NC Marine Fisheries Commission

Director's Report

May 2023 Business Meeting

Atlantic States Marine Fisheries Commission

2023 Spring Meeting Summary

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

2023 Spring Meeting
May 1 – 3, 2023

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

Meeting Summaries, Press Releases and Motions

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AMERICAN LOBSTER MANAGEMENT BOARD (MAY 1, 2023)

Press Release

American Lobster Board Approves Addendum XXVII

Addendum Establishes Measures to Increase Protection of Spawning Stock Biomass of the Gulf of Maine/Georges Bank Stock

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

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

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

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

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

When change(s) will be implemented	What change will be implemented		
	LCMA 1	***LCMA 3***	***Outer Cape Cod***
January 1, 2024	Trap tags issuance limited to harvester allocation		v-notch definition: 1/8" with or without setal hairs; Maximum gauge size: 6 ¾"
Fishing year following an observed 35% decline in the trigger index (Year 1)	Minimum gauge size: 3 5/16"		
Year 3	Minimum gauge size: 3 3/8"		
Year 4	Escape vent size: 2 x 5 ¾" rectangular; 2 5/8" circular		
Year 5		Maximum gauge size: 6 ½"	Maximum gauge size: 6 ½"

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

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PR23-08

Meeting Summary

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

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

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

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

Motions

Main Motion

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

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

Motion to Amend

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

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

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

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

Main Motion

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

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

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	**Min: 3 5/16" (84mm**) Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	**Min: 3 3/8" (86mm)** Max: Status quo **Vent: 2x5 ¾" rect; 2 5/8" circular**	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Final gauge size (Year 5 implementation)	Min: 3 3/8" (86mm) Max: Status quo Vent: status quo	Min: Status quo **Max: 6 ½"** Vent: Status quo	Min: Status quo **Max: 6 ½"** Vent: Status quo

Motion to Amend

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

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

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	**Min: 3 5/16" (84mm)** Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	**Min: 3 3/8" (86mm)** Max: Status quo **Vent: status quo**	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Final gauge size (Year 5 implementation)	Min: 3 3/8" (86mm) Max: Status quo **Vent: 2x5 ¾" rect; 2 5/8" circular**	Min: Status quo **Max: 6 ½"** Vent: Status quo	Min: Status quo **Max: 6 ½"** Vent: Status quo

Motion to Amend

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

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

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	**Min: 3 5/16" (84mm)** Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	**Min: 3 3/8" (86mm)** Max: Status quo **Vent: status quo**	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Year 4	**Vent: 2x5 ¾" rect; 2 5/8" circular**		
Final gauge size (Year 5 implementation)	Min: 3 3/8" (86mm) Max: Status quo	Min: Status quo **Max: 6 ½"** Vent: Status quo	Min: Status quo **Max: 6 ½"** Vent: Status quo

Main Motion as Amended

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

Motion to Amend

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

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

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	**Min: 3 5/16" (84mm)** Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	**Min: 3 3/8" (86mm)** Max: Status quo **Vent: status quo**	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Year 4	**Min: 3 3/8" (86mm)** Max: Status quo **Vent: 2x5 ¾" rect; 2 5/8" circular**		

~~**Final gauge size (Year 5 implementation)**~~	~~Min: 3 3/8" (86mm)~~ ~~Max: Status quo~~	~~Min: Status quo~~ ~~**Max: 6 ½"**~~ ~~Vent: Status quo~~	~~Min: Status quo~~ ~~**Max: 6 ½"**~~ ~~Vent: Status quo~~

Main Motion as Amended
Move to select under Issue 2, Option B a modified "Measures Option 2" in which LMA3 and OCC move to a 6½ maximum gauge size in the final year of changes and do not decrease their maximum gauge size further. Initial changes to the gauge sizes for all GOM/GBK management areas should occur on June 1st in the following year. For example, if a trigger is tripped at the fall Annual meeting in 2023, a minimum gauge size change would be implemented June 1, 2024. Should a future stock assessment conclude that the GOM and GBK stocks are not a single biological stock, the Board can revisit the max gauge size decrease in OCC and LMA 3. The increase in the escape vent size in LCMA 1 would be implemented in year 4 after the trigger has been reached.
Motion passes 9 in favor, 1 opposed, 1 abstention.

	LMA 1	LMA 3	OCC
Initial gauge size changes (Year 1 implementation)	**Min: 3 5/16" (84mm)** Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo	Min: status quo Max: status quo Vent: Status quo
Intermediate gauge sizes (Year 3 implementation)	**Min: 3 3/8" (86mm)** Max: Status quo **Vent: status quo**	Min: Status quo Max: Status quo Vent: Status quo	Min: Status quo Max: Status quo Vent: Status quo
Year 4	**Vent: 2x5 ¾" rect;** **2 5/8" circular**		
Final gauge size (Year 5 implementation)	Min: 3 3/8" (86mm) Max: Status quo	Min: Status quo **Max: 6 ½"** Vent: Status quo	Min: Status quo **Max: 6 ½"** Vent: Status quo

Move to approve Issue 1, sub-option B1 and sub-option B4. This combination of options will set a standard v-notch definition of 1/8" in LCMAs 3 and OCC, maintain the zero tolerance definition in LCMA1, and establish a maximum gauge size in OCC of 6 ¾" for state and federal permit holders. It will also limit the issuance of trap tags to equal harvester trap tag allocations.
Motion by Mr. Keliher, second by Mr. Borden. Motion separated.

Move to Separate
Motion to separate B1 and B4.
Motion by Mr. Borden, second by Mr. McKiernan. Motion passes by consent.

Move to approve Issue 1, sub-option B1. This option will set a standard v-notch definition of 1/8" in LCMAs 3 and OCC, maintain the zero tolerance definition in LCMA1, and establish a maximum gauge size in OCC of 6 ¾" for state and federal permit holders.
Motion passes (8 in favor, 1 opposed, 1 abstention).

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

Motion to Amend
Move to amend to exempt the OCC from this requirement.
Motion made by Mr. McKiernan and seconded by Mr. Keliher. Motion passes (6 in favor, 5 abstentions).

Main Motion as Amended
Move to approve Issue 1, sub-option B4, except for OCC. This will limit the issuance of trap tags to equal harvester trap tag allocations for LCMA 1 and LCMA 3.
Motion passes (3 in favor, 1 opposed, 7 abstentions).

Move to approve Lobster Addendum XXVII, as modified today, with an implementation date of January 1, 2024.
Motion made by Ms. Patterson and seconded by Mr. Hasbrouck. Motion passes (10 in favor and one vote in opposition from MA).

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

ATLANTIC MENHADEN MANAGEMENT BOARD (MAY 1, 2023)

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

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

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

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

Motions

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

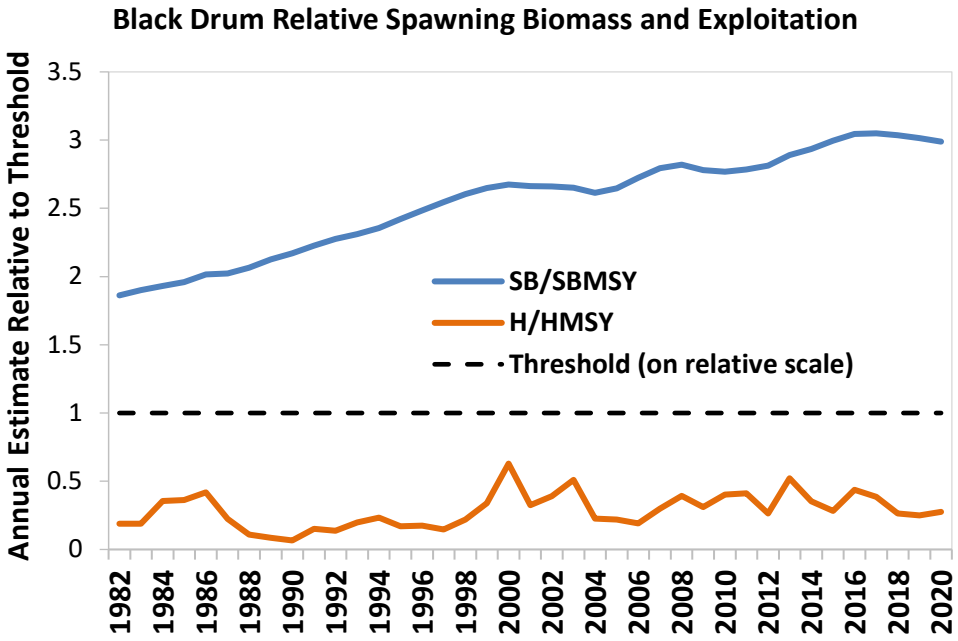
Motion made by Dr. McManus and seconded by Mr. Kane. Motion carries unanimously.

SCIAENIDS MANAGEMENT BOARD (MAY 1, 2023)

Press Release

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

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



The assessment estimates annual spawning biomass (SB) and exploitation (H; i.e., the proportion of stock biomass removed by fishing). Estimates from the last year of the assessment (2020) are compared to the spawning biomass and exploitation associated with maximum sustainable yield[1] (MSY), SB_{MSY}, and H_{MSY} respectively, to determine stock status.

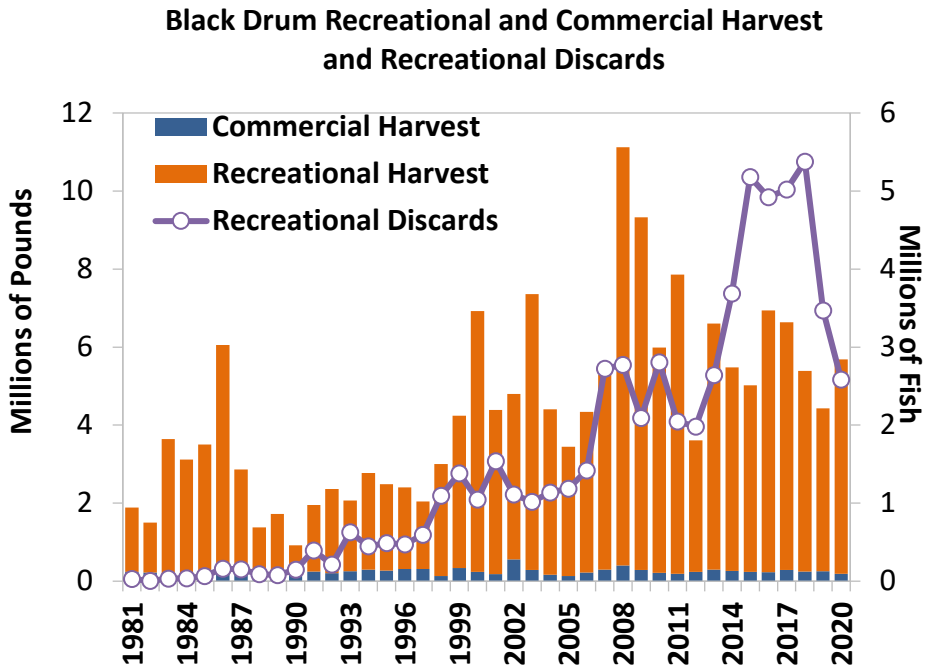
This assessment also developed indicators of stock abundance, and stock and fishery characteristics. The abundance indicators include several fishery-independent indices from the Mid-Atlantic and South Atlantic regions that track young-of-year and sub-adult fish. There is also one coastwide fishery-dependent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

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

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

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

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



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

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PR23-09

Meeting Summary

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

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

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

Motions

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

Main Motion

Move to have the Technical Committee annually present the indicators, as described in the black drum 2023 Stock Assessment and Peer Review Report.
Motion made by Mr. Brust and seconded by Ms. Madsen. Motion amended.

Motion to Amend

Motion to amend by adding to inform the need for a new stock assessment
Motion made by Ms. Burgess and seconded by Mr. Bell. Motion carries without objection.

Main Motion as Amended

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

ATLANTIC STRIPED BASS MANAGEMENT BOARD (MAY 2, 2023)

Press Release

ASMFC Atlantic Striped Bass Board Acts to Support Stock Rebuilding through Emergency Action and Addendum II Initiation

Addendum I Approved to Allow Ocean Commercial Quota Transfers Contingent on Stock Status

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

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

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

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

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

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

Draft Addendum II Initiated

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

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

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

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

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

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

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

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PR23-10

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

Motion to Amend
Move to add "The addendum will include an option for a provision enabling the Board to respond via Board action to the results of the upcoming stock assessment updates (e.g., currently scheduled for 2024, 2026) if the stock is not projected to rebuild by 2029 with a probability greater than or equal to 50%."
Motion made by Dr. Armstrong and seconded by Mr. Borden. Motion passes unanimously.

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

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

Motion to Amend
Move to amend to add "Measures for the for-hire sector will remain status quo. In the event the Board extends the emergency action past the initial 180-day effective period, the for-hire sector exemption from emergency measures cannot be extended."
Motion made by Dr. Davis and seconded by Mr. Reid. Motion fails (Roll Call: In Favor – RI, CT, NY, NJ; Opposed – MA, PRFC, PA, NC, VA, DC, MD, DE, ME, NH; Abstentions – NOAA, USFWS; Null – None).

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

Motion to Postpone
Motion to postpone until the Summer Meeting.
Motion made by Mr. Nowalsky and seconded by Mr. Pugh. Motion fails (2 in favor, 14 opposed).

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

Jurisdictions are required to implement compliant measures as soon as possible and no later than July 2, 2023.
Motion made by Dr. Armstrong and seconded by Mr. Borden. Motion carries (15 in favor, 1 opposed).

January 2023 Board Motion
Move to postpone action on Addendum I and task the Technical Committee with running two population projections:

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

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

Move to approve Option E (Board discretion of commercial quota transfer provision except no transfers if stock is overfished).
Motion made by Mr. Clark and seconded by Dr. Davis. Motion passes (10 in favor, 1 opposed, 2 abstentions, 3 null).

Move to approve Addendum I as modified today with an implementation date effective today.
Motion made by Mr. Clark and seconded by Mr. Kane. Motion passes unanimously.

LAW ENFORCEMENT COMMITTEEE (May 2, 2023)

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

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

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

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

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

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

Other issues

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

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

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

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

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

Meeting Summary

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

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

Motions

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

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

COASTAL SHARKS MANAGEMENT BOARD (MAY 2, 2023)

Meeting Summary

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

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

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

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

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

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

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

Motions
No motions made.

ANNUAL AWARDS OF EXCELLENCE RECEPTION (MAY 2, 2023)

Press Release

ASMFC Presents 2023 Annual Awards of Excellence

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

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

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

Congressional and Legislative Contributions

Miranda Peterson, Legislative Assistant for Representative Frank Pallone

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

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

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

Scientific and Technical Contributions

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

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

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

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

Law Enforcement Contributions

New York State Department of Environmental Conservation Police, Region 3

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

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

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

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PR23-11

EXECUTIVE COMMITTEE (MAY 3, 2023)

Meeting Summary

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

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

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

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

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

Motions

Move approval of the FY24 Budget.

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

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

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

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

Meeting Summary

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

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

Commissioner Survey

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

Management of Atlantic Bonito and False Albacore

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

Next Steps in Recreation Management Reform Initiative

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

MAFMC Research Set-Aside Program

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

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

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

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

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

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

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

Motions
Move that the Commission establish a temporary technical committee to review the two papers on Atlantic bonito and little tunny that were submitted by the American Saltwater Guide Association. The Commission will inform the State Directors of this proposal and ask them to nominate a scientific staff member of their choice to join the review. The review will assess the technical quality of the papers, the relevance of the information, and suggest possible revisions, data gaps, and management implications and options. The committee will convene online, elect their own chairperson, and prepare a report with their findings and recommendations for presentation to the ISFMP Policy Board at the Summer Meeting.
Motion made by Mr. Borden and seconded by Dr. Davis. Motion fails (2 in favor, 11 opposed, 3 abstentions, 1 null).

Move to approve the ASMFC Stock Assessment Schedule as presented today.
Motion made by Mr. Fote and seconded by Mr. Bell. Motion carries unanimously.

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

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

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

HORSESHOE CRAB MANAGEMENT BOARD (MAY 3, 2023)

Press Release

Horseshoe Crab Board Approves Best Management Practices for the Biomedical Industry

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

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

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

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

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PR23-12

Meeting Summary

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

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

Motions

To move to accept the draft BMP document as final and publish it on the ASMFC website.
Motion made by Mr. McKiernan and seconded by Mr. Bell. Motion approved by consent.

Move to pursue option 1 from the memo dated April 17, 2023 with the intent to include a wide range of stakeholders in a survey formulated by a workgroup of board members.
Motion made by Ms. Madsen and seconded by Mr. Jacobson. Motion approved by consent.

February 2023 Council Meeting Summary

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

HIGHLIGHTS

During this meeting, the Council:

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

Monkfish 2023-2025 Specifications

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

Illex Permit Action Follow Up

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

Atlantic Surfclam and Ocean Quahog Species Separation Issues

Industry Presentation

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

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

Species Separation Requirements Amendment Update

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

Bluefish and Dogfish Research Track Assessments

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

Highly Migratory Species Update

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

Atlantic Large Whale Take Reduction Team

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

Northeast Trawl Advisory Panel

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

Squid Squad

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

Lessons Learned – Squid Jigging

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

Northeast Commercial Fishing Vessel Cost Survey

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

Marine Recreational Education Program (MREP)

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

Other Business

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

Next Meeting

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

April 2023 Council Meeting Summary

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

HIGHLIGHTS

During this meeting, the Council:

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

Illex Squid 2023-2025 Specifications

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

Illex Permit Action Follow-Up

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

Scup Federal Recreational Season

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

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

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

2023 Mid-Atlantic State of the Ecosystem Report

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

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

East Coast Climate Change Scenario Planning Update

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

Short-Term Forecasts of Species Distributions for Fisheries Management Project

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

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

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

Ocean City Video Boat Count Project

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

Updates and Presentations

Habitat Activities Update

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

Marine Recreational Information Program (MRIP)

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

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

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

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

Atlantic Recreational Data Implementation Plan

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

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

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

NOAA's National Seafood Strategy

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

Other Business

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

Next Meeting

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

South Atlantic Fishery Management Council

News Release

FOR IMMEDIATE RELEASE
March 15, 2023

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

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

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

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

(Continued)

Management Measures Approved *(continued)*

Other Business

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

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

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

Photo Credit: NC Sea Grant

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

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

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

Full Council Session I (Closed)

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

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

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

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

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

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

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

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

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

Full Council Session I (Session)

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

SEDAR Committee

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

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

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

Snapper Grouper Committee

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

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

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

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

MOTION 10: SELECT ALTERNATIVE 2 AS PREFERRED UNDER ACTION 2.
Action 2. Prohibit the use of more than one hook per line for the snapper grouper recreational sector

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

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

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

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

Scamp and Yellowmouth Grouper Assessment

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

Gag and Black Grouper (Amendment 53)

MOTION 14: APPROVE THE PURPOSE AND NEED, AS MODIFIED.
The *purpose* of this fishery management plan amendment is to establish a rebuilding plan, and revise the acceptable biological catch, annual catch limits and sector allocations for South Atlantic gag based on the results of the most recent stock assessment. This plan amendment would also make modifications to management measures for South Atlantic gag and black grouper and recreational accountability measures for South Atlantic gag.

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

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

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

Wreckfish (Amendment 48)

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

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

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

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

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

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

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

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

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

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

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

Timing and Tasks

MOTION 21: DIRECT STAFF TO DO THE FOLLOWING:

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

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

Mackerel Cobia Committee

MOTION 22: ADOPT THE FOLLOWING TIMING AND TASKS:

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

Habitat Protection & Ecosystem-based Management Committee

MOTION 23: ADOPT THE FOLLOWING TIMING AND TASKS:

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

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

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 25th, 2023

MEMORANDUM

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

Issue
Law Enforcement report update.

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

Overview

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

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

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

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

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

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

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

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

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

May 5, 2023

MEMORANDUM

TO: N.C. Marine Fisheries Commission

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

SUBJECT: Protected Resources Program Update

Issue

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

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

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

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

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

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

Spring: Management Unit C large-mesh gill nets (0% coverage)
Fall: Management Unit C small-mesh gill nets (0.8% coverage)
Spring: Management Unit D1 small-mesh gill nets (0% coverage)

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

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

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

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

The final documents can be found at the following links:

2022 Annual Sea Turtle ITP Report
2022 Annual Atlantic Sturgeon ITP Report

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

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

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

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

28 February 2023

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1 INTRODUCTION

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

Evidence of incidental takes of sea turtles outside of Pamlico Sound was documented in June 2009 by NMFS observations of gill-net fisheries operating in Core Sound and nearby waterbodies (Byrd et al. 2016). These takes resulted in a series of temporary measures to address sea turtle interactions until the NCDMF obtained an ITP from NMFS for gill-net fisheries state-wide (see McConnaughey et al. 2019). On 11 September 2013, the NCDMF received the Sea Turtle ITP (No. 16230), which expires on 31 August 2023 (78 FR 57132[1]). The permit defined an ITP Year as 1 September through 31 August of the following year, defined mesh size categories as large-mesh (≥4 ISM) and small-mesh (<4 ISM), and included only three seasons (fall, spring, and summer). The permit also established annual authorized levels of incidental takes for the two mesh-size categories and six geographic regions defined as Management Units A, B, C, D1, D2, and E (Tables 1–5; Figure 1). The ITP included a Conservation Plan to monitor, minimize, and mitigate incidental takes of sea turtles in otherwise lawful gill-net fisheries operating in North Carolina estuarine waters. Part of the plan outlined a state-wide estuarine gill-net observer program to monitor interactions that can be counted and, when applicable, extrapolated across the fishery within a given season and management unit. Required observer coverage thresholds were set for each management unit within each season as a minimum of 7% with a goal of 10% for large-mesh gill nets and a minimum of 1% with a goal of 2% for small-mesh gill nets. If observer data indicated that takes were approaching or exceeding authorized thresholds, the NCDMF could use an adaptive management approach to mitigate incidental takes by implementing temporary management options when needed using the NCDMF director's proclamation authority (General Statute 143B-289.52; NCGS § 113-221.1).

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

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

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

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

After the issuance of the Sea Turtle ITP in 2013, the NCDMF also received an ITP (No. 18102) in 2014 to address incidental takes of Atlantic Sturgeon (*Acipenser oxyrinchus*) in gill-net fisheries operating in estuarine waters across the state (79 FR 43716[2]). Although the Atlantic Sturgeon and Sea Turtle ITPs and their Conservation Plans addressed different taxa, the fisheries included therein were the same. Both ITPs were reliant on observer coverage to document incidental takes and to estimate total incidental takes where possible. Data from observed trips are used for both ITPs. Notably, however, the ITPs defined large mesh differently; the Sea Turtle ITP defined large-mesh gill nets as ≥4 ISM and the Atlantic Sturgeon ITP defined them as ≥5 ISM. The Atlantic Sturgeon ITP also required observer coverage thresholds to be met across all management units within a season rather than within each management unit within each season. Finally, the Atlantic Sturgeon ITP included required observer coverage and authorized take levels during winter.

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

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

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

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

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

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

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

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

2 METHODS

2.1 Observer Activity

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

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

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

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

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

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

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

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

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

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

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

2.2 Incidental Takes

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

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

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

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

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

2.3 Compliance

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

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

3 RESULTS

3.1 Observer Activity

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

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

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

3.1.1 Fall 2021

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

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

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

3.1.2 Spring 2022

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

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

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

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

3.1.3 Summer 2022

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

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

3.2 Incidental Takes

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

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

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

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

3.3 Compliance

During the 2022 ITP Year, there were 2,606 fishers with an EGNP; 90% (n=2,347) of the permit holders were commercial fishers (i.e., had a Standard Commercial Fishing License [SCFL] or Retired Standard Commercial Fishing License [RSCFL]) and 10% (n=259) were recreational fishers (i.e., had a Recreational Commercial Gear License [RCGL]). Of the commercial fishing permit holders, only 610 (26%) reported trips using anchored estuarine gill-net gear.
Using the priority call list of EGNP holders, 721 contact attempts were made with 38% (n=271) representing occasions where observers and fishers communicated. Of the 271 conversations, 60 (22%) resulted from fishers returning observer phone calls. Nevertheless, only 5.8% (n=42) of the 721 contact attempts resulted in a booked trip (Figure 16). The greatest number of calls occurred during fall, and the fewest number of calls occurred in summer.

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

3.4 Marine Mammals

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

4 DISCUSSION

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

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

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

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

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

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

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6 TABLES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 7 continued

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

Table 7 continued

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

Table 7 continued

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 13 continued

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

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

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

7 FIGURES

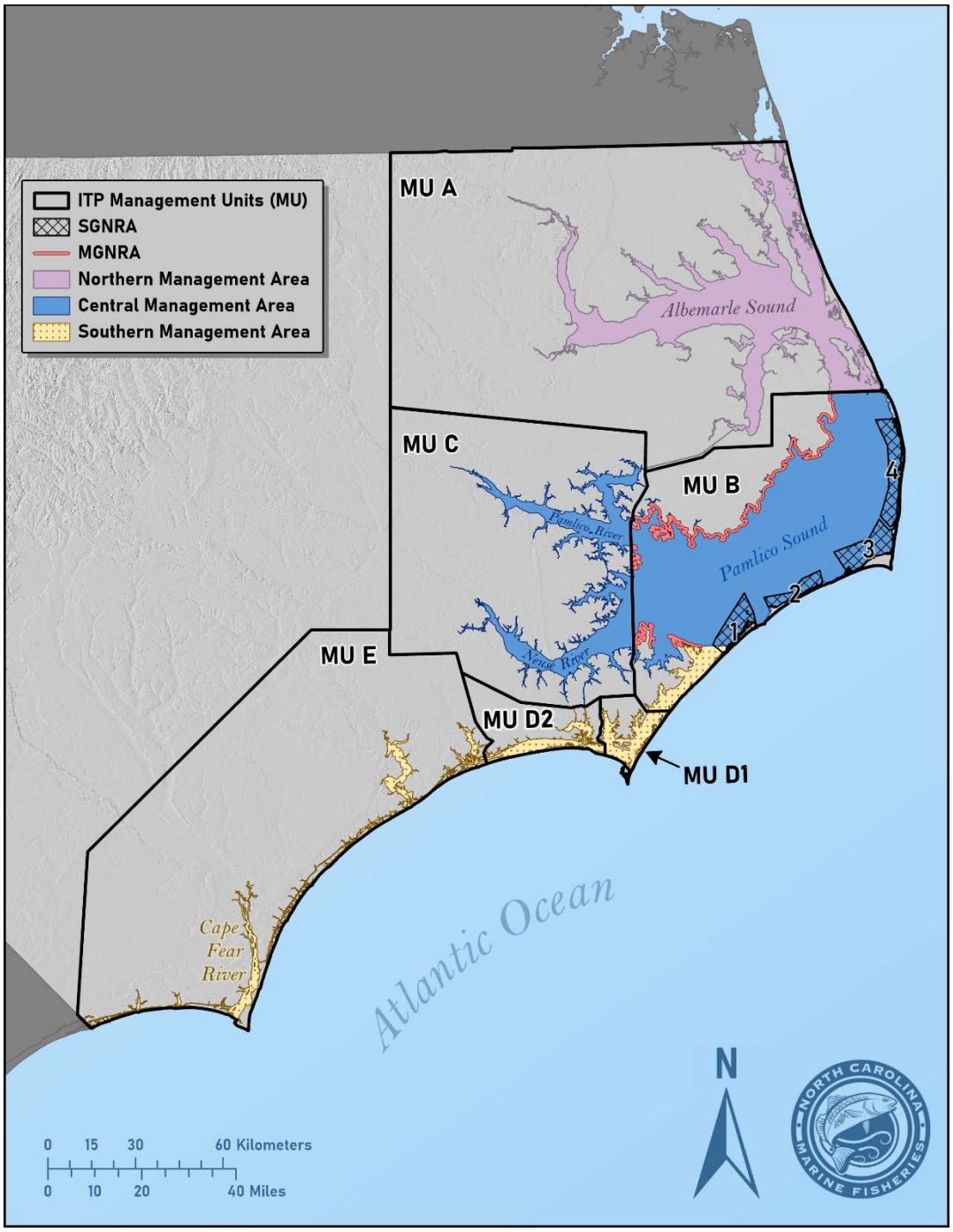

Figure 1. Management Units (A, B, C, D1, D2, and E) as outlined in the Incidental Take Permit (ITP) Conservation Plan and used by the Observer Program for the 2022 ITP Year. In the Pamlico Sound portion of B, large-mesh (≥4 inches stretched mesh) gill nets were confined to Shallow Water Gillnet Restricted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

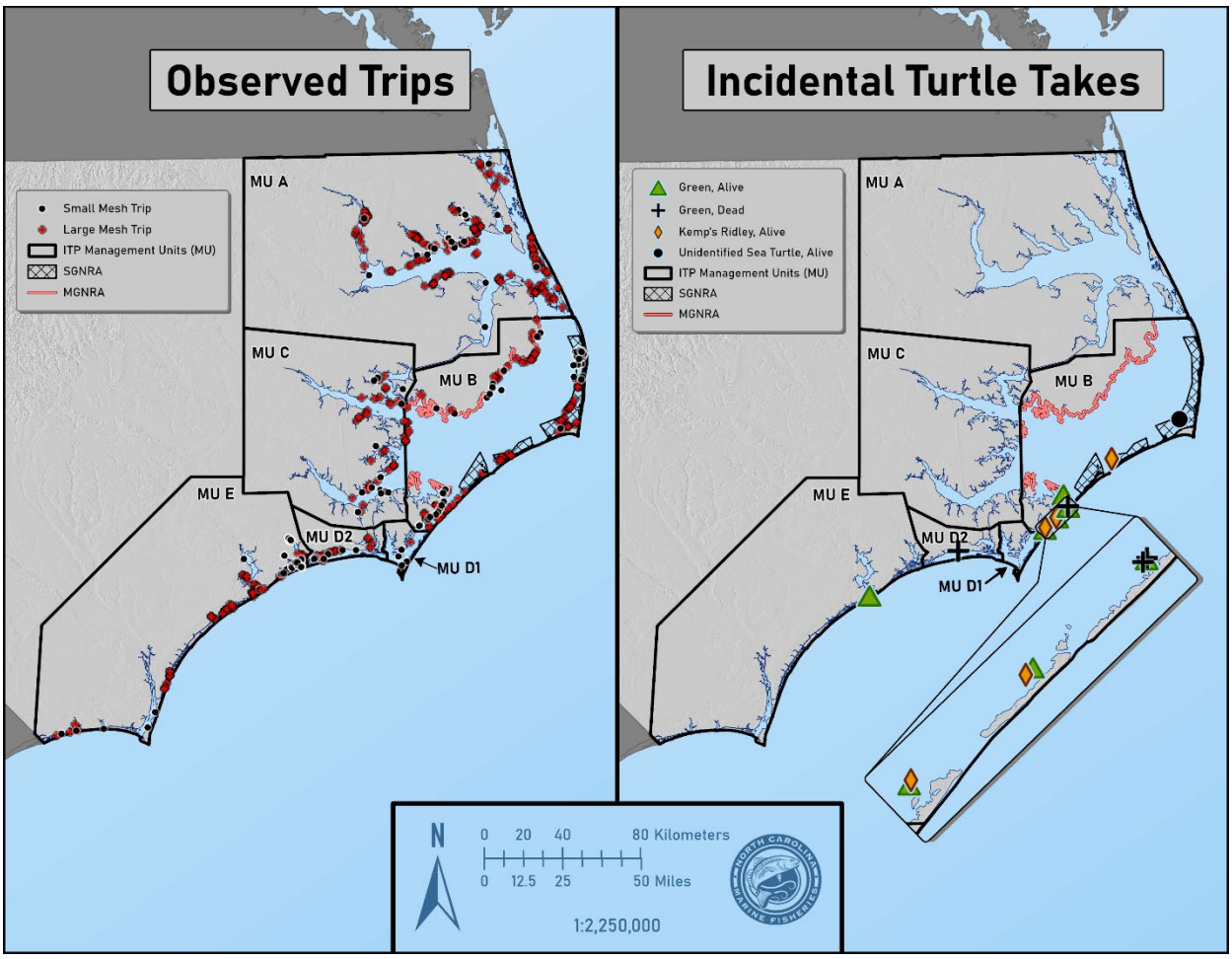

Figure 2. For the entire 2022 ITP Year, observed gill-net trips (left) by mesh-size category (365 large mesh [≥4 inches stretched mesh]; 131 small mesh [<4 inches stretched mesh]) and sea turtle interactions (right) by species and disposition (alive, n=9; dead, n=4) across management units.

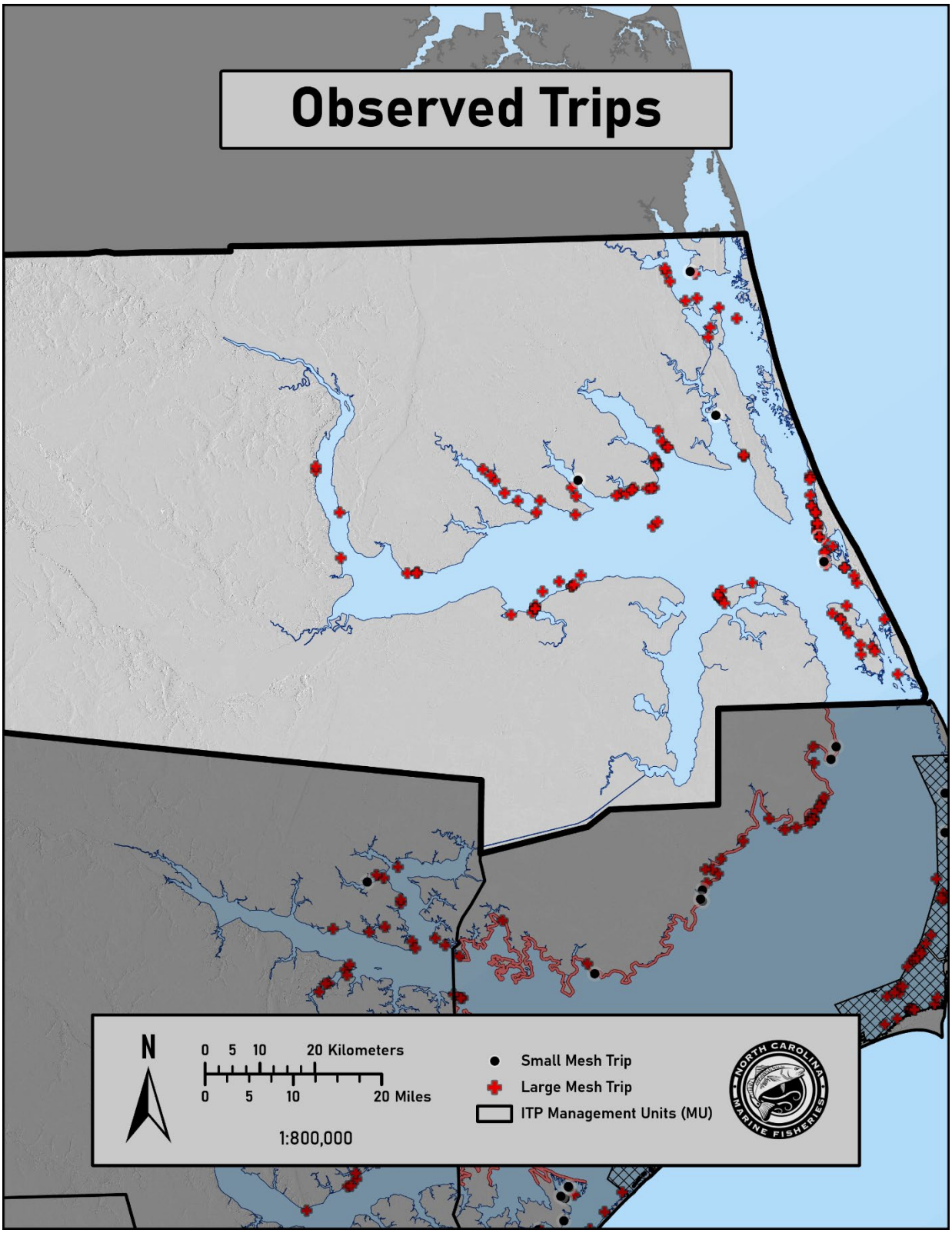

Figure 3. For fall 2021, observed gill-net trips by mesh-size category for Management Unit A (102 large mesh [≥4 inches stretched mesh]; 5 small mesh [<4 inches stretched mesh]). No sea turtle interactions were observed in Management Unit A.

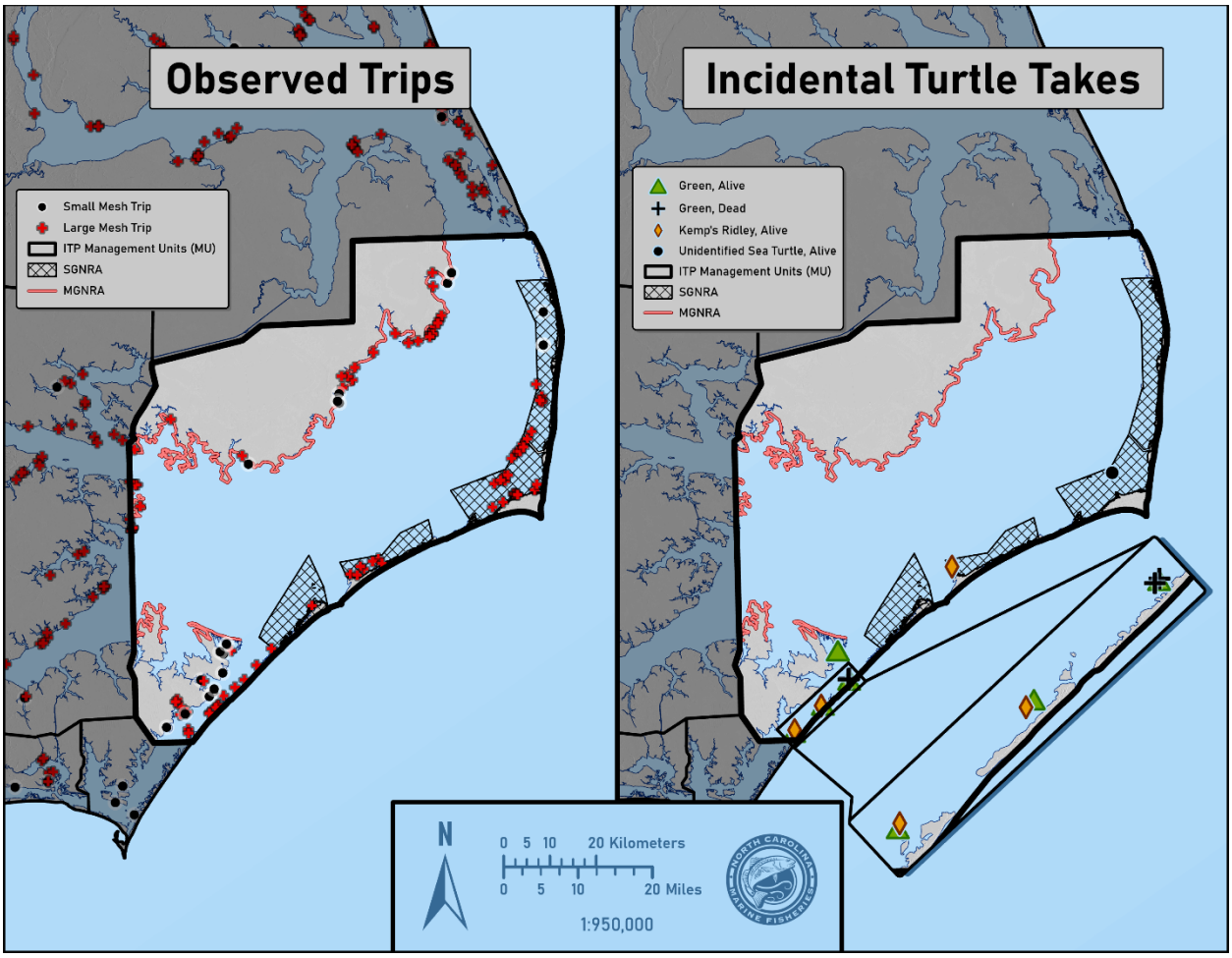

Figure 4. For fall 2021, observed gill-net trips (left) by mesh-size category (85 large mesh [≥4 inches stretched mesh]; 20 small mesh [<4 inches stretched mesh]) and sea turtle interactions (right) by species and disposition (alive, n=9; dead, n=3) for Management Unit B.

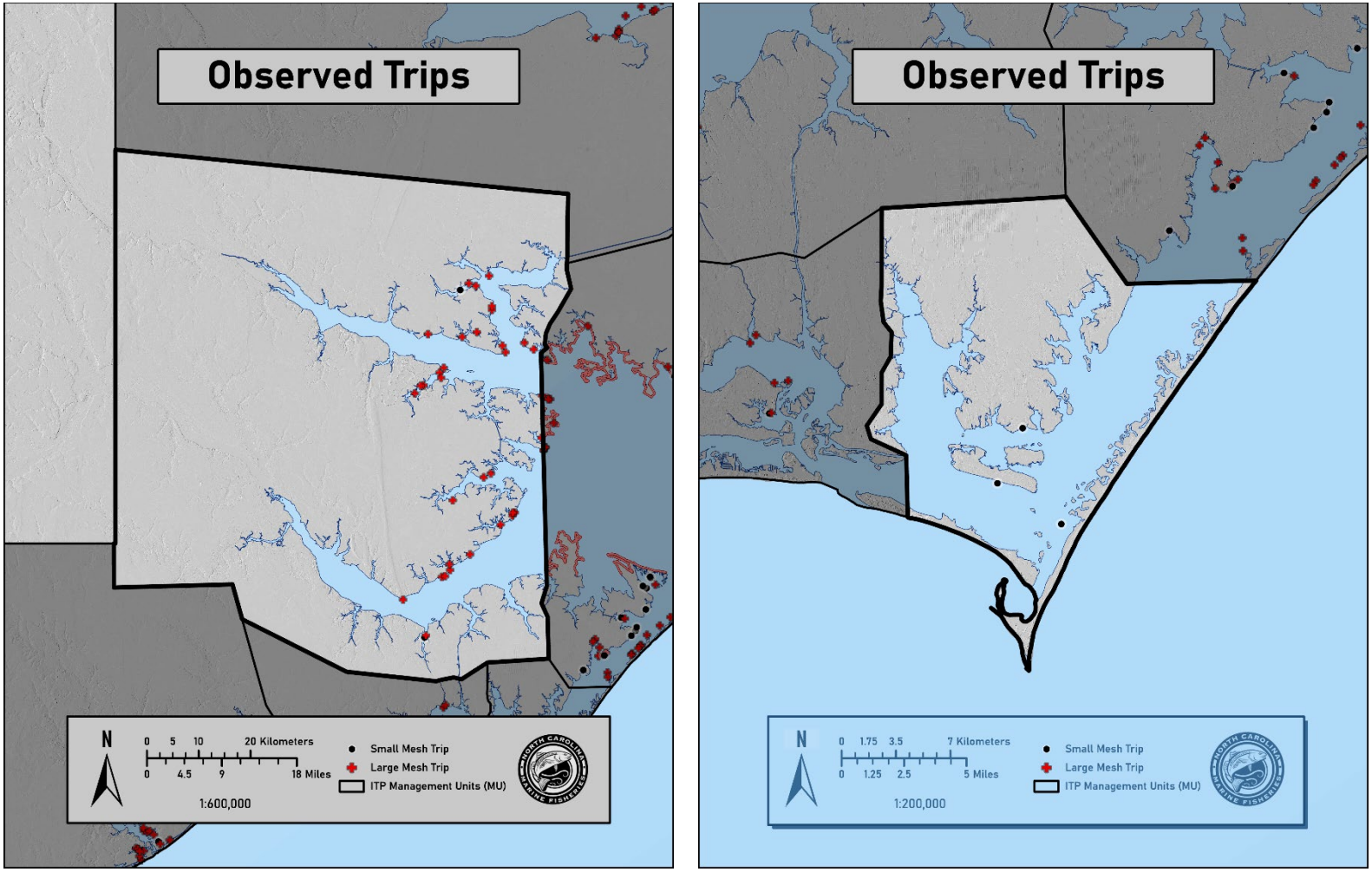

Figure 5. For fall 2021, observed gill-net trips by mesh-size category (large mesh [≥4 inches stretched mesh]; small mesh [<4 inches stretched mesh]) for Management Unit C (left; 34 large mesh; 2 small mesh) and Management Unit D1 (right; 0 large mesh; 4 small mesh). Management Unit D1 was closed to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

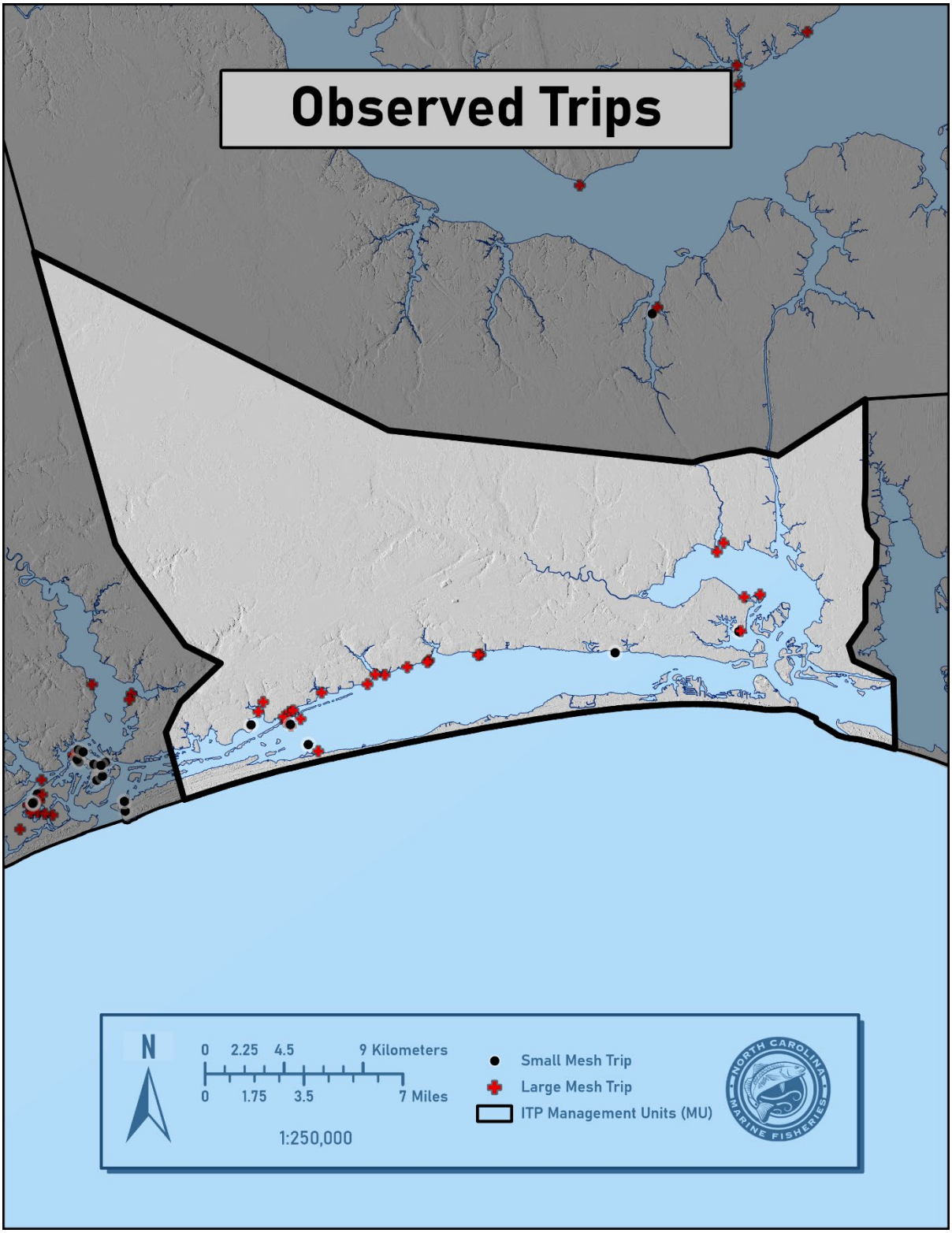

Figure 6. For fall 2021, observed gill-net trips (left) by mesh-size category (23 large mesh [≥4 inches stretched mesh]; 5 small mesh [<4 inches stretched mesh]) for Management Unit D2. No sea turtle interactions were observed in Management Unit D2.

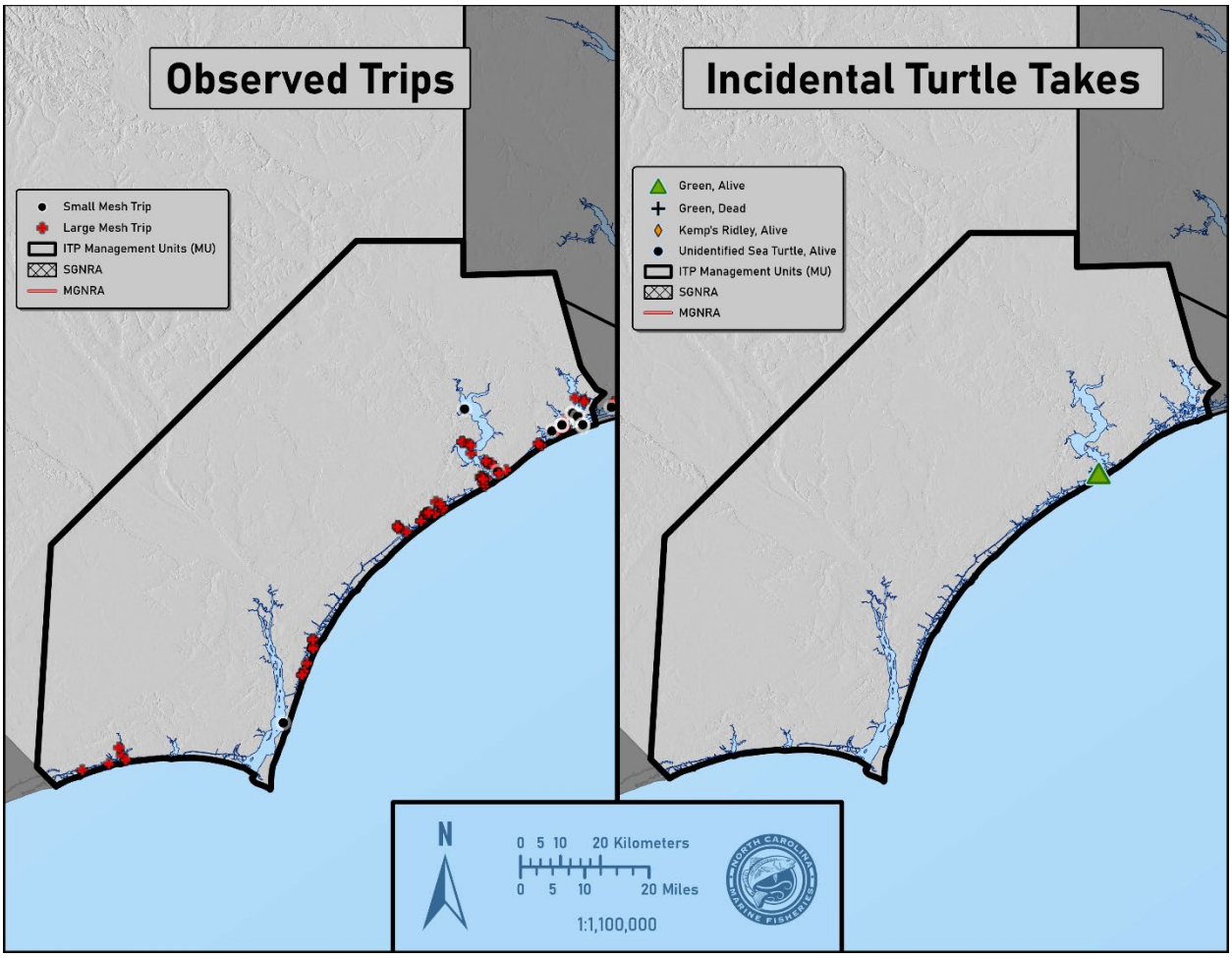

Figure 7. For fall 2021, observed gill-net trips (left) by mesh-size category (67 large mesh [≥4 inches stretched mesh]; 21 small mesh [<4 inches stretched mesh]) and sea turtle interactions (right) by species and disposition (alive, n=1; dead, n=0) for Management Unit E.

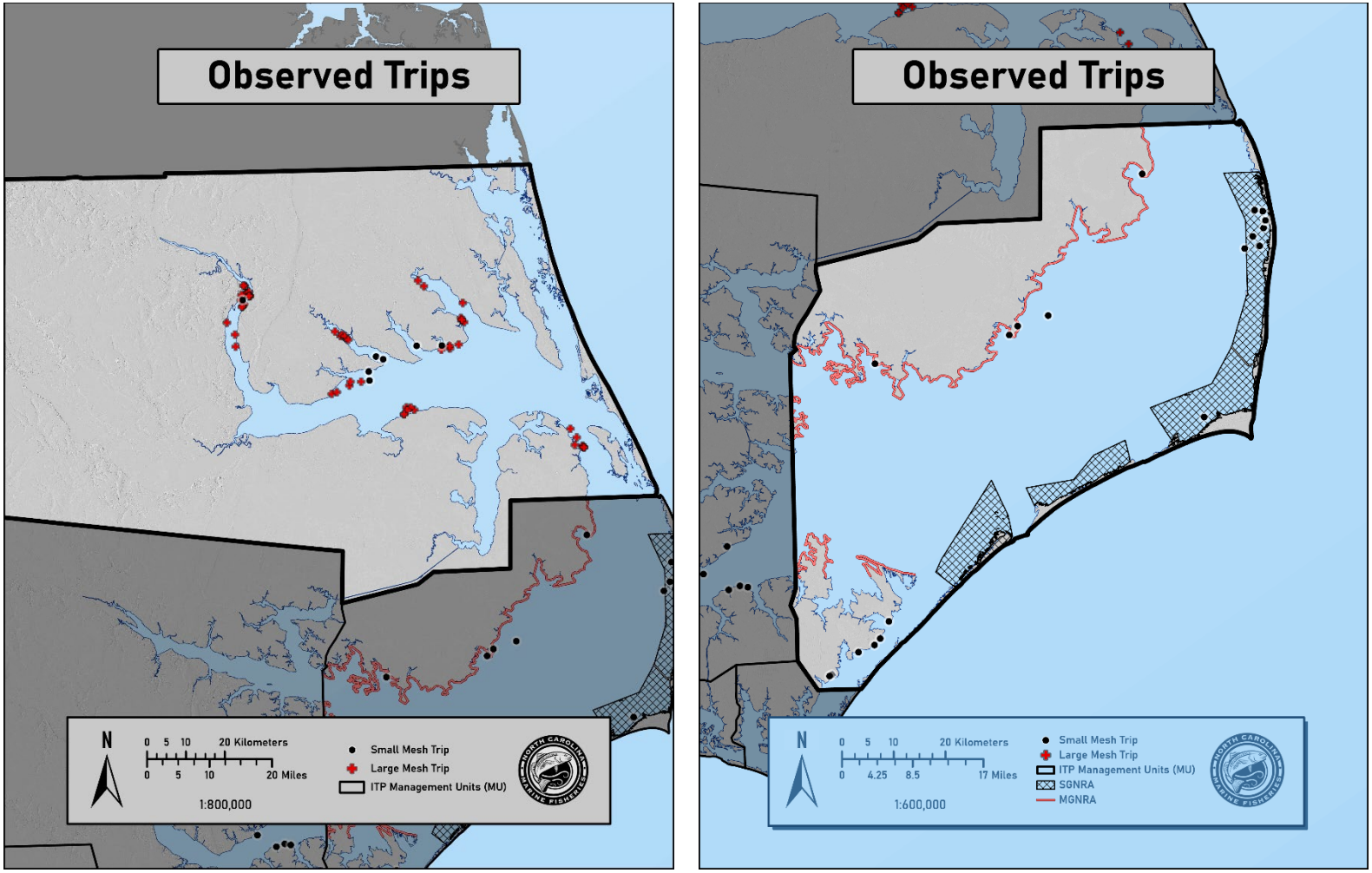

Figure 8. For spring 2022, observed gill-net trips by mesh-size category (large mesh [≥4 inches stretched mesh]; small mesh [<4 inches stretched mesh]) for Management Unit A (54 large mesh; 8 small mesh) and B (0 large mesh; 20 small mesh). Management Unit A was open to large-mesh gill nets during spring between March 2–15 only, but Management Unit B was not open to large-mesh gill nets at all. No sea turtle interactions were observed in either management unit.

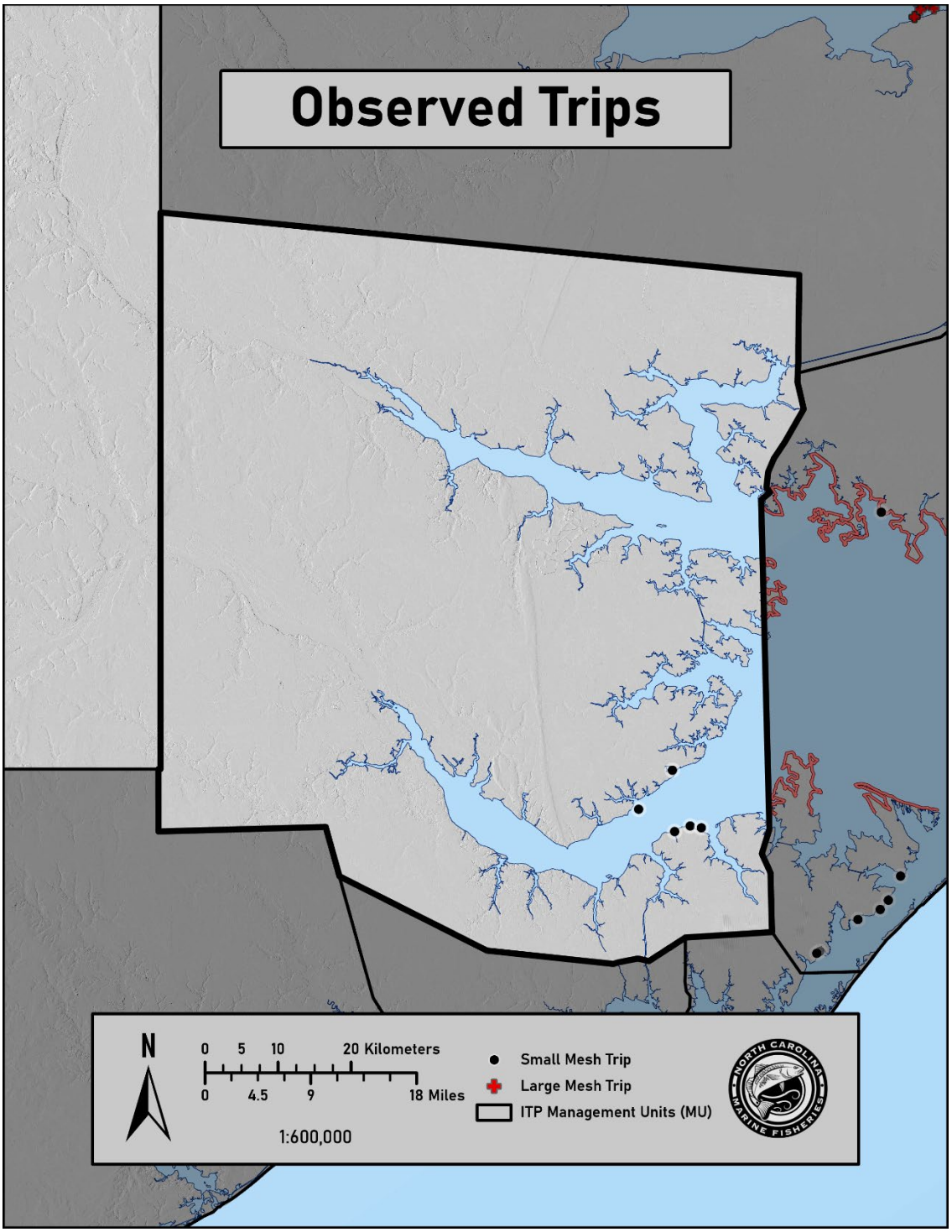

Figure 9. For spring 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit C (5 observed trips). Management Unit C closed to anchored large-mesh gill nets on 15 April. No sea turtle interactions were observed.

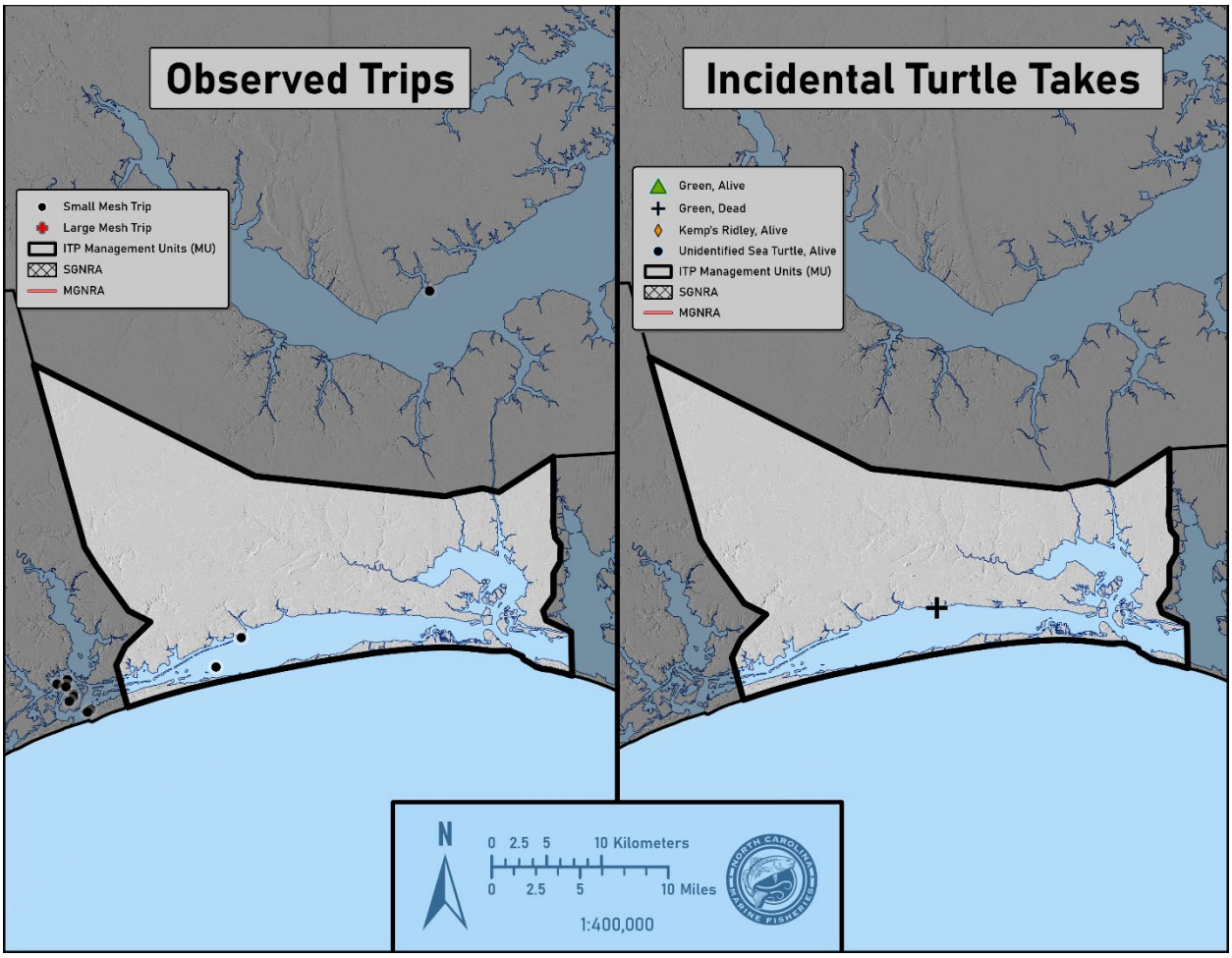

Figure 10. For spring 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips (left) (1 observed trip) and sea turtle interactions (right) by species and disposition (alive, n=0; dead, n=1) for Management Unit D2. Management Units D2 was closed to anchored large-mesh gill nets during spring.

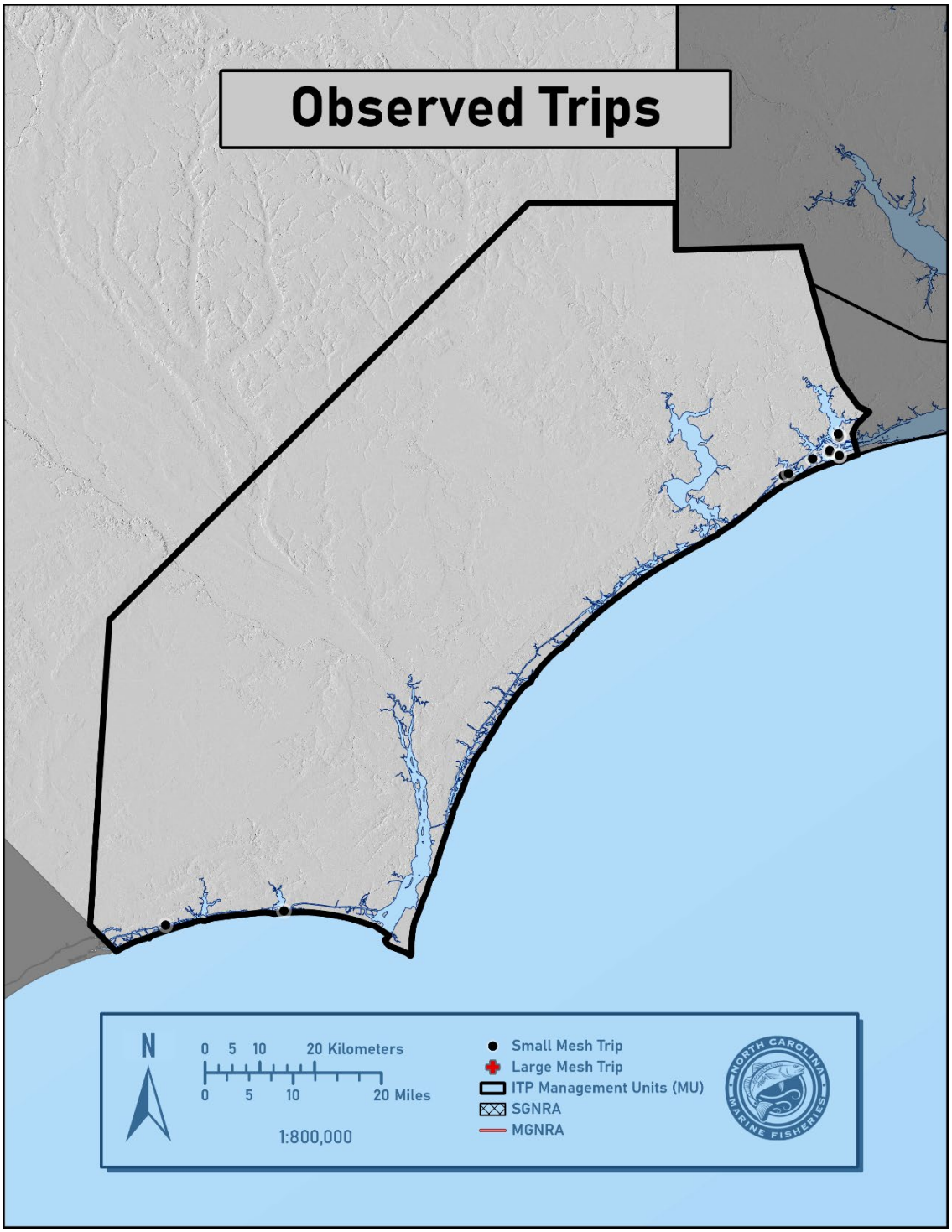

Figure 11. For spring 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit E (13 observed trips). No sea turtle interactions were observed. Management Unit E was closed to large-mesh gill nets during spring.

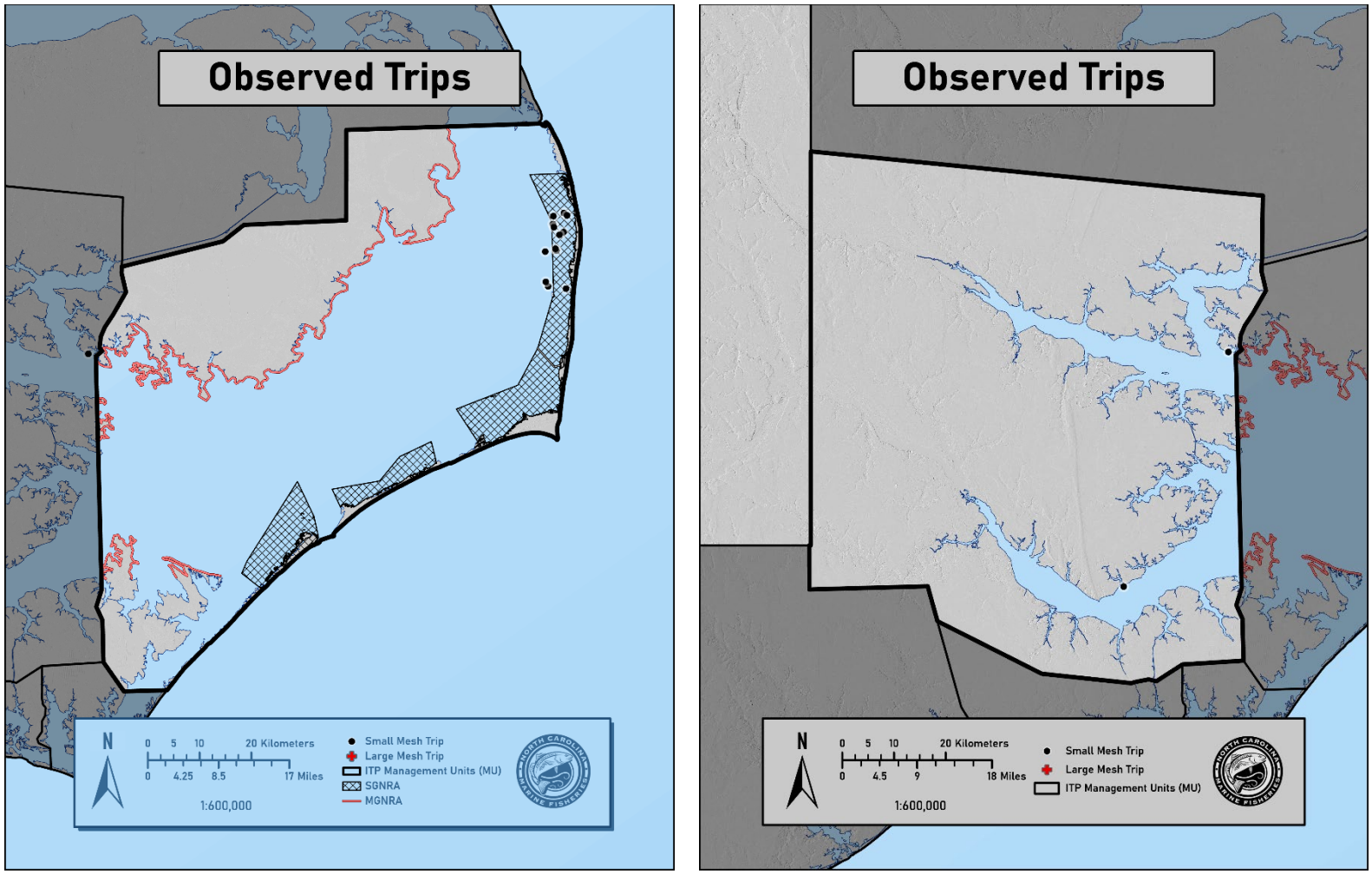

Figure 12. For summer 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit B (13 observed trips) and C (2 observed trip). No sea turtle interactions were observed in either management unit. Both management units were closed to large-mesh gill nets during spring. Maps for Management Unit A are not shown because it was closed to all anchored gill nets during summer.

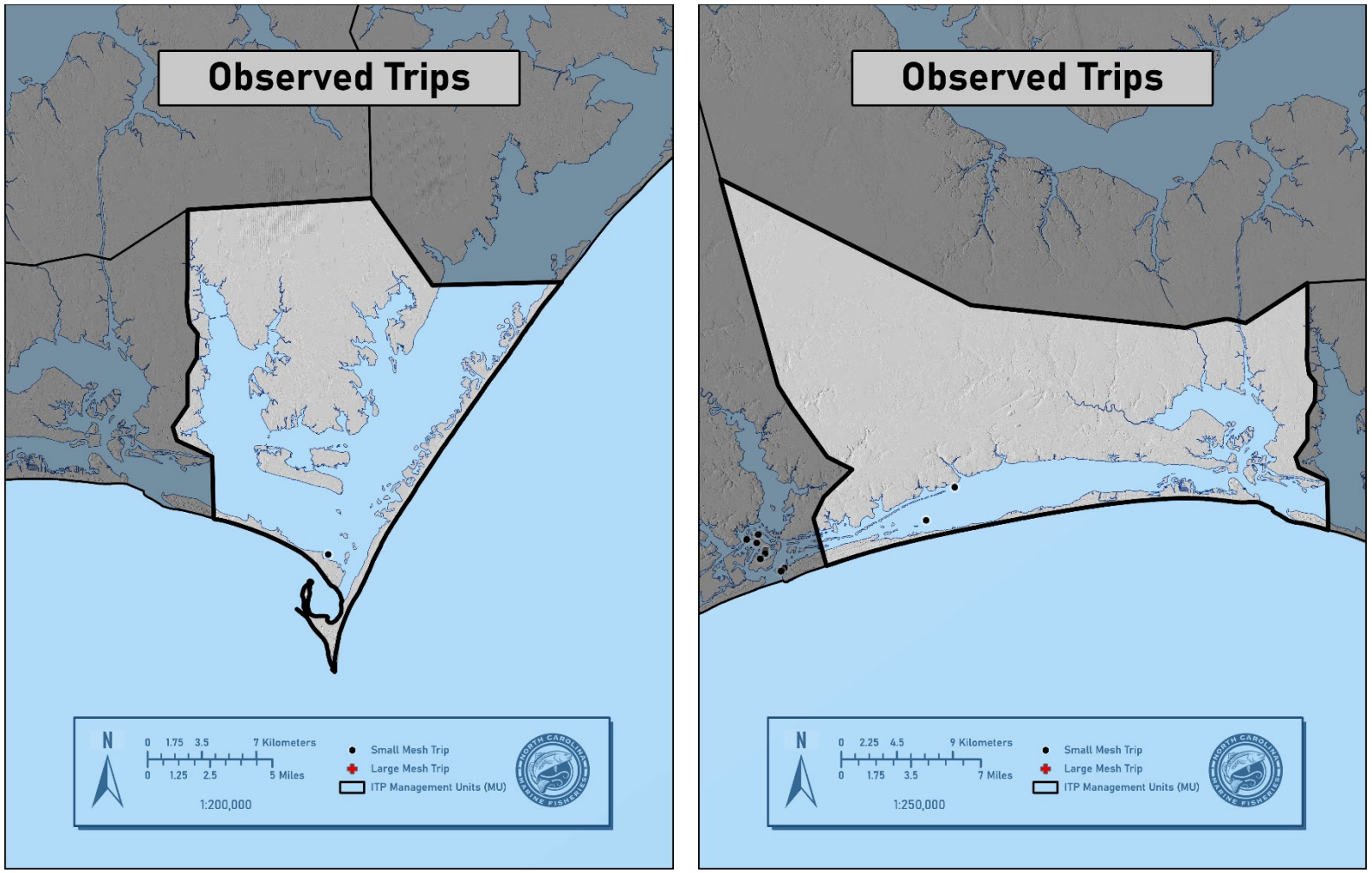

Figure 13. For summer 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit D1 (1 observed trip) and D2 (2 observed trips). No sea turtle interactions were observed in either management unit. Both management units were closed to large-mesh gill nets during summer.

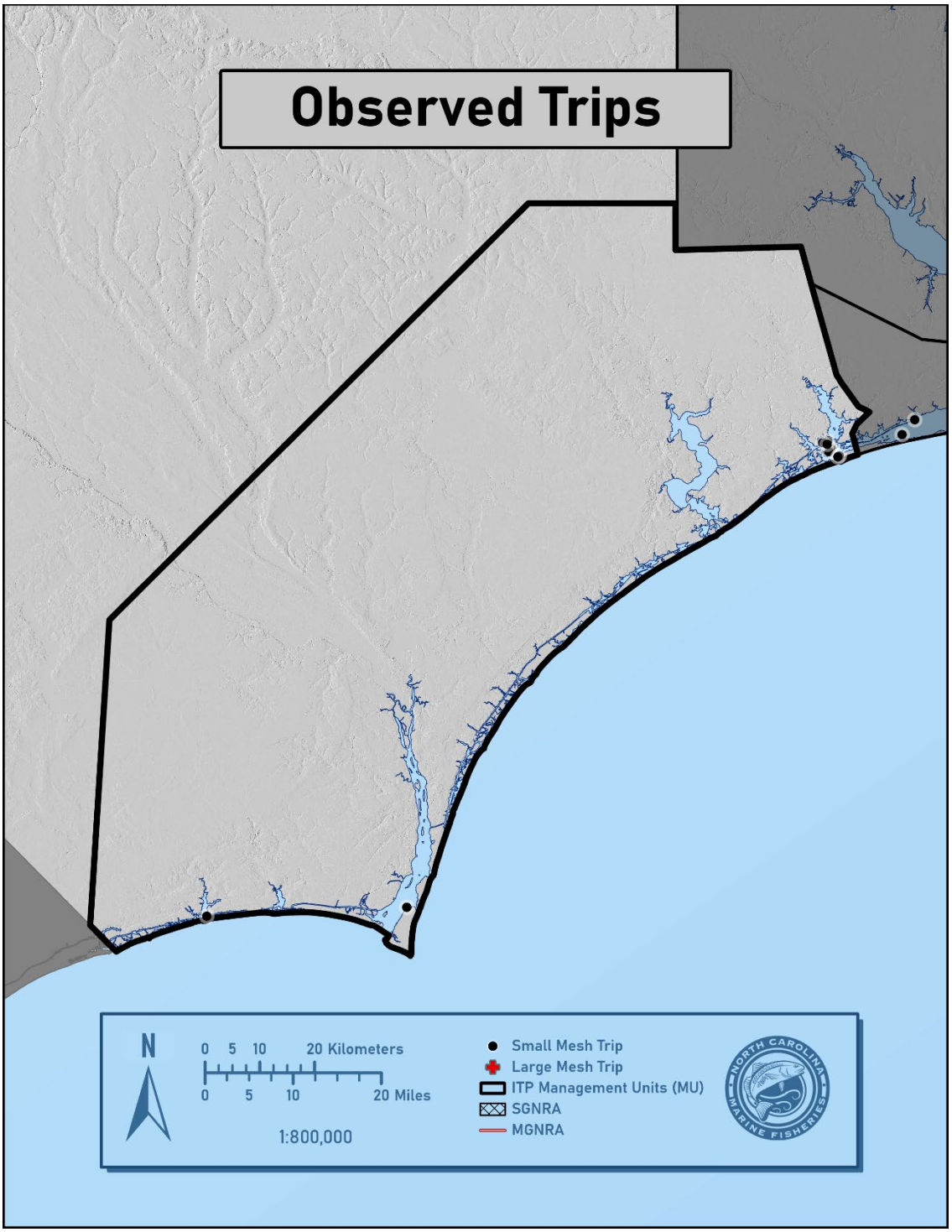

Figure 14. For summer 2022, observed small-mesh (<4 inches stretched mesh) gill-net trips for Management Unit E (10 observed trips). No sea turtle interactions were observed. The management unit was closed to large-mesh gill nets during summer.

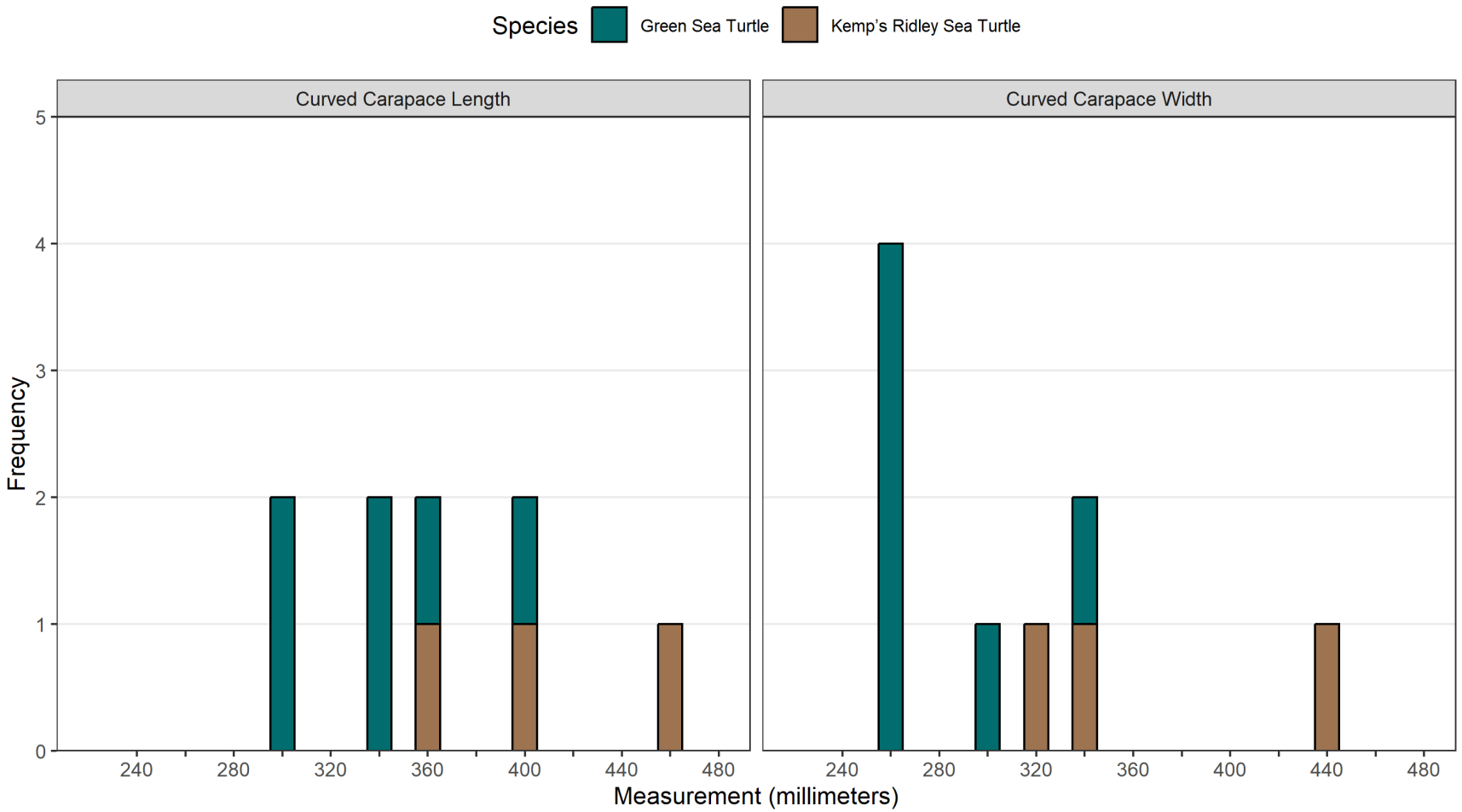

Figure 15. For observed and measured incidental takes of Green (n=6) and Kemp's Ridley (n=3) Sea Turtles during the 2022 ITP Year, length-frequency of (left) curved carapace length (CCL, mm) and (right) curved carapace width (CCW, mm).

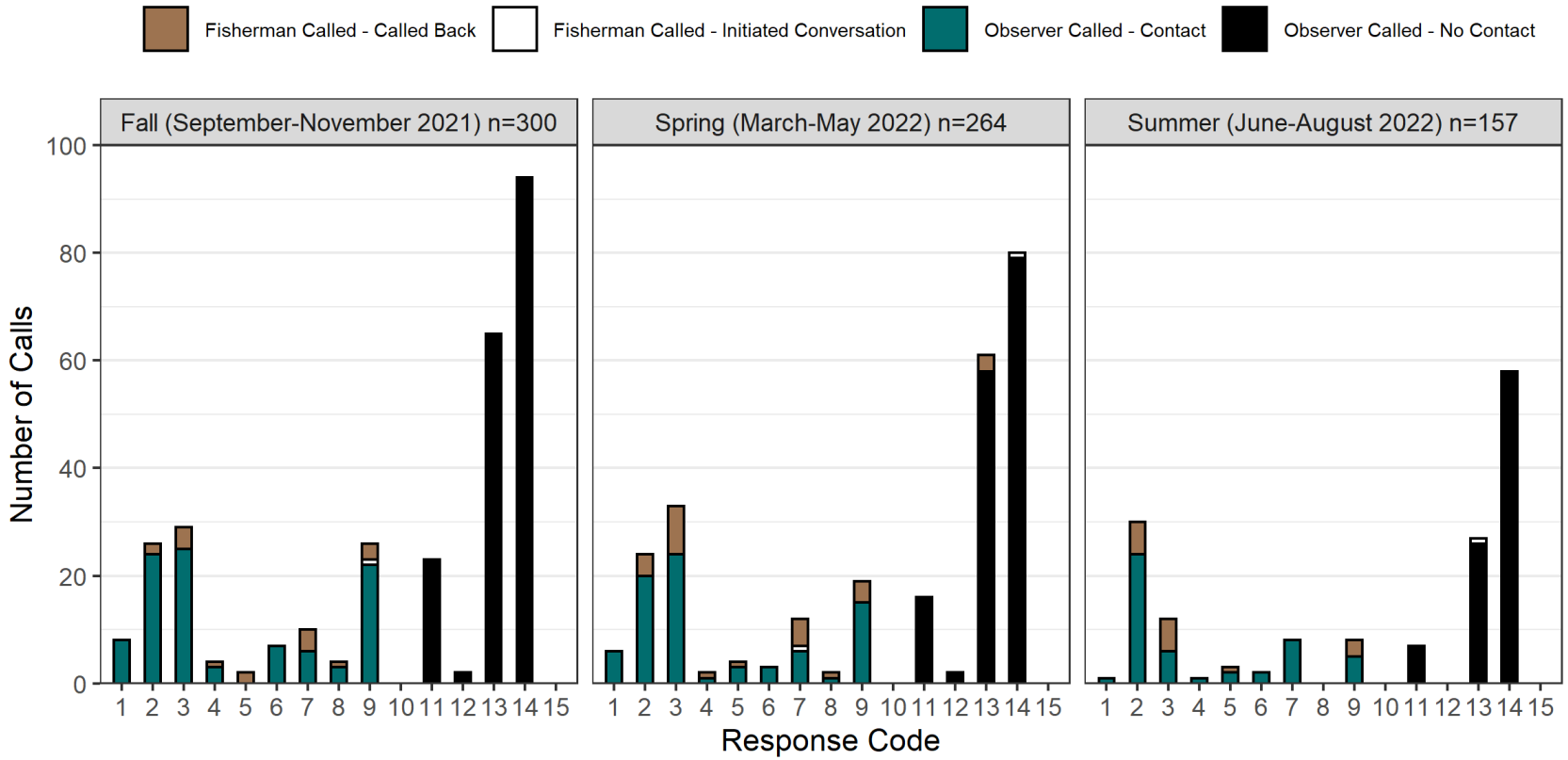

Figure 16. For the 2022 ITP Year, contacts attempted (n=1,201) by observers to schedule trips categorized by contact type (0-15) and presented as a percentage of the total for fall, spring, and summer. Contact type categories include the following: 1) Left message with someone else; 2) Not fishing general; 3) Fishing other gear; 4) Not fishing because of weather; 5) Not fishing because of boat issues; 6) Not fishing because of medical issues; 7) Booked trip; 8) Hung up, got angry, trip refused; 9) Call back later time/date; 10) Saw in person; 11) Disconnected; 12) Wrong number; 13) No answer; 14) No answer, left voicemail; 15) Not fishing because of natural disaster (e.g., hurricane). Contact types are shown as those when the observer talked to a fisher (teal bars), when the observer did not (black bars), when the fisher initiated a conversation (white bars), and when a fisher returned an observer's call (bronze bars).

8 APPENDICES

Appendix A. Withdrawal of Observer Waiver

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

Kathy Rawls
Director
North Carolina Division of Marine Fisheries
3441 Arendell Street
P.O. Box 769
Morehead City, NC 28557

April 5, 2022

Dear Ms. Rawls,

As part of the response to the COVID-19 pandemic, NOAA Fisheries temporarily waived requirements for federal fisheries in the Greater Atlantic Region to carry observers due to federal and state health guidance at that time. Consistent with that federal determination, on March 24, 2020, we temporarily waived the monitoring requirements for the North Carolina Division of Marine Fisheries' (NCDMF) Permits No. 16230 and No. 18102 issued under Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in internal North Carolina waters.

That approach was appropriate under the circumstances. However, in the United States and in North Carolina, the situation has changed and improved. COVID-19 vaccines are widely available and infection rates are declining. In response to the improved conditions, NMFS is withdrawing NCDMF's observer coverage waiver. This letter serves as NCDMF's 30-day notice to reinstate the monitoring requirements pursuant to these incidental take permits.

Please feel free to contact Wendy Piniak (wendy.piniak@noaa.gov) or Celeste Stout (celeste.stout@noaa.gov) with any questions.

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

Sincerely,

Kimberly Damon-Randall
Director,
Office of Protected Resources

Appendix A. continued

I acknowledge receipt of the correspondence above with regard to permit conditions and compliance under the Section 10 (a)(l)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in inshore waters of North Carolina.

Kathy B. Rawls
Director
N.C. Division of Marine Fisheries

4/11/2022
Date

Appendix B. NCDMF News release

Roy Cooper
Governor

Elizabeth S. Biser
Secretary DEQ

Kathy B. Rawls
Director

Release: Immediate	Contact: Patricia Smith
Date: April 20, 2021	Phone: 252-726-7021

Division of Marine Fisheries to resume onboard observations of estuarine gill net fisheries May 1

MOREHEAD CITY – The N.C. Division of Marine Fisheries will resume onboard observations of estuarine gill net fisheries beginning May 1. Onboard observations will be the primary method with limited use of alternative platform observations primarily conducted by Marine Patrol officers.

Division staff have been conducting alternate platform observations of estuarine gill net fisheries using division-owned boats since June 2020 in response to potential risks associated with COVID-19. The decision to resume onboard observations as the primary observation method is based on improved COVID-19 indicators. Under Executive Order 224 issued by Governor Roy Cooper for all cabinet agency employees, division staff are either fully vaccinated against COVID-19 or provide proof of weekly negative COVID-19 test results

Fishermen are reminded that an Estuarine Gill Net Permit (EGNP) is required to use anchored gill nets (large-mesh or small-mesh) in estuarine waters (commercially or recreationally), and one of the conditions of the EGNP is to allow division staff to observe gill net operations. Another condition of the EGNP is that fishermen must not avoid or mislead observers, which includes but is not limited to failing to return phone calls, failing to notify the division of a phone number change within 14 calendar days of such change, and providing incorrect information on fishing activity. Refusing to abide by permit conditions will result in suspension or revocation of the permit.

The EGNP is a critical step in meeting the requirements of the division's sea turtle and Atlantic sturgeon Incidental Take Permits issued by NOAA Fisheries under Section 10 of the Endangered Species Act.

Fishermen convicted of using anchored gill nets in internal coastal waters without holding an EGNP could be subject to a Class A1 misdemeanor.

The EGNP is available for free from the Division of Marine Fisheries. Fishermen can download an application here. Completed applications may be emailed to License@ncdenr.gov or mailed to the Division of Marine Fishermen, License Office, P.O. Box 769, Morehead City 28557.

Fishermen also may submit completed applications in drop boxes provided at the following division offices:

DMF Headquarters
3441 Arendell St.
Morehead City
Phone: 252-726-7021 or 800-682-2632

Manteo Field Office
1021 Driftwood Dr.
Manteo
Phone 252-473-5734 or 800-405-7774

Website: http://www.ncdenr.gov
Facebook: http://www.facebook.com/ncdeq
Twitter: http://twitter.com/NCDEQ
RSS Feed: http://portal.ncdenr.org/web/opa/news-releases-rss
1601 Mail Service Center, Raleigh, NC 27699-1601

Appendix B. continued

Pamlico District Office
943 Washington Square Mall, Highway 17
Washington
Phone: 252-946-6481 or 800-338-7804

Southern District Office
127 Cardinal Drive Extension
Wilmington
Phone: 910-796-7215 or 800-248-4536

For more information about the Observer Program and observer coverage, contact the Protected Resources Program supervisor Barbie Byrd (phone: 252-808-8088; email: Barbie.Byrd@ncdenr.gov) or the Coastal Programs Manager, Casey Knight (phone: 252-808-8094; email: Casey.Knight@ncdenr.gov).

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Website: http://www.ncdenr.gov
Facebook: http://www.facebook.com/ncdeq
Twitter: http://twitter.com/NCDEQ
RSS Feed: http://portal.ncdenr.org/web/opa/news-releases-rss
1601 Mail Service Center, Raleigh, NC 27699-1601

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

Annual Completion Report for Activities under Endangered Species Act Section 10 Incidental Take Permit No. 18102

Barbie L. Byrd, Matthew R. Doster, and David J. Ushakow

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

28 February 2023

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1 INTRODUCTION

The North Carolina Division of Marine Fisheries (NCDMF) applied to National Marine Fisheries Service (NMFS) for an Incidental Take Permit (ITP) under Section 10(a)(1)(B) of the Endangered Species Act (ESA) of 1973 (Public Law 93-205, ESA) on 5 April 2012 for Atlantic Sturgeon (*Acipenser oxyrinchus*) interactions with anchored gill-net fisheries in North Carolina's estuarine waters. Anchored gill nets are a passive gear deployed with an anchor, stake, or boat at one or both ends of the net string or operation; they do not include run-around, strike, drop, or drift gill nets. The application for the ITP was prompted by notification from NMFS in February 2012 indicating the intent to list the Carolina Distinct Population Segment (DPS) of Atlantic Sturgeon as endangered under the ESA. The application proposed a Conservation Plan that ensured only an authorized level of Atlantic Sturgeon incidental takes would occur, while allowing North Carolina's estuarine anchored gill-net fisheries to operate. The ITP authorizes such takes that are incidental to otherwise lawful fishing activity. For this report, the term "gill net" refers to anchored gill nets and mesh sizes are provided as inches stretched mesh (ISM) unless stated otherwise.

The NCDMF received the Atlantic Sturgeon ITP (No. 18102) on 22 July 2014 after a final application was submitted on 2 January 2014, which included revisions on previous versions (79 FR 43716[1]; McConnaughey et al. 2019a). The ITP had similarities with the Section 10 ITP (No. 16230) that NCDMF already had for incidental takes of sea turtles in estuarine anchored gill nets (78 FR 57132[2]). For example, the Atlantic Sturgeon ITP defined an ITP year as 1 September through 31 August of the following year, established annual authorized levels of incidental takes within geographic regions termed management units (Tables 1 and 2), and included a Conservation Plan to monitor, minimize, and mitigate incidental takes of Atlantic Sturgeon DPSs (i.e., of Gulf of Maine, New York Bight, Chesapeake, Carolina, and South Atlantic DPS) in otherwise lawful gill-net fisheries operating in North Carolina estuarine waters. The Conservation Plan in both ITPs included a state-wide estuarine gill-net observer program to monitor interactions that can be counted and extrapolated when applicable across the fishery within a given season and area. The ITPs required observer coverage thresholds as a minimum of 7% with a goal of 10% for large-mesh gill nets and a minimum of 1% with a goal of 2% for small-mesh gill nets. If observer data indicated that takes were approaching or exceeding authorized thresholds, the NCDMF could use an adaptive management approach to mitigate incidental takes by implementing temporary management options when needed using the NCDMF director's proclamation authority (143B-289.52; NCGS § 113-221.1).

There were a few differences, however, between the Atlantic Sturgeon and Sea Turtle ITPs. In contrast to the Sea Turtle ITP, the Atlantic Sturgeon ITP defined large-mesh gill nets as ≥5 ISM and small-mesh gill nets as <5 ISM, included the winter season along with spring, summer, and fall, and defined five (A, B, C, D, and E) not six management units by combining the two Management Units D1 and D2 from the Sea Turtle ITP into a single unit (Figure 1). The Atlantic Sturgeon ITP also set observer coverage requirements across management units for a given season, not within each management unit in a season like the Sea Turtle ITP.

To maintain incidental takes below authorized levels, the Conservation Plan consisted of a variety of measures for gill nets operating in estuarine waters across the state. These measures primarily included the continuation of restrictions put in place for the anchored large-mesh gill-net fishery

[1] https://www.federalregister.gov/documents/2014/07/28/2014-17645/endangered-species-file-no-18102
[2] https://www.federalregister.gov/documents/2013/09/17/2013-22592/endangered-species-file-no-16230

for Southern Flounder (*Paralichthys lethostigma*) by the NCDMF Sea Turtle ITP[2]). These restrictions are implemented through proclamation. They include mitigation measures such as restricting soak time and days of the week, limiting net lengths, requiring separations between net shots in a single string, requiring low-profile net configurations, and implementing time/area closures (Table 3). However, based on historical information on where risk of incidental takes of sea turtles was the greatest, not all regulations for nets ≥4 ISM are applied in the same manner in each management unit. Additionally, NCDMF mirrors by proclamation the federal deep-water closure in Pamlico Sound from 1 September through 15 December (50 C.F.R. § 223.206 (d)(7) Exceptions to prohibitions relating to sea turtles). The Conservation Plan also requires the continuation of seasonal attendance requirements for anchored small-mesh gill nets that were outlined in the original application.

On 13 July 2017, the NCDMF requested a minor modification to the Atlantic Sturgeon ITP allocation of authorized takes in Management Units A and C to be listed as annual rather than seasonal takes. The NCDMF explained that annual take thresholds would provide greater flexibility in managing the fishery while minimizing the frequency of full seasonal closures. Further, the NCDMF emphasized that they would actively monitor fisheries and take levels daily to limit takes, particularly dead takes. On 19 July 2017, the NMFS sent a letter to the NCDMF agreeing with the request for the minor modification but encouraged staff to incorporate any further anticipated minor modifications into the application process for an updated ITP (McConnaughey et al. 2019a).

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

For the commercial gill-net fishery, these regulations severely limited where and when large-mesh gill nets harvesting flounder were allowed. For example, since fall 2019 the Southern Flounder commercial fisheries have been constrained by setting specific dates in the fall when fishing was allowed across three flounder management areas: Northern, Central, and Southern (Figure 1). The flounder management areas generally aligned with the ITP management units except for the Core Sound portion of Management Unit B, which was split into a different flounder management area (Southern) than the rest of Management Unit B (Central; Figure 1). Prior to fall 2019, the fishery was most active during the fall, but could operate January through November. Since the fall 2019, the number of days the fishery was open per management area has been reduced (Byrd et al. 2021, Byrd and Pensinger 2022). Other regulations included 25% reductions in allowed yardage of large-mesh gill nets and soak-time limits of large-mesh gill nets to overnight soaks state-wide where before this was not required for nets in Management Units A and C.

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

Regulations implemented in Management Unit C have all but ended anchored large-mesh gill-net fishery for shad there. Since 15 March 2019, all gill nets are prohibited in upstream portions of the Pamlico and Neuse rivers, greatly reducing the areas of Management Unit C open to gill nets (Proclamation M-6-2019; Table 4). Additionally, tie-down and distance from shore restrictions remain in place for large-mesh gill nets in the western Pamlico Sound and rivers as an effort to minimize Striped Bass bycatch in accordance with Supplement A to Amendment 1 of the Estuarine Striped Bass Fishery Management Plan (NCDMF and North Carolina Wildlife Resources Commission 2019). These restrictions reportedly make it difficult to successfully target and catch shad using anchored gill-net gear in Management Unit C. Decreasing trends in the number of reported trips support this effect on fishing effort as reported large-mesh gill-net trips in Management Unit C went from an average of 966 trips during spring between 2016–2018 to an average of 17 trips between 2019–2021.

This annual report outlines observer activity, fishing activity, and total or estimated takes of Atlantic Sturgeon for the 2022 ITP Year, 1 September 2021–31 August 2022. The original deadline for annual reports was 31 January per the ITP; however, in January 2017 the deadline was extended to the last day in February following a request by the NCDMF (McConnaughey et al. 2019a). Fishing activity was measured as the number of reported fishing trips; these data are finalized only for 2021 (fall and part of winter). After the preliminary data for 2022 are finalized in May 2023, observer coverage and authorized estimated Atlantic Sturgeon takes will be recalculated and finalized estimates will be provided to the NMFS in the form of an addendum.

2 METHODS

2.1 Observer Activity

A sea-day schedule of projected observer trips for each season by month and management unit during the 2022 ITP Year was developed during the prior season. The number of projected observer trips was based on the maximum goals for coverage outlined in the Conservation Plan: 10% coverage of total large-mesh gill-net fishing trips and 2% coverage of total small-mesh gill-net fishing trips. Data on commercial fishing effort come from the NCDMF Trip Ticket Program (TTP), whereby fish dealers complete a trip ticket every time a commercial fisher sells finfish and/or shellfish. Trip tickets record information such as gear type, area fished, species harvested, and total weight by species. For anchored gill nets, the TTP defines large-mesh ($\geq$5 ISM) and small-mesh (<5 ISM) gill nets the same as the Atlantic Sturgeon ITP. Projected observer trips were stratified across each month within four seasons and five management units proportional to the TTP data of reported fishing trips. The seasons crossed calendar years and were defined as follows: fall (September–November 2021), winter (December 2021–February 2022), spring (March–May 2022), and summer (June–August 2022). Although the Conservation Plan outlined in the Atlantic Sturgeon ITP identified five management units (A, B, C, D, and E), projected observer trips were allocated according to the Conservation Plan in the Sea Turtle ITP, which splits Management Unit D into D1 and D2 (Figure 1). Consistent with federal rule (50 C.F.R. § 223.206 (d)(7)), large-mesh gill nets operating in Pamlico Sound (Management Unit B) from 1 September through 15 December were confined to specific subunits (Shallow Water Gill-Net Restricted Areas 1-4, and Mainland Gill-Net Restricted Area), effectively closing the fishery in the deep waters of Pamlico Sound and in corridors near Ocracoke, Hatteras, and Oregon inlets (Proclamation M-17-2021; Table 4; Figure 1).

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

The only accommodation that had to be made in estimating anchored small-mesh gill-net effort was for the D1 portion of Management Unit D. Management Unit D1 was closed to small-mesh gill nets starting on 20 April 2020 through 31 September 2021 (Proclamations M-4-2020, M-19-2021; Table 4). The number of estimated fishing trips was set to zero for September when D1 was

closed. Otherwise, the average reported fishing trips was calculated for D1 excluding the months of April–December 2020 and January–August 2021.

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

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

Obtaining observer trips was facilitated by the requirement for fishers participating in estuarine anchored gill-net fisheries to obtain an Estuarine Gill-Net Permit (EGNP; M-24-2014;Table 4). As part of this permit, fishers provide their contact information so that observers can call and schedule an observed trip. However, the permit is free, and many fishers get an EGNP but do not report trips using estuarine gill nets (Byrd et al. 2021, Byrd and Pensinger 2022). To streamline the contact attempts by observers, the License and Statistics Section of NCDMF provided data on EGNP holders that had reported anchored estuarine fishing trips during the last three years. The dataset included number of reported trips by mesh-size category (large and small) and management unit along with the name and contact information for the permit holder. This dataset was used to create a priority call list that was divided among observers. Other outreach efforts, such as visiting fish houses, were limited during the 2022 ITP Year. The website for the Observer Program (https://deq.nc.gov/about/divisions/marine-fisheries/science-and-statistics/observer-program) was available, but fishers were not necessarily reminded to access it.

Observers were trained by experienced NCDMF staff to identify, measure, evaluate condition of, and tag (with Passive Integrated Transponders [PIT]) Atlantic Sturgeon. Date, time, tag numbers, location (latitude and longitude), condition (e.g., no apparent harm, injury including a description of the nature of the injury, or mortality), total length (TL, mm), and fork length (FL, mm) were recorded for observed Atlantic Sturgeon interactions. Photographs, fin clips (for genetic analyses), and data on environmental parameters (e.g., salinity, water temperature) were also collected when feasible. Observers were instructed to retain any dead Atlantic Sturgeon when possible. Individual reports of observed interactions were communicated with NMFS within 24 hours

Observers also collected data on location and gear parameters. Alternative platform trips do not collect additional data on fish catch and bycatch. However, onboard observations resumed at the end of the ITP year and catch and bycatch data were collected on these trips. Limited data such as date and waterbodies surveyed were also collected for unsuccessful alternative platform attempts (hereafter termed "No Contact" trips) by observers and Marine Patrol. All data were coded onto NCDMF data sheets and uploaded to the NCDMF Biological Database for analysis. Observers and

Marine Patrol also log data into an ArcGIS application, Collector, in real time including set locations, gear parameters, and Atlantic Sturgeon interactions to provide daily total counts and estimates of bycatch.

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

2.2 Incidental Takes

The ITP outlines authorized levels of incidental takes expressed as either estimated total takes based on observer data (Management Unit A) or counts of observed takes (Management Unit B, C, D, E) (Tables 1 and 2). Both types (estimated and counted) were necessary in the development of authorized levels because there were insufficient data available for modeling predicted estimated takes in the ITP application for some combinations of management unit and mesh-size category (Daniel 2014). To compare numbers of incidental takes of Atlantic Sturgeon during the 2022 ITP Year to authorized levels, actual observed takes were counted for Management Units B, C, D, E and estimated for Management Unit A. The DPS of the Atlantic Sturgeon could not be determined because genetic results were not available. Incidental take estimates for Management Unit A were calculated using the stratified ratio method where the bycatch rate (Atlantic Sturgeon caught per observed trip) calculated from observer data was multiplied by the total reported fishing trips.

$$\text{Estimated Interactions} = \left(\frac{\text{Atlantic Sturgeon interactions observed}}{\text{gill-net trips observed}}\right) * \text{total gill-net trips reported}$$

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

At the end of the ITP year, the estimated number of interactions for Management Unit A was recalculated using actual numbers of trips, albeit preliminary for 2022, reported in the TTP rather than the projected numbers of fishing trips. Nonparametric confidence intervals (95%) were calculated using standard bootstrapping techniques (Efron and Tibshirani 1993) using the 'boot' package in R (Canty and Ripley 2015; Davison and Hinkley 1997; R Core Team 2019). Bootstrap replicates were generated by sampling observer trips with replacement 5,000 times within strata (mesh/management unit).

2.3 Compliance

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

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

3 RESULTS

3.1 Observer Activity

Overall state-wide observer coverage during the 2022 ITP Year was 13.9% of the reported large-mesh gill-net trips and 2.7% of the small-mesh gill-net trips (Tables 5 and 6, Figure 2). This level of coverage was based on 366 observed large-mesh gill-net trips and 190 observed small-mesh gill-net trips. Additionally, there were 1,284 No Contact trips (Table 7). When anchored gill nets could not be found, occasional observations of drift (n=3) and runaround (n=49) gill-net trips occurred (Table 8).

During the 556 total observed trips, observers documented 15 Atlantic Sturgeon in large-mesh and 15 in small-mesh gill nets (Table 9, Figure 2). Six sturgeon that could not be identified to species were also observed, all in large-mesh gill nets. Two self-reported interactions were received by the Observer Program from small-mesh gill nets (Table 10).

Proclamations relative to anchored gill-net fisheries are listed in Table 4.

3.1.1 Fall 2021

On 1 October, Management Unit D1 was re-opened to anchored small-mesh gill nets (Proclamation M-19-2021; Table 4).

During fall 2021 (September–November), the Observer Program achieved 14.6% state-wide coverage of large-mesh gill-net trips, exceeding 7% coverage in each management unit (Table 5; Figure 3). For small-mesh gill nets, the Observer Program achieved 3.1% state-wide coverage, exceeding 1% observer coverage in each management unit except Management Unit C where observer coverage was 0.8% (Table 6; Figure 3). There also were 228 No Contact trips, three observed drift gill-net trips, and nine runaround gill-net trips (Tables 7 and 8).

Six of the 30 (20%) observed Atlantic Sturgeon interactions (4 alive, 2 dead) and one of the six (17%) observed unidentified sturgeon interactions (alive) occurred during fall (Table 9; Figure 3).

3.1.2 Winter 2021-2022

During winter 2021–2022 (December 2021–February 2022), the Observer Program achieved an estimated 16.7% state-wide coverage of large-mesh gill-net trips in the only open management unit, C (Table 5; Figure 4). For small-mesh gill nets, the Observer Program achieved an estimated 3.2% state-wide coverage, exceeding 1.0% in each management unit (Table 6; Figure 4). There were 340 No Contact trips and eight observed runaround gill-net trips (Tables 7 and 8).

Seven of the 30 (23%) observed Atlantic Sturgeon interactions (all alive) in gill nets occurred during winter (Table 9). All observed interactions occurred in Management Unit C with six observed in large-mesh gill nets and one observed in a small-mesh gill net. There were no observed interactions that could not be identified to species.

3.1.3 Spring 2022

Management Unit A was opened originally to anchored large-mesh gill nets from 3–24 March; however, allowed yardage was limited to 700 yards and the lower Chowan River and western Albemarle Sound were kept closed (Proclamation M-5-2022; Table 4). The shad large-mesh gill-net fishery closed early on 15 March because the A-R Striped Bass TAL was met (Proclamation M-6-2022; Table 4). Management Unit C closed to anchored large-mesh gill nets on 15 April (Proclamation M-8-2022; Table 4).

During spring 2022 (March–May), the Observer Program achieved an estimated 11.2% state-wide coverage of large-mesh gill-net trips (Table 5; Figure 5). Only Management Units A and C were open to large-mesh gill nets. While estimated observer coverage of large-mesh gill-net trips in Management Unit A was 11.9%, no observed trips occurred in Management Unit C because no effort could be found, despite 78 No Contact trips that occurred there looking for effort (Table 7). For small-mesh gill-net trips, the Observer Program achieved an estimated 1.7% state-wide coverage exceeding 1% observer coverage in each management unit (Table 6; Figure 5). There were 385 No Contact trips and 12 observed runaround gill-net trips (Tables 7 and 8).

Seventeen of the 30 (57%) observed Atlantic Sturgeon interactions (13 alive and 4 dead) and five of the six (83%) observed unidentified sturgeon interactions (4 alive, 1 dead) occurred during spring (Table 9, Figure 5). The two self-reported interactions were from small-mesh gill nets set during spring (Table 10). During April, a single take of a dead Atlantic Sturgeon in a small-mesh gill net in Management Unit A extrapolated to an estimated 52 dead Atlantic Sturgeon. This estimate was near the authorized number of 55 for small-mesh gill nets in the management unit. As a result, the NCDMF director issued Proclamation M-10-2022 closing Management Unit A to anchored gill nets regardless of mesh size on 28 April 2022 (Table 4). The closure was effective for the remainder of the ITP year.

3.1.4 Summer 2022

During summer 2022 (June–August), the Observer Program did not observe any large-mesh gill-net trips as the gear was prohibited state-wide (Table 5; Figure 6). For small-mesh gill-net trips, the Observer Program achieved an estimated 3.6% coverage across all open management units (B, C, D, and E), exceeding 1.0% in each one (Table 6; Figure 6). There were 331 No Contact trips and 20 observed runaround gill-net trips (Tables 7 and 8).

There were no observed Atlantic Sturgeon interactions in gill nets during summer.

3.2 Incidental Takes

Of the sturgeon takes during the 2022 ITP Year, most were released alive (Atlantic Sturgeon 24 out of 30; unidentified sturgeon 5 of 6; Table 9). Interactions occurred primarily during spring (~61%; 22 of 36), but were relatively equal among Management Units A (~39%; 14 of 36), B (~33%: 12 of 36), and C (~28%; 10 of 36). Of the 30 Atlantic Sturgeon interactions, half were observed small-mesh gill nets and half were observed in large-mesh gill nets (Table 9; Figures 2–6). The size range of Atlantic Sturgeon measured by observers was 510–1,117 mm TL (n=22, mean=763.0, SD=177.3) and 440–965 mm FL (n=21, mean=677.0, SD=159.5; Table 9; Figure 7). Of the eight Atlantic Sturgeon that were not measured, two fell out of the net and six (on three trips) were released by the fisher instead of given to the observer on the alternative platform vessel. All eight were positively identified as Atlantic Sturgeon by the observers. Additionally, the observers reminded the fishers of the requirement to give the animal to the observer. Of the six sturgeon that were not identified to species (all alive), five fell out of the net as it was being pulled in and one was released by the fisher before it could be identified. The fisher that released the unidentified sturgeon also was reminded of the requirement to give the animal to the observer. Observers noted that at times the fishers were eager to get the live sturgeon in the water and were concerned that it may die if it was given to the observer. In response to the number of times that the fishers did not give the sturgeon to an observer, the EGNP specific conditions form was edited in March 2022 to include explicit language to that fact: "*It is unlawful for an EGNP holder, as well as the master and crew members of the boat, to interfere with, or obstruct the observer in the course of collecting data or samples, which shall include refusal or failure to provide information on fishing gear parameters or to provide any captured finfish or sea turtle to division staff*." It should be noted that depending on when the fisher renewed their EGNP during 2022, the condition form may or may not have included this updated language.

Observed take levels during the 2022 ITP Year did not reach the thresholds of allowed takes for any management unit (Tables 1 and 2). Using actual reported fishing trips (n=399) rather than estimated fishing trips (n=636), the estimated number of dead interactions in small-mesh gill nets in Management Unit A decreased from 52.0 to 32.5. The 30 observed Atlantic Sturgeon interactions resulted in an estimated 36.7 total live interactions and 29.1 total dead interactions in large-mesh gill nets and 13.0 total live interactions and 33.5 total dead interactions in small-mesh gill nets. The total live interactions in large-mesh gill nets represents 1.7% of the 2,203 allowable sturgeon takes; the total dead interactions in large-mesh gill nets represents 28.8% of the 101 allowable sturgeon takes. The total live interactions in small-mesh gill nets represents 1.8% of the 724 allowable sturgeon takes; the total dead interactions for small-mesh gill nets represents 49.3% of the 68 allowable sturgeon takes.

3.3 Compliance

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

Using the priority call list of EGNP holders, 1,178 phone calls or in-person contacts were made with 36% (n=426) representing occasions where observers and fishers spoke to each other. Of the 426 conversations, 74 of them (17%) were a result of fishers returning observer phone calls. Nevertheless, only 3.6% (n=42) of the 1,178 contacts resulted in a booked trip (Figure 8). The greatest number of calls occurred during winter, and the least number of calls occurred in summer.

During the 2022 ITP Year, Marine Patrol officers issued 46 citations (Fall=34, Winter=4, Spring=6, Summer=2; Table 11) and 12 NOVs (Fall=10 and Spring=2; Table 12).

3.4 Marine Mammals

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

4 DISCUSSION

Incidental takes of Atlantic Sturgeon during the 2022 ITP Year were below authorized levels. The NCDMF observer program uses a combination of real-time monitoring of Atlantic Sturgeon interactions and an adaptive management approach to successfully control the number of interactions in estuarine anchored gill-net fisheries. Closing Management Unit A to gill nets during spring was a risk-adverse approach to maintain estimated take levels below those authorized. Though the estimated number of dead Atlantic Sturgeon interactions from a single take in a small-mesh gill net in Management Unit A was close to the number authorized in the permit, the estimate using reported fishing trips was more than 37% lower than the original estimate. Overall, most observed Atlantic Sturgeon were released alive, thereby limiting negative effects of these interactions on the DPSs. Including unidentified sturgeon, interactions continue to be more common in anchored large-mesh than small-mesh gill nets. This trend may be a result of differences in interaction rates between the two mesh-size categories and the fact that more than twice as many large-mesh gill nets are observed. The six observed sturgeon that could not be identified to species were likely Atlantic Sturgeon as the Observer Program has only documented two Shortnose Sturgeon, both in 2016 (Boyd 2017, 2018).

During the 2022 ITP Year, the Observer Program worked with other NCDMF programs and Marine Patrol to leverage assistance in obtaining coverage. Overall observer coverage during each season met or exceeded the minimum observer coverage levels outlined in the ITP for both mesh-size categories. When examining observer coverage at the management unit and season level, minimum levels were not met in Management Unit C for large-mesh gill nets during spring and in Management Unit C for small-mesh gill nets during fall. During spring, no large-mesh gill-net trips in Management Unit C were arranged in advance or found through alternative platform methods despite significant effort making phone calls and looking for effort on the water. Of the reported fishing trips there, all occurred before the observer waiver ended. During fall, observer coverage based on estimated fishing effort was 1.3% but using actual reported fishing trips observer coverage decreased to 0.8%. This does not mean, however, that the Observer Program

stopped trying to observe additional trips as the program always aims for the maximum observer coverage level (i.e., 10% of large-mesh and 2% of small-mesh).

Scheduling observed trips continues to be a challenge for the NCDMF Observer Program, not unlike other observer programs (e.g., Lyssikatos and Garrison 2018). The EGNP is a useful tool to improve compliance by including specific permit conditions requiring fishers to allow observers aboard their vessels to monitor catches and by providing contact information for permit holders. Phone calls made to EGNP holders contributed some to observers scheduling trips, but the success rate of observers even talking to a fisher was low (~36%) much less scheduling a trip. Although refusal of an observed trip by a fisher can result in a suspension of their EGNP, non-compliance typically does not include such a direct refusal. As such, non-compliance continues to be a hurdle for ensuring the observer coverage requirements for both ITPs are met. The NCDMF is in the beginning stages of developing a call-in system whereby fishers would be required to contact the Observer Program prior to fishing to determine if they were selected to take an observer for a given period of time (e.g., week).

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

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

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6 TABLES

Table 1. For large-mesh (≥5 inches stretched mesh) gill nets, a comparison of actual (alive=11; dead=4) annual incidental takes of Atlantic Sturgeon by management unit during the 2022 ITP Year to authorized thresholds expressed as either estimated total takes based on observed takes (Management Unit A) or counts of actual observed takes (Management Units B–E). Authorized takes in Management Units D and E were for the Carolina Distinct Population Segment (DPS) only and listed as not applicable (n/a) for Other DPS. 95% confidence intervals are provided in brackets. Genetic results were not available to determine DPS of observed interactions.

Management Unit	Season	Authorized				Actual	
		Carolina DPS		Other DPS		All DPS	
		Alive	Dead	Alive	Dead	Alive	Dead
A	Annual	1,604	65	535	21	29.7 [6.5, 70.6]	29.1 [6.5, 92.7]
B	Annual	24	6	9	0	0	0
C	Annual	11	5	4	0	7	0
D	Annual	8	2	n/a	n/a	0	0
E	Annual	8	2	n/a	n/a	0	0
Total	Annual	1,655	80	548	21	36.7	29.1

Table 2. For small-mesh (<5 inches stretched mesh) gill nets, a comparison of actual (alive=13; dead=2) annual incidental takes of Atlantic Sturgeon by management unit during the 2022 ITP Year to authorized thresholds expressed as either total takes based on observed takes (Management Unit A) or counts of actual observed takes (Management Units B-E). Authorized takes in Management Units C, D, and E were for the Carolina Distinct Population Segment (DPS) only and listed as not applicable (n/a) for Other DPS. 95% confidence intervals are provided in brackets. Genetic results were not available to determine DPS of observed interactions.

		Authorized				Actual	
		Carolina DPS		Other DPS		All DPS	
Management Unit	Season	Alive	Dead	Alive	Dead	Alive	Dead
A	Annual	569	45	114	10	0	32.5 [0, 97.5]
B	Annual	14	5	3	0	10	1
C	Annual	8	4	n/a	n/a	3	0
D	Annual	8	2	n/a	n/a	0	0
E	Annual	8	2	n/a	n/a	0	0
Total	Annual	607	58	117	10	13.0	33.5

Table 3. Restrictions implemented for estuarine anchored gill nets ≥4 inches stretched mesh included in the current NCDMF Sea Turtle (No. 16230) and Atlantic Sturgeon (No.18102) Incidental Take Permits. Cells highlighted in gray had no restrictions per the ITPs. MU = Management Unit.

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

Table 4. Regulations by effective date and regulation change for estuarine anchored gill nets during the 2022 ITP Year or referenced in the text for previous ITP years.

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

Table 4 continued

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

Table 4 continued

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

Table 4 continued

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

Table 5. For large-mesh (≥5 inches stretched mesh) gill nets, observer coverage (observed trips/fishing trips) calculated by season and management unit for the 2022 ITP Year. Observer coverage was calculated using estimated fishing trips based on the Trip Ticket Program data and actual reported trips from the program. Anchored large-mesh gill nets were prohibited in the eastern portion of Management Unit D during all seasons and were prohibited seasonally in whole management units during one or more seasons ("*closed*"). Trip Ticket Program data are considered finalized for 2021 and preliminary for 2022.

		Large Mesh				
Season	Management Unit	Estimated Fishing Trips	Reported Fishing Trips	Observed Trips	Coverage of Estimated Fishing Trips	Coverage of Reported Fishing Trips
Fall 2021	A	563	723	102	18.1	14.1
	B	397	643	85	21.4	13.2
	C	189	198	34	18.0	17.2
	D	111	80	23	20.7	28.8
	E	282	493	67	23.8	13.6
	Overall	1,542	2,137	311	20.2	14.6
Winter 2021-2022	A	*closed*	*closed*	*closed*	*closed*	*closed*
	B	*closed*	*closed*	*closed*	*closed*	*closed*
	C	14	6	1	7.1	16.7
	D	*closed*	*closed*	*closed*	*closed*	*closed*
	E	*closed*	*closed*	*closed*	*closed*	*closed*
	Overall	14	6	1	7.1	16.7
Spring 2022	A	752	453	54	7.2	11.9
	B	*closed*	*closed*	*closed*	*closed*	*closed*
	C	9	30	0	0.0	0.0
	D	*closed*	*closed*	*closed*	*closed*	*closed*
	E	*closed*	*closed*	*closed*	*closed*	*closed*
	Overall	761	483	54	7.1	11.2
Summer 2022	A	*closed*	*closed*	*closed*	*closed*	*closed*
	B	*closed*	*closed*	*closed*	*closed*	*closed*
	C	*closed*	*closed*	*closed*	*closed*	*closed*
	D	*closed*	*closed*	*closed*	*closed*	*closed*
	E	*closed*	*closed*	*closed*	*closed*	*closed*
	Overall	*closed*	*closed*	*closed*	*closed*	*closed*
Annual		2,317	2,626	366	15.8	13.9

Table 6. For small-mesh (<5 inches stretched mesh) gill nets, (observed trips/fishing trips) calculated by season and management unit for the 2022 ITP Year. Observer coverage was calculated using estimated fishing trips based on the Trip Ticket Program data and actual reported trips from the program. Anchored small-mesh gill nets were prohibited in the eastern portion of Management Unit D during September and in Management Unit A during part of spring (effective 28 April) and all of summer ("*closed*"). Trip Ticket Program data are considered finalized for 2021 and preliminary for 2022.

		Small Mesh				
Season	Management Unit	Estimated Fishing Trips	Reported Fishing Trips	Observed Trips	Coverage of Estimated Fishing Trips	Coverage of Reported Fishing Trips
Fall 2021	A	294	241	5	1.7	2.1
	B	920	956	20	2.2	2.1
	C	150	239	2	1.3	0.8
	D	215	100	8	3.7	8.0
	E	412	259	21	5.1	8.1
	Overall	1,991	1,795	56	2.8	3.1
Winter 2021-2022	A	642	825	26	4.0	3.2
	B	599	669	7	1.2	1.0
	C	256	221	7	2.7	3.2
	D	47	3	2	4.3	66.7
	E	104	115	17	16.3	14.8
	Overall	1,648	1,833	59	3.6	3.2
Spring 2022	A	636	399	8	1.3	2.0
	B	1,254	1,862	20	1.6	1.1
	C	172	298	5	2.9	1.7
	D	49	37	1	2.0	2.7
	E	104	118	13	12.5	11.0
	Overall	2,215	2,714	47	2.1	1.7
Summer 2022	A	*closed*	*closed*	*closed*	*closed*	*closed*
	B	896	514	13	1.5	2.5
	C	66	112	2	3.0	1.8
	D	30	15	3	10.0	20.0
	E	189	147	10	5.3	6.8
	Overall	1,181	788	28	2.4	3.6
Annual		7,035	7,130	190	2.7	2.7

Table 7. Number of "No Contact" trips (n=1,284) by season and management unit completed by Marine Patrol and observers during the 2022 ITP Year. No Contact refers to unsuccessful attempts to find and observe anchored gill-net effort.

Season	Management Unit	Marine Patrol No Contact Trips	Observer No Contact Trips	Total No Contact Trips
Fall 2021	A	38	10	48
	B	6	11	17
	C	27	3	30
	D	6	4	10
	E	123	0	123
	Overall	200	28	228
Winter 2021-2022	A	73	0	73
	B	32	17	49
	C	35	16	51
	D	26	9	35
	E	132	0	132
	Overall	298	42	340
Spring 2022	A	45	4	49
	B	28	19	47
	C	65	13	78
	D	24	12	36
	E	174	1	175
	Overall	336	49	385
Summer 2022	A	*closed*	*closed*	*closed*
	B	44	23	67
	C	63	11	74
	D	18	7	25
	E	165	0	165
	Overall	290	41	331
Annual		1,124	160	1,284

Table 8. Number of drift and runaround gill-net observations by season and management unit completed by Marine Patrol and observers during the 2022 ITP Year.

Season	Management Unit	Observed Drift Gill-net Trips	Observed Runaround Gill-net Trips	Total Observed Trips
Fall 2021	A	3	0	3
	B	0	1	1
	C	0	5	5
	D	0	2	2
	E	0	1	1
	Overall	3	9	12
Winter 2021-2022	A	0	0	0
	B	0	2	2
	C	0	6	6
	D	0	0	0
	E	0	0	0
	Overall	0	8	8
Spring 2022	A	0	1	1
	B	0	1	1
	C	0	8	8
	D	0	2	2
	E	0	0	0
	Overall	0	12	12
Summer 2022	A	0	0	0
	B	0	5	5
	C	0	13	13
	D	0	1	1
	E	0	1	1
	Overall	0	20	20
Annual		3	49	52

Table 9. Summary of observed Atlantic Sturgeon (AS: n=30) and unidentified sturgeon (US: n=6) interactions in large-mesh (≥5 inches stretched mesh) and small-mesh (<5 inches stretched mesh) gill nets during the 2022 ITP Year. PIT=Passive Integrated Transponders. n/r=not recorded. TL=Total Length. FL=Fork Length.

Date	Season	Management Unit	Species	Mesh-size Category	Latitude (N)	Longitude (W)	Disposition	PIT Tag Number	TL (mm)	FL (mm)
9/29/2021	Fall	A	AS	Large	36.18149	76.06529	Alive	982000362189138	510	440
9/29/2021	Fall	A	AS	Large	36.17755	76.06398	Dead		n/r	n/r
9/30/2021	Fall	A	AS	Large	35.94724	75.93577	Dead		970	870
10/13/2021	Fall	C	AS	Large	35.47988	76.59851	Alive	982000410635526	732	650
10/19/2021	Fall	B	US	Large	35.43401	76.39879	Alive		n/r	n/r
11/28/2021	Fall	B	AS	Small	35.61118	75.52951	Alive		n/r	n/r
11/28/2021	Fall	B	AS	Small	35.61118	75.52951	Alive		n/r	n/r
2/16/2022	Winter	C	AS	Large	34.92714	76.77534	Alive	982000407680774	609	520
2/16/2022	Winter	C	AS	Large	34.92714	76.77534	Alive		685	584
2/16/2022	Winter	C	AS	Large	34.92714	76.77534	Alive	982000410599266	1,003	850
2/16/2022	Winter	C	AS	Large	34.92714	76.77493	Alive		622	558
2/16/2022	Winter	C	AS	Large	34.93110	76.74526	Alive	982000410637991	1,016	939
2/16/2022	Winter	C	AS	Large	34.93240	76.74508	Alive	982000410641556	1,117	965
2/17/2022	Winter	C	AS	Small	34.99394	76.64333	Alive	982000410638088	977	889
3/03/2022	Spring	A	AS	Large	36.03018	76.45561	Alive	982000362189138	863	n/r
3/03/2022	Spring	A	US	Large	35.91311	75.75770	Alive		n/r	n/r
3/10/2022	Spring	A	AS	Large	36.05578	76.36754	Alive		593	509
3/11/2022	Spring	A	US[a]	Large	35.89257	75.74147	Alive	982000410635526	n/r	n/r
3/11/2022	Spring	A	US[a]	Large	35.89257	75.74147	Alive		n/r	n/r
3/11/2022	Spring	A	US	Large	35.89606	75.76408	Alive		n/r	n/r
3/14/2022	Spring	A	AS[b]	Large	35.89153	75.73839	Dead		859	748

Table 9 continued

Date	Season	Management Unit	Species	Mesh-Size Category	Latitude (N)	Longitude (W)	Disposition	PIT Tag Number	TL (mm)	FL (mm)
3/14/2022	Spring	A	AS[b]	Large	35.89153	75.73839	Dead		716	609
3/14/2022	Spring	A	AS[b]	Large	35.89152	75.73830	Alive		990	870
3/14/2022	Spring	A	US[b]	Large	35.89013	75.73828	Dead		n/r	n/r
3/17/2022	Spring	C	AS[c]	Small	34.99171	76.61793	Alive		n/r	n/r
3/17/2022	Spring	C	AS[c]	Small	34.99171	76.61793	Alive		n/r	n/r
4/12/2022	Spring	B	AS	Small	35.58775	75.48206	Alive		605	510
4/13/2022	Spring	B	AS[d]	Small	35.61091	75.48332	Alive		n/r	n/r
4/13/2022	Spring	B	AS[d]	Small	35.61091	75.48332	Alive		n/r	n/r
4/13/2022	Spring	B	AS[d]	Small	35.60804	75.48349	Alive		n/r	n/r
4/26/2022	Spring	A	AS	Small	36.10834	76.30393	Dead		558	508
4/27/2022	Spring	B	AS	Small	35.60403	75.48025	Alive	982000362191909	635	561
4/28/2022	Spring	B	AS[e]	Small	35.60764	75.48148	Alive	982000410606734	687	610
4/28/2022	Spring	B	AS[e]	Small	35.60409	75.48047	Alive	982000362056178	683	650
4/28/2022	Spring	B	AS[e]	Small	35.60528	75.48118	Alive	982000362055998	685	615
5/06/2022	Spring	B	AS	Small	35.55478	75.52171	Dead		712	641

[a] caught on the same trip
[b] caught on the same trip
[c] caught on the same trip
[d] caught on the same trip
[e] caught on the same trip

Table 10. Summary of Atlantic Sturgeon (AS: n=2) interactions in estuarine anchored gill nets reported by fishers during the 2022 ITP Year. small-mesh=<5 inches stretched mesh. n/r=not recorded. TL=Total Length. FL=Fork Length. An asterisk (*) represents estimated location by the fisher.

Date	Season	Management Unit	Species	Mesh-Size Category	Latitude (N)	Longitude (W)	Disposition	TL (mm)	FL (mm)
3/15/2022	Spring	C	AS	Small	n/r	n/r	Alive	n/r	n/r
4/25/2022	Spring	A	AS	Small	36.12840*	75.74747*	Alive	n/r	n/r

Table 11. Citations (n=46) written by Marine Patrol officers for estuarine anchored gill nets by violation date and code during the Incidental Take Permit Year 2022.

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

Table 11 continued

Season	Date	Code	Description
Fall	10/12/2021	NETG39	Use large mesh gill nets more than 15 meshes in height and w/out lead core or leaded bottom-line Proclamation M-8-2010
Fall	10/14/2021	NETG22	Improperly set gill net
Fall	10/19/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	10/19/2021	EGNP10	Set more than the legal length of gill net
Fall	10/19/2021	NETG22	Improperly set gill net
Fall	10/19/2021	NETG46	Set or retrieve large mesh gill nets later than one hour after sunrise on Tuesday through Friday Proclamation M-8-2010
Fall	11/9/2021	NETG01	Leave gill net in coastal waters unattended
Fall	11/9/2021	NETG02	Using gill net without buoys or identification
Fall	11/10/2021	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit
Fall	11/10/2021	NETG01	Leave gill net in coastal waters unattended
Fall	11/10/2021	NETG02	Using gill net without buoys or identification
Fall	11/10/2021	NETG30	Leave RCGL gill net unattended 3O.09302
Fall	11/30/2021	NETG29	RCGL gear without proper buoys 3J.0103(c)
Winter	1/20/2022	NETG22	Improperly set gill net
Winter	2/1/2022	NETG09	Gill net set too close to bridge
Winter	2/3/2022	EGNP10	Set more than the legal length of gill net
Winter	2/3/2022	NETG03	Using gill net with improper buoys or identification
Spring	3/1/2022	NETG55	Violate the provisions of Proclamation M-30-2011 to wit set gill nets before one hour before sunset Proclamation M-30-11
Spring	3/1/2022	NETG03	Using gill net with improper buoys or identification
Spring	3/22/2022	NETG02	Using gill net without buoys or identification
Spring	4/6/2022	NETG22	Improperly set gill net
Spring	4/6/2022	NETG01	Leave gill net in coastal waters unattended
Spring	5/22/2022	NETG04	Leave gill net in waters when could not be legally fished
Summer	6/1/2022	NETG12	Net in middle third of marked navigational channel
Summer	6/14/2022	EGNP01	Fishing gill net without a valid Estuarine Gill Net Permit

Table 12. Notice of Violations (n=12) written by Marine Patrol officers for Estuarine Gill Net Permit (EGNP) holders using estuarine anchored gill nets by violation date and code during the Incidental Take Permit Year 2022.

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

7 FIGURES

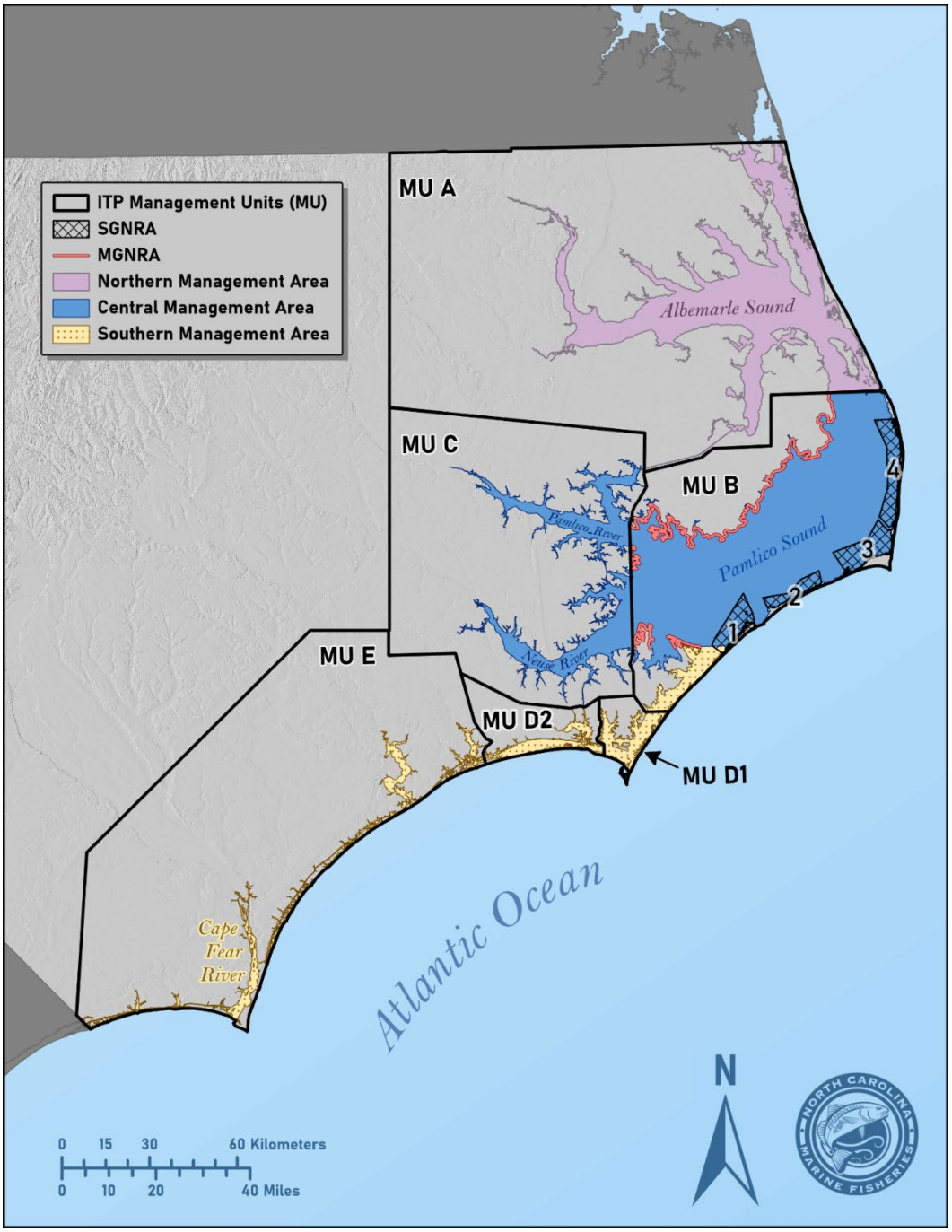

Figure 1. Management Units (A, B, C, D [D1 and D2], and E) as outlined in the Incidental Take Permit (ITP) Conservation Plan and used by the Observer Program during the 2022 ITP Year. In the Pamlico Sound portion of B, gill nets with a mesh size of ≥4 inches were confined to Shallow Water Gill-Net Restricted Areas (SGNRA) 1–4 and the Mainland Gill-net Restricted Area (200 yards from shore) from 1 September through December 15. The three Southern Flounder Management Areas are differentiated by color: northern (pink), central (blue), and southern (yellow).

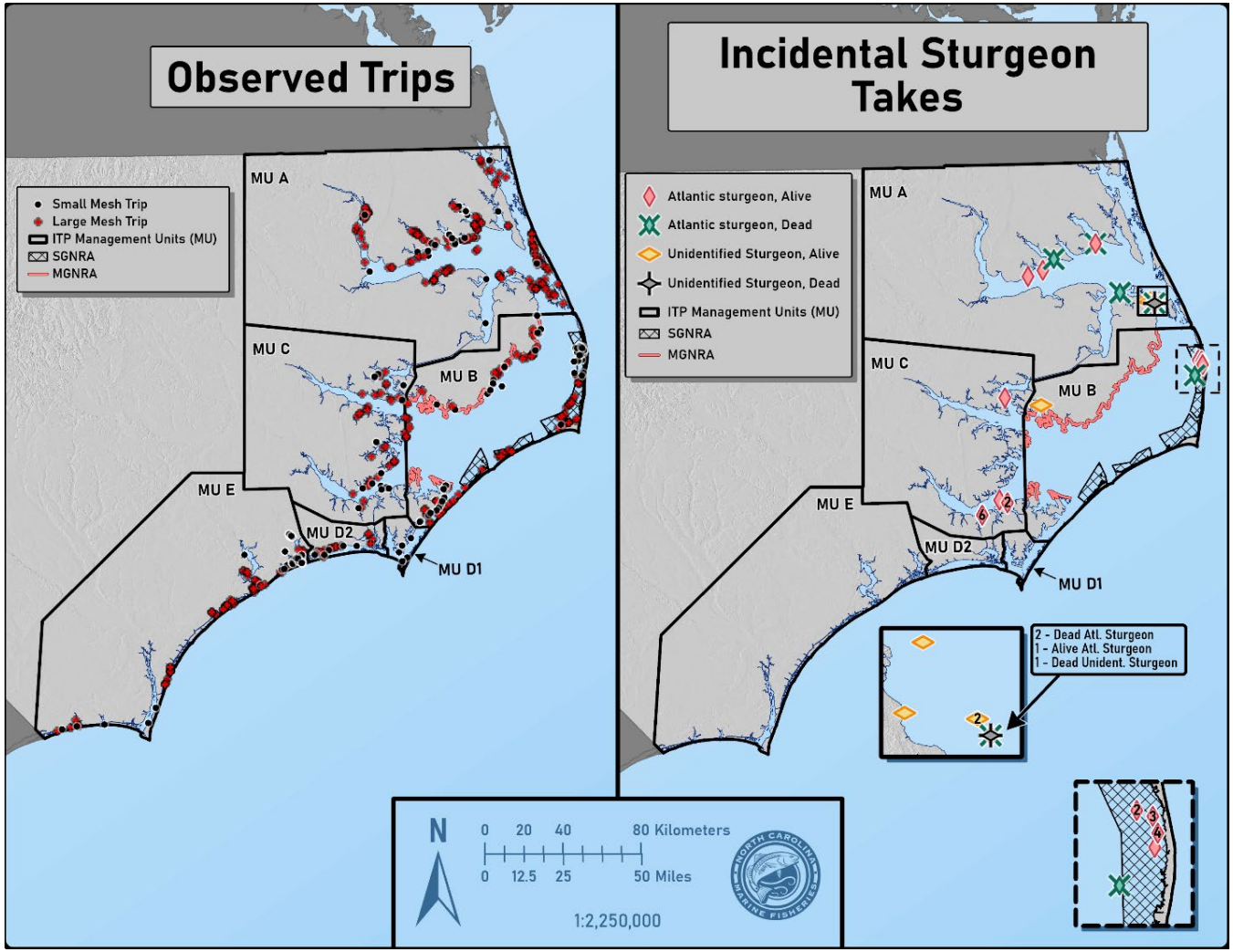

Figure 2. For the entire 2022 ITP Year, observed gill-net trips (left) by mesh-size category (366 large-mesh [≥5 inches stretched mesh]; 196 small-mesh [<5 inches stretched mesh]) and sturgeon interactions (right) by species and disposition (Atlantic Sturgeon: 24 alive, 6 dead; unidentified sturgeon: 5 alive, 1 dead) across management units.

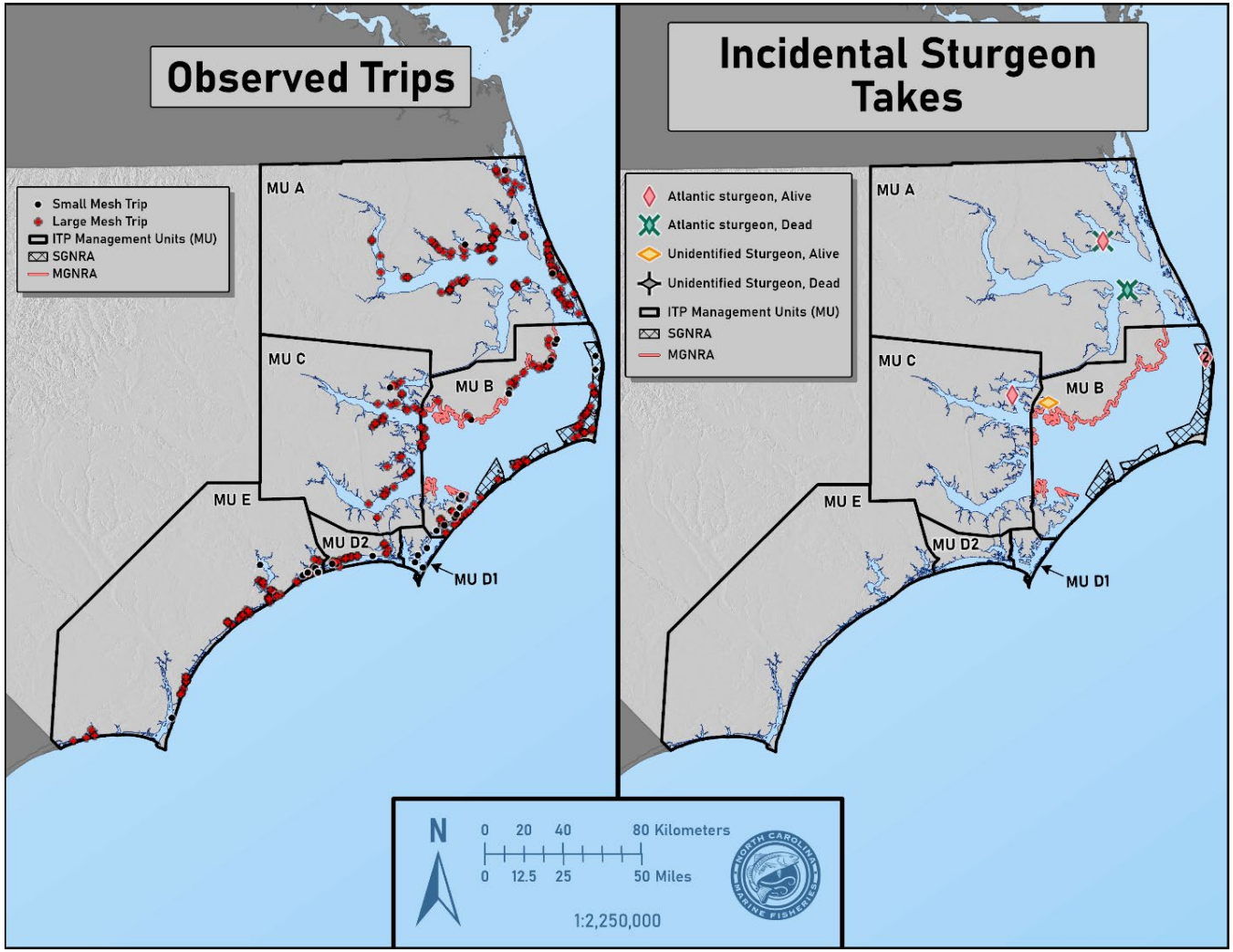

Figure 3. For fall 2021, observed gill-net trips (left) by mesh-size category (311 large-mesh [≥5 inches stretched mesh]; 62 small-mesh [<5 inches stretched mesh]) and sturgeon interactions (right) by species and disposition (Atlantic Sturgeon: 4 alive, 2 dead; unidentified sturgeon: 1 alive, 0 dead) across management units.

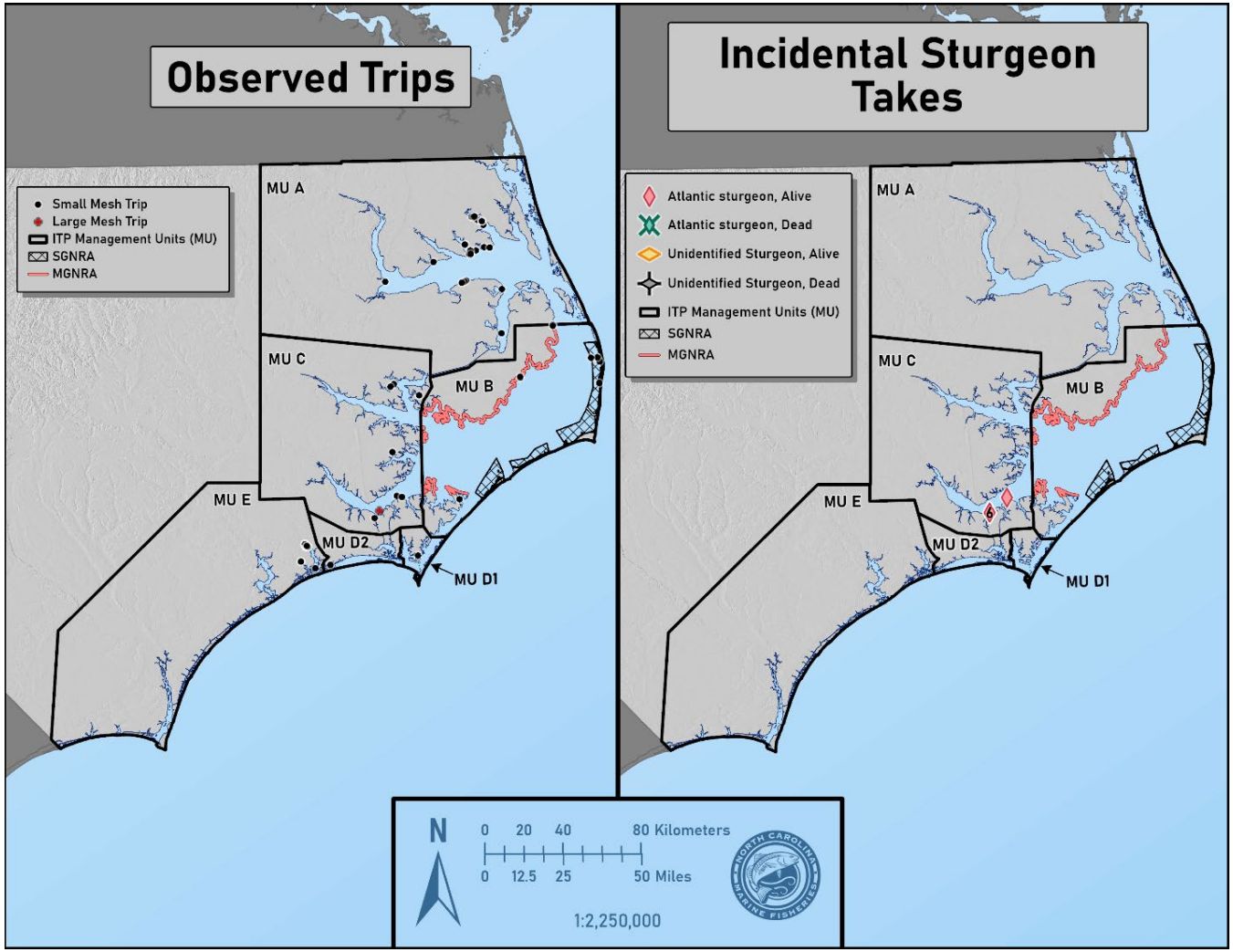

Figure 4. For winter 2021–2022, observed gill-net trips (left) by mesh-size category (1 large-mesh [≥5 inches stretched mesh]; 59 small-mesh [<5 inches stretched mesh]) and Atlantic Sturgeon interactions (right) by disposition (7 alive, 0 dead) across management units.

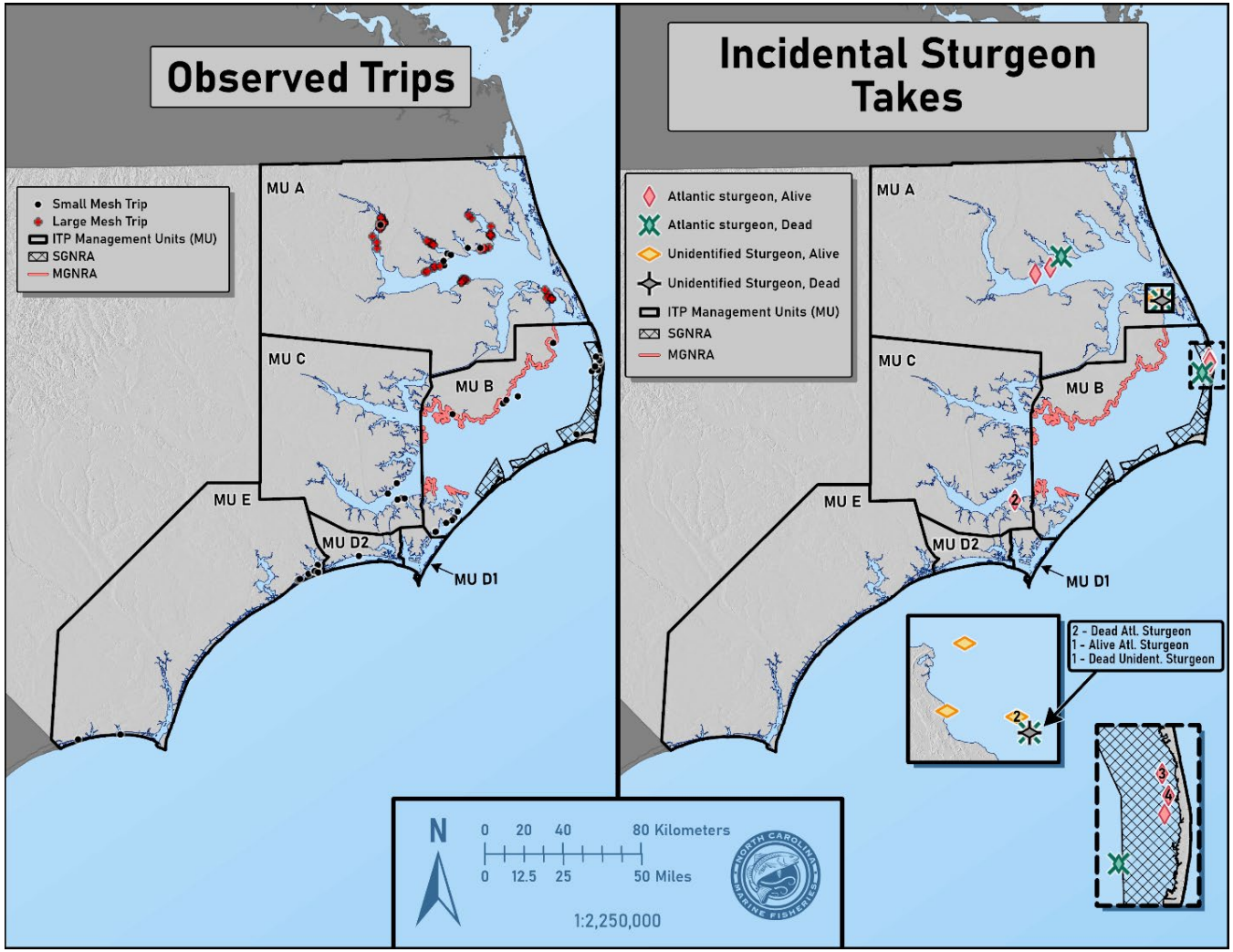

Figure 5. For spring 2022, observed gill-net trips (left) by mesh size-category (54 large-mesh [≥5 inches stretched mesh]; 47 small-mesh [<5 inches stretched mesh]) and sturgeon interactions (right) by species and disposition (Atlantic Sturgeon: 24 alive, 6 dead; unidentified sturgeon: 2 alive, 0 dead) across management units.

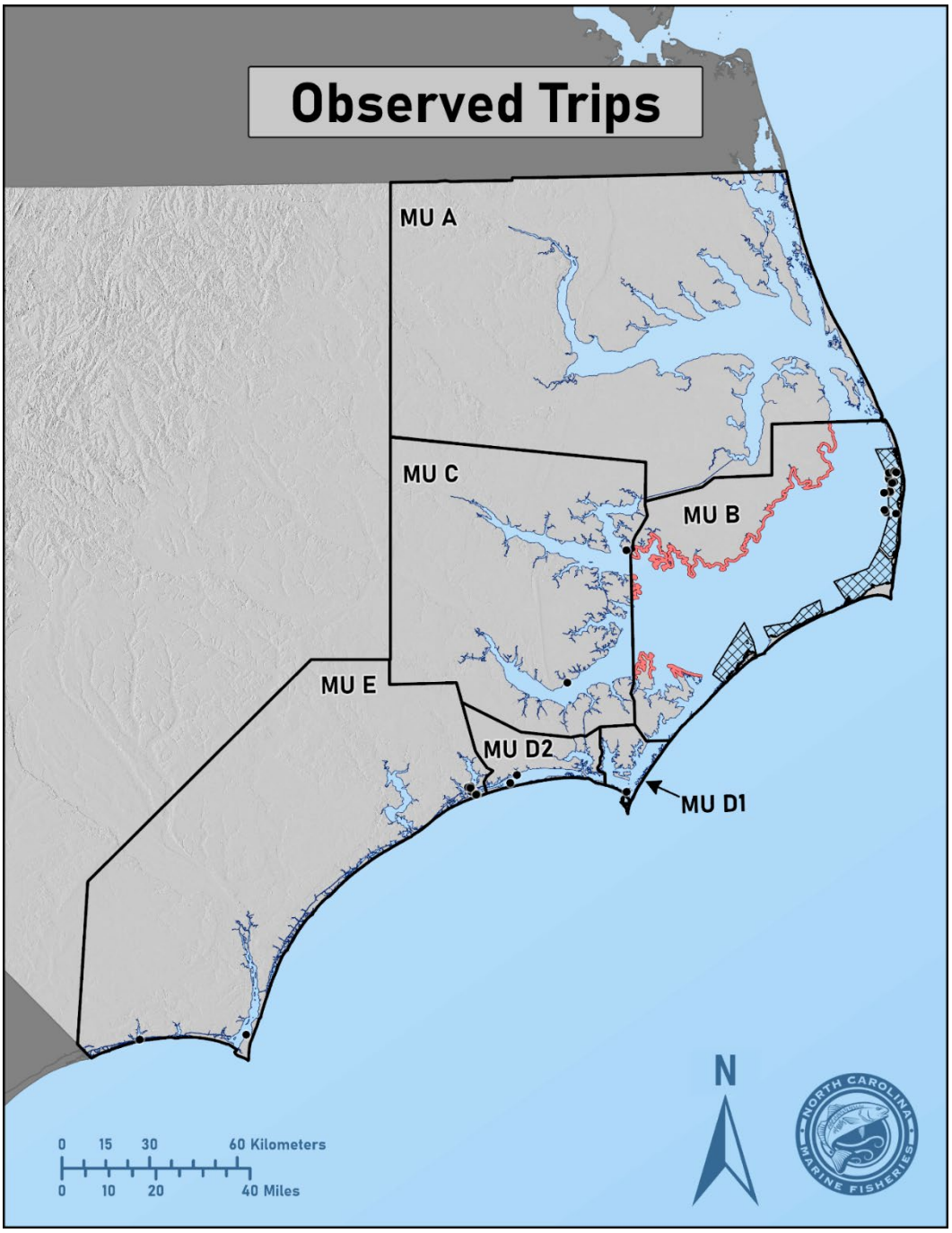

Figure 6. For summer 2022, observed gill-net trips by mesh-size category (0 large-mesh [≥5 inches stretched mesh]; 28 small-mesh [<5 inches stretched mesh]). No sturgeon interactions were observed. Large-mesh gill nets were prohibited state-wide during summer.

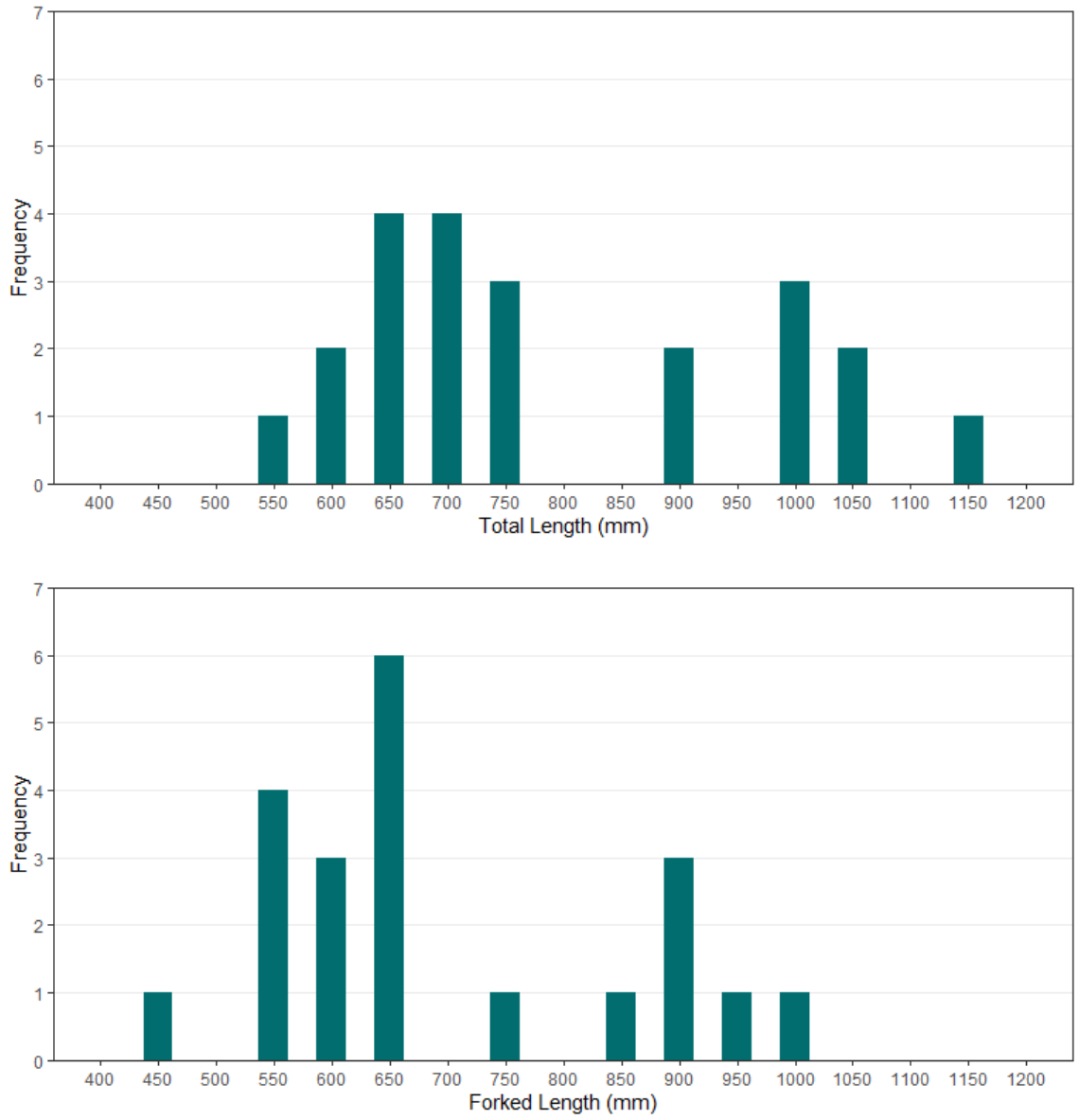

Figure 7. For observed and measured incidental takes of Atlantic Sturgeon during the 2022 ITP Year, binned length-frequency of (top) total length (TL, mm; n=22 of 30) and (bottom) fork length (FL, mm; n=21 of 30).

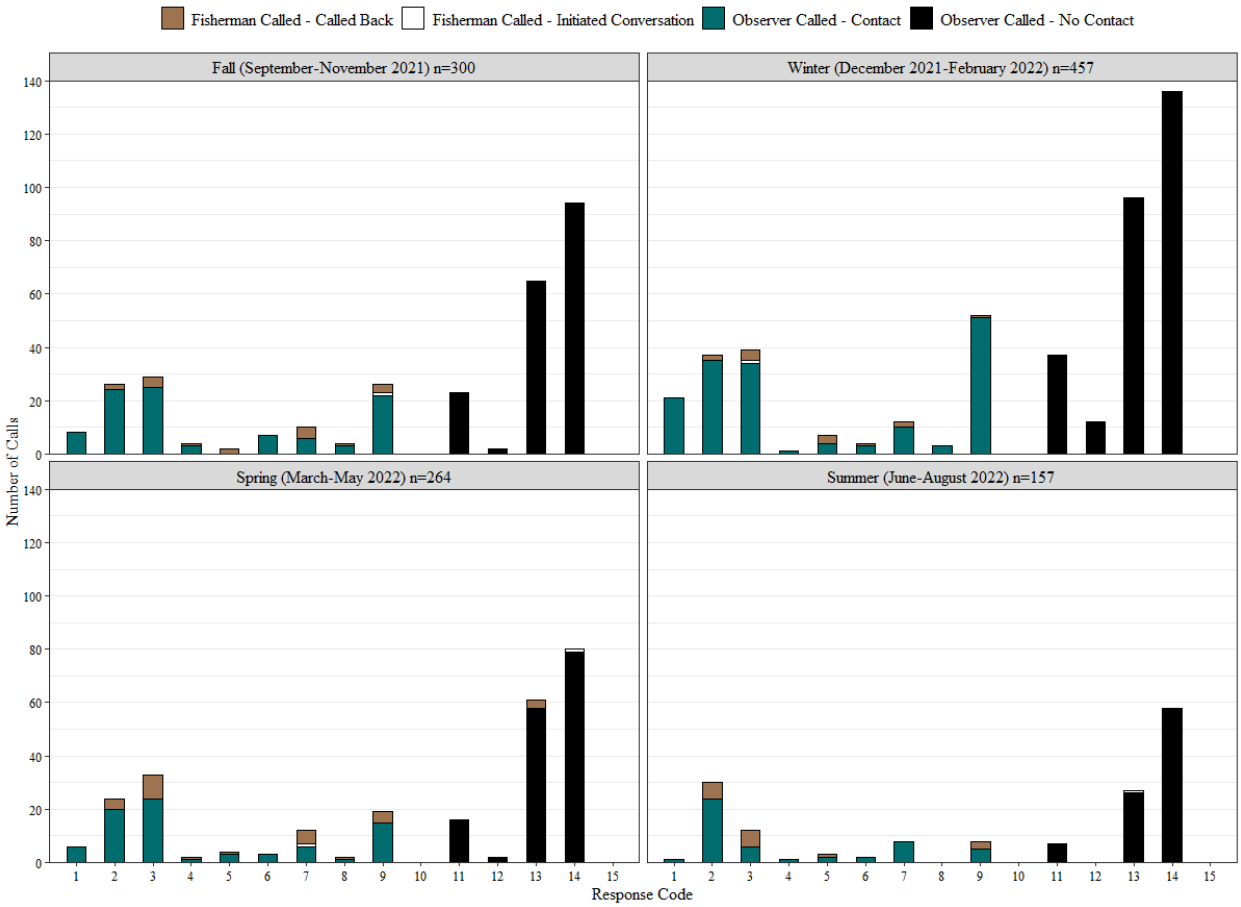

Figure 8. For the 2022 ITP Year, contacts attempted (n=1,178) by observers to schedule trips categorized by contact type (0-15) and presented as a percentage of the total for fall, winter, spring, and summer. Contact type categories include the following: 1) Left message with someone else; 2) Not fishing general; 3) Fishing other gear; 4) Not fishing because of weather; 5) Not fishing because of boat issues; 6) Not fishing because of medical issues; 7) Booked trip; 8) Hung up, got angry, trip refused; 9) Call back later time/date; 10) Saw in person; 11) Disconnected; 12) Wrong number; 13) No answer; 14) No answer, left voicemail; 15) Not fishing because of natural disaster (e.g., hurricane). Contact types are shown as those when the observer talked to a fisher (teal bars), when the observer did not (black bars), when the fisher initiated a conversation (white bars), and when a fisher returned an observer's call (bronze bars).

8 APPENDICES

Appendix A. Withdrawal of Observer Waiver

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

April 5, 2022

Kathy Rawls
Director
North Carolina Division of Marine Fisheries
3441 Arendell Street
P.O. Box 769
Morehead City, NC 28557

Dear Ms. Rawls,

As part of the response to the COVID-19 pandemic, NOAA Fisheries temporarily waived requirements for federal fisheries in the Greater Atlantic Region to carry observers due to federal and state health guidance at that time. Consistent with that federal determination, on March 24, 2020, we temporarily waived the monitoring requirements for the North Carolina Division of Marine Fisheries' (NCDMF) Permits No. 16230 and No. 18102 issued under Section 10 (a)(1)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in internal North Carolina waters.

That approach was appropriate under the circumstances. However, in the United States and in North Carolina, the situation has changed and improved. COVID-19 vaccines are widely available and infection rates are declining. In response to the improved conditions, NMFS is withdrawing NCDMF's observer coverage waiver. This letter serves as NCDMF's 30-day notice to reinstate the monitoring requirements pursuant to these incidental take permits.

Please feel free to contact Wendy Piniak (wendy.piniak@noaa.gov) or Celeste Stout (celeste.stout@noaa.gov) with any questions.

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

Sincerely,

Kimberly Damon-Randall
Director,
Office of Protected Resources

Appendix A. continued

I acknowledge receipt of the correspondence above with regard to permit conditions and compliance under the Section 10 (a)(l)(B) of the Endangered Species Act to incidentally take threatened and endangered sea turtles and Atlantic sturgeon in gillnet fisheries operating in inshore waters of North Carolina.

Kathy B. Rawls
Director
N.C. Division of Marine Fisheries

4/11/2022
Date

Appendix B. NCDMF News release

Roy Cooper
Governor

Elizabeth S. Biser
Secretary DEQ

Kathy B. Rawls
Director

Release: Immediate	Contact: Patricia Smith
Date: April 20, 2021	Phone: 252-726-7021

Division of Marine Fisheries to resume onboard observations of estuarine gill net fisheries May 1

MOREHEAD CITY – The N.C. Division of Marine Fisheries will resume onboard observations of estuarine gill net fisheries beginning May 1. Onboard observations will be the primary method with limited use of alternative platform observations primarily conducted by Marine Patrol officers.

Division staff have been conducting alternate platform observations of estuarine gill net fisheries using division-owned boats since June 2020 in response to potential risks associated with COVID-19. The decision to resume onboard observations as the primary observation method is based on improved COVID-19 indicators. Under Executive Order 224 issued by Governor Roy Cooper for all cabinet agency employees, division staff are either fully vaccinated against COVID-19 or provide proof of weekly negative COVID-19 test results

Fishermen are reminded that an Estuarine Gill Net Permit (EGNP) is required to use anchored gill nets (large-mesh or small-mesh) in estuarine waters (commercially or recreationally), and one of the conditions of the EGNP is to allow division staff to observe gill net operations. Another condition of the EGNP is that fishermen must not avoid or mislead observers, which includes but is not limited to failing to return phone calls, failing to notify the division of a phone number change within 14 calendar days of such change, and providing incorrect information on fishing activity. Refusing to abide by permit conditions will result in suspension or revocation of the permit.

The EGNP is a critical step in meeting the requirements of the division's sea turtle and Atlantic sturgeon Incidental Take Permits issued by NOAA Fisheries under Section 10 of the Endangered Species Act.

Fishermen convicted of using anchored gill nets in internal coastal waters without holding an EGNP could be subject to a Class A1 misdemeanor.

The EGNP is available for free from the Division of Marine Fisheries. Fishermen can download an application here. Completed applications may be emailed to License@ncdenr.gov or mailed to the Division of Marine Fishermen, License Office, P.O. Box 769, Morehead City 28557.

Fishermen also may submit completed applications in drop boxes provided at the following division offices:

DMF Headquarters
3441 Arendell St.
Morehead City
Phone: 252-726-7021 or 800-682-2632

Manteo Field Office
1021 Driftwood Dr.
Manteo
Phone 252-473-5734 or 800-405-7774

Website: http://www.ncdenr.gov
Facebook: http://www.facebook.com/ncdeq
Twitter: http://twitter.com/NCDEQ
RSS Feed: http://portal.ncdenr.org/web/opa/news-releases-rss
1601 Mail Service Center, Raleigh, NC 27699-1601

Appendix B. continued

Pamlico District Office
943 Washington Square Mall, Highway 17
Washington
Phone: 252-946-6481 or 800-338-7804

Southern District Office
127 Cardinal Drive Extension
Wilmington
Phone: 910-796-7215 or 800-248-4536

For more information about the Observer Program and observer coverage, contact the Protected Resources Program supervisor Barbie Byrd (phone: 252-808-8088; email: Barbie.Byrd@ncdenr.gov) or the Coastal Programs Manager, Casey Knight (phone: 252-808-8094; email: Casey.Knight@ncdenr.gov).

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Website: http://www.ncdenr.gov
Facebook: http://www.facebook.com/ncdeq
Twitter: http://twitter.com/NCDEQ
RSS Feed: http://portal.ncdenr.org/web/opa/news-releases-rss
1601 Mail Service Center, Raleigh, NC 27699-1601