



The Northeast Cooperative Research Program Helps Provide Data for Better Management

This article is continued from the last edition of the NOAA Navigator and continues to describe our cooperative research projects that improve the data available for making fishery management decisions.

Surveying Coastal Waters

The Northeast Area Monitoring and Assessment Program (NEAMAP) includes three near-shore scientific trawl surveys designed to contribute data to the management of Atlantic coastal fish stocks. Both the Mid-Atlantic RSA and NCRP has aided in developing and establishing these surveys. The NEAMAP Mid-Atlantic/Southern New England Near Shore Trawl Survey, and the Maine-New Hampshire Inshore Trawl Survey are conducted using commercial fishing vessels, and the Massachusetts Trawl Survey uses a small research vessel operated by NOAA Fisheries' Northeast Fisheries Science Center. Each survey samples a different subregion of coastal Northeastern waters. Data collected by NEAMAP, along with that collected by the federal fishery resource surveys, make up one of the world's largest and longest running marine biological and oceanographic data sets.

The NEAMAP survey's contributions to fishery resource management and assessment include data on predator diet for Atlantic menhaden, abundance data for the Endangered Species Act (ESA) listing of Atlantic Sturgeon, and data on abundance, distribution, length, sex maturity, and age for species including: weakfish, river herring, American lobster, Atlantic croaker, Atlantic sea scallop, black sea bass, bluefish, butterfish, river herring, scup, skates (clearnose, little, and winter), spiny dogfish, spot, summer flounder, winter flounder, and Loligo squid. Results from the NEAMAP survey have also influenced state regulations for scup in New York, and for summer flounder in New York and Virginia. The Rhode Island Ocean Special Area Management Plan has also requested NEAMAP data for use in project collaborations.

Additional NCRP funding has specifically helped support the Maine/New Hampshire Inshore Trawl Survey portion of NEAMAP. Prior to 2000, there was little fishery-independent data collected for nearly 80% of the Gulf of Maine's inshore waters, and this survey was established to fill that gap and provide for long-term monitoring of inshore stocks. With 14 seasons completed, this survey now provides year-to-year indices of relative abundance and distribution patterns for more than 100 species including lobster, cod, monkfish, winter flounder, herring, whiting, and shrimp. Information collected includes basic biological measurements of animals captured, stomach contents, and samples used for determining age. Environmental data such as temperature and salinity that can affect fish distribution are also collected. Information from the survey is used in the assessment and management

of several state and federal fisheries, and has been used in other studies that provided new insight into fish populations in the Gulf of Maine.

Environmental Modeling of Fish Habitat

The Northeast Cooperative Research Program has also worked with fishermen to gather fine-scale data on catch, discard, and ocean bottom temperatures. This information can be used to look at the effect of water temperature on the distribution of certain species, and to develop and improve oceanographic models that can help predict where and when certain species will occur. This type of work on the temperature preferences of Atlantic butterfish and the effects on their migration and use of habitats was used in the 2014 butterfish stock assessment.

In the butterfish project, fishing industry participation was essential to identify dynamic thermal habitats for butterfish that were not always well-sampled by fisheries independent surveys – an issue that can be very important in a changing climate. Fishermen and scientists developed and evaluated a habitat model that was ultimately used to better understand the amount of butterfish habitat sampled during federal resource surveys.

Previously subject to a great amount of uncertainty, the most recent stock assessment sought to reduce some of this uncertainty by using the new modeling approach that incorporated an estimation of catchability based on butterfish temperature preferences. The scientists involved in this collaborative effort came away with a heightened sense of respect for fishermen's knowledge of the ocean environment and fish behavior, while participating fishermen were encouraged by scientists' willingness to drop long-held assumptions and try something new. By working together, they developed an approach for fine-tuning estimates of stock abundance, not only for butterfish but also for other species where temperature is a key habitat factor. Fine-scale information on stock abundance and fishing activity will likely play a prominent role in stock assessments in the future, creating a big demand for this kind of information.

Ongoing NCRP work with Rutgers University and the University of Massachusetts' School for Marine Science and Technology is seeking to apply similar habitat modeling to stock assessments of other species. Habitat models were built for bluefish and scup, and estimates of the amount of habitat sampled by federal resource surveys are being provided for use in the upcoming benchmark assessments for these stocks, scheduled for this June.

Finally, the NCRP Study Fleet has collected more than 3 million bottom temperature readings. These are being used to test and improve oceanographic models that can aid in understanding how environmental factors are influencing the distribution of many fish species.

Future Directions

The NCRP is now working on strategic planning efforts that will help guide the program over the next few years. It will continue to incorporate fishermen's ideas and expertise into projects that fill important information needs, and will continue to work with the Councils to identify research areas that can be addressed through collaborative research. Through these efforts, fishermen and scientists can blend their unique perspectives to better understand the ocean ecosystem and the dynamics that affect important fish stocks. The NCRP will continue to leverage the special skills of fishermen and scientists to help answer important fisheries questions that will better inform management decisions. For more information, please visit our website at <http://www.nefsc.noaa.gov/coopresearch/>.

New Port Agent in Portland, Maine

NOAA Fisheries is pleased to announce a new Port Agent in our Portland, ME office. Pam Thames comes to the Portland office with 19 years of fisheries experience. Pam started with Fisheries in the data center, working with fishing vessel trip reports. You may have spoken to Pam after she moved on to the Permit office, where she worked closely guiding fishermen through the permitting process. Pam's knowledge of vessel permits, dealer permits, operator permits, vessel replacements, baseline information, new limited access permit programs and letters of authorization has earned her appreciation from the fishing industry. We believe her experience, along with her understanding of the structure of the Greater Atlantic Regional Fisheries Office, will be beneficial in her new role. Look for Pam along the Maine coast, as she hits the road to assist and engage with Maine commercial and recreational fishermen, dealers and processors.

Pam can be reached in her office in the U.S. Custom House at 312 Fore Street, Portland, ME 04101, by e-mail at pam.thames@noaa.gov or by phone at (207) 780-3322.



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Olivia Rugo • Managing Editor • 978-675-2167 • olivia.rugo@noaa.gov

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Update on Groundfish Resource Disaster Assistance

Directors from the six states affected by the groundfish fisheries resource disaster worked with NOAA Fisheries to develop a consensus plan that divides \$32.8 million available for economic assistance into three portions. As announced on May 28, 2014, this plan allocates one-third of the funds for states to provide direct assistance to New England groundfish commercial fishermen; one-third of the funds to the states to be used at their discretion to support the needs of their fishing communities, such as to assist groundfish vessel crew members, recreational fishermen, and shoreside support businesses; and reserve one-third for the development of a federally funded buyout or industry-funded buyback.

Recently, several states were awarded grants to support their individual plans to disperse the second portion of disaster funds, commonly known as Bin 2, to their fishing communities. A summary of these state plans is provided below, along with a point of contact for each state.

The Massachusetts Division of Marine Fisheries will administer \$8,255,031 as direct financial aid to impacted federal and state groundfish permit holders in the commercial and for-hire groundfish fisheries, and active crew on the associated commercial and for-hire vessels. In addition, Massachusetts-based sectors may qualify for a subsidy to cover sector administration fees. Other impacted shoreside businesses such as net-makers and primary buyers may also be eligible for direct assistance. Contact Point: Melanie Griffin (617) 626-1528.

The Maine Department of Marine Resources will administer \$640,005 as rebates for landings and/or handling fees paid by Maine groundfish vessels to the dealer at the first point of sale. The funds will be distributed to the Portland Fish Exchange and other eligible federal dealers to be made available for the state's groundfish sectors and common-pool vessels to draw down as their vessels land. Contact Point: Meredith Mendelson (207) 624-6553.

The New Hampshire Fish & Game Department will administer \$1,136,400 as direct financial aid to impacted federal and state groundfish permit holders in the commercial and for-hire groundfish industry in the state. Contact Point: Cheri Patterson (603) 868-1095.

The Rhode Island Department of Environmental Management proposes to administer \$545,367 as direct financial aid to impacted captains and crew in the commercial and for-hire groundfish fisheries. In addition, Rhode Island-based sectors may qualify for a subsidy to cover sector administration fees. Contact Point: Robert Ballou (401) 222-4700, ext. 4420.

The states of Connecticut and New York continue to work with NOAA Fisheries to develop and complete grant applications to benefit affected fishers and their families.

Additionally, with support from the state marine fisheries directors, NOAA Fisheries recently made a decision to no longer withhold the final portion of

disaster funds for the development of a vessel buyout or buyback program given the lack of progress and consensus on this issue. Rather, the bulk of these remaining funds will be distributed to each state to assist their fishing communities. However, \$200,000 will be provided to the Commonwealth of Massachusetts to continue the development of an industry funded buyback program.

For more information, contact Allison Ferreira, Regional Office, at (978) 281-9103 or e-mail her at <Allison.Ferreira@noaa.gov>.

New Recreational Groundfish Measures for Fishing Year 2015

On May 1 NOAA Fisheries implemented new recreational measures for cod and haddock in the Gulf of Maine. Due to the poor condition of the Gulf of Maine cod stock, the cod quota for 2015 was cut 75 % from 2014. However, the Gulf of Maine haddock stock is doing well, enabling us to more than double the quota for 2015. To balance the very different conditions of these two stocks, we needed to establish management measures that would ensure the recreational catch of haddock and bycatch of cod would not exceed the recreational annual catch limits for these stocks.

New recreational measures:

- The minimum size for Gulf of Maine haddock was reduced from 21 inches to 17 inches
- The bag limit remains 3 fish per person
- Possession remains prohibited in September, October, March and April.
- All recreational vessels may fish in the cod protection areas, but charter and party vessels must first obtain a letter of authorization.
- All recreational vessels are prohibited from possessing Gulf of Maine cod.

Why did we reduce the minimum size for Gulf of Maine haddock? There is currently an abundance of smaller haddock in the Gulf of Maine. By allowing recreational anglers the ability to retain smaller haddock, we expect anglers to catch their bag limit more quickly and to then move away from areas that have a high catch of cod and haddock. This measure is intended to reduce recreational discards of both haddock and cod.

Why didn't we increase the bag limit for haddock if the stock is doing so well? To determine the

recreational regulations we use a bio-economic model to estimate cod and haddock mortality under various minimum sizes, bag limits, and open seasons. For 2015, the model was updated to include a new lower estimate of recreational cod discard mortality (15% compared to 30%) from a recently conducted study. Using this model, our analysis predicted that increasing the bag limit to 4 haddock was unlikely (less than a 50% probability) to keep haddock catch from exceeding the recreational catch limit. The model also incorporated estimates of unintentional non-compliance from the Marine Recreational Information Program survey.

Are there additional steps either NOAA or the fishing industry can take to reduce discard mortality of cod and haddock? We are making concerted efforts to inform recreational fishermen about the regulations and safe fish handling practices by attending recreational fishing shows and club meetings throughout New England. We expect these efforts will improve compliance and help to further reduce discard mortality while new research in this area is being conducted.

If you have questions about the new recreational measures, contact Mark Grant at mark.grant@noaa.gov. More information about recreational measures is also available on our website: <http://www.greateratlantic.fisheries.noaa.gov/sustainable/recfishing/regs/index.html>. From this page, you can sign up for our email list and text alerts.

Our headquarters recently released several documents describing the national Recreational Fisheries Initiative. These and other information can be found on the NOAA Fisheries Saltwater Recreational Fishing page at: <http://www.nmfs.noaa.gov/sfa/management/recreational/index.html>.

New Measures for the Groundfish Fishery

NOAA Fisheries recently approved Framework Adjustment 53 to the Northeast Multispecies (Groundfish) Fishery Management Plan and implemented the new measures on May 1, 2015. We set annual catch limits for the 2015 fishing year, including large reductions for Gulf of Maine cod, Gulf of Maine winter flounder, and Georges Bank winter flounder due to stock conditions. We also modified the Gulf of Maine rolling closures for commercial groundfish vessels to protect cod while providing more fishing opportunities on healthy stocks like haddock.

The recreational fishery is not subject to the Gulf of Maine cod closures, and may continue to fish in these areas for other stocks. However, possession of Gulf of Maine cod is prohibited for the recreational fishery to help reduce the incentive to target the stock. Charter and party vessels must obtain a Letter of Authorization from the Greater Atlantic Regional Fisheries Office in order to fish in the Gulf of Maine cod closures.

Additionally, we implemented several measures to help ensure overages of the annual catch limits do not

occur. First, we implemented trip limits for common pool vessels for the 2015 fishing year. These trip limits may change during the year depending on fishing effort and available quota. Second, due to concerns about misreporting and accurate catch accounting of Gulf of Maine cod, all commercial groundfish vessels must now submit daily catch reports through the Vessel Monitoring System when declared into the Gulf of Maine and any other broad stock area on the same trip. This daily reporting requirement is based on the vessel's declaration regardless of whether the vessel actually fishes in the Gulf of Maine on the trip. Lastly, due to an overage of the 2014 catch limit for northern windowpane flounder, common pool and sector vessels fishing with trawl gear must use selective gear in certain areas on Georges Bank for the entire 2015 fishing year.

For more information on these measures, call NOAA Fisheries Greater Atlantic Regional Fisheries Office Sustainable Fisheries Division, at (978) 281-9315.

Sector Rules for 2015 and 2016

On May 1, NOAA Fisheries approved 17 groundfish sector operations plans and contracts for fishing years 2015 and 2016. This is the first time we have approved operations plans for two years. Along with approving the operations plans, we allocated quota for 15 groundfish stocks to each sector and granted the sector vessels a number of exemptions. For the 2015 fishing year, sectors are allocated 99 % of the commercial groundfish quota based on the landings history of the 842 permits enrolled in sectors.

Because the catch of fish by vessels participating in sectors is directly limited by quotas, which sectors must monitor and manage, sector vessels may be exempted from management measures that indirectly limit catch. All sectors receive universal exemptions from some groundfish measures, such as exemptions from most groundfish trip limits and restrictions from some Gulf of Maine Cod Protection Closures. Sectors request additional exemptions when they submit their operation plans for approval. Along with the universal exemptions, we granted 19 additional exemptions in 2015, including exemptions from the limits on the number of gillnets and hooks that may be fished in some areas, seasonal restrictions on Special Access Programs, trawl gear requirements in the Eastern US/Canada Area, and additional exemptions that provide flexibility for sector operations. Based on continued concern for the Gulf of Maine cod stock, we denied an exemption to the limit on the number of gillnets some vessels can use in the Gulf of Maine.

We did, however, grant a new exemption that allows a sector vessel to target the abundant and healthy Acadian redfish stock in a designated area within the Gulf of Maine, using nets with codend mesh as small as 5.5 inches on any approved trawl gear. Vessels may start a trip using the standard mesh size, and then switch to the smaller mesh after transiting to the area to target redfish. For the portion of the trip spent targeting redfish, at least 50 % of the total groundfish landed must be redfish; and for observed trips, total groundfish discards (including redfish), may not exceed 5% of kept catch.

For more information, contact Liz Sullivan in the Sustainable Fisheries Division, at (978) 282-8493 or e-mail her at Liz.Sullivan@noaa.gov.

Attention Lobstermen: Changes made to the Atlantic Large Whale Take Reduction Plan for 2015

The following changes have been made to the Atlantic Large Whale Take Reduction Plan. Please pay attention to the effective dates for each of the new measures since they are different.

MINIMUM NUMBER OF TRAPS PER TRAWL REQUIREMENTS EFFECTIVE JUNE 1, 2015

We are requiring a minimum number of traps per trawl based on area fished and miles fished from shore. See our website for information pertaining to the area you fish.

The following state waters are exempt from the Plan's minimum trap per trawl requirements:

- New Hampshire and Rhode Island state waters;
- Portions of Massachusetts state waters;
- Waters within 1/4 mile of Monhegan Island, Ragged Island, Matinicus Island, Matinicus Island group, and Isle of Shoals group Maine.

NEW GEAR MARKING

Trap/pot and gillnet buoy lines must be marked three times (top, middle, bottom) with three 12" marks. The current color requirements remain the same unless stated otherwise below.

NEW GEAR MARKING AREAS EFFECTIVE SEPTEMBER 1, 2015

Two new gear marking areas have been added for all

gillnets and trap/pots: Jeffreys Ledge and Jordan Basin.

NEW GEAR MARKING COLOR SCHEMES EFFECTIVE JULY 1, 2015, EXCEPT JORDAN BASIN AND JEFFREYS LEDGE AREAS (EFFECTIVE SEPTEMBER 1, 2015)

The following gear marking requirements will be added to the current gear marking schemes. This list only includes NEW gear marking areas requirements being added in 2015. Gear marking area requirements not listed below will remain in effect with their current gear marking schemes.

Please note: The rope must be marked at least three times (top, middle, bottom) and each mark must total 12-inch in length. If the mark consists of two colors then each color mark may be 6-inch for a total mark of 12-inches.

For More Information Contact NOAA Fisheries Greater Atlantic Regional Fisheries Office:

- Take Reduction Team Coordinator: Kate Swails. (978) 282-8481. Kate.Swails@noaa.gov
- Northeast Fisheries Liaison: John Higgins. (978) 771-3669. John.Higgins@noaa.gov
- Mid/South Atlantic Fisheries Liaison: Glenn Salvador. (757) 414-0128. Glenn.Salvador@noaa.gov or visit our website: www.greateratlantic.fisheries.noaa.gov/whaletrp.

Color Schemes for Exempt State Waters:

Single traps in exempt RI state waters—RED & BLUE

Single traps in exempt MA state waters in LMA1—RED & WHITE

Single traps in exempt MA state waters in LMA2—RED & BLACK

Single traps in exempt MA state waters in Outer Cape—RED & YELLOW

Single traps in exempt Isle of Shoals, Maine—RED & ORANGE

Color Schemes for New Gear Marking Areas:

Jordan Basin (All Trap/Pot)—RED Or BLACK & PURPLE

Jordan Basin (All Gillnet)—GREEN & YELLOW

Jeffreys Ledge (All Trap/Pot)—RED & GREEN

Jeffreys Ledge (All Gillnet) – GREEN & BLACK

News Flash: Electronic Monitoring Now Required for Atlantic Tunas Longline Fishery

On June 1 new Highly Migratory Species regulations regarding Electronic Monitoring (EM) went into effect for vessels using pelagic longline gear. In order to depart on a fishing trip with pelagic longline gear on board, a vessel with an Atlantic Tunas Longline permit must now have the EM system installed, operable, and certified.

An EM system consists of video cameras and related recording and sensing equipment.

The requirement for an EM system includes any US flagged vessel with an Atlantic Tunas Longline category permit with pelagic longline gear onboard, regardless of where it is fishing. The objective of this new EM

requirement is to verify the accuracy of counts and identification of bluefin tuna by the vessel operator.

NOAA Fisheries was able to obtain enough funding to cover the initial costs of EM system installation for up to 135 vessels with valid Atlantic Tunas Longline permits. The NOAA-approved contractor, Saltwater, Inc., installed EM systems on approximately 100 pelagic longline vessels in locations throughout the Atlantic and Gulf coasts, prior to June 1. For questions about this new regulation and funding, contact Tom Warren, Highly Migratory Species, at (978) 281-9347 or e-mail him at Thomas.Warren@noaa.gov. To obtain an EM system or if you have technical questions about them, please call Saltwater, Inc. at 1 (800) 770-3241.



Sea Turtle Regulation Updates

NOAA Fisheries recently published two amendments to regulations affecting protected resources.

The first one affects the Virginia pound net fishery and was jointly implemented under the Marine Mammal Protection Act (for bottlenose dolphins) and the Endangered Species Act (for sea turtles). This regulation includes new definitions and requires modified leaders in offshore pound nets year round in certain Virginia state waters, a one-time compliance training, and fishing with all three continuous pound net gear sections (pound, heart, and leader). To review the regulation, see 80 FR 6925, published February 9, 2015. For the plain-language compliance guide, see our website: http://www.greateratlantic.fisheries.noaa.gov/protected/seaturtles/docs/2015_compliance_guide_va_pound_net_final_rule.pdf. Stacey Horstman can be contacted if you have questions about these modifications at (727) 824-5312, or Stacey.Horstman@noaa.gov.

The second regulation aligns the areas and seasons of existing sea turtle conservation measures in the Atlantic sea scallop fishery to increase consistency and reduce regulatory complexity. Chain mat and Turtle Deflector Dredge bycatch reduction measures are now required in the same area and time, May 1 through November 30 west of 70° W. long. (80 FR 22119, April 21, 2015).

More information on these regulations can be found at <http://www.greateratlantic.fisheries.noaa.gov/protected/seaturtles/regs/index.html>.

New Atlantic Mackerel, Squid, and Butterfish Measures for 2015

On April 20, 2015, new quotas and management measures for the Atlantic mackerel, squid, and butterfish fisheries became effective. This action contains three parts: Catch limits for mackerel, squid and butterfish; a catch cap for river herring and shad; and changes to the butterfish management controls.

New 2015 catch limits:

The 2015 quota for mackerel are a commercial quota of 20,872 metric tons (mt), a recreational harvest limit of 1,397 mt, and a Tier 3 allocation of 1,461 mt. The commercial mackerel quota is decreased by 12,949 mt from 2014.

The 2015-2017 quotas for longfin and *Illex* squids remain unchanged from 2014 at 22,445 mt and 22,915 mt, respectively.

The butterfish 2015 commercial quota is set at 22,350 mt which is a 19,330 mt increase from 2014. The butterfish commercial quota for 2016 is 21,042 mt, and for 2017 is 20,652 mt.

New Scallop Regulations for Fishing Year 2015

NOAA Fisheries recently approved and implemented Framework 26 to the Atlantic Sea Scallop Fishery Management Plan. This plan updates fishing year allocations for 2015 and implements other new measures.

Beginning May 1, 2015, the limited access and limited access general category individual fishing quota fleets have increased scallop allocations for the remainder of the 2015 fishing year. Vessels also have access area allocations into the Mid-Atlantic Access Areas, with the exception of a new Elephant Trunk Closure Area. These areas will all be treated as a single access area, allowing vessels to fish across all three areas (Delmarva, Elephant Trunk, and Hudson Canyon) on a single access area trip.

Importantly, new VMS requirements for fishing in access areas, including the submission of a pre-landing notification form once you have finished your trip, are in effect.

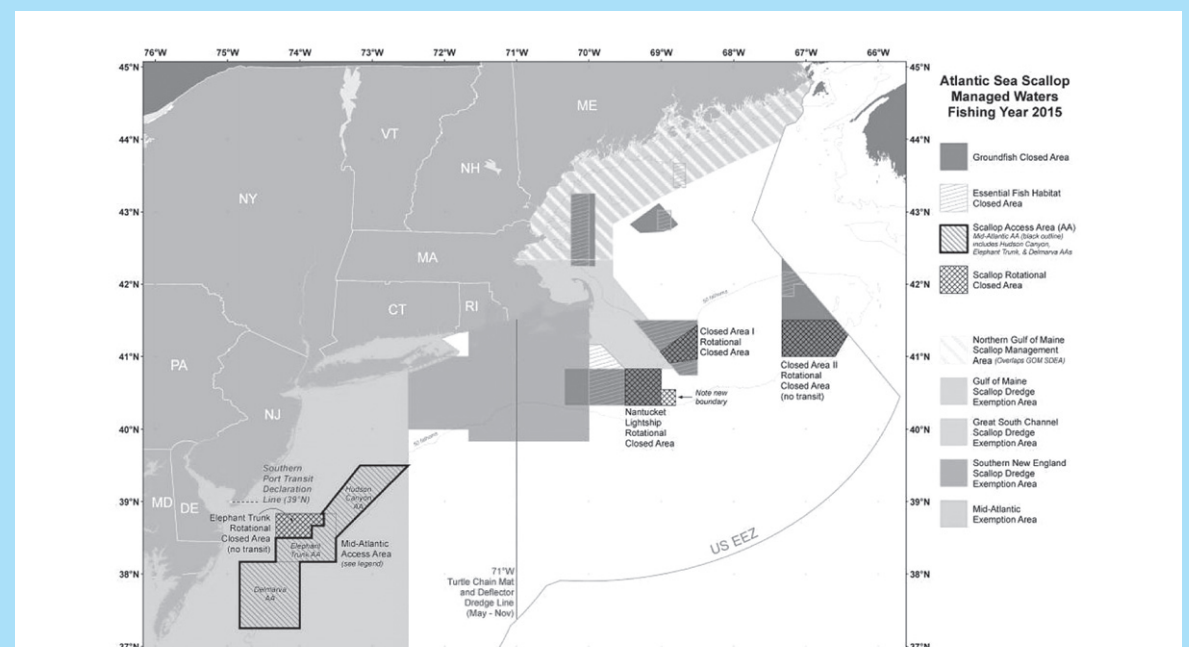
In addition to the new Elephant Trunk Closure Area, Closed Area I, Closed Area II, and the Nantucket Lightship Access Areas are closed for fishing year 2015. Additionally, the Nantucket

Lightship Closure has also been expanded to include a portion of previously open area along the southeast corner.

There are also several new gear regulations. NOAA Fisheries aligned the season and area requirements for sea turtle chain mats and sea turtle deflector dredges. Both of these gears are now required from May through November only in the area west of 71°W longitude. Also, starting on May 21, all scallop dredges must have no more than seven rows of rings in the apron between the twine top and the clubstick, year-round and in all areas.

Other new measures included in Framework 26 include adjustments to the Scallop Access Area Program and to the State Waters Exemption Program, as well as an allowance for vessels to steam home to ports south of Cape May, NJ, with product on board under an out-of-fishery VMS declaration.

For more information on Framework 26 measures, go to <http://www.greateratlantic.fisheries.noaa.gov/sustainable/species/scallop/>



In addition to catch limits, this action implemented a river herring and shad catch cap which starts at 89 mt, but can be increased to 155 mt if the mackerel fishery can harvest at least 10,000 mt of mackerel before reaching the lower 89 mt cap. If river herring and shad catch can remain low, then the cap will be increased to 155 mt after 10,000 mt of mackerel have been harvested.

Finally, this action implemented changes to the butterfish management controls by removing the 3-phase management system. Vessels that have been issued longfin squid/butterfish moratorium permits are allowed to land unlimited amounts of butterfish if using mesh greater than or equal to 3 inches until projected landings reach within 1,411 mt of the butterfish

commercial quota which is 21,119 mt for 2015. Once landings reach 21,119 mt in 2015, these vessels will be limited to a 5,000-lb trip limit.

Also, vessels issued longfin squid/butterfish moratorium permits fishing with mesh less than 3 inches are prohibited from landing more than 2,500 lb of butterfish per trip. If the landings are projected to reach 100% of the commercial butterfish quota, then the trip limit will be reduced to 600 lb for all vessels issued longfin squid/butterfish moratorium or incidental catch permits.

For more information, contact Carly Bari, Sustainable Fisheries Division, at (978) 281-9224 or e-mail her at carly.bari@noaa.gov.