Atlantic States Marine Fisheries Commission

Pilot Regional Industry-Based Bottom Trawl Survey (RIBTS)

Request for Proposals (RFP)

Funding Opportunity Description

Summary: The NOAA Fisheries Northeast Fisheries Science Center (NEFSC) and the Atlantic States Marine Fisheries Commission (ASMFC) seek a science-industry team to execute a pilot regional industry based bottom trawl survey (RIBTS) to define the operational requirements of a full scale RIBTS. The Commission will issue a funding contract to a science and fishing industry team to conduct field work off the coast of Southern New England, collect catch, biological, and oceanographic data, assess operational requirements, and produce documentation of best practices for a RIBTS. The target timeframe to conduct the pilot RIBTS is fall 2025 or spring 2026, with data processing completed and standard operating procedures drafted within six months of field work completion.

Background: Standardized surveys of marine fisheries species are crucial to conducting stock assessments that inform fishery management and to understanding ecosystem changes over time. In an effort to increase the resilience of the Northeast Fisheries Science Center's (NEFSC) survey enterprise in the face of vessel platform uncertainties, improve the ability to sample areas inaccessible to the multispecies bottom trawl survey, reduce uncertainty in stock assessments, and build trust between the science and fishing communities, the NEFSC is collaborating with the Northeast Trawl Advisory Panel to develop a regional industry based bottom trawl survey (RIBTS). While there are several examples of successful industry based surveys in the northeast region, the operational procedures of a regional industry based bottom trawl survey covering the entire depth range of the northeast U.S. continental shelf, operating within and around marine infrastructure, and including a full suite of biological and oceanographic sampling are not developed. Thus, there is a need for a pilot RIBTS that will define the operational requirements of a full-scale RIBTS. This research will require close collaboration between the science and fishing communities to conduct field work, process catch data and biological samples, and produce documentation of best practices for a RIBTS. This research is critical to improving resilience of fisheries surveys within the Northeast region and improving trust of the data informing stock assessments.

Goal: The goal of this pilot regional industry based bottom trawl survey (RIBTS) is to define the operational requirements of a full scale RIBTS, including but not limited to logistics for oceanographic and biological sampling, efficiency of sampling, feasibility of towing in close proximity to offshore infrastructure, performance of trawl gear across depth range, and vessel and staffing requirements.

Scope of Work:

Geographic Scope and Target Timeframe
This pilot regional industry based bottom trawl survey (RIBTS) will target two general sampling areas: 1) the Vineyard Wind farm , and 2) the outer continental shelf (50-150 fathoms) south of Southern New England. These areas present operational and sampling challenges that a long-term RIBTS will face, including by not limited to trawl and oceanographic sampling around marine infrastructure and

gear performance across a wide depth range. The science-industry team is expected to depart from, and return to the port of Point Judith, RI for this research. A total of six days-at-sea are allocated for this research, including steam time. If weather conditions allow, the pilot RIBTS will occur over a single, continuous six day period. Sampling effort will be divided as evenly as possible between the two target areas. In order to evaluate requirements for sampling during the day and night, the start of sampling each day will be staggered by approximately 2 hours. A map of the target sampling area and proposed sampling locations is provided in Figure 1. Final station selection will be the responsibility of the selected science-industry team and will occur in consultation with the Northeast Trawl Advisory Panel (NTAP) working group. The target timeframe to conduct the pilot RIBTS is fall 2025 or spring 2026, with sample and data processing and standard operating procedures drafted within six months of completion of the field component.

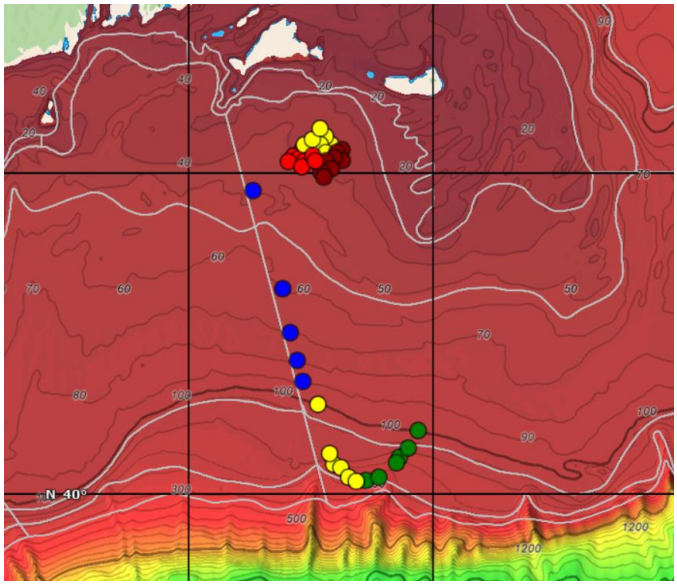

Figure 1. Map of target area and proposed sampling locations for the pilot regional industry-based bottom trawl survey. Proposed sampling locations are indicated by colored circles, with each color indicating a unique day of sampling.

Methods

Bottom Trawl Protocols

At each station, the science and vessel team will work collaboratively to complete a 20-minute tow using a standardized gear package. The gear package will be provided by the contracted scientific team and must meet the Northeast Area Monitoring and Assessment Program (NEAMAP) standards, including a four-seam, three-bridle bottom trawl, a cookie sweep, and Thyboron Type IV 66" doors (Bonzek et al. 2008). The contracted science team will provide an electronic data collection system to collect station-level data, that will include at a minimum: beginning and ending tow location and time, date, depth, air temperature, wind speed and direction, sea state, net mensuration, including door spread, wing spread, headline height, and bottom contact, vessel speed over ground and heading, and winch data.

Oceanographic Sampling

At each station, the scientific and vessel team will work collaboratively to complete a water column profile using a Conductivity, Temperature and Depth (CTD) instrument provided by the NEFSC. A bongo net provided by the NEFSC will be used to sample for plankton at every third station, with samples labeled and preserved in ethanol at sea. A Niskin bottle provided by the NEFSC will be used to collect surface and bottom water samples for salinity calibration once per day. The electronic data collection and labeling system for all oceanographic sampling will be provided by the NEFSC.

Catch Sampling

The contracted science team will sort the catch by species. Aggregate weights and counts will be recorded for each species. Individual fish lengths and weights will be recorded for a subsample of individuals from all species. The contracted science team will provide an electronic data collection system, including electronic measuring boards, motion-compensated scales, computers or tablets, and specialized software to efficiently collect and store catch data.

Biological Sampling

The Northeast Trawl Advisory Panel (NTAP) working group and the selected science-industry team will determine the appropriate number of stations for biological sampling, which will occur according to the priority species list in Appendix I. This will include the collection and storage of otoliths from each priority species within pre-defined length bins and the collection and storage of stomach samples from each priority species.

Additional Sampling (Optional)

Acoustic monitoring (via Simrad ES-80 wideband echosounder) and biological sample processing (otolith aging, stomach content analysis) are not required components of this research, but science-industry teams should indicate their ability to complete these two optional components and provide cost estimates in their application. Defining the time and logistical requirements for the collection and management of active acoustic, fish age, and diet composition data would be helpful for defining the operational requirements of a full-scale, long-term RIBTS.

Operational Efficiency Documentation

Well-documented measures of sampling efficiency are an important component in defining the operational requirements of this survey. Therefore, the science team must collect detailed data on begin time, end time, and total duration (minutes) for each task listed below for each station sampled:

- Time between arrival on station and setting out bottom trawl gear for each station
- Time from set to haul of bottom trawl gear for each station
- Time from haul to completion of sorting, weighing, counting, and measuring the catch (not including biological sampling) for each station

- Time from beginning to end for all biological sampling (extraction, labeling, and storage of otoliths and stomachs) for each station
- Time from start to end for preparing, deploying, and retrieving the CTD at each station
- Time from start to end for preparing, deploying, retrieving, and processing bongo catch for each station
- Time from start to end for deploying, retrieving, and analyzing Niskin water samples for each station

Data Auditing, Storage, and Sharing
All operational, catch, and biological data collected during the pilot RIBTS will be collected using an electronic data collection system and will be audited by the contracted scientific team. Data must be provided to the NEFSC and NTAP working group in a relational database to facilitate efficient analysis.

Reporting
The contracted science team will be required to draft a final report summarizing the findings from the pilot RIBTS within six months of completion of the field component. The final report must include lessons learned and recommended standard operating procedures for a long-term, full-scale RIBTS. In addition, the science team will be required to present the major findings from this research at a 2026 NTAP meeting.

Scientific Personnel and Gear Requirements
This research is a collaboration between the Northeast Fisheries Science Center, the Northeast Trawl Advisory Panel, and the contracted scientific and vessel partners. The contracted science and vessel team are expected to provide the following supplies and equipment for the research:

- At least four sea-going scientists, including one chief scientist to coordinate the research
- Three vessel crew, including one captain with experience conducting standardized bottom trawls
- Two four-seam, three-bridle bottom trawls with cookie sweeps that meet NEAMAP standards
- One set of Thyboron Type IV 66” doors
- Wire for deploying the standardized bottom trawl gear to 150 fathoms
- Net mensuration system, including headrope and wingspread sensors (Simrad PX 80 or similar)
- Winch for oceanographic equipment deployment (1,000 pound hauling capacity)
- ¼ inch wire for oceanographic equipment deployment (300 fathoms)
- Sorting equipment (baskets, bins, totes)
- Electronic data collection system, including but not limited to computers or tablets with software for station, catch, and a biological data collection, electronic fish measuring boards (at least two fish boards with 100cm capacity), and motion compensated marine scales (at least one large scale (>50kg capacity) for aggregate weights, at least two medium scales (>10kg capacity) for individual fish weights, and at least one small scale (<10kg capacity) for biological sampling)
- Dissection tools for biological sampling (otoliths, stomachs, gonads)
- Storage and labeling for otolith samples

- Storage and labeling for stomach samples
- Storage and labeling for reproductive samples
- Simrad ES80 (preferred, but not required)

The Northeast Fisheries Science Center will provide the following supplies and equipment for this research:

- SeaBird Conductivity, Temperature and Depth instrument
- Bongo nets
- Jars and labels for plankton samples
- Ethanol for preservation of plankton samples
- Niskin bottle
- Vials for water samples for salinity calibration
- Electronic data collection system for oceanographic sampling

Fishing Vessel Requirements

A fishing vessel and captain with interest in and experience with conducting a standardized bottom trawl survey, including maintaining stable net geometry, is needed for this research. The fishing vessel will be required to be at sea for multiple, consecutive days and therefore must have a minimum of three (3) crew (one Captain, two mates). The Captain shall have a minimum of three (3) years of experience as Master of a comparable-sized vessel fishing with bottom trawl gear in North Atlantic waters, and at least five (5) years total fishing experience as a Master. The captain must have experience with and understanding of standardization of fishing operations used for surveys and survey designs.

The vessel must have a minimum length of 80ft, minimum beam of 20ft, and a draft between 10ft and 16ft. The vessel must be sound, seaworthy, and Coast Guard certified to carry at a minimum 8 passengers (4-5 scientific crew, the Captain and mates). The vessel must be capable of safely fishing on the continental shelf in water depths up to 150 fathoms. The vessel must have a fuel capacity to sustain a trip of greater than 300 nautical miles (150 nautical miles one way) from port and remain at sea for a minimum of six days. The vessel must have freezer storage (minimum 20 cubic feet) for the exclusive use of storage of scientific samples. It is preferred that the vessel have a sorting table or conveyor to expedite processing of the catch. The vessel shall be equipped with sufficient instrumentation to provide depth and precise location (latitude and longitude) information and radar. The vessel shall have a third winch for deployment of oceanographic equipment. The vessel shall have a VHF and UHF radio and a Starlink connection. Three (3) meals per day (breakfast, lunch, and dinner) shall be provided for all hands aboard. Meals shall be provided during each day of vessel operation under this contract.

The ASMFC will not be responsible for oil, repair, maintenance, losses, or any other expenses or liabilities sustained in the operation of the vessel in connection with this contract. Fuel costs and slip fees are to be included in the daily charter rate.

Reporting Requirements: The fishing vessel and science team contractors will communicate with the ASMFC Director of Fisheries Science on all administrative aspects of the survey (contract, invoicing), and coordinate scheduling the survey.

The following permits will be required and are the responsibility of the research team/vessel:

- Letter of Authorization (LOA) from the Greater Atlantic Fisheries Office
- Approved IACUC protocol
- The NEFSC will work with the contracted science and vessel team to obtain the required protected species permits and coverage to complete the research

Application and Submission Information

Content and Form of Application

Proposals must be in a format with at least **12-point font, single spaced with 1 inch page margins. Submissions should be brief** to assist reviewers and program staff in efficiently evaluating proposals.

Proposals should include the following information from the partner vessel applicant:

- Type of Vessel
- Homeport (Port, State)
- Vessel Length (feet)
- Estimated Cabin Space - Length x Width (feet)
- Deck Space - Length x Width (Feet)
- Number of Bunks
- Gear Types
- Target Fisheries
- Depth and Areas Fished (depth range in feet and general geographic area)
- Fuel Capacity
- Ability of the vessel to deploy all scientific equipment used for this research, including all computing and catch processing equipment, and the oceanographic sampling system.
- Photo(s) inside and outside of vessel

Proposals should include the following information from the scientific partner applicant:

- A brief (maximum two-pages, 12pt font) description of how the science and fishing vessel team will meet the requirements of this research, as outlined in this RFP
- A data management plan
- A detailed budget and budget justification
- A brief summary describing previous work with the partner vessel or other cooperative research partners
- Curriculum Vitae (CVs) for each Principal Investigator from the scientific team
- Name, experience, and relevant certifications (ex. Coast Guard license) of the F/V captain

Instructions, Conditions and Notices to Proposers

1. Questions regarding the RFP should be submitted via phone or e-mail to:

Anna Mercer
Northeast Fisheries Science Center
Email: anna.mercer@noaa.gov
Phone: (774) 392-7603

2. Submission, Modification, Revision, and Withdrawal of Proposals
    a. The deadline for proposals is **midnight EST**, **September 5, 2025: Proposals should be submitted to Patrick Campfield at pcampfield@asmfc.org**
    b. ASMFC reserves the right to consult with and to consider information from its own sources, including information from state and federal agencies regarding the proposer's prior performance or the status of outstanding investigations or warrants involving the proposer.
    c. Late proposals
        i. Any proposal, modification, or revision received after midnight EST on September 5, 2025 is "late" and will not be considered.
    j. ASMFC is not liable for any costs incurred by vendors/contractors in developing or submitting their response to this RFP.

Proposal Evaluation

1. All proposals received in accordance with the RFP instructions will be evaluated to determine if they are complete and meet the specified requirements.

2. All proposals that meet the above criterion will be reviewed, analyzed, evaluated, and scored by the Proposal Review Committee, composed of representatives from the NEFSC, ASMFC, and NTAP, in accordance with the criteria described below.

3. During the evaluation period, ASMFC may request additional information in order to fairly evaluate a proposal offer. If such information is required, the proposer will be notified by email and will be permitted a reasonable period of time to respond.

4. Using numerical and narrative scoring techniques, proposals will be evaluated by the Proposal Review Committee against the following factors: qualifications, experience, and ability to address pilot survey objectives.

Grant Award

1. All qualified proposals will be evaluated, and a contract will be awarded to the proposed scientific and vessel team whose combination of cost and technical ability is deemed to best meet the research requirements of the RFP. All science and vessel teams that submit an application will be notified of decisions by September 12th, 2025. A contract with the selected science and vessel team is expected to begin on October 1, 2025.

2. ASMFC reserves the right to reject any and all proposals and make no award under the RFP if such action is in the best interest of ASMFC and NEFSC.

References

Bonzeck, C. F., J. Gartland, R. A. Johnson, and J. D. Lange, Jr.. 2008. NEAMAP Near Shore Trawl Survey Peer Review Documentation. 143p.

Appendix I

- Age, diet, maturity samples of priority species (see below) by 5 cm size bins
- Priority Species List (47 species):
    - Acadian Redfish
    - Alewife
    - American Plaice
    - American Shad
    - Atlantic Bumper
    - Atlantic Cod
    - Atlantic Croaker
    - Atlantic Halibut
    - Atlantic Herring
    - Atlantic Mackerel
    - Atlantic Menhaden
    - Atlantic Wolffish
    - Black Drum
    - Blueback Herring
    - Black Sea Bass
    - Bluefish
    - Butterfish
    - Clearnose skate
    - Cusk
    - Fourspot Flounder
    - Haddock
    - Little skate
    - Monkfish
    - Ocean Pout
    - Offshore Hake
    - Pollock
    - Red Drum
    - Red Hake
    - Scup
    - Silver Hake
    - Smooth Dogfish
    - Spanish Mackerel
    - Speckled Trout
    - Spiny Dogfish
    - Spot
    - Spotted Hake
    - Striped Bass
    - Summer Flounder

- Tautog
- Tilefish
- Weakfish
- White Hake
- Windowpane
- Winter Flounder
- Winter Skate
- Witch Flounder
- Yellowtail Flounder