

Director's Report





ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

May 6, 2019

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Stephanie McInerny, License and Statistics Section Chief

SUBJECT: Status of Rule Development to Clarify Standard Commercial Fishing License Transfers

Issue

Concern has been raised about third-party transfers (e.g., Craigslist) of Standard Commercial Fishing Licenses (SCFLs) allowing individuals to get a license without going through the eligibility board. At the November 2018 Marine Fisheries Commission (MFC) meeting, proposed amendments to the SCFL transfer rule (15A NCAC 03O .0108) were presented that added language to allow transfers of SCFLs or Retired SCFLs under specific circumstances in addition to those defined in statute (G.S. 113-168.2). Concern was raised about several of the proposed amendments to the rule due to potential loopholes in enforcement. In those amendments was language regarding business transfers. After the February 2019 meeting, there was a desire by commercial members of the MFC to include language in the rule that would allow for business transfers; therefore, the division looked into this and drafted additional language to add to the transfer rule in an attempt to provide some flexibility for businesses to complete transfers under specific circumstances.

Findings

- The authorizing statute only recognizes five circumstances as a legal basis for completion of a transfer of these licenses. Additionally, the statute delegates to the MFC the authority to establish in rule additional circumstances under which a transfer is allowed.
- There were two proposed amendments to the draft rule presented in February 2019 to further facilitate transfers that were approved by the MFC to move forward to public comment within the rulemaking process. Those were:
 1. Adding additional family members to the immediate family definition to allow grandparents, grandchildren, and legal guardians to be eligible for a SCFL or Retired SCFL transfer since they are recognized in the SCFL eligibility criteria rule (15A NCAC 03O .0404); and
 2. Confirming the presence of a certification statement from the transferee that affirms the information provided to the division is true and accurate, which is already required for any transfer but not explicitly stated in rule.
- Additional proposed amendments to the draft rule will be presented at the May 2019 MFC meeting to facilitate specifically defined business transfers to allow the following:
 1. An individual holding a Standard or Retired Standard Commercial Fishing License may transfer their license to a business in which the license holder is also an owner.

2. If a business is dissolved, the business may transfer the license or licenses of the business to an individual owner of the dissolved business contingent upon a notarized statement showing agreement of all owners of the business for the transfer.
3. If a business is sold, the business may transfer the license or licenses of the business to the successor business at the time of sale.
4. If an owner leaves a business, a license originally owned by that owner may be transferred back to that owner in an individual capacity at the time the owner leaves the business contingent upon a notarized statement showing agreement of all owners of the business for the transfer.
5. Only corporations and limited liability companies qualify for these types of transfers. The proposed rule amendments address these types of businesses where assets are shared.
6. The term “owner” includes shareholder of a corporation and member of a limited liability company.

Action Needed

A vote to select one of the three options detailed below is needed at the May 2019 MFC meeting.

Overview

The draft rule (attached) that will be presented at the May 2019 MFC meeting includes the two proposed amendments that were approved by the MFC in February 2019, as well as additional amendments to facilitate business transfers under specific circumstances. These additional amendments to the rule may not meet all the transfer needs for businesses operating in North Carolina, but they will add flexibility for businesses that is not available under the current rule or statute governing transfers.

Options to move forward with amendment of this rule include:

1. Include rule 15A NCAC 03O .0108 amendments presented in May 2019 (attached with highlighted text) in the MFC’s 2019-2020 package of rules for re adoption under the Periodic Review and Expiration of Existing Rules that will be voted on by the MFC during the August 2019 meeting to begin the rulemaking process.
2. Include rule 15A NCAC 03O .0108 amendments presented in February 2019 (attached with highlighted text removed) in the MFC’s 2019-2020 package of rules for re adoption under the Periodic Review and Expiration of Existing Rules that will be voted on by the MFC during the August 2019 meeting to begin the rulemaking process.
3. Move rule 15A NCAC 03O .0108 to the MFC’s 2020-2021 or 2021-2022 package of rules for re adoption under the Periodic Review and Expiration of Existing Rules to allow the MFC additional opportunity to propose amendments.

1 15A NCAC 03O .0108 is proposed for reoption with substantive changes as follows:

2
3 **15A NCAC 03O .0108 LICENSE AND COMMERCIAL FISHING VESSEL REGISTRATION**
4 **TRANSFERS**

5 (a) To transfer a license or Commercial Fishing Vessel Registration, the license or registration cannot be expired
6 prior to transfer.

7 (b) Upon transfer of a license or Commercial Fishing Vessel Registration, the transferee becomes the licensee and
8 assumes the privileges of holding the license or Commercial Fishing Vessel Registration.

9 (c) A transfer application including a certification statement form shall be provided by the Division of Marine
10 Fisheries. A transfer application shall be completed for each transfer including, but not limited to:

11 (1) the information required as set forth in Rule .0101 (a) of this Section;

12 (2) a certified statement from the transferee listing any violations involving marine and estuarine
13 resources in North Carolina during the previous three years; and

14 (3) a certified statement from the transferee that the information and supporting documentation
15 submitted with the transfer application is true and correct, and that the transferee acknowledges that
16 it is unlawful for a person to accept transfer of a license for which they are ineligible.

17 (d) A properly completed transfer application shall be returned to an office of the Division by mail or in person,
18 except as set forth in Paragraph (e) of this Rule.

19 (e) A transfer application submitted to the Division without complete and required information shall be deemed
20 incomplete and shall not be considered further until resubmitted with all required information. Incomplete applications
21 shall be returned to the applicant with deficiency in the application so noted.

22 ~~(f)~~ (f) Licenses-A License to Land Flounder from the Atlantic Ocean ~~may~~ shall only be transferred:

23 (1) with the transfer of the ownership of a vessel that the licensee owns that individually met the
24 eligibility requirements of ~~15A NCAC 3O .0101 (b) (1) (A) and (b) (1) (B)~~ Rule .0101 (b)(1)(A)
25 and (b)(1)(B) of this Section to the new owner of that vessel. ~~Transfer of the License to Land~~
26 Flounder from the Atlantic Ocean transfers all flounder landings from the Atlantic Ocean associated
27 with that vessel; or

28 (2) by the owner of a vessel to another vessel under the same ownership.

29 Transfer of a License to Land Flounder from the Atlantic Ocean transfers with it all flounder landings from
30 the Atlantic Ocean associated with that vessel. Any transfer of license under this Paragraph ~~may~~ shall only
31 be processed through the Division of Marine Fisheries Morehead City Headquarters Office and no transfer
32 is shall be effective until approved and processed by the Division.

33 ~~(g)~~ (g) Transfer of a Commercial Fishing Vessel Registration Transfer. Registration: When if transferring ownership
34 of a vessel bearing a current ~~commercial fishing vessel registration~~, Commercial Fishing Vessel Registration, the new
35 ownerowner:

1 (1) shall follow the requirements in ~~15A NCAC 03O .0101~~ Rule .0101 of this Section and pay a
2 replacement fee of ~~ten dollars (\$10.00)~~ as set forth in Rule .0107 of this Section for a replacement
3 commercial fishing vessel registration. Commercial Fishing Vessel Registration; and

4 (2) ~~The new owner must~~ shall submit a transfer form application provided by the Division with the
5 signatures of the former licensee owner and the signature of the new licensee owner notarized.

6 ~~(e)~~(h) Transfer of a Standard or Retired Standard Commercial Fishing License transfers: License:

7 (1) It shall be unlawful for a person to accept transfer of a Standard or Retired Standard Commercial
8 Fishing License for which they are ineligible.

9 ~~(1)~~(2) A Standard or Retired Standard Commercial Fishing License ~~may~~ shall only be transferred if both
10 the transferor and the transferee have no current suspensions or revocations of any Marine Fisheries
11 license privileges. In the event of the death of the transferor, this requirement shall only apply to the
12 transferee.

13 (3) For purposes of effecting transfers under this Paragraph:

14 (A) in addition to those family members defined in G.S. 113-168(3a), "immediate family" shall
15 mean grandparents, grandchildren, and legal guardians of an individual;

16 (B) "business" shall mean limited liability companies and corporations, including "C"
17 corporations and "S" corporations, that have been registered with the Secretary of State;
18 and

19 (C) "owner" shall mean shareholder of a corporation or member of a limited liability company
20 as documented by the records of the Secretary of State.

21 ~~(2)~~(4) At the time of the transfer of a Standard or Retired Standard Commercial Fishing License, the
22 transferor ~~must~~ shall indicate the retention or transfer of the landings history associated with that
23 Standard or Retired Standard Commercial Fishing License. The transferor may retain a landings
24 history only if the transferor holds an additional Standard or Retired Standard Commercial Fishing
25 License. Transfer of a landings history ~~is~~ shall be all or none.

26 ~~(3)~~(5) To transfer a Standard or Retired Standard Commercial Fishing License, the following information
27 is required:

28 (A) information on the transferee as set out forth in ~~15A NCAC 03O .0101~~ Rule .0101 of this
29 Section;

30 (B) notarization of the ~~current license holder's~~ transferor's and the transferee's signatures on a
31 the transfer form provided by the Division; application; and

32 ~~(C)~~ when the transferee is a non resident, a written certified statement from the applicant
33 listing any violations involving marine and estuarine resources during the previous three
34 years;

35 ~~(D)~~(C) when if the transferor is retiring from commercial fishing, the transferor must submit
36 evidence showing that such retirement has in fact occurred, for example, which may
37 include, but is not limited to, evidence of the transfer of all ~~licensee's~~ the transferor's

Standard Commercial Fishing Licenses, sale of all the ~~licensee's~~ transferor's registered vessels, or discontinuation of any active involvement in commercial fishing.

Properly completed transfer forms must be returned to Division Offices by mail or in person.

(4)(6) The Standard or Retired Standard Commercial Fishing License ~~which~~ that is being transferred ~~must~~ shall be surrendered to the Division at the time of the transfer application.

(5)(7) Fees:

(A) ~~Transferee~~ The transferee ~~must~~ shall pay a replacement fee of ~~ten dollars (\$10.00)~~ as set forth in Rule .0107 of this Section.

(B) ~~Transferee~~ The transferee ~~must~~ shall pay the differences in fees as specified in G.S. 443-468.2 (e)-113-168.2(e) or G.S. 443-468.3 (b)-113-168.3(b) ~~when if~~ the transferee ~~who~~ is a non-resident is being transferred a resident Standard or Retired Standard Commercial Fishing License. ~~non-resident.~~

(C) ~~Transferee~~ The transferee ~~must~~ shall pay the differences in fees as specified in G.S. 443-468.2 (e)-113-168.2(e) ~~when if~~ the license to be transferred is a Retired Standard Commercial Fishing License and the transferee is less than 65 years old.

(8) Transfer of Standard or Retired Standard Commercial Fishing License for a Business:

(A) An individual holding a Standard or Retired Standard Commercial Fishing License may transfer their license to a business in which the license holder is also an owner in accordance with application requirements as set forth in Rule .0101 (a) of this Section.

(B) If a business is dissolved, the business may transfer the license or licenses of the business to an individual owner of the dissolved business. A dissolved business holding multiple licenses may transfer one license or multiple licenses to one owner or multiple owners or any combination thereof. A notarized statement showing agreement of all owners of the business for the transfer is required to complete this transaction.

(C) If a business is sold, the business may transfer the license or licenses of the business to the successor business at the time of sale.

(D) If an owner leaves a business, a license originally owned by that owner may be transferred back to that owner in an individual capacity at the time the owner leaves the business. A notarized statement showing agreement of all owners of the business for the transfer is required to complete this transaction.

(6)(9) Transfer of Standard or Retired Standard Commercial Fishing License for a Deceased Licensee:

(A) When the deceased licensee's If an immediate surviving family member(s) member of the deceased licensee is eligible to hold the deceased's deceased licensee's Standard Commercial Fishing License or Retired Standard Commercial Fishing License, the Administrator/Executor must give written notification within six months after the Administrator/Executor qualifies under G. S. G.S. 28A to the Morehead City Office of the

1 Division of Marine Fisheries of the request to transfer the ~~deceased's~~ deceased's license
2 to the estate Administrator/Executor.

3 (B) A transfer to the Administrator/Executor shall be made according to the provisions of
4 ~~Subparagraphs (c) (2) – (c) (4)~~ Subparagraphs (2) through (4) of this Rule.Paragraph. The
5 Administrator/Executor must provide a copy of the deceased licensee's death certificate, a
6 copy of the certificate of ~~administration~~ administration, and a list of eligible immediate
7 family members to the ~~Morehead City Office of the Division of Marine Fisheries~~ Division.

8 (C) The Administrator/Executor ~~may~~ shall only transfer a license in the
9 Administrator/Executor name on behalf of the estate to ~~a~~ an eligible surviving family
10 member. The surviving family member transferee ~~may~~ shall only transfer the license to a
11 third party purchaser of the deceased licensee's fishing vessel. Transfers shall be made
12 according to the provisions of ~~Subparagraphs (c) 2 – (c) (4)~~ Subparagraphs (2) through (4)
13 of this Rule.Paragraph.

14 ~~(d) Transfer forms submitted without complete and required information shall be deemed incomplete and will not be~~
15 ~~considered further until resubmitted with all required information.~~

16 ~~(e) It is unlawful for a person to accept transfer of a Standard or Retired Standard Commercial Fishing License for~~
17 ~~which they are ineligible.~~

18
19 *History Note: Authority G.S. 113-134; 113-168.1; 113-168.2; 113-168.3; 113-168.6; 113-182; 143B-289.52;*
20 *Eff. January 1, 1991;*
21 *Amended Eff. March 1, 1994;*
22 *Temporary Amendment Eff. August 1, 1999; July 1, 1999;*
23 *Amended Eff. August 1, 2000;*
24 *Readopted Eff. May 1, 2020.*



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May 9, 2019

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Chris Batsavage, Special Assistant for Councils

SUBJECT: Atlantic States Marine Fisheries Commission Meeting Summary-Apr. 29-May 2, 2019

Issue

Memo to inform the Marine Fisheries Commission of the issues discussed and actions taken by the Atlantic States Marine Fisheries Commission.

Findings

- The memo highlights management actions of particular interest to the Marine Fisheries Commission.
- Additional information about the meeting can be found in the Atlantic States Marine Fisheries Commission meeting materials in the briefing book.

Action Needed

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

Overview

The Atlantic States Marine Fisheries Commission (Commission) met on Apr. 29-May 2, 2019 in Arlington, VA. Highlights of the management actions taken by the Commission are discussed below.

Striped Bass

The Striped Bass Management Board reviewed the peer reviewed results from the 2018 benchmark stock assessment. The results were the same as the preliminary results presented at the February board meeting, which found that the stock is overfished*, overfishing* is occurring, and the number of recreational dead discards comprised the majority of the total removals. The Board accepted the benchmark stock assessment for management use.

The Board also initiated an addendum to end overfishing of striped bass and reduce fishing mortality to the target level. The Technical Committee estimates it would require approximately a 17% reduction in total removals (commercial and recreational harvest, including dead releases) to reduce fishing mortality to the target in 2020 relative to 2017 levels. The draft addendum will consider the following management options:

- Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.
- Slot limit that would prohibit harvest of fish over 40 inches total length.
- Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.
- A provision that states could use seasonal closures in conservation equivalency proposals.
- Apply needed reductions equally to both commercial and recreational sectors.
- Apply needed reductions proportionally based on total removals in 2017 to both commercial and recreational sectors.

The draft addendum will be reviewed and considered for approval for public comment at the August board meeting. The public comment period and public hearings will be held in the late summer/early fall and the Board will consider final approval at their October meeting. Management measures from the addendum will be implemented in 2020.

Coastal Sharks

The Coastal Sharks Management Board approved recreational minimum size limits for mako sharks in state waters (0-3 miles) that match the size limits implemented in federal waters (3-200 miles) earlier this year. The new size limits are 71 inches straight fork length for male mako sharks and 83 inches straight fork length for female mako sharks. The current recreational minimum size limit in state waters is 54 inches straight fork length. Although mako sharks are rarely caught in state waters, the consistent size limits reduce angler confusion and facilitates enforcement.

The Board postponed the consideration of requiring circle hooks on lines targeting sharks until their October meeting to allow time for the Law Enforcement Committee and Advisory Panel to meet to provide feedback on requiring the use of circle hooks.

Business Session

The Atlantic States Marine Fisheries Commission approved the Summer Flounder Commercial Issues Amendment. The Mid-Atlantic Fishery Management Council and the Summer Flounder, Scup and Black Sea Bass Management Board took final action on the amendment at the March 2019 Council meeting (please refer to the Mid-Atlantic Council meeting materials in the briefing book for more information), but the amendment required approval by the full commission. New York and most of the New England states raised concerns that the commercial quota reallocation strategy in the amendment does not address the shifting distribution of summer flounder and needs to be modified. A motion to remand the amendment to the Summer Flounder, Scup and Black Sea Bass Management Board to develop additional reallocation options failed. However, the Commission leadership agreed to work with Mid-Atlantic Fishery Management Council to consider alternate approaches to future reallocation decisions. The approval of the amendment by the Commission avoids differing quota allocation strategies for summer flounder in state and federal waters.

Cobia

The South Atlantic State/Federal Fisheries Management Board approved Draft Amendment 1 to the Cobia Fishery Management Plan for public comment. The amendment was initiated to

address coxia management in federal waters from New York to Georgia after it was removed from the South Atlantic Fishery Management Council's Coastal Migratory Pelagics Fishery Management Plan. In addition, the draft amendment addresses issues such as goals and objectives, biological reference points, establishment of a harvest specification process, recreational and commercial management measures, and *de minimis* status for the commercial fishery. Public hearings will occur in June and the Board will consider final approval of the amendment at their meeting in August.

Spot and Atlantic Croaker

The South Atlantic State/Federal Fisheries Management Board considered state-gathered public input on potential management changes for Atlantic croaker and spot that would be triggered by incorporation of updates to the annual Traffic Light Analyses conducted for these species. The Traffic Light Analyses are used to monitor trends in abundance and harvest and guide management decisions between benchmark stock assessments. The analyses incorporate fishery-independent* data from multiple sources to develop adult abundance trends, and recreational and commercial landings of Atlantic croaker and spot along the Atlantic coast are incorporated into the analyses to determine harvest trends. The Traffic Light Analyses assign a color (red, yellow, or green) to categorize relative levels of indicators on the condition of the fish population (abundance metric) or fishery (harvest metric). The recommended updates to the analyses would require management action.

Much of the public input received recommended either no new management or very minimal management measures. The Board acknowledged that the revised Traffic Light Analyses are an improvement over the ones currently used for management and that management measures resulting from the updated analyses should hold the fisheries at their current levels. Therefore, the Board initiated addenda to the Spot and Atlantic Croaker Fishery Management Plans to incorporate the revised Traffic Light Analyses and redefine management response.

Upcoming Meeting

The next regularly scheduled meeting of the Atlantic States Marine Fisheries Commission will be Aug. 6-8, 2019 at the Westin in Arlington, VA.

***Definitions**

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

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

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

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

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

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

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

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



Atlantic States Marine Fisheries Commission

2019 Spring Meeting Summary

Vision: Sustainable and Cooperative Management of Atlantic Coastal Fisheries

2019 Spring Meeting
Arlington, VA
April 29 – May 2, 2019

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

Meeting Summaries, Press Releases and Motions

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AMERICAN LOBSTER MANAGEMENT BOARD (APRIL 29, 2019)

Meeting Summary

The American Lobster Management Board met to review a number of issues, including the recommendations of the Atlantic Large Whale Take Reduction Team (ALWTRT); progress on Draft Addendum XXVIII; an update on the implementation of Jonah crab regulations; and an update on the lobster benchmark stock assessment. Colleen Coogan from NOAA Fisheries presented a summary of the April 2019 ALWTRT meeting. The ALWTRT met to identify and recommend modifications to the ALWTR Plan to further reduce impacts of U.S. fixed gear fisheries on large whales and reduce mortality and serious injury to below the potential biological removal (PBR) for right whales. The ALWTRT was tasked with developing consensus recommendations on a suite of measures that would achieve a 60 to 80% reduction in mortality and serious injury of right whales in U.S. fisheries to support NMFS rulemaking that will be initiated in May 2019. At the ALWTRT meeting, a NOAA-developed risk reduction decision support tool was used to provide insight on the potential impacts proposed management options would have on whales. The ALWTRT came to near consensus to achieve an approximate 60% reduction in mortality and serious injury risk to right whales through vertical line reductions and weak rope requirements. NOAA will work with the states to determine the best method to implement ALWTRT recommended measures. In light of the future actions, responding to the ALWTRT recommendations, the Board established a lobster and Jonah crab fishery control date of April 29, 2019 for LCMA 1. The intention of the control date is to notify current state and federal permit holders and any potential new entrants to the fishery that eligibility to participate in the commercial fishery in the future may be affected by the person's or vessel's past participation and associated documentation of landings, effort, and/or gear configuration prior to the control date. The Commission will recommend NOAA Fisheries establish the same control date for federal waters of LCMA 1.

In February, the Board initiated Draft Addendum XXVIII to reduce the number of vertical lines in the lobster fishery. The Board acknowledged the need to respond proactively to the growing challenges facing the lobster fishery and North Atlantic right whale recovery in order to ensure effective conservation measures can occur in a manner that preserves, to the extent practicable, the lobster fishery and its culture. The Plan Development Team (PDT) was tasked with completing a draft addendum for public comment for Board review in May. The PDT has made significant progress, however, due to the timing of data and the decision support tool delivery, as well as the complexity of the issue, the PDT was unable to present a document for Board review at the Commission's Spring Meeting. When the Board initiated the Draft Addendum, it did not anticipate the ALWTRT would bring forward vertical line reductions. Given the significant conservation benefits expected from the recommended ALWTRT measures, the Board decided to pause further development of the Draft Addendum until NOAA has determined if a jeopardy finding will be avoided by the ALWTRT actions.

The Board also received updates on the implementation of Jonah crab regulations in New York and Delaware. Both states have begun regulatory processes and are expected to have regulations in place by early Fall 2019.

Finally, Jeff Kipp provided a progress update on the 2020 Lobster Benchmark Stock Assessment. The Stock Assessment Subcommittee will assess the current timeline due to some delays in supporting analyses and determine next steps. Currently, a second Assessment Workshop, scheduled for this fall,

will focus on finalizing the base run of the model. For more information, please contact Toni Kerns, ISFMP Director, at tkerns@asmfc.org or 703.842.0740.

Motions

Move to establish a lobster and Jonah crab fishery control date immediately (4/29/19) for LCMA 1, and to forward a recommendation to NOAA Fisheries to implement one in federal waters. The intention of the control date is to notify current state and federal permit holders and any potential new entrants to the fishery that eligibility to participate in the commercial fishery in the future may be affected by the person's or vessel's past participation and its documentation of landings, effort, and/or gear configuration prior to the control date.

Motion made by Mr. McKiernan and seconded by Mr. Keliher. Motion carries (11 in favor, 1 abstention).

ATLANTIC HERRING MANAGEMENT BOARD (APRIL 30, 2019)

Press Release

**ASMFC Atlantic Herring Board Approves Addendum II
Addendum Increases Protection of Spawning Herring
in the Inshore Gulf of Maine**

Arlington, VA – The Commission's Atlantic Herring Management Board approved Addendum II to Amendment 3 of the Interstate Fishery Management Plan for Atlantic Herring. The Addendum strengthens spawning protections in Area 1A (inshore Gulf of Maine) by initiating a closure when a lower percentage of the population is spawning (from approximately 25% to 20%), and extending the closure for a longer time (from four to six weeks). The Addendum also modifies the trigger level necessary to reclose the fishery, with the fishery reclosing when 20% or more of the sampled herring are mature but have not yet spawned. These changes to spawning protections are in response to the results of the 2018 Benchmark Stock Assessment which showed reduced levels of recruitment and spawning stock biomass over the past five years, with 2016 recruitment levels the lowest on record.

Under Amendment 3, the Board uses a series of closures to protect spawning aggregations in the Gulf of Maine. Biological samples are used to annually project the start of the spawning closures. Recent analysis by the Atlantic Herring Technical Committee found that while the spawning closure system was significantly improved under Amendment 3, the protocol could continue to be strengthened by considering when, and for how long, a closure is initiated. Specifically, the analysis showed greater protection could be provided by initiating a closure when a lower percentage of the population is spawning and extending the closure for a longer time.

The states are required to implement Addendum II's measures by August 1, 2019. The Addendum will be available on the Commission website (www.asmfc.org) on the Atlantic Herring page by mid-May. For more information, please contact Kirby Rootes-Murdy, Senior Fishery Management Plan Coordinator, at krootes-murdy@asmfc.org or 703.842.0740.

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PR19-13

Meeting Summary

In addition to approving Draft Addendum II (see press release), the Board was presented an update on 2020-2021 Atlantic herring specifications; receive an update on Draft Addendum III; discuss current management tools for Area 1A; and consider approval of the 2019 FMP Review and state compliance. The New England Fishery Management Council (Council) met in April to consider Draft Framework 6, which provides options on 2020-2021 specifications that are consistent with the results of the 2018 Benchmark Stock Assessment. Framework 6 also includes other specifications such as quota transfers between the US and Canada; fixed gear quota set-aside; research quota set-aside. The Council will consider final action on Framework 6 in June. Once the Council has approved Framework 6, the Board will consider final action on 2020 specifications later this year.

The Board received an update on Draft Addendum III, which was initiated in October 2018 to establish spawning protections in Area 3 (offshore waters). As part of its efforts to make spawning protection in Area 3 a priority this year, the Council will hire a consultant to develop a discussion document to help inform future management action on spawning protections by the Board and Council. The consultant will work with the Commission's Technical Committee and the Council's Plan Development Team in drafting the discussion document, which will be completed and presented to the Council in September and the Board in October. After the review, the Commission will work with the Council on next steps for the draft addendum after.

The Board also received an overview of the Area 1A (inshore Gulf of Maine) management tools. Addendum I to Amendment 3 established management tools such as days out, weekly landings limits, permit restrictions, and restrictions on transfers at sea. The 2019 quota is significantly lower than recent years and the current management tools may not allow the quota to be effectively distributed throughout the quota periods. Staff will work with the states to monitor the Area 1A fishery over the next couple of months and report back to the Board.

Finally, the Board approved the 2019 FMP Review, state compliance reports, and *de minimis* status for New York. For more information, please contact Kirby Rootes-Murdy, Senior Fishery Management Plan Coordinator, at krootes-murdy@asmfc.org or 703.842.0740.

Motions

Main Motion

Move to approve the following options for Addendum II to the Atlantic Herring FMP:

- **Option C: GSI30 Trigger Value = 23 under Issue 1: GSI₃₀ trigger values**
- **Option B: Five Week Initial Closure under Issue 2: Spawning Closure Length**
- **Option A Sub-Option 2: 20% or more mature herring under Issue 3: Re-closure Protocol**

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

Motion to Amend

Move to amend to replace Option B with Option C: Six Week Initial Closure under Issue 2: Spawning Closure Length.

Motion made by Dr. Pierce and seconded by Mr. Abbott. Motion passes Roll Call: In Favor – MA, RI, CT, NY; Opposed – ME, NH, NJ; Abstentions – NEFMC, NMFS.

Main Motion as Amended

Move to approve the following options for Addendum II to the Atlantic Herring FMP:

- **Option C: GSI30 Trigger Value = 23 under Issue 1: GSI₃₀ trigger values**
- **Option C: Six Week Initial Closure under Issue 2: Spawning Closure Length**
- **Option A Sub-Option 2: 20% or more mature herring under Issue 3: Re-closure Protocol**

Motion passes (6 in favor, 1 opposed, 1 abstention).

Move that states implement Addendum II no later than 8/1/19 and move to approve Addendum II as modified today.

Motion made by Mr. Grout and seconded by Mr. Train. Motion passes, Roll Call: In Favor – ME, NH, MA, RI, CT, NY, NEMFC; Opposed – NJ; Abstentions – NMFS.

Move to approve the 2019 Atlantic Herring FMP Review, state compliance reports, and *de minimis* status for New York.

Motion made by Mr. Grout and seconded by Mr. Kane. Motion carries without objection.

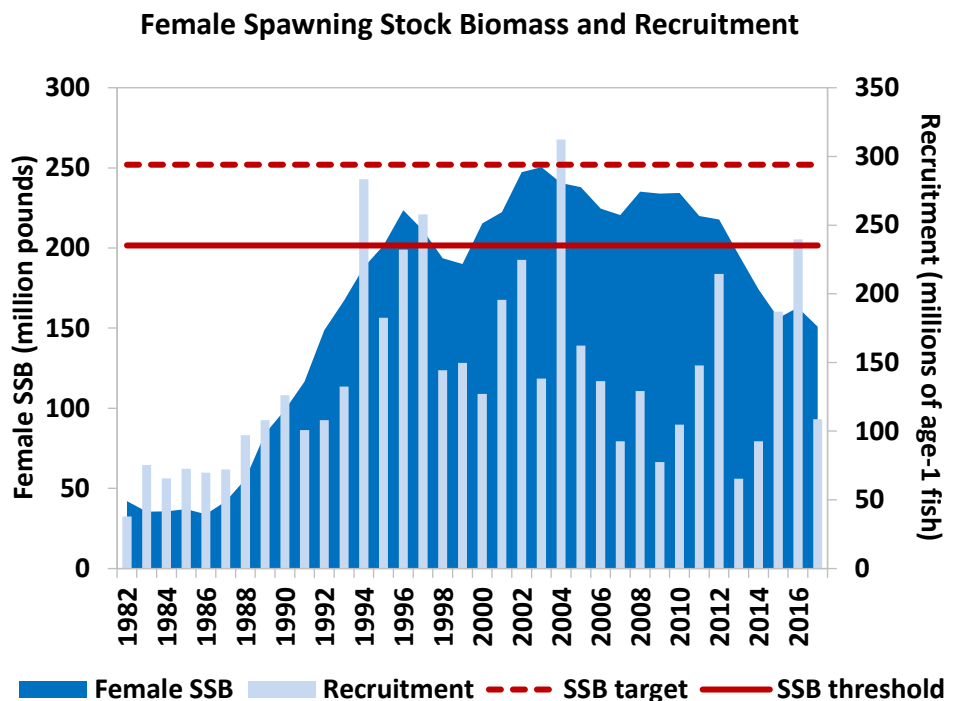
ATLANTIC STRIPED BASS MANAGEMENT BOARD (APRIL 30, 2019)

Press Release

**Atlantic Striped Bass Benchmark Stock Assessment
Finds Resource Overfished and Overfishing Occurring
*Board Initiates Addendum to Reduce Total Fishing Mortality***

Arlington, VA – The 2018 Atlantic Striped Bass Benchmark Stock Assessment indicates the resource is overfished and experiencing overfishing relative to the updated reference points defined in the assessment. Female

spawning stock biomass (SSB) was estimated at 151 million pounds, below the SSB threshold of 202 million pounds. Despite recent declines in SSB, the assessment indicated the stock is still significantly above the SSB levels observed during the moratorium in the mid-1980s. Total fishing mortality (F) was estimated at 0.31, above the F threshold of 0.24. The benchmark assessment and its single-stock statistical catch-at-



age model was endorsed by the Peer Review Panel and accepted by the Atlantic Striped Bass Management Board (Board) for management use.

Based on these findings and the tripping of Amendment 6's reference point management triggers relating to F and SSB thresholds (e.g., F in 2017 is above the threshold level and SSB is below the threshold level), the Board initiated the development of a Draft Addendum to consider measures aimed to reduce F to the target level. The Technical Committee estimates it would require roughly a 17% reduction in total removals (commercial and recreational harvest, including dead releases) to reduce F to the target in 2020 relative to 2017 levels. The Draft Addendum will explore a range of management options, including minimum size and slot size limits for the recreational fishery in the Chesapeake Bay and along the coast, as well as a coastwide circle hook requirement when fishing with bait. The Board also provided guidance on how to apply the necessary reductions to both the commercial and recreational sectors. The Draft Addendum will be presented to the Board for its consideration and approval for public comment in August. If approved, it will be released for public comment, with the Board considering its final approval in October for implementation in 2020. Additionally, the Board postponed a motion to initiate the development of an Amendment until its next meeting in August.

Atlantic striped bass experienced a period of strong recruitment (estimated as number of age-1 fish) from 1994-2004, followed by a period of lower recruitment from 2005-2011 (although not as low as the early 1980s, when the stock was considered collapsed). This period of low recruitment contributed to the decline in SSB in recent years. Recruitment was high in 2012, 2015, and 2016 (corresponding to strong 2011, 2014, and 2015 year classes), but recruitment estimates were below the long-term average in 2013, 2014, and 2017. Recruitment in 2017 was estimated at 108.8 million age-1 fish, below the time series average of 140.9 million fish.

A more detailed description of the stock assessment results is available on the Commission's website at <http://www.asmfc.org/uploads/file/5cc9ba4eAtlStripedBassStockAssessmentOverview.pdf>. The 2018 Atlantic Striped Bass Benchmark Stock Assessment, Stock Assessment Summary and Peer Review Report can be obtained via the following links:

Full assessment report - <https://www.nefsc.noaa.gov/publications/crd/crd1908/crd1908.pdf>

Summary Report - <https://www.nefsc.noaa.gov/publications/crd/crd1901/crd1901.pdf>

Peer Review Report - <https://www.nefsc.noaa.gov/saw/saw66/saw-66-summary-report.pdf>

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

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PR19-14

Motions

Move to accept the 2018 Striped Bass Stock Assessment and Peer Review Report for management use.

Motion made by Mr. Gilmore and seconded by Mr. White. Motion carries by consensus.

Main Motion

Move to initiate an addendum to achieve the fishing mortality target or lower within one year.

Motion made by Mr. O'Reilly and seconded by Mr. McMurray. Motion substituted.

Motion to Substitute

Move to substitute to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task PDT to develop options that would reduce F to the target that would include:

- **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.**
- **Slot limit that would prohibit harvest of fish over 40 inches.**
- **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.**
- **A provision that states could use seasonal closures in conservation equivalency proposals.**
- **Apply needed reductions equally to both commercial and recreational sectors.**
- **Apply needed reductions to the recreational sector only.**

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

Motion to Amend

Move to amend to delete "Apply needed reductions to the recreational sector only" from the substituted motion.

Motion made by Mr. Fote and seconded by Mr. Shiels. Motion passes (9 in favor, 5 opposed, 2 abstentions).

Motion to Substitute as Amended

Move to substitute to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task PDT to develop options that would reduce F to the target that would include:

- **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.**
- **Slot limit that would prohibit harvest of fish over 40 inches.**
- **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.**
- **A provision that states could use seasonal closures in conservation equivalency proposals.**
- **Apply needed reductions equally to both commercial and recreational sectors.**

Motion to Amend

Move to add the following option: Apply needed reductions proportionally based on total removals in 2017 to both commercial and recreational sectors.

Motion made by Mr. Hasbrouck and seconded by Mr. Train. Motion passes (13 in favor, 3 opposed).

Motion to Substitute as Amended

Move to substitute to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task PDT to develop options that would reduce F to the target that would include:

- **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.**
- **Slot limit that would prohibit harvest of fish over 40 inches.**
- **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.**
- **A provision that states could use seasonal closures in conservation equivalency proposals.**

- **Apply needed reductions equally to both commercial and recreational sectors.**
- **Apply needed reductions proportionally based on total removals in 2017 to both commercial and recreational sectors.**

Motion carries unanimously. Roll Call: In Favor – ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, NMFS, USFWS.

Main Motion as Substituted

Move to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task PDT to develop options that would reduce F to the target that would include:

- **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.**
- **Slot limit that would prohibit harvest of fish over 40 inches.**
- **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.**
- **A provision that states could use seasonal closures in conservation equivalency proposals.**
- **Apply needed reductions equally to both commercial and recreational sectors.**
- **Apply needed reductions proportionally based on total removals in 2017 to both commercial and recreational sectors.**

Motion carries without objection.

Main Motion

Move to initiate an Amendment to the Atlantic Striped Bass Fishery Management Plan to address the needed consideration for change on the issues of fishery goals and objectives, empirical/biological/spatial reference points, management triggers, rebuilding biomass, and area specific management. Work on this amendment will begin upon the completion of the previously discussed addendum to the management plan.

Motion made by Mr. Luisi and seconded by Mr. Clark. Motion postponed until 2019 Summer Meeting.

Motion to Amend

Move to amend to add reallocation of commercial quota between states.

Motion made by Mr. Pugh and seconded by Mr. Reid. Motion postponed until 2019 Summer Meeting.

Motion to Postpone

Move to postpone consideration of the initiation of an amendment until the summer 2019 meeting.

Motion made by Mr. Nowalsky and seconded by Mr. Dize. Motion passes 15-1-0abs-0null.

Move to forward the Block Island Transit Zone letter to NOAA Fisheries.

Motion made by Mr. Fote and seconded by Dr. Davis. Motion carries (13 in favor, 1 opposed, 2 abstentions).

LAW ENFORCEMENT COMMITTEE (APRIL 30 & MAY 1, 2019)

Meeting Summary

The Law Enforcement Committee (LEC) met to review and discuss a number of issues. The LEC welcomed alternate representatives David Sykes from the USFWS and Don Frei from NOAA OLE.

Species Issues

Atlantic Cobia.—Mike Schmidtke briefed the LEC on potential new regulations for Atlantic cobia, focusing on 3 options for managing the fishery in federal waters. The LEC cited concerns with all 3 options. Option A, where regulations would mirror the state where fish are landed, would be strengthened by specifying the state where the fisherman is permitted. Furthermore, a regulation should specify that the most restrictive permit would apply for multiple-permit holders. Option B, where state-waters regulations would be extended into federal waters, was deemed difficult to enforce due to those extended lines, and members suggested instead that the simplest approach would be to have a single set of consistent federal regulations coastwide, or to simply extend state regulations into adjacent federal waters in the absence of federal regulations. Option C was deemed to have an added layer of complexity for dealing with specified restricted harvest areas and was not favored.

American Lobster.—The LEC reviewed ongoing efforts to improve enforcement capabilities for the offshore lobster fishery. Members of ASMFC updated the LEC on possible purchase and operation of an offshore vessel, likely to be centered in Maine, but available for use by other states. LEC members expressed support for acquisition and agreed that a second vessel available for more southerly waters would be invaluable in dealing with derelict gear and other trap fisheries in offshore areas. Issues of concern included the need to implement a tracking system to enable effective targeting of offshore areas with a new vessel or vessels. Other suggestions of LEC members included the need to have new or separate funding not only for the purchase of vessels but for their continued operation and maintenance, that crewing vessels would require close cooperation with other participating states, and that one or more federal officers would need to be onboard depending on the areas covered. Staff also solicited LEC advice on vessel and gear tracking systems that would aid in offshore enforcement. LEC members commented on the need for ready access to the tracking information, and to have a system that would reveal when fishing vessels are hauling gear. Systems are currently being tested in Maine, Rhode Island and Connecticut. ASMFC staff will continue to include LEC input to working group discussions regarding offshore enforcement needs in the offshore lobster fishery.

Enforcement Tools and Technology

The LEC heard a presentation by Allie Hunter, Executive Director of the Police Assisted Addiction and Recovery Initiative (PAARI). PAARI is a resource available to enforcement agencies for **response and treatment of drug overdose situations encountered in the field**. A number of states are already training and equipping officers with overdose kits, and PAARI's program also provided guidance and advice on outreach and follow-up that enforcement agencies can implement to help counter the opioid problem.

The LEC discussed current **uses of drones in enforcement**. A number of states have acquired drones and have trained officer-pilots. While most uses are still restricted to general surveillance, search and rescue operations and site security, members discussed the growing use of drones, their expanding versatility and possible use in documenting resource violations.

Other Issues

Members reviewed the outcome of the **November 2018 workshop on For-Hire Enforcement**. The workshop was attended by LEC member Doug Messeck. Members reiterated that for-hire captains should be held accountable for activities on their vessels, including illegal landings and activities of

their customers. Sharing of catch, allowing captain and crew bag limits, and co-mingling of fish on board are all recognized as ongoing activities that vary among the states, but that need to be handled carefully to minimize chronic violations.

George Lapointe, representing the Southeast Regional Office of NMFS, gave a presentation to the LEC regarding implementation of **electronic reporting systems in the for-hire fishery**. A primary question regards access to the data by officers in the field, and the timeliness of that access. LEC members will take an in-depth look at the systems and provide more detailed suggestions or advice to NMFS.

LEC members initiated some general discussion about **ways to measure effectiveness of enforcement activities**. The discussion centered on developing methodologies for analyzing available data to better target field enforcement work in the face of lower staffing levels, and on the use of uniform standards for determining staffing and equipment requirements relative to metrics such as fishing activity, population, and coverage areas.

For more information, please contact Mark Robson, Law Enforcement Committee Coordinator, at markrobson2015@outlook.com.

COASTAL SHARKS MANAGEMENT BOARD (APRIL 30, 2019)

Press Release

ASMFC Coastal Sharks Board Approves Changes to Recreational Measures for Atlantic Shortfin Mako

Arlington, VA – The Commission’s Coastal Sharks Management Board approved changes to the recreational size limit for Atlantic shortfin mako sharks in state waters, specifically, a 71-inch straight line fork length (FL) for males and an 83-inch straight line FL for females. These measures are consistent with those required for federal highly migratory species (HMS) permit holders under HMS Amendment 11, which was implemented in response to the 2017 Atlantic shortfin mako stock assessment that found the resource is overfished and experiencing overfishing. Amendment 11 also responds to a recent determination by the International Commission on the Conservation Atlantic Tunas that all member countries need to reduce current shortfin mako landings by approximately 72-79% to prevent further declines in the population.

The Board adopted complementary size limits in state waters to provide consistency with federal measures as part of ongoing efforts to rebuild the resource. The states will implement the changes to the recreational minimum size limit for Atlantic shortfin mako by January 1, 2020.

For more information, please contact Kirby Rootes-Murdy, Senior Fishery Management Plan Coordinator, at krootesmurdy@asmfc.org or 703.842.0740. Information on federal HMS shark regulations can be found at <https://www.fisheries.noaa.gov/atlantic-highly-migratory-species/atlantic-highly-migratory-species-fishery-compliance-guides>.

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Meeting Summary

The Coastal Sharks Management Board received a presentation on NOAA Atlantic Highly Migratory Species (HMS) Amendment 11 and recently implemented measures, and considered a Technical Committee Report on adopting complementary measures in state waters.

Karyl Brewster-Geiz of NOAA HMS presented the Atlantic shortfin mako Amendment 11 that was implemented in February. The Board approved size limit changes to shortfin makos consistent with federal measures (see press release). As part of the Amendment, circle hooks are now required across the hook and line shark fisheries in all areas of federal waters and HMS has requested the Commission adopt consistent regulations in state waters. A majority of the Technical Committee recommended implementing circle hooks for shark fishing in state waters based on available research that demonstrates circle hooks may reduce the mortality on many shark species that are caught and released compared to J hooks.

Taking into consideration Amendment 11 measures and the TC Report, the Board moved to postpone consideration of requiring circle hooks on lines targeting sharks until the Commission's Annual Meeting. Prior to the next Board Meeting, the Law Enforcement Committee and Advisory Panel will each meet to provide feedback on requiring the use of circle hooks.

For more information, please contact Kirby Rootes-Murdy, Senior Fishery Management Plan Coordinator, at krootes-murdy@asmfc.org or 703.842.0740.

Motions

Move to adopt, for state waters, minimum recreational size limits for shortfin mako shark to complement the federal recreational fishing measures (male minimum size limit of 71 inches FL & female minimum size limit of 83 inches FL).

Motion made by Mr. Michels and seconded by Mr. Kane. Motion carries. Roll Call: In Favor – MA, RI, CT, NY, NJ, DE, MD, VA, NC, SC, FL, NMFS, USFWS; Opposed – GA.

Move to require, for state waters, the use of circle hooks on lines intended to catch sharks.

Motion made by Mr. Michels and seconded by Ms. Davidson. Motion postponed until Annual Meeting.

Move to postpone until the Board has received feedback from the Law Enforcement Committee and the Advisory Panel with the intention of considering the motion at the Annual Meeting.

Motion made by Mr. Batsavage and seconded by Mr. Kane. Motion carries unanimously.

Move to require compliance with the shortfin mako minimum sizes by January 1, 2020.

Motion made by Dr. Pierce and seconded by Dr. Davis. Motion carries. Roll Call: In Favor – MA, RI, CT, NY, NJ, DE, MD, VA, NC, SC, FL, NMFS, USFWS; Opposed – GA.

ATLANTIC COASTAL COOPERATIVE STATISTICS COORDINATING COUNCIL (APRIL 30, 2019)

Meeting Summary

The ACCSP Coordinating Council met to receive program updates and a briefing on the status of a new committee initiative relating to a recent data validation survey as the beginning of an effort to create electronic monitoring standards. Staff presented updates on improvements in SAFIS and APAIS systems

and the positive impacts they appear to be having on efficiency. A new automated confidentiality management system was also presented. The Council made a slight modification of the funding criteria allowing for more flexibility in planned maintenance project reductions, created a workgroup to review current funding criteria, and approved the annual Request for Proposals.

By acclamation, the Coordinating Council recognized ACCSP Director Mike Cahall's 20 years of service and contributions to the ACCSP. Mike will be retiring this May.

For more information, please contact Mike Cahall, ACCSP Director, at mike.cahall@accsp.org.

Motions

Move to amend the RFP to read "up to 33%" for multi-agency proposals only for FY2020.

Motion made by Mr. Keliher and seconded by Mr. McKiernan. Motion carries (11 in favor, 7 opposed, 3 abstentions).

Move to convene a workgroup to iron out details to simplify future RFP language and policies.

Motion made by Ms. Patterson and seconded by Mr. Gates. Motion carries without opposition.

Move to approve the RFP as amended.

Motion made by Ms. Patterson and seconded by Mr. Beal. Motion carries without opposition.

ANNUAL AWARDS OF EXCELLENCE (APRIL 30, 2019)

Press Release

ASMFC Presents Annual Awards of Excellence

Arlington, VA - The Atlantic States Marine Fisheries Commission presented its Annual Awards of Excellence to an esteemed group of fishery and data managers, scientists, law enforcement officers and environmental attorneys for their outstanding contributions to fisheries management, science and law enforcement along the Atlantic coast. Specifically, the award recipients are Robert Ballou for management and policy contributions; Geoffrey White, Coleby Wilt, Alex DiJohnson, Sarah Rains, Michael Celestino, and John Sweka for science and technical contributions; and Casey Oravetz, Sara Block, Banumathi Rangarajan, Lauren Steele, Shane Waller, Shennie Patel, and Joel La Bissonniere for law enforcement contributions.

"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 Jim Gilmore of the New York State Department of Environmental Conservation. "I am humbled by the breadth and extent of accomplishments of this year's recipients and am grateful for their dedication to Atlantic coast fisheries."



From left: John Sweka, Alex DiJohnson, Mike Celestino, Sarah Rains, Geoff White, Shennie Patel, Casey Oravetz, Lauren Steele, Sara Block, ASMFC Executive Director Robert Beal, Bob Ballou, and ASMFC Chair Jim Gilmore

Management & Policy Contributions

Mr. Robert Ballou, Rhode Island Department of Environmental Management

For nearly a decade, Mr. Robert Ballou has brought a wealth of knowledge and policy acumen to the Commission's fisheries management programs and elevated the decision-making of all species management boards that he has served on through his work ethic, strong leadership, and expertise. In particular, Mr. Ballou has shown outstanding leadership on two very high profile and consequential Commission management bodies – the Summer Flounder, Scup and Black Sea Bass Board and the Atlantic Menhaden Board. Over the past several years and in particular as Board Chair since 2017, Mr. Ballou is responsible for much of the progress that has been made on summer flounder, scup, and black sea bass management. These species are particularly challenging given they are jointly managed with the Mid-Atlantic Fishery Management Council and are highly influenced by changes in ocean temperatures. As Chair, Mr. Ballou has led the Board through difficult deliberations, leading to the adoption of multiple addenda, as well as approval of the Summer Flounder Commercial Issues Amendment.

Even more noteworthy is the role Mr. Ballou played in the development and approval of Amendment 3 to the Atlantic Menhaden Fishery Management Plan. As Board Chair, Mr. Ballou worked tirelessly with Commission staff, Board members, and technical groups. There are few management actions higher in profile or more complex, and Mr. Ballou's commitment to the integrity of the Commission's process and the sustainable management of this important forage species deserves commendation of the highest order.

Science & Technical Contributions

Geoffrey White, Coleby Wilt, Alex DiJohnson and Sarah Rains, Access Point Angler Intercept Survey (APAIS) Team

Due to the herculean efforts of the APAIS Team of Mr. Geoff White, Mr. Coleby Wilt, Mr. Alex DiJohnson and Ms. Sarah Rains over the past two years, the collection of recreational survey data successfully transitioned from a federal contractor to the state fishery agencies from Maine through Georgia. As part

of the transition, the APAIS Team worked to shift the collection program from an outdated, paper-based system that included tens of thousands of paper interview forms to an automated system, whereby data is now collected via a tablet-based Dockside Interceptor. The Dockside Interceptor has reduced data transfer from 21 days to 1 day, completely eliminating all the paper steps.

The APAIS Team also assisted in the development and deployment of a Computer Assisted Telephone Interview tool to conduct the for-hire telephone survey, replacing a manual transcription process in the three states conducting the survey. The system was first deployed in North Carolina in January 2019, with the state estimating a 33% increase in efficiency and a better than 80% response rate.

These two innovative systems, spearheaded by the APAIS Team, are completely changing the complexion of recreational data collection on the Atlantic coast, resulting in more accurate and timely data with a significantly reduced workload.

Michael Celestino, New Jersey Division of Fish and Wildlife

For the past several years, Mr. Michael Celestino has made his mark as an active participant and chair for numerous Commission science committees. These include the Assessment Science Committee (ASC), the Ecological Reference Points Work Group, and the Science and Data Working Group of the Atlantic Coastal Fish Habitat Partnership, as well as species technical committees and stock assessment subcommittees for bluefish, striped bass and Atlantic sturgeon.

Mr. Celestino's leadership on the 2018 striped bass benchmark stock assessment is of particular note. Midway through the assessment process, Mr. Celestino stepped in as Stock Assessment Subcommittee Chair, skillfully guiding the Subcommittee through the challenges of dealing with newly revised recreational data and new modeling approaches. He was responsible for updating the statistical catch-at-age model with new and improved data and conducting sensitivity analyses, all the while supporting the primary model being developed by another modeler. Ultimately, the model Mr. Celestino spearheaded was accepted as the preferred model by the peer review panel, adding lead modeler to his already long list of accomplishments. With the assessment process completed, Mr. Celestino continues to contribute to the striped bass stock assessment by running projections and responding to Board tasks.

In all that he does, Mr. Celestino exhibits an outstanding work ethic, consistently producing high-quality and meticulous work in a timely fashion. Committed to the Commission's mission and the process of cooperative management, Mr. Celestino analyzes problems carefully from all angles and provides a comprehensive viewpoint of the issues. While it is still early in his career, Mr. Celestino's leadership and efforts of the past several years have made him a huge asset to the Commission's committees and management process.

Dr. John Sweka, U.S. Fish and Wildlife Service (USFWS), Northeast Fishery Center

For more than a decade, Dr. John Sweka has been an invaluable member and chair of several Commission science committees, including the ASC and stock assessment subcommittees for American eel, Atlantic sturgeon, river herring and horseshoe crab. Mr. Sweka served as Chair of the River Herring Stock Assessment Committee, leading the charge in the first coastwide stock assessment of river herring; and he currently Chairs the Horseshoe Crab Stock Assessment Subcommittee and the ASC. For Atlantic sturgeon, Mr. Sweka has made substantial advances in field research, such as hydroacoustic and telemetry tagging studies, which were used in the 2017 sturgeon stock assessment.

Mr. Sweka also acts as a key liaison to the U.S. Geological Survey (USGS) in order to advance the Commission's scientific endeavors, most notably our understanding and management of horseshoe crab and American eel populations. In collaboration with Mr. Dave Smith at the USGS Leetown Science Center, Mr. Sweka was a key contributor in development of the Adaptive Resource Management framework to balance horseshoe crab harvest policies with the protection of endangered and threatened shorebird populations. He is also working with USGS and the Eel Technical Committee to incorporate habitat variables in a GIS mapping framework for future stock assessments.

Mr. Sweka has exhibited innovation and creativity by introducing new models for stock assessments. He has run ARIMA models for multiple species, which are currently used to evaluate abundance relative to reference points for American eel, river herring, and horseshoe crab. Mr. Sweka also developed a new age-structured operational model for horseshoe crabs as part of the stock assessment completed this spring. The peer review panel found the models to be notable improvements to the assessment process.

Finally, Mr. Sweka is recognized by fellow committee members, Commission staff, and USFWS as a respected and reliable scientific colleague. Federal fisheries agencies have a mandate to provide scientific support to the Commission and John has answered the bell. At a time when demands on our scientific community can be overwhelming, John consistently delivers analytical work on time and at a very high standard.

Law Enforcement Contributions

NOAA Special Agents Casey Oravetz and Sara Block, Assistant US Attorney for the Eastern District of North Carolina Banumathi Rangarajan, and US Justice Department's Environment and Natural Resources Division's Environmental Crimes Section Trial Attorneys Lauren Steele, Shane Waller, Shennie Patel, and Joel La Bissonniere

Due to the diligence and tenacity of the team of NOAA Special Agents Casey Oravetz and Sara Block, Assistant U.S. Attorney for the Eastern District of North Carolina Banumathi Rangarajan, and U.S. Justice Department's Environment and Natural Resources Division's Environmental Crimes Section Trial Attorneys Lauren Steele, Shane Waller, Shennie Patel, and Joel La Bissonniere, 13 North Carolina trawl captains were indicted for the illegal harvest and possession of hundreds of thousands of pounds of striped bass from the EEZ in 2009 and 2010. The investigation began from a tip to NOAA Office of Law Enforcement (OLE) and a subsequent U.S. Coast Guard at-sea boarding of the F/V LADY SAMAIRA. The captain provided false information to officers regarding where fishing had occurred, and NOAA conducted a dockside investigation wherein the vessel's navigation computer was seized. Forensic analysis determined the captain caught striped bass illegally from the EEZ on that date and on previous trips, and had deleted evidence on the computer to attempt to conceal this activity. NOAA OLE agents recovered the data and reconstructed the trips using GIS tools. A broader analysis was then performed on other vessels landing striped bass on the same fishing days. Over a period of two years, NOAA OLE conducted over 30 search warrants in four states on vessels and businesses in order to gather evidence. Legal challenges made by the defense counsel resulted in the District Court erroneously dismissing the indictments. The U.S. Department of Justice appealed the case to the 4th Circuit Court of Appeals, who ultimately reversed the decision and reinstated the indictments.

Twelve defendants ultimately pled guilty to violating the Lacey Act. Some additionally pled to false statements, obstruction of justice, tax evasion, and failure to file tax returns. One of the defendants

passed away during the investigation. For the 12 defendants, the U.S. District Court Judge imposed sentences totaling over 38 years of probation, 2.5 years of home confinement, 850 hours of community service, \$3,000 in fines, and over \$1.2 million in restitution.

This team's tenacity, hard work, and commitment to the mission showcase the outstanding work performed as a team to protect and conserve the Atlantic striped bass fishery.

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PR19-17

EXECUTIVE COMMITTEE (MAY 1, 2019)

Meeting Summary

The Executive Committee met to discuss a number of issues, including the FY20 Budget; priorities for allocation of ACA "plus-up" funds; the need for a process to address non-payment of state assessments and draft SOPPs for Management Board Work Groups. The following action items resulted from the Committee's discussions:

- FY20 Budget – The Budget was reviewed by the Administrative Oversight Committee (AOC) and forwarded to the Executive Committee with a recommendation for approval.
- "Plus-up Funds" – The AOC discussed the allocation of the plus-up funds in the Atlantic Coastal Act line in the federal budget and brought a motion to the Executive Committee for action.
- Non-Payment of State Assessments – The chair directed the staff to draft a policy on handling non-payment by a state of its annual state assessment for review at the Summer Meeting.
- The Executive Committee reviewed the SOPPs developed by staff to guide the use of Management Board Work Groups.

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

Motions

On behalf of the AOC, I move approval of the FY20 Budget as presented.

Motion made by Mr. Keliher on behalf of the AOC. Motion passes unanimously.

Move to roll the FY19 increase to the ACFMA line into the formula for allocation to the states.

Motion made by Mr. Murphey and seconded by Mr. Grout. Motion passes unanimously.

Move to adopt the Management Board Work Groups SOPPs as modified today.

Motion made by Mr. Grout and seconded by Mr. Murphey. Motion passes unanimously.

SUMMER FLOUNDER, SCUP AND BLACK SEA BASS MANAGEMENT BOARD (MAY 1, 2019)

Meeting Summary

The Summer Flounder, Scup and Black Sea Bass Management Board met to receive a report from the Plan Development Team (PDT) on strategies for addressing issues in the black sea bass commercial fishery; consider feedback from the Board's and Mid-Atlantic Fishery Management Council's Advisory Panels (APs) on those strategies; and review and populate AP membership.

The Board first reviewed the PDT Report on black sea bass commercial management. The Board formed the PDT in February 2019, with the purpose of further developing and analyzing approaches for adjusting the commercial state allocations to address changes to the distribution of the resource. The PDT analyzed several options, including:

- 1) status quo commercial allocations;
- 2) a dynamic approach, referred to as the TMGC approach, which gradually shifts allocations over time based on a combination of historical landings information and current stock distribution information;
- 3) a trigger-based allocation approach,
- 4) an Auctioned Seasonal Quota (ASQ) approach; and
- 5) hybrid approaches that combine multiple options.

After reviewing these strategies and related input from the APs, and engaging in a discussion of the Board's objectives in considering changes to commercial allocations, the Board agreed to continue developing the proposed options with the exception of the ASQ approach. The Board may consider initiating a management action related to commercial black sea bass allocations at the Commission's 2019 Summer Meeting.

Detailed descriptions and examples of each of the management strategies are available in the PDT Report, which is available at http://www.asmfc.org/uploads/file/5cc9f91fBSB_PDT_ReportApril2019.pdf. For more information on black sea bass, please contact Caitlin Starks, Fishery Management Plan Coordinator, at cstarks@asmfc.org.

Motions

Move to approve Paul Caruso from MA to the Advisory Panel.

Motion made by Ms. Meserve and seconded by Mr. Hasbrouck. Motion carries unanimously.

BUSINESS SESSION (MAY 1, 2019)

Press Release

ASMFC Approves 2019 – 2023 Strategic Plan

Arlington, VA – The Atlantic States Marine Fisheries Commission unanimously approved its 2019 – 2023 Strategic Plan at its 2019 Spring Meeting. The Strategic Plan revises the Commission's long-term vision

to “Sustainable and Cooperative Management of Atlantic Coastal Fisheries” and establishes eight major goals and related objectives to pursue this vision. The Strategic Plan will guide the Commission’s activities over the next five years and will be implemented through annual action plans.

“The states recognize circumstances today make the work of the Commission more important than ever before. The Strategic Plan articulates the mission, vision, goals, and objectives needed to accomplish the Commission’s mission,” said Commission Chair James J. Gilmore of New York. “It serves as the basis for annual action planning, whereby Commissioners identify strategies to tackle the highest priority issues and activities for the upcoming year. With 27 species currently managed by the Commission, finite human and fiscal resources, changing ocean conditions, and ever-increasing political pressures, Commissioners recognize the absolute need to prioritize activities. The Commission must dedicate staff time and resources where they are needed most and address less pressing issues only as resources allow. A key to prioritizing issues and maximizing efficiencies will be working closely with the three East Coast Regional Management Councils and NOAA Fisheries.”

The Strategic Plan’s eight goals are:

1. Rebuild, maintain, fairly allocate, and promote sustainable Atlantic coastal fisheries
2. Provide sound, actionable science to support informed management actions
3. Produce dependable and timely marine fishery statistics for Atlantic coast fisheries
4. Protect and enhance fish habitat and ecosystem health through partnerships and education
5. Promote compliance with fishery management plans to ensure sustainable use of Atlantic coast fisheries
6. Strengthen stakeholder and public support for the Commission
7. Advance Commission and member states’ priorities through a proactive legislative policy agenda
8. Ensure the fiscal stability and efficient administration of the Commission

Goal 3, which focuses on the data collection and data management efforts of the Atlantic Coastal Cooperative Statistics Program (ACCSP), was added to reflect the incorporation of ACCSP as a Commission program in 2017.

The 2019 – 2023 Strategic Plan is available on the Commission website at http://www.asmfc.org/files/pub/2019-2023StrategicPlan_Final.pdf. For more information, please contact Tina Berger, Director of Communications, at tberger@asmfc.org.

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PR19-16

Meeting Summary

During its Business Session the Commission approved the 2019-2023 Strategic Plan. The above press release provides a summary of the Plan.

The Commission also approved the Summer Flounder Commercial Issues Amendment. The Amendment updated the FMP’s goals and objectives and modified the state allocation of the commercial quota. Prior to approval of the Amendment there was lengthy and passionate debate regarding the reallocation of the commercial quota. Some Commissioners expressed concern that the current approach to reallocation, as specified by the new Amendment, is not effective and needs to be revisited and modified. Commission leadership agreed to work with Mid-Atlantic Fishery Management Council

(MAFMC) to consider alternate approaches to future reallocation decisions. The Commission approved the Amendment to avoid a breakdown in the relationship with the MAFMC and the difficulties associated with differing state and federal quota allocations.

For more information, please contact Robert Beal, Executive Director, at rbeal@asmfc.org or 703.842.0740.

Motions

Move to approve the 2019-2023 Strategic Plan as presented today.

Motion made by Mr. Keliher and seconded by Ms. Fegley. Motion carries by unanimous consent. Roll Call: In Favor – ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, VA, NC, SC, GA, FL.

Main Motion

Move on behalf of the Summer Flounder, Scup, and Black Sea Bass Management Board to consider approval of the Summer Flounder Commercial Issues Amendment. The effective date of any FMP modifications would be consistent with the effective date published in the final rule in the Federal Register.

Motion made by Mr. Ballou.

Motion to Substitute

Move to substitute to remand the Summer Flounder Commercial Issues Amendment to the Summer Flounder, Scup and Black Sea Management Board to develop and consider new approaches, including alternatives that use a dynamic approach to reallocation of the resource that considers the species' distribution.

Motion made by Dr. Davis and seconded by Mr. Hasbrouck. Motion fails (5 in favor, 9 opposed, 1 null).

Main Motion

Move on behalf of the Summer Flounder, Scup, and Black Sea Bass Management Board to consider approval of the Summer Flounder Commercial Issues Amendment. The effective date of any FMP modifications would be consistent with the effective date published in the final rule in the Federal Register.

Motion made by Mr. Ballou. Motion carries. Roll Call: In Favor – NJ, PA, DE, MD, VA, NC, SC, GA, FL; Opposed – ME, RI, CT, MA, NY; Abstentions – NH.

HORSESHOE CRAB MANAGEMENT BOARD (MAY 1, 2019)

Press Release

ASMFC Horseshoe Crab Board Approves Benchmark Stock Assessment for Management Use

Arlington, VA – The 2019 Horseshoe Crab Benchmark Stock Assessment evaluated the stock status of the resource by region, finding populations within the Delaware Bay and Southeast regions remaining consistently neutral and good, respectively, through time. The Northeast region population has changed from poor to neutral, while the status of the New York region population has trended downward from

good, to neutral, and now to poor. The Benchmark Assessment was endorsed by the Peer Review Panel and accepted by the Horseshoe Crab Management Board (Board) for management use.

To date, no overfishing or overfished definitions have been adopted for management use. For the assessment, biological reference points were developed for the Delaware Bay region horseshoe crab population although not endorsed by the Peer Review Panel for use in management. However, given the assessment results of low fishing mortality and relatively high abundance, overfishing and an overfished status are unlikely for female horseshoe crabs in the Delaware Bay region.

In the absence of biological reference points, stock status was based on the percentage of surveys within a region (or coastwide) having a >50% probability of the final year being below the model reference point (referred to as the Autoregressive Integrated Moving Average or ARIMA reference point). “**Poor**” status was >66% of surveys meeting this criterion, “**Good**” status was <33% of surveys, and “**Neutral**” status was 34 – 65% of surveys. Based on this criterion, stock status for the Northeast region was neutral; the New York region was poor; the Delaware Bay region was neutral; and the Southeast region was good. Coastwide, abundance has fluctuated through time with many surveys decreasing after 1998 but increasing in recent years. The coastwide status includes surveys from all regions and indicates a neutral trend, likely due to positive and negative trends being combined.

**Number of Surveys Below the Index-based 1998 Reference Point
in the Terminal (Final) Year of ARIMA Model**

Region	2009 Benchmark	2013 Update	2019 Benchmark	2019 Stock Status
Northeast	2 out of 3	5 out of 6	1 out of 2	Neutral
New York	1 out of 5	3 out of 5	4 out of 4	Poor
Delaware Bay	5 out of 11	4 out of 11	2 out of 5	Neutral
Southeast	0 out of 5	0 out of 2	0 out of 2	Good
Coastwide	7 out of 24	12 out of 24	7 out of 13	Neutral

The Board will consider a possible management response to the assessment at its next meeting in August. A more detailed description of the stock assessment results is available on the Commission’s website at http://www.asmfc.org/uploads/file/5ccae597HSC_StockAssessmentOverview2019.pdf. The 2019 Horseshoe Crab Benchmark Stock Assessment and Peer Review Report will be available on the Commission website, www.asmfc.org, on the Horseshoe Crab webpage next week.

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

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PR19-18

Motions

Main Motion

Move to accept the 2019 Horseshoe Crab Benchmark Stock Assessment and Peer Review Reports for management use as modified today.

Motion made by Mr. Nowalsky and seconded by Mr. Luisi.

Motion to Substitute

Move to substitute to accept the 2019 Horseshoe Crab Benchmark Stock Assessment and Peer Review Reports for management use.

Motion made by Mr. Luisi and seconded by Mr. Gilmore. Motion carries without objection.

Main Motion as Substituted

Move to accept the 2019 Horseshoe Crab Benchmark Stock Assessment and Peer Review Reports for management use.

Motion carries without objection.

Move to postpone management response to the 2019 Horseshoe Crab Benchmark Stock Assessment until the August 2019 meeting.

Motion made by Dr. Davis and seconded by Mr. McKiernan. Motion approved by consent.

Move to approve the nomination for Nora Blair to the Horseshoe Crab Advisory Panel.

Motion made by Mr. Boyles and seconded by Mr. Gilmore. Motion carries unanimously.

INTERSTATE FISHERIES MANAGEMENT PROGRAM POLICY BOARD (MAY 2, 2019)***Meeting Summary***

The ISFMP Policy Board received a report from the Executive Committee, the details of which can be found above under Executive Committee meeting summary. Jason McNamee reported that further progress has been made on the Draft Risk and Uncertainty Policy. The Draft Policy will be forwarded to the Atlantic Striped Bass Technical Committee and the Committee on Economics and Social Sciences for their feedback and to conduct a test run of the Risk Policy.

Richard Cody from NOAA Fisheries provided an update on the Marine Recreational Information Program's (MRIP) transitions to new surveys. There will be an upcoming workshop hosted by the South Atlantic Fishery Management Council in August to help understand the changes from the coastal household telephone survey to the new fishing effort survey. Concerns were raised by some states regarding state estimates from MRIP, particularly in the shore mode. MRIP staff will be at future Commission quarterly meetings to address concerns and answer questions.

Mark Robson reported on the Law Enforcement Committee meeting earlier in the week (see LEC meeting summary). Dr. Lisa Havel updated the Board on the Artificial Reef Subcommittee's February meeting. The Subcommittee discussed the Artificial Reef Materials Guidelines update, monitoring protocols, and how to better integrate artificial reefs into the Commission process. There was a presentation on the impacts of Hurricane Michael to artificial reefs in the Gulf of Mexico; and guest presentations on Ocean Bricks Reef Systems in the Red Sea, as well as the new APAIS artificial reef survey question. Each state also provided updates. The Gulf States Marine Fisheries Commission will host the next meeting, which will take place in 2020.

The Board directed the Spiny Dogfish Management Board to initiate an Addendum to allow unused quota allocated to the northern state region to be transferred in the second half of the fishing year to the states that have state-specific allocations. This action is intended to promote full utilization of the

overall commercial quota. It is anticipated the Spiny Dogfish Board will consider a document for public comment in August.

The Board agreed to send two letters to NOAA Fisheries consistent with the recommendations from the Striped Bass and Lobster Management Boards (see relevant Board meeting summaries in this document).

Some members of the Board raised concerns that the Commission is not addressing allocation issues in a fair and equitable way. The Commission will be working with the Councils and NOAA Fisheries to explore alternative options for addressing allocation issues. Lastly, concerns were raised that in several Commission species dead discards are increasing for catch and release fishing. It was suggested the Commission explore options to address this issue including working with some of the recreational fishing associations.

For more information, please contact Toni Kerns, ISFMP Director, at tkerns@asmfc.org or 703.842.0740.

Motions

Move to direct the Spiny Dogfish Management Board to initiate an Addendum to allow unused quota allocated to the northern states collectively to be transferred in the second half of the fishing year to the states that have state-specific allocations. This action is intended to promote full utilization of the overall commercial quota. It is intended that these proposed transfers shall only be allowed if there is unanimous consent among the northern states regarding the timing and the amount. Also, the Board shall include quota overage forgiveness language similar to that in Addendum XX of the Summer Flounder, Scup, and Black Sea Bass FMP where in the event the overall annual quota of black sea bass and scup (during the summer) among the states is not exceeded, then individual state overages are forgiven.

Motion made by Mr. McKiernan and seconded by Dr. Davis. Motion carries without objection.

On behalf of the Atlantic Striped Bass Board, move to forward the Block Island Transit Zone letter to NOAA Fisheries.

Motion carries by unanimous consent.

SOUTH ATLANTIC STATE/FEDERAL FISHERIES MANAGEMENT BOARD (MAY 2, 2019)

Meeting Summary

The South Atlantic State/Federal Fisheries Management Board met to consider Draft Amendment 1 to the Interstate Fishery Management Plan (FMP) for Atlantic Migratory Group Cobia (Atlantic cobia) for public comment. Amendment 1 was initiated to address the approval of Regulatory Amendment 31 to the South Atlantic and Gulf Fishery Management Councils' Fishery Management Plan for Coastal Migratory Pelagic Resources (CMP FMP), which removes Atlantic cobia from the CMP FMP, making the Commission the sole management body for this stock. Amendment 1 addresses a variety of issues including FMP Goals and Objectives, biological reference points, establishment of a harvest specification process, recreational and commercial management measures, *de minimis* status for the commercial fishery, and what regulations will be recommended for implementation by NOAA Fisheries in federal

waters. The Board made several edits to the Draft Amendment, which will be incorporated before it is released for public comment. The Board then approved the document, as modified, for public comment.

The Board also considered state-gathered public input on potential management changes for Atlantic croaker and spot that would be triggered by incorporation of updates to the annual Traffic Light Analyses (TLA) conducted for these species. The TLA assigns a color (red, yellow, or green) to categorize relative levels of indicators on the condition of the fish population (abundance metric) or 16 fishery (harvest metric). For example, as harvest or abundance increases relative to its long-term mean, the proportion of green in a given year will increase and as harvest or abundance decreases, the amount of red in that year will increase. The Board annually evaluates amounts of red against threshold levels to potentially trigger management action. While both species have shown strong declines in recent harvest, neither species had management action triggered because abundance metrics from fishery-independent surveys do not show similar declines. Updates to the TLAs have been recommended by the Atlantic Croaker Technical Committee and Spot Plan Review Team, which include regional harvest and abundance metrics, additional fishery-independent surveys, incorporation of age information, and changes to the triggering mechanisms. If all recommended updates are incorporated, management action would be triggered, regardless of results from the 2019 TLA, which will be presented in August. Public input from Maryland, Virginia, and North Carolina was generally against establishment of new management measures, although some support was expressed for appropriately-sized trip limits or seasons. The Board initiated addenda to the Atlantic Croaker and Spot FMPs to update the TLAs and management responses to triggers.

For more information, please contact Dr. Mike Schmidtke, Fishery Management Plan Coordinator, at mschmidtke@asmfc.org or 703.842.0740.

Motions

Move to approve Draft Amendment I to the Cobia Fishery Management Plan for public comment as modified today.

Motion made by Mr. Woodward and second by Mr. Bell. Motion passes (8 in favor, 1 abstention).

Move to initiate addenda to the Spot and Croaker FMPs to incorporate the revised TLA and redefine management response.

Motion made by Mr. Batsavage and seconded by Ms. Fegley. Motion carries unanimously.



ASMFC

FISHERIES *focus*

Vision: Sustainably Managing Atlantic Coastal Fisheries

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ASMFC American Lobster Board Initiates Draft Addendum to Consider Reducing Vertical Lines in the Water

In February, the Commission's American Lobster Management Board initiated Draft Addendum XXVIII to Amendment 3 to the Interstate Fishery Management Plan for American Lobster. The Draft Addendum considers reducing the number of vertical lines in the water in response to concerns about the North Atlantic right whale population and the potential impacts of whale conservation measures on the conduct of the lobster fishery.

"With this proposed action, the Board is entering uncertain waters," stated Maine Commissioner Pat Keliher. "However, as the lead management authority for American lobster, we have a responsibility to ensure the viability of the lobster fishery. Through the active engagement of the states and the lobster industry in our management process, we believe the Board is best suited to navigate the growing challenges facing the lobster fishery."

A key focus of the Board meeting was the intersection of lobster management and the conservation of protected resources. While the Commission is primarily a forum for the Atlantic coast states to cooperatively manage fish and shellfish species, the Board noted several factors associated with North Atlantic right whale conservation which could substantially impact the economic and cultural future of the lobster fishing industry. These include future recommendations of the Atlantic Large Whale Take Reduction Team and the anticipated Biological Opinion being developed under the Endangered Species Act. Given the high economic value of the lobster fishery and its social significance to coastal communities, the Board agreed it is important to ensure the implementation of measures to conserve North Atlantic right whales takes place in a way that maintains the sustainability and culture of the lobster fishery.

Draft Addendum XXVIII will propose options to reduce vertical lines from zero to 40%, to be achieved by trap limits, gear configuration changes, seasonal closures, and/or the acceleration of currently planned trap reductions. The Board noted reductions will consider ongoing state and federal management actions, including trap reductions and trap caps, which have already reduced vertical lines. By initiating this action, states can continue to cooperatively participate in the management of this species during ongoing discussions on the conservation of North Atlantic right whales. In addition, those who are most familiar with the intricacies of the lobster fishery, including industry, can provide input on future regulations.

A first draft of the addendum will be presented to the Board in May. If approved, it will be released for public comment and state hearings over the summer, with Board consideration of final action in the fall.

Upcoming Meetings

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

Atlantic States Marine Fisheries Commission

James J. Gilmore, Jr. (NY), *Chair*
Patrick C. Keliher (ME), *Vice-Chair*

Robert E. Beal,
Executive Director

Patrick A. Campfield,
Science Director

Michael Cahall,
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April 1 (begins at 9 AM) - 3 (ends at Noon)

Ecological Reference Point Assessment Workshop 1, ASMFC, 1050 N. Highland Street, Suite 200 A-N, Arlington, VA

April 2 (1 - 3 PM)

Summer Flounder, Scup and Black Sea Bass Advisory Panel Conference Call; go to <http://www.asmfc.org/calendar/4/2019/summer-flounder-scup-and-black-sea-bass-advisory-panel-conf-call/1371> for more details

April 3 (9 AM - Noon)

Atlantic Herring Days Out Meeting, Maine Historical Society, 489 Congress Street, Portland, ME

April 3 (begins at 1 PM) - 5 (ends at 3:30 PM)

Atlantic Menhaden Assessment Workshop 1, ASMFC, 1050 N. Highland Street, Suite 200 A-N, Arlington, VA

April 9 (9:30 AM - 12:30 PM)

Atlantic Striped Bass Technical Committee Webinar; go to <http://www.asmfc.org/calendar/4/2019/striped-bass-technical-committee/1359> for more details

April 9 (1:30 - 3:30 PM)

Summer Flounder Technical Committee Conference Call; go to <http://www.asmfc.org/calendar/4/2019/summer-flounder-technical-committee-conf-call/1375> for more details

April 9 - 11

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

April 16 - 18

New England Fishery Management Council, Hilton Hotel, Mystic, CT

April 29 - May 2

ASMFC Spring Meeting, Westin, 1800 South Eads Street, Arlington, VA (see preliminary agenda on page 6)

June 4 - 6

Mid-Atlantic Fishery Management Council, Yotel Hotel, 570 West 10th Avenue, New York, NY

June 10 - 14

South Atlantic Fishery Management Council, Hutchinson Island Marriott, 555 NE Ocean Boulevard, Stuart, FL

June 11 - 13

New England Fishery Management Council, Doubletree by Hilton, So. Portland, ME

August 6 - 8

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

August 12 - 15

Mid-Atlantic Fishery Management Council, Courtyard Philadelphia Downtown, 21 N. Juniper St., Philadelphia, PA



The Ongoing Challenges of Allocation

As our Commissioners prepare to approve the Commission's next 5-year Strategic Plan at our Spring Meeting in May, I am struck by not only how far we have come since the first ASMFC Strategic Plan in 1999 but also by how much we still have to accomplish over the next 5 years. Certainly many of the issues the Commission and the states faced 20 years ago are different from those of today but one common thread over the years has been the issue of resource allocation, among the states and between various user groups. Regardless of whether you have an abundant resource or one that is rebuilding, dividing up the resource among the states and user groups is never an easy undertaking because ultimately there is not enough fish available to give everyone what they want, need, or feel they deserve. Invariably allocation, or even worse re-allocation, results in stakeholders that feel they are "winners" or "losers".

Many of the Commission FMPs divvy up the harvestable resource through various types of allocation schemes, with

What is needed is a willingness among the states and our federal management partners to seek innovative ways to consider species reallocation so that collectively the states feel their needs are met.

the resource distributed by state, region, season, or gear type. Most of these allocation schemes are based on historical participation or landings and have not been modified despite changes in resource abundance and distribution or shifting user demands. However, there are a growing number of species, such as Atlantic cobia, black sea bass, and summer flounder, whose changing species ranges and distributions are driving

fisheries managers to begin the difficult task of revisiting long-standing allocation decisions.

Why are these decisions so challenging you may ask? Well, as I stated earlier, there is the notion of winners and losers. In states with significant allocations, substantial investments have been made in fishing communities and infrastructure, from marinas and working water fronts to processing plants and bait and tackle shops. Commercial fishermen and the for-hire industry base their business

plans (and recreational anglers their fishing trips) on how much of the resource they expect to have access to each year. No one wants to give up what they perceive as their share of the resource and no state wants to explain to its stakeholders why it voted in favor of another state getting a greater share. Nor is this issue limited to state waters fisheries. The Commission jointly manages a number of species with the Mid-Atlantic Fishery Management Council, where the scope and extend of today's fisheries are vastly different than they were 20 to 30 years ago when the first fishery management plans and their associated allocation schemes were established. An additional complication is the recent changes in the Marine Recreational Information Program that have changed our estimation of the overall impact of recreational fishing on a number of fisheries and, in some cases, changing the balance of resource use among recreational and commercial fisheries.

Regardless of how difficult or divisive discussions on resource allocation may be, I firmly believe it's in the best interest of our states and their stakeholders to have fishery managers lead those discussions. Because if we don't, there are external drivers that will force our hands. For example, New York has filed suit against NOAA Fisheries concerning the state's share of the summer flounder resource. Another driver is proposed federal legislation called the SHIFT Act, short for Supporting Healthy Interstate Fisheries in Transition, which would require the Commission to consider shifting trends in fish abundance and distribution, and any potential adverse economic impact when establishing or revising quota allocations between any state or other management unit.

In either case, litigation or Congressional intervention in fisheries management decision making is not the preferred route. What is needed is a willingness among the states and our federal management partners to seek innovative ways to consider species reallocation so that collectively all states feel their needs are met. This will require the commitment to cooperatively work through the issues, seeking outcomes that balance the traditional needs of the states and their stakeholders with the ever changing realities of shifting resource abundance and availability.

Species Profile: Atlantic Menhaden

Ongoing Benchmark Stock Assessments to Inform Stock Health and Guide Ecosystem-Based Management Goals

Introduction

Atlantic menhaden (*Brevoortia tyrannus*) are small, oily, schooling fish of historical, economic, and ecological importance. Historically, menhaden supported large-scale commercial reduction fisheries, bringing considerable growth to Atlantic coastal communities. Today, the reduction fishery is a fraction of what it once was, with one processing plant and several vessels operating on the Atlantic coast. The reduction fishery is so named because menhaden are processed (or reduced) into other products, such as agricultural fertilizer, fishmeal and fish oil, as well as livestock and aquaculture feeds. Additionally, menhaden are becoming increasingly valuable for use as bait in many important fisheries, including American lobster, blue crab, and striped bass.

Ecologically, the species plays an important role in marine ecosystems as a forage fish (prey) for many fish, sea birds, and marine mammals. The Commission is continuing work on two menhaden-specific benchmark stock assessments, a single-species assessment and an ecosystem-based assessment, both of which will be used to evaluate stock health and guide management in an ecological context.

Life History

Atlantic menhaden occupy estuaries and coastal waters from northern Florida to Nova Scotia and are believed to consist of a single population. Adult and juvenile menhaden form large schools near the surface, primarily in estuaries and nearshore ocean waters from early spring through early winter. By summer, menhaden schools stratify by size and age along the coast, with older and larger menhaden migrating farther north. During fall-early winter, menhaden of all sizes and ages migrate south around the North Carolina capes to spawn.

Sexual maturity begins as early as age one to just before age three, with major spawning areas from the Carolinas to New Jersey. The majority of spawning occurs primarily offshore (20-30 miles) during winter. Buoyant eggs hatch at sea, and larvae are carried into estuarine nursery areas by ocean currents. Juveniles spend most of their first year in estuaries, migrating to the ocean in late fall.

Menhaden are very efficient filter feeders. Water is pushed through specialized gill rakers that are formed into a basket to allow them to capture plankton. Menhaden are an important component of the food chain, providing a link between primary production and higher organisms by consuming plankton and providing forage for species such as striped bass, bluefish, and weakfish, to name just a few.

Commercial Fisheries

The Atlantic menhaden commercial fishery consists of a reduction fishery and a bait fishery. The reduction fishery first began in New England during the early 1800s and spread south after the Civil War. The reduction fishery grew with the advent of the purse seine after the Civil War in the mid-1800s. Purse seine landings reached a high point in 1956 when landings peaked at 712,100 metric tons (mt). At that time, over 20 menhaden reduction factories ranged from northern Florida to southern Maine. In the 1960s, the Atlantic menhaden stock contracted geographically, and many of the fish factories north of the Chesapeake Bay closed because of a scarcity of fish. Reduction landings dropped to a low of 161,000 mt in 1969. In the 1970s and 1980s, the menhaden population began to expand primarily due to a series of above average year classes entering the fishery. By the mid-1970s, adult menhaden were again abundant in the northern half of their range and, as a result, reduction factories in New England and Canada began processing

Species Snapshot



Atlantic Menhaden

Brevoortia tyrannus

Common Names: menhaden, bunker, mossbunker, pogy, fatback, bugmouth, skipjack

Species Range: Atlantic coast of North America from Nova Scotia to northern Florida

Family: Clupeidae (includes herring, sardine, and shad species)

Interesting Facts:

- The modern record for the largest menhaden landed occurred in Reedville, VA in 1996, measuring in at 19.4" and weighing 3.4 lbs.
- Pre-colonial Native Americans called menhaden 'munnawhatteaug,' which means fertilizer.
- A large crustacean parasite is commonly found in the mouth of Atlantic menhaden; hence its common name "bugmouth."
- Adults can filter 6-7 gallons of water/minute.
- Ethel Hall, now retired from the NMFS Beaufort Lab, aged Atlantic menhaden for over 40 years using a 1967 Eberbach projector.

Stock Status:

Not overfished nor experiencing overfishing



Photo (c) NC DMF

menhaden again. Reduction landings rose to around 300,000-400,000 mt during that time; however, by 1989, all shoreside reduction plants in New England had closed, mainly because of odor abatement regulations.

During the 1990s, the Atlantic menhaden stock contracted again, largely due to a series of poor to average year classes. Over the next decade, several reduction plants consolidated or closed, resulting in a significant reduction in fleet size and fishing capacity. By 2005, there was only one remaining reduction plant in operation on the Atlantic coast processing menhaden into fishmeal and fish oil. The plant is located in Reedville, Virginia and is still in operation today.

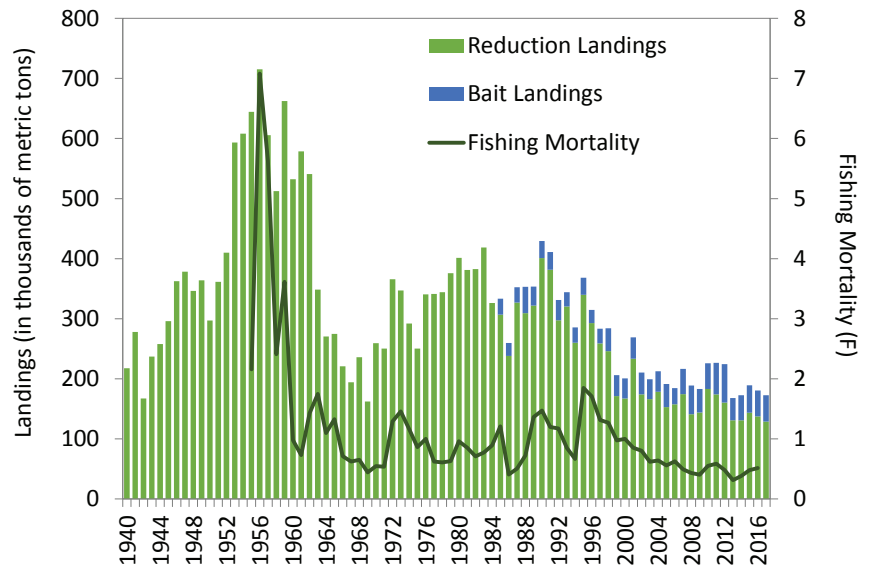
Although annual reduction landings have been decreasing since about 1990, they are an order of magnitude larger than those of the bait sector. From 1985-2000, the reduction fishery accounted for 90% of total landings (bait and reduction combined). From 2001-2012, that proportion decreased to 80% of total landings. From 2013-2017, under the provisions of Amendment 2 (e.g., a total allowable catch and quota system), annual reduction landings have averaged 134,374 mt or 76% of total landings. In 2017, reduction landings were estimated at 128,926 mt, which is a 6.2% decrease from the previous season.

The coastwide bait fishery supplies fishermen with bait for popular commercial (e.g., American lobster and blue crab) and sport fish (e.g., striped bass and bluefish) fisheries, and has grown with the expansion of many fisheries that utilize menhaden as bait. Landings for bait peaked in 2012 at 63,680 mt and then dipped slightly under the provisions of Amendment 2. In 2017, bait landings were estimated at 43,825 mt, which is 4.7% above the average landings during 2013-2016 (41,877 mt).

The bait fishery has increased in relative importance from New England to North Carolina. This is evident in the increasing percent of total menhaden landings that are attributed to the bait fishery. The percent of total landings that were landed for bait rose from 13% in 2001 to 28% in 2012. In 2017, bait harvest composed approximately 25% of the total menhaden harvest. The majority of bait landings have come from New Jersey and Virginia, followed by Maryland, Massachusetts, and the Potomac River Fisheries Commission.

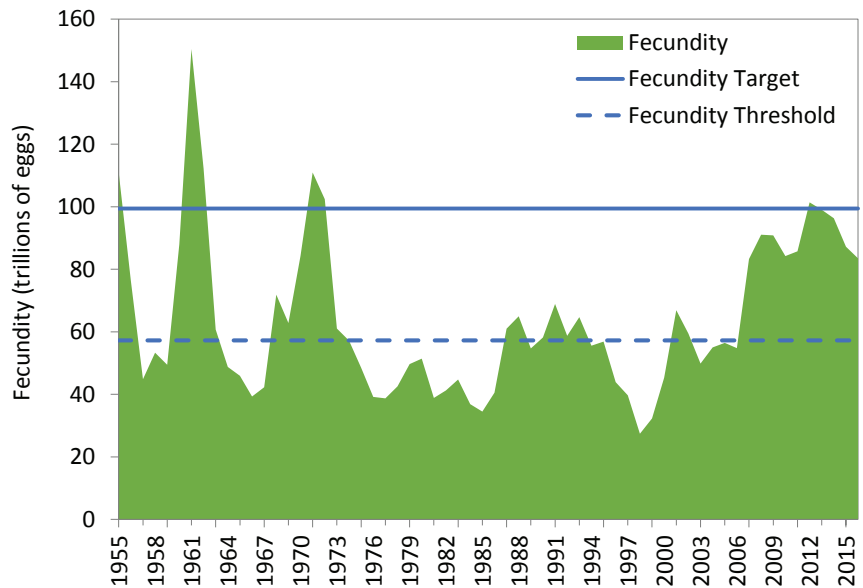
Atlantic Menhaden Bait & Reduction Landings and Fishing Mortality (Ages 2-4)

Source: ASMFC State Compliance Reports and NOAA Fisheries, 2018



Atlantic Menhaden Fecundity

Source: ASMFC Atlantic Menhaden Stock Assessment Update, 2017



Stock Status

The 2017 stock assessment update indicates that Atlantic menhaden are neither overfished nor experiencing overfishing. Stock status was evaluated against the 2015 benchmark assessment's reference points, which used historical performance of the population during the 1960-2012 time frame. Fishing mortality

continued, see ATLANTIC MENHADEN on page 8

2019 Spring Meeting Preliminary Agenda

Public Comment Guidelines

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

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

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

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

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

2. Comments received by 5 PM on Tuesday, April 23rd will be distributed electronically to Commissioners/Board members prior to the meeting and a limited number of copies will be provided at the meeting.

3. Following the April 23rd deadline, the commenter will be responsible for distributing the information to the management board prior to the board meeting or providing enough copies for management board consideration at the meeting (a minimum of 50 copies).

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

ASMFC Spring Meeting

April 29 - May 3

The Westin

1800 South Eads Street

Arlington, VA

Preliminary Agenda

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

MONDAY, APRIL 29

1:00 – 5:00 p.m. American Lobster Management Board

- Update on the Atlantic Large Whale Take Reduction Team Spring Meeting and Recommendations to NOAA Fisheries
- Consider Draft Addendum XXVIII for Public Comment
- Report from the Bait Working Group
- Update from Delaware and New York Regarding Implementation of Jonah Crab Fishery Management Plan Measures

TUESDAY, APRIL 30

8:30 - 10:00 a.m. Atlantic Herring Management Board

- Consider Addendum II for Final Approval
- Consider Approval of 2019 Fishery Management Plan Review and State Compliance Reports
- Update on 2020-2021 Fishery Specifications

10:15 a.m. - Noon Atlantic Striped Bass Management Board

- Consider Acceptance of 2018 Benchmark Stock Assessment and Peer Review Reports for Management Use
- Consider Management Response to the 2018 Benchmark Stock Assessment
 - o Review Technical Committee Report on Reductions Needed to Achieve Fishing Mortality Reference Points
- Consider Forwarding a Letter to NOAA Fisheries Opposing Proposed Measures to Lift the Ban on Recreational Striped Bass Fishing in the Federal Block Island Sound Transit Zone

12:30 - 5:00 p.m. Law Enforcement Committee

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

- Presentation and Discussion on Police-Assisted Addiction and Recovery Initiative and Use of NARCAN/NALAXONE
- Review 2019 Action Plan and 2019-2023 ASMFC Strategic Plan
- Review and Discuss Outcomes from the MAFMC Enforcement Workshop
- Federal and State Agency Reports
- Review and Discuss Progress of the Offshore Enforcement Vessel Working Group

- Review Ongoing Enforcement Issues (Closed Session)
- Discuss Usefulness of Criteria/Metrics in Evaluating Enforcement Effectiveness

1:00 - 2:30 p.m. Atlantic Striped Bass Management Board (continued)

2:45 - 3:15 p.m. Coastal Sharks Management Board

- Review Highly Migratory Species North Atlantic Shortfin Mako Amendment 11 and Consider a Management Response
- Consider Approval of 2019 Fishery Management Plan Review and State Compliance Reports

3:30 - 5:00 p.m. Atlantic Coastal Cooperative Statistics Program (ACCSP) Coordinating Council

- Program/Committee Updates
- Review and Consider Approval of 2020 Request for Proposals
- Discuss Committee Restructure

5:30 - 7:00 p.m. Annual Awards of Excellence Reception

WEDNESDAY, MAY 1

8:00 - 10:30 a.m. Executive Committee

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

- Report of the Administrative Oversight Committee
 - Presentation of the FY20 Budget
- Review Draft Standard Operating Procedures and Policies for Management Board Work Groups
- Future Annual Meetings Update
- Executive Director Performance Review (Closed Session)

8:00 a.m. - Noon Law Enforcement Committee (continued)

10:45 a.m. - 12:15 p.m. Summer Flounder, Scup, and Black Sea Bass Management Board

- Review Plan Development Team Analysis of Black Sea Bass Commercial Management Strategies to Address Fishery Shifts
- Consider Approval of Advisory Panel Nomination

1:15 - 2:30 p.m. Business Session

- Consider Approval of the Comprehensive Summer Flounder Amendment
- Review and Consider Approval of 2019-2023 Strategic Plan

2:45 - 5:15 p.m. Horseshoe Crab Management Board

- Review and Consider Acceptance of 2019 Horseshoe Crab Benchmark Stock Assessment and Peer Review Reports for Management Use
- Consider Potential Management Response to the 2019 Benchmark Stock Assessment
- Consider Approval of Advisory Panel Nomination

THURSDAY, MAY 2

8:00 - 9:45 a.m. Interstate Fisheries Management Program Policy Board

- Reports from the Executive Committee, Law Enforcement Committee, and Artificial Reef Committee
- Consider Noncompliance Recommendations (If Necessary)

9:45 - 10:00 a.m. Business Session (continued)

- Consider Noncompliance Recommendations (If Necessary)

10:15 a.m. - 12:15 p.m. South Atlantic State/Federal Fisheries Management Board

- Consider Approval of Cobia Draft Amendment 1 for Public Comment
- Consider Potential Management Action for Spot and Atlantic Croaker

rates have remained below the overfishing threshold (1.85) since the 1960s, and hovered around the overfishing target (0.8) through the 1990s. In 2003, fishing mortality dropped below the target and was estimated to be 0.51 in 2016 (the terminal year in the assessment update). Generally, fishing mortality has fluctuated around the target level throughout the history of the fishery.

The biological reference point used to determine the fecundity target is defined as the mature egg production one would expect when the population is being fished at the threshold fishing mortality rate. Population fecundity, a measure of reproductive capacity, has been well above the threshold (57,295 billion eggs) and at or near the target (99,467 billion eggs) in recent years. In 2016, fecundity was estimated to be 83,486 billion eggs, still well above the threshold but below the target.

Atlantic Coastal Management

The Atlantic menhaden commercial fishery has been managed via a total allowable catch (TAC) and a quota system since the implementation of Amendment 2 to the Interstate Fishery Management Plan (FMP) in 2013. The annual TAC was set at 170,800 mt (representing a 20% reduction from average landings between 2009 and 2011) for both the 2013 and 2014 seasons. Since then, the TAC increased to 187,866 mt for the 2015 and 2016 seasons, 200,000 mt for the 2017 season, and 216,000 mt for the 2018 and 2019 fishing seasons with the expectation that the setting of the TAC for subsequent years will be guided by menhaden-specific ERPs.

Atlantic menhaden are currently managed under Amendment 3 to the FMP. Approved by the Board in November



Photo credits: Creative Commons Via Pixabay (top); RI DEM, Marine Fisheries (center); Frank Marengi, MD DNR (bottom)

2017, the Amendment maintains the management program's current single-species biological reference points until the review and adoption of menhaden-specific ecological reference points (ERPs) as part of the 2019 benchmark stock assessment process. In doing so, the Board placed the development of menhaden-specific ERPs as its highest priority.

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

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

In February 2019, the Board postponed indefinitely action to find the Commonwealth of Virginia out of compliance with the provisions of Amendment 3, specifically the Commonwealth's failure to implement the Chesapeake Bay reduction fishery cap of 51,000 mt. This action is contingent upon the Chesapeake Bay reduction fishery not exceeding the cap. If the cap is exceeded, the Board can reconsider the issue of compliance.

In making its decision, the Board took into account the fact that reduction fishery harvest within the Chesapeake Bay has been below the cap level since 2012, including 2018 harvest. During its deliberations, the Board commended Virginia Commissioners on their efforts to monitor landings and work with the Commonwealth's General Assembly to seek full implementation of the provisions of Amendment 3.

While the Bay cap was established as a precautionary measure given the importance of menhaden as a prey species, additional information stemming from the development of ERPs may be informative to the Bay cap issue. Accordingly, the Board will consider action to modify the Bay cap after it completes action on ERPs, anticipated for 2020.

Next Steps

The Commission continues to work on two Atlantic menhaden benchmark stock assessments: a single-species benchmark assessment and the highly anticipated ecosystem-based benchmark assessment that aims to develop menhaden-specific ecological reference points. Both assessments will be used to evaluate the health of the stock and inform the management of the species in an ecological context. The Stock Assessment Subcommittee is leading the single-species assessment and is exploring single-species modeling approaches, while the ERP Workgroup continues to explore modeling approaches that estimate the abundance of menhaden and account for the species' role as a forage fish. Both benchmark assessments will be peer-reviewed at the end of 2019.

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

Comings & Goings

COMMISSIONERS



DR. JUSTIN DAVIS

Early this year, Dr. Justin Davis, Assistant Director of the Fisheries Division of the Connecticut Department of Energy and Environmental Protection (CT DEEP), became Connecticut's Administrative Commissioner to the ASMFC. In his position as Assistant Director, Dr. Davis oversees the state's Marine Fisheries Program. Dr. Davis has worked for CT DEEP since 2007 and holds a B.S. in Marine and Freshwater Biology from the University of New Hampshire, an M.S. in Natural Resource Management, and a Ph.D. in Ecology and Evolutionary Biology from the University of Connecticut. Welcome aboard Dr. Davis!



SENATOR BRIAN LANGLEY

Having not sought re-election due to term limits, Senator Brian Langley stepped down as Maine's Legislative Commissioner to the ASMFC. Senator Langley was a Commissioner from 2011-2013 and 2015-2019, participating on numerous species management boards and sections over that time. We are grateful for Senator Langley's involvement and wish him great success in all his future endeavors.



SENATOR DAVID MIRAMANT

In March, Senator David Miramant, who represents coastal Knox County, was named Maine's Legislative Commissioner to the ASMFC. Attending high school in a suburb of Boston during the Vietnam War, Senator Miramant was first introduced to the values about our society, environment and natural resources that still motivate him today. After attending the University of Maine at Farmington, Senator Miramant began a long career in aviation. As an airline pilot and captain, he learned to bring a crew together to accomplish complicated tasks. Those leadership skills would later serve him in the Legislature. During that time, he also connected with diverse groups of people all over the world, only to learn how similar we all are. He spent a lot of time listening to a broad range of perspectives.

While he no longer works in the major airlines, Miramant continues to fly, as the owner and operator of Spirit Soaring Glider Rides. In addition to his work in the air, Senator Miramant also has been a small-business owner and boat captain.

Senator Miramant was elected to the Maine House of Representatives in 2006, and the Maine Senate in 2014. In these positions, he was able to use the leadership skills he had developed throughout his life. Senator Miramant lives in Camden with his wife, Dee, with whom he has two adult children, Ashley and Josh. Welcome aboard, Senator Miramant!



REPRESENTATIVE CHAD NIMMER

Rep. Chad Nimmer stepped down as Georgia's Legislative Commissioner having not sought re-election to the Georgia House of Representatives. Rep. Nimmer served as ASMFC Commissioner since 2016 and was represented by ongoing proxy Pat Geer for the majority of his tenure. We are grateful for Rep. Nimmer's involvement and wish him great success in all his future endeavors.

COMINGS AND GOINGS, continued on page 14

Habitat Happenings

In late 2018, the Atlantic Coastal Fish Habitat Partnership (ACFHP) and the Commission's Habitat Program completed a number of major outreach projects. This article highlights three of those projects: the revamped ACFHP website, a new living shorelines factsheet, and the 2018 issue of *Habitat Hotline Atlantic*.

ACFHP Launches New Website

In December, ACFHP, a partnership of federal, tribal, state, local, and other entities dedicated to enhancing, preserving and protecting diadromous, estuarine and coastal fish habitats, launched its revised website at www.atlanticfishhabitat.org. Bold and visually appealing, the new site seeks to be a resource to partners, as well as those who are working on fish habitat conservation or simply want to become more informed about habitat issues. The website highlights how ACFHP works to make the connection – from the headwaters to the continental shelf, between fish and people, and among stakeholders.

The website has improved functionality and is mobile and tablet-friendly. The 'About Us' section contains information on our mission and vision, the ACFHP region, our team, guidance documents, and the National Fish Habitat Partnership. The website also includes pages on each of ACFHP's priority habitats: submerged aquatic vegetation, shellfish beds, riverine bottom, coral and live/hard bottom, and tidal vegetation. These pages highlight the importance of each habitat to fish and the greater ecosystem, the threats facing each habitat, as well as our conservation work in each habitat.

An exciting feature of the new website is the Species-Habitat Matrix Tool, which evaluates the relative importance of 26 coastal, estuarine, and freshwater habitats to 131 selected fish and invertebrate species. Specifically, the Matrix quantifies the importance of different habitats as shelter, nursery, feeding, or spawning areas for each species during the egg/larval, juvenile/young of year, adult, and spawning adult life stages. The new website tool is a database that allows users to search by species and/or life stage, and populates in real-time. Users can download their results, or the entire database, as a CSV file for further analysis. The tool is intended to provide useful information for people and organizations to make better informed, quantifiable decisions about habitat conservation for Atlantic marine species.

The website's on-the-ground project map identifies ACFHP-funded and endorsed projects along the

The screenshot displays the Atlantic Coastal Fish Habitat Partnership website. At the top, the logo and navigation menu are visible. The main content area includes a large image of a fish in a marshy habitat with a text overlay: "Enhancing, preserving, and protecting Atlantic diadromous, estuarine, and coastal fish habitats". Below this, the "MAKING THE CONNECTION" section features three sub-images: "Connecting the headwaters to the continental shelf", "Connecting people with fish habitat", and "Connecting partners". The "PRIORITY HABITATS" section lists five categories: Submerged Aquatic Vegetation, Riverine Bottom, Tidal Vegetation, Coral and Live/Hard Bottom, and Marine and Estuarine Shellfish Beds. The "RECENT NEWS" section highlights three articles: "Spring 2018 Issue of the Coastal Fish Habitat Partnership Newsletter", "Winter 2017 Issue of the Coastal Fish Habitat Partnership Newsletter", and "Jeff Beal Begins 2017 Melissa Lauer Fish Habitat Conservation Award". A "SIGN UP TODAY" form is present, along with a "DONATE NOW" button. The "OUR FUNDING SUPPORT" section lists logos for NOAA, Mid-Atlantic, and other partners. The "CONTACT" section provides phone, email, and address information.

coast, with links to each of the projects. Project pages feature an overview of each project, photos, and links to outreach materials and press on the project. The website also includes links to ACFHP and partner outreach materials, as well as ACFHP science and data products.

The 'Get Involved' section of the website provides information on upcoming meetings, funding opportunities, project endorsement, the Melissa Laser Fish Habitat Conservation Award, and the various ways to donate to ACFHP and the National Fish Habitat Partnership. You can also sign up for the newsletter and find information on how to join the Partnership. We invite you to explore the new website at www.atlanticfishhabitat.org.

New Living Shoreline Factsheet

The Commission recently approved an update to the 2010 Habitat Management Series document, "Living Shorelines: Impacts of Erosion Control Strategies on Coastal Habitats," that highlights the growing body of literature and lessons learned since the original publication. The factsheet and additional information feature selected case studies, websites, and references in support of the application of best practices moving forward. Both can be accessed on the Commission's website at <http://www.asmf.org/habitat/hot-topics>.

A living shoreline (LSL) is a protected, stabilized coastal edge made of natural materials such as plants, sand, or rock. Unlike a concrete seawall or other hard structure, which impede the growth of plants and animals, LSLs grow over time. LSLs are adopted with increasing frequency to address coastal shoreline erosion issues along both public and private shoreline properties. They are mostly used along bays, sounds, and in other estuarine settings, as beach and inlet systems experience energy



Living shorelines in Punta Rassa, FL. Photo © www.floridalivingshorelines.com

levels higher than those for which natural materials can successfully be used. LSLs integrate habitats across the shoreline landscape by promoting the land-water continuum, provide enhanced habitat for fish and wildlife, naturally adapt to changing sea levels in the face of climate change, and enhance the natural beauty of adjacent properties.

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

2018 Issue of Habitat Hotline Atlantic

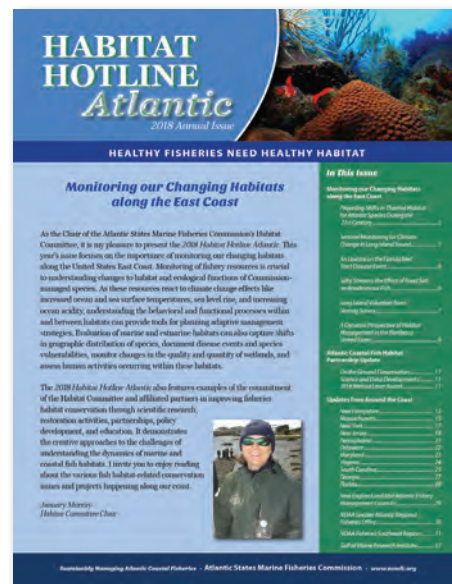
The 2018 issue of *Habitat Hotline Atlantic* focuses on the importance of monitoring changing habitats along the United States East Coast. Monitoring of fishery resources is crucial to understanding changes to habitat and ecological functions of Commission-managed species. As these resources react to increases in ocean and sea surface temperatures, sea level rise, and increasing ocean acidity, understanding the behavioral and functional processes within and between habitats can provide tools for planning adaptive management strategies.

Evaluation of marine and estuarine habitats can also capture shifts in geographic distribution of species, document disease events and species vulnerabilities, monitor changes in the quality and quantity of wetlands, and assess human activities occurring within these habitats.

Habitat Hotline Atlantic also features examples of the commitment of the Habitat Committee and affiliated partners in improving fisheries habitat conservation

through scientific research, restoration activities, partnerships, policy development, and education. It demonstrates creative approaches to the challenges of understanding the dynamics of marine and coastal fish habitats.

The issue is available at <http://tinyurl.com/y7wfrw6a>.



For more information on any of these projects, please contact Dr. Lisa Havel, ACFHP & Habitat Committee Coordinator, at lhavel@asmfc.org.

ACCSP Marks Deployment of New Technologies for Recreational Data Collection

This January, ACCSP deployed two new technologies for advancing state-conducted recreational data collection on the Atlantic coast. Both the tablet-based Dockside Interceptor application and the Computer Assisted Telephone Interviewing System (CATI) have been designed to streamline and automate survey components of the National Oceanic and Atmospheric Administration's (NOAA) Marine Recreational Information Program (MRIP), making it feasible for states to take on a greater role in recreational fisheries data collection. The tools are the latest products of a collaborative effort among ACCSP, state, and federal partners to improve recreational data collection in order to provide timelier, more accurate data for fisheries management.

Dockside Interceptor

On January 1st, North Carolina field interviewers became the first to use the Dockside Interceptor application to conduct their Access Point Angler Intercept Survey (APAIS) assignments. The application allows interviewers to record and transmit angler intercept data electronically via tablets, and features built-in logic to reduce the introduction of data errors. Electronic transmission of intercept data will eliminate time spent on shipping and scanning paper forms, reducing processing time by two to three weeks and providing state partners with additional time to review edits and perform final data checks before ACCSP submits the final data to NOAA at the end of each month.

In the first week since its release, the Dockside Interceptor application was used successfully by eight different interviewers to complete 21 site assignments in North Carolina. Having been submitted electronically, the data from these assignments are already available in the ACCSP database for review. Initial feedback has been positive.

The Dockside Interceptor application will be used by all Atlantic states to conduct their APAIS assignments on tablets once their sampling seasons begin.



FHTS CATI

On January 7th, North Carolina began using ACCSP's new CATI to conduct the For-Hire Telephone Survey (FHTS). At present, this survey, which collects data used to generate for-hire effort estimates, is only state-administered in North Carolina, Maine, and Georgia. The remaining Atlantic states rely on NOAA Fisheries to administer this survey.

Based on the successful transition to state conduct of the APAIS, state and federal representatives on the ACCSP Recreational Technical Committee voted back in June of 2018 to explore coastwide state conduct of the FHTS. To make this possible, ACCSP worked with state and federal partners to develop the CATI, a centralized tool for scheduling, conducting, and recording FHTS interviews.

Each week, the CATI presents state staff with a list of vessels selected for interview and contact details for the vessel captains. Using the information displayed, a state interviewer contacts a captain to initiate the interview. The system then leads the interviewer through a series of questions for the captain, and the interviewer records the responses directly into ACCSP's database. Additional functionalities of the current iteration include automatic generation of weekly notification letters and the creation of Vessel Directory update records during the call.

Georgia and Maine will both use the CATI to administer the FHTS in their respective jurisdictions this year once their sampling seasons begin.



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

Employees of the Quarter: Dr. Katie Drew & Caitlin Starks

For the last quarter of 2018 and the first quarter of 2019, Commission staff had the opportunity to recognize Dr. Katie Drew and Caitlin Starks, respectively, for their notable contributions to the Commission's fisheries science and fisheries management programs.

DR. KATIE DREW

For nearly a decade, Dr. Katie Drew, as the Commission's Stock Assessment Team Leader, has played an important role in advancing the use and public understanding of fisheries science along the Atlantic coast. She has been the lead or contributing scientist on dozens of important stock assessments, and has assisted in the development and conduct of ASMFC stock assessment training workshops to improve stock assessment expertise at the state level.

Throughout 2018, Katie, working closely with state and federal members of various species stock assessment subcommittees, was instrumental in the completion of a new peer review-endorsed benchmark stock assessment and stock assessment update for northern shrimp, and a peer-reviewed benchmark assessment for



Atlantic striped bass. She also was an important contributor in developing and evaluating multispecies models for use in the ecological reference points benchmark stock assessment for Atlantic menhaden, currently scheduled for completion in 2020.

Katie consistently works at the highest level to produce quality science documents to inform fisheries management decisions. A great co-worker and team player, Katie is passionate about excelling and bringing out the best in all those that work with her.

CAITLIN STARKS

In the almost two years since she joined the Commission, Caitlin Starks, FMP Coordinator for black sea bass, bluefish, shad & river herring, and tautog, has made noteworthy contributions to the Commission's fisheries management program and in particular black sea bass management. In the short time she has worked on black sea bass, she has assisted in the completion of three plan addenda and taken a lead role in coordinating the activities of

continued, see EMPLOYEES OF THE QUARTER on page 14



ASMFC 2018 Annual Report Now Available

The Commission has released its 2018 Annual Report, which provides an overview of significant management actions and associated science activities the Commission and its member states took in 2018 to maintain and restore the abundance of Commission-managed species. This report reflects our Commissioners' commitment to accountability and transparency in all they do to manage and rebuild stocks under their care. We hope that you will find the information contained within this report useful and interesting.

This year's cover photo of the New York City (NYC) skyline with views of the One World Trade Center and the Statue of Liberty is in honor of our 77th Annual Meeting, which was held October 2018 in NYC. NYC also played an important role in the Commission's history, having served as its administrative home and frequent meeting location during the Commission's first two decades.

The report is available on the Commission website at www.asmfc.org, under Quick Links or directly at http://www.asmfc.org/files/pub/2018AnnualReport_web.pdf

two Board-level Working Groups on commercial allocation and recreational management. With each project, her ability to stay on top of assignments, collaborate with committee members, and communicate complex issues and management options in a simple, straightforward way has elevated the quality of Commission management documents.

Caitlin is a strong team player and actively seeks out opportunities to work collaboratively with other staff and across departments. At the same time, she continues to provide critical support to her species committees. Despite setbacks, Caitlin has kept the tautog commercial tagging program moving forward through her tireless pursuit of a new tag and applicator when the previous applicator proved to be ineffective on the water. Caitlin also has been successfully coordinating the development of the American shad benchmark stock assessment with Jeff Kipp and the Stock Assessment Subcommittee, which includes a wide range of state (both marine and inland), federal, and academic biologists and stock assessment scientists.

Caitlin's inquisitiveness, meticulousness, and strong work ethic have served her well in her position and are clearly reflected in her work products. These traits, combined with her strong working relationships with Commissioners, committee members, and Commission and Mid-Atlantic Council staff, make her a valuable asset to the Commission and its fisheries management program.

As Employees of the Quarter (EOQ), Katie and Caitlin received a cash award and a letter of appreciation to be placed in their personal record. In addition, their names are on the EOQ plaque displayed in the Commission's lobby. Congratulations, Katie & Caitlin!



DR. TIMOTHY SCHAEFFER

Dr. Tim Schaeffer, Executive Director of the Pennsylvania Fish and Boat Commission (PFBC), is now Pennsylvania's Administrative Commissioner to the ASMFC, replacing John Arway who served in that role since 2010.

Dr. Schaeffer previously served with PFBC as Director of Policy and Planning and recently as Deputy Secretary for the Office of Water Programs for the Department of Environmental Protection. Welcome aboard Dr. Schaeffer!

STAFF



SARAH RAINS

In December, Commission staff said goodbye to Sarah Rains, who has moved on to an exciting new position with the Department of Defense. For three years, Sarah served as Recreational Data Analyst on the Atlantic Coastal Cooperative Statistics Program's Angler

Point Access Intercept Survey (APAIS) team, assisting with the management and processing of state APAIS data. Sarah was a great asset to the APAIS team and we wish her the very best in her new position.



MEGAN WARE

After nearly four years as FMP Coordinator, Megan Ware accepted the position of Director of External Affairs with the Maine Department of Marine Resources. In her time with the Commission, Megan skillfully coordinated a number of challenging marine

fisheries management issues. These included the development and implementation of the first Interstate FMP for Jonah crab as well as Amendment 3 to the Atlantic Menhaden Plan. She also worked closely with the American Lobster Board to develop management responses to the 2015 benchmark stock assessment and, more recently, possible measures to reduce lobster gear/whale interactions. Fortunately for us, we anticipate that we will continue to work with Megan on a number of ASMFC issues. We wish Megan the very best in her new position.



ALI SCHWAAB

On March 29th, Commission staff bid farewell to Ali Schwaab, as she moves to New Zealand to pursue a new life with her fiancé. Ali worked for ACCSP for the past three years, first as Outreach Coordinator and most recently as Program Manager. Over that time, Ali was

responsible for a number of projects and issues, including website design and maintenance, annual report development and dissemination, committee coordination, and outreach to industry and media. We wish Ali the very best in her new adventure half way around the globe.



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

May 6, 2019

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Chris Batsavage, Special Assistant for Councils

SUBJECT: Mid-Atlantic Fishery Management Council Meeting Summary-March 6-7, 2019

Issue

This memo informs the Marine Fisheries Commission of the issues discussed and actions taken by the Mid-Atlantic Fishery Management Council.

Findings

- The memo highlights management actions of particular interest to the Marine Fisheries Commission.
- Additional information about the meeting can be found in the Mid-Atlantic Fishery Management Council meeting materials in the briefing book.

Action Needed

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

Overview

Summer Flounder Benchmark Stock Assessment Overview

The peer review of the 2018 benchmark summer flounder stock assessment found that the stock* is not overfished and overfishing* is not occurring in 2017. The assessment incorporated the revised time series of recreational catch from the Marine Recreational Information Program, which contributed to increases in the estimated summer flounder biomass over the assessment time series compared to previous stock assessments. However, juvenile recruitment* has been below the time series average over the last several years, which has contributed to the declining trend in spawning stock biomass*.

Summer Flounder 2019-2021 Specifications

The council and board approved revised summer flounder catch and quota limits for 2019 and new limits for 2020 and 2021 that are based on the summer flounder benchmark stock assessment results. The annual coastwide summer flounder commercial quota for 2019-2021 is 11.53 million pounds and the annual coastwide recreational harvest limit for those years is 7.69 million pounds. However, an accountability measure will be applied to the 2019 commercial quota due to the annual catch limit being exceeded in 2017. This results in a commercial quota of 10.98

million pounds with North Carolina's state-specific quota at 3.01 million pounds. The 2019-2021 quotas and harvest limits are higher than those based on the previous stock assessment.

2019 Recreational Summer Flounder Management Measures

The council and board continued using regional conservation equivalency to manage the recreational summer flounder fishery. Conservation equivalency allows individual states or multi-state regions to develop customized measures that constrain harvest to the recreational harvest limit (7.69 million pounds for 2019-2021). Despite the higher recreational harvest limit compared to previous years, states are largely required to maintain their 2018 recreational regulations because the revised coastwide recreational harvest estimate in 2018 is nearly equal to the 2019 harvest limit.

The council and board also approved non-preferred coastwide regulations (19-inch minimum size limit, 4-fish bag limit and a May 15-Sept. 15 open season) and approved precautionary default measures (20-inch minimum size limit, 2-fish bag limit, and a July 1-Aug. 31 open season). The non-preferred coastwide measures are written into the federal regulations, but are waived in favor of conservation equivalency, and the precautionary default measures would be implemented in any state or region that does not adopt measures consistent with the conservation equivalency guidelines.

Summer Flounder Commercial Issues Amendment

The council and board selected management options for the Summer Flounder Commercial Issues Amendment. The commercial allocation option selected maintains status quo state-specific allocations when the annual commercial quota is at or below the 9.55 million-pound trigger. When the coastwide annual commercial quota is greater than 9.55 million pounds, the excess quota beyond the trigger is equally distributed to all of the states, except for Maine, New Hampshire and Delaware, which would split 1% of the additional quota. This results in a more equal distribution of allocations when the quota is high and considers the historic importance of the commercial summer flounder fishery to the states. The tables in the council's Summer Flounder Commercial Allocation Modifications fact sheet provides more detail on how the quota will be distributed. The fact sheet is in the briefing book.

The council and board also approved revised summer flounder goals and objectives for the fishery management plan and they took no action on federal permit requalification criteria. In addition, the council took no action on adding landings flexibility as a frameworkable item to the fishery management plan.

The Atlantic States Marine Fisheries Commission will consider approval of the amendment at its meeting on May 1. The National Marine Fisheries Service also needs to approve the amendment because it is a joint fishery management plan with the Mid-Atlantic Council and the Atlantic States Marine Fisheries Commission. The revised allocations could go into effect as early as Jan. 1, 2020, but would be more likely effective on Jan. 1, 2021.

Interim 2020 Black Sea Bass, Scup, and Bluefish Specifications

The council approved interim black sea bass, scup, and bluefish catch and quota limits for 2020, which are the same as the 2019 management measures. These measures will be revised in 2020 after the operational stock assessments for these species are completed later this year. This

action was required by the council to allow the 2019 specifications to extend into the first few months of 2020 because catch and landings limits for these three species do not roll over from one year to the next.

Chub Mackerel Amendment

The council approved management measures for a chub mackerel amendment to the council's Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. The approved management measures include an annual total allowable landings limit of 4.50 million pounds, a 40,000-pound commercial possession limit when 90% of this limit is projected to be landed, and a 10,000-pound possession limit when 100% of this limit is projected to be landed. In addition, federal permits for Atlantic mackerel, longfin squid, *Illex* squid or butterfish are required for commercial or for-hire vessels to retain chub mackerel. This amendment applies to chub mackerel caught in federal waters (3-200 miles offshore) from Maine through North Carolina.

Upcoming Meeting

The next regularly scheduled meeting of the Mid-Atlantic Fishery Management Council is on April 8-11, 2019 at the Icona Golden Inn in Avalon, NJ.

***Definitions**

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

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

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

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

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

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

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

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



March 2019 Council Meeting Summary

March 6-7, 2019

Virginia Beach, VA

The following summary highlights actions taken and issues considered at the Mid-Atlantic Fishery Management Council's March 2019 meeting in Virginia Beach, VA. Presentations, briefing materials, and webinar recordings are available on the Council website at www.mafmc.org/briefing/march-2019.

Summer Flounder Specifications and Management Measures

Summary of Stock Assessment Workshop (SAW)/Stock Assessment Review Committee (SARC) 66

Dr. Jon Hare of the Northeast Fisheries Science Center presented the outcomes of the November 2018 peer review of benchmark stock assessments for summer flounder and striped bass. The summer flounder assessment concluded that the stock was not overfished and overfishing was not occurring in 2017 relative to the revised biological reference points. The assessment incorporated the revised time series of recreational catch from the Marine Recreational Information Program, which contributed to increases in the estimated summer flounder biomass over the assessment time series.

Summer Flounder 2019-2021 Specifications

The Council and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) approved revised summer flounder catch and landings limits for 2019, as well as new limits for 2020-2021, based on the results of the recent benchmark stock assessment. The approved specifications include constant catch and landings limits to be applied in each year based on a three-year averaging approach.

The table below summarizes the proposed commercial quota and recreational harvest limit (RHL) for summer flounder in each year 2019-2021. 2019 interim values and the percent change from these values are provided for comparison purposes. Interim and revised limits are prior to any deductions for past discards and landings overages.

	<i>2019 Interim Limits (mil lb)</i>	<i>Council and Board Recommended 2019-2021 Limits (mil lb)</i>	<i>% Change from Interim 2019 Limits</i>
Commercial Quota	7.72	11.53	+49%
RHL	5.15	7.69	+49%

The Commission's actions are final and apply to state waters (0-3 miles from shore). The Council will forward its recommendations for federal waters (3 – 200 miles from shore) to the NOAA Fisheries Greater Atlantic Regional Fisheries Administrator for review and final approval.

Summer Flounder 2019 Recreational Measures

The Council and Board approved the continued use of regional Conservation Equivalency for the recreational summer flounder fishery in 2019 to achieve, but not exceed, the recommended 2019 summer flounder RHL of 7.69 million pounds.

Conservation equivalency allows individual states or multi-state regions to develop customized measures that, in combination, will achieve the coastwide RHL. The Council and Board also maintained the status quo non-

preferred coastwide measures that are written into the federal regulations but waived in favor of state regulations once conservation equivalency is approved by the National Marine Fisheries Service (NMFS). These measures include a 4-fish possession limit, a 19-inch total length minimum size, and an open season of May 15 – September 15. The Council and Board also maintained the status quo precautionary default measures (i.e., a 2-fish possession limit, a 20-inch total length minimum size, and an open season of July 1 – August 31) which would be implemented in any state or region that does not adopt measures consistent with the conservation equivalency guidelines.

The Board moved to consider regional proposals for recreational measures that maintain *status quo* harvest relative to preliminary 2018 MRIP recreational harvest. The Board will consider final approval of any regional proposals in early April 2019.

Summer Flounder Commercial Issues and Goals and Objectives Amendment

The Council and Board selected preferred commercial management alternatives in the [Summer Flounder Commercial Issues Amendment](#), and recommended revisions to the Fishery Management Plan (FMP) goals and objectives for summer flounder.

The Council and Board recommended no changes to the current eligibility criteria for commercial moratorium permits for summer flounder, established through Amendment 2 in 1993.

The Council and Board also agreed to modify the state-by-state commercial quota allocations such that annual coastwide quotas of up to 9.55 million pounds would be distributed according to the current allocations. In years when the coastwide quota exceeds 9.55 million pounds, additional quota beyond this trigger would be distributed in equal shares to all states except Maine, Delaware, and New Hampshire, which would split 1% of the additional quota. This is a modified version of Alternative 2C considered through the amendment. If approved by NMFS, these revised allocations may be effective as early as January 1, 2020, but would more likely be effective January 1, 2021.

The Council and Board considered, but did not approve, a motion that would have allowed for additional commercial allocation options to be developed for future consideration.

Additionally, the Council considered, but ultimately did not approve, adding landings flexibility policies as a frameworkable issue in the Council's FMP. Any future landings flexibility policies considered by the Council would likely need to be considered through an FMP amendment process. Currently, landings flexibility can be considered through state level agreements without Council action.

The Council and Board also approved revised FMP goals and objectives for summer flounder, which focus on ensuring biological sustainability of the summer flounder stock, supporting and enhancing development of effective management measures, and optimizing social and economic benefits from the resource.

Interim 2020 Specifications for Black Sea Bass, Scup, and Bluefish

The Council approved interim 2020 catch and landings limits for black sea bass, scup, and bluefish. These include the same commercial quotas and RHLs implemented for these three species for 2019. These measures are expected to be in place only for the first few months of 2020 and will be revised as soon as possible once the results of the forthcoming operational stock assessments for all three species are available later this year. Council action was required to allow the 2019 specifications to extend into the first few months of 2020 because catch and landings limits for these three species do not roll over from one year to the next.

Black Sea Bass Management Reform

The Council and the Board discussed ongoing work related to recreational and commercial management reform. They revisited the Commission's strategic plan addressing broad issues for black sea bass recreational

management, including annual variability in management measures and equity in regional harvest opportunities. The Council and Board reaffirmed their previous commitment to form a new joint working group to further develop and analyze approaches for improving management in these areas.

They also reviewed progress made by the Commission's Commercial Black Sea Bass Working Group on options for revisions to the commercial state-by-state quota allocations and discussed implications of the federal in-season closure regulations on state-by-state quota management. The Board will continue work on these issues through their Plan Development Team. The Council initiated an amendment to address commercial black sea bass issues but agreed to postpone development of management alternatives until later in the year to allow the Commission's Plan Development Team to further develop options which may warrant consideration of Council action.

Chub Mackerel Amendment

The Council approved a suite of management measures for Atlantic chub mackerel in federal waters from Maine through North Carolina. If approved by the Secretary of Commerce, the Chub Mackerel Amendment will add chub mackerel to the Mackerel, Squid, and Butterfish FMP.

The management measures approved by the Council include an annual total allowable landings limit of 4.50 million pounds, a 40,000 pound commercial possession limit when 90% of this limit is projected to be landed, and a 10,000 pound possession limit when 100% of this limit is projected to be landed. In addition, commercial fishermen will be required to have one of the existing federal commercial permits for longfin squid, *Illex* squid, Atlantic mackerel, or butterfish in order to retain any amounts of chub mackerel in federal waters from Maine through North Carolina. Fishermen who do not already have one of these permits can obtain one of the existing open access permits. Similarly, for-hire vessels will be required to have the mackerel, squid, butterfish party/charter permit in order to retain chub mackerel.

SSC Membership

The Council approved reappointments of all 16 members of the Scientific and Statistical Committee who reapplied for additional three-year terms.

Kitty Hawk Wind Project

The Council received a presentation from Avangrid Renewables on their Kitty Hawk Wind Project, which is currently in the planning, assessment, and stakeholder outreach stage.

Next Council Meeting

Monday, April 8, 2019 – Thursday, April 11, 2019

Icona Golden Inn
7849 Dune Drive
Avalon, NJ 08202
609-368-5155



MID-ATLANTIC
FISHERY MANAGEMENT COUNCIL

PRESS RELEASE

FOR IMMEDIATE RELEASE
March 11, 2019

PRESS CONTACT: Julia Beaty
(302) 526-5250

Council Approves Chub Mackerel Management Measures

At their meeting in Virginia Beach, VA last week, the Mid-Atlantic Fishery Management Council approved a suite of management measures for Atlantic chub mackerel (*Scomber colias*) in federal waters from Maine through North Carolina. If approved by the Secretary of Commerce, the Chub Mackerel Amendment will add chub mackerel to the Mackerel, Squid, and Butterfish Fishery Management Plan.

The management measures approved by the Council include an annual total allowable landings limit of 4.50 million pounds, a 40,000 pound commercial possession limit when 90% of this limit is projected to be landed, and a 10,000 pound possession limit when 100% of this limit is projected to be landed. In addition, commercial fishermen will be required to have one of the existing federal commercial permits for longfin squid, *Illex* squid, Atlantic mackerel, or butterfish in order to retain any amounts of chub mackerel in federal waters from Maine through North Carolina. Fishermen who do not already have one of these permits can obtain one of the existing open access permits. Similarly, for-hire vessels will be required to have the mackerel, squid, butterfish party/charter permit in order to retain chub mackerel.

The Council developed these management measures to help ensure orderly growth and sustainability of the emerging chub mackerel fishery which recently developed in the mid-Atlantic and southern New England. In addition, Council management will help elevate the priority of data collection for this data-limited species. The Council has already taken steps to address an important data limitation by funding a study on the importance of chub mackerel in the diets of tunas, marlins, and other predators in the mid-Atlantic.

Questions? See <http://www.mafmc.org/actions/chub-mackerel-amendment> or contact Julia Beaty, Fishery Management Specialist, jbeaty@mafmc.org, (302)526-5250.



Summer Flounder

2018 Stock Assessment Results and Implications for Recreational and Commercial Management

Summary

The November 2018 benchmark stock assessment found that the summer flounder stock is not overfished, and overfishing is not occurring. Among other changes, the assessment incorporated a revised, higher time series of recreational catch (harvest and discards) that contributed to increased biomass estimates. The higher biomass projections result in a proposed 49% increase in the commercial quota and recreational harvest limit (RHL) for 2019. Although the RHL will increase by 49%, the new revised estimates of recreational landings also increased. As a result, recreational measures cannot be liberalized in 2019.

2018 Stock Assessment Results

The assessment incorporated the revised time series of recreational catch from the Marine Recreational Information Program (MRIP), which is 30% higher on average compared to the previous summer flounder estimates for 1981-2017. The MRIP estimate revisions account for changes in both the angler intercept survey and recreational effort survey methodologies. While fishing mortality rates were not strongly affected by incorporating these revisions, increased recreational catch resulted in increased estimates of stock size compared to past assessments.

As described in the [assessment summary report](#), summer flounder spawning stock biomass was estimated at 78% of the revised biomass target in 2017 (not overfished), and the fishing mortality rate was estimated to be 25% below the revised overfishing threshold (not overfishing).

Recruitment of juvenile summer flounder to the fishery has been below-average since about 2011, although the driving factors behind this trend have not been identified. Bottom trawl survey data also indicates a recent trend of decreasing length and weight at age, which implies slower growth and delayed maturity. These factors affected the change in biological reference points used to determine stock status.

Proposed Changes to Catch and Landings Limits

Based on the assessment biomass projections, the Council and Atlantic States Marine Fisheries Commission recommended new commercial quotas and RHLs for 2019-2021. The proposed commercial quota (prior to deductions for past overages) is 11.53 million pounds, an approximate 49% increase from the current 2019 interim limit of 7.72 million pounds. The proposed RHL is 7.69 million pounds, also a 49% increase from the current interim limit of 5.15 million pounds. Final implementation of these limits by NOAA Fisheries is expected in Spring 2019.

2019 Recreational Measures

As in other recent years, the recreational fishery in 2019 is proposed to be managed under regional conservation equivalency, with state measures remaining mostly unchanged. States may consider minor modifications to their measures if these measures will keep harvest at the same level as 2018.

Why can't recreational measures be liberalized in 2019 if the RHL is increasing?

The completion of the stock assessment marks the full transition to using the revised estimates of recreational harvest in the management process. Each year, recent harvest must be evaluated relative to the following year's RHL to determine how measures can be modified. Under the new MRIP methodology, the preliminary 2018 harvest for summer flounder was 7.17 million pounds, about 7% below the revised RHL of 7.69 million pounds. Because the 2019 RHL is within the coastwide percent standard error (PSE, a measure of precision) of the 2018 estimate, no liberalization is proposed in order to account for uncertainty in the recreational harvest estimate. In other words, the 2019 RHL is increasing, but the estimates of recreational harvest have also substantially increased, leaving little room for changes in 2019.

What will happen with recreational measures going forward?

Recreational measures for 2020 will be considered in December 2019. Whether and how measures could be modified will depend on harvest levels through late summer/early fall 2019, and how projected 2019 harvest compares to the 2020 RHL. Alternative methods for setting recreational measures may be considered in 2020, based on ongoing work by Council contractors and the Monitoring/Technical Committees.

2019 Commercial Measures

No changes are proposed to the commercial minimum fish size (14" inches), minimum mesh size (5.5" diamond or 6.0" square), minimum mesh size possession limit triggers or exemption programs, or other gear requirements for summer flounder in 2019. These measures will be reconsidered later in 2019 for possible changes for 2020, if warranted. The increases in the coastwide commercial quota will be reflected in increases in state quotas, and states may adjust their commercial management measures accordingly.

Additional Resources

- [66th Stock Assessment Workgroup/Stock Assessment Review Committee Assessment Summary Report](#)
- [March 2019 Council and ASMFC Board Meeting Summary](#)
- [MRIP Effort Survey Change Overview](#)
- [Public Comment Instructions & Opportunities](#)

Questions or comments? Contact Kiley Dancy at (302)-526-5257 or kdancy@mamfc.org.



Summer Flounder

Commercial Allocation Modifications

At their March 2019 meeting, the Council and Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Board (Board) identified preferred alternatives for the [Summer Flounder Commercial Issues & Goals and Objectives Amendment](#) to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. The commercial quota allocation is proposed to be modified as described below.

Summary of Allocation Changes

The Council and Board selected a modified version of Alternative 2C, which modifies the state-by-state commercial quota allocations in years when the annual coastwide commercial quota exceeds the specified trigger of 9.55 million pounds. Annual coastwide commercial quota of up to 9.55 million pounds will continue be distributed according to the current allocations. In years when the coastwide quota exceeds 9.55 million pounds, the *additional* quota amount beyond this trigger would be distributed by equal shares to all states except Maine, Delaware, and New Hampshire, which would split 1% of the additional quota (Table 1). The total percentage allocated annually to each state is dependent on how much additional quota beyond 9.55 million pounds, if any, is available to be distributed in any given year. This allocation system is designed to provide for more equitable distribution of quota when stock biomass is relatively higher, while also considering the historic importance of the fishery to each state.

Table 1: Modified version of Alternative 2C adopted by the Council and Board as the preferred alternative for commercial allocation.

State	Allocation of baseline quota ≤9.55 mil lb	Allocation of <u>additional</u> quota <u>beyond 9.55 mil lb</u>
ME	0.04756%	0.333%
NH	0.00046%	0.333%
MA	6.82046%	12.375%
RI	15.68298%	12.375%
CT	2.25708%	12.375%
NY	7.64699%	12.375%
NJ	16.72499%	12.375%
DE	0.01779%	0.333%
MD	2.03910%	12.375%
VA	21.31676%	12.375%
NC	27.44584%	12.375%
Total	100%	100%

Implementation Timeline and Expected 2021 Allocations

The amendment will be submitted to the National Marine Fisheries Service for final approval. Once approved, these revised allocations may be effective as early as January 1, 2020 but would more likely be effective January 1, 2021.

The proposed initial commercial quota for 2019-2021 (prior to deductions for overages) is 11.53 million pounds, meaning that once revised allocations are implemented the "additional quota" in the implementation year would be approximately 2 million pounds. Table 2 compares how an 11.53 million pound coastwide quota would be distributed currently, versus how it will be distributed once the revised allocations take effect.

Table 2: Current allocation of an 11.53 million pound quota compared to proposed distribution under revised allocation system, once implemented.

State	Current (<i>status quo</i>) state allocation percentages	<i>Status Quo</i> distribution (lb) of 11.53 mil lb quota ^a	Revised allocation percentages under 11.53 mil lb quota ^{a,b}	Revised allocation distribution (lb) in pounds of 11.53 mil lb quota ^a
ME	0.04756%	5,484	0.09663%	11,142
NH	0.00046%	53	0.05762%	6,644
MA	6.82046%	786,399	7.77432%	896,379
RI	15.68298%	1,808,248	15.11491%	1,742,750
CT	2.25708%	260,241	3.99459%	460,576
NY	7.64699%	881,698	8.45891%	975,313
NJ	16.72499%	1,928,391	15.97798%	1,842,262
DE	0.01779%	2,051	0.07198%	8,299
MD	2.03910%	235,108	3.81404%	439,759
VA	21.31676%	2,457,822	19.78123%	2,280,776
NC	27.44584%	3,164,505	24.85779%	2,866,103
Total	100%	11,530,000	100%	11,530,000

^a Initial 11.53 mil lb quota for 2019-2021 is proposed by the Council and Board and pending implementation by the National Marine Fisheries Service. Quota level is prior to any deductions for past overages.

^b Percent allocation by state varies with overall coastwide quota in any given year; the revised percent allocations listed here will not apply to all future years.

Additional Resources

- [Summer Flounder Commercial Issues and Goals and Objectives Amendment Action Page](#)
- [March 2019 Council and ASMFC Board Meeting Summary](#)
- [Amendment Public Hearing Document](#)

Questions or comments? Contact Kiley Dancy at (302)-526-5257 or kdancy@mamfc.org.



April 2019 Council Meeting Summary

April 8-11, 2019

Avalon, NJ

The following summary highlights actions taken and issues considered at the Mid-Atlantic Fishery Management Council's April 2019 meeting in Avalon, NJ. Presentations, briefing materials, and webinar recordings are available at: <http://www.mafmc.org/briefing/april-2019>.

Law Enforcement, HMS, and Tilefish Committee Meeting

In November 2018 the Council held a workshop which addressed several topics, including: (1) operator versus angler (client) responsibilities for fisheries violations that occur on for-hire vessels, (2) issues related to the sale of golden tilefish and tuna by recreational vessels that do not possess U.S. Coast Guard (USCG) vessel safety requirements for commercial vessels, and (3) complexity of fishing regulations impacting enforceability.

At the April 2019 Council meeting, the Law Enforcement, Tilefish, and Highly Migratory Species (HMS) Committees met jointly and reviewed recommendations from the workshop and further prioritized them for action by the Council. The Council approved these recommendations and agreed to follow up on several topics with the NOAA Office of Law Enforcement, NOAA General Counsel, the Atlantic States Marine Fisheries Commission, the NOAA Fisheries HMS Division, the NOAA Fisheries Greater Atlantic Regional Fisheries Office, the U.S. Coast Guard, the NOAA Fisheries Southeast Regional Office, and the South Atlantic Fishery Management Council. Further updates are planned for the June Council meeting.

Atlantic Surfclam and Ocean Quahog Excessive Shares Amendment

The Council reviewed a draft public hearing document for the Atlantic Surfclam and Ocean Quahog Excessive Shares Amendment and heard public testimony on the subject. The Council decided to have the committee meet again to provide additional input on the document prior to bringing it back to the Council for consideration and approval. The Council is considering a variety of approaches to ensure that no individual, corporation, or other entity acquires an excessive share of the Atlantic surfclam and ocean quahog individual transferrable quota (ITQ) privileges. In addition, the amendment considers revisions to the Atlantic Surfclam and Ocean Quahog Fishery Management Plan (FMP) objectives. The amendment also includes alternatives to revise the process for specifying multi-year management measures, require periodic review of the excessive share cap level, and allow adjustments to be made under the frameworkable provisions of the FMP.

Atlantic Surfclam 2019-2020 Specifications

The Council revised its previous 2019 and 2020 Atlantic surfclam specification recommendations. In December 2018, the Scientific and Statistical Committee (SSC) revised their 2019 and 2020 Overfishing Limit and Acceptable Biological Catch (ABC) recommendations for surfclams based on new analyses presented by a joint SSC/Northeast Fisheries Science Center (NEFSC) working group. In response, at this meeting, the Council recommended a 2019 ACL of 56,419 mt and a 2020 annual catch limit (ACL) of 56,289 mt and retained the current annual catch target (ACT) of 29,363 mt and commercial quota of 26,218 mt for both years (2019 and 2020). The Council will send a letter communicating these recommendations to the National Marine Fisheries Service (NMFS).

Atlantic Surfclam and Ocean Quahog Catch Share Program Review

The Council received a presentation and heard public comments on the Atlantic surfclam and ocean quahog ITQ program review report prepared by Northern Economics, Inc. This presentation marked the beginning of a 30-day public comment period which will end on May 8.

Blueline Tilefish 2020 Specifications

The Council reviewed their previously recommended blueline tilefish specifications for the 2020 fishing year. After considering recommendations from the SSC, Tilefish Monitoring Committee, and Tilefish Advisory Panel, the Council recommended no changes to their previously recommended 2020 specifications, summarized below.

Blueline Tilefish 2020 Specifications	
ABC	100,520 pounds
Recreational total allowable landings	71,912 pounds
Commercial total allowable landings	26,869 pounds
Commercial trip limit	500 pounds until 70% of quota is met, then 300 pounds

Golden Tilefish 2020 Specifications

The Council reviewed their previously recommended golden tilefish specifications for the 2020 fishing year. After considering recommendations from the SSC, Tilefish Monitoring Committee, and Tilefish Advisory Panel, the Council recommended no changes to their previously recommended 2020 specifications, summarized below.

Golden Tilefish 2020 Specifications	
ACL	1.636 million pounds
Commercial Quota - IFQ fishery	1.554 million pounds
Incidental Quota	72,398 pounds
Incidental Trip Limit	500 pounds
Recreational Trip Limit	8 fish

Commercial eVTR Omnibus Framework

The Council discussed alternatives for an omnibus framework action that considers requiring federally permitted commercial vessels to submit vessel trip reports (VTRs) to NMFS electronically. This action is not intended to change existing data types being collected and operators would have a choice of which NMFS-approved eVTR application to use. This action would affect all vessels with federal commercial permits for species managed by the Mid-Atlantic Fishery Management Council; however, the Monkfish and Spiny Dogfish plans would only be affected if joint action is taken with the New England Fishery Management Council. After considering Advisory Panel and Fishery Management Action Team recommendations, the Council approved a range of alternatives, including a no action alternative, an alternative to require electronic submission of VTRs, and four alternatives that could change the VTR reporting deadline to 24 hours, 48 hours, 72 hours, or 7 days. NMFS indicated that they would likely have an extended implementation deadline of up to a year after the final rule if the Council selects an alternative to require electronic reporting. Lastly, the Council discussed the desire for a demonstration of the different applications at a future meeting.

Mid-Atlantic State of the Ecosystem Report

Sarah Gaichas (NEFSC) presented the 2019 Mid-Atlantic State of the Ecosystem report developed by the NEFSC. This report is intended to provide ecosystem-scale information relevant to fishery management decisions. Ecosystem indicators evaluate the status and trends of ecological, environmental, economic, and social components of the Mid-Atlantic Bight ecosystem. The 2019 report included new information requested by the Council such as the inclusion of the Northeast Area Monitoring and Assessment Program (NEAMAP) data and

new recreational fishery and estuarine habitat ecosystem indicators. Council members provided feedback and suggestions for continued refinement of future versions of the report.

EAFM Updates

Sarah Gaichas (NEFSC) provided an update on the Council's ecosystem approach to fisheries management (EAFM) risk assessment report. Conducting a risk assessment is the first step in the Council's EAFM structured framework to account for and incorporate ecosystem considerations into management. The Council completed its first risk assessment in 2017 and used it to evaluate and identify ecosystem indicators of highest priority. The 2019 State of the Ecosystem report updated the risk assessment ecosystem indicators. The Council also received an update on development of a summer flounder conceptual model. Conceptual model development is the second step in the EAFM framework and is meant to ensure that key relationships throughout the system are accounted for and to help answer high priority management questions. A workgroup of science and management experts was formed and has begun development of a draft model that will consider key risk factors affecting summer flounder and its fisheries. This work will take place throughout 2019.

Update on Habitat Activities

The Council received an update on the Northeast Regional Marine Fish Habitat Assessment. In addition, Karen Greene of the NMFS Greater Atlantic Regional Fisheries Office Habitat Conservation Division provided an update on projects of interest and other activities occurring in the mid-Atlantic region related to fish habitat.

Illex Permitting and Mackerel, Squid, and Butterfish Fishery Management Plan Goals Amendment

The Council held a scoping hearing on an amendment to consider modifications to the permitting system for *Illex* squid, as well as potential modifications to the FMP goals for all species in the FMP. The scoping comment period ended April 12, 2019. The Council will review scoping comments and discuss next steps at their June 2019 meeting.

ROSA Update and Meeting with UK Fishermen

The Council received an update on the formation of the Responsible Offshore Science Alliance (ROSA) and their plans regarding regional science and monitoring for offshore wind energy and fisheries interactions. In addition, fishermen from the United Kingdom presented their offshore wind experiences.

Next Council Meeting

Tuesday June 4 - Thursday June 6, 2019

Yotel Hotel
570 10th Ave.
New York, NY 10036
646-449-7700



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

May 6, 2019

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Steve Poland, Executive Assistant for Councils

SUBJECT: South Atlantic Fisheries Management Council Update

Issue

This memo is to update the Marine Fisheries Commission on issues discussed and actions taken by the South Atlantic Fisheries Management Council and bring to attention items of relevance to the state of North Carolina.

Findings

- NOAA Fisheries announced the 2019 American red snapper seasons for the commercial and recreational sectors. The council then initiated a framework amendment to the Snapper Grouper Fishery Management Plan to provide flexibility for setting red snapper seasons in the future.
 - Recreational season: July 12-14 and 19-20; 1-fish per person
 - Commercial season: July 8; 75-pounds gutted weight trip limit
- North Carolina Division of Marine Fisheries requested that the South Atlantic Fishery Management Council designate artificial reefs off the coast in federal waters as Special Management Zones for the Snapper Grouper fishery.
- The council began discussions about development of allocation review triggers for all of its managed fisheries.
- Further information about these findings and other issues that the council discussed can be found in the council meeting report in the briefing book, proceeding this memo.

Action Needed

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

Overview

The South Atlantic Fishery Management Council met on March 4 – 8, 2019 in Jekyll Island, GA. Highlights of the discussions and management actions taken by the Council are detailed below.

Red Snapper Season

The NOAA Fisheries announced the season dates for the 2019 American red snapper season in South Atlantic federal waters. The recreational season will last five days over two weekends.

Season duration was based on the overall catch rate of recreational red snapper from the 2018 season applied to the sector Annual Catch Limit of 29,656 fish. This resulted in five projected days for the recreational sector to catch the Annual Catch Limit. The dates will be July 12 – 14 and 19 – 20. Bag limits and size limits will remain the same as in years past; one-fish per person and no size limit. The division will also continue its recreational American red snapper carcass donation program to collect much need size and maturity information for upcoming assessments. The commercial season will open July 8 and continue until the commercial Annual Catch Limit of 124,815 pounds is met. The commercial trip limit will be 75 pounds gutted weight of fish per trip.

Following the announcement of the 2019 American red snapper season by NOAA Fisheries, the council expressed a desire to adjust the recreational dates to begin before the commercial season and to spread the five days over additional weekends to mitigate impacts from poor weather. Council staff and NOAA Fisheries staff informed the council that this was not possible under the current management plan because the language in the final rule specified the timing of the commercial and recreational seasons to the first Monday and Friday, respectively, following Independence Day. The council voted to initiate an abbreviated framework amendment to the Snapper Grouper Fishery Management Plan to allow the council flexibility in specifying the season start dates and period. The amendment is intended to be completed prior to the 2020 American red snapper season.

Special Management Zone request

The North Carolina Division of Marine Fisheries' Director formally requested the establishment of Special Management Zones to encompass the state's artificial reefs in federal waters. The Snapper Grouper Fishery Management Plan allows for states to delineate their artificial reefs and establish gear restrictions within these zones. The requested gear restrictions for the 30 artificial reef sites off of North Carolina include the prohibition of gear other than handline, rod-and-reel, and spearfishing gear and limit the possession of snapper grouper species to the recreational bag limits when using spearfishing gear. The council will review the draft regulatory amendment at its September meeting and schedule public hearings in North Carolina in the fall.

Allocation Review Triggers

NOAA Fisheries and the councils updated their policy for evaluating fishery allocations between sectors periodically and the criteria for triggering these reviews. The new policy required that each council specify triggers for initiating these reviews at regular intervals, with a deadline of August 2019. Subsequently, the passing of the Modernizing Recreational Fisheries Management Act requires that the Comptroller General conduct a study within one year in the Gulf of Mexico and South Atlantic Fishery Management Councils' jurisdictions that will "recommend criteria that could be used for allocating/reallocating fishing privileges" among sectors and "develop recommendations of procedures for allocation reviews and potential adjustments in allocations." The South Atlantic Fishery Management Council began developing their allocation review triggers policy in 2018 and decided to continue development based on the new legislation to provide a basis for the Comptrollers report. The council discussed potential criteria to trigger a review of allocations and settled on indicator-based and time-based triggers. Potential indicator-based criteria include continued over or under harvest of a sector's allocation over a specified time, or results from a stock assessment or Fishery Performance Report that may indicate a need for an allocation review. Time-based triggers include discreet time periods for each species that

will trigger a review. The council briefly began a discussion on types of information to be considered when determining allocations between sectors. Discussions on the allocation review policy will continue at the June council meeting.

Miscellaneous actions

Regulatory Amendment 42 to the Snapper Grouper Fishery Management Plan was approved for formal secretarial review. This amendment modifies the allowable sea turtle release gear that a fisherman is required to have on board their vessel.

Results of the recreational scoping workshops for innovative ways to manage the snapper grouper fishery that were conducted by the American Sportfishing Association, Coastal Conservation Association and Yamaha Marine Group were presented to the council for consideration. Recommendations included regional regulation for some snapper grouper species, harvest tags for deep-water species, development of state-based permit or angler registry, require recreational reporting of some species and continue development of descending device requirements. The council requested input from the Snapper Grouper Advisory Panel and will consider the recommendations when working on snapper grouper management plan actions in the future.

Upcoming Events

The next meeting of the South Atlantic Fisheries Management Council will be June 8 – 12, 2019 in Stuart, FL.



SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

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Jessica McCawley, Chair | Mel Bell, Vice Chair
 Gregg T. Waugh, Executive Director

MARCH 4-8, 2019 COUNCIL MEETING REPORT JEKYLL ISLAND, GEORGIA

The following summary highlights the major issues discussed and actions taken at the South Atlantic Fishery Management Council’s March 2019 meeting in Jekyll Island, Georgia. Briefing materials, presentations, and public comments are available on the Council’s website at: <http://safmc.net/safmc-meetings/council-meetings/>

Final Committee Reports contain more details of what was accomplished for each committee and are located on the March 2019 briefing book page. In addition, the Summary of Motions on the Council’s website includes all motions from the meeting. Read further details and see images and other links at the March 2019 Council Meeting Round-up Story Map: <https://www.arcgis.com/apps/MapJournal/index.html?appid=46c78d75841c4cf6baacd5d36cef365c>

Issue:	Action Taken:	Schedule:
Red Snapper	NMFS reported that the 2019 season would be 5 days long with the following regulations: <ul style="list-style-type: none"> ○ The recreational annual catch limit will be 29,656 fish. <ul style="list-style-type: none"> ▪ The recreational bag limit will be one red snapper per person per day. This applies to private and charterboat/headboat vessels (the captain and crew on for-hire vessels may retain the recreational bag limit). ▪ No minimum size limit. ○ The commercial annual catch limit will be 124,815 pounds whole weight (12,854 fish). <ul style="list-style-type: none"> ▪ The commercial trip limit will be 75 pounds gutted weight. (trip limits are per day - if a vessel makes multiple trips per day, the 75lbs (gw) trip limit can only be harvested once per day) ▪ No minimum size limit. 	<ul style="list-style-type: none"> ○ The recreational sector will open for harvest on the following days: <ul style="list-style-type: none"> ▪ July 12, 13, & 14 – The recreational season opens at 12:01 a.m., local time, on Friday July 12, 2019, and closes at 12:01 a.m., local time, on July 15, 2019. ▪ July 19 & 20 – The recreational season opens again at 12:01 a.m., local time, on Friday July 19, 2019, and closes at 12:01 a.m., local time, on July 21, 2019. ○ The commercial sector will open at 12:01 a.m., local time, on July 8, 2019, and will close at 11:59 p.m., local time, on January 1, 2020, unless the commercial annual catch limit is met or projected to be met before this date.

Issue:	Action Taken:	Schedule:
Snapper Grouper Regulatory Amendment 29 (Best Fishing Practices & Powerheads)	Reviewed document and: <ol style="list-style-type: none"> 1. Added a research & monitoring plan for descending devices 2. Modified alternatives to require descending devices or venting within 6 months of implementation and selected descending devices as a preferred alternative for private, for-hire, and commercial vessels 3. Clarified that descending device should be rigged and ready for use while fishing is occurring 4. Require the use of non-offset, non-stainless-steel circle hooks when using hook-and-line gear and natural baits in the EEZ north of 28 degrees north latitude (about 25 miles south of Cape Canaveral, FL) 5. Consult with the SSC on how a non-offset circle hook requirement will be used in stock assessments 6. Require use of non-stainless-steel hooks when fishing with hook-and-line gear and natural baits in the EEZ 7. Allow powerheads in the EEZ off SC 	Take to the Law Enforcement AP for review. Conduct public hearings prior to the June 2019 meeting.
Red Grouper Regulatory Amendment 30	The Council reviewed and modified the amendment and approved all actions in the amendment for final approval in June. Actions include: <ul style="list-style-type: none"> • Revise the rebuilding schedule to equal the maximum time allowed to rebuild (Tmax) which is 10 years ending in 2028 with 2019 = Year 1 • Jan thru April no recreational or commercial harvest/possession/sale/purchase of any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, grasby, or coney) and extend the closure off NC & SC for red grouper in May • Establish a commercial red grouper trip limit = 200 pounds gutted weight 	Council requested that staff bring Regulator Amendment 30 back at the June 2019 meeting for consideration for final approval.
Sea Turtle Release Gear & Framework Modification	Regulatory Amendment 42 – the Council reviewed and modified the amendment: <ul style="list-style-type: none"> • Removed vision blueprint objectives • Actions make compliance easier 	Approved for formal review. The document will be sent for formal review prior to the June Council meeting.
Wreckfish ITQ Review	The Council received an update and will see a draft final document in June.	Approve for formal review at the September 2019 meeting.

Issue:	Action Taken:	Schedule:
Results of Recreational Workshops	<p>ASA, CCA, and Yamaha Marine Group reported the following recommendations:</p> <ul style="list-style-type: none"> • The Council should consider regional regulations for appropriate species. • The Council should continue to explore harvest rate management for high value snapper grouper species, especially for red snapper. • The Council could consider an Exempted Fishing Permit for a pilot program to test harvest tags for certain deep-water species (i.e., those with low annual catch limits or low abundance). • The Council should work with state partners to establish a registration for anglers targeting snapper grouper species, with consistency across all states. • The Council should continue development of Snapper Grouper Amendment 46 to implement required or selective reporting for recreational anglers and continue outreach on benefits of providing data. • The Council should continue development of Snapper Grouper Amendment 29 to require use of descending devices or venting tools, along with other best fishing practices, to reduce release mortality. 	<p>Results will be presented to the SG AP for their recommendations.</p> <p>The Council will consider the ASA, CCA, and Yamaha Marine Group’s recommendations as they work on the snapper grouper FMP.</p>
Spearfishing in the Snapper Grouper Fishery	<p>The Council reviewed a white paper on this topic.</p> <p>The Council requested staff to prepare options for vessels with SG1 permits and a spiny lobster tailing permit be allowed to retain commercial quantities (20, 30 or 40 lobsters) of spiny lobster in the EEZ north of Florida.</p>	<p>White paper to be presented to SG AP at their spring meeting. Staff to conduct a webinar with commercial spearfishing participants after the June 2019 meeting.</p> <p>Lobster options to be presented at the June 2019 Council meeting.</p>
Special Management Zones (SMZs) around Artificial Reefs	<p>NC requested SMZs around 30 artificial reefs in the EEZ off NC to prohibit gear other than handline, rod-and-reel, and spearfishing gear and to limit possession of SG species to the recreational bag limit when using spearfishing gear.</p>	<p>Draft document to be reviewed at the September 2019 meeting. SC expected to add sites and other states may as well.</p>
Possible move of Jacks Complex from Snapper Grouper to Mackerel Cobia FMP	<p>The Council requested staff to prepare options to consider removing the jacks complex from the SG FMP, possibly to the mackerel cobia FMP</p>	<p>The Council will review options at the June 2019 Council meeting.</p>

Issue:	Action Taken:	Schedule:
Allocation Review Trigger Policy	<p>This action would establish a policy that determines which triggers would automatically initiate a review of allocations. The Council reiterated its desire to apply both indicator-based and time-based criteria as triggers for re-examining allocations. The Council added an additional trigger criterion to consider a change to the social or economic status of at least one sector to the indicator-based criteria. The Council also discussed the GMFMC’s recommendation that the “between Council” allocations of black grouper, mutton snapper, and yellowtail snapper be reassessed every 10 years. The South Atlantic Council recommended that the “between Council” allocations for these species be reconsidered every 7 years.</p> <p>The Council also made the following decisions:</p> <ul style="list-style-type: none"> • The Council will revisit allocations for species each time a stock assessment for a species is accepted. • The default review for allocations will occur every 7 years. • To avoid reviewing all allocations potentially every 7 years, the Council wants managed species to be sorted into 3 bins: 1) species that have an allocation in effect in any year prior to 2013; 2) species that last had their allocation set in 2013; and 3) species that had their allocations set in 2014 or later. The Council will review these groupings the next time they review the amendment. • A sector would need to exceed its allocation 3 out of 5 years to trigger an allocation review. • A sector would need to under harvest at least 50% of its sector ACL for 3 out of 5 years to trigger an allocation review. • The Council will review at a later date the information they would like to have to help them in determining whether or not sector allocation is warranted. 	The Council will review a revised document at the June 2019 meeting.
Recreational Accountability Measures Amendment	The Council reviewed scoping comments, modified alternatives, and provided guidance to staff.	The Council will review an updated document at the September 2019 meeting.

Issue:	Action Taken:	Schedule:
Citizen Science Program	The Council received a short update on the program and projects (the Scamp app to collect discard data for the next assessment and a project to document the historical catch and length distribution for early headboat catches).	Work will continue on the program and these two projects. The Scamp app is now available, and funding was just received for the photo project.
Dolphin Wahoo	<p>The Council reviewed a white paper on mechanisms and regulatory parameters for adding ecosystem component (EC) species to a fishery management plan (FMP), ways that other Councils have addressed EC species in FMPs, as well as background information on fisheries for bullet mackerel, frigate mackerel, and other major prey species for dolphin and wahoo.</p> <p>The Council also reviewed items for inclusion in Amendment 10 and provided guidance to staff:</p> <ul style="list-style-type: none"> • Apply catch level recommendations to actions as appropriate when available. • In Action 9, include sub-alternatives to accommodate the following gears: <ul style="list-style-type: none"> ○ American lobster traps ○ Spiny lobster pots ○ Stone crab pots ○ Black sea bass pots • Include information on HACCP training that may be required for for-hire vessel operators or crew if bag limit sales are allowed. • Bring back information on adding buoy gear to the list of allowable gears. • Removed ABC, ACL & ACT changes from the amendment. 	<p>The Council requested staff hold scoping meetings on adding bullet and frigate mackerel as ecosystem components to the Dolphin Wahoo FMP in the spring of 2019. The Council will review scoping comments at the June 2019 meeting.</p> <p>A draft list of options for items to be included in Amendment 10 will be presented at the March 2019 meeting.</p>
For-Hire Recreational Reporting	The Council received an update on the amendment: The Amendment was approved on June 12, 2018 and the Final Rule is expected to publish in mid-April 2019 with a 60-day cooling off period.	A mid-June 2019 effective date will allow ACCSP to incorporate the permit information from NMFS. NMFS is exploring exempting dual permit holders until the Gulf system is implemented. Training and outreach will continue, and details will be shared once the final rule publishes.

Issue:	Action Taken:	Schedule:
<p>Habitat and Ecosystem Based Management</p>	<p>The Council hosted the representatives from the New England/Mid-Atlantic Councils and ASMFC to discuss the issue of species expanding northwards.</p> <p>There was agreement to move forward with the following two groups/activities:</p> <ol style="list-style-type: none"> 1. Science/Data – the Northeast and Southeast Fisheries Science Centers are leading this effort and a workshop is currently being scheduled. The Councils want to be involved in the workshop/discussions, in part to ensure ongoing fishery independent data collection programs continue (e.g., SEAMAP, NEAMAP, SEFIS, and State programs). The South Atlantic Council’s Citizen Science Program is exploring a mechanism for the public to act as an early warning system to report when new species show up in an area. 2. Governance – the CCC members of the New England, Mid-Atlantic, and South Atlantic Councils and the ASMFC Executive Director will work to develop a way to manage these species that clearly identifies each groups roles/responsibility without any group losing any authority. This group should meet more frequently as needed via conference calls, webinars, and additional in-person meetings in conjunction with other meetings of the partners (e.g., NRCC meetings). The CCC/ASMFC group will designate staff from their respective organizations to evaluate the following approaches: <ol style="list-style-type: none"> a. Options included in Attachment A5 from this meeting. b. Scenario Planning Exercise used by the Pacific Council. c. Base Realignment and Closure (BRAC) approach used to consider potential military base closures. d. Identify roles for each group in this “obligatory partnership”. <p>Debra Hernandez, Executive Director of the Southeast Coastal Ocean Observing Regional Association (SECOORA) provided the Committee an overview of the organization composed of coastal and ocean scientists, businesses and stakeholders working together to monitor and observe the ocean to understand change and enable better decision-making.</p>	<p>The Council will have further talks with the NEFMC, MAFMC and ASMFC at various meetings in 2019 meeting.</p> <p>The NEFSC and SEFSC will be hosting a meeting in the near future to discuss data issues and the Council will participate.</p>

Issue:	Action Taken:	Schedule:
SEDAR	<p>The Council received an update on projects and the impacts of the government closure. The Council also discussed concerns raised by the State of Florida and others about the new MRIP numbers. The Council directed staff to organize an SSC workshop to identify MRIP data concerns across the South Atlantic, identify specific uncertainties or potential bias, and develop recommendations on how to proceed in the short-term for using the data in stock assessments, in developing ABC recommendations, and evaluating ACLs; include representatives from each State, MRIP/S&T, and SEFSC. The Council also approved the king mackerel assessment terms of reference.</p>	<p>The SSC will discuss the proposed MRIP workshop at their April 2019 meeting.</p> <p>The next SEDAR Steering Committee meeting will be May 16-17, 2019 in Charleston, SC to discuss project planning, long-term priorities, and other issues.</p>
AP Selection	<p>The Council made appointments for the SMP Workgroup and for the Coral, Dolphin Wahoo, Habitat, Law Enforcement, Mackerel Cobia, and Snapper Grouper Advisory Panels. Discussions will continue on options for having a GA Commercial representative on the SMP Workgroup and a designated Research/Geologist At-Large seat on the Habitat AP during its June 2019 meeting.</p>	<p>Discussions will continue on options for having a GA Commercial representative on the SMP Workgroup and a designated Research/Geologist At-Large seat on the Habitat AP during its June 2019 meeting.</p>
MyFishCount	<p>Kelsey Dick, Council staff, gave an update:</p> <ul style="list-style-type: none"> • 862 users/member profiles • 915 trips logged • App & web portal continue to be promoted; webinar trainings are underway • Cooperation with SC Wildlife Federation on a Best Fishing Practices tutorial • Shiny app (data.safmc.net/MyFishCount) that allows anglers to access information collected through MyFishCount • Survey to understand angler perceptions & opinions • Data are being edited and uploaded to ACCSP 	<p>Council staff will continue working with private recreational fishermen to have them report, especially during the red snapper season. This experience will be used by the Council as they continue to work on the permitting and reporting amendment at the September 2019 meeting.</p>

Issue:	Action Taken:	Schedule:
Mackerel	<p>The Council reviewed stakeholder and Mackerel Cobia Advisory Panel (MCAP) concerns about the low commercial trip limit in the Atlantic Southern Zone during season two (October to the end of February) and directed staff to begin work on a framework amendment to increase the trip limits; staff will work with the Mackerel AP to develop a range of trip limit alternatives.</p> <p>The Council reviewed concerns expressed by the AP regarding increased participation in the commercial Spanish mackerel fishery and closures that have occurred recently in the Atlantic northern zone (NY through NC) and southern zone (SC through Miami-Dade/Monroe, Florida). The Council discussed options to address commercial closures and directed staff to take the issue to the AP for discussion.</p>	<p>The Council directed staff to hold a Mackerel Cobia AP meeting via webinar prior to the June 2019 Council meeting to discuss Atlantic king mackerel commercial trip limits, closures in the commercial Spanish mackerel fishery, and CMP Framework Amendment 7.</p> <p>The Council will review an Options Paper on king mackerel trip limits and receive an update on items in CMP Amendment 24 (Spanish mackerel allocations) at the June 2019 meeting.</p>



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

May 6, 2019

MEMORANDUM

TO: N.C. Marine Fisheries Commission

FROM: Randy Gregory, Division of Marine Fisheries, NCDEQ

SUBJECT: Highly Migratory Species Update

Issue

Highly Migratory Species activity update.

Action Needed

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

Overview

The Highly Migratory Species Advisory Panel will meet May 21-23, 2019 in Silver Spring, Maryland. The advisory panel will discuss the Amendment 7 bluefin tuna management three-year review, a proposed rule and Draft Environmental Impact Statement for pelagic longline bluefin tuna area-based weak hook management measures, and scoping for Amendment 13 (bluefin tuna). In April, NOAA Fisheries updated the commercial, recreational, and dealer compliance guides for Highly Migratory Species to reflect changes in regulations for tunas and mako shark. The compliance guides can be accessed on the NOAA Fisheries Atlantic Highly Migratory Species website.

Tuna

On Jan. 1, 2019, the January General category Atlantic bluefin tuna sub-quota opened with a daily retention limit of one large medium or giant bluefin tuna (measuring 73 inches or greater) per vessel per day/trip. Although it is called the "January" sub-quota, the regulations allow the General category fishery under this quota to continue until the sub-quota is reached or until March 31, whichever comes first, and it will remain closed until the General category fishery reopens on June 1, 2019. NOAA Fisheries transferred 19.5 metric tons of quota from the 28.9 metric ton General category December 2019 sub-quota period to the January 2019 sub-quota period, resulting in a sub-quota of 49 metric tons for the January 2019 period and a sub-quota of 9.4 metric ton for the December 2019 period. In February, NOAA Fisheries transferred additional quota into the January sub-quota from the Reserve category resulting in a 100 metric ton sub-quota. On Feb. 28, 2019, NOAA Fisheries closed the January sub-quota with landings of 108 metric tons.

NOAA Fisheries closed the recreational Atlantic bluefin tuna Angling category fishery for large medium and giant "trophy" bluefin tuna (measuring 73" or greater) in the southern area (includes North Carolina) on March 14, 2019, and the fishery will remain closed through Dec. 31, 2019. The southern area is the area south of 39°18'N (off Great Egg Inlet, NJ), outside the Gulf of Mexico. The recreational Atlantic bluefin tuna fishery remains open for bluefin tuna less than 73 inches. The bluefin tuna daily retention limit is the default limit of one school, large school, or small medium bluefin tuna (27 inches to less than 73 inches).

Red Drum Landings 2017-2019

Landings are complete through January 31, 2019.

2017 landings are final. 2018 and 2019 landings are preliminary.

Year	Month	Species	Pounds	2009-2011 Average	2013-2015 Average
2017	9	Red Drum	28,280	28,991	35,003
2017	10	Red Drum	58,824	43,644	63,662
2017	11	Red Drum	28,201	14,318	27,643
2017	12	Red Drum	4,714	3,428	2,197
2018	1	Red Drum	2,056	5,885	1,699
2018	2	Red Drum	2,176	3,448	3,996
2018	3	Red Drum	4,797	5,699	3,971
2018	4	Red Drum	17,096	7,848	6,528
2018	5	Red Drum	15,656	13,730	9,664
2018	6	Red Drum	11,673	12,681	6,985
2018	7	Red Drum	9,934	13,777	15,618
2018	8	Red Drum	14,995	21,252	15,846

Fishing Year (Sept 1, 2017 - Aug 31, 2018) Landings **198,401**

Year	Month	Species	Pounds	2009-2011 Average	2013-2015 Average
2018	9	Red Drum	11,149	28,991	35,003
2018	10	Red Drum	42,805	43,644	63,662
2018	11	Red Drum	10,076	14,318	27,643
2018	12	Red Drum	2,052	3,428	2,197
2019	1	Red Drum	2,101	5,885	1,699
2019	2	Red Drum	1,236	3,448	3,996 *
2019	3	Red Drum	740	5,699	3,971 *

Fishing Year (Sept 1, 2018 - Aug 31, 2019) Landings **70,157**

*partial trip ticket landings only

***landings are confidential

Year	Month	Species	Pounds	Dealers	Trips	Average (2007-2009)
2015	1	SOUTHERN FLOUNDER	1,984	30	237	7,713
2015	2	SOUTHERN FLOUNDER	495	21	93	4,617
2015	3	SOUTHERN FLOUNDER	10,750	62	768	23,512
2015	4	SOUTHERN FLOUNDER	20,812	88	1,072	68,389
2015	5	SOUTHERN FLOUNDER	42,424	117	1,279	122,514
2015	6	SOUTHERN FLOUNDER	53,835	116	1,481	154,090
2015	7	SOUTHERN FLOUNDER	42,806	106	1,144	170,387
2015	8	SOUTHERN FLOUNDER	43,900	111	1,152	201,862
2015	9	SOUTHERN FLOUNDER	255,067	122	2,335	396,301
2015	10	SOUTHERN FLOUNDER	429,234	127	2,554	781,717
2015	11	SOUTHERN FLOUNDER	301,556	90	1,756	392,150
2015	12	SOUTHERN FLOUNDER	89	7	10	37,303
2016	1	SOUTHERN FLOUNDER	2,625	33	264	7,713
2016	2	SOUTHERN FLOUNDER	1,643	31	291	4,617
2016	3	SOUTHERN FLOUNDER	9,260	58	915	23,512
2016	4	SOUTHERN FLOUNDER	10,558	72	628	68,389
2016	5	SOUTHERN FLOUNDER	24,522	90	821	122,514
2016	6	SOUTHERN FLOUNDER	44,952	100	1,242	154,090
2016	7	SOUTHERN FLOUNDER	43,574	102	1,132	170,387
2016	8	SOUTHERN FLOUNDER	53,057	106	1,409	201,862
2016	9	SOUTHERN FLOUNDER	246,269	131	3,011	396,301
2016	10	SOUTHERN FLOUNDER	280,689	117	2,181	781,717
2016	11	SOUTHERN FLOUNDER	182,768	102	1,479	392,150
2016	12	SOUTHERN FLOUNDER	14	5	5	37,303
2017	1	SOUTHERN FLOUNDER	1,677	38	122	7,713
2017	2	SOUTHERN FLOUNDER	2,758	55	215	4,617
2017	3	SOUTHERN FLOUNDER	8,254	67	874	23,512
2017	4	SOUTHERN FLOUNDER	9,591	83	787	68,389
2017	5	SOUTHERN FLOUNDER	33,105	105	1,121	122,514
2017	6	SOUTHERN FLOUNDER	74,785	115	1,904	154,090
2017	7	SOUTHERN FLOUNDER	74,879	108	1,755	170,387
2017	8	SOUTHERN FLOUNDER	102,751	116	2,364	201,862
2017	9	SOUTHERN FLOUNDER	235,915	128	2,849	396,301
2017	10	SOUTHERN FLOUNDER	548,740	142	3,971	781,717
2017	11	SOUTHERN FLOUNDER	302,286	123	2,003	392,150
2017	12	SOUTHERN FLOUNDER	166	7	8	37,303
2018	1	SOUTHERN FLOUNDER	610	14	43	7,713
2018	2	SOUTHERN FLOUNDER	1,833	34	154	4,617
2018	3	SOUTHERN FLOUNDER	2,815	43	387	23,512
2018	4	SOUTHERN FLOUNDER	7,971	72	759	68,389
2018	5	SOUTHERN FLOUNDER	18,268	89	947	122,514
2018	6	SOUTHERN FLOUNDER	42,495	105	1,406	154,090
2018	7	SOUTHERN FLOUNDER	57,054	116	1,491	170,387
2018	8	SOUTHERN FLOUNDER	72,528	121	1,917	201,862
2018	9	SOUTHERN FLOUNDER	108,945	114	1,772	396,301
2018	10	SOUTHERN FLOUNDER	362,388	109	3,056	781,717
2018	11	SOUTHERN FLOUNDER	226,832	89	1,352	392,150
2018	12	SOUTHERN FLOUNDER	471	5	5	37,303
2019	1	SOUTHERN FLOUNDER	524	25	74	7,713
2019	2	SOUTHERN FLOUNDER	272	13	51	4,617 *
2019	3	SOUTHERN FLOUNDER	871	26	173	23,512 *
2019	4	SOUTHERN FLOUNDER	***	1	1	68,389 *

*2018 and 2019 data are preliminary. Data are complete through January 2019.

***data are confidential



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

May 6, 2019

MEMORANDUM

TO: Marine Fisheries Commission

FROM: Lara Klibansky, Protected Resources Biologist Supervisor

SUBJECT: Protected Resources Program Update

Issue

Summary information is provided from the division's Protected Resources Program from January 2019 through March 2019.

Action Needed

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

Overview

Observer Program

Tables summarizing observer coverage and protected species interactions* from January 2019 through March 2019 are included. These tables provide the number of trips, observed trips, observer coverage and protected species interactions for anchored large and small mesh gill nets by month and management unit. Please note that observer coverage is based on the average number of trips from previous years' finalized trip ticket data since 2019 trip data are preliminary and not available for analysis.

One dead Atlantic sturgeon interaction was observed in anchored small mesh gill nets in February 2019. No interactions were observed for anchored large mesh gill nets from January 2019 through March 2019. Marine Patrol reported two Atlantic sturgeon interactions in February 2019, one was released alive and one was dead, both were taken in illegally set gill nets. No fishermen self-reported Atlantic sturgeon interactions occurred during this time.

No sea turtle interactions were observed in anchored large or small mesh gill nets from January 2019 through March 2019, and no fishermen self-reported sea turtle interactions occurred during this time.

Annual Reports for Sea Turtle and Atlantic Sturgeon Incidental Take Permits

Included in the briefing materials are the annual reports for the Sea Turtle and Atlantic Sturgeon Incidental Take Permits that were submitted to the NOAA Fisheries in February. The annual reports provide a thorough description of all N.C. Observer Program activities, data collection methods and results.

Notable Protected Resources Related Management Regulation Changes (see Table 5 for all changes)

- Proclamation M-9-2019 reopened large portions of Management Unit A to gill nets on April 8. This opening was possible because of increased observer coverage in Management Unit A, reducing the extrapolatory impact of individual sturgeon takes.
- Proclamation M-8-2019 created a 100-yard gillnet corridor beginning April 8, 2019 by expanding the gill net restriction described in Proclamation M-20-2014 from 5-inch mesh and smaller to all mesh sized anchored gill nets. This proclamation was issued in response to the Bottlenose Dolphin Take Reduction Team recommendations. The oceanside corridor is known to be frequented by both the northern and southern estuarine bottlenose dolphin stocks.
- There were no closures during the January – March time period.

***Definition**

Incidental Take Permit Interaction - when a protected species is caught or otherwise comes in contact with a gill net.

Table 1. Preliminary data collected for large mesh gill nets by month and management unit through the NCDMF Observer Program through March 2019.

Month	Unit	Trips		Observer Large Mesh				Observed Takes By Species									
		Estimated ¹	Actual ₂	AP Attempts ³	Trips	Yards	Coverage ⁴	Kemp's		Green		Loggerhead		Unknown	A.Sturgeon		
								Live	Dead	Live	Dead	Live	Dead	Live	Live	Dead	
January	A	248	258	30	16	5,920	6.5										
	B	28	3	14	0	0	0.0										
	C	7	18	13	1	100	14.3										
	D1	0	0	1	0	0	0.0										
	D2	0	8	6	0	0	0.0										
	E	6	13	46	3	600	50.0										
February	A	433	158	43	19	11,108	4.4										
	B	44	8	12	0	0	0.0										
	C	77	13	16	8	5,230	10.4										
	D1	0	0	6	0	0	0.0										
	D2	2	0	5	0	0	0.0										
	E	18	2	39	0	0	0.0										
March	A	1,001	722	25	63	34,156	6.3										
	B	48	19	13	0	0	0.0										
	C	680	3	16	2	100	0.3										
	D1	0	0	2	0	0	0.0										
	D2	6	0	3	2	800	33.3										
	E	52	6	43	1	500	1.9										
Total		2,650	1,231	333	115	58,514	4.3	0	0	0	0	0	0	0	0	0	0

¹ Finalized trip ticket data averaged from 2013-2017

² Preliminary trip ticket data for 2019

³ Alternative Platform trips where no fishing activity was found

⁴ Based on estimated trips and observer large mesh trips

Table 2. Preliminary data collected for large mesh gill nets by month through the NCDMF Observer Program through March 2019.

Month	Trips		Observer Large Mesh				Observed Takes By Species										
	Estimated ₁	Actual ₂	AP Attempts ³	Trips	Yards	Coverage ₄	Kemp's		Green		Loggerhead		Unknown	A. Sturgeon ⁵			
							Live	Dead	Live	Dead	Live	Dead	Live	Live	Dead		
January	289	300	110	20	6,620	6.9											
February	574	181	121	27	16,338	4.7											
March	1,787	750	102	68	35,556	3.8											
Total	2,650	1,231	333	115	58,514	4.3	0	0	0	0	0	0	0	0	0	0	0

¹ Finalized trip ticket data averaged from 2013-2017

² Preliminary trip ticket data for 2019

³ Alternative Platform trips where no fishing activity was found

⁴ Based on estimated trips and observer large mesh trips

Table 3. Preliminary data collected for small mesh gill nets by month and management unit through the NCDMF Observer Program through March 2019.

Month	Unit	Trips		Observer Small Mesh			Observed Takes By Species									
		Estimated ¹	Actual ₂	Trips	Yards	Coverage ³	Kemp's		Green		Loggerhead		Unknown	A. Sturgeon		
							Live	Dead	Live	Dead	Live	Dead	Live	Live	Dead	
January	A	385	178	2	70	0.5										
	B	178	173	0	0	0.0										
	C	63	85	8	2,800	12.7										
	D1	1	0	0	0	0.0										
	D2	20	5	3	600	15.0										
	E	26	23	3	900	11.5										
February	A	479	151	6	1,860	1.3										
	B	153	187	17	7,530	11.1										
	C	83	47	18	7,400	21.7										
	D1	1	0	0	0	0.0										
	D2	11	0	3	500	27.3										
	E	16	8	0	0	0.0										
March	A	521	301	8	2,050	1.5										
	B	316	288	21	10,045	6.6										
	C	111	30	10	4,360	9.0										
	D1	7	7	0	0	0.0										
	D2	4	0	0	0	0.0										
	E	23	9	2	400	8.7										
Total		2,398	1,492	101	38,515	4.2	0	0	0	0	0	0	0	0	0	1

¹ Finalized trip ticket data averaged from 2013-2017

² Preliminary trip ticket data for 2019

³ Based on estimated trips and observer small mesh trips

Table 4. Preliminary data collected for small mesh gill nets by month through the NCDMF Observer Program through March 2019.

Month	Trips		Observer Small Mesh			Observed Takes By Species										
	Estimated ¹	Actual ²	Trips	Yards	Coverage ³	Kemp's		Green		Loggerhead		Unknown	A. Sturgeon			
						Live	Dead	Live	Dead	Live	Dead	Live	Live	Dead		
January	673	464	16	4,370	2.4											
February	743	393	44	17,290	5.9											1
March	982	635	41	16,855	4.2											
Total	2,398	1,492	101	38,515	4.2	0	0	0	0	0	0	0	0	0	0	1

¹ Finalized trip ticket data averaged from 2013-2017

² Preliminary trip ticket data for 2019

³ Based on estimated trips and observer small mesh trips

Table 5. Gill net regulation changes that occurred from January to March 2019 in accordance with the Sea Turtle and Atlantic Sturgeon Incidental Take Permits.

Date	Description of Regulation Change (Proclamation referenced)
January 1	This proclamation supersedes proclamation M-14-2018 dated November 29, 2018. In Management Unit A, it is unlawful to use gill nets with a stretched mesh length other than 3 ¼ inches, or from 5 ½ inches through 6 ½ inches, EXCEPT IN THE AREAS DESCRIBED IN SECTION IV. It also maintains large mesh gill net closures and vertical height restrictions for all anchored gill net sets. This action is being taken to allow various directed gill net fisheries while minimizing interactions with endangered Atlantic sturgeon and to reduce river herring regulatory discards. (M-17-2018)
February 1	This proclamation supersedes proclamation M-17-2018 dated December 21, 2018. In a portion of Management Unit A, it makes it lawful to use runaround, strike, and drop gill nets with a stretched mesh length from 5 ½ inches through 6 ½ inches. It also maintains large mesh gill net closures and vertical height restrictions for all anchored gill net sets. This action is being taken to allow a directed fishery for invasive blue catfish and continue to allow other various directed gill net fisheries while minimizing interactions with endangered Atlantic sturgeon and to reduce river herring regulatory discards. (M-2-2019)
February 15	This proclamation supersedes proclamation M-10-2018 dated September 28, 2018. This proclamation implements gear exemptions for portions of the Internal Coastal Waters south of Management Unit A to allow fishermen to set gill nets for the shad fishery (See Section III.). It opens the remaining portions of Management Unit B 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 the Sea Turtle Incidental Take Permit. This proclamation also maintains openings for Management Units C, D2 and portions of Management Unit E (except those described in Section II.) to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches. This action is being taken to allow directed gill net fisheries for shad while minimizing interactions with threatened and/or endangered species. (M-3-2019)
March 2	This proclamation supersedes Proclamation M-2-2019 dated January 30, 2019. It opens all of Management Unit A to the use of gill nets and allows gill net configurations for harvesting American shad by removing vertical height restrictions for up to 1,000 yards of gill net with stretched mesh lengths of 5 ¼ through 6 ½ inches. This proclamation also implements additional gill net restrictions for Management Unit A, Subunit A1-South of US-64-BYP/US-64, in accordance with the Sea Turtle and Atlantic Sturgeon ITPs. Proclamation FF-56-2018 makes it unlawful to possess American shad for commercial purposes prior to 12:01 A.M. Sunday, March 3, 2019 and after 12:01 A.M. Sunday, March 24, 2019. (M-4-2019)
March 11	This proclamation implements tie-down (vertical net height restrictions) and distance from shore restrictions for gill nets with a stretched mesh length five inches or greater in the western Pamlico Sound and rivers in accordance with Supplement A to Amendment 1 to the N.C. Estuarine Striped Bass Fishery Management Plan. (M-5-2019)

Table 5. Continued

Date	Description of Regulation Change (Proclamation referenced)
March 18	<p>During an emergency meeting on March 13, 2019, the N.C. Marine Fisheries Commission directed the N.C. Division of Marine Fisheries Director to issue this proclamation pursuant to N.C. General Statute 113-221.1 (d). The Director has no legal authority to modify or change a proclamation when the proclamation is specifically directed by the Commission under this statute. 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. (M-6-2019)</p>
March 25	<p>This proclamation supersedes proclamation M-4-2019 dated February 27, 2019. In Management Unit A it removes the use of gill nets configured for harvesting American shad by implementing vertical height restrictions for all stationary gill nets. This proclamation also closes portions of Management Unit A to large mesh stationary gill nets, allows the use of run-around, strike, and drop nets with a stretched mesh length of 5½ inches through 6½ inches in a portion of Management Unit A, and maintains additional gill net restrictions for Management Unit A, Subunit A1, South of US-64-BYP/US-64, in accordance with the Sea Turtle and Atlantic Sturgeon ITPs. (M-7-2019)</p>



Annual Sea Turtle Interaction Monitoring of the Anchored 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

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1 INTRODUCTION

The North Carolina Division of Marine Fisheries (NCDMF) applied for an Incidental Take Permit (ITP) under Section 10(a)(1)(B) of the Endangered Species Act (ESA) of 1973 (Public Law 93-205) on June 14, 2010 to address sea turtle interactions with anchored gill nets in North Carolina's internal coastal (estuarine) waters. Species of sea turtles found in the estuarine waters of North Carolina include green sea turtle (*Chelonia mydas*), Kemp's ridley sea turtle (*Lepidochelys kempii*), loggerhead sea turtle (*Caretta caretta*), hawksbill sea turtle (*Eretmochelys imbricate*), and leatherback sea turtle (*Dermochelys coriacea*). This request was prompted by notification from the National Marine Fisheries Service (NMFS) Southeast Regional Office (SERO) in July and November 2009 indicating the need for the state of North Carolina to address unauthorized takes of sea turtles occurring in inshore anchored gill-net fisheries. A revised ITP application was submitted on August 17, 2011 based on feedback received from the NMFS on May 12, 2011. Feedback on the revised application from the NMFS was provided again on May 2, 2012 after public and peer review comments had been compiled. In response to requested changes from the NMFS, and considering the public and peer review comments, including the comments made by the North Carolina Sea Turtle Advisory Committee (NCSTAC), the NCDMF made extensive revisions to its application and resubmitted it on September 6, 2012. After another round of public and peer review comments, the NMFS requested more information and clarification on certain portions of the application. On November 14, 2012, the response to the information request was discussed via teleconference between the NMFS and the NCDMF and provided to them beforehand. The NMFS recommended that the NCDMF update the current ITP application with an appendix containing all the updated information requested.

During the November 14, 2012 teleconference, the NMFS suggested breaking down the annual requested takes for Kemp's ridley and loggerhead sea turtles cumulatively, similar to previous ITPs for the Pamlico Sound Gill Net Restricted Area (PSGNRA). The NCDMF also suggested annual cumulative requested takes for all species of sea turtles for the exempt areas. A revised application was resubmitted on January 18, 2013.

On April 17, 2013, the NMFS set up a teleconference with the NCDMF to go over the revised ITP application that was submitted on January 18, 2013. Information was provided to the NMFS to clarify issues they had with the application. On April 22, 2013, the NMFS again asked for further clarification on various aspects of the ITP application which the NCDMF promptly responded to. At that time, the NCDMF was informed by the NMFS that they hoped to have a draft permit within a month to discuss with the NCDMF. On April 30, 2013, the NCDMF staff were contacted by the NMFS for further explanation on the methodologies of the Observer Program. Explanations were provided, and the NMFS did not have any more questions at the time.

On May 20, 2013, the NCDMF had another teleconference with the NMFS concerning the ITP application status and to review the Biological Opinion and Environmental Assessment protocols. At this time, the NMFS raised concerns on the number of observed takes requested in the ITP application. During the May teleconference, the NCDMF and the NMFS agreed to base authorized takes by area on an annual basis instead of a seasonal basis. The number of requested observed takes was reduced by taking the seasonal component out of the equation. The NMFS brought up the idea of having an Implementing Agreement for the Sea Turtle ITP, much like the Implementing Agreement the NMFS had suggested for the Atlantic Sturgeon ITP. The NMFS explained that an Implementing Agreement would provide more flexibility and could reduce the risk of the permit

being suspended due to excessive takes, but it will not allow for additional takes. The NMFS explained that any new information could be provided in another appendix to the existing application. The NCDMF asked the NMFS to provide a copy of a draft Implementing Agreement for consideration.

The NCDMF received the Sea Turtle ITP (No. 16230) on September 11, 2013. The Sea Turtle ITP defined an ITP Year as beginning on September 1 and running through August 31 of the following year. This ITP authorized the implementation of adaptive management measures to protect threatened and endangered sea turtles and other ESA listed species, while allowing anchored gill-net fisheries to operate in the estuarine waters of North Carolina. The ITP's Conservation Plan specifies further measures, which the NMFS determined will minimize, monitor, and mitigate the impacts of incidental takes of ESA-listed sea turtle species associated with the otherwise lawful anchored gill-net fisheries operating in estuarine North Carolina waters. Anchored gill nets are passive sets deployed with an anchor, stake, or boat at one or both ends of the net shots or operation. Anchored gill nets do not include the following types of gill nets: run-around, strike, drop or drift gill nets.

On November 21, 2016, the NCDMF requested a minor modification to extend the annual report deadlines for the Sea Turtle and Atlantic Sturgeon (No. 18102) ITPs from January 31 to the last day in February. This extension was to benefit staff due to a lag time in data being uploaded and verified, the time of year, the deadline for the fall seasonal report, and staff availability. On January 4, 2017, the NMFS sent a letter to the NCDMF agreeing with NCDMF's request for the minor modification and encouraging staff to incorporate any further anticipated minor modifications into the application process for an updated ITP ([Appendix A](#)).

The NCDMF Observer Program data were updated using the finalized 2017 Trip Ticket Program (TTP) data in May 2018 ([Appendix B](#)). The Annual Completion Report for the Sea Turtle ITP No. 16230 was completed for ITP Year 2017 and submitted in February 2018. Using the finalized 2017 data, Tables 1, 5, 10, and 11 from the Completion Report were updated to reflect the final estimates of observer coverage and sea turtle takes. The fall 2016 season was based on finalized 2016 TTP data and did not deviate from the previous report for both anchored large and small mesh gill nets ([Appendix B](#)).

2 METHODS

2.1 Observer Activity

The conservation plan includes managing the estuarine anchored gill-net fisheries by dividing North Carolina's estuarine waters into six Management Units (A, B, C, D1, D2, and E; Figure 1). Trip Ticket Program data along with Observer Program data from previous years are used when estimating the number of trips needed for the current year in each Management Unit and season. Real time TTP data are also used for areas where effort may be increasing. Each year effort can potentially shift from one Management Unit to another making it important for the NCDMF to not base the observer effort solely on previous years' data, but also on current effort. To account for fluctuations in TTP data caused by Management Unit closings, a five-year average was used for estimating anchored large mesh gill-net fishing trips and anchored small mesh gill-net fishing trips for ITP Year 2018. This method of estimating trips proved to more accurately reflect the current fishing effort. Once TTP data are finalized in May of 2019, the final observer coverage will be recalculated, and finalized estimates for observer coverage will be provided to the NMFS.

Observer coverage was calculated for each season in each Management Unit by estimating fishing trips using an average of the previous five years' TTP data (2013–2017) for anchored large and small mesh gill nets, while taking reduced season dates in each Management Unit into account by calculating the proportion of actual, to possible fishing days. This calculated estimated fishing effort was compared to the observer trips completed throughout the ITP Year. The average, normalized effort was used when estimating fishing trips to account for the fluctuation of fishing effort throughout the years due to closures and other regulations put in place throughout the time series.

The onboard Observer Program, where observers ride onboard fishermen's vessels, is the preferred method for obtaining observer data. Protected species interactions, gear parameters, as well as detailed gill-net catch, bycatch, and discard information for all species caught are recorded. The alternative platform Observer Program requires two observers in a state-owned vessel to monitor commercial fishermen as they fish their gill nets. The alternative platform observers document protected species interactions and provide catch and discard estimates for other species that are observed. The amount of biological data that are collected on alternative platform observer trips is notably less than onboard observer trips. Therefore, onboard observer trips are highly preferred due to the amount of biological data collected which are used when making management decisions, developing stock assessments, developing fishery management plans, and identifying bycatch (finfish, protected species) problem areas. NCDMF vessels are used to perform alternative platform trips by observers and Marine Patrol Officers and follow similar data collection protocols. Each observer attempts to obtain a minimum of three to four trips per working week when fishing activity is occurring.

Observers are assigned a Management Unit to work weekly and the number of observers assigned to a Management Unit depends upon the season and fishing effort. Fishing effort is estimated from the previous 5 years' TTP data by week, month, and Management Unit to determine how much observer coverage is needed in each Management Unit by week, month, and season. Reports from observers, fishermen, and other NCDMF staff are used to determine if effort is fluctuating between Management Units. Trends from the previous years' TTP data are also analyzed to determine if fishing effort is shifting from one Management Unit to another. Fishermen holding an Estuarine Gill Net Permit (EGNP) in North Carolina are pooled by Management Unit and further split into lists by geographic area within Units. Contact information for these fishermen is then given to observers assigned to specific Management Units so that they may contact the participants to schedule an onboard trip. Preliminary TTP information is also used to refine the list to represent individuals who are actively participating in fishing activities. Observers also visit fish houses and dealers where they hand out business cards with their contact information and brochures explaining the Observer Program, giving the fishermen another outlet to allow observers on their vessels. Additionally, the Observer Program uses a website (<http://portal.ncdenr.org/web/mf/observers-program>) to provide outreach to fishermen to facilitate obtaining trips.

Alternative platform trips are used for areas that may be hard to get onboard trips (i.e., fishermen in remote locations that leave from their residence by boat) or when a fisherman's vessel is too small to safely accommodate an onboard observer. Alternative platform trips are also used in areas where fishing effort may increase quickly, where sea turtle abundance is high, and when observers are unable to set-up onboard trips due to fisherman non-compliance. Marine Patrol also conducts alternative platform trips weekly in all Management Units based on similar methodologies as the Observer Program. Coordination of onboard, alternative platform, and Marine Patrol alternative

platform trips is done regularly to maximize efficiency, avoid multiple observations of a single trip, and to achieve the maximum amount of observer coverage possible for each Management Unit. Changes in effort, sea turtle abundance (i.e., observed and reported interactions), and other protected species interactions are monitored on a daily, weekly, and monthly basis to ensure proper observer coverage is being maintained. The ITP requires a minimum of 7% observer coverage, with a goal of 10% of the total anchored large mesh gill-net (≥ 4 inches stretched mesh-ISM) fishing trips, and a minimum of 1% coverage, with a goal of 2% of the total anchored small mesh gill-net (< 4 ISM) fishing trips per Management Unit for the spring, summer, and fall seasons.

Observers are trained to identify, measure, evaluate condition, resuscitate, and tag sea turtles by the NMFS – Beaufort Lab and the NCDMF. Data collected on observed sea turtles includes: date, time, tag numbers, location (latitude and longitude, when possible), condition (i.e., no apparent harm, injury including a description of the nature of the injury, or mortality), species, sex (if determinable), and curved carapace length (CCL) in mm and curved carapace width (CCW) in mm. Photographs and environmental parameters (i.e., salinity, water temperature) are also collected when feasible. Dead sea turtles are retained by the observer when possible. All live, debilitated sea turtles are retained by the observer and delivered to the North Carolina Sea Turtle Stranding Network for examination and treatment. Observers also collect data on location, gear parameters, catch, bycatch, and discards for each haul depending on the observed trip type (onboard/alternative platform). The catch is sampled throughout each onboard trip including species, quantities, weights, lengths, and disposition (alive/dead). Data are coded onto NCDMF data sheets and uploaded to the NCDMF Biological Database for analysis. All observers are debriefed within 24 hours of each trip to obtain data on catch, set locations, gear parameters, and sea turtle interactions to provide estimates of sea turtle bycatch.

The total bycatch of sea turtles for each Management Unit was estimated using the stratified ratio method via SAS (SAS 2004). The bycatch rate (sea turtles caught per fishing trip) estimated from observer data was multiplied by the total fishing trips (average of the previous 4–5 years’ TTP data). To estimate confidence intervals (95%), the bootstrap method was used to sample estimates. Strata consisted of the six Management Units (A, B, C, D1, D2, and E; Figure 1). Estimates were calculated by date of capture, Management Unit, species, and disposition. Estimates were accumulated each week to implement necessary management measures if authorized take thresholds were approached.

$$\text{Estimated Interactions} = \left(\frac{\# \text{ of sea turtle interactions observed}}{\text{total gill-net trips observed}} \right) \text{total gill-net trips}$$

2.1.1 Seasons

The Observer Program’s activities are reported on a weekly, seasonal, and annual basis. Seasons are defined as spring (March–May), summer (June–August), and fall (September–November). Weekly progress reports are required following a week in which a sea turtle interaction occurred and includes information such as take estimates, cumulative totals, number of observed trips, and observed takes with all associated information. The seasonal progress reports include a summary of the weekly reports, additional management measures if taken, compliance, violations that occurred, and any adaptive management actions taken during the season. Annual reports include actual and estimated takes including mortality and the level of uncertainty of the estimates (i.e., 95% confidence intervals) by Management Unit, size composition along with all other interaction

information, one or more maps illustrating the geographic distribution of all observed anchored large and small mesh gill-net trips, locations of all interactions, descriptions of mitigation activities, adaptive management actions, and enforcement activities conducted during the ITP year.

2.2 Authorized Takes

Authorized levels of annual incidental takes are specified in [Tables 1–5](#). The amount of incidental takes is expressed as either estimated or observed takes depending on the amount of data available for modeling predicted takes. Extrapolated sea turtle takes were computed by dividing the number of sea turtle interactions observed by the total anchored gill-net trips observed and then multiplying by the total anchored gill-net trips. Nonparametric confidence intervals (95%) were calculated using standard bootstrapping techniques (Efron and Tibshirani 1993) using the ‘boot’ package in R (Davison and Hinkley 1997; Canty and Ripley 2015; R Core Team 2015). Bootstrap replicates were generated by sampling observer trips with replacement 5,000 times within strata (mesh/season/Management Unit; [Tables 1–5](#)). Because reaching the estimated or observed level for any category of authorized takes for any species would end the incidental take authorization for all species; it is highly unlikely that all five species would be impacted at these full levels. Takes must be incidental to otherwise lawful activities associated with the anchored large and small mesh gill-net fisheries, and as conditioned herein. The ITP covers incidental takes from the date of issuance through August 31, 2023. The NCDMF uses preliminary data to monitor the total number of live and dead takes by species per Unit to determine if the fishery is approaching or has reached the authorized takes for any sea turtle species. Once TTP data are finalized in May of 2019, the final authorized estimated sea turtle takes will be recalculated and finalized estimates will be provided to the NMFS.

2.3 Compliance

The NCDMF observers and Marine Patrol conduct weekly fish house visits, boat patrols, fisherman spot checks, gear checks, aerial surveys, and continual outreach to the industry attempting to ensure industry compliance and to determine anchored large and small mesh gill-net fishing effort throughout the state.

The Observer Program has various ways to contact fishermen to schedule trips. The most common method is by phone, due to limited program resources, fishermen leaving from private launches, and overall efficiency. The Observer Program has a contact log which is filled out for every phone call or contact that is made when attempting to obtain a trip. Each contact was put into a specific category and other information was gathered ([Table 6](#)). The contact log was analyzed by month and category to determine what percentage of phone calls resulted in observer trips.

3 RESULTS

3.1 Observer Activity

3.1.1 Fall 2017

The fall 2017 season for anchored large and small mesh gill nets in North Carolina is September 2017 through November 2017 for ITP Year 2018 (September 1, 2017–August 31, 2018) as defined in ITP No. 16230. Portions of Management Unit A (eastern Albemarle Sound) closed to anchored large and small mesh gill nets via proclamation M-18-2017 on October 29, 2017 while maintaining the closure of all anchored gill nets in the Management Unit (eastern/southern Albemarle Sound

and Croatan and Roanoke sounds) to avoid interactions with sea turtles (Boyd 2017b; [Table 7](#)). Specific sections of Management Unit B (sub-Units CGNRA, SGNRA1-3) closed to anchored large mesh gill nets for the new ITP Year 2018 to avoid sea turtle interactions via proclamation M-13-2017 on September 1, 2017. These areas of Management Unit B reopened to anchored large mesh gill nets via proclamation M-14-2017 on September 25, 2017. Management Unit C opened to anchored large and small mesh gill nets for the new ITP Year 2018 on September 1, 2017 via proclamation M-13-2017. Management Unit D1 opened to anchored large mesh gill nets for the new ITP Year 2018 via proclamation M-17-2017 on October 16, 2017. On November 9, 2017 proclamation M-19-2017 closed all of Management Unit D1 to anchored large mesh gill nets due to reaching allowable sea turtle take thresholds.

The Observer Program achieved an estimated 8.2% overall anchored large mesh gill-net coverage for the fall 2017 season meeting the minimum requirement (7.0%) in all Management Units except Management Unit D2 based on finalized data (Boyd 2017b; [Table 8](#); [Figures 2–8](#)).

The Observer Program achieved an estimated 2.3% overall anchored small mesh gill-net coverage for the fall 2017 season meeting the minimum requirement (1.0%) in all Management Units except Management Unit B (0.9%) based on finalized data (Boyd 2017b; [Table 9](#); [Figures 2–8](#)).

There were 37 observed sea turtle interactions from anchored large mesh gill nets during the fall 2017 season (Boyd 2017b; [Table 10](#); [Figures 2–8](#)). There were no observed sea turtle interactions from anchored small mesh gill nets during the fall 2017 season. The species composition was made up of green sea turtles (n = 26 alive; n = 9 dead) and Kemp’s ridley sea turtles (n = 1 alive; n = 1 dead).

The percent breakdown of each Management Units observed contribution to incidental sea turtle interactions for the fall 2017 anchored gill-net fishery are as follows; Unit A = 5.4%, Unit B = 64.9%, Unit C = 0.0%, Unit D1 = 18.9%, Unit D2 = 2.7%, Unit E = 8.1% ([Table 10](#); [Figures 2–8](#)). There were eight fisherman self-reported sea turtle interactions that occurred in anchored large mesh gill nets and zero reported in anchored small mesh gill nets during this period (Boyd 2017b; [Table 11](#)).

3.1.2 Spring 2018

The spring 2018 season for anchored large and small mesh gill nets in North Carolina is March 2018 through May 2018 for ITP Year 2018 (September 1, 2017–August 31, 2018) as defined in ITP No. 16230. Management Unit A opened to the use of anchored large mesh gill nets with gill-net configurations for harvesting American shad by removing vertical height restrictions for up to 1,000 yards of gill net with stretched mesh lengths of 5 ¼ through 6 ½ inches via proclamation M-2-2018 on March 3, 2018. In accordance with the Sea Turtle and Atlantic Sturgeon ITPs, Proclamation M-2-2018 also implemented additional gill-net restrictions for Management SubUnit A-South of US-64-BYP/US-64 (McConnaughey 2018a; [Table 7](#)). Gill-net configurations for harvesting American shad were removed in Management Unit A following the end of the shad season via proclamation M-3-2018 on March 25, 2018. Proclamation M-3-2018 also upheld additional gill net restrictions that maintained congruity with Sea Turtle and Atlantic sturgeon ITPs. Small mesh gill-net attendance requirements and additional gill-net restrictions were implemented for Management Unit A, in accordance with the Sea Turtle ITP on May 3, 2018 via proclamation M-5-2018. This proclamation also maintained the closure for portions of western Albemarle Sound to all gill nets with a stretched mesh of 5 ½ through 6 ½ inches.

On May 4, 2018 proclamation M-6-2018 initiated attendance requirements for gill nets with a stretched mesh length less than 4 inches for Management SubUnit B.1 (McConnaughey 2018a; [Table 7](#)). Management Unit B was closed by proclamation M-7-2018 to gill nets with a stretched mesh of 4 inches through 6 ½ inches on May 18, 2018 due to approaching allowable take limits of Kemp's ridley sea turtles. M-7-2018 also reduced the maximum stretched mesh length for run-around, strike, drift, drop, and trammel gill nets to 5 inches.

Proclamation M-4-2018 implemented tie-down and distance from shore restrictions for gill nets with a stretched mesh length of five inches or greater in western Pamlico Sound and rivers on May 1, 2018 (McConnaughey 2018a; [Table 7](#)).

Management Unit D1 remained closed to anchored large mesh gill nets for the entire Spring 2018 season due to exceeding allowable take limits of sea turtles in the Fall 2017 season.

The Observer Program achieved an estimated coverage of 10.0% overall for anchored large mesh gill-net during the spring 2018 season, based on preliminary data, meeting the minimum requirement (7.0%) in Management Units A, D2, and E. Coverage goals were not met in Management Units B (3.4%) and C (6.7%). Management Unit D1 remained closed due to exceeding turtle takes during fall 2017 (McConnaughey 2018a; [Table 8](#); [Figures 2–8](#)).

The Observer Program achieved an estimated 2.3% overall anchored small mesh gill-net coverage for the spring 2018 season meeting the minimum requirement (1.0%) in all Management Units except Management Unit D2 (0.0%) based on preliminary data (McConnaughey 2018a; [Table 9](#); [Figures 2–8](#)).

There were six observed sea turtle interactions from anchored large mesh gill nets during the spring 2018 season (McConnaughey 2018a; [Table 10](#); [Figures 2–8](#)). There were no observed sea turtle interactions from anchored small mesh gill nets during the spring 2018 season. The species composition was made up of green sea turtles (n = 3 alive) and Kemp's ridley sea turtles (n = 2 alive; n = 1 dead). Management Unit B accounted for 67% of the interactions and Management Unit E saw 33% of the spring seasons interactions (McConnaughey 2018a; [Table 10](#); [Figures 2, 4, and 8](#)). There were no fisherman self-reported sea turtle interactions in anchored large mesh gill nets in the spring 2018 season

3.1.3 Summer 2018

The summer 2018 season for anchored large and small mesh gill nets in North Carolina is June 2018 through August 2018 for ITP Year 2018 (September 1, 2017–August 31, 2018) as defined in ITP No. 16230. There were no proclamations issued for anchored large or small mesh gill nets during the summer 2018 season (McConnaughey 2018b; [Table 7](#)). Management Unit B remained closed to anchored large mesh gill nets for the entire summer 2018 season due to approaching allowable take limits for Kemp's ridley sea turtles in May 2018. Unit D1 is closed from early May until mid-October annually, in accordance with the sea turtle ITP.

The Observer Program achieved an estimated 10.2% overall anchored large mesh gill-net coverage for the summer 2017 season meeting the minimum requirement (7.0%) in all Management Units except Management Unit D2 (5.1%) based on preliminary data (McConnaughey 2018b; [Table 8](#); [Figures 2–8](#)). Management Units B and D1 were closed to anchored large mesh gill net for the summer 2018 season.

The Observer Program achieved an estimated 0.4% overall anchored small mesh gill-net coverage for the summer 2018 season not meeting the minimum requirement (n = 1.0%) in all Management

Units except Management Unit D2 based on preliminary data (McConnaughey 2018b; [Table 9](#); [Figures 2–8](#)). Observer coverage in Management Unit D2 was 2.9%. Significant program staff changes, limited fishing effort, net attendance regulations, marginal weather conditions and issues with observers procuring trips are causes for the lack of coverage during the 2018 summer season.

There were two observed sea turtle interactions from anchored large mesh gill nets during the summer 2018 season (McConnaughey 2018b; [Table 10](#); [Figures 2–8](#)). The species composition consisted of Kemp’s ridley sea turtles (n = 2 alive). Both interactions occurred in Management Unit E. There were no observed sea turtle interactions from anchored small mesh gill nets during the summer 2018 season. There were no fisherman self-reported sea turtle interactions in anchored large mesh gill nets in the summer 2018 season.

3.2 Authorized Takes

There were 45 observed sea turtle interactions in anchored large mesh gill nets and zero in anchored small mesh gill nets for ITP Year 2018 (Boyd 2017b; McConnaughey 2018a, 2018b; [Table 10](#); [Figures 2–8](#)). The species composition consisted of primarily green sea turtles (84.4%; n = 29 alive; n = 9 dead; [Table 10](#); [Figures 2–8](#)). Kemp’s ridley sea turtles made up the remainder of sea turtle interactions (15.6%; n = 5 alive; n = 2 dead; [Table 10](#)). Observed interactions occurred in Management Unit A (4.4%), Management Unit B (62.2%), Management Unit D1 (15.6%), Management Unit D2 (2.2%), and Management Unit E (15.6%; [Table 9](#); [Figures 2–8](#)). There was a total of eight fisherman self-reported sea turtle interactions for ITP Year 2018 (Boyd 2017b; McConnaughey 2018a, 2018b; [Table 11](#)).

The size distribution of green sea turtles (n = 38) ranged from a CCL of 228 mm to 467 mm and a CCW of 220 mm to 376 mm ([Figures 9](#) and [10](#)). The size distribution of Kemp’s ridley sea turtles (n = 7) ranged from a CCL of 242 mm to 602 mm and a CCW of 245 mm to 540 mm (Boyd 2017b, McConnaughey 2018a, 2018b; [Table 10](#); [Figures 11](#) and [12](#)).

The cumulative total estimated takes for anchored large mesh gill nets exceeded authorized take threshold’s set for Management Unit D1 during the fall 2017 season. As a result, Management Unit D1 was closed to anchored large mesh gill net for the remainder of the 2018 ITP year. The cumulative total estimated and observed takes for anchored large mesh gill nets did not reach the threshold of authorized takes for any other Management Unit for ITP Year 2018 based on preliminary data. The cumulative total observed takes for anchored small mesh gill nets did not reach the threshold of authorized takes for any Management Unit for ITP Year 2018 based on preliminary data (Boyd 2017b; McConnaughey 2018a, 2018b; [Tables 1–5](#)).

The percentage of authorized takes that were used in ITP Year 2018 for anchored large mesh gill nets were calculated for estimated takes by species and disposition (green 69.4% alive, 34.5% dead; Kemp’s ridley 61.6% alive, 38.1% dead; Boyd 2017b, McConnaughey 2018a, 2018b). The percentage of authorized takes that were used in ITP Year 2018 were also calculated for observed takes (green 14.3% alive/dead; Kemp’s ridley 12.5% alive/dead). Overall, for both anchored large and small mesh gill nets, the percentage of estimated (67.6% alive, 35.2% dead) and observed (6% alive/dead) takes was below the authorized takes provided by the Sea Turtle ITP.

3.3 Compliance

Marine Patrol made 423 gill-net checks during the fall 2017 season resulting in 50 citations issued (Boyd 2017b, McConnaughey 2018a, 2018b; [Tables 12](#) and [13](#)). Marine Patrol made 476 gill-net

checks for the spring 2018 season resulting in 19 citations issued. Marine Patrol made 533 gill-net checks for the summer 2018 season with 16 citations being issued.

For ITP Year 2018, phone calls (n = 1,638) were made with 58.5% (n = 959) categorized as 1, 8, 11, 12, 13, and 14 which inclusively represents not being able to get in touch with fishermen or fishermen refusing trips (Boyd 2017b; [Table 14](#)). In the fall 2017 season (n = 207), phone calls were made with 62.8% (n = 130) categorized as 1, 8, 11, 12, 13, and 14. In the spring 2018 season (n = 214), phone calls were made with 64.0% (n = 137) categorized as 1, 8, 11, 12, 13, and 14. In the summer 2018 season (n = 1,217), phone calls were made with 56.9% (n = 692) categorized as 1, 8, 11, 12, 13, and 14.

Notice of Violations (NOV) were issued when fishermen were found to be out of compliance with the EGNP. Seven NOVs were issued during the fall 2017 season, eight NOVs were issued during the spring 2018 season, and zero NOVs were issued during the summer 2018 season (Boyd 2017b; McConnaughey 2018a, 2018b; [Table 15](#)).

3.4 Marine Mammals

There was one observed take of a dead bottlenose dolphin in Management Unit D1 that occurred in the fall 2017 season during ITP Year 2018. The marine mammal interaction occurred in small mesh gill net. When the animal was untangled from the gill-net, it quickly sank out of sight, which prevented the observers from collecting biological data ([Appendix C](#)).

4 DISCUSSION

4.1 Management history

The NCDMF has addressed protected sea turtle issues in the coastal waters since the 1970s. Sea turtle protection has been accomplished by cooperative agreements with the North Carolina Wildlife Resources Commission (NCWRC), establishment of a sea turtle sanctuary, proclamation authority delegated to the Director of the NCDMF, additional queries on recreational surveys, management of the PSGNRA, formation of the NCSTAC, implementation of an Observer Program, commercial bycatch reduction gear testing projects, outreach to the commercial and recreational fishing industries, and collaboration with the NMFS.

The NCDMF applied for and received four ITPs for the PSGNRA from 2000 to 2005 managing the area for sea turtle takes in the fall of each year through 2012 under these permits (Gearhart 2001, 2002, 2003; Price 2004, 2005, 2006, 2007a, 2008, 2009a, 2010a; Murphey 2011; Boyd 2012a, 2013). Between 2000 and 2012, a number of changes were made in the PSGNRA such as: adjustments to authorized fishing areas, modified restrictions (e.g., state closure and net length restriction), and authorized take levels reduced (Gearhart 2003; Price 2010a; Murphey 2011; Boyd 2012a). These adaptations were made feasible because of the extensive monitoring program conducted by the NCDMF in the PSGNRA. The NCDMF also observed limited trips in the large and small mesh gill-net fisheries outside of the PSGNRA from 2004 to 2010 (Brown and Price 2005; Price 2007b, Price 2009b, Price 2010b; Boyd 2012b). The information gathered from these direct observations authorized the NCDMF to generate requested estimated take numbers for observed fisheries and draft a functional Conservation Plan.

In June 2009, the NMFS began an Alternative Platform Observer Program in Core Sound, NC. The NMFS observers documented sea turtle interactions in anchored large mesh gill nets in this area beginning in late June and notified the NCDMF of their concern for these unauthorized takes.

The NCDMF consulted with the NMFS-SERO via conference calls and correspondence to discuss short and long-term actions to address sea turtle takes in gill nets in Core Sound and throughout the state. In the short term, the agencies agreed for the NCDMF to implement gear restrictions (yardage limits, mesh depth reduction, and net shot reductions) and increased observer coverage in Core Sound and adjacent water bodies (NCDMF Proclamation M-16-2009). For the long-term, the NCDMF continued consultations with the NMFS-SERO concerning the preparation of an ITP application for all internal coastal waters while compiling sea turtle interaction data from gill-net surveys, research projects, and direct observations.

On October 20, 2009, the day that authorized sea turtle takes were reached in the 2009 PSGNRA, a 60-day Notice of Intent (NOI) to sue the NCDMF and the North Carolina Marine Fisheries Commission (NCMFC) was received from the Duke Environmental Law and Policy Clinic on behalf of the Karen Beasley Sea Turtle Rescue and Rehabilitation Center Foundation (Beasley Center). The NOI stated that the NCDMF and the NCMFC violated Section 9 of the ESA by allowing gear in state waters that had unauthorized takes of threatened or endangered sea turtles.

The NCDMF consulted with the NMFS-SERO concerning this NOI while continuing to work toward the preparation of an application for a statewide ITP for gill-net fisheries in internal coastal waters. In November 2009, the NCDMF received further correspondence from the NMFS-SERO reiterating the need to “satisfy the requirements of the ESA” relative to Core Sound sea turtle interactions. The NCDMF continued to collect sea turtle interaction data while developing an interim plan to address sea turtle interactions in gill-net gear. As a result of discussions and correspondence with the NMFS-SERO, the NCDMF submitted an interim plan in January 2010 to address sea turtle interactions in gill-net fisheries prosecuted in internal coastal waters. The plan proposed to close large mesh gill-net fisheries throughout the majority of the estuarine waters of North Carolina from May to December 2010.

On February 18, 2010, the NCDMF presented the interim proposal to the NCMFC and the public at an emergency NCMFC meeting in New Bern, NC. During the meeting, numerous commercial fishery representatives expressed concern with the proposed closure based on their feelings that a negative economic impact that would result from such a closure. Representatives from the Coastal Conservation Association (CCA-NC) did not support the interim closure stating the plan was too limited in scope. After thoroughly debating the issue, the NCMFC voted to direct the NCDMF to implement alternative measures that included reductions in the number of days per week that large mesh gill nets were authorized to be fished, restricted soak times, reductions in the length of individual nets (shots), and reductions in total yardage.

On February 23, 2010, the Duke Environmental Law and Policy Clinic filed suit against the NCDMF and the NCMFC on behalf of the Beasley Center. Negotiations between the parties occurred between late February and March 23, 2010, when the NCMFC met again. During the meeting, the NCMFC directed the fisheries director to issue a gill-net proclamation effective May 15, 2010 restricting the number of days during the week that anchored large mesh gill nets would be authorized, limiting soak time, establishing a maximum yardage limit, mandating maximum mesh depth, requiring maximum individual gill-net (shot) lengths, establishing spacing between net shots, and eliminating the use of tie-downs and floats or corks along float lines. The NCDMF Director did not issue the proclamation because, as detailed below, ongoing negotiations with the Beasley Center and the Duke Environmental Law and Policy Clinic produced a settlement agreement which preempted this action.

The NCMFC met May 12 through 14, 2010 and discussed the parameters of the final Settlement Agreement between the Beasley Center (plaintiff) and the NCDMF and the NCMFC. At that meeting, the NCMFC reached an agreement concerning restrictions that would be implemented in the anchored large mesh gill-net fishery in NC estuarine waters. As a result of the NCMFC action, the NCDMF issued Proclamation M-8-2010 effective May 15, 2010 implementing the provisions of the Settlement Agreement. Gill-net restrictions implemented by the proclamation included: a range of 4 ISM to, and including, 6 ½ ISM for anchored large mesh gill nets; soak times limited to overnight soaks an hour before sunset to an hour after sunrise, Monday evenings through Friday mornings; anchored large mesh gill nets were restricted to a height of no more than 15 meshes, constructed with a lead core or leaded bottom line and without corks or floats other than needed for identification; a maximum of 2,000 yards of anchored large mesh gill nets authorized to be used per vessel; and maximum individual net (shot) length of 100 yards with a 25-yard break between shots (except for exempted areas including Management Unit C and portions of Management Unit A).

The Settlement Agreement included gill nets from 4 ISM to less than 5 ISM in the large mesh category because of observed sea turtle takes in 4 ISM and 4 ½ ISM gill nets in the NCDMF Independent Gill-Net Survey. The measures were modified slightly several times, with the concurrence of the Beasley Center, to improve gear efficiency or adjust fishing area boundaries without compromising the sea turtle conservation provisions of the Settlement Agreement with fishermen in the southern portion of the state authorized to set anchored large mesh gill nets an extra day (Sunday evenings through Friday mornings) and use floats on nets, but were restricted to the use of a maximum of 1,000 yards of anchored large mesh gill net per fishing operation.

The Annual Completion Report for ITP Year 2014 (September 1, 2013–August 31, 2014) was submitted January 30, 2015 (Boyd 2015). During review of the 2014 Sea Turtle ITP Annual Completion Report, the NMFS requested modifications to certain tables and figures in the annual report. These modifications were addressed in the Annual Completion report for ITP Year 2015 (September 1, 2014–August 31, 2015) which was submitted January 30, 2016 and included: maps for each Management Unit to include number of gill-net hauls, sea turtle interactions, and tables which list all estimated/observed takes exactly as portrayed in the permit with 95% confidence intervals included (Boyd 2016a).

During the summer 2015 season a minor modification was enacted through the NMFS combining authorized takes for Management Units A (n = 4) and C (n = 4) for total authorized take limit of eight sea turtles from anchored large or small mesh gill nets and any species or disposition (Boyd 2016a).

At the August 2016 NCMFC meeting, Chairman Sammy Corbett announced that he was disbanding the Sea Turtle Advisory Committee (STAC) because it is not statutorily required and the NCMFC committee system already has a multitude of committees which are statutorily mandated. Chairman Corbett sent a letter explaining his decision to the committee members on August 25, 2016 ([Appendix D](#)).

4.2 Observer Activity

There was turnover within the Observer Program with positions being filled as quickly as possible to maintain coverage. The Observer Program proportionally placed observers in areas with higher fishing effort. There were multiple closures of various Management Units throughout the state during ITP Year 2018 ([Table 7](#)). When a Management Unit closes for a portion of time, observer

efforts are shifted to open Management Units. The contact log, which includes different response categories for contact made to a fisherman, is beneficial for analyzing the type of response from fishermen to observer contact and to document the number of observer trips that were obtained through the calling system.

During the fall 2017 season, observer coverage for anchored large mesh gill net in Management Unit D2 was 5.5% (Boyd 2017b). Observer coverage for anchored small mesh gill net was 0.9% in Management Unit B. In recent years, attendance requirements were lifted during the month of November allowing for observer trips to be obtained. Fishing practices for attended gill nets can be very different than other fishing practices, with fishing activity occurring throughout the night creating safety hazards for observers. Furthermore, fishing effort tends to be lower when attendance is required.

The authorized annual estimated takes were exceeded in Management Unit D1 on November 9, 2017 resulting in the Unit being closed to anchored large mesh gill net for the remainder of the 2018 ITP. The Sea Turtle ITP authorized annual estimated takes for green sea turtles in Management Unit D1 are: 9 alive and 5 dead. D1 opened on October 16, 2017 for anchored large mesh gill net and as of October 25, one live green sea turtle had been observed with observer coverage of 23.4%. On November 9, 2017, four live and 2 dead green sea turtles were observed in Management Unit D1. Based on the trips observed and estimated trips to date, the program had achieved a coverage of 29.8%. This percentage was used to calculate the number of estimated turtles (n = 13.4 live, 6.7 dead green sea turtles) that the interaction event would extrapolate out to. Although observer coverage percentages far exceeded the goals set by the ITP, an anomalous interaction occurring in a small window of time resulted in the authorized number of both live and dead green sea turtle takes being exceeded for Management Unity D1. In response, the NCDMF closed Management Unit D1 for the remained of the 2018 ITP year ([Table 7](#)).

Observer coverage for anchored large mesh gill net was 3.4 % in Management Unit B and 6.7% in Management Unit C for the spring 2018 season. No anchored large mesh gill-net trips were obtained in Management Unit D1 due to it being closed for the remainder of the 2018 ITP year during the fall 2017 season. Observer coverage in the spring 2017 season for anchored small mesh gill-nets in Management Unit D2 was 0.0% due to minimal fishing effort (n = 20 fishing trips; McConnaughey 2018a). Five trips were observed in Management Unit D1 during the spring season, these trips are not recorded in the currently available trip ticket data. This may change with the trip ticket data finalization in May. Management Unit B was closed during the latter part of the spring season and did not reopen until the Fall 2018.

During the summer 2018 season, observer coverage for anchored large mesh gill-net in Management Unit D2 was 5.1% (McConnaughey 2018b). Management Units B and D1 were closed to anchored large mesh gill-net for the duration of the summer 2018 season. No anchored small mesh gill-net trips were obtained in Management Units C and D1 due to minimal fishing activity for the summer 2018 season. Observer coverage was low in all other Management Units for anchored small mesh gill-net, except D2, primarily due to a lack of fishing effort.

4.3 Compliance

Although ITP Year 2018 is the fifth year for the statewide ITP, fishermen in many portions of the state are not as familiar with the Observer Program and requirements of the ITP as desired, so more time is needed to educate the industry. Alternative platform trips were employed in all Management Units more frequently throughout ITP Year 2018 to maintain observer coverage due

to compliance issues with fishermen (i.e., not answering phone calls, not calling back). The required minimum 7% observer coverage for anchored large mesh gill nets is very difficult to achieve when observers must rely on alternative platform trips, as it requires two observers to obtain a trip. The NCDMF has discussed the situation with industry leaders in attempts to improve awareness and increase compliance. However, fisherman non-compliance continues to be a hurdle for ensuring the requirements for both ITPs are met. Each ITP Year (2015–2018) had >50% of contacts made by observers not being able to get in touch with fishermen or fishermen refusing trips (Boyd 2016a, 2017a, 2018a).

Eight fishermen self-reported sea turtle takes occurred during ITP Year 2018 (Boyd 2017b; McConnaughey 2018a, 2018b; [Table 11](#)). NCDMF has discussed the importance of self-reporting with industry leaders' numerous times. The NCDMF has conducted outreach and supplied detailed information to fishermen explaining the requirements in the ITP of self-reporting in attempts to improve self-reporting throughout the industry. These efforts have had limited success.

The data clearly illustrate that the Sea Turtle ITP has led to successful adaptive management and therefore fewer sea turtle takes in these fisheries. This can also be attributed to management related to the Atlantic Sturgeon ITP as any closure of anchored large or small mesh gill nets from sturgeon interactions lead to more infrequent sea turtle interactions with gear being out of the water for long periods of time. Also, as expected and discussed in the Sea Turtle ITP application, the requested authorized take numbers represent a worst-case scenario and it is highly unlikely. However, by not requesting the proper authorized amount for each species and disposition, the fisheries could close for long periods of time due to anomalous sea turtle events such as the one experienced this year in D1.

4.3.1 Estuarine Gill-Net Permit

Per the ITP the NCDMF established an Estuarine Gill-Net Permit (EGNP) to register all fishermen participating in the anchored large and small mesh gill-net fisheries via proclamation M-24-2014 on September 1, 2014. The ITP's Implementing Agreement states that the NCDMF has two years to implement the EGNP to serve as a certificate of inclusion for fishermen. However, due to the compliance issues the NCDMF was facing during ITP Year 2014, the EGNP was developed and became effective September 1, 2014 (one year from ITP issuance; Boyd 2015). The multifaceted EGNP was enacted to attempt to allow the NCDMF to closely monitor compliance. The EGNP is also used as a tool to improve fishermen compliance by including Specific Permit Conditions requiring fishermen to allow the NCDMF observers aboard their vessels to monitor catches. Failure to comply with this permit provision can result in a permit suspension. There were 2,676 EGNPs issued for Fiscal Year 2018 (July 1, 2017–June 30, 2018).

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6 TABLES

Table 1. Authorized and actual annual estimated takes with confidence intervals (95%) using a bootstrap method based on observer data for coverage and sea turtle interaction levels in large mesh (≥ 4 inch stretched mesh) gill nets for ITP Year 2018 (September 1, 2017–August 31, 2018).

Species	Management Unit											
	B				D1				Total			
	Estimated Takes				Estimated Takes				Total			
	Authorized		Actual		Authorized		Actual		Authorized		Actual	
Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	
Green	225	112	166.4 (79.6,284.8)	48.4 (8.9,96.7)	9	5	19.2 (0,53.4)	3(0,9)	234	117	185.6	51.4
Kemp's ridley	53	26	49.4 (0,135.2)	18.2 (0,54.6)	15	7	0	0	68	33	49.4	18.2
Total	278	138	215.8	66.6	24	12	19.2	3	302	150	235	69.6

Species	Management Unit											
	D2				E				Total			
	Estimated Takes				Estimated Takes				Total			
	Authorized		Actual		Authorized		Actual		Authorized		Actual	
Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	
Green	n/a ¹	n/a ¹	n/a ¹	n/a ¹	96	48	17.8 (0,45.6)	0	96	48	17.8	0
Kemp's ridley	6	3	0	0	24	13	10.9 (0,28.0)	0	30	16	10.9	0
Total	6	3	0	0	120	61	28.7	0	126	64	28.7	0

¹ Insufficient observer data exist to model an estimated annual take level; therefore, for Management Unit D2, an annual observed take number has been identified for green turtles, and is found in Table 2

Table 2 Authorized and actual annual observed (not estimated) takes in large mesh (≥ 4 inch stretched mesh) gill nets for ITP Year 2018 (September 1, 2017–August 31, 2018).

Species	Management Unit								Total	
	B		D1		D2		E			
	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual
Green	n/a ¹	n/a ¹	n/a ¹	n/a ¹	6	1	n/a ¹	n/a ¹	6	1
Kemp's ridley	n/a ¹	n/a ¹	n/a ¹	n/a ¹	n/a ¹	n/a ¹	n/a ¹	n/a ¹	n/a ¹	n/a ¹
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	1	5	0	26	1

¹ Insufficient observer data exist to model an estimated annual take level for Kemp's ridley sea turtles in Management Units B, D1, D2 and E. See Table 1 for the authorized annual estimated take level

Table 3. Authorized and actual annual observed (not estimated) takes in anchored large mesh (≥ 4 inch stretched mesh) and anchored small mesh (< 4 inch stretched mesh) gill nets combined for ITP Year 2018 (September 1, 2017–August 31, 2018).

Species	Management Unit				Total	
	A		C			
	Authorized (live/dead)	Actual (live/dead)	Authorized (live/dead)	Actual (live/dead)	Authorized (live/dead)	Actual (live/dead)
Green, Hawksbill, Kemp's ridley, Leatherback, Loggerhead	4 (any species)	0	4 (any species)	5	8 (any species)	5

Table 4. Authorized and actual annual observed (not estimated) takes in small mesh (<4 inch stretched mesh-ISM) gill nets for ITP Year 2018 (September 1, 2017–August 31, 2018).

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

Table 5. Total annual authorized and actual takes (estimated and observed) by species and condition for ITP Year 2018 (September 1, 2017–August 31, 2018).Table 5.

Species	Observed (live/dead)		Estimated			
			Authorized		Actual	
	Authorized	Actual	Alive	Dead	Alive	Dead
Green	18	2	330	165	229	57
Hawksbill	8	0	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Kemp's ridley	12	1	98	49	61	18
Leatherback	8	0	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Loggerhead	24	0	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Any Species	8	0	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Total	78	3	428	214	290	75

¹ Insufficient observer data exist to model an estimated annual take level; therefore, takes are expressed as observed

Table 6. Categories and descriptions of fisherman responses for the Observer Program's contact logs used for analysis.

Categories	Category description
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

Table 7. Regulations for Management Units by date and regulation change for anchored large and small mesh gill nets for ITP Year 2018 (September 1, 2017–August 31, 2018).

Year	Date(s)	Regulation change
2017	September 1	Portions of Management Unit B (subUnits CGNRA, SGNRA1-3) closed to large mesh gill nets and Management Unit C opened to large and small mesh gill nets for the new ITP Year 2018. SubUnits SGNRA1-3 and CGNRA will remain closed until sea turtle abundance decreases to minimize interactions with sea turtles (M-13-2017).
2017	September 25	This proclamation opens portions of Management Unit B (SubUnits SGNRA1 - SGNRA3 and CGNRA) to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches for the new ITP year (September 1, 2017 – August 31, 2018) in accordance with the Sea Turtle ITP. (M-14-2017)
2017	October 16	This proclamation opens Management Unit D1 to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches in accordance with the Sea Turtle ITP. (M-17-2017)
2017	October 29	Closes further portions of eastern Albemarle Sound and maintains closures for the Croatan and Roanoke Sounds (except as described in Section IV.). This action is being taken in order to minimize interactions with threatened and/or endangered sea turtles. (M-18-2017)
2017	November 9	This proclamation closes Management Unit D1 (See map) 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 the Sea Turtle Incidental Take Permit. (M-19-2017)
2017	December 1	This proclamation implements the December closed commercial season provision identified in the N.C. Southern Flounder Fishery Management Plan Amendment 1. (FF-47-2017)
2017	December 1	In Management Unit A, it closes the Albemarle Sound proper to the use of gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches, and allows the use of unattended, anchored small mesh gill nets (legal gill nets with a stretched mesh of 4 inches and smaller). Both anchored small mesh gill nets and gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches must be set to fish the bottom of the water column and not to exceed a vertical height of 48 inches. (M-20-2017)
2018	January 1	In Management Unit A, it makes it unlawful to use gill nets with a stretched mesh length <i>other than 3 ¼ inches, or from 5 ½ inches through 6 ½ inches</i> , EXCEPT IN THE AREAS DESCRIBED IN SECTION IV. It also maintains large mesh gill net closures and vertical height restrictions for all anchored gill net sets. (M-24-2017)

Table 7 cont.

2018	February 15	This proclamation implements gear exemptions for portions of the Internal Coastal Waters south of Management Unit A to allow fishermen to set gill nets for the shad fishery (See Section III.). It also opens the remaining portions of Management Unit B 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 the Sea Turtle Incidental Take Permit. (M-1-2018)
2018	March 3	Opens all of Management Unit A to the use of gill nets and allows gill net configurations for harvesting American shad by removing vertical height restrictions for up to 1,000 yards of gill net with stretched mesh lengths of 5 ¼ through 6 ½ inches. This proclamation also implements additional gill net restrictions for Management SubUnit A-South of US-64-BYP/US-64, in accordance with the Sea Turtle and Atlantic Sturgeon ITPs. (M-2-2018)
2018	March 25	Removes the use of gill nets configured for harvesting American shad by implementing vertical height restrictions for all gill nets. This proclamation also closes a portion of the western Albemarle Sound to all gill nets with stretched mesh lengths of 5 ½ through 6 ½ inches, and maintains additional gill net restrictions in accordance with the Sea Turtle and Atlantic Sturgeon ITPs. (M-3-2018)
2018	May 1	Implements tie-down (vertical net height restrictions) and distance from shore restrictions for gill nets with a stretched mesh length five inches or greater in the western Pamlico Sound and rivers. (M-4-2018)
2018	May 3	Implements small mesh gill net attendance requirements in Management Unit A and implements additional gill net restrictions in accordance with the Sea Turtle ITP. This proclamation also maintains a closure in a portion of the western Albemarle Sound to all gill nets with stretched mesh lengths of 5 ½ through 6 ½ inches. (M-5-2018)
2018	May 4	This proclamation implements attendance requirements for gill nets with a stretched mesh length less than 4 inches in Management SubUnit B.1. (M-6-2018)
2018	May 18	This proclamation closes Management Unit B to gill nets with a stretched mesh length of 4 inches through 6 ½ inches and reduces the maximum stretched mesh length for run-around, strike, drift, drop and trammel gill nets to 5 inches. (M-7-2018)

Table 8. Observer coverage calculated from previous year's trip ticket data and observer data for anchored large mesh gill nets by season and Management Unit through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017–August 31, 2018).

Season ¹	Management Unit ²	Large Mesh		
		Fishing Trips	Observed Trips	Coverage ³
Fall 2017	A	1,936	135	7.0
	B	1,496	126	8.4
	C	988	75	7.6
	D1	23	9	39.1
	D2	531	29	5.5
	E	828	103	12.4
Spring 2018	A	1,201	154	12.8
	B	327	11	3.4
	C	875	59	6.7
	D1	n/a	n/a	n/a
	D2	38	8	21.1
	E	314	44	14.0
Summer 2018	A	623	55	8.8
	B	n/a	n/a	n/a
	C	672	73	10.9
	D1	n/a	n/a	n/a
	D2	334	17	5.1
	E	915	115	12.6
Total		11,101	1,013	9.1

¹ Final trip ticket data for 2017 (Fall 2017) and preliminary trip ticket data for 2018 (Spring and Summer 2018)

² Table 7 contains all the openings and closings for each Management Unit

³ Based on final trips for 2017 (Fall 2017) and estimated trips for 2018 (Spring and Summer 2018) compared to observer large mesh trips

Table 9. Observer coverage calculated from previous year's trip ticket data and observer data for anchored small mesh gill nets by season and Management Unit through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017–August 31, 2018).

Season ¹	Management Unit ²	Small Mesh		
		Fishing Trips	Observed Trips	Coverage ³
Fall 2017	A	193	3	1.6
	B	810	7	0.9
	C	162	5	3.1
	D1	59	8	13.6
	D2	249	13	5.2
	E	561	10	1.8
Spring 2018	A	641	11	1.7
	B	1,250	29	2.3
	C	226	5	2.2
	D1	n/a	5	n/a
	D2	20	0	0.0
	E	89	2	2.2
Summer 2018	A	366	2	0.5
	B	679	1	0.1
	C	63	0	0.0
	D1	1	0	n/a
	D2	34	1	2.9
	E	283	1	0.4
Total		5,686	103	1.8

¹ Final trip ticket data for 2017 (Fall 2017) and preliminary trip ticket data for 2018 (Spring and Summer 2018)

² Table 7 contains all the openings and closings for each Management Unit

³ Based on final trips for 2017 (Fall 2017) and estimated trips for 2018 (Spring and Summer 2018) compared to observer large mesh trips

Table 10. Summary of observed sea turtle interactions in anchored large (n = 45) and small (n = 0) mesh gill nets through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017–August 31, 2018).

Date	Management Unit	Latitude	Longitude	Species	Disposition	Tag		Curved Carapace (mm)	
						PIT	Inconel	Length	Width
9/5/2017	D2	34.69403	76.98666	green	dead	n/a	n/a	292	265
9/22/2017	B	35.5413	75.5002	green	alive	n/a	n/a	310	260
9/25/2017	E	34.33700	77.69572	green	alive	3DD.003BB895E5 989.001001952741	n/a	285	249
9/28/2017	B	34.88698	76.40146	green	dead	n/a	n/a	277	246
10/3/2017	B	35.13806	76.00096	kemps	alive	n/a	n/a	n/a	n/a
10/3/2017	B	35.33126	75.58521	green	dead	n/a	n/a	312	265
10/3/2017	B	35.28458	75.67623	green	alive	3D6.0015B2EFE3 982.000364048355	MMG032 MMG034	385	320
10/3/2017	B	35.28458	75.67623	green	alive	3D6.0015B16319 982.000363946777	MMG033 MMG036	270	220
10/3/2017	B	35.28471	75.61467	green	alive	3D6.001596B477 982.000362198135	MMG031 MMG038	275	235
10/3/2017	B	35.32699	75.59083	green	alive	3D6.0015B6BE76 982.000364297846	n/a	310	270
10/5/2017	B	35.29480	75.62629	green	alive	3D6.0015B2F01E 982.000364048414	MMG035 MMG037	325	290
10/5/2017	E	34.12317	77.86370	green	alive	n/a	n/a	228	n/a
10/6/2017	B	34.87991	76.39376	green	alive	3D6.0015B2F2EF 982.000364049135	n/a	259	236
10/6/2017	B	35.30213	75.58322	green	alive	3D6.00159487CB 982.000362055627	MMG081 MMG087	355	310
10/10/2017	B	35.29731	75.56985	green	dead	n/a	n/a	276	239
10/11/2017	B	34.86459	76.41225	green	dead	n/a	n/a	290	245
10/11/2017	B	34.86493	76.41080	green	alive	3D6.0015B2F00B 982.000364048395	EET868 EET869	305	245
10/11/2017	B	34.86493	76.41080	green	alive	3D6.0015B2F139 982.000364048697	n/a	285	245
10/11/2017	B	35.30755	75.60565	green	alive	3D6.00159487B3 982.000362055603	MMG096 MMG099	398	350
10/12/2017	E	34.670763	77.15273	green	alive	n/a	n/a	n/a	n/a
10/12/2017	B	34.89904	76.31782	green	alive	3D6.0015948B43 982.000362056515	n/a	285	253
10/13/2017	B	35.06244	76.07562	green	alive	3D6.00159487E7 982.000362055655	n/a	380	305
10/13/2017	B	35.06881	76.07886	green	dead	N/A	n/a	310	270
10/25/2017	D1	34.80302	76.60910	green	alive	3D6.0015B2F1B8 982.000364048824	n/a	355	325
10/25/2017	A	35.94238	75.6272	green	dead	N/A	n/a	n/a	n/a
10/26/2017	B	35.15327	75.90292	green	alive	3D6.0015B6BACC 982.000364296908	n/a	318	271
10/26/2017	A	35.92031	75.75736	kemps	dead	N/A	n/a	602	540
11/2/2017	B	35.29960	75.58564	green	alive	3D6.001596B7D3 982.000362198995	n/a	295	282
11/2/2017	B	35.29960	75.58564	green	alive	3D6.0015B2F0D4 982.000364048596	UUE043 UUE048	370	302

Table 10. (cont.).

Date	Management Unit	Latitude	Longitude	Species	Disposition	Tag		Curved Carapace (mm)	
						PIT	Inconel	Length	Width
11/2/2017	B	35.18612	75.84564	green	alive	N/A	n/a	n/a	n/a
11/9/2017	D1	34.73576	76.44508	green	alive	3DD.003BB8920B 989.001001951755	EET877 EET879	348	302
11/9/2017	D1	34.73636	76.44485	green	alive	3DD.003BB89217 989.001001951767	EET878 EET880	392	333
11/9/2017	D1	34.73636	76.44485	green	alive	3DD.003BB891F2 989.001001951730	EET884 EET885	328	280
11/9/2017	D1	34.73636	76.44485	green	alive	3DD.003BB891BB 989.001001951675	EET882 EET883	342	290
11/9/2017	D1	34.73546	76.44518	green	dead	N/A	n/a	310	281
11/9/2017	D1	34.73515	76.44749	green	dead	3DD.003BB891C3 989.001001951683	n/a	328	294
11/30/2017	B	35.64701	75.50181	green	alive	N/A	n/a	273	228
5/2/2018	E	33.97221	77.92273	green	alive	3D6.0015B16FBA 982.000363950010	MMG040 MMG045	391	342
5/2/2018	E	33.97114	77.92397	green	alive	3D6.0015B17E6E 982.000363953774	n/a	279	231
5/15/2018	B	34.87711	76.40444	kemps	alive	985.111000930602	n/a	399	362
5/15/2018	B	34.87685	76.40440	kemps	dead	N/A	n/a	329	304
5/15/2018	B	34.87605	76.40460	kemps	alive	985.111000930599	MMG051 MMG052	466	421
5/15/2018	B	34.87447	76.40569	green	alive	985.111000930603	MMG053 MMG057	467	376
7/13/2018	E	34.16181	77.83865	kemps	alive	N/A	MMG039 MMG043	242	245
7/20/2018	E	34.70942	77.08304	kemps	alive	3DD.003BB89285 989.001001951877	n/a	280	290

Table 11. Summary of reported sea turtle interactions in anchored large and small mesh gill nets through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017–August 31, 2018).

Date ²	Management Unit	Latitude	Longitude	Species	Disposition	Curved Carapace (mm)	
						Length	Width
9/8/2017	E	n/a	n/a	unknown	alive	n/a	n/a
9/28/2017	E	n/a	n/a	green	alive	n/a	n/a
9/29/2017	C	n/a	n/a	green	alive	n/a	n/a
10/12/2017	E	n/a	n/a	unknown	alive	n/a	n/a
10/13/2017	D1	n/a	n/a	unknown ¹	alive	n/a	n/a
10/18/2017	D1	n/a	n/a	green	alive	n/a	n/a
10/18/2017	D1	n/a	n/a	green	alive	n/a	n/a
10/24/2017	D1	n/a	n/a	green	alive	n/a	n/a

¹ Indicates small mesh gear

² No sea turtle interactions reported for spring and summer 2018

Table 12. Number of gill-net checks made, and citations issued by Marine Patrol for large and small mesh gill nets by season during ITP Year 2018 (September 1, 2017–August 31, 2018).

Season	# Gill Net Checks	# Citations
Fall 2017	423	50
Spring 2018	476	19
Summer 2018	533	16
Total	1,432	85

Table 13. Citations written by Marine Patrol for large and small mesh gill nets by season and violation code during ITP Year 2018 (September 1, 2017–August 31, 2018).

Season	Violation		
	Date	Code	Description
Fall 2017	9/4/2017	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday
	9/14/2017	NETG27	Gill Net set within 50 yards from shore
	9/15/2017	NETG44	Use large mesh gill nets w/out leaving a space of at least 25 yard between separate lengths of net
	9/16/2017	NETG29	RCGL gear without proper buoys
	9/20/2017	NETG27	Gill Net set within 50 yards from shore
	9/23/2017	NETG32	Set gill net w/stretched mesh of 5 inches or greater without proper tie downs
	9/23/2017	NETG51	Set gill net in violation of proclamation M-18-2011
	9/30/2017	NETG30	Leave RCGL gill net unattended
	10/9/2017	NETG07	Use metal net stakes on gill nets
	10/11/2017	NETG03	Using gill net with improper buoys or identification
	10/21/2017	NETG03	Using gill net with improper buoys or identification
	10/21/2017	NETG22	Improperly set gill net
	10/22/2017	NETG30	Leave RCGL gill net unattended
	10/23/2017	NETG10	Gill net with illegal mesh size
	10/23/2017	NETG54	Violate provisions of Proclamation M-30-2011 to wit failed to have 25 yard space between nets
	10/27/2017	NETG03	Using gill net with improper buoys or identification
	10/28/2017	NETG01	Leave gill net in coastal waters unattended
	10/28/2017	NETG02	Using gill net without buoys or identification
	10/28/2017	NETG03	Using gill net with improper buoys or identification
	10/28/2017	NETG03	Using gill net with improper buoys or identification
	10/31/2017	NETG04	Leave gill net in waters when could not be legally fished
	10/31/2017	NETG22	Improperly set gill net
	11/3/2017	NETG03	Using gill net with improper buoys or identification
	11/3/2017	NETG06	Gill net causing hazard to navigation
	11/3/2017	NETG30	Leave RCGL gill net unattended
	11/5/2017	NETG04	Leave gill net in waters when could not be legally fished
	11/9/2017	NETG04	Leave gill net in waters when could not be legally fished

Table 13. (cont.).

Season	Violation		
	Date	Code	Description
Fall 2017	11/9/2017	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday
	11/9/2017	NETG46	Set or retrieve large mesh gill nets later than one hour after sunrise on Tuesday through Friday
	11/10/2017	NETG04	Leave gill net in waters when could not be legally fished
	11/12/2017	NETG02	Using gill net without buoys or identification
	11/12/2017	NETG03	Using gill net with improper buoys or identification
	11/12/2017	NETG22	Improperly set gill net
	11/13/2017	NETG03	Using gill net with improper buoys or identification
	11/13/2017	NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State
	11/13/2017	NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State
	11/14/2017	NETG03	Using gill net with improper buoys or identification
	11/14/2017	NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State
	11/16/2017	NETG02	Using gill net without buoys or identification
	11/17/2017	NETG04	Leave gill net in waters when could not be legally fished
	11/18/2017	NETG03	Using gill net with improper buoys or identification
	11/22/2017	NETG01	Leave gill net in coastal waters unattended
	11/26/2017	NETG03	Using gill net with improper buoys or identification
	11/26/2017	NETG16	Use an unattended gill net in a restricted area
	11/26/2017	NETG29	RCGL gear without proper buoys
	11/26/2017	NETG30	Leave RCGL gill net unattended
	11/29/2017	NETG22	Improperly set gill net
11/29/2017	NETG29	RCGL gear without proper buoys	
11/29/2017	NETG30	Leave RCGL gill net unattended	
11/30/2017	NETG06	Gill net causing hazard to navigation	
Spring 2018	4/1/2018	NETG22	Improperly set gill net
	4/6/2018	NETG22	Improperly set gill net
	4/6/2018	NETG22	Improperly set gill net
	4/12/2018	NETG22	Improperly set gill net

Table 13. (cont.).

Season	Date	Code	Violation	
			Description	
Spring 2018	4/12/2018	NETG22	Improperly set gill net	
	4/12/2018	NETG03	Using gill net with improper buoys or identification	
	4/19/2018	NETG09	Gill net set too close to bridge	
	4/22/2018	NETG01	Leave gill net in coastal waters unattended	
	4/22/2018	NETG03	Using gill net with improper buoys or identification	
	4/22/2018	NETG03	Using gill net with improper buoys or identification	
	5/1/2018	NETG10	Gill net with illegal mesh size	
	5/1/2018	NETG22	Improperly set gill net	
	5/3/2018	NETG16	Use an unattended gill net in a restricted area	
	5/6/2018	NETG29	RCGL gear without proper buoys	
	5/11/2018	NETG03	Using gill net with improper buoys or identification	
	5/16/2018	NETG03	Using gill net with improper buoys or identification	
	5/16/2018	NETG04	Leave gill net in waters when could not be legally fished	
	5/22/2018	NETG01	Leave gill net in coastal waters unattended	
	5/25/2018	NETG29	RCGL gear without proper buoys	
	Summer 2018	6/6/2018	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday
		6/8/2018	NETG01	Leave gill net in coastal waters unattended
6/15/2018		NETG46	Set or retrieve large mesh gill nets later than one hour after sunrise on Tuesday through Friday	
6/22/2018		NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State	
6/23/2018		NETG29	RCGL gear without proper buoys	
7/4/2018		NETG03	Using gill net with improper buoys or identification	
7/20/2018		NETG41	Use more than 2000 yards of large mesh gill net north of Highway 58 Bridge	
7/20/2018		NETG03	Using gill net with improper buoys or identification	
7/20/2018		NETG56	Violate the provisions of Proclamation M-30-2011 to wit set more than 2000 yards of large mesh gill net	
7/20/2018		NETG03	Using gill net with improper buoys or identification	
8/10/2018		NETG10	Gill net with illegal mesh size	
8/12/2018		NETG02	Using gill net without buoys or identification	
8/25/2018		NETG03	Using gill net with improper buoys or identification	

Table 14. Contacts attempted (n = 1,638) by the observers trying to set up trips by season categorized by contact type (0-14) and by total number, percent for each season, and percent for the entire ITP Year 2018 (September 1, 2017–August 31, 2018).

		Categories (%) ¹														
Season		1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
Fall 2017		3	46	7	1	3	0	4	0	12	4	17	3	42	65	207
		1.4%	22.2%	3.4%	0.5%	1.4%	0.0%	1.9%	0.0%	5.8%	1.9%	8.2%	1.4%	20.3%	31.4%	100.0%
		Categories (%) ¹														
Spring 2018		1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
		4	51	5	3	0	2	6	2	10	0	15	0	30	86	214
		1.9%	23.8%	2.3%	1.4%	0.0%	0.9%	2.8%	0.9%	4.7%	0.0%	7.0%	0.0%	14.0%	40.2%	100.0%
		Categories (%) ¹														
Summer 2018		1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
		43	243	75	12	15	12	63	6	93	12	52	13	194	384	1,217
		3.5%	20.0%	6.2%	1.0%	1.2%	1.0%	5.2%	0.5%	7.6%	1.0%	4.3%	1.1%	15.9%	31.6%	100.0%
		Categories (%) ¹														
Total		1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
		50	340	87	16	18	14	73	8	115	16	84	16	266	535	1,638
		3.1%	20.8%	5.3%	1.0%	1.1%	0.9%	4.5%	0.5%	7.0%	1.0%	5.1%	1.0%	16.2%	32.7%	100.0%

¹ Contact type categories: 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

Table 15.. Notice of Violations issued by season, date and violation code for the Estuarine Gill Net Permit for ITP Year 2018 (September 1, 2017–August 31, 2018).

Season ¹	Date	Code	Description
Fall 2017	9/20/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP30	Failure to comply with gill net configurations outlined in proclamation
	10/30/2017	EGNP30	Failure to comply with gill net configurations outlined in proclamation
		EGNP10	Set more than legal length of gill net
		EGNP09	Failure to set or retrieve nets in accordance with time restrictions
	10/30/2017	EGNP30	Failure to comply with gill net configurations outlined in proclamation
		EGNP09	Failure to set or retrieve nets in accordance with time restrictions
	11/1/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP09	Failure to set or retrieve nets in accordance with time restrictions
	11/6/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP30	Failure to comply with gill net configurations outlined in proclamation
	11/6/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP30	Failure to comply with gill net configurations outlined in proclamation
	11/6/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
EGNP30		Failure to comply with gill net configurations outlined in proclamation	
Spring 2018	3/6/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP26	Observer harassment
	3/7/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP09	Failure to set or retrieve nets in accordance with time restrictions
	4/10/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP30	Failure to comply with gill net configurations outlined in proclamation
	4/12/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP10	Set more than legal length of gill net
	4/12/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP10	Set more than legal length of gill net
4/16/2018	EGNP30	Failure to comply with gill net configurations outlined in proclamation	
5/9/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)	
5/11/2018	EGNP09	Failure to set or retrieve nets in accordance with time restrictions	

¹There were no Notice of Violations issued during the summer 2018 season

7 FIGURES

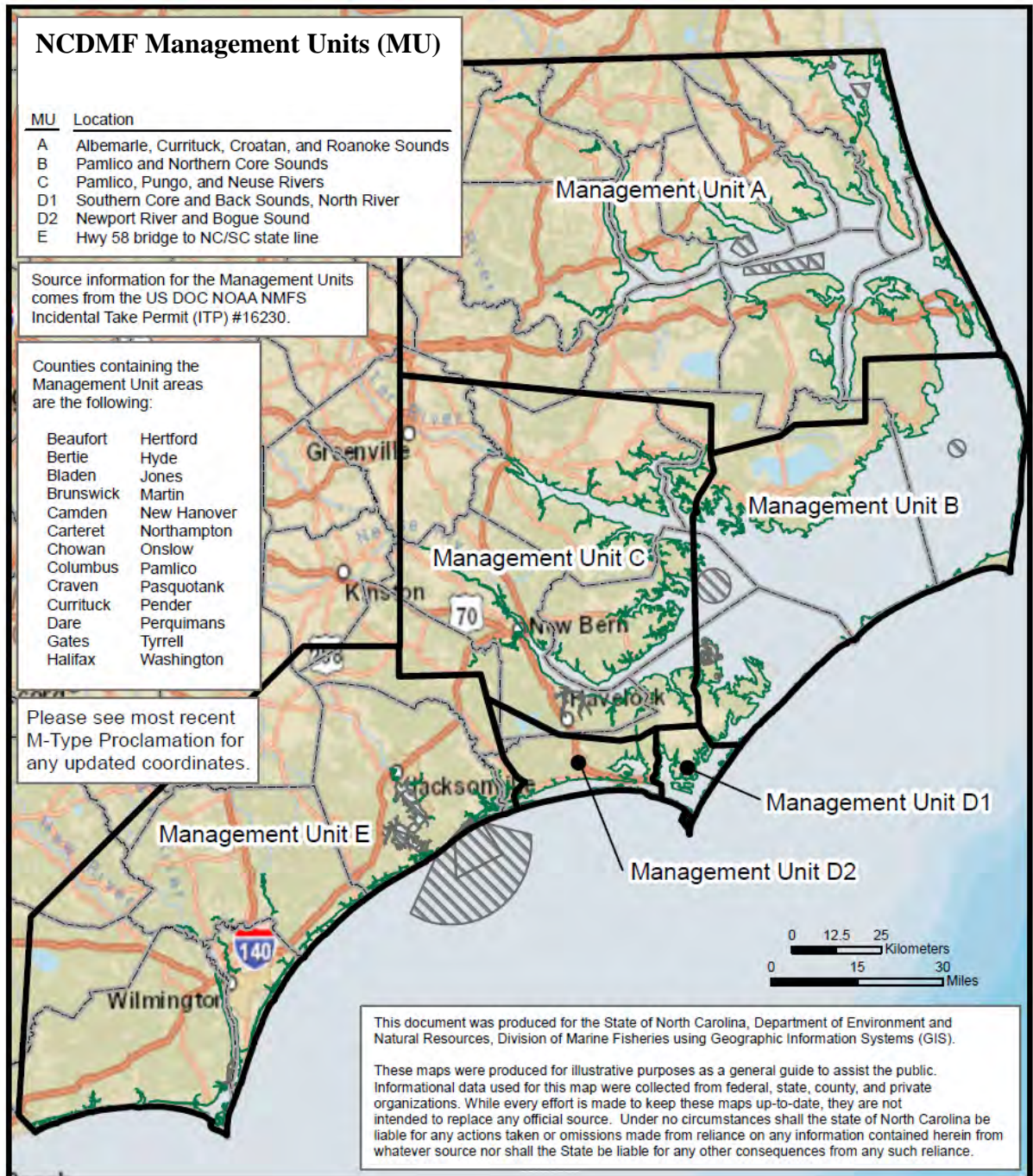


Figure 1. Management Units (A, B, C, D1, D2, and E) as outlined in the Conservation Plan and utilized by the Observer Program for ITP Year 2018 (September 1, 2017–August 31, 2018).

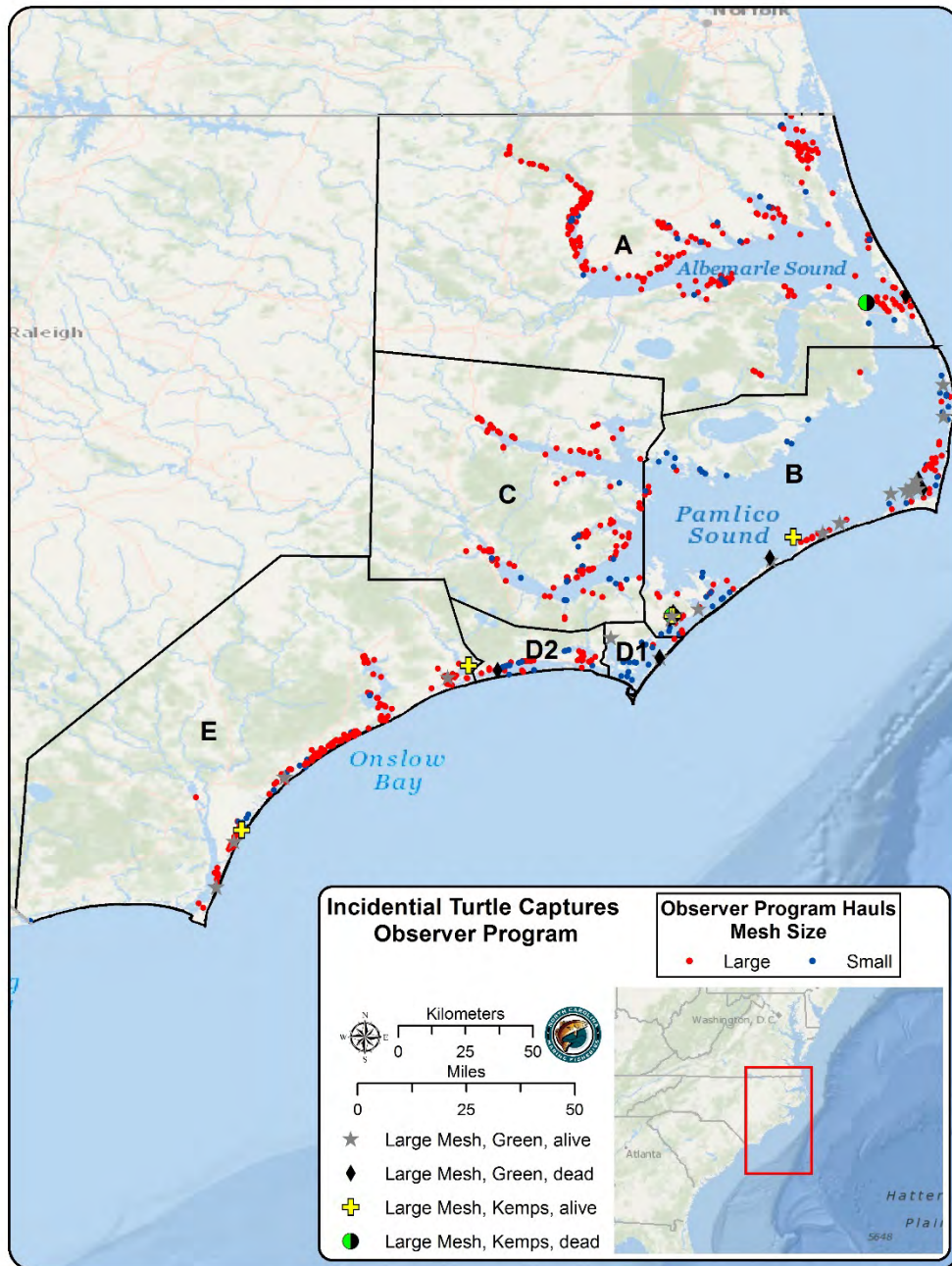


Figure 2. Sea turtle interaction locations by species, disposition, and gear and observer trips by gear throughout all Management Units for ITP Year 2018 (September 1, 2017–August 31, 2018).

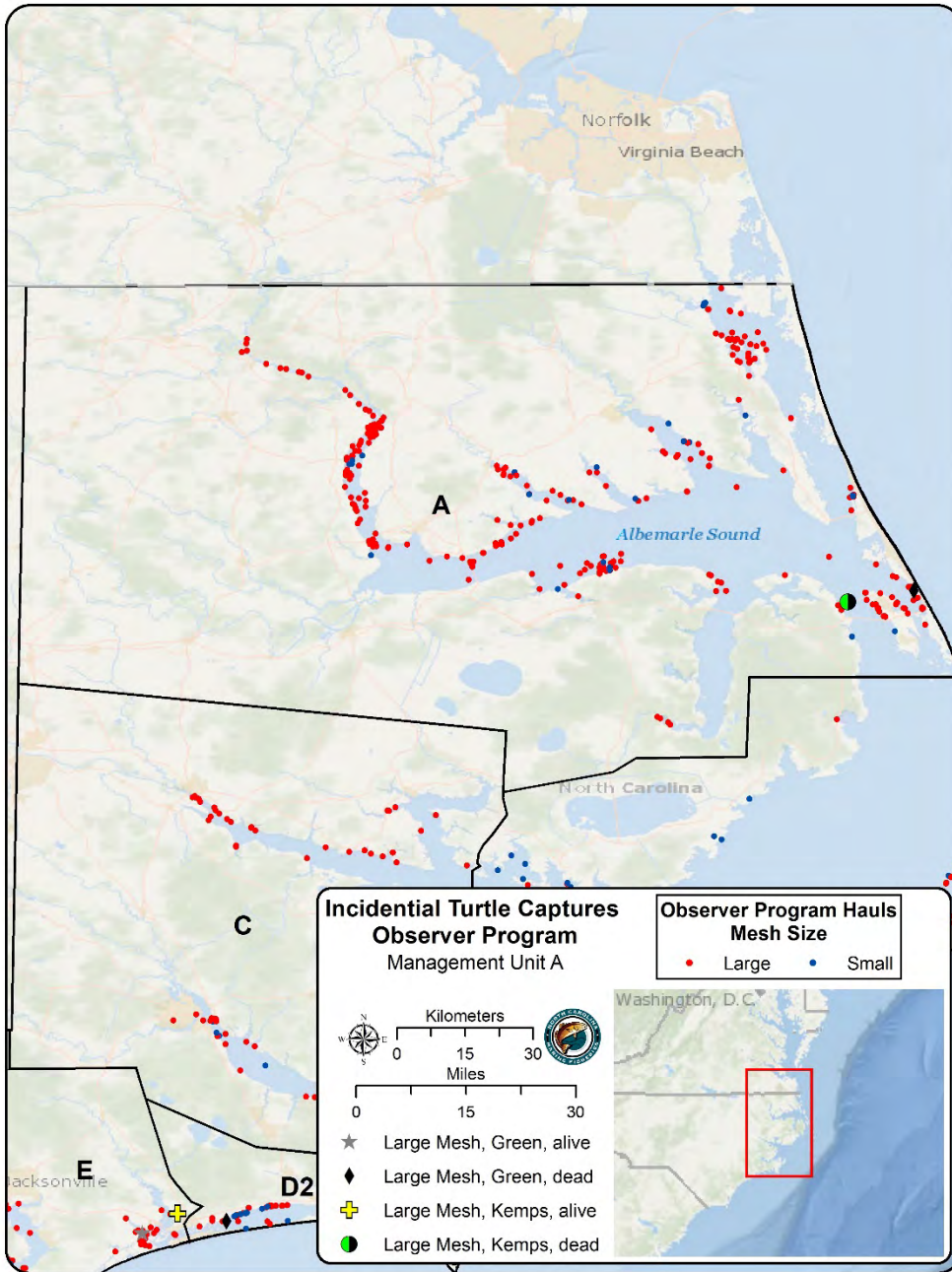


Figure 3. Sea turtle interaction locations by species, disposition, and gear and observer trips by gear in Management Unit A for ITP Year 2018 (September 1, 2017–August 31, 2018).

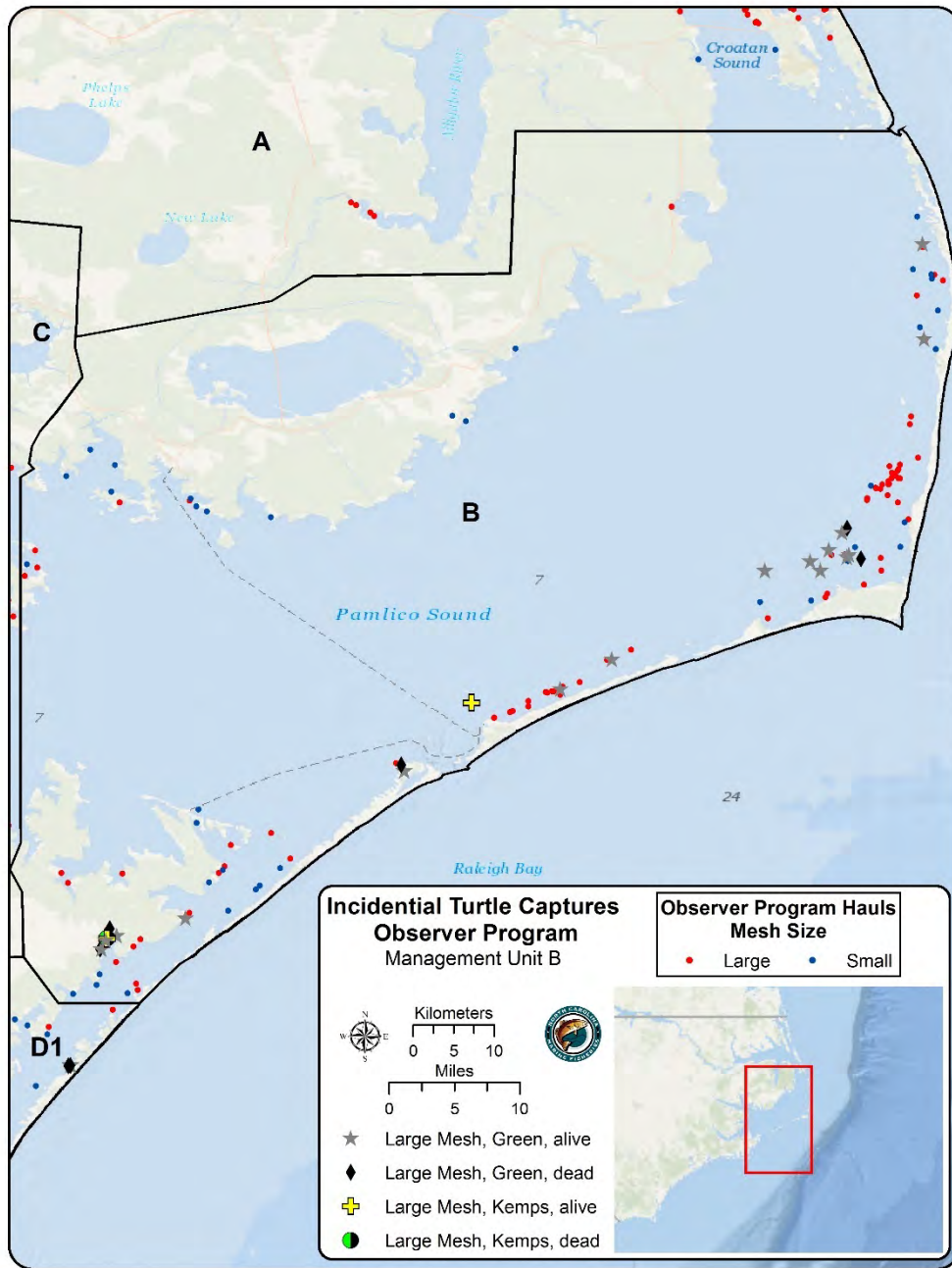


Figure 4. Sea turtle interaction locations by species, disposition, and gear and observer trips by gear in Management Unit B for ITP Year 2018 (September 1, 2017–August 31, 2018).

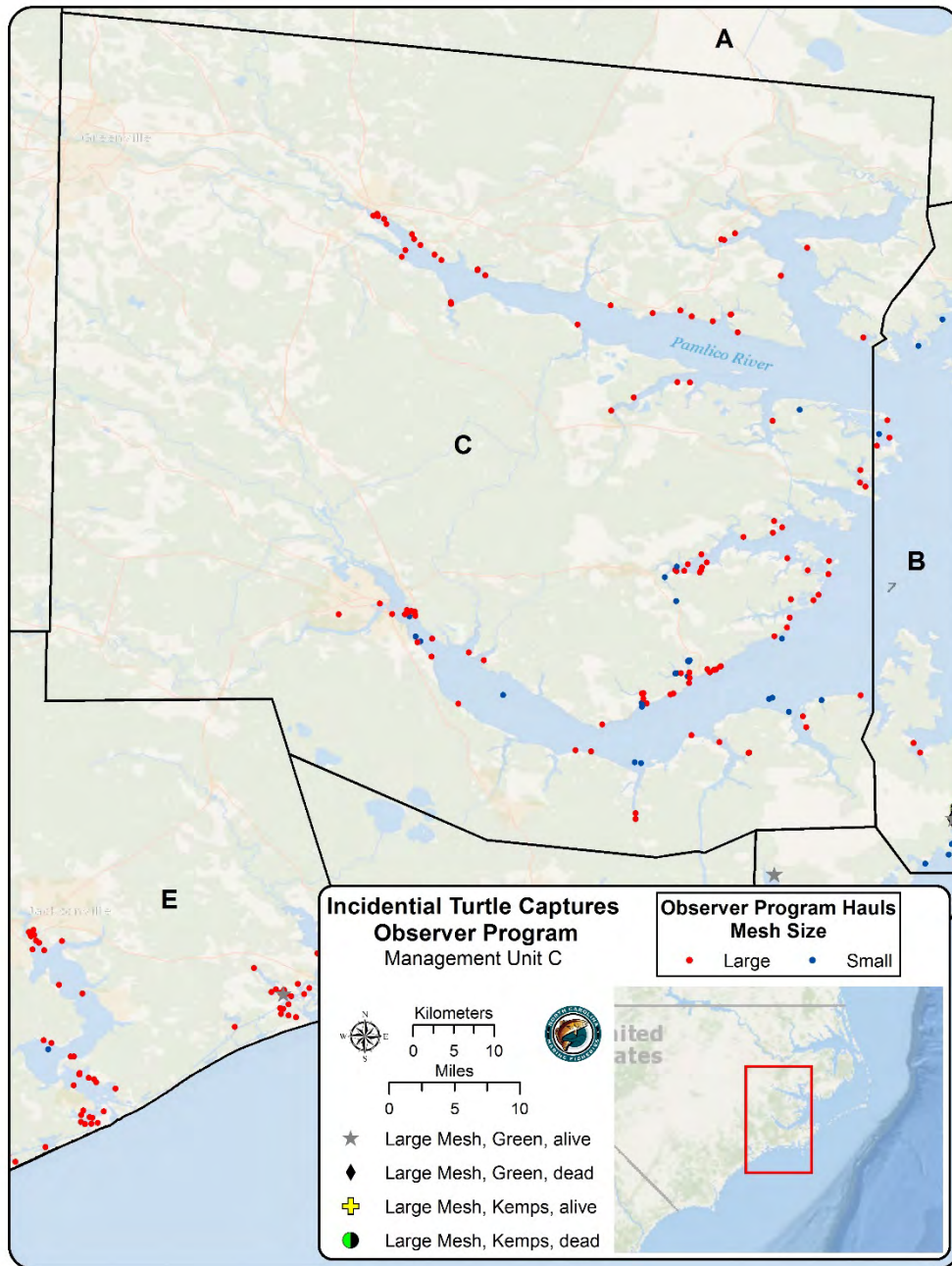


Figure 5. Sea turtle interaction locations by species, disposition, and gear and observer trips by gear in Management Unit C for ITP Year 2018 (September 1, 2017–August 31, 2018).

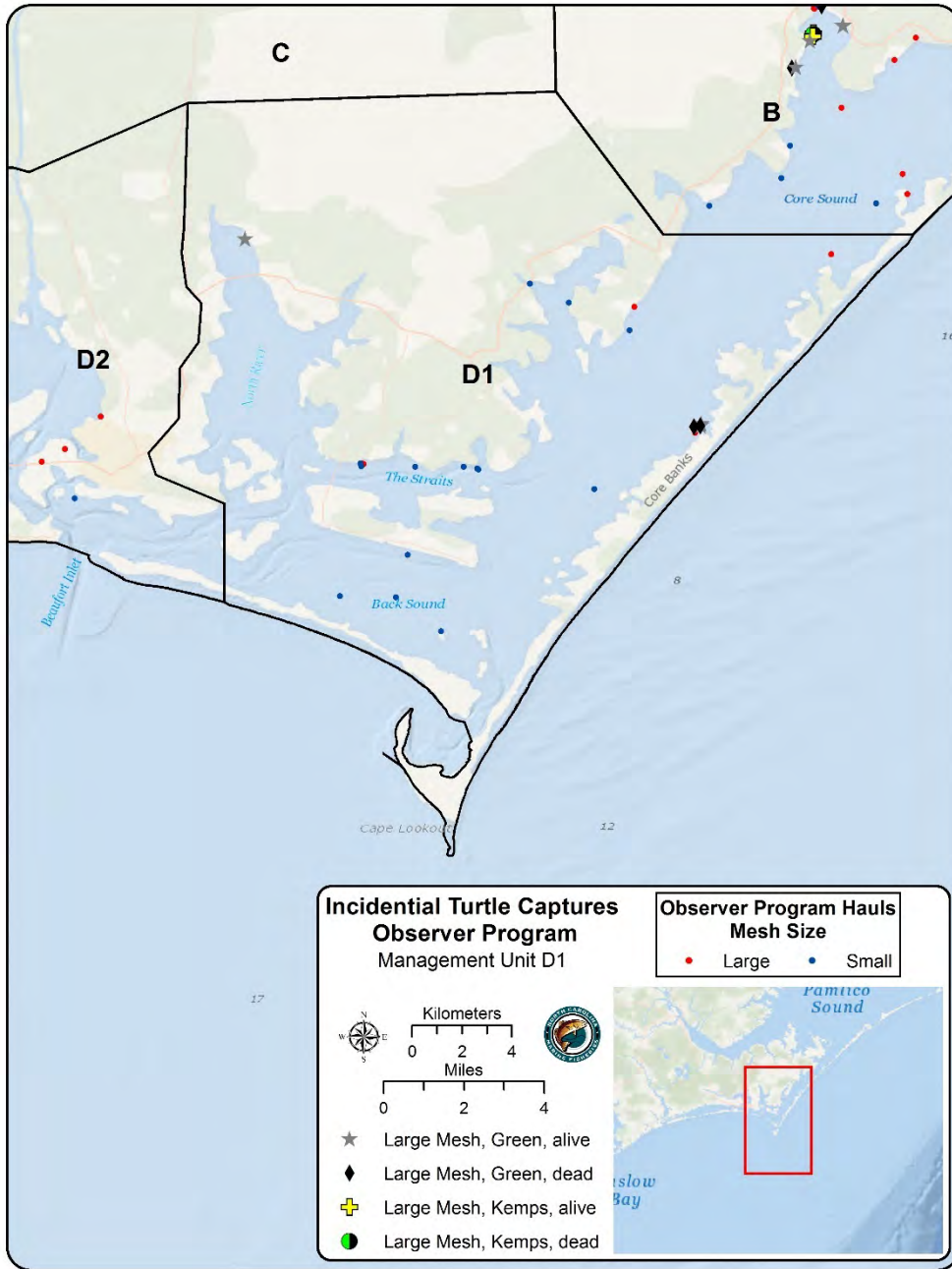


Figure 6. Sea turtle interaction locations by species, disposition, and gear and observer trips by gear in Management Unit D1 for ITP Year 2018 (September 1, 2017–August 31, 2018).

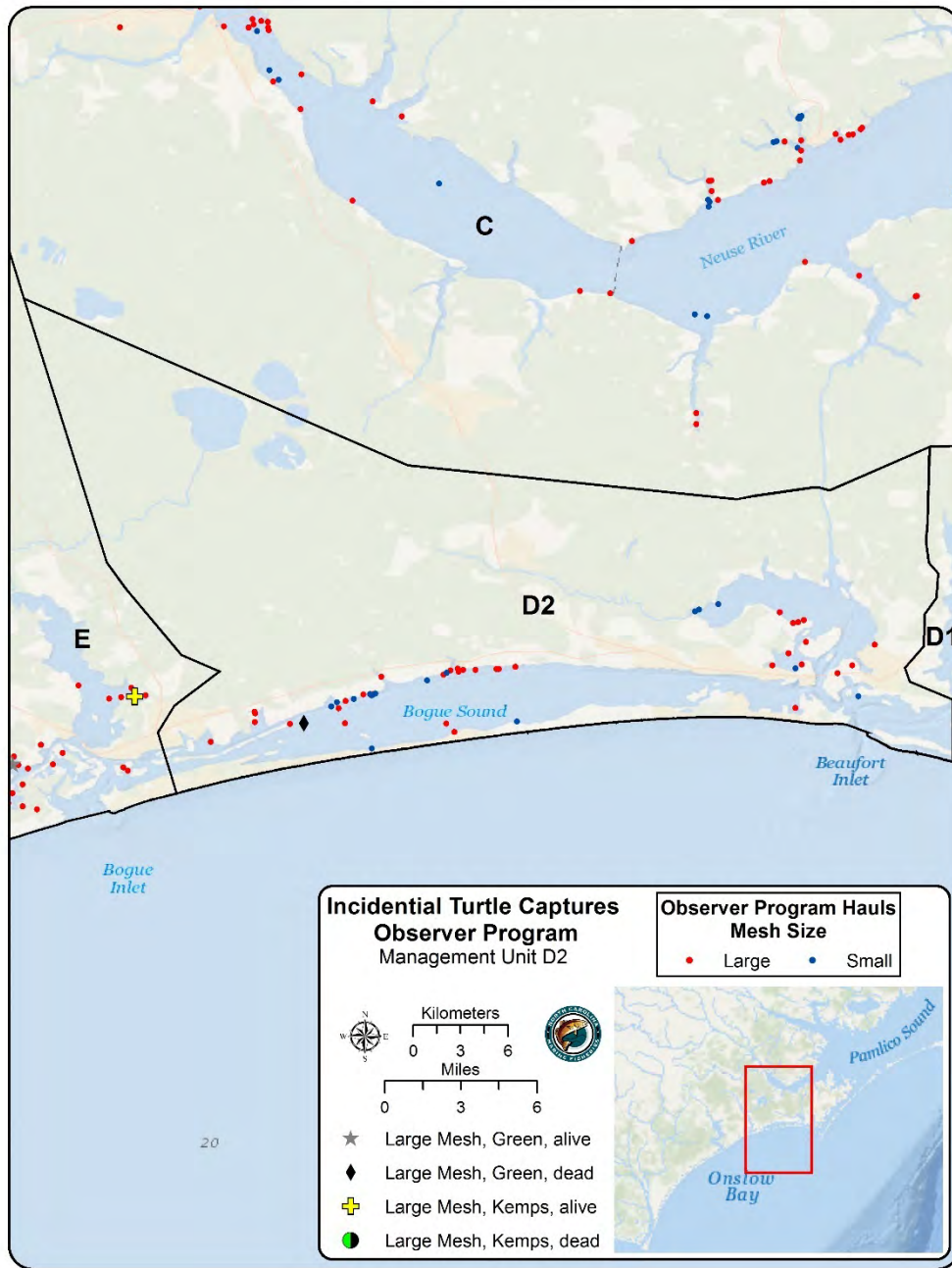


Figure 7. Sea turtle interaction locations by species, disposition, and gear and observer trips by gear in Management Unit D2 for ITP Year 2018 (September 1, 2017–August 31, 2018).

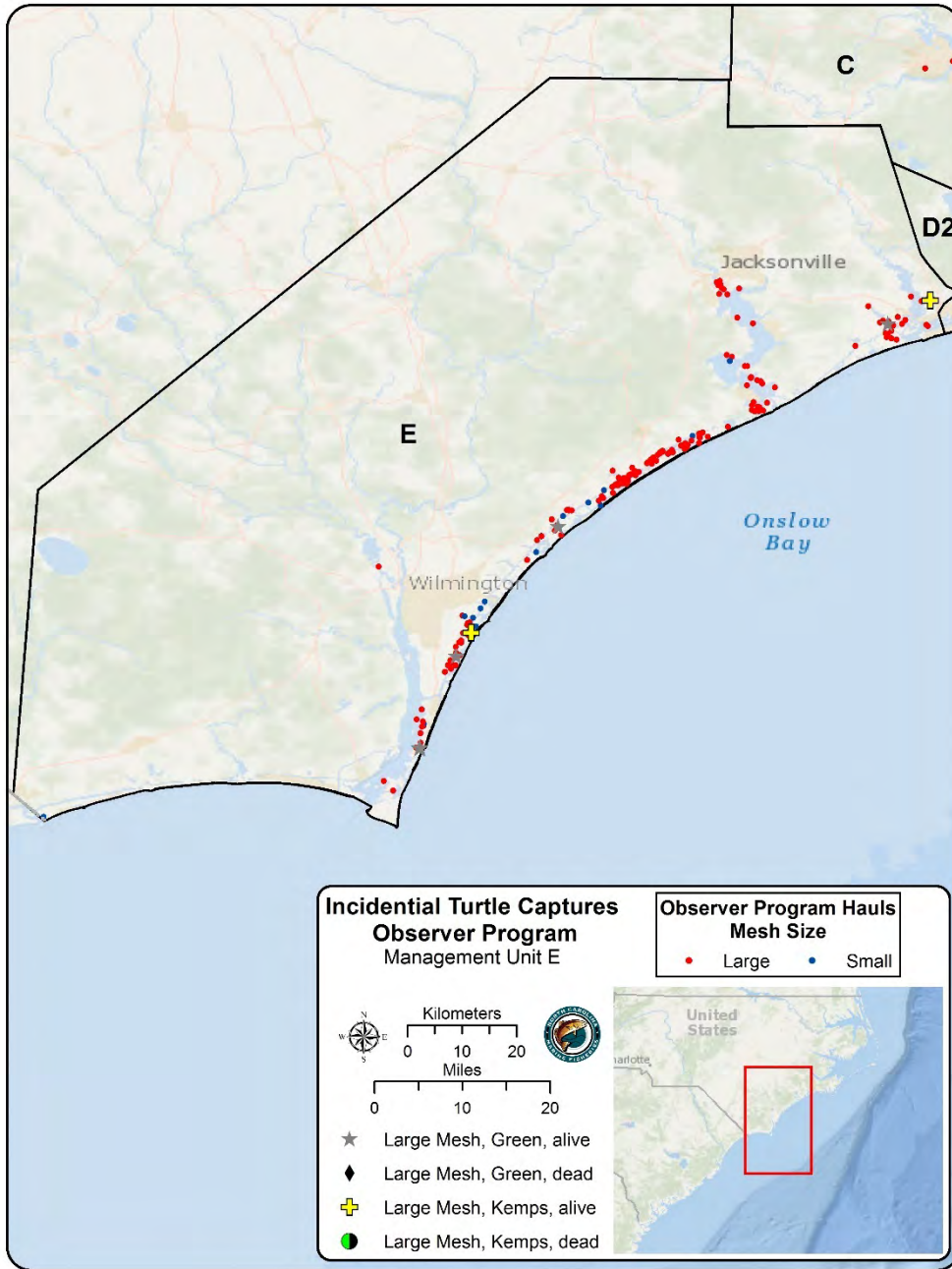


Figure 8. Sea turtle interaction locations by species, disposition, and gear and observer trips by gear in Management Unit E for ITP Year 2018 (September 1, 2017–August 31, 2018).

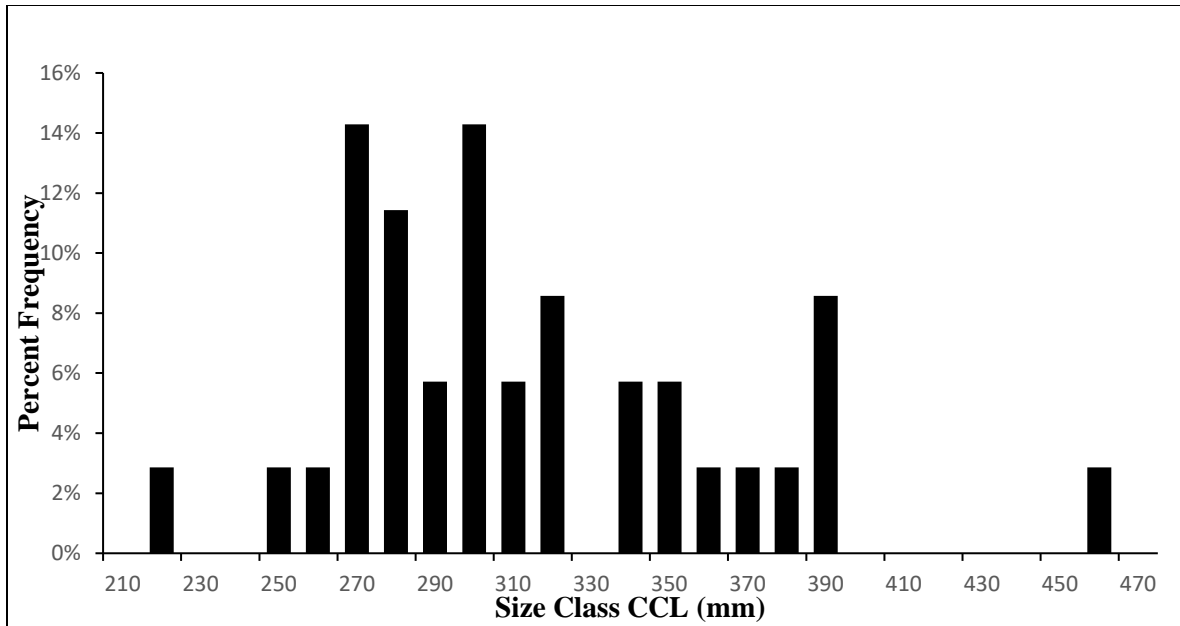


Figure 9. Length-frequency (curved carapace length) from notch to tip of observed incidental captures of green sea turtles where measurements were obtained (n = 35) collected by the Observer Program from onboard and alternative platform observations for ITP Year 2018 (September 1, 2017–August 31, 2018).

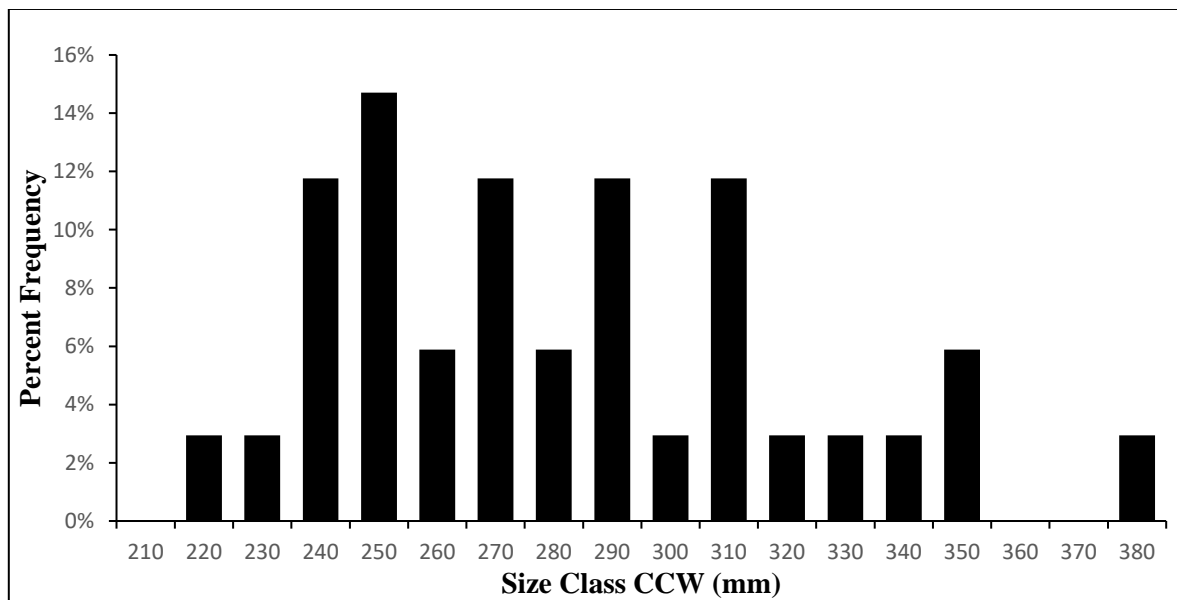


Figure 10. Length-frequency (curved carapace width) of observed incidental captures of green sea turtles where measurements were obtained (n = 34) collected by the Observer Program from onboard and alternative platform observations for ITP Year 2018 (September 1, 2017–August 31, 2018).

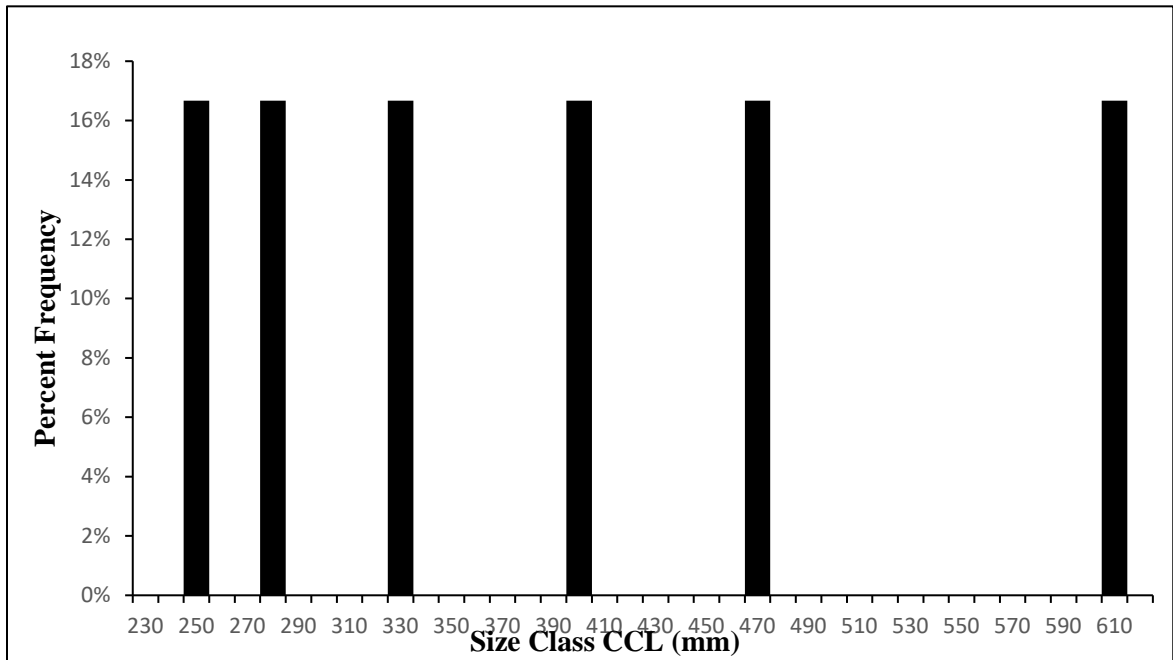


Figure 11. Length-frequency (curved carapace length) from notch to tip of observed incidental captures of Kemp's ridley sea turtles where measurements were obtained (n = 6) collected by the Observer Program from onboard and alternative platform observations for ITP Year 2018 (September 1, 2017–August 31, 2018).

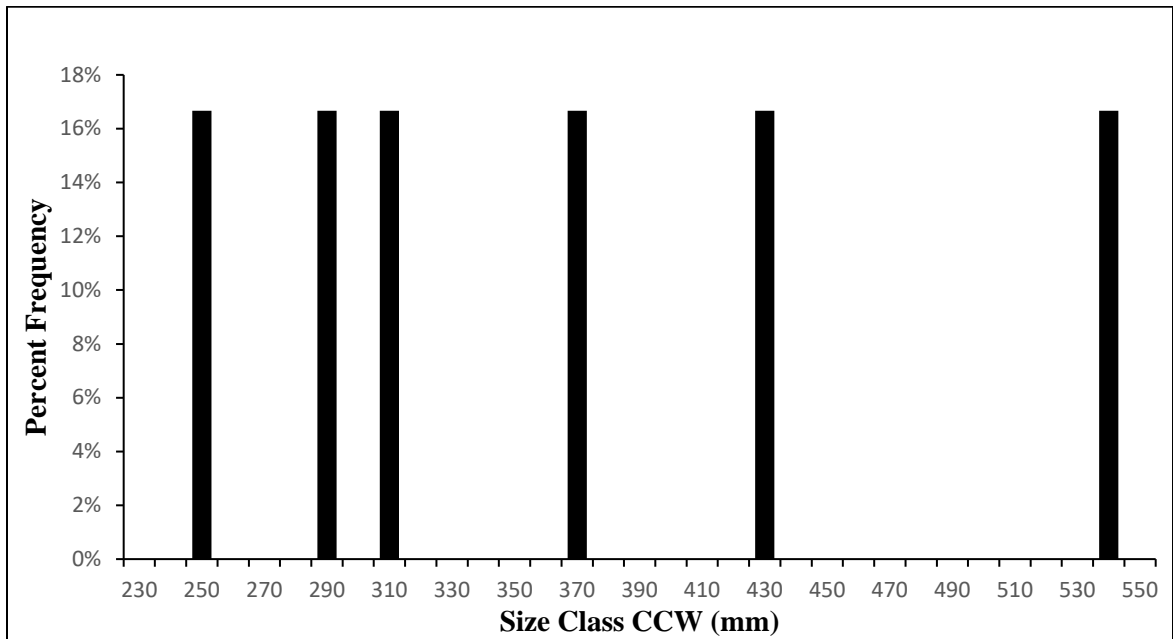


Figure 12. Length-frequency (curved carapace width) from notch to tip of observed incidental captures of Kemp's ridley sea turtles where measurements were obtained (n = 6) collected by the Observer Program from onboard and alternative platform observations for ITP Year 2018 (September 1, 2017–August 31, 2018).

8 APPENDIX A



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

JAN 4 2017

Braxton C. Davis
Director, North Carolina Division of Marine Fisheries
3441 Arendell Street
P.O. Box 769
Morehead City, North Carolina 28557

Dear Mr. Davis:

On November 21, 2016, the North Carolina Division of Marine Fisheries (NCDMF) requested a minor modification to extend the future annual report deadlines for the Sea Turtle (No. 16230) and Atlantic Sturgeon (No. 18102) Incidental Take Permits from January 31 to the last day in February. You note that this extension would benefit your staff due to a lag time in data being uploaded and verified, the time of year, the deadline for the fall seasonal report, and staff availability.

We appreciate the challenges associated with staff availability and the data accessibility at this time of year, and this delay will not significantly impact our ability to review the annual report. National Marine Fisheries Service (NMFS) therefore concurs with your request for this minor modification. Please sign below to acknowledge that you will comply with the minor modifications specified in this letter and send a copy of the signed letter to Kristy Long on my staff at your earliest convenience.

We note that NCDMF has requested several modifications since the permit began and understand that you are in the process of developing an updated Incidental Take Permit application. We encourage you to incorporate any further anticipated minor modifications into that application process so we can more efficiently analyze these requests.

Please feel free to contact Ron Dean (ron.dean@noaa.gov) or Kristy Long (kristy.long@noaa.gov) with any questions about this minor modification request approval or your pending updated application.

We look forward to continuing to work with you on sea turtle conservation in North Carolina.

Sincerely,

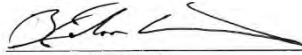
A handwritten signature in cursive script that reads "Donna S. Wieting".

Donna S. Wieting
Director, Office of Protected Resources

Printed on Recycled Paper



I acknowledge the minor modification specified above to Permit No. 16230 issued under Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles in gillnet fisheries operating in inshore waters of North Carolina.



Braxton C. Davis
Director
N.C. Division of Marine Fisheries

1-5-17
Date

9 APPENDIX B



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

Kristy Long
Office of Protected Resources (F/PR)
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Dear Kristy:

The North Carolina Division of Marine Fisheries (NCDMF) Observer Program data have been updated using the finalized 2017 Trip Ticket Program (TTP) data. The Annual Completion Report for the Sea Turtle Incidental Take Permit (ITP) No. 16230 was completed for ITP Year 2017 and submitted in February 2018. Using the finalized 2017 data, Tables 1, 5, 8, and 9 from the Completion Report were updated to reflect the final estimates of observer coverage and sea turtle takes (Tables 1 - 4). In past Annual Completion Reports the data used for the fall season was based on finalized TTP data that had been generated by the NCDMF before drafting the annual report. Due to a clerical error, the wrong information was transcribed to the tables that were supposed to contain finalized fall 2016 TTP data for both large and small mesh anchored gill net gear. Corrections have been made and are reflected in the update below. In addition, some of the observed trip numbers in Tables 1 and 2 changed due to data corrections since the Annual Completion Report was submitted.

Anchored Large Mesh

The Observer Program recorded an overall coverage of 11.1% for the fall 2016 season of the anchored large mesh gill net fishery, meeting minimum coverage requirements (7.0%) in all management units based on finalized 2016 TTP data (Table 1). Using the proper finalized data, anchored large mesh gill net trip numbers decreased in management units A and D1, and increased in management units B, C, D2, and E (Table 1). As stated above, minimum coverage requirements were met in all management units despite the annual report having incorrect data for the fall 2016 anchored large mesh gill net fishery. Coverage increased in management units A (12.1%) and D1 (68.2%) when the proper data was used to populate tables (Table 1). Coverage percentages dropped in management units B (11.3%), C (7.7%), D2 (8.0%), and E (11.1%) when the correct information was applied to data table (Table 1).

The spring 2017 season had a higher number of fishing trips for anchored large mesh gill nets than previously estimated in management units C and D2 (Table 1). Anchored large mesh gill net fishing trip numbers decreased from previous estimates in management units A, D1, and E (Table 1). Management unit B was closed to anchored large mesh gill nets and therefore experienced no change in trips. Observer coverage goals for anchored large mesh gill nets were met in all management units except management unit D1 for the spring 2017 season. No trips



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252-726-7021

were obtained in management unit D1 during the spring 2017 season due to the management unit being closed for the latter portion of the spring 2017 season and minimal fishing effort (n = 2 fishing trips) while open (Table 1).

The summer 2017 season saw an increase in fishing trips compared with previously estimated trip numbers for anchored large mesh gill nets in management units B, D2, and E (Table 1). Management units A and C experienced a decrease in trips compared to estimates, while management unit D1 was closed and therefore remained constant (management unit D1 is closed annually from May 8 through October 14 as described in the ITP) (Table 1). Observer coverage goals for anchored large mesh gill nets were met in all management units except management unit A for the summer 2017 season.

Anchored Small Mesh

The Observer Program recorded an overall coverage of 4.3% for the fall 2016 season of the anchored small mesh gill net fishery, meeting minimum coverage requirements (1.0%) in all management units except management unit A, based on finalized 2016 TTP data (Table 2). Using the proper finalized data, anchored small mesh gill net trip numbers decreased in management units A, B, D1, and E, while trip numbers increased in management units C and D2 (Table 2). As stated above, minimum coverage requirements were met in all management units except management unit A, despite the annual report having incorrect data for the fall 2016 anchored small mesh gill net fishery. Coverage increased in management units B (2.2%), D1 (22.5%), D2 (7.5%), and E (6.7%) when the proper data was used to populate tables (Table 1). Coverage percentages dropped in management unit C (3.6%) when the correct information was applied to data table (Table 2). Coverage percentage in management unit A remained unchanged (Table 2).

The spring 2017 season showed more fishing trips for anchored small mesh gill nets than previously estimated in management units B, C, and D2 (Table 2). Management units A, D1, and E all had less anchored small mesh gill net trips than originally estimated. Observer coverage goals for anchored small mesh gill nets were met in all management units except for management unit D2 for the spring 2017 season (Table 2).

The summer 2017 season showed more fishing trips for anchored small mesh gill nets than the annual reports estimate in management unit D1 (Table 2). Management units A, B, C, D2, and E all had less anchored small mesh gill net trips than originally estimated (Table 2). Observer coverage goals for anchored small mesh gill nets were met in all management units except management unit D1. While observer coverage goals were not met in management unit D1, they were far exceeded in management units A (4.0%), C (7.7%), and D2 (8.5%), for anchored small mesh gill nets (Table 2).

Sea Turtle Takes

Annual estimated allowable sea turtle takes were recalculated using the finalized 2017 TTP data (Tables 3 and 4). The estimates of sea turtle takes increased for alive and dead green sea turtles and increased for alive Kemp's ridley sea turtles. The anchored large mesh gill net fishery remained below the annual estimated allowable sea turtle takes for all species and dispositions



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for ITP Year 2017 (Tables 3 and 4). Confidence intervals for take estimates were not updated due to staffing limitations.

Table 1. Observer coverage calculated from finalized 2017 Trip Ticket data and observer data for anchored large mesh gill nets by season and management unit through the NCDMF Observer Program for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Season	Management Unit	Fishing Trips	Large Mesh	
			Observed Trips	Coverage
Fall 2016	A	1,446	175	12.1
	B	1,156	131	11.3
	C	480	37	7.7
	D1	22	15	68.2
	D2	424	34	8.0
Spring 2017	E	769	85	11.1
	A	1,549	167	10.8
	B	n/a	n/a	n/a
	C	1,024	92	9.0
	D1	2	0	0.0
Summer 2017	D2	119	11	9.2
	E	259	56	21.6
	A	1,018	65	6.4
	B	1,464	129	8.8
	C	380	28	7.4
	D1	n/a	n/a	n/a
Total	D2	255	22	8.6
	E	643	113	17.6
Total		11,010	1,160	10.5



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Table 2. Observer coverage calculated from finalized 2017 Trip Ticket data and observer data for anchored small mesh gill nets by season and management unit through the NCDMF Observer Program for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Season	Management Unit	Fishing Trips	Small Mesh	
			Observed Trips	Coverage
Fall 2016	A	147	0	0.0
	B	819	18	2.2
	C	222	8	3.6
	D1	40	9	22.5
	D2	241	18	7.5
Spring 2017	E	420	28	6.7
	A	572	10	1.7
	B	1,517	21	1.4
	C	327	16	4.9
	D1	34	8	23.5
Summer 2017	D2	49	0	0.0
	E	141	14	9.9
	A	101	4	4.0
	B	674	10	1.5
	C	130	10	7.7
	D1	14	0	0.0
	D2	47	4	8.5
	E	203	4	2.0
Total		5,698	182	3.2



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Table 3. Authorized and actual annual estimated takes with confidence intervals (95%) using a bootstrap method based on observer data for coverage and sea turtle interaction levels in large mesh (≥ 4 inch stretched mesh) gill nets for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Species	Management Unit											
	B				D1				Total			
	Estimated Takes		Estimated Takes		Estimated Takes		Estimated Takes		Authorized		Actual	
	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual
Green	225	112	207	42	9	5	1	1	234	117	208	43
Kemp's ridley	53	26	36	0	15	7	0	0	68	33	36	0
Total	278	138	243	42	24	12	1	1	302	150	244	43

Species	Management Unit											
	D2				E				Total			
	Estimated Takes		Estimated Takes		Estimated Takes		Estimated Takes		Authorized		Actual	
	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual	Authorized	Actual
Green	n/a ¹	n/a ¹	n/a ¹	n/a ¹	96	48	6	18	96	48	6	18
Kemp's ridley	6	3	0	0	24	13	16	0	30	16	16	0
Total	6	3	0	0	120	61	22	18	126	64	22	18

¹ Insufficient observer data exist to model an estimated annual take level; therefore, for management unit D2, an annual observed take number has been identified for green turtles, and is found in Table 2



State of North Carolina | Division of Marine Fisheries
 3441 Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
 252-726-7021

Table 4. Total annual authorized and actual takes (estimated and observed) by species and condition for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Species	Estimated					
	Observed (live/dead)		Authorized		Actual	
	Authorized	Actual	Alive	Dead	Alive	Dead
Green	18	5	330	165	214	61
Hawksbill	8	0	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Kemp's ridley	12	2	98	49	52	0
Leatherback	8	0	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Loggerhead	24	1	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Any Species	8	0	n/a ¹	n/a ¹	n/a ¹	n/a ¹
Total	78	8	428	214	266	61

¹ Insufficient observer data exist to model an estimated annual take level; therefore, takes are expressed as observed

Sincerely,

John McConnaughey, Conservation Biologist I
Division of Marine Fisheries, NCDEQ

cc: Chris Batsavage
Steve Murphey
Dee Lupton
Brooke Wheatley



State of North Carolina | Division of Marine Fisheries
3441 Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
252-726-7021

10 APPENDIX C

Marine Mammal

INCIDENTAL CAPTURE REPORT

yyyyymmdd hh:mm am/pm

OBSERVER'S NAME (ID): Trent Kennedy/Josh Paylor DATE: 2 0 1 7 | 1 1 | 0 8 TIME: 08 : 00 AM

UNIQUE TRIP ID: HAUL #: 1 AFFILIATION: NCDMF PHONE NUMBER: (252) 808-8088

WATERBODY: Core Sound MANAGEMENT UNIT: D1 COUNTY: Carteret WATER TEMP (°C): 18.0 DEPTH (m): 1.0

SALINITY (PPT): 22 NEARBY LANDMARKS i.e. CHANNEL MARKERS, INLETS: Salters Lump

GEAR: Small NET LENGTH (yds): 100 TOTAL NETS: 7 TOTAL YARDS: 700 SOAK TIME (min): 1220 Mesh (ISM): 3.15

GEAR CODE: 245 MESH DEPTH: 25 TWINE SIZE: 0.52 FLOATS: Yes TIE DOWNS: No LOCATION IN NET: top/middle

LATITUDE (DD.DDDD): 34.82442 LONGITUDE(DD.DDDD): 76.41840 TAG PRESENT? n/a IF YES, TAG #:

TAG INSERTED? n/a IF YES, TAG #: PHOTOS? No SKIN SAMPLE? No

TOTAL # OF MARINE MAMMALS CAUGHT AT THIS INTERACTION LOCATION: 1 PROGRAM # (466/467): 467

*Marine Mammal #	SPECIES (use codes)	CONDITION (use codes)	**Trauma consistent with gear interaction (yes/no)	DISPOSITION (use codes)	TOTAL LENGTH (cm)	LENGTH ESTIMATE (E) ACTUAL (A)
1	BD	1	YES	2	152	E

EVIDENCE FOR MARINE MAMMAL DEPREDEATION? No IF YES, describe in ADDITIONAL COMMENTS on PAGE 2

COMMENTS FOR LIVE RELEASE (describe in ADDITIONAL COMMENTS on PAGE 2 if needed):

(a) Was any gear left on the animal? IF YES, describe how much/where on the animal's body:

(b) Describe animal's behavior upon release: Describe:

(c) Describe nature of any injuries (i.e., blood in water, location of bleeding, how much bleeding, cuts/lacerations on body and where):

(d) Were there other marine mammals present when animal was released? IF YES, list species:

Table definitions and codes

GEAR CODE: 220 - anchored sink gill net; 245 - anchored float gill net
 PROGRAM #: 466 - onboard observations; 467 - alternative platform observations

*Marine Mammal # - sequential number assigned to each marine mammal at this interaction location in the order they were encountered (1, 2, 3...). If more marine mammals are caught than boxes provided, use extra sheet as needed

**Trauma consistent with gear interaction - field should be recorded as blank, yes, or no. In-field determination of whether the trauma to the animal was caused by the gear interaction or was previously inflicted upon the animal prior to becoming entangled in net (i.e., boat strike). If no, please write in comments field the type and condition of the trauma present. Detailed comments will help biologists to determine nature of interaction

Species	Condition (condition of marine mammal)	Disposition (final disposition of marine mammal)
BD-Bottlenose Dolphin	0 - Alive	1 - Alive, released
UD-Unknown Dolphin***	1 - Fresh Dead	2 - Dead, released
HP-Harbor Porpoise	2 - Moderately Decomposed	3 - Dead, collected by: _____
S- Seal	3 - Severely Decomposed	
W-Whale	4 - Dried Carcass	
M-Manatee	5 - Skeleton, bones only	
O-Other*		

***Provide information above or on page 2 as to color, size, and other descriptives for animal that could not be identified. See PAGE 2 for dolphin diagram and space for additional marine mammal takes and comments.

Marine Mammal INCIDENTAL CAPTURE REPORT

Additional takes in set

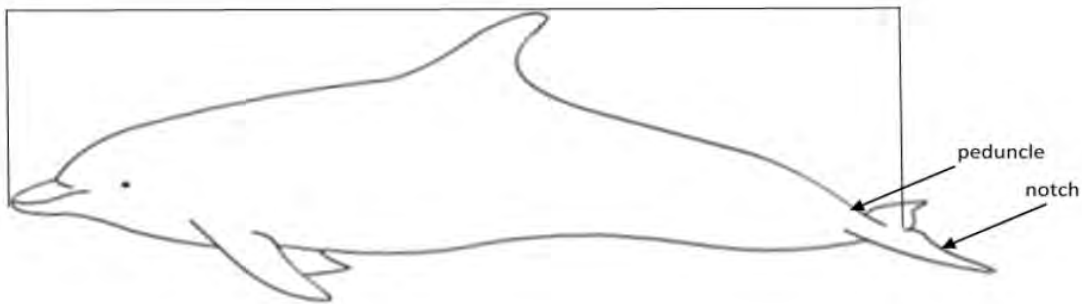
*Marine Mammal #	SPECIES (use codes)	CONDITION (use codes)	**Trauma consistent with gear interaction (yes/no)	DISPOSITION (use codes)	TOTAL LENGTH (cm)	LENGTH ESTIMATE (E) ACTUAL (A)
▼	▼	▼	▼	▼		▼
TAG PRESENT? ▼		IF YES, TAG #: _____		TAG INSERTED? ▼		IF YES, TAG #: _____
PHOTOS? ▼		SKIN SAMPLE? ▼		LATITUDE (DD.DDDD): _____		LONGITUDE (DD.DDDD): _____

*Marine Mammal #	SPECIES (use codes)	CONDITION (use codes)	**Trauma consistent with gear interaction (yes/no)	DISPOSITION (use codes)	TOTAL LENGTH (cm)	LENGTH ESTIMATE (E) ACTUAL (A)
▼	▼	▼	▼	▼		▼
TAG PRESENT? ▼		IF YES, TAG #: _____		TAG INSERTED? ▼		IF YES, TAG #: _____
PHOTOS? ▼		SKIN SAMPLE? ▼		LATITUDE (DD.DDDD): _____		LONGITUDE (DD.DDDD): _____

ADDITIONAL COMMENTS (please include any information not included in the above variables (i.e., injuries, wounds, weather conditions, etc.):

Observing a fisherman in Core Sound by Salters Lump, we noticed a large object that we originally thought was a shark, 20 yards deep in the gill net. The net was set 20-30 yards from shore set perpendicularly. As the object came closer to the boat we observed features that made it clear it was a bottlenose dolphin. We were approximately 50 feet away in our own vessel. The fisherman used his net reel to get the animal to the front of the boat where it could plainly be seen that it was a bottlenose dolphin entangled around the head and had also been wrapped multiple times. The animal was fully wrapped in the net a few times (top to bottom). The fisherman took approximately two mins to untangle the dolphin from the net. While the fisherman was untangling the dolphin, we spoke loudly to the fisherman to let us get the animal but he did not hear us. We called our supervisor to seek advice and inform him of the situation. As soon as the dolphin was free it sank out of sight. We finished observing the fisherman then we came back to the location and looked for the dolphin in the shallow water around the area but were unable to recover it.

Figure 1: Total length measured from tip of the rostrum to the notch in the flukes (centimeters)



11 APPENDIX D



**NORTH CAROLINA MARINE FISHERIES
COMMISSION
DEPARTMENT OF ENVIRONMENTAL QUALITY**

COMMISSIONERS

PAT MCCRORY Governor	MARK GORGES Wrightsville Beach	RICK SMITH Greenville
DONALD VAN DER VAART Secretary	CHUCK LAUGHRIDGE Harkers Island	MIKE WICKER Raleigh
SAMMY CORBETT Chairman	JANET ROSE Moyock	ALISON WILLIS Harkers Island
	JOE SHUTE Morehead City	

Aug. 25, 2016

Mr. Bob Lorenz
P.O. Box 10512
Wilmington, NC 28404

Dear Bob:

I wanted to let you know at last week's Marine Fisheries Commission meeting I announced the Sea Turtle Advisory Committee was being disbanded. I wanted to contact you directly and let you know I had taken this action and the reason why.

The commission has a multitude of committees, many of which are statutorily mandated, such as the Northern and Southern regional advisory committees and the Finfish, Shellfish/Crustacean and Habitat and Water Quality advisory committees. These committees require a great deal of attention, both in staff time and in resources. In looking for efficiencies in our committee system, I felt our regional and pertinent standing advisory committees could serve as venues to review and provide the needed input on sea turtle issues. So, after much consideration, I decided to disband the Sea Turtle Advisory Committee, because it is not statutorily required. This was a difficult decision, especially since I served on the Sea Turtle Advisory Committee prior to being appointed to the Marine Fisheries Commission.

Later this fall we will be doing our annual solicitation for advisers. If any of you are interested in serving on other committees, please let me know and I will make every effort to place you on one of these committees as openings become available.

In closing, please know how much I appreciate your dedication and service to the state. I encourage you to please stay involved in fisheries issues and I hope to see you or hear from you in the future.

Sincerely,

Sammy Corbett

Sammy Corbett, Chairman
N.C. Marine Fisheries Commission

cc: Chris Batsavage, Division of Marine Fisheries



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. 18102

John McConnaughey, Jacob Boyd and Lara Klibansky

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

February 2019

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INTRODUCTION

The North Carolina Division of Marine Fisheries (NCDMF) applied 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 April 5, 2012 for Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) interactions with the anchored gill-net fisheries in North Carolina's internal coastal (estuarine) waters. This request was prompted by notification from the National Marine Fisheries Service (NMFS) in February 2012 indicating the intent to list the Carolina Distinct Population Segment (DPS) of Atlantic sturgeon as endangered under the ESA. The NCDMF requested an ITP to implement a proposed conservation plan that ensured only a reasonable level of authorized Atlantic sturgeon incidental takes will occur, while allowing North Carolina's estuarine gill-net fisheries to operate. The NCDMF requested the NMFS to authorize such takes that are incidental to normal fishing activity with increased public outreach by the NCDMF to help fishermen avoid, minimize, and mitigate incidental takes of Atlantic sturgeon.

Feedback on the ITP application was received from the NMFS on May 29, 2012 via a teleconference with the NCDMF and the NMFS staff. After further review, on July 20, 2012 the NMFS requested the NCDMF to submit a revised permit application and Conservation Plan that addressed issues that were provided. In response to requested changes from the NMFS, the NCDMF made extensive revisions and resubmitted the application on December 20, 2012. Upon further review the NMFS provided the NCDMF with a list of questions they had regarding the application. On February 4, 2013, the NMFS and the NCDMF went over questions regarding the ITP application and Conservation Plan. A revised ITP application was resubmitted to the NMFS on June 28, 2013 encompassing all comments and concerns raised by the NMFS. On July 9, 2013, the NMFS published a notice of receipt of the NCDMF application (File No. 18102) in the Federal Register (78 FR 41034). The comment period ended August 8, 2013. After further deliberation with the NMFS another revision of the Atlantic Sturgeon ITP was resubmitted on January 2, 2014.

The NCDMF received the Atlantic Sturgeon ITP (No. 18102) on July 22, 2014. The Atlantic Sturgeon ITP defined an ITP Year as beginning on September 1 and running through August 31 of the following year. This ITP authorized the implementation of adaptive management measures to protect endangered Atlantic sturgeon and other ESA listed species, while allowing anchored gill-net fisheries to be prosecuted in the estuarine waters of North Carolina. The ITPs Conservation Plan specifies further measures, which the NMFS determined will minimize, monitor, and mitigate the impacts of incidental takes of ESA-listed Atlantic sturgeon from the Gulf of Maine, New York Bight, Chesapeake, Carolina, and South Atlantic DPSs, associated with the otherwise lawful anchored gill-net fisheries operating in estuarine North Carolina waters. Anchored gill nets are a passive gear deployed with an anchor, stake, or boat at one or both ends of the net shots or operation. Anchored gill nets do not include the following types of gill nets: run-around, strike, drop or drift gill nets.

On November 21, 2016, the NCDMF requested a minor modification to extend the future annual report deadlines for the Atlantic Sturgeon and Sea Turtle (No. 16230) ITPs from January 31 to the last day in February. This extension was to benefit staff due to a lag time in data being uploaded and verified, the time of year, the deadline for the fall seasonal report, and staff availability. On January 4, 2017, the NMFS sent a letter to the NCDMF concurring with NCDMF's request for the minor modification encouraging staff to incorporate any further anticipated minor modifications into the application process for an updated ITP (Appendix A).

The NCDMF Observer Program data were updated using the finalized 2017 Trip Ticket Program (TTP) data in May 2018 (Appendix B). The Annual Completion Report for the Atlantic Sturgeon ITP was completed for ITP Year 2017 and submitted in February 2018. Using the finalized 2017 data, Tables 1, 2, 5, and 6 from the Completion Report were updated to reflect the final estimates of observer coverage and Atlantic sturgeon takes. The fall 2016 season was based on finalized 2017 TTP data and coverage goals were met for both anchored large and small mesh gill nets using fall 2016 finalized data (Appendix B).

On July 13, 2017, the NCDMF requested a minor modification to the Atlantic Sturgeon ITP to modify the allocation of allowed Atlantic sturgeon takes in Management Units A and C as annual takes rather than seasonal takes. Discussions with NMFS staff noted the number of allowed seasonal takes is very low in some cases, and the seasonal takes have been reached on a few occasions (resulting in seasonal closures). Further discussions with NMFS staff concluded that a minor modification would be feasible. However, there was a concern noted on the issue of warmer water temperatures (20°C – 30°C) being correlated with more mortalities. The NCDMF addressed this concern describing how by using adaptive management, the NCDMF has more flexibility in managing the fishery with annual allocated takes to ensure the allowed takes are not exceeded for any Management Unit during the ITP Year. Lower fishing effort in the summer season (compared to the fall season) due to increasing water temperatures and fish availability should not create an issue for Atlantic sturgeon mortalities going over the allowed mortality levels for takes. The NCDMF further explained that by actively monitoring the fisheries and take levels daily, it better ensures take levels (including limiting mortality levels) are not exceeded. On July 19, 2017, the NMFS sent a letter to the NCDMF concurring with NCDMF's request for the minor modification encouraging staff to incorporate any further anticipated minor modifications into the application process for an updated ITP (Appendix C).

METHODS

Observer Activity

The conservation plan includes managing inshore gill-net fisheries by dividing estuarine waters into seven Management Units (A1, A2, A3, B, C, D, and E; Figure 1). Trip Ticket Program data along with Observer Program data from previous years are used when estimating the number of

trips needed for the current year in each Management Unit and season. Also, real time TTP data are used for areas where effort may be increasing. Each year effort can potentially shift from one Management Unit to another making it important for the NCDMF to not base the observer effort solely on previous years' TTP data, but also on current effort changes. To account for fluctuations in TTP data caused by Management Unit closings, a five-year average was used for estimating anchored large mesh gill-net fishing trips and a five-year average was used for estimating anchored small mesh gill-net fishing trips for ITP Year 2018. This method of estimating trips proves to more accurately reflect the current fishing effort. Once TTP data are finalized in May of 2019, the final observer coverage will be recalculated, and the finalized estimates of observer coverage will be provided to the NMFS.

Observer coverage was calculated for each season in each Management Unit by estimating fishing trips using an average of the previous five years' TTP data (2012/2013-2016/2017) for anchored large mesh gill nets and the average of the previous four or five years' (2013-2016/2017) TTP data for anchored small mesh gill nets, while taking reduced season dates in each Management Unit into account by calculating the proportion of actual to possible fishing days. This calculated estimated fishing effort was compared to the observer trips completed throughout the ITP Year. The average, normalized effort was used when estimating fishing trips to account for the fluctuation of fishing effort throughout the years due to closures and other regulations put in place throughout the time series.

The onboard Observer Program, where observers ride onboard fishermen's vessels, is the preferred method of obtaining observer data and is used most frequently. Protected species interactions, gear parameters, as well as detailed gill-net catch, bycatch, and discard information for all species caught are recorded. The alternative platform Observer Program requires two observers in a state-owned vessel to monitor commercial fishermen as they fish their gill nets. The alternative platform observers document protected species interactions and provide catch and discard estimates for other species that are observed. The amount of biological data that are collected on alternative platform observer trips is notably less than onboard observer trips. Therefore, onboard observer trips are highly preferred due to the amount of biological data collected which are used when making management decisions, in stock assessments, in the development of fishery management plans, and for identifying bycatch (finfish, protected species) problem areas. For alternative platform trips, observers and Marine Patrol Officers follow similar protocols using NCDMF vessels to observe the fishing trip. Each observer attempts to obtain a minimum of three to four trips per working week when fishing activity is occurring. Observers are assigned a Management Unit to work weekly and the number of observers assigned to a Management Unit depends upon the season and fishing effort. Fishing effort is estimated from the previous 4-5 years' TTP data by week, month, and Management Unit to determine where and how much observer coverage is needed each week and for each Management Unit by month/season. Reports from observers and other staff are used to

determine if effort is fluctuating between Management Units. Trends from the previous years' TTP data are also analyzed to determine if fishing effort is shifting from one Management Unit to another. Fishermen holding an Estuarine Gill Net Permit (EGNP) in North Carolina are pooled by Management Unit and further split into lists by geographic area within units. The contact information for these fishermen is then given to the observers assigned to that area and the observers contact the fishermen to set up trips from the list of names given. Preliminary TTP information is also used to refine the list to represent individuals who are actively participating in fishing activities. Observers also visit fish houses and dealers where they hand out business cards with their contact information and brochures explaining the Observer Program, giving the fishermen another outlet to allow observers on their vessels. Additionally, the Observer Program uses a website (<http://portal.ncdenr.org/web/mf/observers-program>) to provide outreach to fishermen to facilitate obtaining trips.

Alternative platform trips are used for areas that may be hard to get onboard trips (i.e., fishermen in remote locations that leave from their residence by boat) or when the fisherman's vessel is too small to safely accommodate an onboard observer. Alternative platform trips are also used in areas where fishing effort may increase quickly, where Atlantic sturgeon abundance is high, and when observers are unable to set-up onboard trips due to fisherman non-compliance. Marine Patrol also conducts alternative platform trips weekly in all Management Units based on the same methodology as the Observer Program. Coordination of onboard, alternative platform, and Marine Patrol alternative platform trips is done regularly to maximize efficiency and to achieve the maximum amount of observer coverage possible for each Management Unit. Changes in effort, Atlantic sturgeon abundance (i.e., observed and reported interactions), and other protected species interactions are monitored on a daily, weekly, and monthly basis to ensure proper observer coverage is being maintained. The ITP requires a minimum of 7% observer coverage with a goal of 10% of the total anchored large mesh gill-net (≥ 5 inches stretched mesh-ISM) fishing trips and 1% coverage with a goal of 2% of the total anchored small mesh gill-net (< 5 ISM) fishing trips per Management Unit for the spring, summer, fall, and winter seasons.

Observers are trained to identify, measure, evaluate condition, and tag Atlantic sturgeon by the NCDMF. Date, time, tag numbers, location (latitude and longitude, when possible), condition (i.e., no apparent harm, injury including a description of the nature of the injury, or mortality), species, total length (TL mm), and fork length (FL mm) are recorded for each Atlantic sturgeon observed. Photographs and environmental parameters (i.e., salinity, water temperature) are also collected when feasible. Dead Atlantic sturgeon are retained by the observer when possible. Observers also collect data on location, gear parameters, catch, and bycatch for each haul depending on the observed trip type (onboard/alternative platform). The catch is sampled throughout each onboard trip including species, quantities, weights, lengths, and disposition (alive/dead). Data are coded on the NCDMF data sheets and uploaded to the NCDMF Biological Database for analysis. All observers are debriefed within 24 hours of each trip to

obtain data on catch, set locations, gear parameters, and Atlantic sturgeon interactions to provide estimates of Atlantic sturgeon bycatch.

The total bycatch of Atlantic sturgeon for each Management Unit was estimated using the stratified ratio method via SAS (SAS 2004). The bycatch rate (Atlantic sturgeon caught per fishing trip) estimated from observer data was multiplied by the total fishing trips. To estimate confidence intervals (95%), the bootstrap method was used to sample estimates. Strata consisted of five Management Units (A, B, C, D, and E) where Management Unit A1-A3 (A) were combined for analysis (Figure 1). Estimates were calculated by date of capture, Management Unit, and disposition. Estimates were analyzed each week to implement necessary management measures if authorized take thresholds were approached.

$$\text{Estimated Interactions} = \left(\frac{\# \text{ of Atlantic sturgeon interactions observed}}{\text{total gill-net trips observed}} \right) \text{ total gill-net trips}$$

Seasons

The Observer Program's activities are reported on a monthly and annual basis. Seasons are defined as spring (March – May), summer (June – August), fall (September – November), and winter (December – February). Monthly progress reports include information such as take estimates, cumulative totals, number of observed trips, and observed takes with all associated. Annual reports include actual and estimated takes including mortality and the level of uncertainty of the estimates (i.e., 95% confidence intervals) by Management Unit, size composition along with all other interaction information, one or more maps illustrating the geographic distribution of all observed anchored large and small mesh gill-net hauls and the locations of all interactions, and a description of the mitigation activities, adaptive management actions, and enforcement activities conducted during the ITP year.

Authorized Takes

Authorized levels of annual incidental takes are specified in Tables 1 and 2. The amount of incidental takes is expressed as either estimated or observed takes depending on the amount of data available for modeling predicted takes. Management Unit A has estimated allowable takes per season for both anchored large and small mesh gill nets due to having robust data sets for the area. All other Management Units (i.e., B, C, D, E) have observed allowable takes which are actual takes and not estimated due to the lack of data for modeling estimated takes. Extrapolated Atlantic sturgeon takes were computed by dividing observed interactions by observer coverage. 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 2015). Bootstrap replicates were generated by sampling observer trips with replacement 5,000 times within strata (mesh/season/Management Unit; Tables 1 and 2). Takes must be incidental to otherwise lawful activities associated with the

anchored large and small mesh gill-net fisheries, and as conditioned herein. The permit covers incidental takes from the date of issuance through July 17, 2024. The NCDMF uses preliminary data to monitor the total number of live and dead takes per Unit and season to determine if the NCDMF is approaching or has reached the allowable Atlantic sturgeon takes. However, there is no “real time” method to determine the actual DPS taken. The genetic sampling required by the ITP will provide the actual take numbers per DPS, but this will not be determined until after genetic samples are processed and if funding allows. Once TTP data are finalized in May of 2019, the final authorized estimated Atlantic sturgeon takes will be recalculated and the finalized estimates will be provided to the NMFS.

Compliance

The NCDMF observers and Marine Patrol conduct weekly fish house visits, boat patrols, fisherman spot checks, gear checks, aerial surveys, and continual outreach to the industry attempting to ensure industry compliance and to determine anchored large and small mesh gill-net fishing effort throughout the state.

The Observer Program has various ways to contact fishermen to schedule trips. The most common method is by phone due to limited program resources, fishermen leaving from their residence, and efficiency. The Observer Program has a contact log which is filled out for every phone call or contact that is made when attempting to obtain a trip. Each contact was put into a specific category and other information was gathered (Table 3). The contact log was analyzed by month and category to determine what percentage of phone calls resulted in observer trips.

RESULTS

Observer activity

Fall 2017

The fall 2017 season for anchored large and small mesh gill nets in North Carolina is September 2017 through November 2017 for ITP Year 2018 (September 1, 2017 – August 31, 2018) as defined in ITP No. 16230. Portions of Management Unit A (eastern Albemarle Sound) closed to anchored large and small mesh gill nets via proclamation M-18-2017 on October 29, 2017 while maintaining the closure of all anchored gill nets in the eastern portions of the Management Unit (eastern/southern Albemarle Sound and Croatan and Roanoke sounds) to avoid interactions with sea turtles (Table 4; Boyd 2017b). Specific sections of Management Unit B (subunits CGNRA, SGNRA1-3) closed to anchored large mesh gill nets for the new ITP Year 2018 to avoid sea turtle interactions via proclamation M-13-2017 on September 1, 2017. These areas of Management Unit B reopened to anchored large mesh gill nets for the remainder of the ITP Year 2018 via proclamation M-14-2017 on September 25, 2017. Management Unit C opened to anchored large and small mesh gill nets for the new ITP Year 2018 on September 1, 2017 via

proclamation M-13-2017. Management Unit D (D1) opened to anchored large mesh gill nets for the new ITP Year 2018 via proclamation M-17-2017 on October 16, 2017. On November 9, 2017 proclamation M-19-2017 closed a portion of Management Unit D (D1) to anchored large mesh gill nets due to reaching allowable sea turtle take thresholds.

The Observer Program achieved an estimated 8.2% overall anchored large mesh gill-net coverage for the fall 2017 season meeting the minimum requirement (n = 7.0%). Coverage requirements were also met in all Management Units except Management Unit D based on finalized data (Table 5; Figures 2 - 7; Boyd 2017b). This is due to the partial closure of D early in the ITP year.

The Observer Program achieved an estimated 2.3% overall anchored small mesh gill-net coverage for the fall 2017 season meeting the minimum requirement (1.0%). Coverage requirements were also met in all Management Units except Management Unit B (0.9%) based on finalized data (Table 6; Figures 2 - 7; Boyd 2017b).

There were 12 observed Atlantic sturgeon interactions from anchored large mesh gill nets for the fall 2017 season (Table 7; Figures 2 – 7; Boyd 2017b). Of the 12 interactions, 75% were alive. All interactions in the fall season occurred in Management Unit A. There were zero fisherman self-reported Atlantic sturgeon interactions during this period.

Winter 2017-2018

The winter 2017-2018 season for anchored large and small mesh gill nets in North Carolina is December 2017 through February 2018 for ITP Year 2018 (September 1, 2017 – August 31, 2018) as defined in ITP No. 18102. December 1, 2017, proclamation M-20-2017 closed the Albemarle Sound proper to the use of gill nets with a stretch mesh length of 5½ inches through 6½ inches. It also allowed the use of unattended anchored small mesh gill net (legal gill net of smaller than 4 inches) and required both large and small mesh anchored gill nets must be set to fish the bottom of the water column and not exceed a vertical height of 48 inches. Effective January 1, 2018 it was unlawful to fish gill nets with a stretch mesh length other than ¾ inches, or from 5½ inches through 6 ½ inches in Management Unit A except for specially described areas. This action was brought about by proclamation M-24-2017, which also maintained large mesh closures and vertical height restrictions for all anchored gill nets (Table 4). Proclamation M-1-2018 implemented gear exemptions for portions of the internal coastal waters south of Management Unit A to allow fishermen to set gill nets for the shad fishery. It also opened remaining portions of Management Unit B to the use of gill nets with a stretch mesh of 4 inches through 6½ inches in accordance with the Sea Turtle Incidental Take Permit (Table 4).

The flounder commercial harvest season in internal coastal waters closed on December 1, 2017 via proclamation FF-47-2017 as per Amendment 1 to the Southern Flounder Fishery Management Plan (Table 4).

The Observer Program achieved an estimated 10.1% overall anchored large mesh gill-net coverage for the winter 2017-2018 season meeting the minimum requirement (7.0%). The coverage requirement was also met in all Management Units except for Management Units B and E based on preliminary data. Observer coverage for Management Units B and E was 0.0% for the winter 2017-2018 season due to very low effort in both areas (Table 5; Figures 2 – 7).

The Observer Program achieved an estimated 3.9% overall anchored small mesh gill-net coverage for the winter 2017-2018 season meeting the minimum requirement (1.0%). Coverage was also met in each Management Unit based on preliminary data (Table 6; Figures 2 - 7).

There were 2 observed Atlantic sturgeon interactions from anchored large mesh gill nets and zero from anchored small mesh gill nets during the winter 2017-2018 season. Both Atlantic sturgeon interactions were alive with one observed in Management Unit A and one in Management Unit C during this period (Table 7; Figures 2 - 7). There were zero fisherman reported Atlantic sturgeon interaction from anchored large or small mesh gill nets during this period.

Spring 2018

The spring 2018 season for anchored large and small mesh gill nets in North Carolina is March 2018 through May 2018 for ITP Year 2018 (September 1, 2017 – August 31, 2018) as defined in ITP No. 16230. Management Unit A opened to the use of anchored large mesh gill nets with gill net configurations for harvesting American shad by removing vertical height restrictions for up to 1,000 yards of gill net with stretched mesh lengths of 5 ¼ through 6 ½ inches via proclamation M-2-2018 on March 3, 2018. In accordance with the Sea Turtle and Atlantic Sturgeon ITPs, Proclamation M-2-2018 also implemented additional gill net restrictions for Management Subunit A-South of US-64-BYP/US-64 (Table 4; McConnaughey 2018b). Gill net configurations for harvesting American shad were removed in Management Unit A following the end of the shad season via proclamation M-3-2018 on March 25, 2018. Proclamation M-3-2018 also upheld additional gill net restrictions that maintained congruity with Sea Turtle and Atlantic Sturgeon ITPs (Table 4; McConnaughey 2018b). Small mesh gill net attendance requirements and additional gill net restrictions were implemented for Management Unit A, in accordance with the Sea Turtle ITP on May 3, 2018 via proclamation M-5-2018. This proclamation also maintained the closure for portions of western Albemarle Sound to all gill nets with a stretched mesh of 5 ½ through 6 ½ inches (Table 4; McConnaughey 2018b).

On May 4, 2018 proclamation M-6-2018 initiated attendance requirements for gill nets with a stretched mesh length less than 4 inches for Management Subunit B.1 (Table 4; McConnaughey 2018b). Management Unit B was closed by proclamation M-7-2018 to gill nets with a stretched mesh of 4 inches through 6 ½ inches on May 18, 2018 due to approaching allowable take limits of Kemp's ridley sea turtles. M-7-2018 also reduced the maximum stretched mesh length for run-around, strike, drift, drop, and trammel gill nets to 5 inches (Table 4; McConnaughey 2018b).

Proclamation M-4-2018 implemented tie-down and distance from shore restrictions for gill nets with a stretched mesh length of five inches or greater in western Pamlico Sound and rivers on May 1, 2018 (Table 4; McConnaughey 2018b).

A portion of Management Unit D (D1) remained closed to anchored large mesh gill nets for the entire Spring 2018 season due to exceeding allowable take limits of sea turtles in the Fall 2017 season.

The Observer Program achieved an estimated coverage of 10.0% overall for anchored large mesh gill-net during the spring 2018 season, based on preliminary data, meeting the minimum requirement (7.0%). Coverage requirements were met in all Management Units except B (3.4%) and C (6.7%).

The Observer Program achieved an estimated 2.3% overall anchored small mesh gill-net coverage for the spring 2018 season meeting the minimum requirement (1.0%) based on preliminary data (Table 6; Figures 2 – 7; McConnaughey 2018b).

There were 13 observed Atlantic sturgeon interactions from anchored large mesh gill nets and zero from anchored small mesh gill nets for the spring 2018 season. Twelve of the Atlantic sturgeon captured were released alive, and one was dead during this period (Table 7; Figures 2 – 7). There was one fisherman self-reported Atlantic sturgeon interaction during this period (Table 8; McConnaughey 2018b).

Summer 2018

The 2018 summer season for anchored large and small mesh gill nets in North Carolina is June 2018 through August 2018 for ITP Year 2018 (September 1, 2017 – August 31, 2018) as defined in ITP No. 16230. There were no proclamations issued for anchored large or small mesh gill nets during the 2018 summer season (Table 4; McConnaughey 2018c). Management Unit B remained closed to anchored large mesh gill nets for the entire summer season due to approaching allowable take limits for Kemp's ridley sea turtles in May 2018 (Table 4; McConnaughey 2018c). Part of Management Unit D (D1) is closed from early May until mid-October annually, in accordance with the sea turtle ITP.

The Observer Program achieved an estimated 10.2% overall anchored large mesh gill-net coverage for the summer season meeting the minimum requirement (7.0%). Coverage requirements were met in all Management Units based on preliminary data (Table 5; Figures 2 – 7; McConnaughey 2018c). Management unit B and the portion of Management Unit D known as D1 were closed to anchored large mesh gill net for the entire 2018 summer season.

The Observer Program achieved an estimated 0.4% overall anchored small mesh gill-net coverage for the 2018 summer season. Coverage requirements were not met in any Management Unit except Management Unit D based on preliminary data (Table 6; Figures 2 – 7; McConnaughey 2018c). Observer coverage in Management Unit D was 2.9% (Table 6; Figures 2 – 7; McConnaughey 2018c). Significant program staff changes, limited fishing effort, net attendance regulations, marginal weather conditions and issues with observers procuring trips are causes for the lack of coverage during the 2018 summer season.

There were zero observed Atlantic sturgeon interaction from anchored large and small mesh gill nets for the 2018 summer season (Table 7; McConnaughey). There were no reported Atlantic sturgeon interactions during this period (Table 8; McConnaughey 2018c).

Authorized Takes

There was a total of 27 observed Atlantic sturgeon interactions in anchored large mesh gill nets and zero in anchored small mesh gill nets for ITP Year 2018 (Table 7; Figures 2 – 7; Boyd 2017b, McConnaughey 2018b, 2018c). Of the 27 interactions, 85.2% were alive. Observed interactions primarily occurred in Management Unit A (96.3%), with one interaction occurring in Management Unit C (3.7%; Table 7; Figures 2 - 7). The one reported Atlantic sturgeon interactions for ITP Year 2018 was fisherman self-reported and was in Management Unit A (Table 8; Boyd 2017b, McConnaughey 2018b, 2018c).

The length distributions of Atlantic sturgeon (n = 22) were as follows, TL (n = 22) of 441 mm to 1,050 mm and a FL (n = 12) of 375 mm to 903 mm (Table 7; Figures 8 and 9; Boyd 2017b, McConnaughey 2018b, 2018c).

Based on preliminary data the cumulative total estimated and observed takes for anchored large and small mesh gill nets did not reach the threshold of allowed takes for any Management Unit for ITP Year 2018 (Table 1 and 2; Boyd 2017b, McConnaughey 2018b, 2018c).

Of the authorized estimated allowable sturgeon takes in the anchored large mesh gill nets 38.8% of the alive sturgeon category and 17.2% of the dead sturgeon category were utilized for Management Unit A for the year. Of the authorized estimated allowable sturgeon takes in anchored small mesh gill nets 1.6% of the alive sturgeon category and 0% of the dead sturgeon category were utilized in Management Unit A. (Boyd 2017b, McConnaughey 2018b, 2018c).

In addition, authorized observed takes also occurred in anchored large mesh gill nets in Management Units C and E, with the percent of authorized observed takes used being 30.8% (alive only) for C and 12.5% (alive only) for E, respectively. Authorized observed takes also occurred in anchored small mesh gill nets in Management Units B and E, with the percent of authorized estimated takes used being 5.9% (alive only) for B and 12.5% (alive only) for E, respectively (Boyd 2017b, McConnaughey 2018b, 2018c).

Compliance

Marine Patrol made 423 gill-net checks during the fall 2017 season resulting in 50 citations issued (Tables 9 and 10; Boyd 2017b, McConnaughey 2018b, 2018c). Marine Patrol made 264 gill-net checks during the winter 2017-2018 season resulting in three citations issued (Tables 9 and 10). Marine Patrol made 476 gill-net checks for the spring 2018 season resulting in 19 citations issued (Tables 9 and 10; Boyd 2017b, McConnaughey 2018b, 2018c). Marine Patrol made 533 gill-net checks for the 2018 summer season with 16 citations being issued (Tables 9 and 10; Boyd 2017b, McConnaughey 2018b, 2018c)

For ITP Year 2018, phone calls (n = 2,000) were made with 59.95% (n = 1,199) being categorized as 1, 8, 11, 12, 13, and 14 which inclusively represents not being able to get in touch with fishermen or fishermen refusing trips (Table 11; Boyd 2017b). In the fall 2017 season (n = 207), phone calls were made with 62.8% (n = 130) being categorized as 1, 8, 11, 12, 13, and 14. In the winter 2017-2018 season (n = 362), phone calls were made with 66.3% (n = 240) being categorized as 1, 8, 11, 12, 13, and 14. In the spring 2018 season (n = 214), phone calls were made with 64.0% (n = 137) being categorized as 1, 8, 11, 12, 13, and 14. In the 2018 summer season (n = 1217), phone calls were made with 56.9% (n = 692) being categorized as 1, 8, 11, 12, 13, and 14 (Table 11; Boyd 2017b).

Notice of Violations (NOV) were issued when fishermen were found to be out of compliance with the EGNP. Seven NOVs were issued during the fall 2017 season, one NOV was issued during the winter 2017-2018 season, eight NOVs were issued during the spring 2018 season, and zero NOVs were issued during the 2018 summer season (Table 12; Boyd 2017b, McConnaughey 2018b, 2018c).

Marine Mammals

There was one observed take of a dead bottlenose dolphin in Management Unit D1 that occurred in the fall 2017 season during ITP Year 2018. The marine mammal interaction occurred in small mesh gill net. When the animal was untangled from the gill-net, it quickly sank out of sight, which prevented the observers from collecting biological data (Appendix D).

DISCUSSION

Management history

Initial reviews of the Atlantic sturgeon status began in 1977, when the Research Management Division of the NMFS sponsored the preparation of a report on the biology and status of Atlantic sturgeon (Murawski and Pacheco 1977). In 1980 at the request of the NMFS, another document was prepared by Hoff (1980) to assist in making future Atlantic sturgeon fisheries decisions and to determine what action was required, if any, to conserve the species under the ESA. In 1988, the NMFS requested information regarding the status of Atlantic sturgeon. The NMFS added Atlantic sturgeon to its candidate species list published in the Federal Register (FR) in 1997 (62 FR 37560, 14 July 1997, NMFS 1997a). Prior to the federal listing, North Carolina had taken steps to protect Atlantic sturgeon. The NCDMF implemented a statewide moratorium on the possession of Atlantic sturgeon in 1991 (15A NCAC 03M.0508).

In April 2004, the NMFS published a subsequent notice announcing that the NMFS “candidate species list” was being changed to the “Species of Concern (SOC) list” to better reflect the ESA definition of candidate species while maintaining a separate list of species potentially at risk (69 FR 19975 -15 April 2004, NMFS 2004a; ASSRT 2007).

On June 2, 1997, a petition dated May 29, 1997 was received by the NMFS from the Biodiversity Legal Foundation. The petitioner requested that the NMFS list Atlantic sturgeon, where it continues to exist in the United States, as threatened or endangered and designate critical habitat. The NMFS reviewed the request and determined that the petition presented substantial information indicating that the petitioned action may be warranted and announced the initiation of a status review (62 FR 54018, 12 October 1997, NMFS 1997b; ASSRT 2007).

The NMFS and United States Fish and Wildlife Service (USFWS) completed their status review in 1998 and concluded at that time Atlantic sturgeon were not threatened or endangered based on any of the five factors (NMFS and USFWS 1998). Concurrently, the Atlantic States Marine Fisheries Commission (ASMFC) completed Amendment 1 to the 1990 Atlantic Sturgeon FMP in 1998 that imposed a 20–40-year moratorium on all Atlantic sturgeon fisheries until the Atlantic Coast spawning stocks could be restored to a level where 20 subsequent year-classes of adult females were protected (ASMFC 1998). The NMFS followed this action by closing the Exclusive Economic Zone (EEZ) to Atlantic sturgeon harvest in 1999. In 2003, a workshop on the “Status and Management of Atlantic Sturgeon” was held to discuss the current status of Atlantic sturgeon along the Atlantic Coast and determine what obstacles, if any, were impeding the recovery of Atlantic sturgeon (Kahnle et al. 2005; ASSRT 2007).

Based on the information gathered from the 2003 workshop on Atlantic sturgeon, the NMFS decided that a second review of Atlantic sturgeon status was needed to determine if listing as threatened or endangered under the ESA was warranted. The 2007 analysis from the Atlantic

Sturgeon Status Review Team (ASSRT) determined that at least three (New York Bight, Chesapeake Bay, and Carolina) of the five DPSs should be considered threatened under the ESA, as it was determined that they had a moderately high risk of becoming threatened in the foreseeable future (next 20 years). The ASSRT determined that the remaining two DPSs (Gulf of Maine, South Atlantic) had a moderate risk of becoming extinct, though there were insufficient data to allow for a full assessment of these subpopulations; thus, a listing recommendation was not provided (ASSRT 2007).

On October 6, 2009, the NMFS received a petition from the Natural Resources Defense Council to list Atlantic sturgeon throughout its range as endangered under the ESA. As an alternative, the petitioner requested that the species be listed as the five DPSs described in the 2007 Atlantic sturgeon status review (ASSRT 2007), with the Gulf of Maine and South Atlantic DPSs listed as threatened and the remaining three DPSs listed as endangered. The petitioner also requested that critical habitat be designated for Atlantic sturgeon under the ESA. The NMFS published a Notice of 90-Day Finding on January 6, 2010 (75 FR 838, 6 January 2010, NMFS 2010) stating that the petition presented substantial scientific or commercial information indicating that the petitioned actions may be warranted. The NMFS considered the information provided in the status review report, the petition, other new information available since completion of the status review report, and information submitted in response to the Federal Register announcement of the 90-day finding (75 FR 838, 6 January 2010, NMFS 2010). On October 6, 2010, the NMFS published a proposed rule to list the Carolina DPS of Atlantic sturgeon as endangered under the ESA (75 FR 61871, 6 January 2010, NMFS 2010). On February 6, 2012, the NMFS issued a final determination to list the Carolina DPS of Atlantic sturgeon as an endangered species under the ESA (77 FR 5914, 6 February 2012, NMFS 2012).

Prior to the listing of Atlantic sturgeon, NCDMF has addressed protected species issues in the coastal waters of North Carolina since the 1970s. The NCDMF applied for and received four ITPs for the Pamlico Sound Gill Net Restricted Area (PSGNRA) from 2000 to 2005 to address sea turtle takes in the anchored large and small mesh gill-net fisheries for the Pamlico Sound portion of the state during the fall months (Gearhart 2001, 2002, 2003; Price 2004, 2005, 2006, 2007, 2008, 2009, 2010; Murphey 2011; Boyd 2012, 2013). The NCDMF applied for and received a 10-year ITP addressing sea turtle takes in the anchored large and small mesh gill-net fisheries statewide on September 11, 2013. This ITP authorized the implementation of adaptive management measures to protect threatened and endangered sea turtles and other ESA listed species, while allowing the anchored gill-net fisheries prosecuted by license holders to occur in the estuarine waters of North Carolina. The Sea Turtle ITP No. 16230 defined an ITP Year as beginning on September 1 and running through August 31 of the following year.

Implementation of management actions such as gear restrictions, fishing seasons, soak times, area closures, mesh size restrictions, FMPs, and ITPs (Sea Turtle ITP No. 16230) for other

species have likely had a positive effect on reducing takes and minimizing the mortality associated with the incidental bycatch of Atlantic sturgeon. The North Carolina management system has shown the ability to effectively manage fisheries throughout the state and reduce incidental bycatch of finfish and protected species. Anchored gill-net restrictions implemented by the proclamations for the Sea Turtle ITP include: a range of 4 ISM to, and including, 6 ½ ISM for anchored large mesh gill nets; soak times limited to overnight soaks an hour before sunset to an hour after sunrise, Monday evenings through Friday mornings; anchored large mesh gill nets were restricted to a height of no more than 15 meshes, constructed with a lead core or leaded bottom line and without corks or floats other than needed for identification; a maximum of 2,000 yards of anchored large mesh gill nets allowed to be used per vessel; and maximum individual net (shot) length of 100 yards with a 25-yard break between shots. Fishermen in the southern portion of the state were allowed to set anchored large mesh gill nets an extra day (Sunday evenings through Friday mornings) and use floats on nets, but were restricted to the use of a maximum of 1,000 yards of anchored large mesh gill net per fishing operation.

The Annual Completion Report for ITP Year 2014 was submitted January 30, 2015 (Boyd 2015). During review of the 2014 Atlantic Sturgeon ITP Annual Completion Report, the NMFS requested modifications to certain tables and figures in the annual report. These modifications were addressed in the Annual Completion report for ITP Year 2015 (September 1, 2014 – August 31, 2015) which was submitted January 30, 2016 and included: maps for each Management Unit to include number of gill-net hauls and sea turtle interactions and tables which have all of the estimated/observed takes exactly as portrayed in the permit with 95% confidence intervals included (Boyd 2016a).

At the August 2016 NCMFC meeting, Chairman Sammy Corbett announced that he was disbanding the Sea Turtle Advisory Committee (STAC) because it is not statutorily required and the NCMFC committee system already has a multitude of committees which are statutorily mandated. Chairman Corbett sent a letter explaining his decision to the committee members on August 25, 2016 (Appendix E).

Observer Activity

There was turnover within the Observer Program with positions being filled as quickly as possible to maintain coverage. The Observer Program proportionally placed observers in areas with higher fishing effort. There were multiple closures of various Management Units throughout the state during ITP Year 2018 (Table 3). When a Management Unit closes for a portion of time, observer efforts are shifted to open Management Units. The contact log, which includes different categories to place each contact that was made to a fisherman, is beneficial for analyzing the type of contact that was being made and to see the number of observer trips that were obtained through the calling system.

During the 2017 fall season overall observer coverage goals were met. Observer coverage for anchored large mesh gill net in Management Unit D were 6.9% (Boyd 2017b). Observer coverage for anchored small mesh gill net was 0.9% in Management Unit B. In recent years, attendance requirements were lifted during the month of November. Fishing practices for attended gill nets can be very different than other fishing practices, with fishing activity occurring throughout the night creating safety hazards for observers. Furthermore, fishing effort tends to be lower when attendance is required (Boyd 2017b). Management Unit D1 closed to anchored large mesh gill net for the remainder of the 2018 ITP year due to exceeding allowable take limits on November 9, 2017

During the 2017-2018 winter season overall coverage requirements were met. No trips were observed in Management Units B and E during this season because of a lack of fishing effort (B = 23 trips, E = 25 trips) and difficulty in obtaining trips.

During the 2018 spring season overall coverage requirements were met. Management Units B and C were underrepresented in the anchored large mesh gill net observations with 3.4% and 6.7% coverage, respectively. Observer coverage in the anchored small mesh gill-nets in Management Unit D2 was 0.0% due to minimal fishing effort (n = 20 fishing trips; McConnaughey 2018b). Management Unit B was closed during the latter part of the spring season and did not reopen until the Fall 2018

During the 2018 summer season Management Units B and part of D were closed to anchored large mesh gill-net for the duration of the 2018 summer season. No anchored small mesh gill-net trips were obtained in Management Unit C and part of Unit D due to minimal fishing activity for the 2018 summer season (McConnaughey 2018c).

Compliance

Although ITP Year 2018 is the fifth year for the statewide ITP, fishermen in many portions of the state are not as familiar with the Observer Program and requirements of the ITP as desired, so more time is needed to educate the industry. Alternative platform trips were employed in all Management Units more frequently throughout ITP Year 2018 to maintain observer coverage due to compliance issues with fishermen (i.e., not answering phone calls, not calling back). The required minimum 7% observer coverage for anchored large mesh gill nets is very difficult to achieve when observers must rely on alternative platform trips, as it requires two observers to obtain a trip. The NCDMF has discussed the situation with industry leaders in attempts to improve awareness and increase compliance. However, fisherman non-compliance continues to be a hurdle for ensuring the requirements for both ITPs are met.

There was only one fisherman self-reported Atlantic sturgeon takes during the entire 2018 ITP year (Table 7; Boyd 2017b, McConnaughey 2018b, 2018c). NCDMF has discussed this

situation with numerous industry leads and has provided outreach to fishermen explaining the requirement in the ITP of self-reporting and further details on the subject to try and increase self-reporting throughout the industry as a whole with limited success.

Estuarine Gill Net Permit

Per the ITP the NCDMF established an EGNP to register all fishermen participating in the anchored large and small mesh gill-net fisheries via proclamation M-24-2014 on September 1, 2014. The ITP's Implementing Agreement states that the NCDMF has two years to implement the EGNP to serve as a certificate of inclusion for fishermen. However, due to the compliance issues the NCDMF was facing during ITP Year 2014, the EGNP was developed and became effective September 1, 2014 (one year from ITP issuance; Boyd 2015). The multifaceted EGNP was enacted to attempt to allow the NCDMF to closely monitor compliance. The EGNP is also used as a tool to improve fishermen compliance by including Specific Permit Conditions requiring fishermen to allow the NCDMF observers aboard their vessels to monitor catches. Failure to comply with this permit provision can result in a permit suspension. There were 2,676 EGNPs issued for Fiscal Year 2018 (July 1, 2017 – June 30, 2018).

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TABLES

Table 1. Authorized and actual annual estimated incidental takes per fishing year (for a total of 10 years; the life of the permit) with confidence intervals (95%) using a bootstrap method based on observer data for coverage and Atlantic sturgeon interaction levels in North Carolina's anchored large mesh (≥ 5.0 ISM) inshore gill net fishery for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Management Unit	Season	Total Interactions			
		Authorized (Mortality)		Actual All DPS ²	
		Carolina DPS	Other DPS	Alive	Dead
A	Annual	1604(65)	535(21)	449.7 [101.6, 1103]	72.9[0, 185.9]
B	Annual	24(6) ¹	9(0)	0	0
C	Annual	11(5) ¹	4(0)	1	0
D	Annual	8 (2) ¹	n/a	0	0
E	Annual	8 (2) ¹	n/a	0	0

¹ Total interaction number represents actual observed and not estimated based on observer coverage. Mortality estimates could not be completed for Management Units B-E due to low take; thus, if observed interactions were ≤ 5 mortality was one; if observed interactions were >5 mortality was two.

² Fin clip samples have been sent to the lab for genetic analysis

Table 2. Authorized and actual annual estimated incidental takes per fishing year (for a total of 10 years; the life of the permit) with confidence intervals (95%) using a bootstrap method based on observer data for coverage and Atlantic sturgeon interaction levels in North Carolina’s anchored small mesh (<5.0 ISM) inshore gill net fishery for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Management Unit	Season	Total Interactions			
		Authorized (Mortality)		Actual All DPS ²	
		Carolina DPS	Other DPS	Alive	Dead
A	Annual	569(45)	114(10)	0	0
B	Annual	14(5) ¹	3(0)	0	0
C	Annual	8(4) ¹	n/a	0	0
D	Annual	8 (2) ¹	n/a	0	0
E	Annual	8 (2) ¹	n/a	0	0
Total		607 (58)	117 (10)	0	0

¹ Total interaction number represents actual observed and not estimated based on observer coverage. Mortality estimates could not be completed for Management Units B-E due to low take; thus, if observed interactions were ≤ 5 mortality was one; if observed interactions were >5 mortality was two.

² Fin clip samples have been sent to the lab for genetic analysis

Table 3. Categories and descriptions of fisherman responses for the Observer Program's contact logs used for analysis.

Categories	Category description
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

Table 4. Regulations for Management Units by date and regulation change for anchored large and small mesh gill nets for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Year	Date(s)	Regulation change
2017	September 1	Portions of Management Unit B (subunits CGNRA, SGNRA1-3) closed to large mesh gill nets and Management Unit C opened to large and small mesh gill nets for the new ITP Year 2018. Subunits SGNRA1-3 and CGNRA will remain closed until sea turtle abundance decreases to minimize interactions with sea turtles (M-13-2017).
2017	September 25	This proclamation opens portions of Management Unit B (Subunits SGNRA1 - SGNRA3 and CGNRA) to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches for the new ITP year (September 1, 2017 – August 31, 2018) in accordance with the Sea Turtle ITP. (M-14-2017)
2017	October 16	This proclamation opens Management Unit D1 to the use of gill nets with a stretched mesh length of 4 inches through 6 ½ inches in accordance with the Sea Turtle ITP. (M-17-2017)
2017	October 29	Closes further portions of eastern Albemarle Sound and maintains closures for the Croatan and Roanoke Sounds (except as described in Section IV.). This action is being taken in order to minimize interactions with threatened and/or endangered sea turtles. (M-18-2017)
2017	November 9	This proclamation closes Management Unit D1 (See map) 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 the Sea Turtle Incidental Take Permit. (M-19-2017)
2017	December 1	This proclamation implements the December closed commercial season provision identified in the N.C. Southern Flounder Fishery Management Plan Amendment 1. (FF-47-2017)
2017	December 1	In Management Unit A, it closes the Albemarle Sound proper to the use of gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches, and allows the use of unattended, anchored small mesh gill nets (legal gill nets with a stretched mesh of 4 inches and smaller). Both anchored small mesh gill nets and gill nets with a stretched mesh length of 5 ½ inches through 6 ½ inches must be set to fish the bottom of the water column and not to exceed a vertical height of 48 inches. (M-20-2017)
2018	January 1	In Management Unit A, it makes it unlawful to use gill nets with a stretched mesh length <i>other than 3 ¼ inches, or from 5 ½ inches through 6 ½ inches</i> , EXCEPT IN THE AREAS DESCRIBED IN SECTION IV. It also maintains large mesh gill net closures and vertical height restrictions for all anchored gill net sets. (M-24-2017)

Table 4. (cont.).

2018	February 15	This proclamation implements gear exemptions for portions of the Internal Coastal Waters south of Management Unit A to allow fishermen to set gill nets for the shad fishery (See Section III.). It also opens the remaining portions of Management Unit B 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 the Sea Turtle Incidental Take Permit. (M-1-2018)
2018	March 3	Opens all of Management Unit A to the use of gill nets and allows gill net configurations for harvesting American shad by removing vertical height restrictions for up to 1,000 yards of gill net with stretched mesh lengths of 5 ¼ through 6 ½ inches. This proclamation also implements additional gill net restrictions for Management Subunit A-South of US-64-BYP/US-64, in accordance with the Sea Turtle and Atlantic Sturgeon ITPs. (M-2-2018)
2018	March 25	Removes the use of gill nets configured for harvesting American shad by implementing vertical height restrictions for all gill nets. This proclamation also closes a portion of the western Albemarle Sound to all gill nets with stretched mesh lengths of 5 ½ through 6 ½ inches and maintains additional gill net restrictions in accordance with the Sea Turtle and Atlantic Sturgeon ITPs. (M-3-2018)
2018	May 1	Implements tie-down (vertical net height restrictions) and distance from shore restrictions for gill nets with a stretched mesh length five inches or greater in the western Pamlico Sound and rivers. (M-4-2018)
2018	May 3	Implements small mesh gill net attendance requirements in Management Unit A and implements additional gill net restrictions in accordance with the Sea Turtle ITP. This proclamation also maintains a closure in a portion of the western Albemarle Sound to all gill nets with stretched mesh lengths of 5 ½ through 6 ½ inches. (M-5-2018)
2018	May 4	This proclamation implements attendance requirements for gill nets with a stretched mesh length less than 4 inches in Management Subunit B.1. (M-6-2018)
2018	May 18	This proclamation closes Management Unit B to gill nets with a stretched mesh length of 4 inches through 6 ½ inches and reduces the maximum stretched mesh length for run-around, strike, drift, drop and trammel gill nets to 5 inches. (M-7-2018)

Table 5. Observer coverage calculated from previous year's trip ticket data and observer data for anchored large mesh gill nets by season and Management Unit through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Season ¹	Management Unit ²	Large Mesh		
		Fishing Trips	Observed Trips	Coverage ³
Fall 2017	A	1,936	135	7.0
	B	1,496	126	8.4
	C	988	75	7.6
	D	554	38	6.9
	E	828	103	12.4
Winter 2017-2018	A	576	50	8.7
	B	23	0	0.0
	C	40	17	42.5
	D	8	1	12.5
	E	25	0	0.0
Spring 2018	A	1,201	154	12.8
	B	327	11	3.4
	C	875	59	6.7
	D	38	8	21.1
	E	314	44	14.0
Summer 2018	A	623	55	8.8
	B	n/a	n/a	n/a
	C	672	73	10.9
	D	334	17	5.1
	E	915	115	12.6
Total		11,773	1,081	9.2

¹ Final trip ticket data for 2017 (September - December) and preliminary trip ticket data for 2018 (January - August)

² Table 3 contains all openings and closings for each Management Unit

³ Based on final trips for 2017 (September - December) and estimated trips for 2018 (January - August) compared to observer large mesh trips

Table 6. Observer coverage calculated from previous year's trip ticket data and observer data for anchored small mesh gill nets by season and Management Unit through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Season ¹	Management Unit ²	Small Mesh		
		Fishing Trips	Observed Trips	Coverage ³
Fall 2017	A	193	3	1.6
	B	810	7	0.9
	C	162	5	3.1
	D	308	21	6.8
	E	561	10	1.8
Winter 2017-2018	A	573	16	2.8
	B	528	6	1.1
	C	214	18	8.4
	D	32	8	25.0
	E	88	8	9.1
Spring 2018	A	641	11	1.7
	B	1,250	29	2.3
	C	226	5	2.2
	D	20	5	25.0
	E	89	2	2.2
Summer 2018	A	366	2	0.5
	B	679	1	0.1
	C	63	0	0.0
	D	35	1	2.9
	E	283	1	0.4
Total		7,121	159	2.2

¹ Final trip ticket data for 2017 (September - December) and preliminary trip ticket data for 2018 (January - August)

² Table 3 contains all openings and closings for each Management Unit

³ Based on final trips for 2017 (September - December) and estimated trips for 2018 (January - August) compared to observer small mesh trips

Table 7. Summary of observed Atlantic sturgeon interactions in anchored large through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Date	Management Unit	Latitude	Longitude	Species	Disposition	Pit Tag Identifier (Decimal)	Length	
							Total	Fork
9/10/2017	A	36.08183	76.37243	Atlantic	Alive	982.000362195825	710	603
9/10/2017	A	36.08237	76.36972	Atlantic	Alive	982.000362187320	441	375
9/10/2017	A	36.08274	76.36224	Atlantic	Alive	982.000362191478	804	703
9/23/2017	A	36.11908	76.16743	Atlantic	Alive	N/A	787	N/A
9/29/2017	A	35.99076	76.27226	Atlantic	Alive	N/A	813	N/A
10/22/2017	A	36.19835	76.74716	Atlantic	Dead	982.000362190715	1050	903
10/27/2017	A	36.01011	76.2411	Atlantic	Alive	N/A	711	N/A
10/31/2017	A	36.03568	75.82003	Atlantic	Dead	982.000362191829	N/A	N/A
10/31/2017	A	36.03568	75.82003	Atlantic	Dead	982.000362187737	N/A	N/A
10/31/2017	A	36.04263	75.82717	Atlantic	Alive	982.000362056540	N/A	N/A
10/31/2017	A	36.04263	75.82717	Atlantic	Alive	N/A	N/A	N/A
10/31/2017	A	36.045	75.82972	Atlantic	Alive	982.000362319762	N/A	N/A
2/19/2018	A	36.20281	76.74667	Atlantic	Alive	982.000362195308	601	581
2/22/2018	C	35.09091	77.02741	Atlantic	Alive	989.001001952732	792	733
3/6/2018	A	35.99025	76.50052	Atlantic	Alive	989.001001951758	730	N/A
3/6/2018	A	35.99368	76.50218	Atlantic	Alive	989.001001951700	603	N/A
3/6/2018	A	35.99572	76.50236	Atlantic	Alive	989.001001951765	585	N/A
3/6/2018	A	35.99572	76.50236	Atlantic	Alive	989.001001952805	671	N/A
3/6/2018	A	35.99572	76.50236	Atlantic	Alive	982.000362056162	671	N/A
3/6/2018	A	35.99653	76.50337	Atlantic	Alive	N/A	775	N/A
3/6/2018	A	35.95866	76.63356	Atlantic	Alive	982.000362319175	860	780
3/6/2018	A	35.97644	76.64725	Atlantic	Alive	982.000362187773	596	513
3/6/2018	A	35.99653	76.50337	Atlantic	Dead	N/A	775	N/A
3/12/2018	A	36.02619	76.64206	Atlantic	Alive	982.000362319405	540	515
4/3/2018	A	36.20910	76.73937	Atlantic	Alive	982.000362191488	736	663
4/15/2018	A	36.08045	76.08045	Atlantic	Alive	982.000362054937	633	563
5/17/2018	A	36.49927	76.03447	Atlantic	Alive	982.000362054965	656	555

Table 8. Summary of reported Atlantic sturgeon interactions in anchored large mesh gill nets through the NCDMF Observer Program for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Date	Management Unit	Latitude	Longitude	Species	Disposition	Length	
						Total	Fork
4/15/2018	A	n/a	n/a	Atlantic	alive	n/a	n/a

Table 9. Number of gill-net checks made and citations issued by Marine Patrol for large and small mesh gill nets by season during ITP Year 2018 (September 1, 2017 - August 31, 2018).

Season	# Gill Net Checks	# Citations
Fall 2017	423	50
Winter 2017-2018	264	3
Spring 2018	476	19
Summer 2018	533	16
Total	1,696	88

Table 10. Citations written by Marine Patrol for large and small mesh gill nets by season and violation code during ITP Year 2018 (September 1, 2017 - August 31, 2018).

Season	Violation		
	Date	Code	Description
Fall 2017	9/4/2017	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday
	9/14/2017	NETG27	Gill Net set within 50 yards from shore
	9/15/2017	NETG44	Use large mesh gill nets w/out leaving a space of at least 25 yard between separate lengths of net
	9/16/2017	NETG29	RCGL gear without proper buoys
	9/20/2017	NETG27	Gill Net set within 50 yards from shore
	9/23/2017	NETG32	Set gill net w/stretched mesh of 5 inches or greater without proper tie downs
	9/23/2017	NETG51	Set gill net in violation of proclamation M-18-2011
	9/30/2017	NETG30	Leave RCGL gill net unattended
	10/9/2017	NETG07	Use metal net stakes on gill nets
	10/11/2017	NETG03	Using gill net with improper buoys or identification
	10/21/2017	NETG03	Using gill net with improper buoys or identification
	10/21/2017	NETG22	Improperly set gill net
	10/22/2017	NETG30	Leave RCGL gill net unattended
	10/23/2017	NETG10	Gill net with illegal mesh size
	10/23/2017	NETG54	Violate provisions of Proclamation M-30-2011 to wit failed to have 25 yard space between nets
	10/27/2017	NETG03	Using gill net with improper buoys or identification
	10/28/2017	NETG01	Leave gill net in coastal waters unattended
	10/28/2017	NETG02	Using gill net without buoys or identification
	10/28/2017	NETG03	Using gill net with improper buoys or identification
	10/28/2017	NETG03	Using gill net with improper buoys or identification
	10/31/2017	NETG04	Leave gill net in waters when could not be legally fished
	10/31/2017	NETG22	Improperly set gill net
	11/3/2017	NETG03	Using gill net with improper buoys or identification
	11/3/2017	NETG06	Gill net causing hazard to navigation
	11/3/2017	NETG30	Leave RCGL gill net unattended
	11/5/2017	NETG04	Leave gill net in waters when could not be legally fished
11/9/2017	NETG04	Leave gill net in waters when could not be legally fished	

Table 10. (cont.).

Season	Violation		
	Date	Code	Description
Fall 2017	11/9/2017	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday
	11/9/2017	NETG46	Set or retrieve large mesh gill nets later than one hour after sunrise on Tuesday through Friday
	11/10/2017	NETG04	Leave gill net in waters when could not be legally fished
	11/12/2017	NETG02	Using gill net without buoys or identification
	11/12/2017	NETG03	Using gill net with improper buoys or identification
	11/12/2017	NETG22	Improperly set gill net
	11/13/2017	NETG03	Using gill net with improper buoys or identification
	11/13/2017	NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State
	11/13/2017	NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State
	11/14/2017	NETG03	Using gill net with improper buoys or identification
	11/14/2017	NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State
	11/16/2017	NETG02	Using gill net without buoys or identification
	11/17/2017	NETG04	Leave gill net in waters when could not be legally fished
	11/18/2017	NETG03	Using gill net with improper buoys or identification
	11/22/2017	NETG01	Leave gill net in coastal waters unattended
	11/26/2017	NETG03	Using gill net with improper buoys or identification
	11/26/2017	NETG16	Use an unattended gill net in a restricted area
	11/26/2017	NETG29	RCGL gear without proper buoys
	11/26/2017	NETG30	Leave RCGL gill net unattended
	11/29/2017	NETG22	Improperly set gill net
	11/29/2017	NETG29	RCGL gear without proper buoys
	11/29/2017	NETG30	Leave RCGL gill net unattended
	11/30/2017	NETG06	Gill net causing hazard to navigation
Winter 2017-2018	12/27/2017	NETG03	Using gill net with improper buoys or identification
	2/9/2018	NETG03	Using gill net with improper buoys or identification
Spring 2018	2/21/2017	NETG03	Using gill net with improper buoys or identification
	4/1/2018	NETG22	Improperly set gill net
	4/6/2018	NETG22	Improperly set gill net
	4/6/2018	NETG22	Improperly set gill net
	4/12/2018	NETG22	Improperly set gill net

Table 10. (cont.).

Season	Violation		
	Date	Code	Description
Spring 2018	4/12/2018	NETG22	Improperly set gill net
	4/12/2018	NETG03	Using gill net with improper buoys or identification
	4/19/2018	NETG09	Gill net set too close to bridge
	4/22/2018	NETG01	Leave gill net in coastal waters unattended
	4/22/2018	NETG03	Using gill net with improper buoys or identification
	4/22/2018	NETG03	Using gill net with improper buoys or identification
	5/1/2018	NETG10	Gill net with illegal mesh size
	5/1/2018	NETG22	Improperly set gill net
	5/3/2018	NETG16	Use an unattended gill net in a restricted area
	5/6/2018	NETG29	RCGL gear without proper buoys
	5/11/2018	NETG03	Using gill net with improper buoys or identification
	5/16/2018	NETG03	Using gill net with improper buoys or identification
	5/16/2018	NETG04	Leave gill net in waters when could not be legally fished
	5/22/2018	NETG01	Leave gill net in coastal waters unattended
	5/25/2018	NETG29	RCGL gear without proper buoys
Summer 2018	6/6/2018	NETG45	Set or retrieve large mesh gill nets no sooner than one hour before sunset on Monday through Thursday
	6/8/2018	NETG01	Leave gill net in coastal waters unattended
	6/15/2018	NETG46	Set or retrieve large mesh gill nets later than one hour after sunrise on Tuesday through Friday
	6/22/2018	NETG34	Use unattended gill net w/mesh less than 5" in commercial operation from May 1 through November 30 in coastal waters of the State
	6/23/2018	NETG29	RCGL gear without proper buoys
	7/4/2018	NETG03	Using gill net with improper buoys or identification
	7/20/2018	NETG41	Use more than 2000 yards of large mesh gill net north of Highway 58 Bridge
	7/20/2018	NETG03	Using gill net with improper buoys or identification
	7/20/2018	NETG56	Violate the provisions of Proclamation M-30-2011 to wit set more than 2000 yards of large mesh gill net
	7/20/2018	NETG03	Using gill net with improper buoys or identification
	8/10/2018	NETG10	Gill net with illegal mesh size
	8/12/2018	NETG02	Using gill net without buoys or identification
	8/25/2018	NETG03	Using gill net with improper buoys or identification

Table 11. Contacts attempted (n = 2,000) by the observers trying to set up trips by season categorized by contact type (0-14) and by total number, percent for each season, and percent for the entire ITP Year 2018 for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Season	Categories (%) ¹														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Fall 2017	3	46	7	1	3	0	4	0	12	4	17	3	42	65	207
	1.4%	22.2%	3.4%	0.5%	1.4%	0.0%	1.9%	0.0%	5.8%	1.9%	8.2%	1.4%	20.3%	31.4%	100.0%
Winter 2017-2018	Categories (%) ¹														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Winter 2017-2018	5	70	10	3	1	4	11	1	21	2	24	10	59	141	362
	1.4%	19.3%	2.8%	0.8%	0.3%	1.1%	3.0%	0.3%	5.8%	0.6%	6.6%	2.8%	16.3%	39.0%	100.0%
Spring 2018	Categories (%) ¹														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Spring 2018	4	51	5	3	0	2	6	2	10	0	15	0	30	86	214
	1.9%	23.8%	2.3%	1.4%	0.0%	0.9%	2.8%	0.9%	4.7%	0.0%	7.0%	0.0%	14.0%	40.2%	100.0%
Summer 2018	Categories (%) ¹														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Summer 2018	43	243	75	12	15	12	63	6	93	12	52	13	194	384	1,217
	3.5%	20.0%	6.2%	1.0%	1.2%	1.0%	5.2%	0.5%	7.6%	1.0%	4.3%	1.1%	15.9%	31.6%	100.0%
Total	Categories (%) ¹														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Total	55	410	97	19	19	18	84	9	136	18	108	26	325	676	2,000
	2.8%	20.5%	4.9%	1.0%	1.0%	0.9%	4.2%	0.5%	6.8%	0.9%	5.4%	1.3%	16.3%	33.8%	100.0%

¹ Contact type categories: 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

Table 12. Notice of Violations issued by season, date and violation code for the Estuarine Gill Net Permit for ITP Year 2018 (September 1, 2017 - August 31, 2018).

Season ¹	Date	Code	Description
Fall 2017	9/20/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP30	Failure to comply with gill net configurations outlined in proclamation
	10/30/2017	EGNP30	Failure to comply with gill net configurations outlined in proclamation
		EGNP10	Set more than legal length of gill net
		EGNP09	Failure to set or retrieve nets in accordance with time restrictions
	10/30/2017	EGNP30	Failure to comply with gill net configurations outlined in proclamation
		EGNP09	Failure to set or retrieve nets in accordance with time restrictions
	11/1/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
	EGNP09	Failure to set or retrieve nets in accordance with time restrictions	
11/6/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)	
	EGNP30	Failure to comply with gill net configurations outlined in proclamation	
11/6/2017	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)	
	EGNP30	Failure to comply with gill net configurations outlined in proclamation	
Spring 2018	3/6/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP26	Observer harassment
	3/7/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
		EGNP09	Failure to set or retrieve nets in accordance with time restrictions

Table 12. (cont.).

Spring 2018	4/10/2018	EGNP99 EGNP30	Failure to comply with statute(s), rule(s), and/or proclamation(s) Failure to comply with gill net configurations outlined in proclamation
	4/12/2018	EGNP99 EGNP10	Failure to comply with statute(s), rule(s), and/or proclamation(s) Set more than legal length of gill net
	4/12/2018	EGNP99 EGNP10	Failure to comply with statute(s), rule(s), and/or proclamation(s) Set more than legal length of gill net
	4/16/2018	EGNP30	Failure to comply with gill net configurations outlined in proclamation
	5/9/2018	EGNP99	Failure to comply with statute(s), rule(s), and/or proclamation(s)
	5/11/2018	EGNP09	Failure to set or retrieve nets in accordance with time restrictions

¹There were no Notice of Violations issued during the 2018 summer season

FIGURES

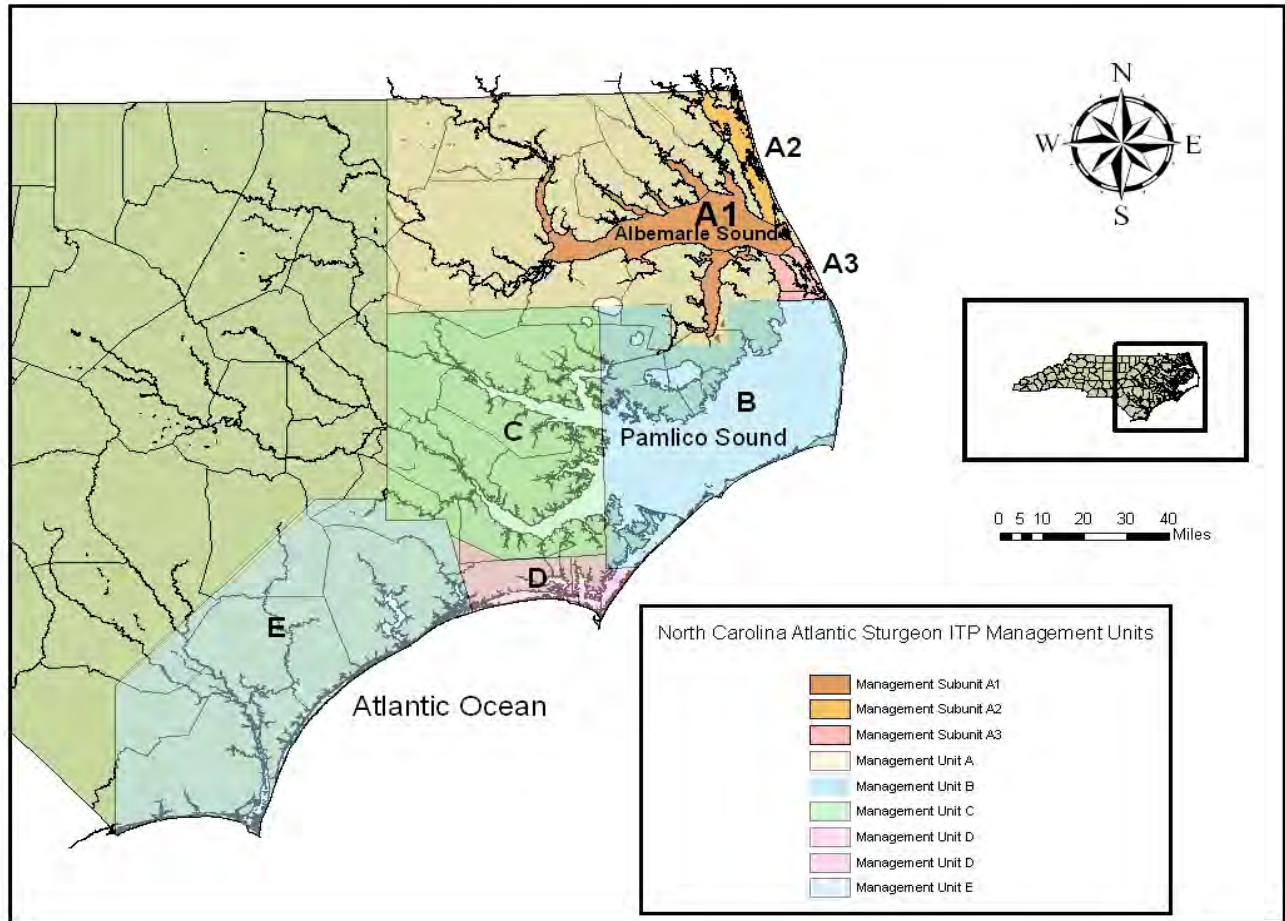


Figure 1. Management Units (A1, A2, A3, B, C, D, and E) as outlined in the Conservation Plan and utilized by the Observer Program for ITP Year 2018 (September 1, 2017 – August 31, 2018).

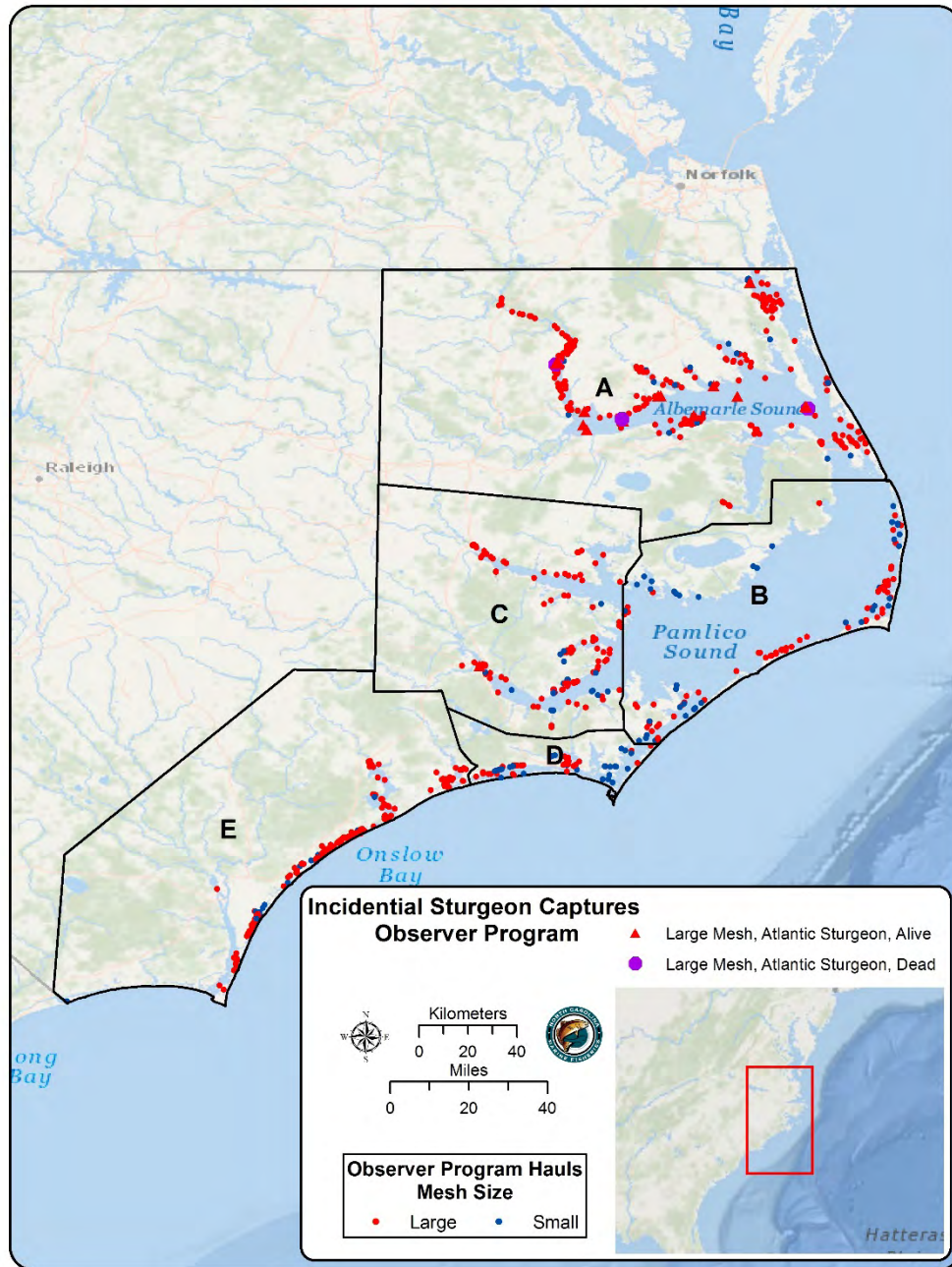


Figure 2. Atlantic sturgeon interaction locations by species, disposition, and gear and observer trips (hauls) by gear throughout all Management Units for ITP Year 2018 (September 1, 2017 – August 31, 2018).

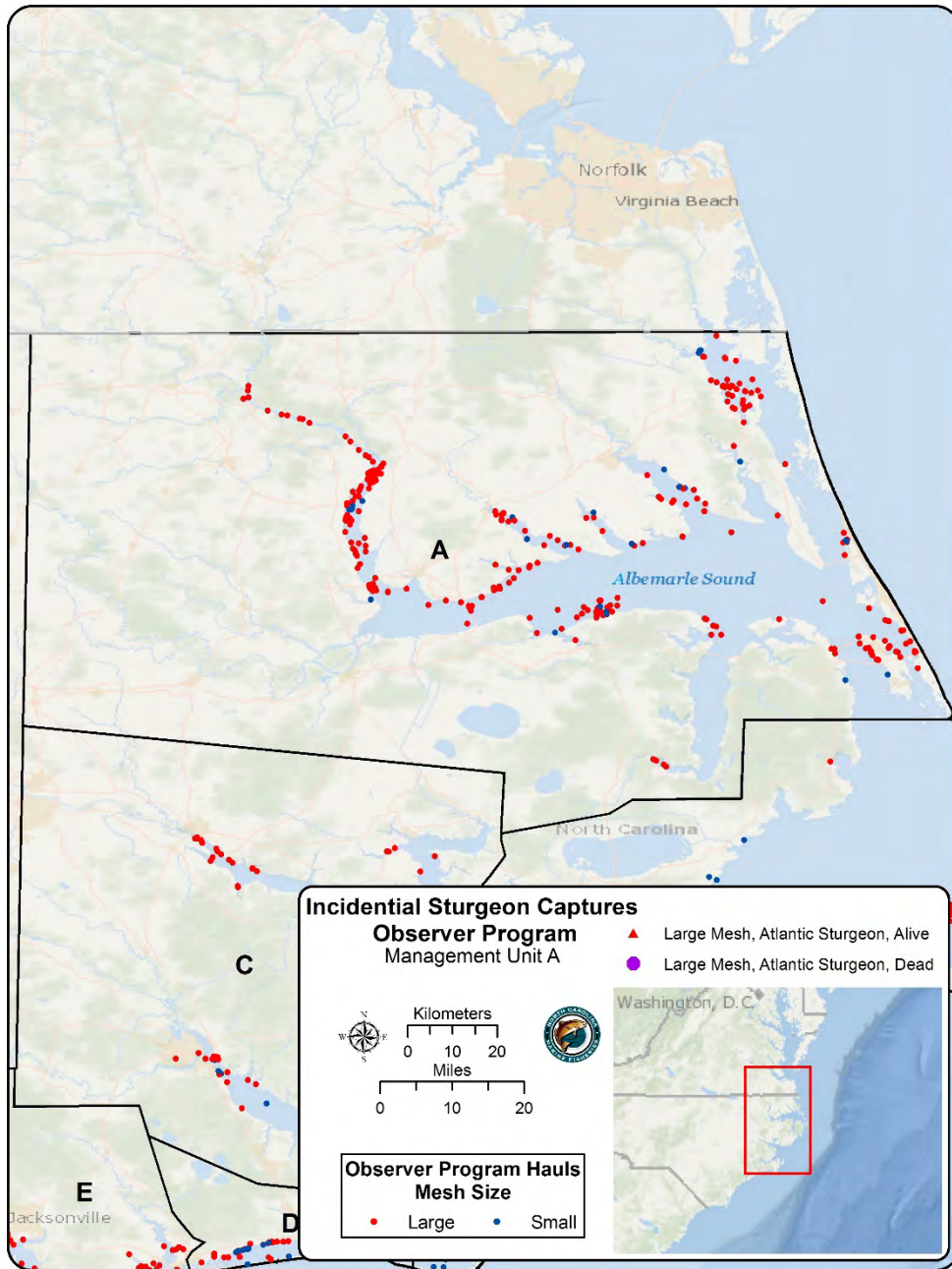


Figure 3. Atlantic sturgeon interaction locations by species, disposition, and gear and observer trips (hauls) by gear in Management Unit A for ITP Year 2018 (September 1, 2017 – August 31, 2018).

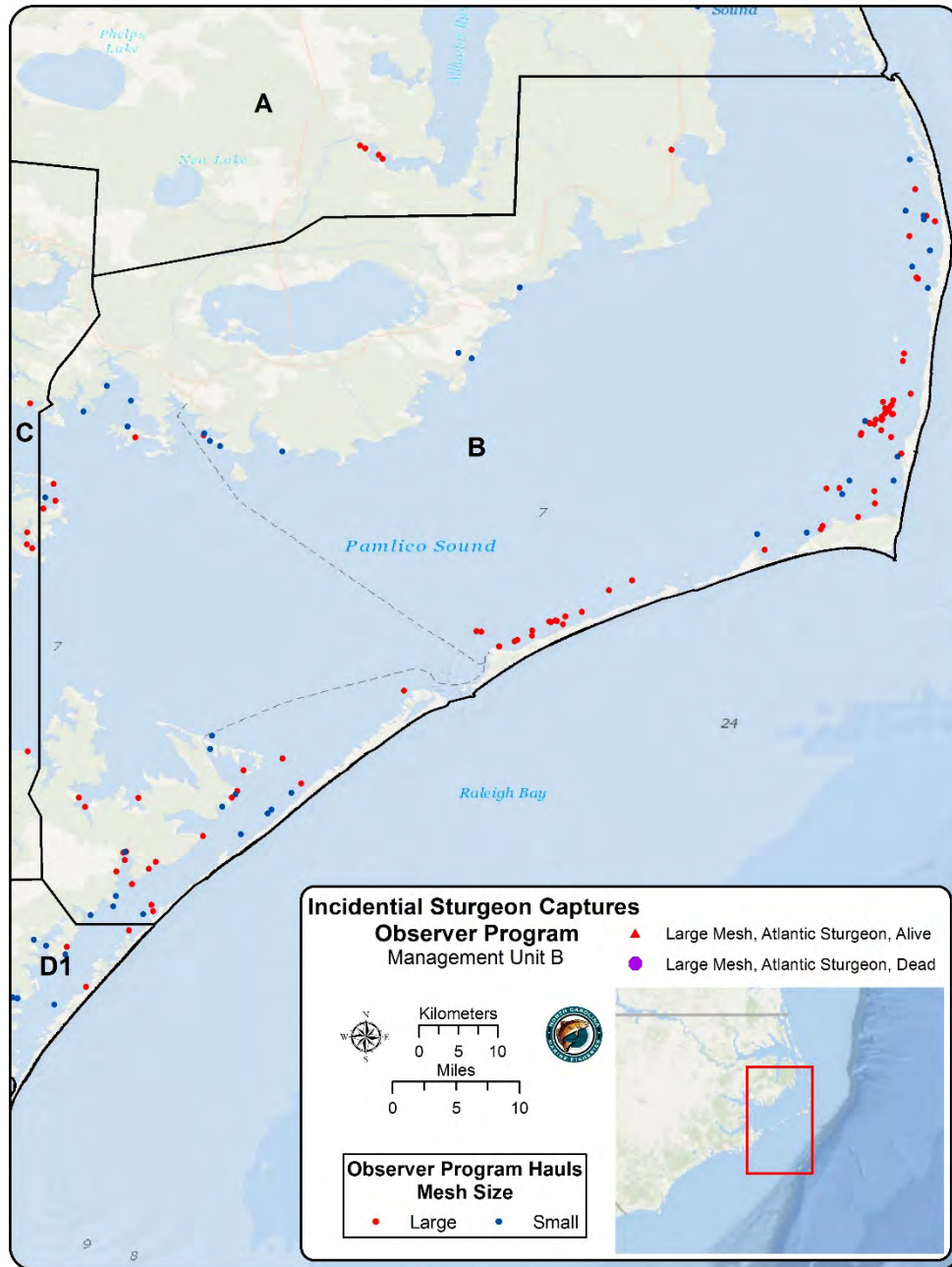


Figure 4. Atlantic sturgeon interaction locations by species, disposition, and gear and observer trips (hauls) by gear in Management Unit B for ITP Year 2018 (September 1, 2017 – August 31, 2018).

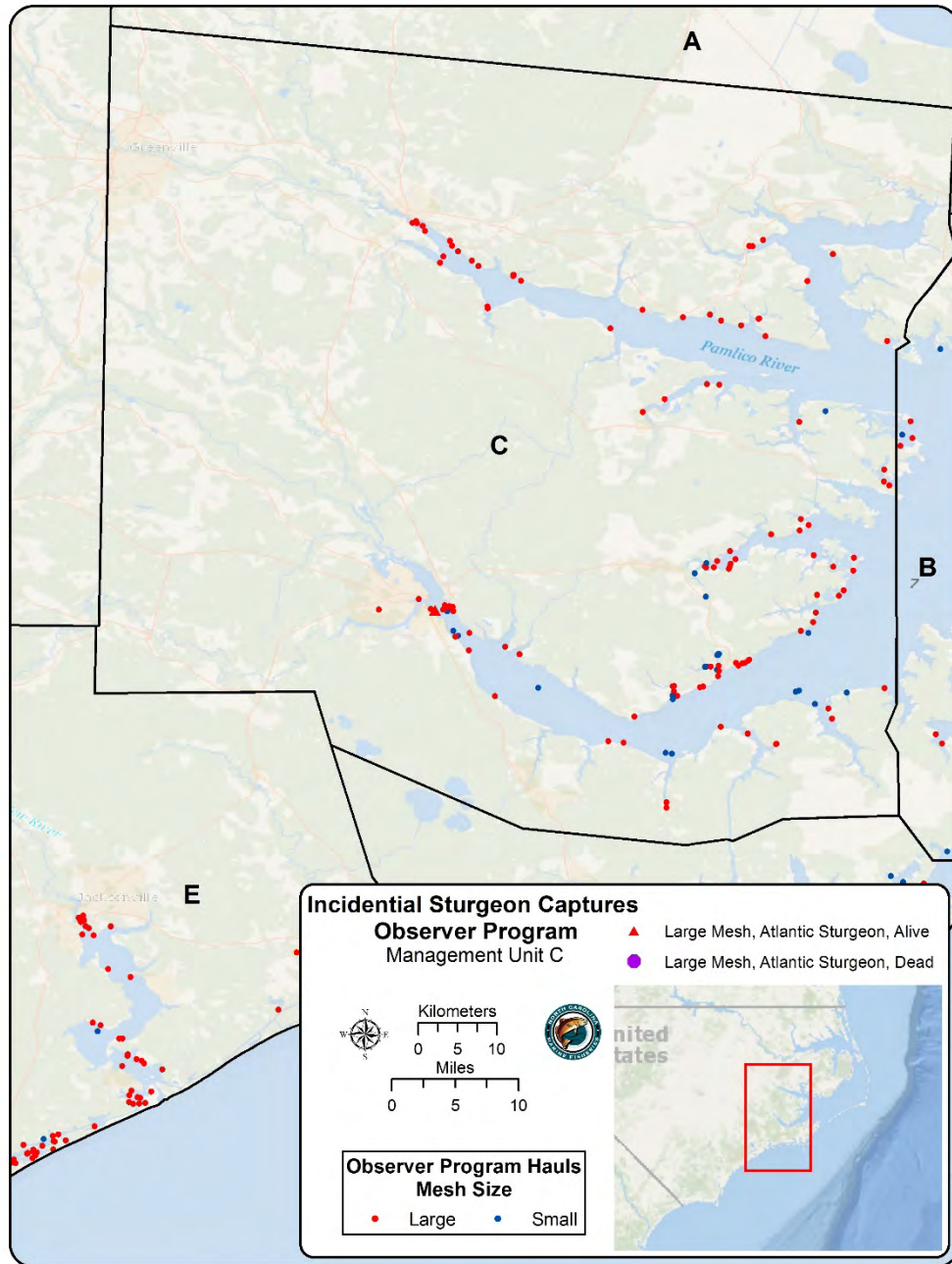


Figure 5. Atlantic sturgeon interaction locations by species, disposition, and gear and observer trips (hauls) by gear in Management Unit C for ITP Year 2018 (September 1, 2017 – August 31, 2018).

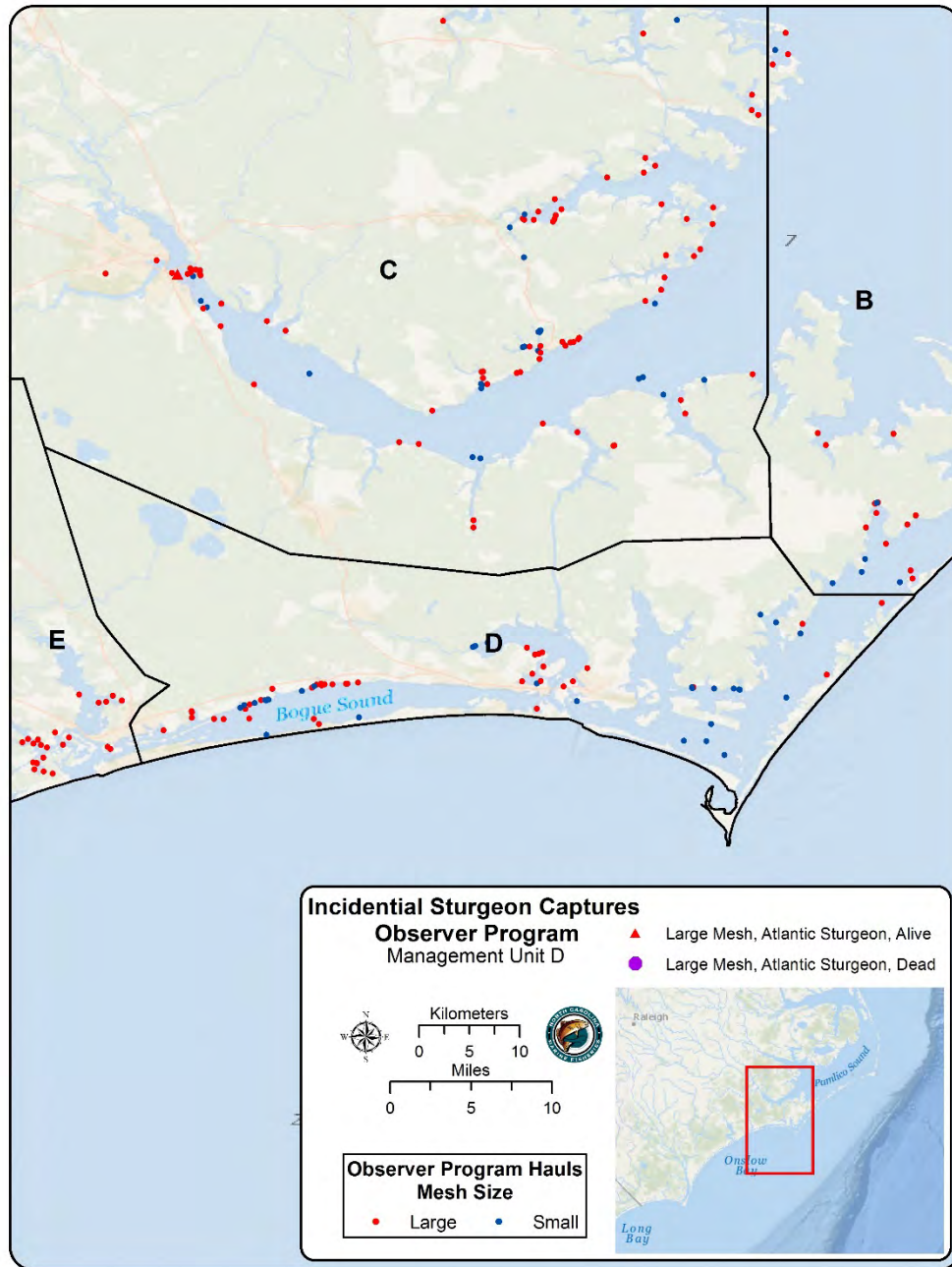


Figure 6. Atlantic sturgeon interaction locations by species, disposition, and gear and observer trips (hauls) by gear in Management Unit D for ITP Year 2018 (September 1, 2017 – August 31, 2018).

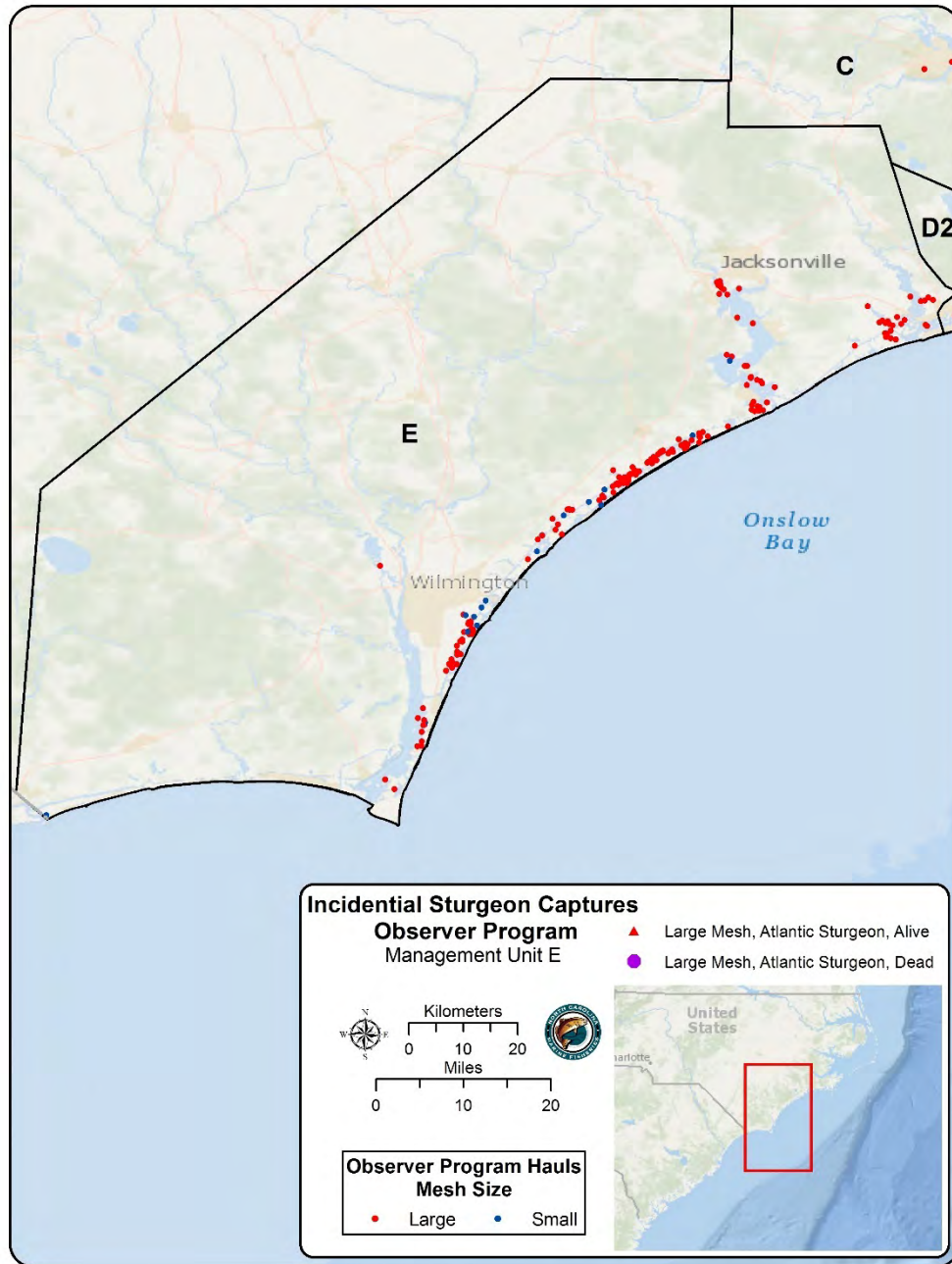


Figure 7. Atlantic sturgeon interaction locations by species, disposition, and gear and observer trips (hauls) by gear in Management Unit E for ITP Year 2018 (September 1, 2017 – August 31, 2018).

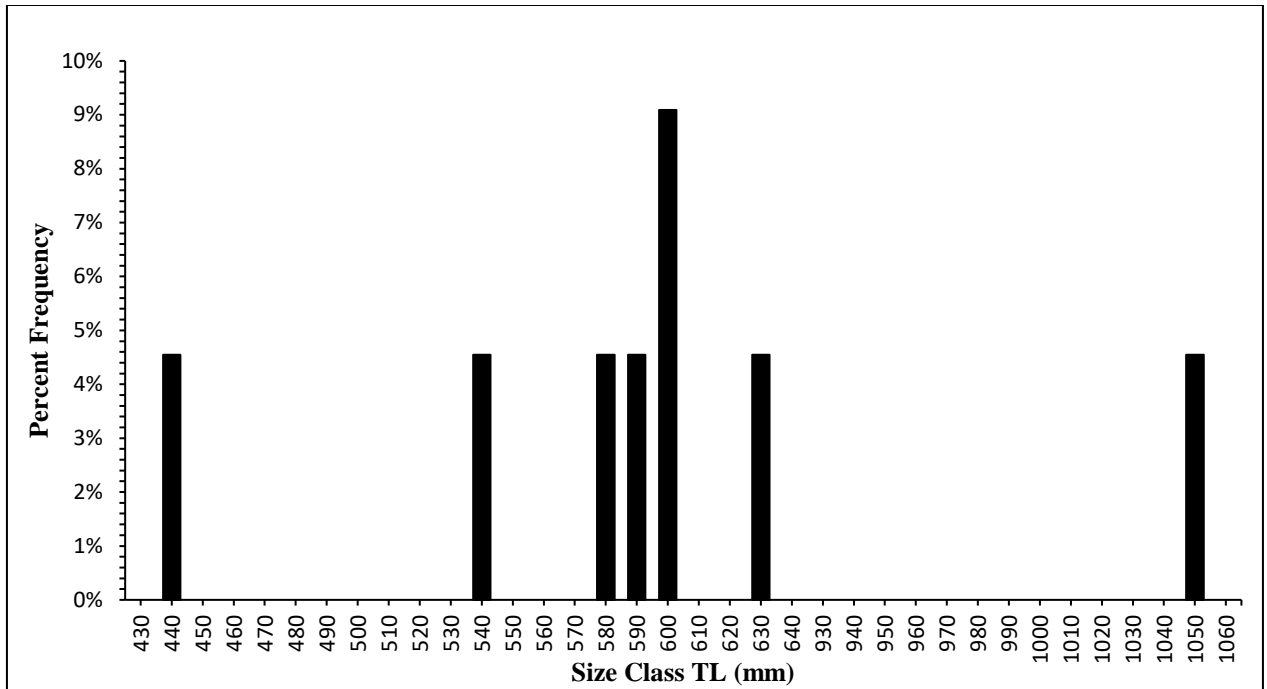


Figure 8. Length-frequency (total length) of observed incidental captures of Atlantic sturgeon where measurements were obtained (n = 22) by the Observer Program from onboard and alternative platform observations for ITP Year 2018 (September 1, 2017 – August 31, 2018).

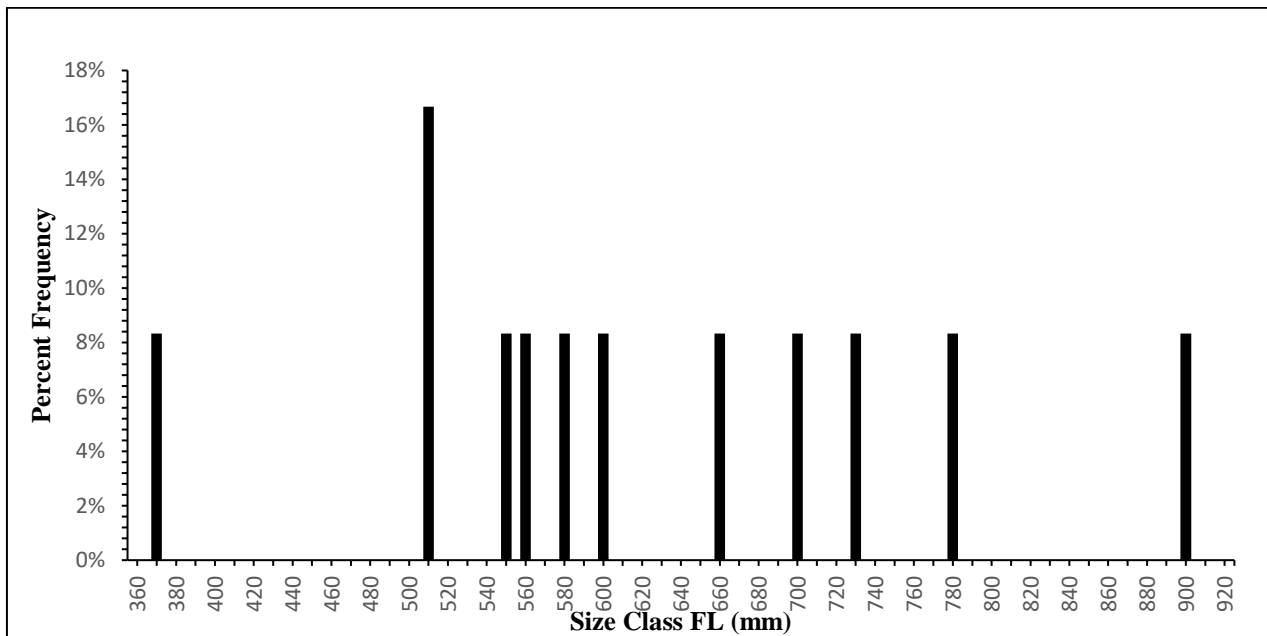


Figure 9. Length-frequency (fork length) of observed incidental captures of Atlantic sturgeon where measurements were obtained (n = 12) by the Observer Program from onboard and alternative platform observations for ITP Year 2018 (September 1, 2017 – August 31, 2018).

APPENDIX A



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

JAN 4 2017

Braxton C. Davis
Director, North Carolina Division of Marine Fisheries
3441 Arendell Street
P.O. Box 769
Morehead City, North Carolina 28557

Dear Mr. Davis:

On November 21, 2016, the North Carolina Division of Marine Fisheries (NCDMF) requested a minor modification to extend the future annual report deadlines for the Sea Turtle (No. 16230) and Atlantic Sturgeon (No. 18102) Incidental Take Permits from January 31 to the last day in February. You note that this extension would benefit your staff due to a lag time in data being uploaded and verified, the time of year, the deadline for the fall seasonal report, and staff availability.

We appreciate the challenges associated with staff availability and the data accessibility at this time of year, and this delay will not significantly impact our ability to review the annual report. National Marine Fisheries Service (NMFS) therefore concurs with your request for this minor modification. Please sign below to acknowledge that you will comply with the minor modifications specified in this letter and send a copy of the signed letter to Kristy Long on my staff at your earliest convenience.

We note that NCDMF has requested several modifications since the permit began and understand that you are in the process of developing an updated Incidental Take Permit application. We encourage you to incorporate any further anticipated minor modifications into that application process so we can more efficiently analyze these requests.

Please feel free to contact Ron Dean (ron.dean@noaa.gov) or Kristy Long (kristy.long@noaa.gov) with any questions about this minor modification request approval or your pending updated application.

We look forward to continuing to work with you on sea turtle conservation in North Carolina.

Sincerely,

Donna S. Wieting
Director, Office of Protected Resources

Printed on Recycled Paper



I acknowledge the minor modification specified above to Permit No. 16230 issued under Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles in gillnet fisheries operating in inshore waters of North Carolina.

Braxton C. Davis
Director
N.C. Division of Marine Fisheries

1-5-17

Date

APPENDIX B



ROY COOPER

Governor

MICHAEL S. REGAN

Secretary

STEPHEN W. MURPHEY

Director

Angela Somma
Office of Protected Resources (F/PR)
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Dear Angela:

The North Carolina Division of Marine Fisheries (NCDMF) Observer Program data have been updated using the finalized 2017 Trip Ticket Program (TTP) data. The Annual Completion Report for the Atlantic Sturgeon Incidental Take Permit (ITP) No. 18102 was completed for ITP Year 2017 and submitted in February 2018. Using the finalized 2017 data, Tables 1, 2, 5, and 6 from the Completion Report were updated to reflect the final estimates of observer coverage and Atlantic sturgeon takes (Tables 1 - 4). In past Annual Completion Reports the data used for the fall season was based on finalized TTP data that had been generated by the NCDMF before drafting the annual report. Due to a clerical error, the wrong information was transcribed to the tables that were supposed to contain finalized fall 2016 TTP data for both large and small mesh anchored gill net gear. Corrections have been made and are reflected in the update below. In addition, some of the observed trip numbers in Tables 1 and 2 changed due to data corrections since the Annual Completion Report was submitted.

Anchored Large Mesh

The Observer Program recorded an overall coverage of 11.1% for the fall 2016 season of the anchored large mesh gill net fishery, meeting minimum coverage requirements (7.0%) in all management units based on finalized 2016 TTP data (Table 1). Using the proper finalized data, anchored large mesh gill net trip numbers decreased in management unit A and increased in management units B, C, D, and E. As stated above, minimum coverage requirements were met in all management units despite the annual report having incorrect data for the fall 2016 anchored large mesh gill net fishery. During the fall 2016 season, Management unit A coverage increased from 7.8% to 12.1%. Coverage percentages dropped in management units B (11.3%), C (7.7%), D (11.0%), and E (11.1%) when the correct information was applied to the table.

The finalized TTP data for the winter 2016 – 2017 season showed fewer anchored large mesh gill nets fishing trips than previously estimated in management units A, B, C, and E. Management unit D had an increase in anchored large mesh gill net fishing trips over what had been estimated for the annual report (Table 1). Observer coverage goals for anchored large mesh gill nets were met in management units A, C, D, and E for the winter 2016 – 2017 season. Management unit B was closed to anchored large mesh gill net gear for the winter 2016 – 2017 season.



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Finalized TTP data for spring 2017 had fewer anchored large mesh gill net fishing trips occurring in management units A and E than previously estimated (Table 1). The same data showed an increase in anchored large mesh gill net fishing trips in management units C and D compared to estimated trips for the annual report (Table 1). Management unit B was closed to anchored large mesh gill net gear for the spring 2017 season. Observer coverage goals for anchored large mesh gill nets were met in all open management units for the spring 2017 season (Table 1).

The summer 2017 season had more fishing trips for anchored large mesh gill nets than previously estimated in management units B, D, and E (Table 1). Management units A and C had fewer anchored large mesh gill net fishing trips occurring than estimated for the annual report (Table 1). Observer coverage goals for anchored large mesh gill nets were met in all management units except management unit A for the summer 2017 season (Table 1). Portions of management unit D (management unit D1) are closed annually from May 8 through October 14 as described in the ITP. While observer coverage goals were not met in management unit A, they were exceeded in management units B (8.8%), C (7.4%), D (8.6%), and E (17.6%) for anchored large mesh gill nets (Table 1).

Anchored Small Mesh

The Observer Program recorded an overall coverage of 4.3% for the fall 2016 season of the anchored small mesh gill net fishery, meeting minimum coverage requirements (1.0%) in all management units except management unit A, based on finalized 2016 TTP data (Table 2). Using the proper finalized data, anchored small mesh gill net trip numbers increased in management unit C and decreased in management units A, B, D, and E (Table 2). As stated above, minimum coverage requirements were met in all management units except management unit A despite the annual report having incorrect data for the fall 2016 anchored small mesh gill net fishery. Coverage percentage increased for management units B (2.2%), D (9.6%), and E (6.7%) and decreased to 3.6% in management unit C (Table 2). Coverage percentage was unchanged in management Unit A.

The winter 2016 – 2017 season had more fishing trips than previously estimated for anchored small mesh gill nets in management units B, C, and E, and less fishing trips for management units A and D than previously estimated (Table 2). Observer coverage goals for anchored small mesh gill nets were met in all management units for the winter 2016 – 2017 season (Table 2). Observer coverage goals were far exceeded in management units A (5.7%), C (5.3%), D (13.8%) and E (7.1%) for anchored small mesh gill nets (Table 2).

The spring 2017 season showed an increase in fishing trips for anchored small mesh gill nets compared to previous estimates for management units B, C, and D (Table 2). Management units A and E had fewer trips than estimated for the annual report. Observer coverage goals for anchored small mesh gill nets were met in all management units for the spring 2017 season (Table 2). Observer coverage goals were far exceeded in management units C (4.9%), D (9.6%), and E (9.9%) for anchored small mesh gill nets (Table 2).



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The finalized TTP data for the summer 2017 season showed fewer fishing trips occurring for anchored small mesh gill nets than previously estimated in all management units (Table 2). Observer coverage goals for anchored small mesh gill nets were met in all management units for the summer 2017 season (Table 2). Observer coverage goals were far exceeded in management units A (4.0%), C (7.7%), and D (6.6%).

Atlantic Sturgeon Takes

Annual estimated allowable Atlantic sturgeon takes were recalculated for anchored large and small mesh gill nets using the finalized 2017 TTP data (Tables 3 and 4). The estimates of Atlantic sturgeon takes in anchored large mesh gill nets were less than previous estimates for the spring season in management unit A but remained relatively (increase of one estimated Atlantic sturgeon during summer season) constant for all other seasons for management unit A (Table 3). The fishery remained below the annual estimated allowable Atlantic sturgeon takes for all dispositions, in all management units, and for each season during ITP Year 2017 (Table 3). Confidence intervals for Management Unit A take estimates were not updated due to staffing limitations.

The estimates of Atlantic sturgeon takes in anchored small mesh gill nets remained constant from previous estimates for all seasons in management unit A (Table 4). The anchored small mesh gill net fishery remained below the annual estimated allowable Atlantic sturgeon takes for all dispositions for ITP Year 2017 for each season and management unit (Table 4). Confidence intervals for Management Unit A take estimates were not updated due to staffing limitations.



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Table 1. Observer coverage calculated from finalized 2017 Trip Ticket data and observer data for anchored large mesh gill nets by season and management unit through the NCDMF Observer Program for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Season	Management Unit	Anchored Large Mesh		
		Fishing Trips	Observed Trips	Coverage
Fall 2016	A	1,446	175	12.1
	B	1,156	131	11.3
	C	480	37	7.7
	D	446	49	11.0
	E	769	85	11.1
Winter 2016-2017	A	638	79	12.4
	B	n/a	n/a	n/a
	C	84	23	27.4
	D	9	1	11.1
	E	19	6	31.6
Spring 2017	A	1,549	167	10.8
	B	n/a	n/a	n/a
	C	1,024	92	9.0
	D	121	11	9.1
	E	259	56	21.6
Summer 2017	A	1,018	65	6.4
	B	1,464	129	8.8
	C	380	28	7.4
	D	255	22	8.6
	E	643	113	17.6
Total		11,760	1,269	10.8



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Table 2. Observer coverage calculated from finalized 2017 Trip Ticket data and observer data for anchored small mesh gill nets by season and management unit through the NCDMF Observer Program for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Season	Management Unit	Anchored Small Mesh		
		Fishing Trips	Observed Trips	Coverage
Fall 2016	A	147	0	0.0
	B	819	18	2.2
	C	222	8	3.6
	D	281	27	9.6
	E	420	28	6.7
Winter 2016-2017	A	844	48	5.7
	B	767	9	1.2
	C	415	22	5.3
	D	58	8	13.8
	E	84	6	7.1
Spring 2017	A	572	10	1.7
	B	1,517	21	1.4
	C	327	16	4.9
	D	83	8	9.6
	E	141	14	9.9
Summer 2017	A	101	4	4.0
	B	674	10	1.5
	C	130	10	7.7
	D	61	4	6.6
	E	203	4	2.0
Total		7,866	275	3.5



State of North Carolina | Division of Marine Fisheries
 344i Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
 252-726-7021

Table 3 . Authorized and actual annual estimated incidental takes per fishing year (for a total of 10 years: the life of the permit) with confidence intervals (95%) using a bootstrap method based on observer data for coverage and Atlantic sturgeon interaction levels in North Carolina’s anchored large mesh (≥ 5.0 ISM) inshore gill net fishery for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Management Unit	Season	Total Interactions			
		Authorized (Mortality)		Actual All DPS ²	
		Carolina DPS	Other DPS	Alive	Dead
A	Winter	149 (6)	50 (2)	91	0
	Spring	460 (19)	154 (6)	282	0
	Summer	157 (6)	52 (2)	16	0
	Fall	838 (34)	279 (11)	305	15
B	Winter	2 (1) ¹	n/a	0	0
	Spring	1 (1) ¹	1 (0)	0	0
	Summer	4 (2) ¹	2 (0)	0	0
	Fall	17 (2) ¹	6 (0)	0	0
C	Winter	2 (1) ¹	n/a	1	0
	Spring	3 (1) ¹	1 (0)	3	0
	Summer	2 (1) ¹	1 (0)	0	0
	Fall	4 (2) ¹	2 (0)	0	0
D	Annual	8 (2) ¹	n/a	0	0
E	Annual	8 (2) ¹	n/a	1	0
Total		1,655 (80)	548 (21)	698	15

¹ Total interaction number represents actual observed and not estimated based on observer coverage. Mortality estimates could not be completed for management units B-E due to low take; thus, if observed interactions were ≤ 5 mortality was one; if observed interactions were >5 mortality was two.

² Fin clip samples have been sent to the lab for genetic analysis



State of North Carolina | Division of Marine Fisheries
 3441 Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
 252-726-7021

Table 4. Authorized and actual annual estimated incidental takes per fishing year (for a total of 10 years; the life of the permit) with confidence intervals (95%) using a bootstrap method based on observer data for coverage and Atlantic sturgeon interaction levels in North Carolina's anchored small mesh (<5.0 ISM) inshore gill net fishery for ITP Year 2017 (September 1, 2016 - August 31, 2017).

Management Unit	Season	Total Interactions			
		Authorized (Mortality)		Actual All DPS ²	
		Carolina DPS	Other DPS	Alive	Dead
A	Winter	175 (14)	35 (3)	11	0
	Spring	219 (17)	44 (4)	0	0
	Summer	72 (6)	14 (1)	0	0
	Fall	103 (8)	21 (2)	0	0
B	Winter	2 (1) ¹	n/a	0	0
	Spring	6 (2) ¹	1 (0)	1	0
	Summer	3 (1) ¹	1 (0)	0	0
	Fall	3 (1) ¹	1 (0)	0	0
C	Winter	2 (1) ¹	n/a	0	0
	Spring	2 (1) ¹	n/a	0	0
	Summer	2 (1) ¹	n/a	0	0
	Fall	2 (1) ¹	n/a	0	0
D	Annual	8 (2) ¹	n/a	0	0
E	Annual	8 (2) ¹	n/a	1	0
Total		607 (58)	117 (10)	13	0

¹ Total interaction number represents actual observed and not estimated based on observer coverage. Mortality estimates could not be completed for management units B-E due to low take; thus, if observed interactions were ≤ 5 mortality was one; if observed interactions were >5 mortality was two.

² Fin clip samples have been sent to the lab for genetic analysis



State of North Carolina | Division of Marine Fisheries
 3441 Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
 252-726-7021

Sincerely,

John McConnaughey, Conservation Biologist I
Division of Marine Fisheries, NCDEQ

cc: Chris Batsavage
Steven Murphey
Dee Lupton
Brooke Wheatley



State of North Carolina | Division of Marine Fisheries
344i Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
252-726-7021

APPENDIX C



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20810

JUL 19 2017

Braxton C. Davis
Director, North Carolina Division of Marine Fisheries
3441 Arendell Street
P.O. Box 769
Morehead City, NC 28557

Dear Mr. Davis:

On July 13, 2017, the N.C. Division of Marine Fisheries (NCDMF) requested a minor modification to the Atlantic Sturgeon Incidental Take Permit (ITP) no. 18102 to allocate the takes in management units A – C as annual takes rather than seasonal takes. You note in your request that the number of allowed seasonal takes is very low in some cases, and the seasonal takes have been reached on a few occasions and have resulted in seasonal closures.

In your request, you also address the concern of takes occurring in warmer waters (20°C – 30°C) being correlated with more mortalities by noting that lower fishing effort in the summer season due to increasing water temperatures and fish availability should prevent sturgeon mortalities from exceeding the take limit. In our discussions, your staff also noted that the flexibility gained from this minor modification will allow you to adaptively manage fishing effort for times when the fishery is most productive from the fall through the spring, and that fishing effort in the summer decreases as productivity wanes. You also note that you actively monitor the fisheries and take levels daily to ensure take levels, including mortality levels, are not exceeded.

We have considered this minor modification request and determined it to be reasonable. NMFS therefore concurs with your request for this minor modification.

I appreciate you proactively requesting minor modifications to maximize permit implementation as you identify them. Also, as we have discussed with you previously, we understand that you are in the process of developing an updated ITP application and we look forward to analyzing all aspects of that updated application. I encourage you to incorporate any further anticipated minor modifications into that application process so my staff can more efficiently analyze these requests. Please sign below to acknowledge that you will comply with the minor modifications specified in this letter and send a copy of the signed letter to Ron Dean on my staff at your earliest convenience.



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We look forward to continuing to work with you on Endangered Species conservation in North Carolina.

Sincerely,


Donna S. Wieting
Director, Office of Protected Resources

I acknowledge the minor modification specified above to Permit No. 18102 issued under Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take endangered Atlantic Sturgeon in gillnet fisheries operating in inshore waters of North Carolina.


Braxton C. Davis
Director
N.C. Division of Marine Fisheries

7/21/17
Date

APPENDIX D

Marine Mammal

INCIDENTAL CAPTURE REPORT

yyyyymmdd

hh:mm am/pm

OBSERVER'S NAME (ID): Trent Kennedy/Josh Paylor DATE: 2 0 1 7 | 1 1 | 0 8 TIME: 08 : 00 AM

UNIQUE TRIP ID: HAUL #: 1 AFFILIATION: NCDMF PHONE NUMBER: (252) 808-8088

WATERBODY: Core Sound MANAGEMENT UNIT: D1 COUNTY: Carteret WATER TEMP (°C): 18.0 DEPTH (m): 1.0

SALINITY (PPT): 22 NEARBY LANDMARKS i.e. CHANNEL MARKERS, INLETS: Salters Lump

GEAR: Small NET LENGTH (yds): 100 TOTAL NETS: 7 TOTAL YARDS: 700 SOAK TIME (min): 1220 Mesh (ISM): 3.15

GEAR CODE: 245 MESH DEPTH: 25 TWINE SIZE: 0.52 FLOATS: Yes TIE DOWNS: No LOCATION IN NET: top/middle

LATITUDE (DD.DDDD): 34.82442 LONGITUDE(DD.DDDD): 76.41840 TAG PRESENT? n/a IF YES, TAG #:

TAG INSERTED? n/a IF YES, TAG #: PHOTOS? No SKIN SAMPLE? No

TOTAL # OF MARINE MAMMALS CAUGHT AT THIS INTERACTION LOCATION: 1 PROGRAM # (466/467): 467

*Marine Mammal #	SPECIES (use codes)	CONDITION (use codes)	**Trauma consistent with gear interaction (yes/no)	DISPOSITION (use codes)	TOTAL LENGTH (cm)	LENGTH ESTIMATE (E) ACTUAL (A)
1	BD	1	YES	2	152	E

EVIDENCE FOR MARINE MAMMAL DEPREDATION? No IF YES, describe in ADDITIONAL COMMENTS on PAGE 2

COMMENTS FOR LIVE RELEASE (describe in ADDITIONAL COMMENTS on PAGE 2 if needed):

(a) Was any gear left on the animal? IF YES, describe how much/where on the animal's body:

(b) Describe animal's behavior upon release: Describe:

(c) Describe nature of any injuries (i.e., blood in water, location of bleeding, how much bleeding, cuts/lacerations on body and where):

(d) Were there other marine mammals present when animal was released? IF YES, list species:

Table definitions and codes

GEAR CODE: 220 - anchored sink gill net; 245 - anchored float gill net
 PROGRAM #: 466 - onboard observations; 467 - alternative platform observations

*Marine Mammal # - sequential number assigned to each marine mammal at this interaction location in the order they were encountered (1, 2, 3...).
 If more marine mammals are caught than boxes provided, use extra sheet as needed

**Trauma consistent with gear interaction - field should be recorded as blank, yes, or no. In-field determination of whether the trauma to the animal was caused by the gear interaction or was previously inflicted upon the animal prior to becoming entangled in net (i.e., boat strike). If no, please write in comments field the type and condition of the trauma present. Detailed comments will help biologists to determine nature of interaction

Species	Condition (condition of marine mammal)	Disposition (final disposition of marine mammal)
BD-Bottlenose Dolphin	0 - Alive	1 - Alive, released
UD-Unknown Dolphin***	1 - Fresh Dead	2 - Dead, released
HP-Harbor Porpoise	2 - Moderately Decomposed	3 - Dead, collected by: _____
S- Seal	3 - Severely Decomposed	
W-Whale	4 - Dried Carcass	
M-Manatee	5 - Skeleton, bones only	
O-Other*		

***Provide information above or on page 2 as to color, size, and other descriptives for animal that could not be identified. See PAGE 2 for dolphin diagram and space for additional marine mammal takes and comments.

Marine Mammal INCIDENTAL CAPTURE REPORT

Additional takes in set

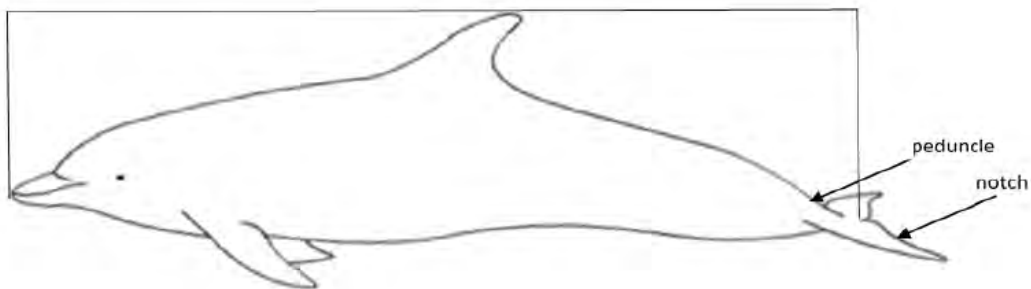
*Marine Mammal #	SPECIES (use codes)	CONDITION (use codes)	**Trauma consistent with gear interaction (yes/no)	DISPOSITION (use codes)	TOTAL LENGTH (cm)	LENGTH ESTIMATE (E) ACTUAL (A)
▼	▼	▼	▼	▼		▼
TAG PRESENT? ▼ IF YES, TAG #:		TAG INSERTED? ▼ IF YES, TAG #:				
PHOTOS? ▼		SKIN SAMPLE? ▼		LATITUDE (DD.DDDD):		LONGITUDE (DD.DDDD):

*Marine Mammal #	SPECIES (use codes)	CONDITION (use codes)	**Trauma consistent with gear interaction (yes/no)	DISPOSITION (use codes)	TOTAL LENGTH (cm)	LENGTH ESTIMATE (E) ACTUAL (A)
▼	▼	▼	▼	▼		▼
TAG PRESENT? ▼ IF YES, TAG #:		TAG INSERTED? ▼ IF YES, TAG #:				
PHOTOS? ▼		SKIN SAMPLE? ▼		LATITUDE (DD.DDDD):		LONGITUDE (DD.DDDD):

ADDITIONAL COMMENTS (please include any information not included in the above variables (i.e., injuries, wounds, weather conditions, etc.):

Observing a fisherman in Core Sound by Salters Lump, we noticed a large object that we originally thought was a shark, 20 yards deep in the gill net. The net was set 20-30 yards from shore set perpendicularly. As the object came closer to the boat we observed features that made it clear it was a bottlenose dolphin. We were approximately 50 feet away in our own vessel. The fisherman used his net reel to get the animal to the front of the boat where it could plainly be seen that is was a bottlenose dolphin entangled around the head and had also been wrapped multiple times. The animal was fully wrapped in the net a few times (top to bottom). The fisherman took approximately two mins to untangle the dolphin from the net. While the fisherman was untangling the dolphin, we spoke loudly to the fisherman to let us get the animal but he did not hear us. We called our supervisor to seek advice and inform him of the situation. As soon as the dolphin was free it sank out of sight. We finished observing the fisherman then we came back to the location and looked for the dolphin in the shallow water around the area but were unable to recover it.

Figure 1: Total length measured from tip of the rostrum to the notch in the flukes (centimeters)



Appendix E



NORTH CAROLINA MARINE FISHERIES COMMISSION DEPARTMENT OF ENVIRONMENTAL QUALITY

COMMISSIONERS

PAT MCCRORY
Governor

DONALD VAN DER VAART
Secretary

SAMMY CORBETT
Chairman

MARK GORGES
Wrightsville Beach
CHUCK
LAUGHRIDGE
Harker's Island
JANET ROSE
Moyock
JOE SHUTE
Morehead City

RICK SMITH
Greenville
MIKE WICKER
Raleigh
ALISON WILLIS
Harkers Island

Aug. 25, 2016

Mr. Bob Lorenz
P.O. Box 10512
Wilmington, NC 28404

Dear Bob:

I wanted to let you know at last week's Marine Fisheries Commission meeting I announced the Sea Turtle Advisory Committee was being disbanded. I wanted to contact you directly and let you know I had taken this action and the reason why.

The commission has a multitude of committees, many of which are statutorily mandated, such as the Northern and Southern regional advisory committees and the Finfish, Shellfish/Crustacean and Habitat and Water Quality advisory committees. These committees require a great deal of attention, both in staff time and in resources. In looking for efficiencies in our committee system, I felt our regional and pertinent standing advisory committees could serve as venues to review and provide the needed input on sea turtle issues. So, after much consideration, I decided to disband the Sea Turtle Advisory Committee, because it is not statutorily required. This was a difficult decision, especially since I served on the Sea Turtle Advisory Committee prior to being appointed to the Marine Fisheries Commission.

Later this fall we will be doing our annual solicitation for advisers. If any of you are interested in serving on other committees, please let me know and I will make every effort to place you on one of these committees as openings become available.

In closing, please know how much I appreciate your dedication and service to the state. I encourage you to please stay involved in fisheries issues and I hope to see you or hear from you in the future.

Sincerely,

A handwritten signature in black ink that reads "Sammy Corbett". The signature is written in a cursive, flowing style.

Sammy Corbett, Chairman
N.C. Marine Fisheries Commission

cc: Chris Batsavage, Division of Marine Fisheries



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

May 6, 2019

MEMORANDUM

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

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

No new rule suspensions have occurred since the February 2019 meeting.

Action Needed

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

Overview

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

- Continued suspension of North Carolina Marine Fisheries Commission Rule 15A NCAC 03M .0516 Cobia, for an indefinite period of time. This continued suspension allows the division to manage the commercial and recreational cobia fisheries in accordance with management actions taken by the commission and in accordance with the Atlantic States Marine Fisheries Commission's Interstate Cobia Fishery Management Plan. This suspension was continued in Proclamation FF-10-2019.
- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03J .0301 Pots, for an indefinite period of time. This continued suspension allows the division to implement the crab pot escape ring requirements adopted by the commission in the May 2016 Revision to Amendment 2 of the North Carolina Blue Crab

Fishery Management Plan. This suspension was effective January 15, 2017, implemented in Proclamation M-11-2016.

- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03L .0201 Crab Harvest Restrictions, and portions of 03L .203 Crab Dredging, for an indefinite period of time. This continued suspension allows the division to implement the blue crab harvest restrictions adopted by the commission in the May 2016 Revision to Amendment 2 of the North Carolina Blue Crab Fishery Management Plan. These suspensions were implemented in Proclamation M-11-2016.
- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03J .0501 Definitions and Standards for Pound Nets and Pound Net Sets, for an indefinite period of time. Continued suspension of portions of this rule allows the division to increase the minimum mesh size of escape panels for flounder pound nets in accordance with Supplement A to Amendment 1 of the North Carolina Southern Flounder Fishery Management Plan. This suspension was implemented in Proclamation M-34-2015.
- Continued suspension of portions of North Carolina Marine Fisheries Commission Rule 15A NCAC 03M .0519 Shad and 03Q .0107 Special Regulations: Joint Waters, for an indefinite period of time. Continued suspension of portions of these rules allows the division to change the season and creel limit for American shad under the management framework of the North Carolina American Shad Sustainable Fishery Plan. These suspensions were continued in Proclamation FF-12-2019.