported it immediately to the observer coordinator, who relayed the specifics of the event to Marine Patrol. Marine Patrol issued a citation for the incident and the defendant was charged with and found guilty in Dare County District Court of violation of permit conditions by the master of a vessel for harassing the observer in the course of collecting data, and during any other type of communication by an observer. Even though DMF won the case on a simple charge of harassment, the incident highlighted the need to also address concerns about harassment of a sexual nature. To protect observers, a short-term solution was created whereby the special condition form for the EGNP was amended in 2021. The specific permit conditions initially read:

“It is unlawful for an EGNP holder as well as the master and crew members of the boat, to interfere with, or obstruct the observer in the course of collecting data or samples.”

and

“It is unlawful for an EGNP holder as well as the master and crew members of the boat, to harass the observer in the course of setting up trips, collecting data and samples, or during any other type of communication. Harassment includes but is not limited to intimidating, resisting, impeding, threatening, and coercion of observers either verbally or physically.”

In March 2022 following the outcome of the above-described case, this language was strengthened to include harassment of observers by the use of connotations of a sexual nature and read:

“It is unlawful for an EGNP holder, as well as the master and crew members of the boat, to interfere with, or obstruct the observer in the course of collecting data or samples, which shall include refusal or failure to provide information on fishing gear parameters or to provide any captured finfish or sea turtle to division staff. 15A NCAC 03O.0502(1)”

and

“It is unlawful for an EGNP holder, as well as the master and crew members of the boat, to harass the observer in the course of setting up trips, collecting data and samples, or during any other type of communication. Harassment shall be defined consistent with the federal regulations, 50 CFR §600.725(o), (t), and (u), and may be verbal or physical including, but not limited to, sexual connotations, intimidating, resisting, impeding, threatening, bribing, and coercion of observers.”

In the fall of 2022, the following language was updated and added to the specific permit conditions for all permits, not just the EGNP, to provide additional protection for all DMF employees, not just observers, to provide short-term protections:

“It shall be unlawful for a permittee or, anyone engaged in permitted activity, to refuse to allow the Fisheries Director or their agents to obtain biological data, harvest information, statistical data, or harass these agents in any way. Harassment shall be defined consistent with the federal regulations, 50 CFR §600.725(o), (t), and (u), and may be verbal or physical including, but not limited to, sexual connotations, intimidating, resisting, impeding, threatening, bribing, or coercion.”

The above examples highlight the need for a long-term solution to protect all DMF employees from harassment in all its forms, regardless of the type of fishing activity, not just by holders of a license or permit. Related, is the need for fishers to provide data, information, and samples so that the DMF can properly manage fisheries in compliance with state and federal laws and meet the requirements of Endangered Species Act Section 10 Incidental Take Permits. These data, information, and samples needed are broader than questions about or samples from fish that are

in possession of the licensee under the current requirements of 15A NCAC 03I .0113. A long-term solution is to amend this rule to explicitly require licensees, and any person engaged in regulated activity under Chapter 113, Subchapter IV, of the General Statutes, to provide the data, information, and samples upon request, and to explicitly prohibit harassment consistent with federal regulations. Table 1 provides a summary of recent actions and the results of those actions leading to proposed rule changes.

Table 1. Summary of recent actions leading to proposed rule changes.

Time Period	Action	Result
April 2021	Commercial fisherman charged with observer harassment	DMF identified need to protect observers from harassment by EGNP holders and protect data collection
Summer 2021	DMF added harassment and data collection requirements to EGNP specific condition form	DMF observers offered protection from harassment by EGNP holders and data collection protected
March 2022	Commercial fisherman found guilty of observer harassment in Dare County District Court	DMF identified need to protect observers from harassment in all its forms by EGNP holders
March 2022	DMF added comprehensive harassment requirements to EGNP specific condition form	DMF observers offered protection from harassment in all its forms by EGNP holders
June 2022	Two incidences of harassment of and refusal to provide data to MRIP samplers by individuals associated with for-hire operations	DMF identified need to protect all employees from harassment in all its forms for all regulated fishing activity and protect data collection
Fall 2022	DMF added comprehensive harassment and data collection requirements to specific condition form for all DMF-issued permits	All DMF employees offered protection from harassment in all its forms by all permit holders and data collection protected
Fall 2022	DMF identified need to amend rules to address harassment and data collection for all regulated fishing activity	DMF developed rule changes to protect all employees from harassment in all its forms for all regulated fishing activity and protect data collection
Spring 2023	DMF proposed rule changes to protect all DMF employees from harassment in all forms for all regulated fishing activity and protect data collection	To be determined through the rulemaking process

Data collected from the commercial and recreational sectors are essential in fisheries management for the state and play a vital role in federal fisheries management, as well. The proposed amendments to this rule broaden the scope to enhance protections for DMF employees as they collect data. Such protections not only enhance the DMF's data collection efforts, but also improve DMF's ability to provide a workplace that is free from unlawful harassment, consistent with the requirements of Title VII of the Civil Rights Act of 1964. While compliance with Title VII is an important goal in reducing civil liability for the DMF, improvements to workplace

protections have numerous additional benefits. A workplace free from unlawful harassment typically leads to higher employee satisfaction, lower turnover, and better recruitment.

The proposed additional requirements are consistent with similar efforts that the federal government has taken to protect its employees during sampling events by including language adapted from the Code of Federal Regulations, [50 CFR § 600.725](https://www.ecfr.gov/current/title-50/chapter-VI/part-600/subpart-H/section-600.725)(o), (t), and (u) (<https://www.ecfr.gov/current/title-50/chapter-VI/part-600/subpart-H/section-600.725>). The protections in the CFR were based on those included in the [Magnuson-Stevens Fishery Conservation and Management Act](#) (MSA), specifically [16 U.S.C. 1857, Section 307, Prohibited Acts](#), which makes it unlawful for any person "to forcibly assault, resist, oppose, impede, intimidate, sexually harass, bribe, or interfere with any observer on a vessel under this Act, or any data collector employed by the National Marine Fisheries Service or under contract to any person to carry out responsibilities under this Act" (<https://www.govinfo.gov/content/pkg/USCODE-2021-title16/html/USCODE-2021-title16-chap38-subchapIV-sec1857.htm>). Rule language in 50 CFR § 600.725, effective July 1, 1996, was based on the reorganization of requirements across nine CFR parts relevant to the MSA. The MSA and referenced USC and CFR help to demonstrate the importance of keeping fishery observers safe from harassment, as explained on the [corresponding NOAA Fisheries webpage](https://www.fisheries.noaa.gov/feature-story/keeping-fishery-observers-safe-harassment) (<https://www.fisheries.noaa.gov/feature-story/keeping-fishery-observers-safe-harassment>).

Lastly, the MFC also has authority for the sanitation requirements for harvesting, processing, and handling of scallops, shellfish, and crustaceans of in-state origin and those shipped into the state. It is equally important for the DMF to be able to obtain data for the protection of public health related to the public health programs that fall under the authority of the MFC, which are ultimately for the conservation of marine and estuarine resources.

II. Purpose of Rule Change

Due to the increasing occurrence and severity of harassment and decreasing participation in DMF data collection initiatives, amendments are proposed to several MFC rules. The amendments add requirements to broaden and enhance protections for DMF employees from harassment that could occur in the process of obtaining data about fishing activity. The amendments also broaden the applicability of the requirements beyond fish in the licensee's possession by including anyone engaged in these regulated activities. Proposed amendments also list the types of data that may be collected. A detailed description of the changes proposed to each affected rule follows. The rules are provided in Appendix I for reference.

15A NCAC 03I .0113 BIOLOGICAL SAMPLING DATA COLLECTION

Proposed amendments to 15A NCAC 03I .0113 would set requirements to address harassment by any licensee or person engaged in regulated activity under Chapter 113, Subchapter IV, of the General Statutes (e.g., fishing) of DMF employees that occurs in the process of obtaining data for the conservation of marine and estuarine resources, and data for the protection of public health related to the public health programs that fall under the authority of the MFC. Additional amendments would provide the types of data that may be collected. The amendments would support the importance of participation by persons engaged in regulated fishing activity in DMF data collection and provide a safer working environment for DMF employees.

Specifically, language is proposed to define a "responsible person" to expand the applicability of the rule to other persons involved in regulated fishing activity, not just licensees. Adding "responsible person" to the rule would close a loophole that currently allows anglers who fish under a blanket license, such as the Ocean Fishing Pier License or one of the for-hire blanket licenses, to refuse to participate in data collection initiatives, so that they could be subject to prosecution by Marine Patrol for offenses. The changes would also allow Marine Patrol to prosecute mates or other non-licensed employees engaged in a for-hire operation if they interfere with DMF sampling efforts. Amendments to this rule would also broaden the requirements to apply to all participants, commercial and recreational. Doing so would equalize the expectations across sectors; currently, the requirements addressing harassment related to data collection only exist in the special conditions of commercial, DMF-issued permits.

Proposed language to be added to 15A NCAC 03I .0113 to protect DMF employees collecting data is adapted from requirements about harassment to protect federal samplers identified in the CFR (50 CFR § 600.725(o), (t), and (u)). While the CFR applies broadly to "any person," the proposed rule change would apply to licensees, permittees, and those engaged in regulated activity (e.g., fishing). Subchapter IV of Chapter 113 is the "Conservation of Marine and Estuarine and Wildlife Resources". These laws set requirements for the conservation of marine and estuarine resources. There are currently individuals that participate in taking these resources that are not required to hold a permit or license but, per G.S. 113-181, are included in the Department of Environmental Quality's duty to collect data in support of the conservation of marine and estuarine resources. Examples include individuals fishing under a blanket license, such as the Ocean Fishing Pier License or one of the for-hire blanket licenses, as well as mates or other employees working in a for-hire operation that are not permitted or licensed. Proposed changes to 15A NCAC 03I .0113 and the other supporting rules in the fiscal analysis expand the scope of the rules to match the data collection authority per G.S. 113-181.

The proposed amendments to the rule would provide the ability to prosecute offenders, regardless of whether they hold a license or permit and regardless of sector. Holding all stakeholders accountable for harassment of DMF employees while they perform their job duties should contribute to reducing the number of harassment cases in the future. This requirement would also provide a sense of security to DMF employees in knowing that MFC rules can potentially deter hostile or offensive interactions while they perform their duties regardless of the setting (e.g., in the office, at a fishing dock, or on the water). The only exception to incorporation of the language from 50 CFR § 600.725(o), (t), and (u) is for "assault", which for Marine Patrol is handled under separate statutory authority.

Regarding data collection, the title of Rule 15A NCAC 03I .0113 is proposed to be changed from "Biological Sampling" to "Data Collection" because DMF collects more than just biological data from stakeholders. For example, data such as residential location and fishing effort, and social and economic data of participants are just a few data points that are collected by DMF employees that do not explicitly fall under the biological sampling umbrella but fall under the DMF's authority. Changing the title of the rule is consistent with clarifying the authority for and increasing the support to collect more overarching fisheries data to better inform fisheries

managers about the fishing activities in N.C. marine and estuarine waters for the conservation of those resources. Changes are also proposed to the body of the rule to list in detail the types of data that may be collected. The list is not intended to be exhaustive, but rather to more accurately characterize the types of data needed for DMF statistics and surveys, Endangered Species Act Section 10 Incidental Take Permit reports, and the protection of public health for programs that fall under the authority of the MFC, which are ultimately for the conservation of marine and estuarine resources.

As discussed, proposed changes to 15A NCAC 03I .0113 include defining "responsible person" to expand the applicability of the rule to other persons involved in regulated fishing activity, not just licensees. In Rule 15A NCAC 03I .0101(5)(1), a "responsible party" is defined as the "person who coordinates, supervises, or otherwise directs operations of a business entity, such as corporate officer or executive level supervisor of business operations, and the person responsible for use of the issued license in compliance with applicable statutes and rules". This definition does not capture all participants within certain fishing activities, particularly in for-hire fishing trips. "Responsible party" is used to identify one specific entity that will be held accountable for any requirements pertaining to a license. "Responsible person" can be used to include multiple entities that partake in regulated fishing activity but are not a license holder or a designated representative of the license. A for-hire deckhand, mate, fish cleaner, and customer would be considered a responsible person but would not be considered a responsible party because none of these individuals are required to be a license holder. "Responsible party" is defined in rule to be used more broadly over a larger set of rules, whereas "responsible person" would only apply to Rule 15A NCAC 03I .0113 and Rule 15A NCAC 03O .0112 (described below). Because of these slight differences between "responsible person" and "responsible party", other related rules were evaluated to determine if additional changes are necessary to incorporate all intended participants.

15A NCAC 03O .0112 FOR-HIRE LICENSE REQUIREMENTS

Rule 15A NCAC 03O .0112 titled "For-Hire License Requirements" currently includes requirements for participation by the for-hire vessel operator in data collection efforts by DMF. Because the paying customers on the for-hire trip are also the anglers participating in the fishing activity, the customers are the individuals that get interviewed by MRIP samplers. Therefore, the customer should be included in the definition of the "responsible person" and added to the rule in addition to the "for-hire vessel operator". Not only would "responsible person" require for-hire customers to participate in data collection, but it would also include other people, such as mates, fish cleaners, or other employees, that contribute to the for-hire fishing experience.

15A NCAC 03O .0101 PROCEDURES AND REQUIREMENTS TO OBTAIN LICENSES, ENDORSEMENTS, AND COMMERCIAL FISHING VESSEL REGISTRATIONS

15A NCAC 03O .0109 ASSIGNMENT OF STANDARD COMMERCIAL FISHING LICENSE

15A NCAC 03O .0301 ELIGIBILITY AND REQUIREMENTS FOR RECREATIONAL COMMERCIAL GEAR LICENSES

Rules 15A NCAC 03O .0101, .0109, and .0301 set requirements for a holder of a Standard Commercial Fishing License (SCFL) or Retired Standard Commercial Fishing License, an assignee of a SCFL, and a holder of a Recreational Commercial Gear License, respectively. Each of these rules contains proposed changes to link the licensee or assignee to the requirements proposed in 15A NCAC 03I .0113 for harassment and data collection. These changes would ensure that all licensed participants are subject to the same requirements, regardless of license type.

III. Economic Impact Summary

The proposed rule amendments will help DMF more optimally fulfill its duties of collecting data on regulated fishing activity from all participants for the conservation of marine and estuarine resources and ensure its employees can perform their job functions in an environment that is both physically safe and free from unlawful harassment. Providing clear data collection requirements and protections for DMF employees fulfills DMF's responsibility as a management agency and an employer. Proposed changes give clarity about the data collection requirements and consequences of unlawfully harassing a DMF employee to ensure stakeholders have comprehensive requirements in rule. Though the proposed rule changes provide clear benefits to the marine and estuarine resources and DMF employees, these benefits are unquantifiable.

The proposed rule amendments may result in small costs to persons participating in regulated fishing activity in the form of time spent interacting with DMF employees participating in data collection processes. As compared to the regulatory baseline, these rule amendments will only result in new time costs to persons who would have otherwise refused to participate in data collection processes.

In addition, persons who withhold data and information from DMF employees or who harass DMF employees while they perform their job functions could incur costs in the form of fines, legal fees, and/or suspension or revocation of permits and licenses. Pursuant to G.S. 15A-1340.23, the fines could range from \$35 to \$200, not including the cost of court time, which is \$183 as of March 2023 as described in G.S. 7A-304(a). Suspension or revocation of a license occurs for conviction of a criminal offense as set forth in G.S. 113-171 and 15A NCAC 03O .0114. Suspension or revocation of a permit occurs for violation of permit conditions as set forth in 15A NCAC 03O .0504. Such permit conditions can include refusal to allow the Fisheries Director or their agents to obtain biological data, harvest information, or other data necessary or useful to the conservation and management of marine and estuarine resources for the taking of fish, or harassing these agents while they perform their job functions.

There have been three documented incidents between April 2021 and March 2023 in which these types of costs could have been incurred if the proposed rule changes were already in place. DMF cannot predict how frequently these incidents will occur in the future, but DMF expects that they will continue to be relatively infrequent. These costs would be easily avoided by complying with requirements to participate in data collection.

Although not quantifiable, the costs associated with the proposed rule changes will be outweighed by the benefits to the state's marine and estuarine resources, fishery management, DMF employees, and stakeholders.

1 **APPENDIX I.**

2

3 15A NCAC 03I .0113 is proposed for amendment as follows:

4

5 **15A NCAC 03I .0113 BIOLOGICAL SAMPLING DATA COLLECTION**

6 (a) For the purpose of this Rule, "responsible person" shall mean any licensee or person engaged in regulated activity
7 under Chapter 113, Subchapter IV, of the General Statutes.

8 (b) It shall be unlawful for any licensee under Chapter 113, Subchapter IV, of the General Statutes responsible person
9 to refuse to allow the Fisheries Director or the Fisheries Director's agents to obtain biological data, harvest information,
10 or other ~~statistical~~ data necessary or useful to the conservation and management of marine and estuarine resources
11 from for the taking of fish in the licensee's possession by the responsible person. Such data shall include, but is not
12 limited to, may include:

- 13 (1) species ~~identification,~~ identification;
- 14 (2) species ~~length,~~ length;
- 15 (3) species ~~weight,~~ weight;
- 16 (4) species ~~age,~~ age;
- 17 (5) species ~~sex,~~ sex;
- 18 (6) ~~number,~~ number of species;
- 19 (7) quantity of catch;
- 20 (8) area of ~~catch,~~ catch;
- 21 (9) harvest ~~method, and of quantity catch,~~ method;
- 22 (10) gear and gear specifications;
- 23 (11) target species;
- 24 (12) number of hours and days the responsible person spent fishing;
- 25 (13) state, county, and zip code of responsible person;
- 26 (14) number of individuals fishing with responsible person; and
- 27 (15) social and economic data, including fishing expenditures.

28 (c) It shall be unlawful for any responsible person to refuse to allow the Fisheries Director or the Fisheries Director's
29 agents to obtain data for the protection of public health related to the public health programs that fall under the
30 authority of the Marine Fisheries Commission.

31 (d) It shall be unlawful for any responsible person to harass the Fisheries Director or the Fisheries Director's agents
32 in any way related to the requirements of Paragraphs (b) and (c) of this Rule, including verbal or physical harassment
33 or sexual harassment. For the purpose of this Rule, "harassment" shall be defined consistent with 50 CFR 600.725(o),
34 (t), and (u), including to:

- 35 (1) harass;
- 36 (2) sexually harass, including making sexual connotations;
- 37 (3) oppose;

- 1 (4) impede;
- 2 (5) intimidate;
- 3 (6) interfere;
- 4 (7) prohibit or bar by command, impediment, threat, coercion, interference, or refusal of reasonable
- 5 assistance, the Fisheries Director or the Fisheries Director's agents from conducting his or her duties;
- 6 or
- 7 (8) tamper with or destroy samples or equipment;

8 50 CFR 600.725(o), (t), and (u), is incorporated by reference except as provided in Paragraph (e) of this Rule, including

9 subsequent amendments and editions. A copy of the reference material can be found at

10 <https://www.ecfr.gov/current/title-50/chapter-VI/part-600/subpart-H/section-600.725>, at no cost.

11 (e) Exceptions to 50 CFR 600.725(t) include "assault".

12

13 *History Note: Authority G.S. 113-134; 113-170.3; 113-174.1; 113-181; 113-182; 113-221.2; 143B-289.52;*

14 *Eff. October 1, 1992;*

15 *Recodified from 15A NCAC 3I .0013 Eff. December 17, 1996;*

16 *Readopted Eff. March 15, ~~2023~~ 2023;*

17 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03O .0101 is proposed for amendment as follows:
2

3 **SUBCHAPTER 03O - LICENSES, LEASES, FRANCHISES, AND PERMITS**
4

5 **SECTION .0100 - LICENSES**
6

7 **15A NCAC 03O .0101 PROCEDURES AND REQUIREMENTS TO OBTAIN LICENSES,**
8 **ENDORSEMENTS, AND COMMERCIAL FISHING VESSEL REGISTRATIONS**

9 (a) Division of Marine Fisheries licenses are available at offices of the Division or by mail from the Morehead City
10 Office of the Division, unless otherwise specified. In addition, Recreational Commercial Gear Licenses are available
11 at license agents of the Wildlife Resources Commission in accordance with G.S. 113-270.1.

12 (b) For the purpose of this Rule, the procedures and requirements for the licensee shall also apply to the responsible
13 party, the person holding power of attorney, the tournament organizer, and the vessel master.

14 (c) To obtain Division of Marine Fisheries licenses, endorsements, and Commercial Fishing Vessel Registrations, a
15 licensee shall provide a completed application to an office of the Division by mail or in person. Applications submitted
16 without complete and required information shall not be processed until all required information has been submitted.
17 Incomplete applications shall be returned to the applicant with deficiency in the application so noted. The following
18 shall be required for the application:

- 19 (1) full name, physical address, mailing address, date of birth, and signature of the licensee. If the
20 licensee is not appearing before a license agent or a representative of the Division, the licensee's
21 signature shall be notarized.
- 22 (2) a statement from the licensee that the information and supporting documentation submitted with the
23 application is true and correct.
- 24 (3) current and valid picture identification of the licensee. Acceptable forms of picture identification
25 are state driver's license, state identification card issued by the Division of Motor Vehicles, military
26 identification card, resident alien card (green card), or passport; or if purchased by mail, a copy
27 thereof.
- 28 (4) certification that the applicant does not have four or more marine or estuarine resource convictions
29 during the previous three years.
- 30 (5) current articles of incorporation and a current list of corporate officers when purchasing a license or
31 Commercial Fishing Vessel Registration in a corporate name. In the case of incorporation of an
32 individual fishing vessel, the name of the vessel master shall also be specified. The licensee shall
33 notify the Morehead City Office of the Division within five days of changing the vessel master.
- 34 (6) a current copy of a written partnership agreement shall be provided when purchasing a license,
35 endorsement, or Commercial Fishing Vessel Registration in a partnership name, if a partnership is
36 established.

1 (7) valid documentation papers or current motor boat registration, or copy thereof when purchasing a
2 Commercial Fishing Vessel Registration. If an application for transfer of documentation is pending,
3 a copy of the pending application and a notarized bill of sale may be submitted.

4 (8) affirmation of liability insurance and that the operator is knowledgeable of United States Coast
5 Guard (USCG) safety requirements for the vessels used in the operation in accordance with G.S.
6 113-168.6 when purchasing a Commercial Fishing Vessel Registration with a for-hire endorsement.

7 (d) In addition to the requirements of Paragraph (c) of this Rule, proof of residency for non-residents shall be
8 documented by the licensee with certification of the state of residency. Proof of residency for residents of North
9 Carolina shall be documented by the licensee as follows:

10 (1) Standard or Retired Standard Commercial Fishing Licenses: A notarized certification from the
11 applicant that the applicant is a resident of the State of North Carolina as defined by G.S. 113-130(4)
12 and:

13 (A) a notarized certification from the applicant that a North Carolina State Income Tax Return
14 was filed for the previous calendar or tax year as a North Carolina resident;

15 (B) a notarized certification that the applicant was not required to file a North Carolina State
16 Income Tax Return for the previous calendar or tax year; or

17 (C) military identification or military dependent identification, and permanent change of
18 station orders or assignment orders substantiating the military individual's active duty
19 assignment at a military facility in North Carolina.

20 (2) All other types of licenses:

21 (A) North Carolina voter registration card;

22 (B) current North Carolina Driver's License;

23 (C) current North Carolina Certificate of Domicile;

24 (D) current North Carolina Identification Card issued by the North Carolina Division of Motor
25 Vehicles; or

26 (E) military identification or military dependent identification, and permanent change of
27 station orders or assignment orders substantiating the military individual's active duty
28 assignment at a military facility in North Carolina.

29 (e) In addition to the requirements in Paragraphs (c) and (d) of this Rule, the following shall be required:

30 (1) Blanket For-Hire Captain's CRFL: a valid certification from the USCG that allows carrying six or
31 fewer passengers or a certification from the USCG that allows carrying more than six passengers.

32 (2) Blanket For-Hire Vessel CRFL or Non-Blanket For-Hire Vessel License:

33 (A) valid documentation papers or current motor boat registration, or copies thereof for the
34 vessel engaged as for-hire; or

35 (B) a copy of the pending application and a notarized bill of sale if an application for transfer
36 of documentation is pending.

37 (3) Fish Dealer License:

- 1 (A) the physical address of the established location where business is conducted and, if
- 2 different, the address where records are kept; and
- 3 (B) a valid Permit and Certificate of Compliance from the Division of Marine Fisheries
- 4 Shellfish Sanitation and Recreational Water Quality Section, if purchasing a Fish Dealer
- 5 License with clam or oyster categories or a consolidated license.
- 6 (4) Land or Sell License:
- 7 (A) valid documentation papers or current motor boat registration, or copy thereof; or
- 8 (B) a copy of the pending application and a notarized bill of sale if an application for transfer
- 9 of documentation is pending.

10 The fees for a Land or Sell License shall be based on the vessel's homeport as it appears on the USCG documentation
 11 papers or the state in which the vessel is registered, in accordance with G.S. 113-169.5.

- 12 (5) Ocean Fishing Pier License:
- 13 (A) the information required in G.S. 113-169.4; and
- 14 (B) linear length of the pier. A Marine Fisheries inspector's signature is required to verify the
- 15 linear length of the pier before the license can be issued.
- 16 (6) Recreational Fishing Tournament License to Sell Fish: name and date or dates of the tournament.
- 17 (7) Spotter Plane License:
- 18 (A) the information required in G.S. 113-171.1;
- 19 (B) the current aircraft registration; and
- 20 (C) a list of operators.

21 (f) For a License to Land Flounder from the Atlantic Ocean, in addition to the requirements in Paragraphs (c) and (d)
 22 of this Rule, the following shall be applicable:

- 23 (1) for the purpose of this Paragraph, "license year" means the period beginning July 1 of a year through
- 24 June 30 of the following year.
- 25 (2) to qualify for a License to Land Flounder from the Atlantic Ocean, the applicant shall:
- 26 (A) have landed in North Carolina at least 1,000 pounds of flounder from a single vessel each
- 27 year from the Atlantic Ocean during any two of the 1992-93, 1993-94, 1994-95 license
- 28 years for which the person had a vessel that was licensed to land in North Carolina;
- 29 (B) have been licensed under G.S. 113-152 or 113-153 during any two of the 1992-93, 1993-
- 30 94, or 1994-95 license years; and
- 31 (C) hold a valid Standard or Retired Standard Commercial Fishing License or valid Land or
- 32 Sell License.
- 33 (3) it shall be unlawful for a person to hold more Licenses to Land Flounder from the Atlantic Ocean
- 34 than the number of vessels that the person owns that individually met the eligibility requirements of
- 35 Parts (f)(2)(A) and (f)(2)(B) of this Rule.
- 36 (4) the License to Land Flounder from the Atlantic Ocean is only valid when used on the vessel
- 37 specified at the time of license issuance.

1 (5) at the time of issuance, the applicant for the License to Land Flounder from the Atlantic Ocean shall
2 specify the name of the vessel master for each License to Land Flounder from the Atlantic Ocean
3 issued.

4 (6) the holder of the License to Land Flounder from the Atlantic Ocean shall notify the Morehead City
5 Office of the Division of Marine Fisheries within five days of change as to the vessel master
6 identified on the license.

7 (7) Licenses to Land Flounder from the Atlantic Ocean are issued for the current license year.

8 (g) For a Recreational Fishing Tournament License to Sell Fish, in addition to the requirements in Paragraphs (c) and
9 (d) of this Rule, the following shall be applicable:

10 (1) it shall be unlawful for anyone other than the holder of the Recreational Fishing Tournament License
11 to Sell Fish to sell fish taken during a recreational fishing tournament.

12 (2) fish to be sold under the Recreational Fishing Tournament License to Sell Fish shall be sold only to
13 licensed fish dealers and shall comply with all applicable rules of the Marine Fisheries Commission
14 or provisions of proclamations issued by the Fisheries Director as authorized by the Marine Fisheries
15 Commission.

16 (3) it shall be unlawful for a licensed recreational fishing tournament organizer to fail to accurately and
17 legibly complete a North Carolina Recreational Fishing Tournament Disposition of Proceeds from
18 the Sale of Fish Form provided by the Division of Marine Fisheries and submit the form to the
19 Division within 30 days after the last day of the tournament.

20 (h) It shall be unlawful for a license, endorsement, or Commercial Fishing Vessel Registration holder to fail to notify
21 the Division of Marine Fisheries within 30 days of a change of name or address, in accordance with G.S. 113-169.2.

22 (i) If requested by the Division, it shall be unlawful for a licensee to fail to participate in and provide accurate
23 information for data collection in accordance with 15A NCAC 03I .0113 and for survey programs administered by
24 the Division.

25
26 *History Note: Authority G.S. 113-134; 113-168; 113-168.1-6; 113-169.2-5; 113-171.1; 113-174.3; 113-182;*
27 *143B-289.52;*

28 *Eff. January 1, 1991;*

29 *Amended Eff. July 1, 1997; March 1, 1994;*

30 *Temporary Amendment Eff. July 1, 1999;*

31 *Amended Eff. August 1, 2000;*

32 *Temporary Amendment Eff. April 1, 2001;*

33 *Amended Eff. May 1, 2015; July 1, 2008; December 1, 2006; August 1, 2004; August 1, 2002;*

34 *Readopted Eff. March 15, ~~2023~~ 2023;*

35 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03O .0109 is proposed for amendment as follows:

2

3 **15A NCAC 03O .0109 ASSIGNMENT OF STANDARD COMMERCIAL FISHING LICENSE**

4 (a) For the purpose of this Rule, "licensee" shall mean the person issued a Standard Commercial Fishing License and
5 "assignee" shall mean the individual to whom the licensee assigns a Standard Commercial Fishing License in
6 accordance with the requirements of this Rule.

7 (b) If requested by the Division of Marine Fisheries, it shall be unlawful for a licensee or assignee to fail to participate
8 in and provide accurate information for data collection in accordance with 15A NCAC 03I .0113 and for survey
9 programs administered by the Division.

10 ~~(b)(c)~~ The Division of Marine Fisheries shall provide assignment forms to the licensee upon request. Only Division
11 assignment forms shall be used to obtain an assignment. On the assignment form, the licensee shall designate what, if
12 any, endorsements are included in the assignment. Endorsements shall not be assigned independent of the Standard
13 Commercial Fishing License. It shall be unlawful for the licensee or the assignee to fail to submit within five days the
14 completed assignment form to any office of the Division in person or by mail to the Morehead City Office. The
15 Morehead City Office is located at 3441 Arendell Street, Morehead City, North Carolina, 28557. If the completed
16 assignment form is not received by the Division within five days from the date it was signed, the assignment shall be
17 null and void. Incomplete forms shall be returned to the licensee with deficiency in the form so noted. An assignment
18 is in effect from the date specified on the assignment form and when:

- 19 (1) the assignment form is complete with all required information;
20 (2) signatures of the current license holder and the assignee are notarized; and
21 (3) the assignee has in the assignee's possession the current licensee's original actual Standard
22 Commercial Fishing License, including applicable endorsements in accordance with G.S. 113-
23 169.2.

24 ~~(e)(d)~~ For an extension of time for assignments, a new assignment form shall be completed in accordance with
25 Subparagraphs (b)(1) through (b)(3) of this Rule.

26 ~~(d)(c)~~ Assignments shall terminate:

- 27 (1) when the date specified on the assignment form is reached;
28 (2) if the licensee or assignee are determined ineligible for a license or assignment;
29 (3) if the Division receives a notarized statement from the current license holder stating a revised date
30 for an earlier assignment termination;
31 (4) upon the licensee or assignee's death; or
32 (5) when the Standard Commercial Fishing License expires.

33 ~~(e)(f)~~ It shall be unlawful for an individual assigned a Standard Commercial Fishing License when involved in a
34 commercial fishing operation to fail to have the original actual Standard Commercial Fishing License, any assigned
35 endorsements, and a copy of the assignment form in the individual's possession ready at hand for inspection in
36 accordance with G.S. 113-168.1.

37 ~~(f)(g)~~ All landings occurring during the time of the assignment shall be credited to the licensee, not the assignee.

1 ~~(e)~~(h) It shall be unlawful to be assigned more than a single Standard Commercial Fishing License at any one time.
2 It shall be unlawful to assign a Standard Commercial Fishing License to more than one individual at any one time.
3 Assignments shall only be made by the licensee and shall not be further assigned by assignees. Masters identified on
4 the Standard Commercial Fishing Licenses of corporations consisting of an individual fishing vessel shall not assign
5 such licenses.

6 ~~(h)~~(i) It shall be unlawful for a person to accept assignment of a Standard Commercial Fishing License for which they
7 are ineligible.

8 ~~(i)~~(j) It shall be unlawful for any assignee of a Standard Commercial Fishing License not to return the assignment and
9 the Standard Commercial Fishing License with any assigned endorsements to the licensee within five days of notice
10 that the assignment has been terminated or a demand by the licensee to return the license.

11
12 *History Note: Authority G.S. 113-134; 113-135; 113-168.1; 113-168.2; 113-168.5; 113-169.2; 113-182; 113-187;*
13 *143B-289.52;*
14 *Eff. January 1, 1991;*
15 *Temporary Amendment Eff. October 2, 1999; July 1, 1999;*
16 *Amended Eff. August 1, 2000;*
17 *Readopted Eff. March 15, ~~2023~~, 2023;*
18 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03O .0112 is proposed for amendment as follows:

2

3 **15A NCAC 03O .0112 FOR-HIRE LICENSE REQUIREMENTS**

4 (a) The license requirements for an operator of a vessel engaged in a for-hire operation are set forth in G.S. 113-174.3.
5 Either the vessel owner or the for-hire vessel operator may seek to obtain the applicable for-hire vessel license. Only
6 the vessel owner shall seek to obtain the applicable registration and endorsement required by G.S. 113-168.6. For the
7 purpose of this Rule, "for-hire vessel operator" shall include the holder of a Blanket For-Hire Captain's Coastal
8 Recreational Fishing License, Blanket For-Hire Vessel Coastal Recreational Fishing License, or Non-Blanket For-
9 Hire Vessel License, as set forth in G.S. 113-174.3.

10 (b) It shall be unlawful for a for-hire vessel operator to operate without:

- 11 (1) holding the United States Coast Guard certification required in Rule .0101(a) of this Section;
- 12 (2) having a copy of the for-hire license in possession and ready at hand for inspection; and
- 13 (3) having current picture identification in possession and ready at hand for inspection.

14 (c) If requested by the Division of Marine Fisheries, it shall be unlawful for a for-hire vessel operator or responsible
15 person to fail to participate in and provide accurate information for ~~biological sampling data collection~~ in accordance
16 with 15A NCAC 03I .0113 and for survey programs administered by the Division. For the purpose of this Rule,
17 "responsible person" shall mean any licensee or person engaged in regulated activity under Chapter 113, Subchapter
18 IV, of the General Statutes, including regulated activity related to for-hire fishing.

19 (d) Requirements for display of licenses and registrations for a vessel engaged in for-hire recreational fishing are set
20 forth in Rule .0106 of this Section.

21

22 *History Note: Authority G.S. 113-134; 113-168.6; 113-174.1; 113-174.3; 113-181; 143B-289.52;*

23 *Eff. July 1, 2008;*

24 *Readopted Eff. April 1, ~~2019-2019~~;*

25 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03O .0301 is proposed for amendment as follows:
2

3 **SECTION .0300 – RECREATIONAL COMMERCIAL GEAR LICENSES**
4

5 **15A NCAC 03O .0301 ELIGIBILITY AND REQUIREMENTS FOR RECREATIONAL COMMERCIAL**
6 **GEAR LICENSES**

7 (a) Recreational Commercial Gear Licenses shall only be issued to individuals.

8 (b) If requested by the Division of Marine Fisheries, it shall be unlawful for a Recreational Commercial Gear License
9 holder to fail to participate in and provide accurate information for data collection in accordance with 15A NCAC 03I
10 .0113 and for survey programs administered by the Division.

11
12 *History Note: Authority G.S. 113-134; 113-173; 113-182; 143B-289.52;*
13 *Temporary Adoption Eff. August 9, 1994, for a period of 180 days or until the permanent rule*
14 *becomes effective, whichever is sooner;*
15 *Eff. February 1, 1995;*
16 *Temporary Amendment Eff. July 1, 1999;*
17 *Amended Eff. August 1, 2000;*
18 *Readopted Eff. March 15, ~~2023~~, 2023;*
19 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

Fiscal Impact Analysis of Proposed Conforming Rule Changes to Oyster Sanctuary Rule

Rule Amendments: 15A NCAC 03R .0117

Name of Commission: N.C. Marine Fisheries Commission

Agency Contact: Jason Walsh, Fisheries Economics Program Manager
N.C. Division of Marine Fisheries
3441 Arendell Street
Morehead City, NC 28557
Jason.walsh@ncdenr.gov
252-269-9299

Impact Summary: State government: Yes
Local government: No
Federal government: No
Substantial impact: No

AUTHORITY

N.C. General Statutes

G.S. § 113-134.	Rules.
G.S. § 113-182.	Regulation of fishing and fisheries.
G.S. § 113-201.	Legislative findings and declaration of policy; authority of Marine Fisheries Commission.
G.S. § 113-204.	Propagation of shellfish
G.S. § 143B-289.52	Marine Fisheries Commission – powers and duties.

Necessity: Rule amendments are proposed to add the boundaries of the two newest oyster sanctuaries (Cedar Island and Gull Shoal) and update boundaries for three other sanctuaries (Pea Island, Raccoon Island, and Swan Island).

I. Summary

Marine protected areas (MPAs) are a management tool for restoration and conservation of marine species and ecosystems. Management strategies applied within MPA boundaries can vary widely, however, in most cases, management in these areas includes some degree of harvest restriction (e.g., gear type, seasonality, or total prohibition). In general, the abundance and size of individual fish within MPAs are often significantly greater and larger, respectively, than outside MPAs, which can also lead to a “spill-over effect” of larvae and individuals from inside to outside the MPA (Gell and Roberts 2002, Halpern 2003, Sobel and Dahlgren 2004). In other words, fish are generally larger and more abundant in MPAs than outside MPAs. In pursuit of

shellfish rehabilitation, the Division of Marine Fisheries (DMF) has applied the MPA model through its Oyster Sanctuary Program. This program is responsible for creating artificial reef habitat, designed to support healthy and abundant oyster populations throughout Pamlico Sound and its tributaries. Once built, a reef site is protected from harvest to preserve broodstock and is called an “oyster sanctuary.” With healthy and abundant broodstock populations inside sanctuary boundaries, these sites continue to serve their intended function by supplying oyster larvae to other reefs nearby.

It is important to distinguish that while all artificial reef habitat is considered “reef,” not all reefs are considered “sanctuary.” The term “oyster sanctuary” refers only to reefs protected from oyster harvest and some bottom disturbing gears through North Carolina Marine Fisheries Commission (MFC) rule 15A NCAC 03K .0209. It is also important to consider that the created habitat within sanctuary or artificial reef boundaries always exists as a collection of separate reef habitat patches. Therefore, sanctuaries and artificial reefs are sometimes referred to as reef sites. In most cases concerning reef sites managed by the Oyster Sanctuary Program, the entire reef site authorized by state and federal permits is protected from oyster harvest. Therefore, the terms “reef,” “sanctuary,” and “reef site” are often used interchangeably. When describing area, as seen in Tables 1 and 2 (see Section VI.), typically the boundary area is the total sanctuary area (acres) delineated in rule or by proclamation. Habitat footprint area refers to the cumulative total area of reef patches only, not to include unconsolidated soft bottom. For example, in Table 1, the Croatan Sound Oyster Sanctuary site has 3.10 acres of habitat within the overall boundary of 7.73 acres, meaning 4.63 acres of the site do not have habitat material present, but harvest is prohibited within the entire site.

The Blue-Ribbon Advisory Council on Oysters (BRACO) made the first recommendations concerning the establishment of oyster sanctuaries in North Carolina in 1995. The BRACO recommended the state provide selected areas where wild oyster stocks can adapt to present water quality and disease conditions without being subjected to the additional stress of habitat disturbance and oyster harvest. In addition to providing a sanctuary for oysters, these areas would also provide good nursery habitat for other finfish, shellfish, and crustacea species increasing their abundance for commercial and recreational fishing. The protected oysters would also provide increased water filtration, reducing turbidity and excess nutrients in the estuary. As part of the recommendation, oyster sanctuaries would be closed to the taking of shellfish (oysters, clams, mussels, and scallops) and to bottom disturbing activities such as trawling, long hauling, and dredging for an indefinite period (Frankenberg 1995)¹.

DMF initially developed 10 oyster sanctuaries in Pamlico Sound and its tributaries. These sanctuaries were originally designated as shellfish management areas by proclamation, as authorized by Rule 15A NCAC 03K .0103. For these reef sites to serve their intended function as oyster broodstock sanctuaries, harvest protections needed to be applied. As part of the 2008 Oyster Fishery Management Plan Amendment 2, the MFC moved the protection of oyster sanctuaries from proclamation into rules 15A NCAC 03K .0209 and 03R .0117, Oyster Sanctuaries. Since 2008, DMF has expanded the Oyster Sanctuary Program by constructing

¹ Frankenberg, D. 1995. North Carolina Blue Ribbon Advisory Council on Oysters. Final Report on Studies and Recommendations. North Carolina Department of Environment, Health and Natural Resources. Raleigh, NC.

seven additional sanctuaries, using funding from the North Carolina General Assembly, The Nature Conservancy, National Oceanic and Atmospheric Administration National Estuarine Counsel, Coastal Recreational Fishing Licenses, and other mitigation sources.

Further, the North Carolina General Assembly recognized the importance of oyster sanctuaries in the 2014 and 2015 legislative sessions. Session Law 2014-120, Section 44 as amended by Session Law 2015-241, Section 14.9 established the Senator Jean Preston Oyster Sanctuary Network (Figure 1). This was done “to enhance shellfish habitats within the Albemarle and Pamlico Sounds and their tributaries to benefit fisheries, water quality, and the economy... achieved through the establishment of a network of oyster sanctuaries, harvestable enhancement sites, and coordinated support for the development of shellfish aquaculture.”

Today DMF maintains and manages 15 oyster sanctuaries in the network, 13 of which are currently in Rule 15A NCAC 03R .0117. The sanctuaries encompass 566.22 acres total, with over 205,643 tons of material deployed for oyster habitat (Table 1). The two newest sanctuaries (Cedar Island and Gull Shoal), not in the oyster sanctuary rules, are described in proclamation SF-6-2022. That proclamation also suspends portions of the current rule to provide technical corrections on published coordinates for three sanctuaries (Pea Island, Raccoon Island, and Swan Island). All 15 oyster sanctuaries, whether protected by Rule or proclamation, are presently marked with corner buoys. Buoy marking is a United States Coast Guard permitting requirement, therefore DMF will continue to maintain buoys in perpetuity regardless of harvest or gear protections. Please see Appendix I for amendments proposed to 15A NCAC 03R .0117.

II. Introduction and Purpose of Rule Changes

Rule amendments are proposed to add the boundaries of the two newest oyster sanctuaries (Cedar Island and Gull Shoal) and update boundaries for three other oyster sanctuaries (Pea Island, Raccoon Island, and Swan Island).

Addition of Two Recently Developed Oyster Sanctuaries

There are presently 13 developed oyster sanctuaries protected by MFC rules (15A NCAC 03K .0209 and 03R .0117), the last of which were added effective May 1, 2021. Since then, two additional sanctuaries have been developed (Cedar Island and Gull Shoal; Figures 2 and 3). For these reef sites to serve their intended management function as oyster broodstock sanctuaries, harvest protections need to be applied. While these sites are currently protected by proclamation, it is proposed to add these two new sites to the existing Rule 15A NCAC 03R .0117, delineating the sanctuary boundaries in permanent rule.

Technical Corrections of Boundary Coordinates for Three Sites in Rule

Following publication of the rulebook supplement in September 2022, DMF discovered 3 of the 13 sanctuaries (Pea Island, Raccoon Island, and Swan Island) had incorrect coordinates. Technical corrections to the rule text are required in order to match the permitted and marked boundaries of the three sanctuary sites. These changes will delineate all reef site area intended for oyster sanctuary purposes so that protections provided by Rule 15A NCAC 03K .0209 may

be accurately applied. In addition, accurately delineated boundaries will help safeguard boaters navigating the area. Coordinates for three sanctuaries are proposed for consistency to standardize the cardinal directions; there are no changes to the overall sanctuary nor the coordinate pairs.

Summary and Implications

Historically, oyster sanctuary site selection leaned heavily on a limited understanding of oyster habitat suitability and was largely dependent upon where historic oyster reefs once existed. New strategies and techniques used for deployment, as well as new technology for physical and biological monitoring have substantially improved oyster reef enhancement success and have reduced errors. A more modern habitat suitability index (HSI) model rates areas based on salinity gradient, bottom type, tidal flow, larval transport, wave action, and prevailing wind data as well as historic oyster presence data and input from stakeholders and managers. This approach is proven to be a better method to select areas to develop as sanctuaries and accurately delineate their boundaries. A core tenet of DMF's current site selection approach is to find locations that meet the criteria of the HIS and that do not currently contain any existing shell resource. According to Rule 15A NCAC 07H .0208, the location and construction of all sanctuary reefs must not create any "significant adverse impacts upon the productivity and biologic integrity of coastal wetlands, shellfish beds, submerged aquatic vegetation...and spawning and nursery areas." In short, all bottom sited for sanctuary reef construction must not contain any existing shellfish habitat or habitat suited for marine resource spawning and nursing, meaning all sanctuary bottom is unproductive prior to construction.

DMF recommends amending Rule 15A NCAC 03R .0117 by adding boundaries for two additional oyster sanctuaries (Cedar Island and Gull Shoal) developed since the rule was last amended. DMF also proposes technical corrections to boundaries of three existing sanctuaries (Pea Island, Raccoon Island, and Swan Island). Corrections to these sanctuary coordinates are necessary to encompass existing reef material and match permitted and marked boundaries. The proposed modifications align the MFC rules with delineated boundaries in permits, which is essential for state and federal regulatory consistency as well as safe maritime navigation.

Rule 15A NCAC 03R .0117 (1)(f) and (1)(l) show proposed changes to incorporate the boundaries of the new sanctuaries, Cedar Island and Gull Shoal. The proposed changes in 15A NCAC 03R .0117 (1)(c), (1)(j), and (1)(k) update the boundaries of Pea Island, Swan Island, and Raccoon Island sanctuaries. Proposed changes result in a net total increase of 256 acres of protected oyster sanctuary area (Table 2). The proposed changes in 15A NCAC 03R .0117 (1)(d), (1)(h), and (2)(a) reorganize coordinates to standardize the cardinal directions and have no impact on the total acres of protected oyster sanctuary area.

VI. TABLES AND FIGURES

Table 1. Oyster sanctuary names, spatial extents (acres), and material deployed (tons).

OS#	Site Name	Boundary Size+ (Acres)	Habitat Footprint* (Acres)	Total Material Deployed* (Tons)
1	Croatan Sound	7.73	3.10	2,093
2	Deep Bay	17.20	4.15	1,749
3	West Bay	6.56	2.27	2,329
5	Crab Hole	30.52	13.26	36,489
7	Middle Bay	4.59	0.27	900
8	Neuse River	11.29	3.55	7,357
9	West Bluff	29.39	2.82	10,162
10	Gibbs Shoal	54.60	8.19	22,447
11	Long Shoal	10.01	1.13	2,173
12	Raccoon Island	9.97	1.61	1,824
13	Pea Island	46.37	2.62	3,420
14	Little Creek	20.59	6.14	5,700
15	Swan Island	80.32	10.93	55,000
16	Cedar Island	75.01	5.10	36,000
17	Gull Shoal	161.91	TBD	36,000
--	Total	566.22	65.14	223,643

- Sanctuaries (1-11, 14) are under authority of rules 15A NCAC 03K .0209 and 03R .0117.
 - Sanctuaries (12, 13, 15-17) are under authority of Rule 15A NCAC 03K .0103 via Proclamation SF-6-2022.
 - Sanctuaries (4, 6) were removed from Rule 15A NCAC 03R .0117 effective May 1, 2021, as the sites are no longer biologically productive and were not serving their management purpose as oyster sanctuaries.
- + Boundary sizes are calculated on areas bound by delineating coordinates in 15A NCAC 03R .0117.
- * Values for Habitat Footprint and Total Material Deployed are subject to increase over time, as reef enhancement and construction are ongoing.

Table 2. Current and proposed boundary acreages for oyster sanctuaries delineated in MFC Rule 15A NCAC 03R .0117.

OS #	Site Name	Current Boundary (Acres)	Proposed Boundary (Acres)	Difference (Acres)
12	Raccoon Island	9.97	9.97	0
13	Pea Island	46.37	46.37	0
15	Swan Island	60.31	80.32	20.01
16	Cedar Island	0	75.01	75.01
17	Gull Shoal	0	161.91	161.91
--	Total	116.90	373.58	256.21

Jean Preston Oyster Sanctuary Network

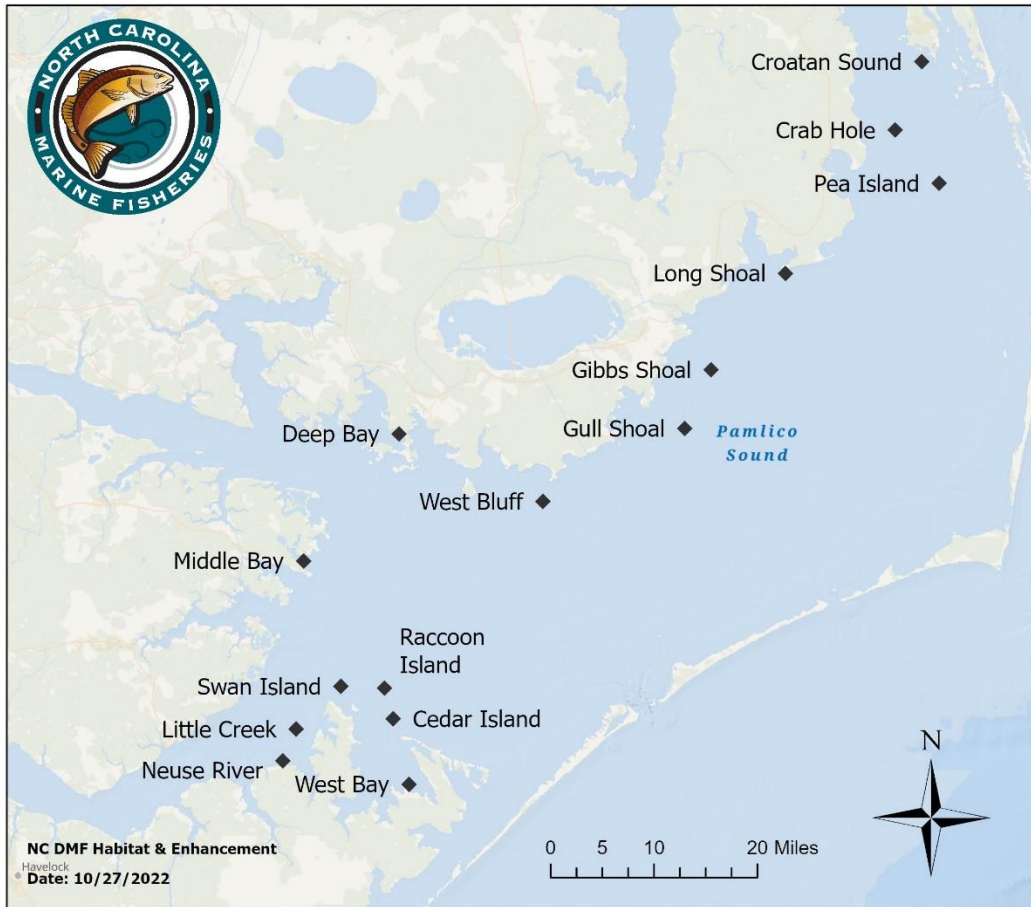


Figure 1. Oyster sanctuary locations.

OS-16 Cedar Island

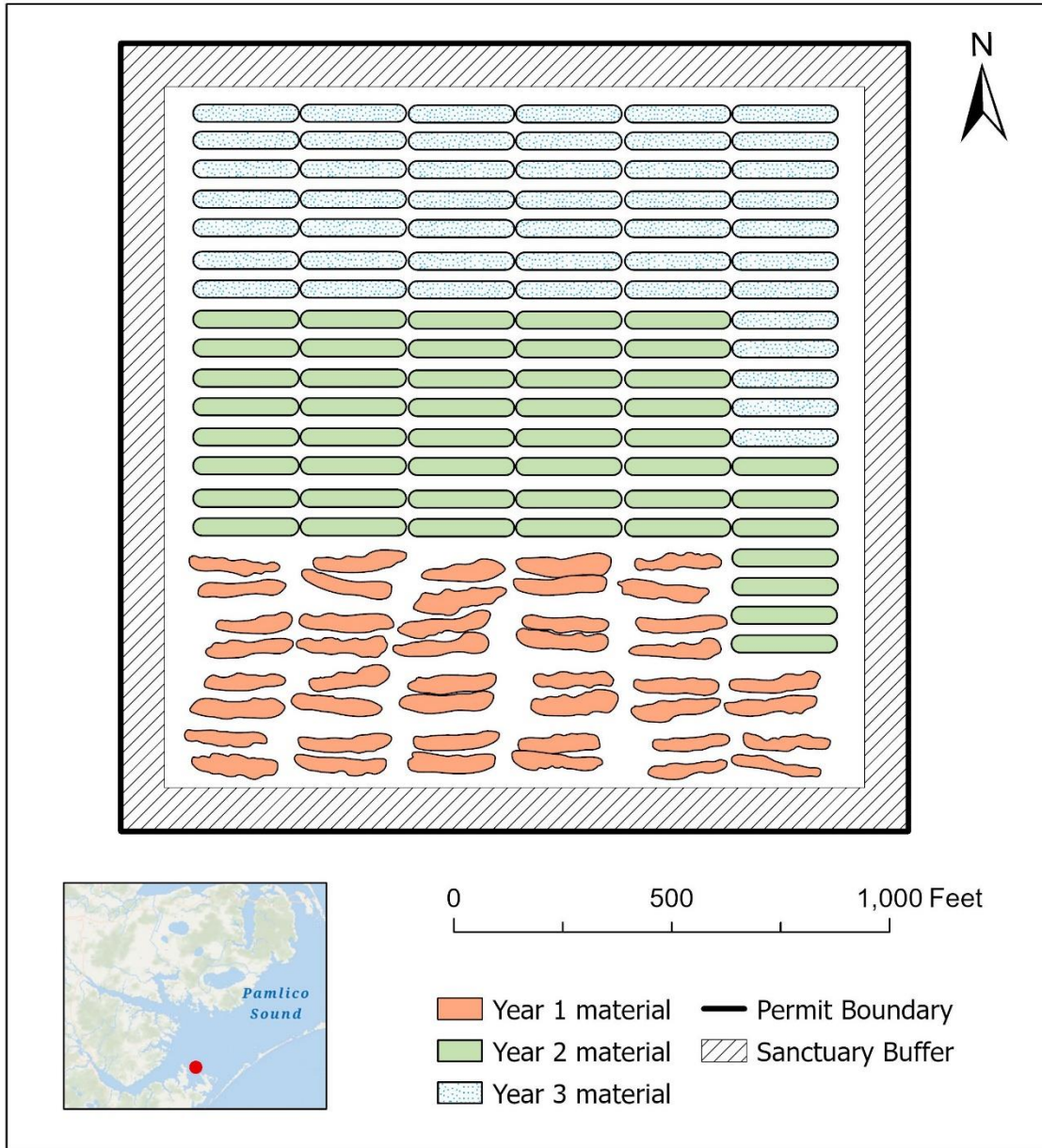


Figure 2. Cedar Island Oyster Sanctuary. With three years planned to fully develop the area, illustrated above is the footprint from the first 18,000 tons of material deployed and approximate distribution for future material (target completion summer 2023).

OS-17 Gull Shoal

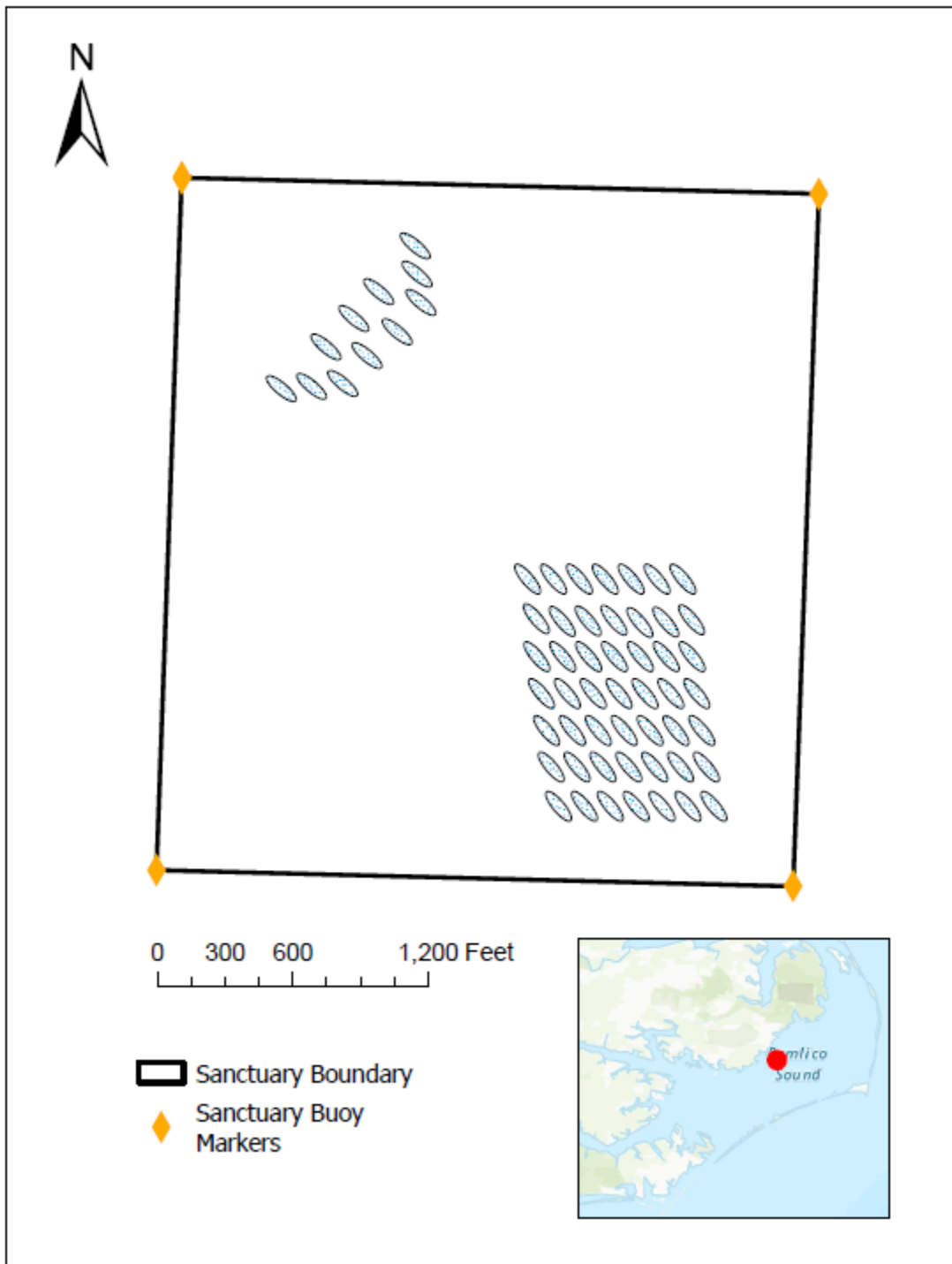


Figure 3. Gull Shoal Oyster Sanctuary. The development of the site is under the purview of the Division of Mitigation Services. Details on material footprint will be known after completion of this 162-acre site.

Fiscal Analysis

Proposed rule amendments will codify in rule two oyster sanctuaries totaling 236.92 acres. Additionally, there are corrections to three oyster sanctuary boundaries which will codify in rule an additional 20.01 acres of oyster sanctuary, for a total sanctuary addition of 256.21 acres. All of these proposed changes to rule reflect the boundaries which are currently enforced through Proclamation SF-6-2022 (effective October 14, 2022). The requirements in Proclamation SF-6-2022 make it unlawful to take, or possess after taking, shellfish from the oyster sanctuary areas. Additionally, the proclamation states that it is unlawful to use trawl nets, long haul seines, or swipe nets in the designated oyster sanctuaries. The intent of these requirements is to designate oyster sanctuaries after substrate is strategically deployed and monitored to protect areas from certain gears or activities to facilitate increased oyster larvae production and brood-stock development.

The proposed rule amendments codify existing proclamation practice into rule due to the lack of variable conditions. To aid in the clarity of regulations for the public, DMF has a policy of moving proclamations into rule once variable conditions have stabilized. As compared to the requirements in Proclamation SF-6-2022, there will be no changes to the oyster sanctuary boundaries as a result of the proposed rule amendments.

Costs

The proclamation resulted in 256.21 acres of oyster sanctuary being effectively removed from potential public access for shellfish harvesting, trawl-fishing, long-hauling and dredging activities. This removal of water bottom from public access did not directly impact the amount of shellfish habitat available for harvest, however, as it was not existing shellfish habitat before designation as a sanctuary and reef construction. Similarly, it did not have a significant effect on other types of public access as these areas were not functioning as fishing grounds before designation as a sanctuary. As stated above, all sites selected for sanctuary construction must be devoid of shellfish habitat, spawning, or nursery grounds. Due to this, there was no significant economic cost in terms of shellfish harvest or other types of public access as a result of the proclamation.

While not a result of the proposed rule amendments, the costs for constructing oyster sanctuary sites have been and are expected to continue to be covered by state appropriations. Callihan et al (2016)² estimated that the State had appropriated roughly \$9 million towards costs of constructing and operating oyster sanctuary sites. This \$9 million commitment covered both existing and future oyster sanctuary sites to date as of 2016. Funds spent on the construction of these two reefs had already been appropriated by the State. Because of this, there is no expectation of construction costs from this proposed rule amendment (or the associated proclamation).

² Callihan, R.,B. Depro, D. Lapidus, T. Sartwell, and C. Viator. 2016. Economic Analysis of the Costs and Benefits of Restoration and Enhancement of Shellfish Habitat and Oyster Propagation in North Carolina. RTI International, Research Triangle Park, NC.

In addition, there are costs to consider pertaining to enforcement. Signage and markings required by the designation as sanctuaries have already been updated. Any future costs associated with signage and enforcement are expected to be negligible. Lastly, given the existing presence of the shellfish sanctuaries and the mechanisms already in place to enforce them, there are no expected impacts to enforcement costs from the addition of these sanctuary areas.

Benefits

The proposed rule amendments will consolidate existing requirements for various oyster sanctuary boundaries from proclamation into a single rule. This should improve clarity and consistency which should result in small, unquantifiable benefits to DMF and stakeholders. The improved clarity and consistency should reduce the time burden to stakeholders for staying current with requirements of fisheries in which they participate. This should, in turn, provide an unquantifiable benefit to the State related to increased efficiency of program administration as well as incremental improvement to resource protection.

While not attributable to the proposed codification of the existing proclamation, the principal benefit of oyster reef construction is increased production of oysters and other shellfish in the area due to increased broodstock production from the net gain of 256.21 acres of sanctuary bottom. An increase in oyster densities in the sanctuary areas is expected to cause increased broodstock in surrounding waters as well. This effect will likely lead to improved adult oyster density in surrounding shellfish habitats, leading to increased landings of wild oysters in Pamlico Sound with no shifts in effort. However, the timing and magnitude of these increases are not known, and therefore the exact economic gain from these effects cannot be accurately quantified.

In addition to the direct benefits of increased shellfish broodstock, these are also the economic benefits from ecosystem services of oyster reefs. Artificial oyster reefs provide benefits related to water quality, shoreline protection, and increased habitat for other species. Callihan et al (2016) assert an average annual benefit per acre of \$4,178.38 (in 2011). Coupled with the net increase of 256.21 acres of oyster sanctuary, the addition of these reefs could result in an average annual benefit of \$1,070,542 (\$1,431,848 in 2023)³, ignoring any direct benefits from increased oyster production and cultivation. Again, this potential benefit is not attributable to the proposed rule amendments but is included here for informational purposes.

³ Average annual benefit inflated from 2011 dollars to 2023 dollars using U.S. Bureau of Labor Statistics [CPI Inflation Calculator](#).

1 **APPENDIX I.**

2

3 15A NCAC 03R .0117 is proposed for amendment as follows:

4

5 **15A NCAC 03R .0117 OYSTER SANCTUARIES**

6 The Oyster Sanctuaries referenced in 15A NCAC 03K .0209 are delineated in the following ~~coastal water~~
7 areas: Coastal Fishing Waters:

8 (1) Pamlico Sound area:

9 (a) Croatan Sound: within the area described by a line beginning at a point 35° 48.2842' N -
10 75° 38.3360' W; running southerly to a point 35° 48.1918' N - 75° 38.3360' W; running
11 westerly to a point 35° 48.1918' N - 75° 38.4575' W; running northerly to a point 35°
12 48.2842' N - 75° 38.4575' W; running easterly to the point of beginning.

13 (b) Crab Hole: within the area described by a line beginning at a point 35° 43.6833' N - 75°
14 40.5083' W; running southerly to a point 35° 43.5000' N - 75° 40.5083' W; running
15 westerly to a point 35° 43.5000' N - 75° 40.7500' W; running northerly to a point 35°
16 43.6833' N - 75° 40.7500' W; running easterly to the point of beginning.

17 (c) Pea Island: within the area described by a line beginning at a point ~~35° 05.4760' N - 76°~~
18 ~~23.5370' W~~35° 40.0800' N - 75° 36.7998' W; running southerly to a point ~~35° 05.4760' N -~~
19 ~~76° 23.4040' W~~35° 39.8400' N - 75° 36.7998' W; running westerly to a point ~~35°~~
20 ~~05.3680' N - 76° 23.4040' W~~35° 39.8400' N - 75° 37.0800' W; running northerly to a
21 point ~~35° 05.3680' N - 76° 23.5370' W~~35° 40.0800' N - 75° 37.0800' W; running easterly
22 to the point of beginning.

23 (d) Long Shoal: within the area described by a line beginning at a point ~~35° 33.8600' N - 75°~~
24 ~~49.9000' W~~35° 33.8600' N - 75° 49.7670' W; running southerly to a point ~~35° 33.8600' N -~~
25 ~~75° 49.7670' W~~35° 33.7510' N - 75° 49.7670' W; running westerly to a point ~~35°~~
26 ~~33.7510' N - 75° 49.7670' W~~35° 33.7510' N - 75° 49.9000' W; running northerly to a
27 point ~~35° 33.7510' N - 75° 49.9000' W~~35° 33.8600' N - 75° 49.9000' W; running easterly
28 to the point of beginning.

29 (e) Gibbs Shoal: within the area described by a line beginning at a point 35° 27.3550' N - 75°
30 55.9190' W; running southerly to a point 35° 27.1010' N - 75° 55.9190' W; running
31 westerly to a point 35° 27.1010' N - 75° 56.2300' W; running northerly to a point 35°
32 27.3550' N - 75° 56.2300' W; running easterly to the point of beginning.

33 (f) Gull Shoal: within the area described by a line beginning at a point 35° 23.4520' N - 75°
34 58.0533' W; running southerly to a point 35° 22.9481' N - 75° 58.0721' W; running
35 westerly to a point 35° 22.9596' N - 75° 58.5359' W; running northerly to a point 35°
36 23.4638' N - 75° 58.5173' W; running easterly to the point of beginning.

1 (a) Little Creek: within the area described by a line beginning at a point ~~35° 02.6940' N - 76°~~
2 ~~30.9840' W~~35° 02.6940' N - 76° 30.7940' W; running southerly to a point ~~35° 02.6940' N -~~
3 ~~76° 30.7940' W~~35° 02.5380' N - 76° 30.7940' W; running westerly to a point ~~35° 02.5380'~~
4 ~~N - 76° 30.7940' W~~35° 02.5380' N - 76° 30.9840' W; running northerly to a point ~~35°~~
5 ~~02.5380' N - 76° 30.9840' W~~35° 02.6940' N - 76° 30.9840' W; running easterly to the point
6 of beginning.

7 (b) Neuse River: within the area described by a line beginning at a point 35° 00.4910' N - 76°
8 31.9350' W; running southerly to a point 35° 00.3750' N - 76° 31.9350' W; running
9 westerly to a point 35° 00.3750' N - 76° 32.0750' W; running northerly to a point 35°
10 00.4910' N - 76° 32.0750' W; running easterly to the point of beginning.

11
12 *History Note:* *Authority G.S. 113-134; 113-182; 113-201; 113-204; 143B-289.52;*
13 *Eff. October 1, 2008;*
14 *Amended Eff. April 1, 2011;*
15 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. January 9,*
16 *2018;*
17 *Amended Eff. May 1, ~~2021-2021~~; April 1, 2024.*

Fiscal Impact Analysis of Proposed Conforming Rule Changes for Shellfish Relay Program and Shellfish Leases and Franchises

Rule Amendments: 15A NCAC 03I .0101, 03K .0101, .0104, .0301, .0401, .0403, .0405, .03O .0201, .0501, .0503, 18A .0901, .0906

Name of Commission: N.C. Marine Fisheries Commission

Agency Contact: Jason Walsh, Fisheries Economics Program Manager
N.C. Division of Marine Fisheries
3441 Arendell Street
Morehead City, NC 28557
Jason.walsh@ncdenr.gov
252-269-9299

Impact Summary: State government: Minimal
Local government: No
Federal government: No
Substantial impact: No

AUTHORITY

N.C. General Statutes

G.S. § 14-4.1.	Legislative review of regulatory crimes.
G.S. § 113-134.	Rules.
G.S. § 113-182.	Regulation of fishing and fisheries.
G.S. § 113-201.	Legislative findings and declaration of policy; authority of Marine Fisheries Commission.
G.S. § 113-202.	New and renewal leases for shellfish cultivation; termination of leases issued prior to January 1, 1966.
G.S. § 113-203.	Transplanting of oysters and clams.
G.S. § 113-221.2.	Additional rules to establish sanitation requirements for scallops, shellfish, and crustacea; permits and permit fees authorized.
G.S. § 143B-289.52.	Marine Fisheries Commission – powers and duties.
Chapter 150B	Administrative Procedure Act

Necessity: According to the Administrative Procedure Act (APA), specifically G.S. § 150B-19.1(b), the Marine Fisheries Commission (MFC) is charged with reviewing its rules annually to identify existing rules that are unnecessary, unduly burdensome, or inconsistent with the principles set forth in G.S. § 150B-19.1(a). The Division of Marine Fisheries (DMF) identified 11 rules relating to the Shellfish Relay Program (15A NCAC 03I .0101, 03K .0101, .0104, .0301, .0401, .0403, .0405, 03O .0501, .0503, 18A .0901, and .0906) that set specific requirements for relaying of shellfish from certain polluted areas. Consistent with the APA, these rules or portions of these rules are unnecessary due to the discontinuation of the Shellfish Relay Program. Additional proposed changes to 15A NCAC 03O .0201 for shellfish lease and franchise ("lease") requirements are proposed pursuant to Session Law 2019-37 (Act to Provide Further Support to

the Shellfish Aquaculture Industry in North Carolina) for increased production and planting requirements for leases via Section 3 of the Act. Subsection 3 (d) of the Act requires the MFC to amend 15A NCAC 03O .0201 consistent with Subsection 3 (c) of the Act that sets shellfish production and planting requirements for leases granted July 1, 2019 and after. Changes are proposed to conform this rule to the requirements of this law.

I. Summary

In 2021, the DMF began the process of discontinuing its Shellfish Relay Program (relaying of shellfish from certain polluted areas) due primarily to insufficient resources to run the program and lack of widespread use. The Shellfish Relay Program will end effective May 1, 2024. The MFC received information about the discontinuation of the Shellfish Relay Program at its February 2022 business meeting, including the need to undertake conforming rule changes.

DMF identified 11 rules relating to the Shellfish Relay Program that set specific requirements for relaying of shellfish from certain polluted areas. Changes are proposed to amend portions of rules or repeal rules consistent with rulemaking requirements in the APA. Additional proposed changes to 15A NCAC 03O .0201 conform lease requirements to Session Law 2019-37, Section 3. Please see Appendix I for the 12 proposed rules.

II. Introduction and Purpose of Rule Changes

Shellfish Relay Requirements

Amendments are proposed to rules that have shellfish relay requirements, including the repeal of **15A NCAC 03K .0104, .0401, .0403, and .0405.**

Rule **15A NCAC 03I .0101** defines terms that apply globally to Chapter 03 (Marine Fisheries) of the N.C. Administrative Code. Specifically, Subitems (2)(i), (2)(j), and (2)(k) of this rule define terms related to leases and the associated planting, culture, marketing, transplanting (relay), and harvest of shellfish. These defined terms only appear in 15A NCAC 03O .0200, which sets standards and requirements for leases. These terms are proposed to be deleted from 15A NCAC 03I .0101; globally applicable definitions for these terms are not necessary. There are a few differences in statutes and rules for shellfish production as it pertains to leases. As a result, definitions are proposed to be added to 15A NCAC 03O .0201 to harmonize these differences, defined for the purpose of this section of rules. These changes are explained in the associated subsection of the discussion section further below. An unrelated conforming change is proposed to 15A NCAC 03I .0101(5)(g) to provide an exception to 15A NCAC 03O .0109 for the defined term "licensee". Additionally, a technical change is proposed to 15A NCAC 03I .0101(5)(k) to remove Elizabeth City from the definition of "Office of the Division" since the license office there is permanently closed; the remaining offices are also proposed to be listed in geographic order from south to north.

Rule **15A NCAC 03K .0101** makes it unlawful to take shellfish from areas that have been designated as polluted. The current rule provides exceptions as set out in four other rules that contain shellfish relay requirements. These rules were recently amended to remove shellfish relay requirements (15A NCAC 03K .0103, .0107) or are rules described here that are proposed to be repealed (15A NCAC 03K .0104, .0401), and thus the exceptions need to be removed from 15A NCAC 03K .0101. Additional proposed changes to 15A NCAC 03K .0101 update and consolidate the exceptions to this otherwise unlawful activity by using permit names instead of rule references. These exceptions apply to the holder of any of three existing permits: Depuration, Aquaculture Seed Transplant, or Shellfish Relocation. Requirements for these permits ensure shellfish taken from polluted areas are not for immediate human consumption but are for restoration purposes or would be subject to transplant to private beds for growout or for depuration prior to human consumption. Using the permit names will be easier for stakeholders to identify than using rule references.

15A NCAC 03K .0301 contains proposed changes to remove shellfish relay requirements by deleting Subparagraph (b)(3).

Proposed changes to **15A NCAC 03O .0501** Paragraphs (d) and (e), **15A NCAC 03O .0503** Subparagraph (a)(3), **15A NCAC 18A .0901** Item (19), and **15A NCAC 18A .0906** Paragraph (b) remove shellfish relay requirements. Additionally, two unrelated technical changes are needed. One change is needed to 15A NCAC 03O .0501(i) to correct a cross-reference to 15A NCAC 03K .0111 (recent repeal), to reference 15A NCAC 03O .0211 (recent adoption) instead. A second technical change is needed to 15A NCAC 03O .0503 to correct a cross-reference in Subparagraph (g)(3) to read "Subparagraph (g)(1)" not "Subparagraph (k)(1)".

Shellfish Lease and Franchise Requirements

Regarding additional proposed changes to 15A NCAC 03O .0201 for lease requirements, Session Law 2019-37 (Act to Provide Further Support to the Shellfish Aquaculture Industry in North Carolina) increased production and planting requirements for leases via Section 3 of the Act. Subsection 3 (d) of the Act requires the MFC to amend 15A NCAC 03O .0201 consistent with Subsection 3 (c) of the Act that sets shellfish production and planting requirements for leases granted July 1, 2019 and after. Changes are proposed to conform this rule to the requirements of this law.

Specifically, definitions for "extensive shellfish culture" and "intensive shellfish culture" set forth in Session Law 2019-37 are proposed to be added for the purpose of 15A NCAC 03O .0200 in Rule 15A NCAC 03O .0201 in Paragraph (a). Upon the effective date of this rule, Section 3 of this law will expire and so the definitions need to be added to MFC rule. Additional definitions for "plant" and "produce" are proposed to clarify the use of the terms for the purpose of this Section of rules. There are a few differences in statutes and rules for shellfish production as it pertains to shellfish leases and franchises, as mentioned in the "Shellfish Relay Requirements" section above regarding 15A NCAC 03I .0101. Session Law 2019-37, G.S. 113-202, G.S. 113-203, and other laws contain requirements for and intersect with shellfish relay and leases. The proposed definitions harmonize these differences, along with conforming changes throughout the rule to delete references to "marketing" shellfish. The term is antiquated and essentially means "harvest", which is remedied by the proposed definitions. Also, as a result of separate rule changes that

became effective June 1, 2022, all lease holders are required to have an Aquaculture Operation Permit (AOP). This makes moot the need to retain the reference to a "marketable size" because requirements are now set through the AOP; there are not currently any minimum size requirements and there is not a "marketable size" definition beyond the three-inch minimum size limit for wild harvest (versus harvest from a lease). So, in Paragraph (a), the proposed definition for "plant" in (a)(3) is consistent with Session Law 2019-37 and G.S. 113-202 and covers 15A NCAC 03I .0101(2)(j) for "shellfish planting effort on leases and franchises" and (2)(k) for "shellfish production on leases and franchises", except "sublegal harvest size to a marketable size" from 03I .0101(2)(k)(i) was left out because it does not align with how the industry works today now that all lease holders are required to have an AOP. The proposed definition for "produce" in (a)(4) is consistent with Session Law 2019-37 and G.S. 113-202 and covers 15A NCAC 03I .0101(2)(i) for "shellfish marketing from leases and franchises".

Subparagraph (b)(4) is proposed for amendment to clarify to what "area" refers. Proposed changes and additions to Paragraphs (c) through (h) incorporate and conform the shellfish production and planting requirements from the law for leases granted before July 1, 2019 and for leases granted on or after this date. Leases are granted for 10-year terms, so these distinctions will need to persist in the rule until the last lease granted prior to July 1, 2019 has expired at which time the rule can be amended again. Lastly, proposed changes to Paragraph (i) require lease holders to meet the listed production, marking, and permit requirements for current leases before being eligible for additional lease acreage. Doing so would help ensure more efficient and meaningful use of the public trust bottom by preventing persons that do not meet the requirements of the MFC rules referenced in 15A NCAC 03O .0201(i) from precluding potential applicants from applying for a lease in affected areas.

The Public Trust Doctrine provides the authority for the state to manage public trust resources. The doctrine states that "public trust lands, water, and living resources in the state are held by the state in trust for the benefit of all the people, and establishes the right of the public to fully enjoy public trust lands, waters, and living resources for a wide variety of recognized public uses. " Consistent with the Public Trust Doctrine, in G.S. 113-201 the "General Assembly finds that shellfish cultivation provides increased seafood production and long-term economic and employment opportunities. The General Assembly also clarifies that shellfish cultivation provides increased ecological benefits to the estuarine environment by promoting natural water filtration and increased fishery habitats. The General Assembly declares that it is the policy of the State to encourage the development of private, commercial shellfish cultivation in ways that are compatible with other public uses of marine and estuarine resources such as navigation, fishing, and recreation." Further, the General Assembly empowers the MFC to "make rules and take all steps necessary to develop and improve the cultivation, harvesting, and marketing of shellfish in North Carolina both from public grounds and private beds." The proposed changes are consistent with this charge.

III. Fiscal Analysis

Shellfish Relay Requirements

The proposed rule changes are in response to the decision by DMF to discontinue the Shellfish Relay Program due to lack of resources to run the program and lack of widespread use. The program will end effective May 1, 2024. Proposed rule changes themselves will not result in the discontinuation of the relay program; rather, they will reflect the discontinuation of the program already underway. There is not expected to be any economic impact to the state or stakeholders through the proposed changes to these rules due to the rules not impacting any stakeholder practice nor DMF employee job function when the proposed rule amendments would become effective.

Shellfish Lease and Franchise Requirements

Most of the proposed changes conform 15A NCAC 03O .0201 to the requirements of Session Law 2019-37, consistent with G.S. 113-202. As compared to the regulatory baseline, these proposed amendments will not require any procedural changes and should not result in any additional costs to the state.

Proposed changes to Paragraph (i) would require lease holders to meet the listed production, marking, and permit requirements for current leases of any size before being eligible for additional lease acreage, regardless of acreage of current leases they hold. Doing so would help ensure more efficient and meaningful use of the public trust bottom. The current rule contains a requirement that has been in place since 2008 for existing lease holders that hold *five or more* acres to meet the shellfish *production* requirements in order to *submit* an application for additional lease acreage. Proposed changes would require existing lease holders that hold *any* acres to meet shellfish production, *marking, and permit* requirements to be *eligible* for additional lease acreage. The proposed changes reflect the MFC's authority to not grant additional acreage to persons not using the public trust resource in a manner that is at least at the minimum standards, versus requirements for submitting an application. The expansion from five or more acres to any acres is also consistent with more efficient and meaningful use of the public trust bottom but is not expected to increase the existing responsibilities of DMF employees.

Limiting access to additional leases to individuals found out of compliance with their existing lease could provide small costs to those lease holders. There are currently 195 lease holders holding approximately 2,221 acres of public trust bottom. The number of leases that are applied for each year has increased over time and there were 43 lease applications in 2022. Of those 43 lease applications 20 were existing active lease holders; of those 20 applicants, eleven were under the five-acre limit and would potentially interact with the proposed rule change. As the aquaculture industry grows, applications are expected to also increase. Moving forward, the number of stakeholders that would be subject to this rule change is unknown but expected to grow. Proposed amendments could lead to denial of future lease applications for active lease holders that are not meeting requirements of MFC rules referenced in 15A NCAC 03O .0201(i).

Though small unquantifiable costs to out of compliance lease holders may occur, ensuring lease areas are being used for their allowed activity, as approved by the DMF, consistent with the public trust doctrine and state laws and rules, is expected to be a larger, yet unquantifiable, benefit of using public trust resources that provide long term economic and employment opportunities, water filtration, and support estuarine habitat. Under the proposed rule change the ability to ensure applicants who are not in compliance with their current lease are denied access

to more public trust bottom allows other applicants to use the public trust resource for its intended purpose as described in Section II of this analysis. Overall, proposed amendments to shellfish lease and franchise requirement rules that limit access to new leases for out of compliance stakeholders and clarify definitions are expected to bring small but unquantifiable benefits to both the state and stakeholders.

For this rule package, bringing harmony between terms in rule and law brings consistency and clarity of terms, which is expected to increase efficiency and clarity for DMF staff and stakeholders. No impact to local governments is expected.

1 15A NCAC 03I .0101 is proposed for amendment as follows:

2
3 **SUBCHAPTER 03I – GENERAL RULES**

4
5 **SECTION .0100 – GENERAL RULES**

6
7 **15A NCAC 03I .0101 DEFINITIONS**

8 All definitions set out in G.S. 113, Subchapter IV and the following additional terms shall apply to this Chapter:

9 (1) enforcement and management terms:

- 10 (a) "Commercial quota" means total quantity of fish allocated for harvest by commercial
11 fishing operations.
- 12 (b) "Educational institution" means a college, university, or community college accredited by
13 an accrediting agency recognized by the U.S. Department of Education; an Environmental
14 Education Center certified by the N.C. Department of Environmental Quality Office of
15 Environmental Education and Public Affairs; or a zoo or aquarium certified by the
16 Association of Zoos and Aquariums.
- 17 (c) "Internal Coastal Waters" or "Internal Waters" means all Coastal Fishing Waters except
18 the Atlantic Ocean.
- 19 (d) length of finfish:
- 20 (i) "Curved fork length" means a length determined by measuring along a line tracing
21 the contour of the body from the tip of the upper jaw to the middle of the fork in
22 the caudal (tail) fin.
- 23 (ii) "Fork length" means a length determined by measuring along a straight line the
24 distance from the tip of the snout with the mouth closed to the middle of the fork
25 in the caudal (tail) fin, except that fork length for billfish is measured from the tip
26 of the lower jaw to the middle of the fork of the caudal (tail) fin.
- 27 (iii) "Pectoral fin curved fork length" means a length of a beheaded fish from the dorsal
28 insertion of the pectoral fin to the fork of the tail measured along the contour of
29 the body in a line that runs along the top of the pectoral fin and the top of the
30 caudal keel.
- 31 (iv) "Total length" means a length determined by measuring along a straight line the
32 distance from the tip of the snout with the mouth closed to the tip of the
33 compressed caudal (tail) fin.
- 34 (e) "Nongovernmental conservation organization" means an organization whose primary
35 mission is the conservation of natural resources.
- 36 (f) "Polluted" means any shellfish growing waters as defined in 15A NCAC 18A .0901:

- 1 (i) that are contaminated with fecal material, pathogenic microorganisms, poisonous
2 or deleterious substances, or marine biotoxins that render the consumption of
3 shellfish from those growing waters hazardous;
- 4 (ii) that have been determined through a sanitary survey as defined in 15A NCAC
5 18A .0901 to be adjacent to a sewage treatment plant outfall or other point source
6 outfall with public health significance;
- 7 (iii) that have been determined through a sanitary survey as defined in 15A NCAC
8 18A .0901 to be in or adjacent to a marina;
- 9 (iv) that have been determined through a sanitary survey as defined in 15A NCAC
10 18A .0901 to be impacted by other potential sources of pollution that render the
11 consumption of shellfish from those growing waters hazardous; or
- 12 (v) where the Division of Marine Fisheries is unable to complete the monitoring
13 necessary to determine the presence of contamination or potential pollution
14 sources.
- 15 (g) "Recreational possession limit" means restrictions on size, quantity, season, time period,
16 area, means, and methods where take or possession is for a recreational purpose.
- 17 (h) "Recreational quota" means total quantity of fish allocated for harvest for a recreational
18 purpose.
- 19 (i) "Regular closed oyster season" means March 31 through October 15, unless amended by
20 the Fisheries Director through proclamation authority.
- 21 (j) "Scientific institution" means one of the following entities:
- 22 (i) an educational institution as defined in this Item;
- 23 (ii) a state or federal agency charged with the management of marine or estuarine
24 resources; or
- 25 (iii) a professional organization or secondary school working under the direction of,
26 or in compliance with mandates from, the entities listed in Sub-items (j)(i) and (ii)
27 of this Item.
- 28 (2) fishing activities:
- 29 (a) "Aquaculture operation" means an operation that produces artificially propagated stocks of
30 marine or estuarine resources, or other non-native species that may thrive if introduced into
31 Coastal Fishing Waters, or obtains such stocks from permitted sources for the purpose of
32 rearing on private bottom (with or without the superadjacent water column) or in a
33 controlled environment. A controlled environment provides and maintains throughout the
34 rearing process one or more of the following:
- 35 (i) food;
- 36 (ii) predator protection;
- 37 (iii) salinity;

- 1 (iv) temperature controls; or
2 (v) water circulation, utilizing technology not found in the natural environment.
- 3 (b) "Attended" means being in a vessel, in the water or on the shore, and immediately available
4 to work the gear and be within 100 yards of any gear in use by that person at all times.
5 Attended does not include being in a building or structure.
- 6 (c) "Blue crab shedding" means the process whereby a blue crab emerges soft from its former
7 hard exoskeleton. A shedding operation is any operation that holds peeler crabs in a
8 controlled environment. A controlled environment provides and maintains throughout the
9 shedding process one or more of the following:
10 (i) food;
11 (ii) predator protection;
12 (iii) salinity;
13 (iv) temperature controls; or
14 (v) water circulation, utilizing technology not found in the natural environment. A
15 shedding operation does not include transporting pink or red-line peeler crabs to
16 a permitted shedding operation.
- 17 (d) "Depuration" means mechanical purification or the removal of adulteration from live
18 oysters, clams, or mussels by any artificially controlled means.
- 19 (e) "Long haul operation" means fishing a seine towed between two vessels.
- 20 (f) "Peeler crab" means a blue crab that has a soft shell developing under a hard shell and
21 having a white, pink, or red-line or rim on the outer edge of the back fin or flipper.
- 22 (g) "Possess" means any actual or constructive holding whether under claim of ownership or
23 not.
- 24 (h) "Recreational purpose" means a fishing activity that is not a commercial fishing operation
25 as defined in G.S. 113-168.
- 26 ~~(i) "Shellfish marketing from leases and franchises" means the harvest of oysters, clams,~~
27 ~~scallops, or mussels from privately held shellfish bottoms and lawful sale of those shellfish~~
28 ~~to the public at large or to a licensed shellfish dealer.~~
- 29 ~~(j) "Shellfish planting effort on leases and franchises" means the process of obtaining~~
30 ~~authorized cultch materials, seed shellfish, and shellfish stocks from polluted waters and~~
31 ~~the placement of those materials on privately held shellfish bottoms for increased shellfish~~
32 ~~production.~~
- 33 ~~(k) "Shellfish production on leases and franchises" means:~~
34 ~~(i) the culture of oysters, clams, scallops, or mussels on shellfish leases and~~
35 ~~franchises from a sublegal harvest size to a marketable size.~~

- 1 (ii) ~~the transplanting (relay) of oysters, clams, scallops, or mussels from areas closed~~
2 ~~due to pollution to shellfish leases and franchises in open waters and the natural~~
3 ~~cleansing of those shellfish.~~
- 4 ~~(i)~~ "Swipe net operations" means fishing a seine towed by one vessel.
- 5 ~~(m)~~~~(j)~~ "Transport" means to ship, carry, or cause to be carried or moved by public or private
6 carrier by land, sea, or air.
- 7 ~~(n)~~~~(k)~~ "Use" means to employ, set, operate, or permit to be operated or employed.
- 8 (3) gear:
- 9 (a) "Bunt net" means the last encircling net of a long haul or swipe net operation constructed
10 of small mesh webbing. The bunt net is used to form a pen or pound from which the catch
11 is dipped or bailed.
- 12 (b) "Channel net" means a net used to take shrimp that is anchored or attached to the bottom
13 at both ends or with one end anchored or attached to the bottom and the other end attached
14 to a vessel.
- 15 (c) "Commercial fishing equipment or gear" means all fishing equipment used in Coastal
16 Fishing Waters except:
- 17 (i) cast nets;
- 18 (ii) collapsible crab traps, a trap used for taking crabs with the largest open dimension
19 no larger than 18 inches and that by design is collapsed at all times when in the
20 water, except when it is being retrieved from or lowered to the bottom;
- 21 (iii) dip nets or scoops having a handle not more than eight feet in length and a hoop
22 or frame to which the net is attached not exceeding 60 inches along the perimeter;
- 23 (iv) gigs or other pointed implements that are propelled by hand, whether or not the
24 implement remains in the hand;
- 25 (v) hand operated rakes no more than 12 inches wide and weighing no more than six
26 pounds and hand operated tongs;
- 27 (vi) hook and line, and bait and line equipment other than multiple-hook or multiple-
28 bait trotline;
- 29 (vii) landing nets used to assist in taking fish when the initial and primary method of
30 taking is by the use of hook and line;
- 31 (viii) minnow traps when no more than two are in use;
- 32 (ix) seines less than 30 feet in length;
- 33 (x) spears, Hawaiian slings, or similar devices that propel pointed implements by
34 mechanical means, including elastic tubing or bands, pressurized gas, or similar
35 means.
- 36 (d) "Corkline" means the support structure a net is attached to that is nearest to the water
37 surface when in use. Corkline length is measured from the outer most mesh knot at one end

- 1 of the corkline following along the line to the outer most mesh knot at the opposite end of
2 the corkline.
- 3 (e) "Dredge" means a device towed by engine power consisting of a frame, tooth bar or smooth
4 bar, and catchbag used in the harvest of oysters, clams, crabs, scallops, or conchs.
- 5 (f) "Fixed or stationary net" means a net anchored or staked to the bottom, or some structure
6 attached to the bottom, at both ends of the net.
- 7 (g) "Fyke net" means an entrapment net supported by a series of internal or external hoops or
8 frames, with one or more lead or leaders that guide fish to the net mouth. The net has one
9 or more internal funnel-shaped openings with tapered ends directed inward from the mouth,
10 through which fish enter the enclosure. The portion of the net designed to hold or trap fish
11 is completely enclosed in mesh or webbing, except for the openings for fish passage into
12 or out of the net (funnel area).
- 13 (h) "Gill net" means a net set vertically in the water to capture fish by entanglement of the gills
14 in its mesh as a result of net design, construction, mesh length, webbing diameter, or
15 method in which it is used.
- 16 (i) "Headrope" means the support structure for the mesh or webbing of a trawl that is nearest
17 to the water surface when in use. Headrope length is measured from the outer most mesh
18 knot at one end of the headrope following along the line to the outer most mesh knot at the
19 opposite end of the headrope.
- 20 (j) "Hoop net" means an entrapment net supported by a series of internal or external hoops or
21 frames. The net has one or more internal funnel-shaped openings with tapered ends directed
22 inward from the mouth, through which fish enter the enclosure. The portion of the net
23 designed to hold or trap the fish is completely enclosed in mesh or webbing, except for the
24 openings for fish passage into or out of the net (funnel area).
- 25 (k) "Lead" means a mesh or webbing structure consisting of nylon, monofilament, plastic,
26 wire, or similar material set vertically in the water and held in place by stakes or anchors
27 to guide fish into an enclosure. Lead length is measured from the outer most end of the lead
28 along the top or bottom line, whichever is longer, to the opposite end of the lead.
- 29 (l) "Mechanical methods for clamming" means dredges, hydraulic clam dredges, stick rakes,
30 and other rakes when towed by engine power, patent tongs, kicking with propellers or
31 deflector plates with or without trawls, and any other method that utilizes mechanical
32 means to harvest clams.
- 33 (m) "Mechanical methods for oystering" means dredges, patent tongs, stick rakes, and other
34 rakes when towed by engine power, and any other method that utilizes mechanical means
35 to harvest oysters.
- 36 (n) "Mesh length" means the distance from the inside of one knot to the outside of the opposite
37 knot, when the net is stretched hand-tight in a manner that closes the mesh opening.

- 1 (o) "Pound net set" means a fish trap consisting of a holding pen, one or more enclosures, lead
2 or leaders, and stakes or anchors used to support the trap. The holding pen, enclosures, and
3 lead(s) are not conical, nor are they supported by hoops or frames.
- 4 (p) "Purse gill net" means any gill net used to encircle fish when the net is closed by the use
5 of a purse line through rings located along the top or bottom line or elsewhere on such net.
- 6 (q) "Seine" means a net set vertically in the water and pulled by hand or power to capture fish
7 by encirclement and confining fish within itself or against another net, the shore or bank
8 as a result of net design, construction, mesh length, webbing diameter, or method in which
9 it is used.
- 10 (4) "Fish habitat areas" means the estuarine and marine areas that support juvenile and adult populations
11 of fish species, as well as forage species utilized in the food chain. Fish habitats as used in this
12 definition, are vital for portions of the entire life cycle, including the early growth and development
13 of fish species. Fish habitats in all Coastal Fishing Waters, as determined through marine and
14 estuarine survey sampling, include:
- 15 (a) "Anadromous fish nursery areas" means those areas in the riverine and estuarine systems
16 utilized by post-larval and later juvenile anadromous fish.
- 17 (b) "Anadromous fish spawning areas" means those areas where evidence of spawning of
18 anadromous fish has been documented in Division sampling records through direct
19 observation of spawning, capture of running ripe females, or capture of eggs or early larvae.
- 20 (c) "Coral" means:
- 21 (i) fire corals and hydrocorals (Class Hydrozoa);
22 (ii) stony corals and black corals (Class Anthozoa, Subclass Scleractinia); or
23 (iii) Octocorals; Gorgonian corals (Class Anthozoa, Subclass Octocorallia), which
24 include sea fans (*Gorgonia* sp.), sea whips (*Leptogorgia* sp. and *Lophogorgia* sp.),
25 and sea pansies (*Renilla* sp.).
- 26 (d) "Intertidal oyster bed" means a formation, regardless of size or shape, formed of shell and
27 live oysters of varying density.
- 28 (e) "Live rock" means living marine organisms or an assemblage thereof attached to a hard
29 substrate, excluding mollusk shells, but including dead coral or rock. Living marine
30 organisms associated with hard bottoms, banks, reefs, and live rock include:
- 31 (i) Coralline algae (Division Rhodophyta);
32 (ii) *Acetabularia* sp., mermaid's fan and cups (*Udotea* sp.), watercress (*Halimeda* sp.),
33 green feather, green grape algae (*Caulerpa* sp.)(Division Chlorophyta);
34 (iii) *Sargassum* sp., *Dictyopteris* sp., *Zonaria* sp. (Division Phaeophyta);
35 (iv) sponges (Phylum Porifera);

- 1 (v) hard and soft corals, sea anemones (Phylum Cnidaria), including fire corals (Class
2 Hydrozoa), and Gorgonians, whip corals, sea pansies, anemones, Solengastrea
3 (Class Anthozoa);
- 4 (vi) Bryozoans (Phylum Bryozoa);
- 5 (vii) tube worms (Phylum Annelida), fan worms (Sabellidae), feather duster and
6 Christmas treeworms (Serpulidae), and sand castle worms (Sabellaridae);
- 7 (viii) mussel banks (Phylum Mollusca: Gastropoda); and
- 8 (ix) acorn barnacles (Arthropoda: Crustacea: Semibalanus sp.).
- 9 (f) "Nursery areas" means areas that for reasons such as food, cover, bottom type, salinity,
10 temperature, and other factors, young finfish and crustaceans spend the major portion of
11 their initial growing season. Primary nursery areas are those areas in the estuarine system
12 where initial post-larval development takes place. These are areas where populations are
13 uniformly early juveniles. Secondary nursery areas are those areas in the estuarine system
14 where later juvenile development takes place. Populations are composed of developing
15 sub-adults of similar size that have migrated from an upstream primary nursery area to the
16 secondary nursery area located in the middle portion of the estuarine system.
- 17 (g) "Shellfish producing habitats" means historic or existing areas that shellfish, such as clams,
18 oysters, scallops, mussels, and whelks use to reproduce and survive because of such
19 favorable conditions as bottom type, salinity, currents, cover, and cultch. Included are those
20 shellfish producing areas closed to shellfish harvest due to pollution.
- 21 (h) "Strategic Habitat Areas" means locations of individual fish habitats or systems of habitats
22 that provide exceptional habitat functions or that are particularly at risk due to imminent
23 threats, vulnerability, or rarity.
- 24 (i) "Submerged aquatic vegetation (SAV) habitat" means submerged lands that:
- 25 (i) are vegetated with one or more species of submerged aquatic vegetation including
26 bushy pondweed or southern naiad (*Najas guadalupensis*), coontail
27 (*Ceratophyllum demersum*), eelgrass (*Zostera marina*), horned pondweed
28 (*Zannichellia palustris*), naiads (*Najas* spp.), redhead grass (*Potamogeton*
29 *perfoliatus*), sago pondweed (*Stuckenia pectinata*, formerly *Potamogeton*
30 *pectinatus*), shoalgrass (*Halodule wrightii*), slender pondweed (*Potamogeton*
31 *pusillus*), water stargrass (*Heteranthera dubia*), water starwort (*Callitriche*
32 *heterophylla*), waterweeds (*Elodea* spp.), widgeongrass (*Ruppia maritima*), and
33 wild celery (*Vallisneria americana*). These areas may be identified by the presence
34 of above-ground leaves, below-ground rhizomes, or reproductive structures
35 associated with one or more SAV species and include the sediment within these
36 areas; or

(ii) have been vegetated by one or more of the species identified in Sub-item (4)(i)(i) of this Rule within the past 10 annual growing seasons and that meet the average physical requirements of water depth (six feet or less), average light availability (secchi depth of one foot or more), and limited wave exposure that characterize the environment suitable for growth of SAV. The past presence of SAV may be demonstrated by aerial photography, SAV survey, map, or other documentation. An extension of the past 10 annual growing seasons criteria may be considered when average environmental conditions are altered by drought, rainfall, or storm force winds.

This habitat occurs in both subtidal and intertidal zones and may occur in isolated patches or cover extensive areas. In defining SAV habitat, the Marine Fisheries Commission recognizes the Aquatic Weed Control Act of 1991 (G.S. 113A-220 et. seq.) and does not intend the submerged aquatic vegetation definition, or this Rule or 15A NCAC 03K .0304 and .0404, to apply to or conflict with the non-development control activities authorized by that Act.

(5) licenses, permits, leases and franchises, and record keeping:

- (a) "Assignment" means temporary transferal to another person of privileges under a license for which assignment is permitted. The person assigning the license delegates the privileges permitted under the license to be exercised by the assignee, but retains the power to revoke the assignment at any time, and is still the responsible party for the license.
- (b) "Designee" means any person who is under the direct control of the permittee or who is employed by or under contract to the permittee for the purposes authorized by the permit.
- (c) "For hire vessel", as defined by G.S. 113-174, means when the vessel is fishing in State waters or when the vessel originates from or returns to a North Carolina port.
- (d) "Franchise" means a franchise recognized pursuant to G.S. 113-206.
- (e) "Holder" means a person who has been lawfully issued in the person's name a license, permit, franchise, lease, or assignment.
- (f) "Land" means:
 - (i) for commercial fishing operations, when fish reach the shore or a structure connected to the shore.
 - (ii) for purposes of trip tickets, when fish reach a licensed seafood dealer, or where the fisherman is the dealer, when fish reach the shore or a structure connected to the shore.
 - (iii) for recreational fishing operations, when fish are retained in possession by the fisherman.

- 1 (g) "Licensee" means any person holding a valid license from the Department to take or deal
 2 in marine fisheries ~~resources~~resources, except as otherwise defined in 15A NCAC 03O
 3 .0109.
- 4 (h) "Logbook" means paper forms provided by the Division and electronic data files generated
 5 from software provided by the Division for the reporting of fisheries statistics by persons
 6 engaged in commercial or recreational fishing or for-hire operators.
- 7 (i) "Master" means captain or operator of a vessel or one who commands and has control,
 8 authority, or power over a vessel.
- 9 (j) "New fish dealer" means any fish dealer making application for a fish dealer license who
 10 did not possess a valid dealer license for the previous license year in that name. For
 11 purposes of license issuance, adding new categories to an existing fish dealers license does
 12 not constitute a new dealer.
- 13 (k) "Office of the Division" means physical locations of the Division conducting license and
 14 permit transactions in Wilmington, Morehead City, Washington, ~~Morehead City,~~ Roanoke
 15 ~~Island, and Elizabeth City, and Roanoke Island,~~ North Carolina. Other businesses or
 16 entities designated by the Secretary to issue Recreational Commercial Gear Licenses or
 17 Coastal Recreational Fishing Licenses are not considered Offices of the Division.
- 18 (l) "Responsible party" means the person who coordinates, supervises, or otherwise directs
 19 operations of a business entity, such as a corporate officer or executive level supervisor of
 20 business operations, and the person responsible for use of the issued license in compliance
 21 with applicable statutes and rules.
- 22 (m) "Tournament organizer" means the person who coordinates, supervises, or otherwise
 23 directs a recreational fishing tournament and is the holder of the Recreational Fishing
 24 Tournament License.
- 25 (n) "Transaction" means an act of doing business such that fish are sold, offered for sale,
 26 exchanged, bartered, distributed, or landed.
- 27 (o) "Transfer" means permanent transferal to another person of privileges under a license for
 28 which transfer is permitted. The person transferring the license retains no rights or interest
 29 under the license transferred.
- 30 (p) "Trip ticket" means paper forms provided by the Division and electronic data files
 31 generated from software provided by the Division for the reporting of fisheries statistics
 32 by licensed fish dealers.

34 *History Note: Authority G.S. 113-134; 113-174; 113-182; 143B-289.52;*
 35 *Eff. January 1, 1991;*
 36 *Amended Eff. March 1, 1995; March 1, 1994; October 1, 1993; July 1, 1993;*
 37 *Recodified from 15A NCAC 03I .0001 Eff. December 17, 1996;*

1 *Amended Eff. April 1, 1999; August 1, 1998; April 1, 1997;*
2 *Temporary Amendment Eff. May 1, 2000; August 1, 1999; July 1, 1999;*
3 *Amended Eff. August 1, 2000;*
4 *Temporary Amendment Eff. August 1, 2000;*
5 *Amended Eff. May 1, 2015; April 1, 2014; April 1, 2011; April 1, 2009; October 1, 2008; December*
6 *1, 2007; December 1, 2006; September 1, 2005; April 1, 2003; April 1, 2001;*
7 *Readopted Eff. June 1, ~~2022, 2022~~;*
8 *Amended Eff. (Pending legislative review of 15A NCAC 03O .0201).*

1 15A NCAC 03K .0101 is proposed for amendment as follows:

2
3 **SUBCHAPTER 03K - OYSTERS, CLAMS, SCALLOPS, AND MUSSELS**

4
5 **SECTION .0100 – SHELLFISH, GENERAL**

6
7 **15A NCAC 03K .0101 PROHIBITED ACTIVITIES IN POLLUTED SHELLFISH AREAS**

8 (a) It shall be unlawful to possess, sell, or take oysters, clams, or mussels from areas that have been designated as
9 polluted by proclamation by the Fisheries Director ~~except as provided in Rules .0103, .0104, .0107, and .0401 of this~~
10 ~~Subchapter.~~ except in accordance with:

- 11 (1) a Depuration Permit as set forth in Rule .0107 of this Section;
12 (2) an Aquaculture Seed Transplant Permit; or
13 (3) a Shellfish Relocation Permit. The Fisheries Director may, by proclamation, designate sites for
14 relocation where shellfish would otherwise be destroyed due to maintenance dredging, construction,
15 or other development activities.

16 Individuals shall obtain an Aquaculture Seed Transplant Permit from the Secretary, or a Depuration Permit or a
17 Shellfish Relocation Permit from the Fisheries Director setting forth the time, area, and method by which such shellfish
18 may be taken. The procedures and requirements for obtaining permits are found in 15A NCAC 03O .0500.

19 (b) The Fisheries Director shall issue shellfish polluted area proclamations if criteria for approved shellfish harvest
20 areas in accordance with 15A NCAC 18A .0900 have not been met. The Fisheries Director may reopen any such
21 closed area by proclamation if criteria for approved shellfish harvest areas in accordance with 15A NCAC 18A .0900
22 have been met. Copies of these proclamations and maps of these areas are available upon request at the Division of
23 Marine Fisheries, 3441 Arendell Street, P.O. Box 769, Morehead City, NC 28557; 800-682-2632 or 252- 726-7021.

24 ~~(b)(c)~~ (c) The Fisheries Director may, by proclamation, close areas to the taking of oysters, clams, scallops, and mussels
25 to protect the shellfish populations for management purposes or for protection of public health related to the public
26 health programs that fall under the authority of the Marine Fisheries Commission not specified in ~~Paragraph (a)~~
27 Paragraphs (a) or (b) of this Rule.

28 ~~(d)~~ (d) It shall be unlawful to possess or sell oysters, clams, or mussels taken from polluted waters outside North
29 Carolina, except as provided in 15A NCAC 03I .0104.

30
31 *History Note: Authority G.S. 113-134; 113-168.5; 113-169.2; 113-182; 113-203; 113-221.1; 113-221.2;*
32 *143B-289.52;*
33 *Eff. January 1, 1991;*
34 *Amended Eff. July 1, 1993;*
35 *Temporary Amendment Eff. July 1, 1999;*
36 *Amended Eff. August 1, 2000;*
37 *Temporary Amendment Eff. October 1, 2001;*

- 1 *Amended Eff. October 1, 2008; April 1, 2003;*
- 2 *Readopted Eff. March 15, ~~2023~~, 2023;*
- 3 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03K .0104 is proposed for repeal as follows:

2
3 **15A NCAC 03K .0104 PERMITS FOR RELAYING SHELLFISH FROM POLLUTED AREAS**

4 ~~(a) It shall be unlawful to take shellfish from polluted public waters or franchises for planting on shellfish leases and~~
5 ~~franchises except as authorized by G.S. 113-203. Shellfish lease and franchise holders shall first obtain a relay permit~~
6 ~~from the Fisheries Director setting forth the time, area, and method by which such shellfish may be taken. The~~
7 ~~procedures and requirements for obtaining permits are found in 15A NCAC 03O .0500.~~

8 ~~(b) The application for a relay permit shall be received by the Division of Marine Fisheries at least 15 days prior to~~
9 ~~the start of relaying activities.~~

10 ~~(c) All relaying activities, including removal, transport, and planting, shall be monitored and observed by the Division.~~

11 ~~(d) The season for relaying shellfish may occur within a specified six week period between the date of the statewide~~
12 ~~closure of oyster season and June 30, as determined by the Fisheries Director based on the following factors:~~

13 ~~(1) the status of shellfish resources available for harvest from public bottom;~~

14 ~~(2) surface water temperatures that are below 50° F (10° C), when shellfish relay shall not occur;~~

15 ~~(3) market factors affecting sale of shellfish from public bottom; and~~

16 ~~(4) availability of Division of Marine Fisheries staff to monitor and observe the shellfish relaying~~
17 ~~activity.~~

18 ~~(e) The Fisheries Director, shall close by proclamation any shellfish lease or franchise for which the owner has~~
19 ~~obtained a permit to relay shellfish from polluted public waters or franchises. The leases and franchises shall remain~~
20 ~~closed until the Fisheries Director issues a proclamation to reopen the leases and franchises to harvest. The reopening~~
21 ~~of the leases and franchises shall not occur any sooner than 21 days after the end of the relay season described in~~
22 ~~Paragraph (d) of this Rule.~~

23
24 *History Note: Authority G.S. 113-134; 113-182; 113-203; 113-221.1; 143B-289.52;*

25 *Eff. January 1, 1991;*

26 *Amended Eff. March 1, 1996; September 1, 1991;*

27 *Temporary Amendment Eff. October 1, 2001;*

28 *Amended Eff. April 1, 2003;*

29 *Readopted Eff. March 15, 2023, 2023;*

30 *Repealed Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03K .0301 is proposed for amendment as follows:

2
3 **SECTION .0300 - HARD CLAMS (MERCENARIA)**

4
5 **15A NCAC 03K .0301 SIZE AND HARVEST LIMITS OF CLAMS**

6 (a) It shall be unlawful to take, land, or possess aboard a vessel more than 6,250 hard clams per commercial fishing
7 operation from public bottom in internal waters. It shall be unlawful to take, possess, sell, or purchase any clams
8 (except Rangia or freshwater clams) less than one inch thick except in accordance with Rule .0305 of this Section.
9 Clams shall be culled where harvested and all clams of less than legal size with their shell, shall be immediately
10 returned to the bottom from which they were taken. In determining whether the size and harvest limits have been
11 exceeded, Marine Fisheries Inspectors shall be authorized and empowered to grade all, or any portion, or any
12 combination of portions of the entire quantity being graded, and in cases of violations, may seize and return to public
13 bottom or otherwise dispose of the clams as authorized by law the entire quantity being graded or any portion thereof.

14 (b) Size and harvest limits established in Paragraph (a) of this Rule and the season and area limitations established in
15 Rule .0302 of this Section may or may not apply for:

- 16 (1) harvest limits for temporary openings consistent with the requirements of 15A NCAC 18A .0900
17 and the North Carolina Hard Clam Fishery Management Plan; or
18 (2) maintenance dredging operations, when clams would otherwise be destroyed, upon approval by the
19 Division of Marine Fisheries and consistent with the North Carolina Hard Clam Fishery
20 Management ~~Plan; or Plan.~~
21 ~~(3) relaying of clams from polluted waters to private shellfish bottom as permitted by Rule .0104 of this~~
22 ~~Subchapter.~~

23
24 *History Note: Authority G.S. 113-134; 113-136; 113-137; 113-182; 113-221.2; 143B-289.52;*
25 *Eff. January 1, 1991;*
26 *Amended Eff. March 1, 1994;*
27 *Readopted Eff. March 15, ~~2023~~, 2023;*
28 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03K .0401 is proposed for repeal as follows:

2

3

SECTION .0400 - RANGIA CLAMS

4

15A NCAC 03K .0401 POLLUTED AREA PERMIT REQUIREMENTS

6 ~~It shall be unlawful to take Rangia clams or their shells by any method from polluted waters without first obtaining a~~

7 ~~Permit to Harvest Rangia Clams from Polluted Areas from the Fisheries Director. The permit application shall include~~

8 ~~a list of all designees operating under the permit. The permit shall designate the area, means and methods, and times~~

9 ~~in which Rangia clams may be taken. The permit applicant shall designate the licensed fish dealer where the Rangia~~

10 ~~clams are to be landed and the method for disposing of Rangia clam meats. The procedures and requirements for~~

11 ~~obtaining permits are found in 15A NCAC 03O .0500.~~

12

13 *History Note: Authority G.S. 113-134; 113-182; 113-201; 113-202; 143B-289.52;*

14 *Eff. January 1, 1991;*

15 *Amended Eff. August 1, 2004;*

16 *Readopted Eff. March 15, ~~2023-2023~~;*

17 *Repealed Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03K .0403 is proposed for repeal as follows:

2

3 **15A NCAC 03K .0403 DISPOSITION OF MEATS**

4 ~~It shall be unlawful to dispose of meats from Rangia clams taken from prohibited (polluted) waters by a method that~~
5 ~~will result in human consumption or create risk of human consumption.~~

6

7 *History Note: Authority G.S. 113-134; 113-182; 113-201; 113-202; 143B-298.52;*

8 *Eff. January 1, 1991;*

9 *Amended Eff. August 1, 2004;*

10 *Readopted Eff. April 1, ~~2019, 2019~~;*

11 *Repealed Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03K .0405 is proposed for repeal as follows:

2

3 **15A NCAC 03K .0405 OYSTERS, HARD CLAMS, OR MUSSELS PROHIBITED**

4 ~~It shall be unlawful to possess oysters, hard clams, or mussels while taking Rangia clams or their shells from a~~
5 ~~prohibited (polluted) area.~~

6

7 *History Note: Authority G.S. 113-134; 113-182; 113-201; 143B-289.52;*

8 *Eff. August 1, 2004;*

9 *Readopted Eff. April 1, ~~2019~~ 2019;*

10 *Repealed Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03O .0201 is proposed for amendment as follows:

2
3 **SECTION .0200 – SHELLFISH LEASES AND FRANCHISES**

4
5 **15A NCAC 03O .0201 STANDARDS AND REQUIREMENTS FOR SHELLFISH LEASES AND**
6 **FRANCHISES**

7 (a) For the purpose of this Section:

- 8 (1) "extensive shellfish culture" shall mean shellfish grown on the bottom without the use of cages,
9 racks, bags, or floats.
- 10 (2) "intensive shellfish culture" shall mean shellfish grown on the bottom or in the water column using
11 cages, racks, bags, or floats.
- 12 (3) "plant" shall mean providing evidence of purchasing shellfish seed or planting shellfish seed or
13 authorized cultch materials on a shellfish lease or franchise.
- 14 (4) "produce" shall mean the culture and harvest of oysters, clams, scallops, or mussels from a shellfish
15 lease or franchise and lawful sale of those shellfish to the public at large or to a licensed shellfish
16 dealer.

17 ~~(a)~~(b) All areas of the public bottom underlying Coastal Fishing Waters shall meet the following standards and
18 requirements, in addition to the standards in G.S. 113-202, in order to be deemed suitable for leasing for shellfish
19 aquaculture purposes:

- 20 (1) the proposed shellfish lease area shall not contain a "natural shellfish bed," as defined in G.S. 113-
21 201.1, or have 10 bushels or more of shellfish per acre;
- 22 (2) the proposed shellfish lease area shall not be closer than 250 feet from a developed shoreline or a
23 water-dependent shore-based structure, except no minimum setback is required when the area to be
24 leased borders the applicant's property, the property of "riparian owners" as defined in G.S. 113-
25 201.1 who have consented in a notarized statement, or is in an area bordered by undeveloped
26 shoreline. For the ~~purposes~~ purpose of this Rule, a water-dependent shore-based structure shall
27 include docks, wharves, boat ramps, bridges, bulkheads, and groins;
- 28 (3) the proposed shellfish lease area shall not be closer than 250 feet to an existing lease;
- 29 (4) the proposed shellfish lease area, either alone or when considered cumulatively with other existing
30 ~~leases in the area,~~ lease areas in the vicinity, shall not interfere with navigation or with existing,
31 traditional uses of the area; and
- 32 (5) the proposed shellfish lease area shall not be less than one-half acre and shall not exceed 10 acres.

33 ~~(b)~~(c) To be suitable for leasing for shellfish aquaculture purposes, shellfish water column leases superjacent to a
34 shellfish bottom lease shall meet the standards in G.S. 113-202.1 and shellfish water column leases superjacent to
35 franchises ~~recognized pursuant to G.S. 113-206~~ shall meet the standards in G.S. 113-202.2.

1 ~~(e)(d)~~ ~~Franchises recognized pursuant to G.S. 113-206 and shellfish bottom leases~~ Shellfish bottom leases and
 2 franchises granted on or before July 1, 2019 shall be terminated unless they meet the following requirements, in
 3 addition to the standards in and as allowed by G.S. 113-202:

- 4 (1) they produce ~~and market~~ 10 bushels of shellfish per acre per year; and
- 5 (2) they are planted with 25 bushels of seed shellfish per acre per year or 50 bushels of cultch per acre
 6 per year, or a combination of cultch and seed shellfish where the percentage of required cultch
 7 planted and the percentage of required seed shellfish planted totals at least 100 percent.

8 ~~(d)(e)~~ Shellfish water column leases granted on or before July 1, 2019 shall be terminated unless they meet the
 9 following requirements, in addition to the standards in and as allowed by G.S. 113-202.1 and G.S. 113-202.2:

- 10 (1) they produce ~~and market~~ 40 bushels of shellfish per acre per year; or
- 11 (2) the underlying bottom is planted with 100 bushels of cultch or seed shellfish per acre per year.

12 (f) Shellfish bottom leases and franchises granted after July 1, 2019 shall be terminated unless they meet the following
 13 requirements, in addition to the standards in and as allowed by G.S. 113-202:

- 14 (1) they produce a minimum of 20 bushels of shellfish per acre averaged over the previous three-year
 15 period beginning in year five of the shellfish bottom lease or franchise; or
- 16 (2) for intensive culture bottom operations, the holder of the shellfish bottom lease or franchise provides
 17 evidence of purchasing a minimum of 23,000 shellfish seed per acre annually and for extensive
 18 culture bottom operations, the holder of the lease or franchise plants a minimum of 15,000 shellfish
 19 seed per acre per year.

20 (g) Shellfish water column leases granted after July 1, 2019 shall be terminated unless they meet the following
 21 requirements, in addition to the standards in and as allowed by G.S. 113-202.1 and 113-202.2:

- 22 (1) they produce a minimum of 50 bushels of shellfish per acre averaged over the previous three-year
 23 period beginning in year five of the shellfish water column lease; or
- 24 (2) the holder of the shellfish water column lease provides evidence of purchasing a minimum of 23,000
 25 shellfish seed per acre annually.

26 ~~(e)(h)~~ The following standards shall be applied to determine compliance with Paragraphs ~~(e) and (d)~~ (d), (e), (f), and
 27 (g) of this Rule:

- 28 (1) ~~Only~~ only shellfish ~~marketed, planted, planted~~ or produced as defined in ~~15A NCAC 031.0101~~ as
 29 the fishing activities "~~shellfish marketing from leases and franchises,~~" "~~shellfish planting effort on~~
 30 ~~leases and franchises,~~" or "~~shellfish production on leases and franchises~~" Paragraph (a) of this Rule
 31 shall be included in the annual shellfish lease and franchise production reports required by Rule
 32 .0207 of this Section.
- 33 (2) ~~If~~ if more than one shellfish lease or franchise is used in the production of shellfish, one of the leases
 34 or franchises used in the production of the shellfish shall be designated as the producing lease or
 35 franchise for those shellfish. Each bushel of shellfish shall be produced by only one shellfish lease
 36 or franchise. Shellfish transplanted between shellfish leases or franchises shall be credited as
 37 planting effort on only one lease or franchise.

(3) ~~Production and marketing production~~ information and planting effort information shall be compiled and averaged separately to assess compliance with the requirements of this Rule. ~~The shellfish lease or franchise~~ Shellfish bottom leases and franchises granted on or before July 1, 2019 shall meet both the production requirement and the planting effort requirement within the dates set forth in G.S. 113-202.1 and G.S. 113-202.2 to be deemed in ~~compliance for shellfish bottom leases. The shellfish lease or franchise~~ compliance. Shellfish bottom leases and franchises granted after July 1, 2019 and shellfish water column leases shall meet either the production requirement or the planting effort requirement within the dates set forth in G.S. 113-202.1 and G.S. 113-202.2 to be deemed in ~~compliance for shellfish water column leases.~~ compliance.

(4) ~~All~~ all bushel measurements shall be in standard U.S. bushels.

(5) ~~In~~ in determining production and marketing averages and planting effort averages for information not reported in bushel measurements, the following conversion factors shall be used:

(A) 300 oysters, 400 clams, or 400 scallops equal one bushel; and

(B) 40 pounds of scallop shell, 60 pounds of oyster shell, 75 pounds of clam shell, or 90 pounds of fossil stone equal one bushel.

(6) ~~Production and marketing production~~ rate averages shall be computed irrespective of transfer of the shellfish lease or franchise. The production ~~and marketing~~ rates shall be averaged for the following situations using the time periods described:

(A) for an initial shellfish bottom lease or franchise, over the consecutive full calendar years remaining on the bottom lease or franchise contract after December 31 following the second anniversary of the initial bottom lease or franchise;

(B) for a renewal shellfish bottom lease or franchise, over the consecutive full calendar years beginning January 1 of the final year of the previous bottom lease or franchise term and ending December 31 of the final year of the current bottom lease or franchise contract;

(C) for a shellfish water column lease, over the first five-year period for an initial water column lease and over the most recent five-year period thereafter for a renewal water column lease; or

(D) for a shellfish bottom lease or franchise issued an extension period under Rule .0208 of this Section, over the most recent five-year period.

(7) ~~In~~ in the event that a portion of an existing shellfish lease or franchise is obtained by a new lease or franchise holder, the production history for the portion obtained shall be a percentage of the originating lease or franchise production equal to the percentage of the area of lease or franchise site obtained to the area of the originating lease or franchise.

~~(f)(i) Persons~~ To be eligible for additional shellfish lease acreage, persons holding five or more any acres under all a shellfish bottom leases and franchises combined lease or franchise shall meet the requirements established in Paragraph (e) of this Rule before submitting an application for additional shellfish lease acreage to the Division of Marine Fisheries in:

1 (1) Paragraphs (d), (e), (f), and (g) of this Rule;

2 (2) Rule .0204 of this Section; and

3 (3) Rule .0503(a) of this Subchapter.

4

5 *History Note: Authority G.S. 113-134; 113-182; 113-201; 113-202; 113-202.1; 113-202.2; 113-206;*
6 *143B-289.52; S.L. 2019-37, s. 3;*

7 *Eff. January 1, 1991;*

8 *Amended Eff. May 1, 1997; March 1, 1995; March 1, 1994; September 1, 1991;*

9 *Temporary Amendment Eff. October 1, 2001;*

10 *Amended Eff. May 1, 2017; October 1, 2008; April 1, 2003;*

11 *Readopted Eff. August 23, ~~2022~~, 2022;*

12 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-37).*

1 15A NCAC 03O .0501 is proposed for amendment as follows:

2
3 **SECTION .0500 - PERMITS**

4
5 **15A NCAC 03O .0501 PROCEDURES AND REQUIREMENTS TO OBTAIN PERMITS**

6 (a) To obtain a Division of Marine Fisheries permit, an applicant, responsible party, or person holding a power of
7 attorney shall provide the following information:

- 8 (1) the full name, physical address, mailing address, date of birth, and signature of the applicant on the
9 application and, if the applicant is not appearing before a license agent or the designated Division
10 of Marine Fisheries contact, the applicant's signature on the application shall be notarized;
- 11 (2) a current picture identification of the applicant, responsible party, or person holding a power of
12 attorney, acceptable forms of which shall include driver's license, North Carolina Identification card
13 issued by the North Carolina Division of Motor Vehicles, military identification card, resident alien
14 card (green card), or passport or, if applying by mail, a copy thereof;
- 15 (3) for permits that require a list of designees, the full names and dates of birth of the designees of the
16 applicant who will be acting pursuant to the requested permit;
- 17 (4) certification that the applicant and his or her designees do not have four or more marine or estuarine
18 resource convictions during the previous three years;
- 19 (5) for permit applications from business entities:
- 20 (A) the business name;
- 21 (B) the type of business entity: corporation, "educational institution" as defined in 15A NCAC
22 03I .0101, limited liability company (LLC), partnership, or sole proprietorship;
- 23 (C) the name, address, and phone number of responsible party and other identifying
24 information required by this Subchapter or rules related to a specific permit;
- 25 (D) for a corporation applying for a permit in a corporate name, the current articles of
26 incorporation and a current list of corporate officers;
- 27 (E) for a partnership that is established by a written partnership agreement, a current copy of
28 such agreement shall be provided when applying for a permit; and
- 29 (F) for business entities other than corporations, copies of current assumed name statements if
30 filed with the Register of Deeds office for the corresponding county and copies of current
31 business privilege tax certificates, if applicable; and
- 32 (6) additional information as required for specific permits.

33 (b) A permittee shall hold a valid:

- 34 (1) Standard or Retired Standard Commercial Fishing License in order to hold:
- 35 (A) an Atlantic Ocean Striped Bass Commercial Gear Permit;
- 36 (B) a Permit for Weekend Trawling for Live Shrimp; or
- 37 (C) a Pound Net Set Permit.

1 The master designated on the single vessel corporation Standard Commercial Fishing License is the
2 individual required to hold the Permit for Weekend Trawling for Live Shrimp.

- 3 (2) Fish Dealer License in the proper category in order to hold dealer permits for monitoring fisheries
4 under a quota or allocation for that category.

5 (c) An individual who is assigned a valid Standard Commercial Fishing License with applicable endorsements shall
6 be eligible to hold any permit that requires a Standard Commercial Fishing License except a Pound Net Set Permit.

7 (d) If mechanical methods to take shellfish are used, a permittee and his designees shall hold a valid Standard or
8 Retired Standard Commercial Fishing License with a Shellfish Endorsement in order for a permittee to hold a:

- 9 (1) Depuration Permit;
10 ~~(2) Permit to Harvest Rangia Clams from Prohibited (Polluted) Areas;~~
11 ~~(3)(2) Permit to Transplant Oysters from Seed Oyster Management Areas; or~~
12 ~~(4) Permit to Transplant Prohibited (Polluted) Shellfish; or~~
13 ~~(5)(3) Permit to Use Mechanical Methods for Shellfish on Shellfish Leases or Franchises, except as~~
14 provided in G.S. 113-169.2.

15 (e) If mechanical methods to take shellfish are not used, a permittee and his designees shall hold a valid Standard or
16 Retired Standard Commercial Fishing License with a Shellfish Endorsement or a Shellfish License in order for a
17 permittee to hold a:

- 18 (1) Depuration Permit; or
19 ~~(2) Permit to Harvest Rangia Clams from Prohibited (Polluted) Areas;~~
20 ~~(3)(2) Permit to Transplant Oysters from Seed Oyster Management Areas; or Areas.~~
21 ~~(4) Permit to Transplant Prohibited (Polluted) Shellfish.~~

22 (f) Aquaculture Operation Permit and Aquaculture Collection Permit:

- 23 (1) A permittee shall hold a valid Aquaculture Operation Permit issued by the Fisheries Director to hold
24 an Aquaculture Collection Permit.
25 (2) The permittee or designees shall hold appropriate licenses from the Division of Marine Fisheries for
26 the species harvested and the gear used under the Aquaculture Collection Permit.

27 (g) Atlantic Ocean Striped Bass Commercial Gear Permit:

- 28 (1) An applicant for an Atlantic Ocean Striped Bass Commercial Gear Permit shall declare one of the
29 following types of gear for an initial permit and at intervals of three consecutive license years
30 thereafter:
31 (A) a gill net;
32 (B) a trawl net; or
33 (C) a beach seine.

34 For the purpose of this Rule, a "beach seine" shall mean a swipe net constructed of multi-filament
35 or multi-fiber webbing fished from the ocean beach that is deployed from a vessel launched from
36 the ocean beach where the fishing operation takes place. Gear declarations shall be binding on the
37 permittee for three consecutive license years without regard to subsequent annual permit issuance.

1 (2) A person is not eligible for more than one Atlantic Ocean Striped Bass Commercial Gear Permit
2 regardless of the number of Standard Commercial Fishing Licenses, Retired Standard Commercial
3 Fishing Licenses, or assignments held by that person.

4 (h) Applications submitted without complete and required information shall not be processed until all required
5 information has been submitted. Incomplete applications shall be returned to the applicant with the deficiency in the
6 application noted.

7 (i) A permit shall be issued only after the application is deemed complete and the applicant certifies his or her
8 agreement to abide by the permit general and specific conditions established under 15A NCAC 03J ~~.0501, .0505, 03K~~
9 ~~.0103, .0104, .0107, .0111, .0401, .0501 and .0505, 03K .0103 and .0107, Rule .0211 of this Subchapter, and Rules~~
10 ~~.0502 and .0503 of this Section, as applicable to the requested permit.~~

11 (j) In determining whether to issue, modify, or renew a permit, the Fisheries Director or his or her agent shall evaluate
12 factors such as the following:

13 (1) potential threats to public health or marine and estuarine resources regulated by the Marine Fisheries
14 Commission;

15 (2) the applicant's demonstration of a valid justification for the permit; and

16 (3) whether the applicant has a history of eight or more fisheries violations within 10 years.

17 (k) The Division of Marine Fisheries shall notify the applicant in writing of the denial or modification of any permit
18 request and the reasons therefor. The applicant may submit further information or reasons why the permit should not
19 be denied or modified.

20 (l) Permits are valid from the date of issuance through the expiration date printed on the permit. Unless otherwise
21 established by rule, the Fisheries Director may establish the issuance timeframe for specific types and categories of
22 permits based on season, calendar year, or other period based upon the nature of the activity permitted, the duration
23 of the activity, compliance with federal or State fishery management plans or implementing rules, conflicts with other
24 fisheries or gear usage, or seasons for the species involved. The expiration date shall be specified on the permit.

25 (m) For permit renewals, the permittee's signature on the application shall certify all information is true and accurate.
26 Notarized signatures on renewal applications shall not be required.

27 (n) It shall be unlawful for a permit holder to fail to notify the Division of Marine Fisheries within 30 days of a change
28 of name or address, in accordance with G.S. 113-169.2.

29 (o) It shall be unlawful for a permit holder to fail to notify the Division of Marine Fisheries of a change of designee
30 prior to use of the permit by that designee.

31 (p) Permit applications shall be available at all Division of Marine Fisheries offices.

32
33 *History Note:* Authority G.S. 113-134; 113-169.1; 113-169.2; 113-169.3; 113-182; 113-210; 143B-289.52;

34 *Temporary Adoption Eff. September 1, 2000; May 1, 2000;*

35 *Eff. April 1, 2001;*

36 *Temporary Amendment Eff. October 1, 2001;*

1 *Amended Eff. May 1, 2017; May 1, 2015; April 1, 2011; April 1, 2009; July 1, 2008; December 1,*
2 *2007; September 1, 2005; April 1, 2003; August 1, 2002;*
3 *Readopted Eff. April 1, ~~2019~~, 2019;*
4 *Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).*

1 15A NCAC 03O .0503 is proposed for amendment as follows:

2

3 **15A NCAC 03O .0503 PERMIT CONDITIONS; SPECIFIC**

4 (a) Aquaculture Operation Permit and Aquaculture Collection Permit:

5 (1) It shall be unlawful to conduct aquaculture operations using marine and estuarine resources without
6 first securing an Aquaculture Operation Permit from the Fisheries Director.

7 (2) It shall be unlawful:

8 (A) to take marine and estuarine resources from Coastal Fishing Waters for aquaculture
9 purposes without first obtaining an Aquaculture Collection Permit from the Fisheries
10 Director;

11 (B) to sell or use for any purpose not related to North Carolina aquaculture marine and estuarine
12 resources taken pursuant to an Aquaculture Collection Permit; or

13 (C) to fail to submit to the Fisheries Director an annual report, due on December 1 of each year
14 on the form provided by the Division of Marine Fisheries, stating the amount and
15 disposition of marine and estuarine resources collected under authority of an Aquaculture
16 Collection Permit.

17 ~~(3) Lawfully permitted shellfish relaying activities authorized by 15A NCAC 03K .0103 and .0104 shall
18 be exempt from requirements to have an Aquaculture Operation Permit or Aquaculture Collection
19 Permit issued by the Fisheries Director.~~

20 ~~(4)~~(3) Aquaculture Operation Permits and Aquaculture Collection Permits shall be issued or renewed on
21 a calendar year basis.

22 ~~(5)~~(4) It shall be unlawful to fail to provide the Division with a listing of all designees acting pursuant to
23 an Aquaculture Collection Permit at the time of application.

24 (b) Atlantic Ocean Striped Bass Commercial Gear Permit:

25 (1) It shall be unlawful to take striped bass from the Atlantic Ocean in a commercial fishing operation
26 without first obtaining an Atlantic Ocean Striped Bass Commercial Gear Permit.

27 (2) It shall be unlawful to obtain more than one Atlantic Ocean Striped Bass Commercial Gear Permit
28 during a license year, regardless of the number of Standard Commercial Fishing licenses, Retired
29 Standard Commercial Fishing licenses, or assignments.

30 (c) Blue Crab Shedding Permit: It shall be unlawful to possess more than 50 blue crabs in a shedding operation
31 without first obtaining a Blue Crab Shedding Permit from the Division of Marine Fisheries.

32 (d) Coastal Recreational Fishing License Exemption Permit:

33 (1) It shall be unlawful for the responsible party seeking exemption from recreational fishing license
34 requirements for eligible individuals to conduct an organized fishing event held in Joint or Coastal
35 Fishing Waters without first obtaining a Coastal Recreational Fishing License Exemption Permit.

1 (2) The Coastal Recreational Fishing License Exemption Permit shall only be issued for recreational
2 fishing activity conducted solely for the participation and benefit of one of the following groups of
3 eligible individuals:

- 4 (A) individuals with physical or mental impairment;
- 5 (B) members of the United States Armed Forces and their dependents, upon presentation of a
6 valid military identification card;
- 7 (C) individuals receiving instruction on recreational fishing techniques and conservation
8 practices from employees of state or federal marine or estuarine resource management
9 agencies or instructors affiliated with educational institutions; and
- 10 (D) disadvantaged youths as set forth in 42 U.S. Code 12511.

11 For the purpose of this Paragraph, educational institutions include high schools and other secondary
12 educational institutions.

13 (3) The Coastal Recreational Fishing License Exemption Permit shall be valid for the date, time, and
14 physical location of the organized fishing event for which the exemption is granted and the duration
15 of the permit shall not exceed one year from the date of issuance.

16 (4) The Coastal Recreational Fishing License Exemption Permit shall only be issued if all of the
17 following, in addition to the information required in Rule .0501 of this Section, is submitted to the
18 Fisheries Director, in writing, at least 30 days prior to the event:

- 19 (A) the name, date, time, and physical location of the event;
- 20 (B) documentation that substantiates local, state, or federal involvement in the organized
21 fishing event, if applicable;
- 22 (C) the cost or requirements, if any, for an individual to participate in the event; and
- 23 (D) an estimate of the number of participants.

24 (e) Dealer permits for monitoring fisheries under a quota or allocation:

25 (1) During the commercial season opened by proclamation or rule for the fishery for which a dealer
26 permit for monitoring fisheries under a quota or allocation shall be issued, it shall be unlawful for a
27 fish dealer issued such permit to fail to:

- 28 (A) fax or send via electronic mail by noon daily, on forms provided by the Division of Marine
29 Fisheries, the previous day's landings for the permitted fishery to the Division. Landings
30 for Fridays or Saturdays shall be submitted on the following Monday. If the dealer is unable
31 to fax or electronically mail the required information, the permittee shall call in the
32 previous day's landings to the Division;
- 33 (B) submit the required form set forth in Part (e)(1)(A) of this Rule to the Division upon request
34 or no later than five days after the close of the season for the fishery permitted;
- 35 (C) maintain faxes and other related documentation in accordance with 15A NCAC 03I .0114;
- 36 (D) contact the Division daily, regardless of whether a transaction for the fishery for which a
37 dealer is permitted occurred; and

- 1 (E) record the permanent dealer identification number on the bill of lading or receipt for each
2 transaction or shipment from the permitted fishery.
- 3 (2) Atlantic Ocean Flounder Dealer Permit:
- 4 (A) It shall be unlawful for a fish dealer to allow vessels holding a valid License to Land
5 Flounder from the Atlantic Ocean to land more than 100 pounds of flounder from a single
6 transaction at their licensed location during the open season without first obtaining an
7 Atlantic Ocean Flounder Dealer Permit. The licensed location shall be specified on the
8 Atlantic Ocean Flounder Dealer Permit and only one location per permit shall be allowed.
- 9 (B) It shall be unlawful for a fish dealer to possess, buy, sell, or offer for sale more than 100
10 pounds of flounder from a single transaction from the Atlantic Ocean without first
11 obtaining an Atlantic Ocean Flounder Dealer Permit.
- 12 (3) Black Sea Bass North of Cape Hatteras Dealer Permit: It shall be unlawful for a fish dealer to
13 purchase or possess more than 100 pounds of black sea bass taken from the Atlantic Ocean north of
14 Cape Hatteras (35° 15.0321' N) per day per commercial fishing operation during the open season
15 unless the dealer has a Black Sea Bass North of Cape Hatteras Dealer Permit.
- 16 (4) Spiny Dogfish Dealer Permit: It shall be unlawful for a fish dealer to purchase or possess more than
17 100 pounds of spiny dogfish per day per commercial fishing operation unless the dealer has a Spiny
18 Dogfish Dealer Permit.
- 19 (5) Striped Bass Dealer Permit:
- 20 (A) It shall be unlawful for a fish dealer to possess, buy, sell, or offer for sale striped bass taken
21 from the following areas without first obtaining a Striped Bass Dealer Permit validated for
22 the applicable harvest area:
- 23 (i) the Atlantic Ocean;
- 24 (ii) the Albemarle Sound Management Area as designated in 15A NCAC 03R .0201;
- 25 or
- 26 (iii) the Joint and Coastal Fishing Waters of the Central/Southern Management Area
27 as designated in 15A NCAC 03R .0201.
- 28 (B) No permittee shall possess, buy, sell, or offer for sale striped bass taken from the harvest
29 areas opened by proclamation without having a valid Division of Marine Fisheries-issued
30 tag for the applicable area affixed through the mouth and gill cover or, in the case of striped
31 bass imported from other states, a similar tag that is issued for striped bass in the state of
32 origin. Division striped bass tags shall not be bought, sold, offered for sale, or transferred.
33 Tags shall be obtained at the Division offices. The Division shall specify the quantity of
34 tags to be issued based on historical striped bass landings. It shall be unlawful for the
35 permittee to fail to surrender unused tags to the Division upon request.
- 36 (f) Horseshoe Crab Biomedical Use Permit:
- 37 (1) It shall be unlawful to use horseshoe crabs for biomedical purposes without first obtaining a permit.

1 (2) It shall be unlawful for persons who have been issued a Horseshoe Crab Biomedical Use Permit to
2 fail to submit an annual report on the use of horseshoe crabs to the Division of Marine Fisheries,
3 due on February 1 of each year. Such reports shall be filed on forms provided by the Division and
4 shall include a monthly account of the number of crabs harvested, a statement of percent mortality
5 up to the point of release, the harvest method, the number or percent of males and females, and the
6 disposition of bled crabs prior to release.

7 (3) It shall be unlawful for persons who have been issued a Horseshoe Crab Biomedical Use Permit to
8 fail to comply with the Atlantic States Marine Fisheries Commission Interstate Fishery Management
9 Plan for Horseshoe Crab. The Atlantic States Marine Fisheries Commission Interstate Fishery
10 Management Plan for Horseshoe Crab is incorporated by reference including subsequent
11 amendments and editions. Copies of this plan are available via the Internet from the Atlantic States
12 Marine Fisheries Commission at <http://www.asmfmc.org/fisheries-management/program-overview>
13 and at the Division of Marine Fisheries, 3441 Arendell Street, P.O. Box 769, Morehead City, NC
14 28557, at no cost.

15 (g) Permit for Weekend Trawling for Live Shrimp:

16 (1) It shall be unlawful to take shrimp with trawls from 9:00 p.m. on Friday through 12 noon on Saturday
17 without first obtaining a Permit for Weekend Trawling for Live Shrimp.

18 (2) It shall be unlawful for a holder of a Permit for Weekend Trawling for Live Shrimp to use trawls
19 from 12:01 p.m. on Saturday through 4:59 p.m. on Sunday.

20 (3) It shall be unlawful for a permit holder during the timeframe specified in Subparagraph ~~(k)(1)~~(g)(1)
21 of this Rule to:

22 (A) use trawl nets to take live shrimp except from areas open to the harvest of shrimp with
23 trawls;

24 (B) take shrimp with trawls that have a combined headrope length of greater than 40 feet in
25 Internal Coastal Waters;

26 (C) possess more than one gallon of dead shrimp (heads on) per trip;

27 (D) fail to have a functioning live bait tank or a combination of multiple functioning live bait
28 tanks, with aerators or circulating water, with a minimum combined tank capacity of 50
29 gallons; or

30 (E) fail to call the Division of Marine Fisheries Communications Center at 800-682-2632 or
31 252-726-7021 prior to each weekend use of the permit, specifying activities and location.

32 (h) Pound Net Set Permit: The holder of a Pound Net Set Permit shall follow the Pound Net Set Permit conditions as
33 set forth in 15A NCAC 03J .0505.

34 (i) Scientific or Educational Activity Permit:

35 (1) It shall be unlawful for institutions or agencies seeking exemptions from license, rule, proclamation,
36 or statutory requirements to collect, hold, culture, or exhibit for scientific or educational purposes
37 any marine or estuarine species without first obtaining a Scientific or Educational Activity Permit.

- 1 (2) The Scientific or Educational Activity Permit shall only be issued for collection methods and
2 possession allowances approved by the Division of Marine Fisheries.
- 3 (3) The Scientific or Educational Activity Permit shall only be issued for approved activities conducted
4 by or under the direction of Scientific or Educational institutions as defined in 15A NCAC 03I .0101.
- 5 (4) It shall be unlawful for the responsible party issued a Scientific or Educational Activity Permit to
6 fail to submit an annual report on collections and, if authorized, sales to the Division, due on
7 December 1 of each year, unless otherwise specified on the permit. The reports shall be filed on
8 forms provided by the Division. Scientific or Educational Activity permits shall be issued on a
9 calendar year basis.
- 10 (5) It shall be unlawful to sell marine or estuarine species taken under a Scientific or Educational
11 Activity Permit without:
- 12 (A) the required license for such sale;
- 13 (B) an authorization stated on the permit for such sale; and
- 14 (C) providing the information required by 15A NCAC 03I .0114 if the sale is to a licensed fish
15 dealer.
- 16 (6) It shall be unlawful to fail to provide the Division with a list of all designees acting under a Scientific
17 or Educational Activity Permit at the time of application.
- 18 (7) The permittee or designees utilizing the permit shall call the Division of Marine Fisheries
19 Communications Center at 800-682-2632 or 252-726-7021 not later than 24 hours prior to use of
20 the permit, specifying activities and location.
- 21 (j) Under Dock Oyster Culture Permit:
- 22 (1) It shall be unlawful to cultivate oysters in containers under docks for personal consumption without
23 first obtaining an Under Dock Oyster Culture Permit.
- 24 (2) An Under Dock Oyster Culture Permit shall be issued only in accordance with provisions set forth
25 in G.S. 113-210(c).
- 26 (3) The applicant shall complete and submit an examination, with a minimum of 70 percent correct
27 answers, based on an educational package provided by the Division of Marine Fisheries pursuant to
28 G.S. 113-210(j), demonstrating the applicant's knowledge of:
- 29 (A) the application process;
- 30 (B) permit criteria;
- 31 (C) basic oyster biology and culture techniques;
- 32 (D) shellfish harvest area closures due to pollution;
- 33 (E) safe handling practices;
- 34 (F) permit conditions; and
- 35 (G) permit revocation criteria.
- 36 (4) Action by an Under Dock Oyster Culture Permit holder to encroach on or usurp the legal rights of
37 the public to access public trust resources in Coastal Fishing Waters shall result in permit revocation.

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History Note: Authority G.S. 113-134; 113-169.1; 113-169.2; 113-169.3; 113-182; 113-210; 143B-289.52;
Temporary Adoption Eff. September 1, 2000; August 1, 2000; May 1, 2000;
Eff. April 1, 2001;
Amended Eff. May 1, 2017; May 1, 2015; April 1, 2014; April 1, 2009; July 1, 2008; January 1,
2008; September 1, 2005; October 1, 2004; August 1, 2004; August 1, 2002;
Readopted Eff. April 1, ~~2019~~2019;
Amended Eff. (Pending legislative review pursuant to S.L. 2019-198).

1 15A NCAC 18A .0901 is proposed for amendment as follows:
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3 **SECTION .0900 - CLASSIFICATION OF SHELLFISH GROWING WATERS**
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5 **15A NCAC 18A .0901 DEFINITIONS**

6 The following definitions shall apply to this Section.

- 7 (1) "Approved" means shellfish growing waters determined suitable by the Division for the harvesting
8 of shellfish for direct market purposes.
- 9 (2) "Closed-system marina" means a marina constructed in canals, basins, tributaries, or any other area
10 with restricted tidal flow.
- 11 (3) "Colony forming unit" means an estimate of the number of viable bacteria cells in a sample as
12 determined by a plate count.
- 13 (4) "Commercial marina" means a marina that offers one or more of the following services: fuel,
14 transient dockage, haul-out facilities, or repair services.
- 15 (5) "Conditionally approved" means shellfish growing waters that are subject to predictable intermittent
16 pollution but that may be used for harvesting shellfish for direct market purposes when management
17 plan criteria are met.
- 18 (6) "Division" means the Division of Marine Fisheries or its authorized agent.
- 19 (7) "Estimated 90th percentile" means a statistic that measures the variability in a sample set that shall
20 be calculated by:
21 (a) calculating the arithmetic mean and standard deviation of the sample result logarithms
22 (base 10);
23 (b) multiplying the standard deviation in Sub-Item (a) of this Item by 1.28;
24 (c) adding the product from Sub-Item (b) of this Item to the arithmetic mean; and
25 (d) taking the antilog (base 10) of the results from Sub-Item (c) of this Item to determine the
26 estimated 90th percentile.
- 27 (8) "Fecal coliform" means bacteria of the coliform group that will produce gas from lactose in a
28 multiple tube procedure liquid medium (EC or A-1) within 24 plus or minus two hours at 44.5° C
29 plus or minus 0.2° C in a water bath.
- 30 (9) "Geometric mean" means the antilog (base 10) of the arithmetic mean of the sample result logarithm.
- 31 (10) "Marina" means any water area with a structure (such as a dock, basin, floating dock) that is utilized
32 for docking or otherwise mooring vessels and constructed to provide temporary or permanent
33 docking space for more than 10 boats.
- 34 (11) "Marine biotoxins" means any poisonous compound produced by marine microorganisms and
35 accumulated by shellstock.
- 36 (12) "Median" means the middle number in a given sequence of numbers, taken as the average of the
37 two middle numbers when the sequence has an even number of numbers.

- 1 (13) "Most probable number (MPN)" means a statistical estimate of the number of bacteria per unit
2 volume and is determined from the number of positive results in a series of fermentation tubes.
- 3 (14) "National Shellfish Sanitation Program (NSSP)" means the cooperative federal-state-industry
4 program for the sanitary control of shellfish that is adequate to ensure that the shellfish produced in
5 accordance with the NSSP Guide For The Control Of Molluscan Shellfish will be safe and sanitary.
- 6 (15) "Open-system marina" means a marina constructed in an area where tidal currents have not been
7 impeded by natural or man-made barriers.
- 8 (16) "Private marina" means any marina that is not a commercial marina as defined in this Rule.
- 9 (17) "Prohibited" means shellfish growing waters unsuitable for the harvesting of shellfish for direct
10 market purposes.
- 11 (18) "Public health emergency" means any condition that may immediately cause shellfish waters to be
12 unsafe for the harvest of shellfish for human consumption.
- 13 (19) "Restricted" means shellfish growing waters from which shellfish may be harvested only by permit
14 and are subjected to a treatment process through ~~relaying or~~ depuration that renders the shellfish
15 safe for human consumption.
- 16 (20) "Sanitary survey" means the written evaluation of factors that affect the sanitary quality of a shellfish
17 growing area including sources of pollution, the effects of wind, tides, and currents in the
18 distribution and dilution of polluting materials, and the bacteriological quality of water.
- 19 (21) "Shellfish" means the term as defined in G.S. 113-129, except the term shall not include scallops
20 when the final product is the shucked adductor muscle only.
- 21 (22) "Shellfish growing area" means a management unit that defines the boundaries of a sanitary survey
22 and that is used to track the location where shellfish are harvested.
- 23 (23) "Shellfish growing waters" means marine or estuarine waters that support or could support shellfish
24 life.
- 25 (24) "Shellstock" means live molluscan shellfish in the shell.
- 26 (25) "Shoreline survey" means an in-field inspection by the Division to identify and evaluate any
27 potential or actual pollution sources or other environmental factors that may impact the sanitary
28 quality of a shellfish growing area.
- 29 (26) "Systematic random sampling strategy" means a sampling strategy designed to assess the
30 bacteriological water quality of shellfish growing waters impacted by non-point sources of pollution
31 and scheduled sufficiently far in advance to support random collection with respect to environmental
32 conditions.

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34 *History Note:* Authority G.S. 113-134; 113-182; 113-221.2; 143B-289.52;
35 Eff. June 1, 1989;
36 Amended Eff. August 1, 1998; February 1, 1997; September 1, 1990;
37 Readopted Eff. May 1, ~~2021~~-2021;

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Amended Eff. (Pending legislative review of 15A NCAC 03K .0104).

1 15A NCAC 18A .0906 is proposed for amendment as follows:

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3 **15A NCAC 18A .0906 RESTRICTED AREAS**

4 (a) Shellfish growing waters may be classified as restricted if:

- 5 (1) a sanitary survey indicates there are no significant point sources of pollution; and
 6 (2) levels of fecal pollution, human pathogens, or poisonous or deleterious substances are at such levels
 7 that shellstock can be made safe for human consumption by either relaying or depuration.

8 ~~(b) Relaying of shellfish shall be conducted in accordance with all applicable rules, including 15A NCAC 03K and~~
 9 ~~15A NCAC 18A .0300.~~

10 ~~(e)(b)~~ Depuration of shellfish shall be conducted in accordance with all applicable rules, including 15A NCAC 03K
 11 and 15A NCAC 18A .0300 and .0700.

12 ~~(d)(c)~~ For shellfish growing waters classified as restricted and used as a source of shellstock for depuration, the
 13 microbiological survey, as set forth in Rule .0903(c)(3) of this Section, shall indicate the bacteriological water quality
 14 does not exceed the following standards based on results generated using the systematic random sampling strategy:

- 15 (1) a median fecal coliform most probable number (MPN) or geometric mean MPN of 88 per 100
 16 milliliters;
 17 (2) a median fecal coliform colony-forming units (CFU) or geometric mean CFU of 88 per 100
 18 milliliters;
 19 (3) an estimated 90th percentile of 260 MPN per 100 milliliters for a five-tube decimal dilution test; or
 20 (4) an estimated 90th percentile of 163 CFU per 100 milliliters for a membrane filter membrane-
 21 Thermotolerant Escherichia coli (mTEC) test.

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23 *History Note: Authority G.S. 113-134; 113-182; 113-221.2; 143B-289.52;*

24 *Eff. June 1, 1989;*

25 *Readopted Eff. May 1, 2021-2021;*

26 *Amended Eff. (Pending legislative review of 15A NCAC 03K .0104).*