



The NOAA FISHERIES NAVIGATOR

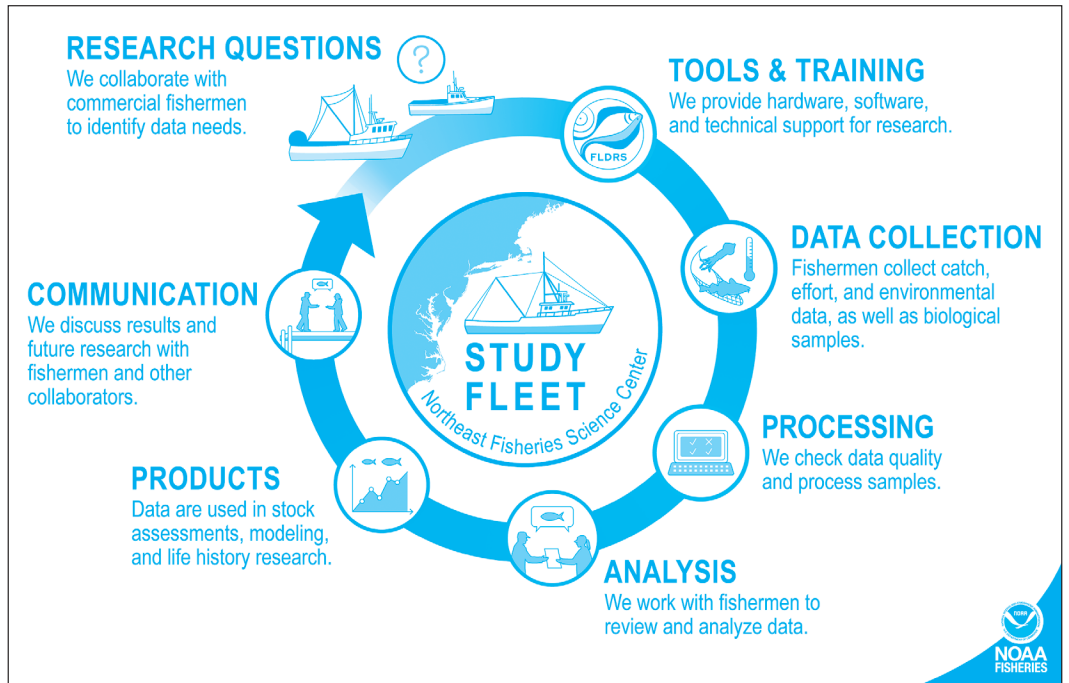
Applications of the Northeast Fisheries Science Center Study Fleet Data in 2022

Researchers from the Northeast Fisheries Science Center's Cooperative Research Branch have been working to leverage the data collected by our Study Fleet program for a variety of research applications. By combining the high resolution commercial catch, fishing effort, and precise fishing locations collected by the Study Fleet we can better understand fishing and stock dynamics. In 2022, Study Fleet data were used to develop:

- Refined fishing footprints for vessels participating in the longfin squid fishery for improved estimation of the operational and economic impacts of offshore wind energy development.
- Novel catch per unit effort indices for black sea bass and spiny dogfish for consideration in the research track stock assessments for these species.
- Enhanced understanding of the oceanographic drivers of shortfin squid.

Study Fleet catch and fishing effort information is collected at a very detailed haul level, allowing for the data to be used in a variety of ways. Pairing this high resolution fishery data with environmental data such as bottom temperature or sea floor ruggedness improves catch rate analyses. The spatial information collected by the Study Fleet is also retrieved at the precise location where a vessel is fishing. This information helps us better understand how fishing operations and revenue may be impacted by offshore wind energy development.

The 15 year time series data from the Study Fleet



provides unique opportunities to better recognize trends in fish species and the fisheries they support in the Northeast. If you are interested in contributing to the NEFSC Study Fleet, please contact Katie Burchard <Katie.Burchard@noaa.gov>, and be on the lookout for a new solicitation for Study Fleet participants in the first half of 2023.

For additional information about the Study Fleet, including details on recent data applications, join us for the upcoming Cooperative Research Summits in Providence, RI and Hampton, VA <<https://www.fisheries.noaa.gov/new-england-mid-atlantic/outreach-and-education/cooperative-research-fosters-regional-partnerships>>.

GARFO Helps Cooperative Research Get on the Water

The Greater Atlantic Regional Fisheries Office (GARFO) recognizes the importance of fishing industry stakeholders and scientists working together. Cooperative research is an integral part of the region's fishery science and management efforts. One of the ways that GARFO supports cooperative research is by having a program

dedicated to providing research permit support so that projects can get on the water and perform their work.

Exempted Fishing Permits (EFPs) and scientific research Letters of Acknowledgement (LOAs) allow cooperative research and development activities outside of the regulatory system. An EFP exempts the participating vessels from specific regulations while participating in research activities. Under an LOA, the vessel is considered a research vessel under the control of a research organization and is not subject to regulations established under the Magnuson-Stevens Act. LOAs do not waive any requirement established under other authorities, including the Endangered Species Act, Marine Mammal Protection Act, or state requirements.

These permits are also separate and distinct from *Letters of Authorization* that fishermen can opt in and out of during the year that allow them to participate in different fisheries (i.e. Skait Bait LOA).

How to Apply for an EFP or LOA

Applications for an EFP or LOA are submitted through Fish Online at <https://apps-garfo.fisheries.noaa.gov/fishtank/login/Nero_forward>. The application form will guide you through the information we need to process your application, which includes details on objectives, fieldwork protocols, and project participants. Once we receive the application, it is assigned to a staff member who will work with you to process your application. We review each request to ensure it contains sufficient project details, the activities are consistent with relevant fishery management plans and objectives, laws, and regulations, and the project will not undermine conservation goals. The staff member will reach out to request any additional information needed to process the application and to provide periodic updates. Because activities conducted under an EFP authorize regulation exemptions, they require an in-depth review. This includes soliciting public comment, requesting input from our state and fishery management council partners, and assessing potential impacts on marine resources. We recommend submitting LOA applications at least

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THIS SUPPLEMENT PROVIDED BY NOAA FISHERIES SERVICE'S GREATER ATLANTIC REGIONAL OFFICE

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Atlantic Large Whale Take Reduction Plan Closure Reminder

The Atlantic Large Whale Take Reduction Plan (Plan) was implemented to reduce serious injuries and deaths of right, humpback, and fin whales due to entanglement in commercial trap/pot and gillnet gear from Maine to Florida.

The following table lists the current and upcoming trap/pot and gillnet closure areas established by federal regulations only. **Additional state regulations may apply.** Please check with your state agency for the most current regulations.

Lobster and Jonah crab fisheries: All new and existing closures are modified from restricting all trap/pot fishing to only restricting trap/pot fishing that uses persistent (traditional) buoy lines, except for federal waters in the Outer Cape Lobster Management Area (LMA), which remains closed consistent with the Atlantic States Marine Fisheries Commission American Lobster Interstate Fishery Management Plan. Gear that does not use persistent buoy lines, such as on-demand gear that retrieves trap/pot trawls when the vessel is on-site, is now allowed in these areas for research purposes with appropriate state and federal authorizations.

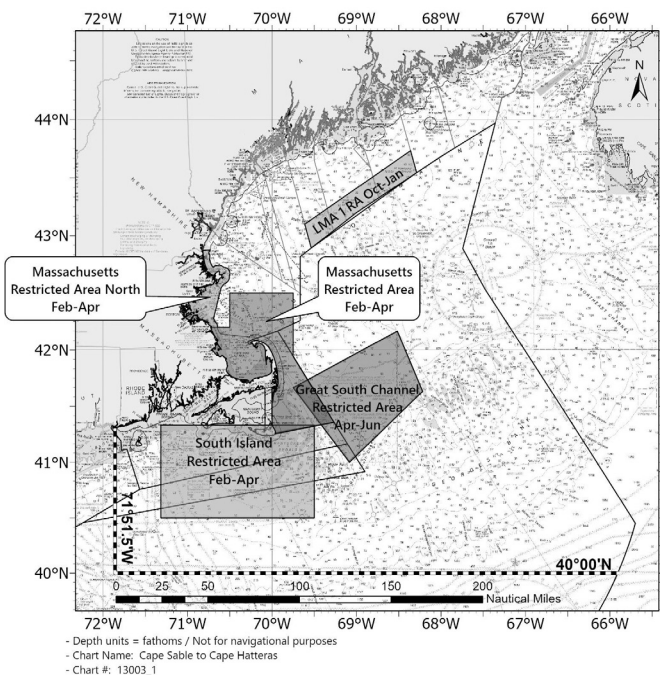
Exempted Fishing Permits: Exempted Fishing Permits (EFPs) are issued for activities in support of fisheries-related research. There are studies underway to develop fishing methods that do not use buoy lines to retrieve gear and alert other fishermen to the presence of gear on the bottom. Results of this

ATLANTIC LARGE WHALE TAKE REDUCTION PLAN		
Trap/Pot Closures		
Management Area	Dates	Closure or Gear Modifications
Massachusetts Restricted Area	February 1-April 30	CLOSED to ALL trap/pot fishing
Massachusetts North	February 1-April 30	CLOSED to lobster and Jonah crab trap/pot fishing
South Island Restricted Area	February 1-April 30	CLOSED to lobster and Jonah crab trap/pot fishing
Great South Channel Restricted Trap/Pot Area	April 1-June 30	CLOSED to ALL trap/pot fishing
LMA 1 Restricted Area	October 1-January 31	CLOSED to lobster and Jonah crab trap/pot fishing.
Gillnet Closures		
Management Area	Dates	Closure or Gear Modifications
Cape Cod Bay Gillnet Restricted Area	January 1-May 15	CLOSED to ALL gillnet fishing
Great South Channel Gillnet Restricted Area	April 1-June 30	CLOSED to ALL gillnet fishing

work would enable the fishing industry to operate in areas where persistent buoy lines are prohibited. To participate in this research, federally permitted vessels must operate under EFPs. Given the research, monitoring, and reporting requirements for EFPs,

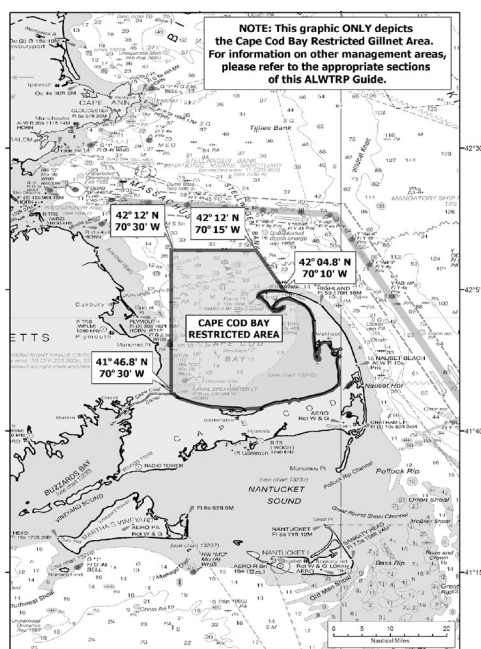
we recommend fishermen partner with research, academic, or fishing industry groups to apply for EFPs. To find out more, please contact your NOAA Fisheries regional office. Please note that state authorization may also be required.

ALWTRP Trap/Pot Restricted Areas

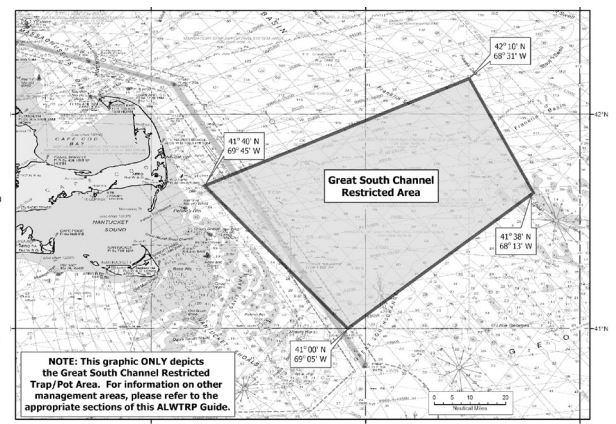


Please note: These graphics may overlap with other seasonal management areas. Visit www.fisheries.noaa.gov/alwtrp for full regulations and coordinates.

ALWTRP Gillnet Restricted Areas



***Massachusetts North, LMA 1 and South Island Restricted Areas apply only to lobster/Jonah crab trap/pot gear; All other areas apply to all trap/pot gear.**



Trap/pot and gillnet gear restrictions, modifications, and area-specific gear markings are also required in areas that are open to fishing. Please visit: www.fisheries.noaa.gov/alwtrp for more details on these requirements. If you have questions about gear requirements contact:

John Higgins, Northeast Fisheries Liaison: (207) 610-3282, john.higgins@noaa.gov
 Rob Martin, Northeast Gear Specialist: (617) 710-6322, robert.martin@noaa.gov
 David Hilton, Southeast Fisheries Liaison: (252) 921-0142.

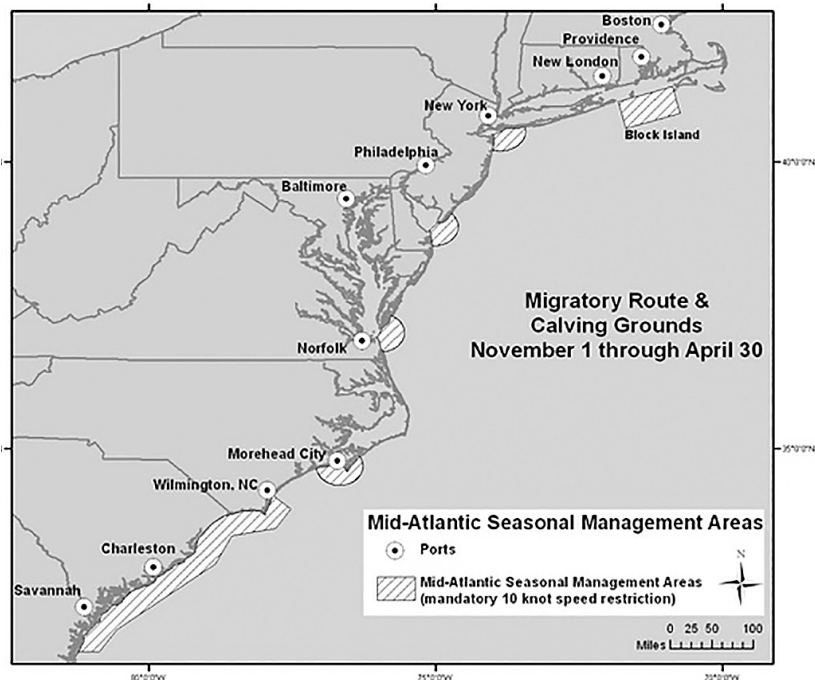
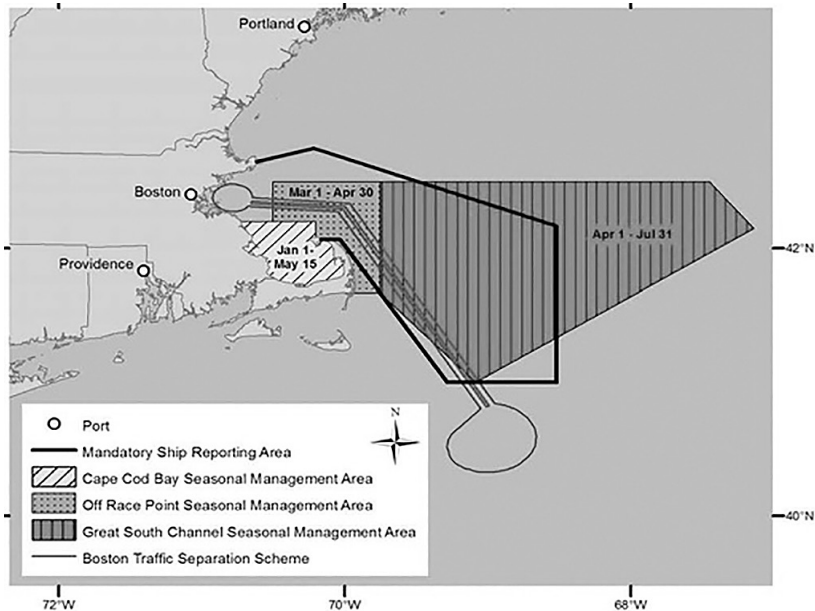
Right Whale Seasonal Management Areas in Effect

Starting November 1, all vessels 65 feet (19.8 meters) or longer must travel at 10 knots or less in certain locations (called Seasonal Management Areas or SMAs) along the U.S. east coast at certain times of the year to reduce the threat of vessel collisions with endangered North Atlantic right whales. The purpose of this mandatory regulation is to reduce the likelihood of deaths and serious injuries to these endangered whales that result from collisions with vessels. Because vessels of all sizes can strike a whale, NOAA Fisheries also encourages vessels less than 65 feet in length to help protect right whales by slowing to 10 knots or less within active SMAs.

Stay up-to-date on Dynamic Management Areas and Right Whale Slow Zones

NOAA Fisheries uses right whale detections to establish voluntary Dynamic Management Areas (DMAs) (visual triggers) or Right Whale Slow Zones (acoustic triggers). Mariners are encouraged to avoid these areas or slow to 10 knots or less to prevent collisions with right whales for a duration of 15 days. NOAA Fisheries works with the U.S. Coast Guard and NOAA Weather Radio to help notify vessels of these areas.

Additionally, boaters from Maine to Virginia, or interested parties, can sign up for email or text notifications about the latest Right Whale Slow Zones. Announcements are also made on Facebook (@NOAAFisheriesNEMA) and Twitter (@NOAAFish_GARFO). Right Whale Slow Zones are displayed on our online right whale sightings map and on the free Whale Alert app, which will automatically notify you when you enter one of these areas.



Mid-Atlantic SMAs, Migratory Route and Calving Grounds,	
Location	Waters bounded by
Block Island Sound	40°51'53.7" N 070°36'44.9" W 41°20'14.1" N 070°49'44.1" W 41°04'16.7" N 071°51'21.0" W 40°35'56.5" N 071°38'25.1" W then back to starting point.
Ports of New York/New Jersey	Within a 20-nm (37 km) radius of 40°29'42.2"N 073°55'57.6"W
Entrance to the Delaware Bay (Ports of Philadelphia and Wilmington)	Within a 20-nm (37 km) radius of 38°52'27.4"N 075°01'32.1"W
Entrance to the Chesapeake Bay (Ports of Hampton Roads and Baltimore)	Within a 20-nm (37 km) radius of 37°00'36.9"N 075°57'50.5"W
Ports of Morehead City and Beaufort, North Carolina	Within a 20-nm (37 km) radius of 34°41'32.0"N 076°40'08.3"W
Wilmington, North Carolina, to Brunswick, Georgia	Within a continuous area 20-nm from shore A- 34°10'30"N, 077°49'12"W B- 33°56'42"N, 077°31'30"W C- 33°36'30"N, 077°47'06"W D- 33°28'24"N, 078°32'30"W E- 32°59'06"N, 078°50'18"W F- 31°50'00"N, 080°33'12"W G- 31°27'00"N, 080°51'36"W and west back to the shore.

Northeast Atlantic SMA	
Location/Active period	Waters bounded by:
Cape Cod Bay, January 1-May 15	Includes all waters of Cape Cod Bay with Northern Boundary of 42°04'56.5"N, 070°12'W to 42°12'N, 070°12'W then due west back to shore
Off Race Point, March 1-April 30	42°04'56.5"N, 070°12'W 42°12'N, 070°12'W 42°12'N, 070°30'W 42°30'N, 070°30'W 42°30'N, 069°45'W 41°40'N, 069°45'W then due west back to shore.
Great South Channel, April 1-July 31	42°30'N, 069°45'W 42°30'N, 067°27'W 42°09'N, 067°08'24"W 41°00'N, 069°05'W 41°40'N, 069°45'W then back to starting point.



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BlueTrace Wins NOAA Small Business Innovation Research Grant

Maine-based shellfish technology company BlueTrace has won a \$500,000 NOAA Small Business Innovation Research grant to expedite their innovative shellfish tagging and traceability efforts. Seeing a need in the shellfish market to more effectively manage and track harvests, founder and CEO Chip Terry and his partners started Oyster Tracker. That product quickly evolved into the BlueTrace tool for shellfish harvesters to print tags and digitally record the harvest logs required by law.

BlueTrace's pioneering iOS app allows shellfish growers to input data through their phones (or iPads) in the field, simplifying required financial and harvest reporting. Buyers can then print harvest and dealer tags with an embedded QR code, recording all the necessary information for tracking and selling. BlueTrace tags cost less on average than preprinted tags, without the more cumbersome and error-prone labor of handwriting data.

"We started this company because we had friends who were struggling to manage the regulatory compliance involved in fast-growing aquaculture businesses—especially shellfish farms," said Terry. "As demand grew, we secured funding from the private sector... who share our belief that, in order to grow and prosper, the seafood industry needs a system that easily tracks products from the tideline to the table."

BlueTrace won a Phase I grant in 2021. With this new Phase II grant they will be able to add new features to the app and accommodate additional species. They will also build out the company's business development/sales team, hire more engineers and marketers, and attend more industry events. The company's mission is to create an affordable and reliable means of complying with state and federal shellfish documentation and reporting requirements.

Regulatory Compliance: A Growing Challenge

Historically, tracking the origin of shellfish and the chain of custody from harvest to supermarket has been difficult. Evolving federal regulations mean the challenge will become only more complex. The Food Safety Modernization Act requires that by 2024, any food must be able to be traced to its origins. Traceability is important to verify sustainability, prove legality, and increase food safety, for example in the event of a seafood recall. Additionally, consumers often wish to know where their seafood was grown and if it is grown legally and sustainably.

BlueTrace follows the Interstate Shellfish Sanitation Conference's guidance, which promotes the sanitation of shellfish at the producer, state, and federal levels. They have customized the app in accordance with ISSC guidelines to reflect different requirements for different states. "For example, Washington State requires growers to record the temperature at harvest, while Alabama wants to know the time of landing and Florida wants to know how you refrigerated the product," says Terry. BlueTrace is adaptable for each state's requirements and for different species.



BlueTrace photo

Shellfish grower with BlueTrace mobile printer and custom tag.

Ideally the QR codes are scanned along the distribution route at every point, enabling complete tracing from tide to market along the chain of custody. The chain of custody flows from growth of the shellfish, to collection of the seafood, preparation for sale, distribution to stores and retailers, and finally, sales to consumers.

BlueTrace plans on implementing a link so the codes can be read by supermarket scanners, too, allowing for all the steps from harvest to consumer purchase to be logged.

Shellfish Industry Embraces BlueTrace

BlueTrace's 300-plus customers (growers and seafood distributors) are in every coastal state except Hawaii and Mississippi. They are adding three to five new companies each week. Roughly 60 percent of Blue Trace's new business comes from customer referrals. Social media has been helpful in promoting

the tool through engaging photography and stories visit <<http://instagram.com/bluetraceapp/>>.

"Groups like the East Coast Aquaculture Association, Pacific Coast Aquaculture Association, Oyster South, and the many state/provincial level groups do an amazing job of advocating for and educating this industry about the BlueTrace tool. By working with them, we can support their mission and build relationships in this tight-knit community," says Terry.

Future goals for BlueTrace include expanding beyond the shellfish industry into the greater seafood market. Originally designed for bivalves, "our clients then started using us for finfish, shrimp, lobster, and crabs— we are catching up with them to make sure it fits the unique needs of those segments," notes Terry. BlueTrace has also moved into working with international growers, including all of the coastal Canadian provinces and even clients in Australia. Questions about BlueTrace? Visit <<https://www.bluetrace.com/>> or call: (781) 570-9406.

Cooperative

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30 days in advance and EFP applications at least 60 days in advance of the expected fieldwork start date. Projects with the potential for significant impacts or that may be controversial may take more time to review, so it is best to submit an application well before the anticipated start date.

In the next few issues of the Navigator, we will spotlight GARFO's research permit program and a few projects that highlight the important work that can be done under EFPs and LOAs.

For more information on the types of permits we issue and general guidance on the process, visit our scientific research and exempted fishing website. For any remaining questions and application assistance, please contact Laura Deighan, at <Laura.Deighan@noaa.gov>, (978) 281-9184.

Amendment 13 to the 2006 Consolidated Highly Migratory Species Fishery Management Plan: Bluefin Management Measures

In October 2022, NOAA Fisheries published a final rule to revise the management of bluefin tuna for both directed and incidental categories. Specifically, this rule changes several aspects of the Individual Bluefin Tuna Quota (IBQ) Program, including the distribution of IBQ shares to active vessels only, implementation of a cap on IBQ shares that may be held by an entity, and implementation of a cost recovery program.

This rule also modifies bluefin tuna fisheries by:

- Discontinuing the Purse Seine category and reallocating that bluefin tuna quota to all of the other bluefin tuna quota categories

- Capping Harpoon category daily bluefin tuna landings
- Modifying the recreational trophy bluefin tuna areas and subquotas
- Modifying regulations regarding electronic monitoring of the pelagic longline fishery as well as green-stick use
- Modifying the regulation regarding permit category changes

These changes will become effective on January 1, 2023. More information can be found on the Atlantic HMS webpage at: <<https://www.fisheries.noaa.gov/action/amendment-13-2006-consolidated-hms-fishery-management-plan-bluefin-management-measures>>.