NEFSC Fishery Independent Surveys Update

Kathryn Ford, Peter Chase, Anna Mercer (NEFSC)

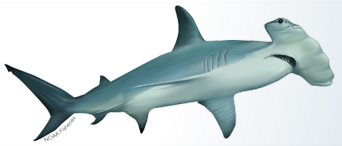
NEFMC, April 16, 2026

Outline

1. Survey updates
   - *Fish & scallop fishery independent surveys 2025*
   - *Plans for 2026*
2. NTAP & regional industry based trawl survey update
3. Other survey related topics

NEFSC fishery independent survey enterprise

Multisp. Bottom Trawl

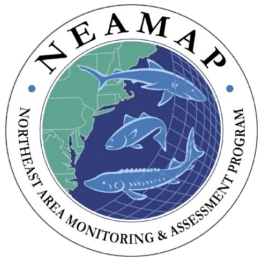


Shark Bottom Longline

Cooperative Bottom Longline

Summer ecosystem/ Northern shrimp

COASTSPAN



Plus related studies:
eDNA, active acoustics, hook & line, autonomous vehicle development, mackerel/herring, bluefin tuna, tilefish

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Northeast Area Monitoring and Assessment Program (NEAMAP) surveys

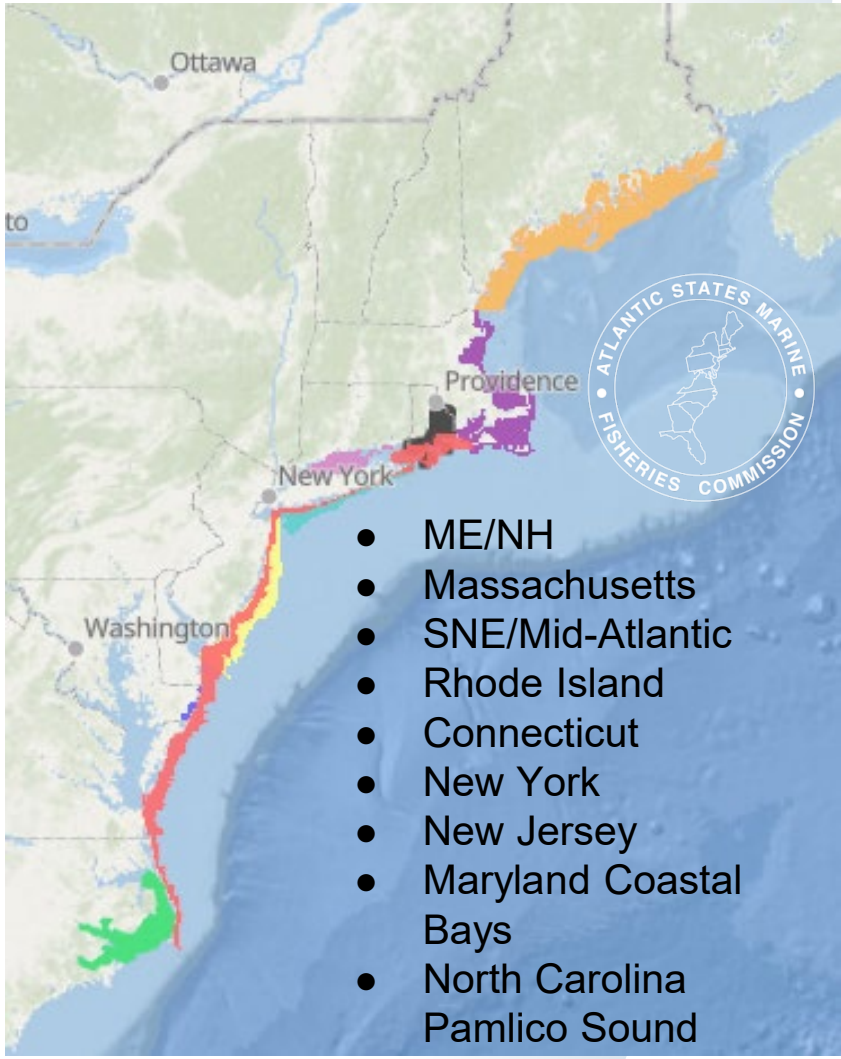
About: collaborative state-federal initiative dedicated to the collection, analysis, and dissemination of fishery-independent data along the Atlantic coast; administered by ASMFC

Approach:

- Uses research and industry vessels
- Trawl gear & protocols standardized by survey

Products:

- Indices of abundance for stock assessments
- Age and sexual maturity samples
- Habitat data
- Environmental data



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NEAMAP trawl surveys

2025	Station completion	Sea days (working/total)	Production rate (on active fishing days)
Spring VIMS	150/150 (100%)	22/25	6.8 stations/day
Spring Mass	100/103 (97%)	17/17	5.9 stations/day
Spring ME/NH	104/120 (87%)	25/25	4.2 stations/day
Fall VIMS	150/150 (100%)	26/27	5.8 stations/day
Fall Mass	100/103 (97%)	16/17	6.3 stations/day
Fall ME/NH	82/120 (68%)	25/25	3.3 stations/day

Gulf of Maine industry-based BLLS

Goal: Provide data from areas/habitats not sampled by NEFSC trawl survey, focusing on groundfish and data-poor species (halibut, thorny skate, cusk, wolffish)

Platforms/Partners: F/V Mary Elizabeth, F/V Tenacious II

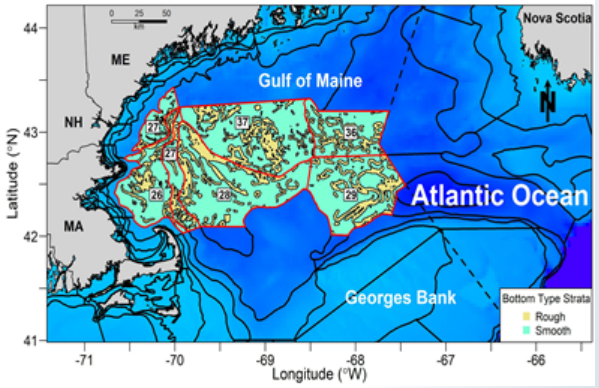
Started in: 2014

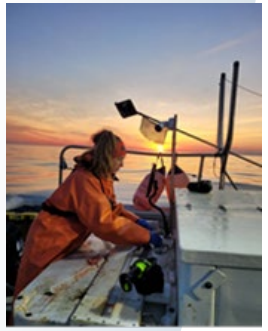
Approach:

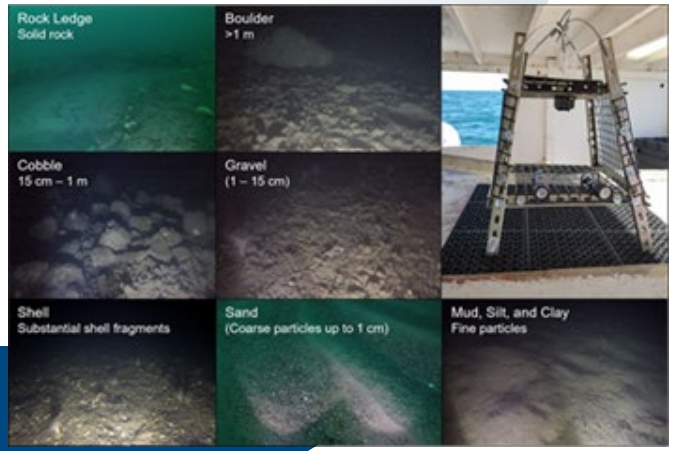
- Vessels staged for research, including on-deck and in-wheelhouse sampling stations
- 45 random-stratified stations sampled (tub-trawl bottom longlines) in spring and fall, coincident with NEFSC trawl survey
- Video survey for habitat classification, current measurements, bottom temperature, depth data

Products:

- Indices of abundance for 10 stock assessments (haddock, halibut, pollock, red hake, white hake, wolffish, cod, barndoor skate, thorny skate, spiny dogfish)
- Age and sexual maturity samples
- Habitat data
- Environmental data



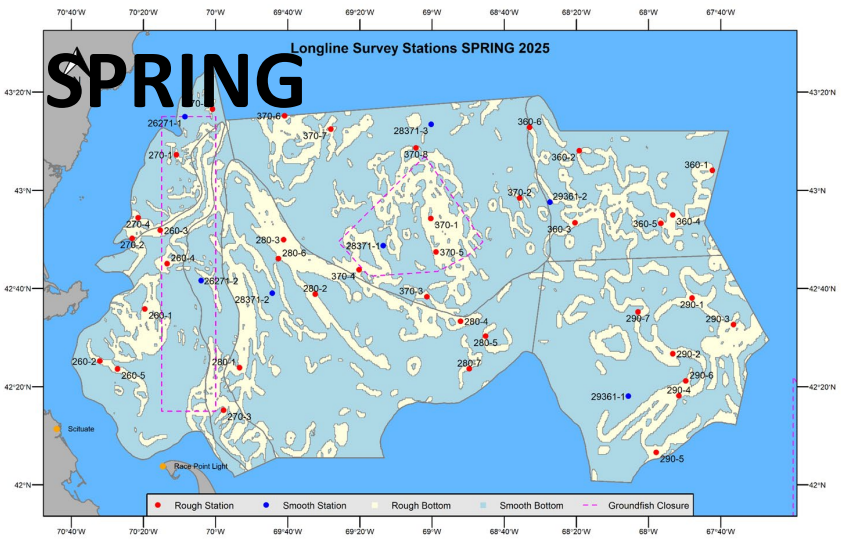


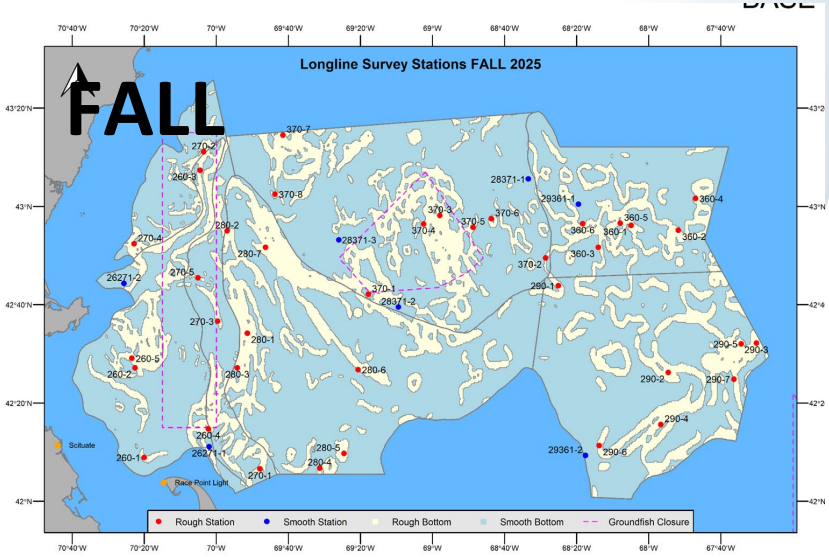


NEFSC Gulf of Maine bottom longline survey

2025	Station completion	Sea days (working/total)	Production rate (on active fishing days)
Spring	45/45 (100%)	25/25	2.5
Fall	45/45 (100%)	25/25	2.5

BASE





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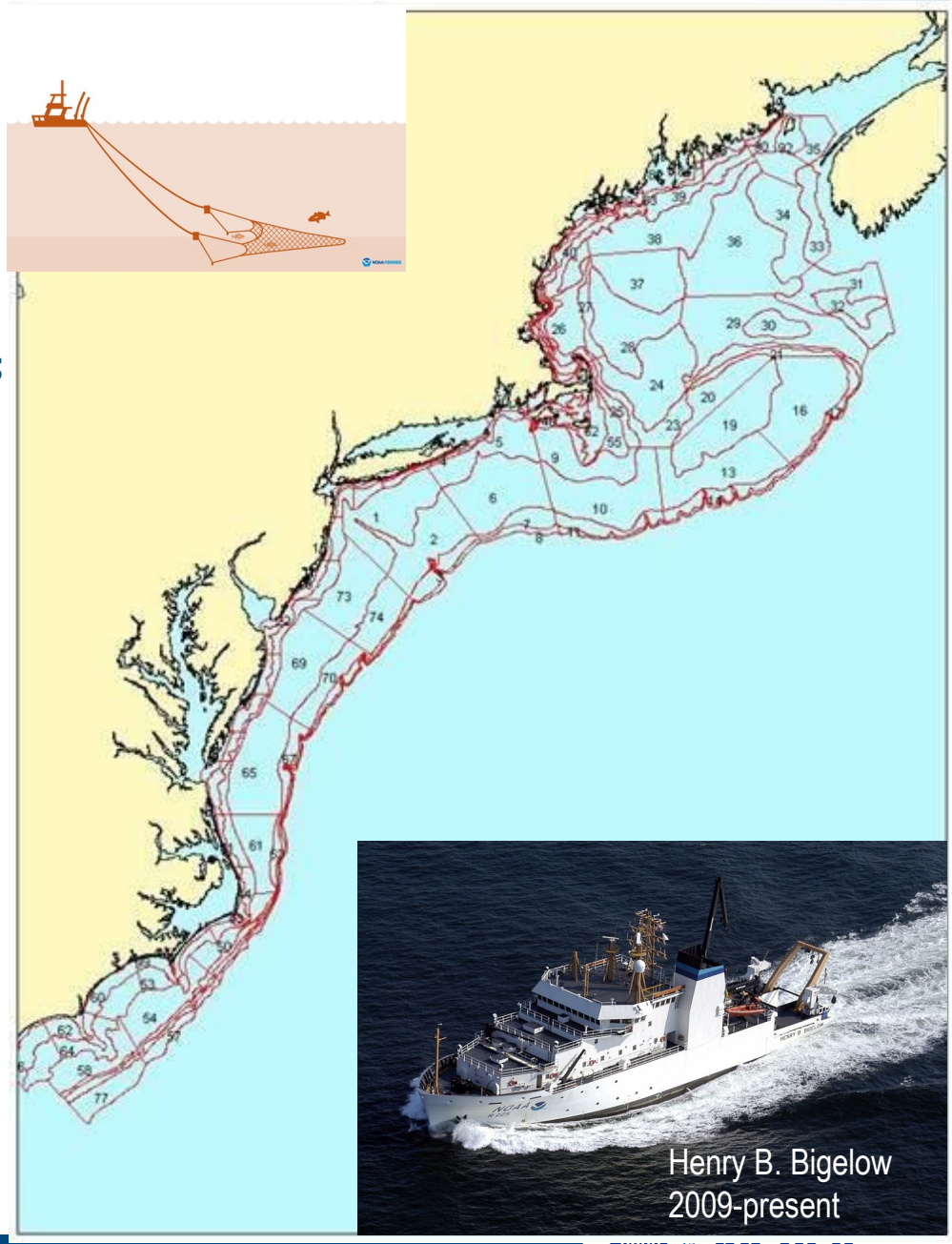
NEFSC Multispecies Bottom Trawl Survey

- Monitor ecosystem changes and trends in abundance, distribution, and life history for demersal fish - information for 63 stocks and collects more than 600 taxa
- Informs status of ecosystem reports, stock assessments and climate assessments
- Trawl and acoustic methods on the FSV Bigelow and FSV Pisces
- Random stratified design, fall and spring
- 60 survey days per season, ~370 stations per season
- Continuous time series since 1960's



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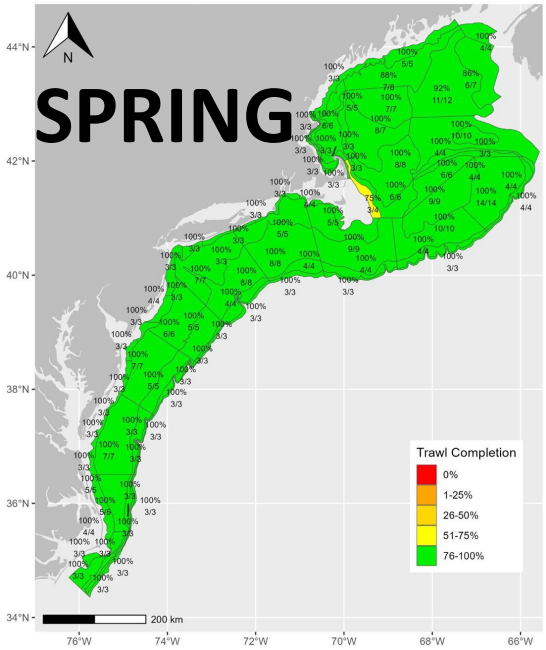
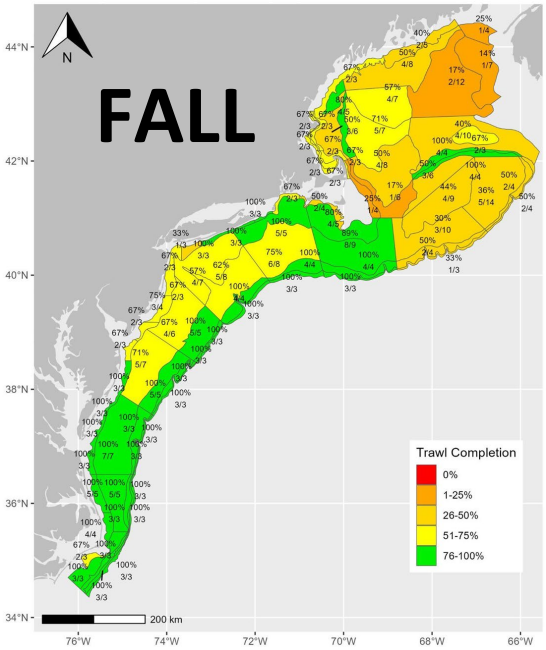
NEFSC multispecies bottom trawl survey

2025	Station completion	Sea days (working/total)	Production rate (on active fishing days)
Spring	370/377 (98%)	54/60	6.9 stations/day
Fall	258/377 (68%)	45/60	5.7 stations/day





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2025 Bottom Trawl Survey Update

Spring 2025

- Completed 370 representative trawls of 377 planned (98% completion); full strata coverage
- 116 bongo samples of 116 planned (100% completion)
- Pilot eDNA project: collected paired trawl-eDNA samples at 77 stations
- Challenges
  - Staffing uncertainty & shortages (ship & science party)
  - Mechanical issues (departure delays on Leg 1 & 3)
  - Weather (particularly during Leg 2)
  - Selected 1 alternate station in Canada due to new establishment of MPAs

Fall 2025 - 1st ever shutdown exception

- Completed 258 representative trawls of 377 planned (68% completion); full strata coverage
- 88 bongo samples of 116 planned (76% completion)
- Challenges
  - Government shutdown (1 day delay)
  - Gear loss and recovery (2.5 day delay)
  - Mechanical issues (11 day delay)
  - Weather (11 day delay)
  - Dropped 1 station in Canada due to new establishment of MPAs (strong relationships here are mitigating impacts)
  - Slower operations due to damaged acoustic sensor, this slowed scouting and scouting was lower resolution

Station allocation decision-making, fall 2025

- Survey & assessment teams worked together
- Sample in all strata as a priority
- Prioritize any additional sampling capacity targeting stocks with 2026 planned assessments to ensure they have a good final year
  - Atlantic herring, GB haddock, plaice, longfin squid, GOM haddock

58% (35/60) planned days
68% of stations sampled

Leg 4 (Dec 2-9)

- We knew by the end of Leg 2 that station completion would be poor - couldn't make up for lost days.
- Started exploring the possibility and value of a survey extension; survey has gone as late as Dec 12 in the past.
- Survey, assessment, and fish biology (energetics) teams worked together and concluded it is more important for the fall survey to have data even if it's a little late.
- Focus on improving station completion in strata already sampled
- Only 3 (of 91) strata in 2026 assessments had fewer than 25% of planned stations sampled

Teamwork makes the dreamwork

Amanda Hart
Andy Jones
Angelo San Pablo
Brian Galvez
Brian Smith
Bridget St.Amand
Burton Shank
Cameron Fairclough
Cameron Hodgdon
Casey Jennifer
Catherine Foley
Cheryl Jaeckel
Chris Legault
Christopher Powers
Courtney Ingerick
Daniel DiMichele
Dom St. Amand
Ehren Habeck
Elizabeth (Liz) Ouellette
Elizabeth Alonzo
Eric Bovee
Eric Hilton
Evelyn Strombom
George Maynard
Hannah Palladino
Heather Gaughan
Jack Gerrior
Jakub Kircun
James Hilton
Jason Morson
Jennifer Casey
Jillian Price
Joey Dunphy
John Galbraith
Jon Hare
Joseph Dunphy
Joseph Warren
Kaite Cisz
Kaitlin Rogers
Katherine Bemis
Katie Viducic
Kiersten Curti
Kelsey James
Kristan Blackhart
Larry Alade
Leo MacLeod
Madison Hall
Mark Wuenschel
Mei Lin McLaughlin
Mike Ball
Mike Bergman
Mike Jech
Ned Rose
Pete Chase
Sam Truesdell
Stacy Rowe
TK Arbusto
Todd Mihal
Tom Arthur

62 fish biologists, survey technicians, gear specialists, and shoreside support staff

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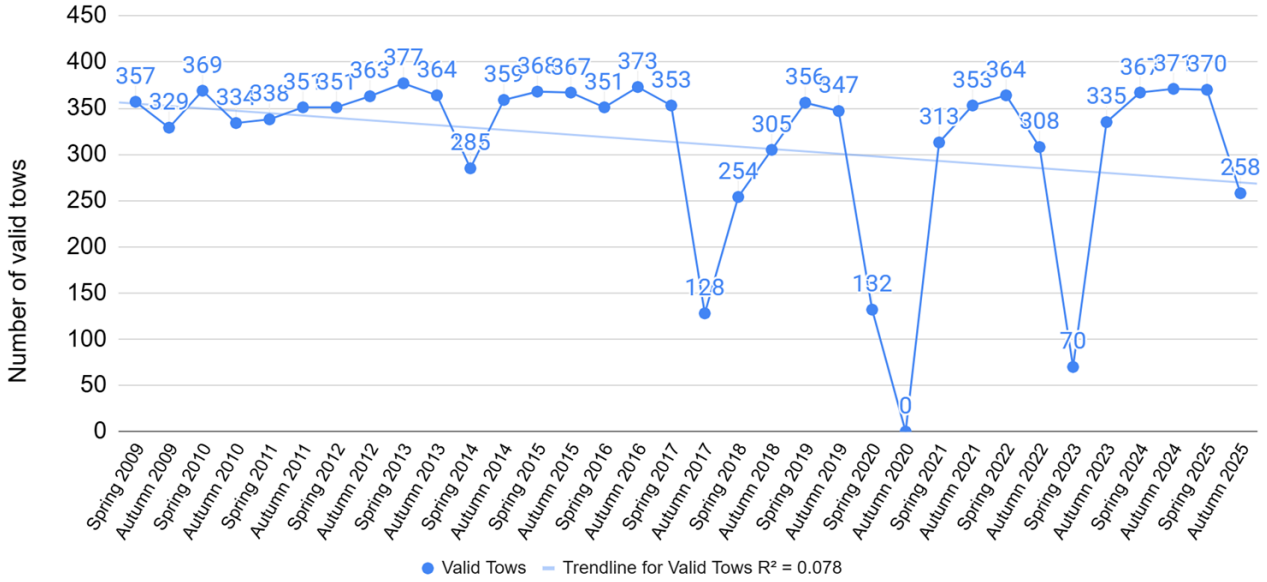
Variable performance

+ inability to operate in wind areas



Mitigation efforts

- Preparing the FSV Pisces
- Planning a complementary industry-based survey
- Ongoing communications with OMAO regarding scheduling priorities, operational needs
- Attention to staffing shortages

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Interesting findings and highlights

- NEFSC BTS
  - Spring 2025 had highest spring catches of black sea bass, blueback herring, and bay anchovy that we have seen on Bigelow
  - High numbers of juvenile haddock encountered on Georges Bank and Gulf of Maine in fall 2025
- NEAMAP
  - ME/NH - cold temps in spring, small catches esp in deeper strata (whiting, red hake), caught 3 ripe & running cod in the spring survey; cod catch low in the fall survey; weather a challenge in the fall; continued difficulties with fixed gear impacts
  - Mass - spring saw upticks in sculpin and yoy cod in GOM, uptick in skates in SNE, lots of macroalgae; fall saw large spiny dogfish catch, 2nd highest abundance of winter flounder & longhorn sculpin in GOM, highest abundance of summer flounder in SNE
  - VIMS - spring saw lots of macroalgae, diverse but smallish catches, lots of clearnose skate; no notable catch reported in fall
- BLLS
  - Low groundfish catches in the spring; strong white hake catches in the fall; weather a challenge in the fall; new data acquisition system

Scallop survey enterprise

- Dredge and optical surveys were conducted by NEFSC and RSA-funded partners
  - VIMS- Dredge
  - CFF- HabCam
  - SMAST- Drop-Camera
  - ME DMR - Dredge
- NEFSC dredge survey on the F/V *Selje*
- NEFSC HabCam survey on the Bigelow
- NEFSC LRAUV survey on vessels of opportunity

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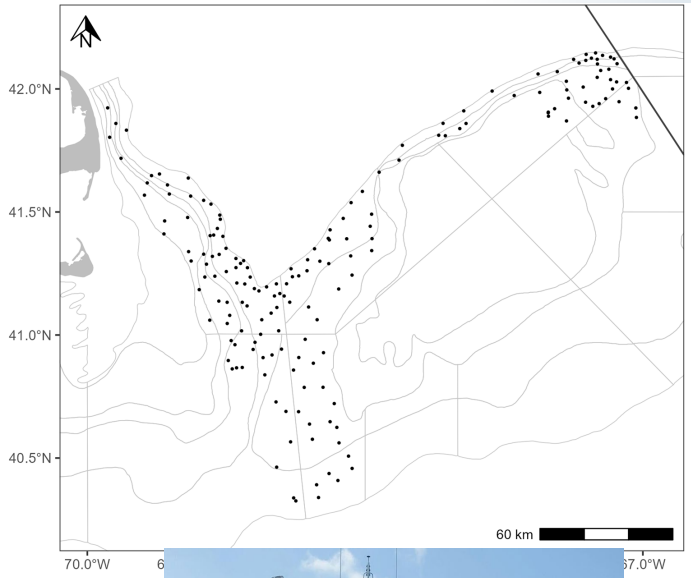
NEFSC Scallop Dredge Survey



- NEFSC dredge survey on the F/V *Selje*
  - Transitioned to a commercial vessel in 2024
  - 10 day dredge survey conducted in July of 2025
  - 177 random stations completed in the Georges Bank Region
  - 2025: implemented GRTS* sampling for station allocation and SAMS areas as strata.
    - Approved after review by a subpanel of the NEFMC SSC in 2024.
    - Improved efficiency, better coverage of dense aggregations
    - Spatially balanced, easier to implement at sea

**Generalized Random Tessellation Stratified*

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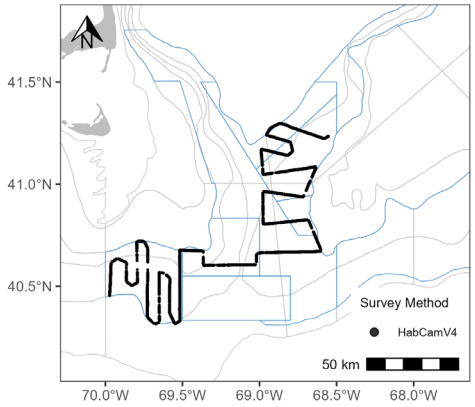
NEFSC Scallop HabCam



-2025 HabCam survey was planned for 17 days in June/July aboard HB Bigelow.

-After 3.5 days of sampling (281 nm), HabCam hit an unmarked object on Georges Bank and disconnected from the weak link (as designe

-Unmarked object was confirmed to be a ship wreck

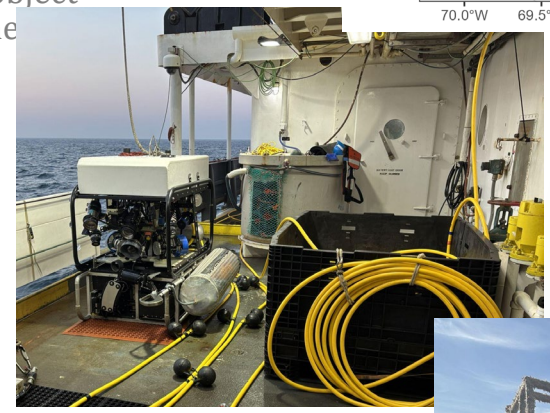
–Recovery was difficult due to 200'+ depth and strong current.

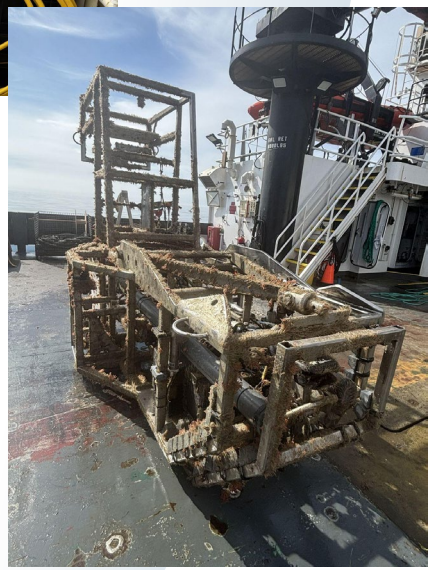
-Ultimately recovered with large ROV

-Leg 2 (7 days) was unable to sail due to vessel issues.

–RSA partners covered portions of NEFSC HabCam track in the

Mid-Atlantic.





Outcomes

–investigation

–All previously developed risk mitigation strategies worked as intended (weak link, pinger).

–HabCam will be fully operational for summer 2026, 20 day survey planned in May aboard Bigelow

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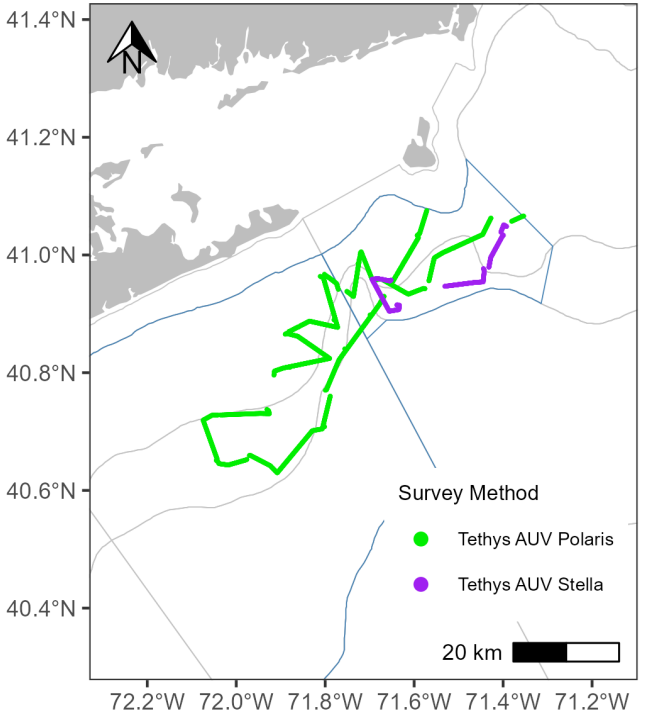
NEFSC Scallop HabCam LRAUV

- R&D was conducted to test vehicles in different environments, test new payload, and to begin understanding calibration needs between survey methods.
- Two Tethys AUV's (Stella and Polaris - owned by WHOI) were deployed using near-shore launch to cover tracklines in the Mid-Atlantic Bight
- Combined cruise track of ~128nm; 48,421 image pairs collected in MAB
- Images collected in the MAB were used with other NEFSC/RSA data in the specification process



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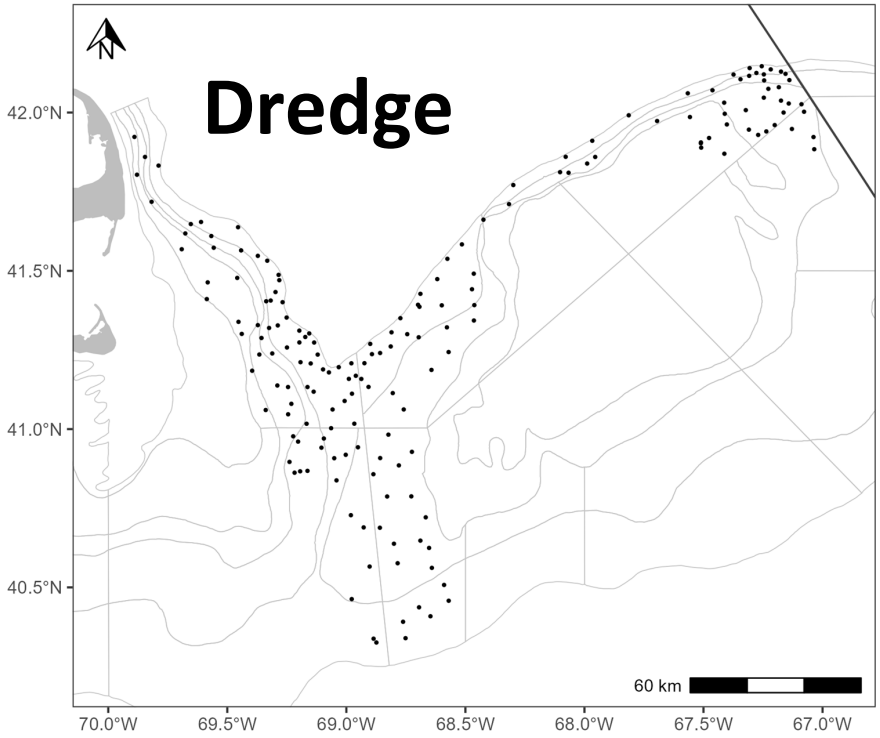
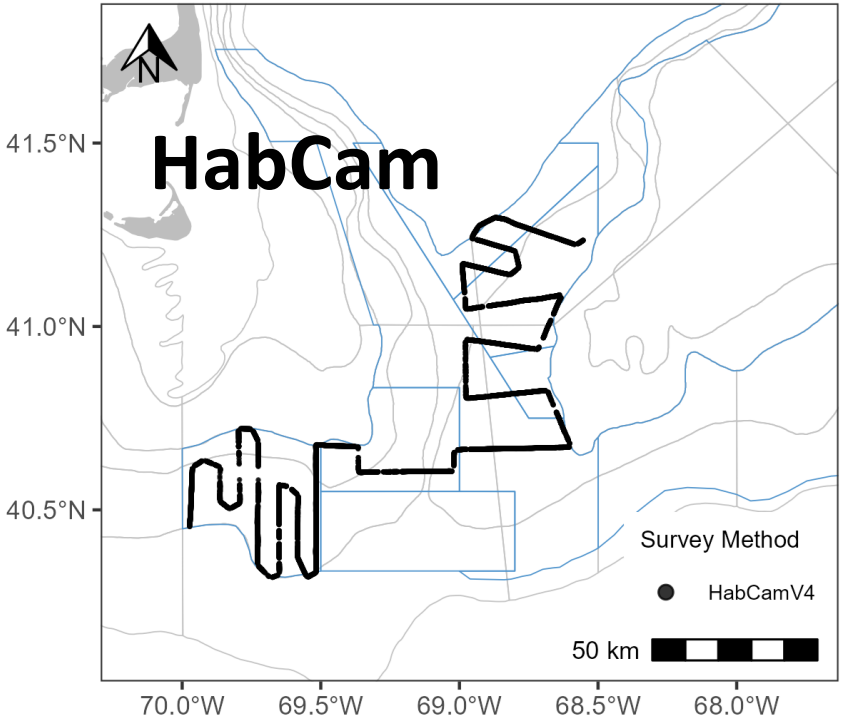
NEFSC Scallop Dredge and HabCam Surveys summer 2025

2025	Station completion	Sea days	Production rate
Dredge	177/206	10/10	17.7 stations/day
HabCam	281 nm	3.5/10	80.3 nm/day





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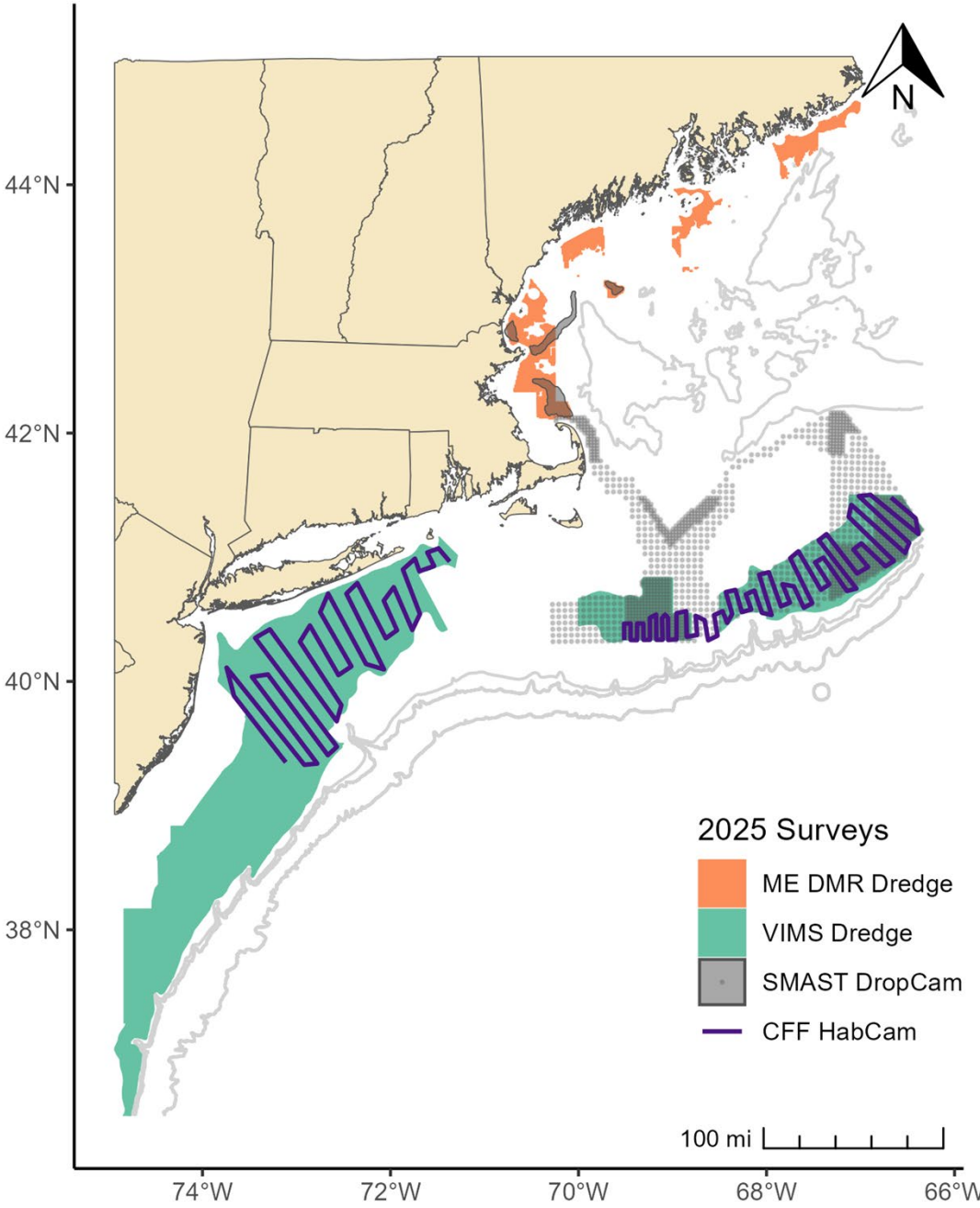
Research Set-Aside (RSA) Scallop Surveys

- VIMS- Dredge
- CFF- HabCam
- SMAST-Drop-Camera
- ME DMR - Dredge



2026

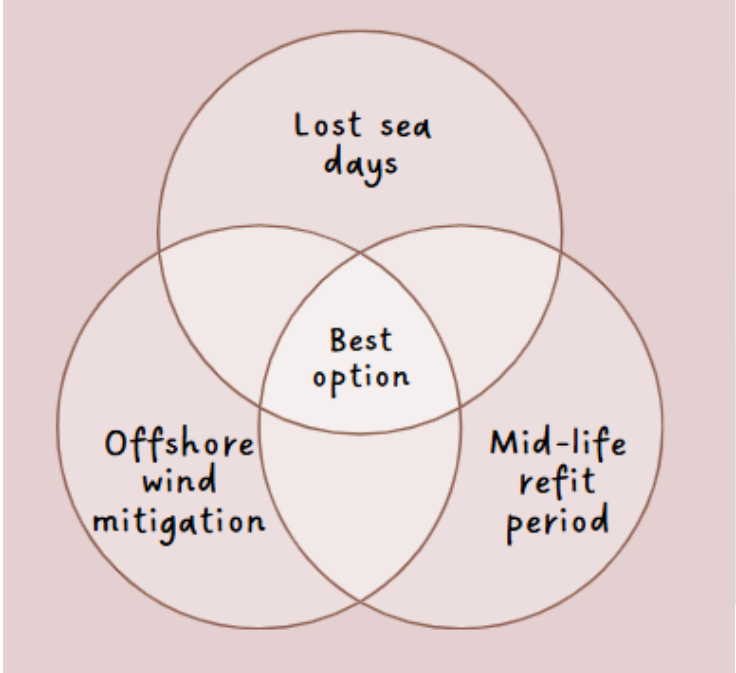
SURVEY	STATUS
Spring BTS	shakedown cruise in Dec on Pisces; wetlab buildout on Pisces; currently on the water using Pisces
NEAMAP spring surveys	on track
Bottom longline survey, spring	on track
Coastal pelagic sharks	planned for spring 2027 (a triennial survey)
Scallop dredge	on track
Scallop habcam	on track
COASTSPAN	fieldwork paused
Shrimp	paused (last done in 2023)
Clam	paused (last done in 2024)
Fall BTS	on track (Bigelow)
NEAMAP fall surveys	on track
Bottom longline survey, fall	on track

Regional Industry-based Bottom Trawl Survey (RIBTS)

Motivations:

- Work collaboratively with the fishing industry
- Complement the NEFSC bottom trawl survey (BTS) to add resilience to the survey program
- Better understand potential mitigation actions for marine development

Bigelow contingency needs



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Long-Term RIBTS Goal

Goal: Reduce uncertainty and increase accuracy in resource assessments with a collaborative fishing industry-based regional trawl survey

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RIBTS Schedule

Phase	Timing of field work	Funding
1 - Pilot - experienced vessel, ~1 week, focused on operations to inform design	End of April 2026	Funded
2 - Pilot - 2 vessels, focused on operations and data integration, assessing full range of sampling protocols across wider geographic range	Spring 2027	Funded
3 - Start of long term survey	Unknown	Not funded yet

RIBTS - Phase 1 (Funded; April 2026)

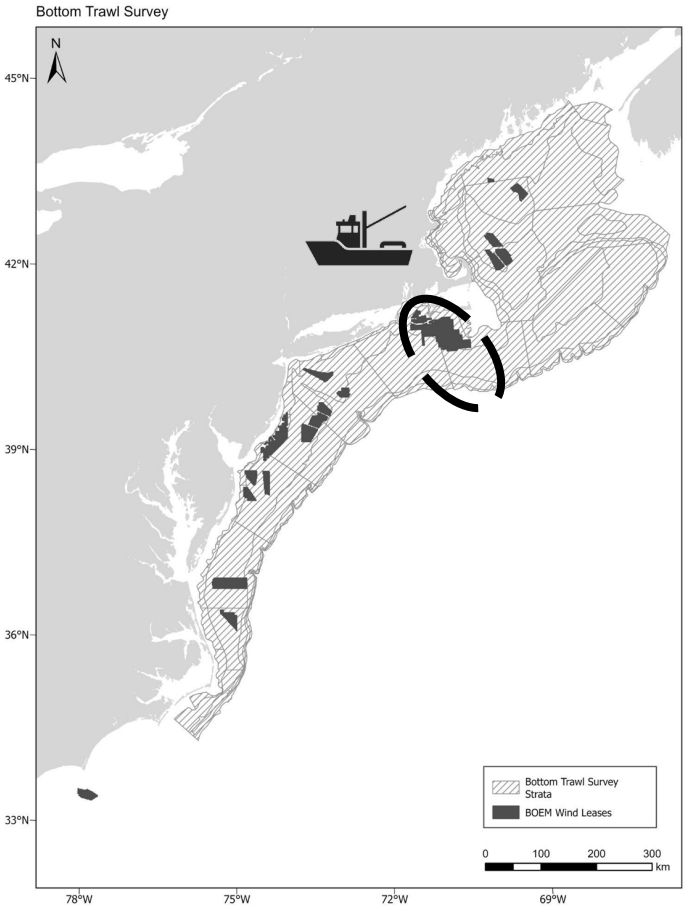
Lead: Virginia Institute of Marine Science and F/V Darana R

Goal: Define the operational requirements of a long term, region wide industry-based bottom trawl survey, 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 survey depth range, and vessel and staffing requirements.

Objectives:

- Define vessel requirements/characteristics
- Evaluate survey trawl performance (*esp. as f(depth)*)
- Evaluate feasibility of sampling within and around wind turbines
- Evaluate feasibility and efficiency of oceanographic sampling (CTD, Bongo, Niskin)
- Record catch data & collect biosamples (age, maturity, diet)
- Evaluate feasibility of 24 hour operations
- Document sampling rates

Product: Draft Standard Operating Procedures & vessel requirements for Phase II



William & Mary VIMS
Virginia Institute of Marine Science
School of Marine Science

RIBTS - Phase 2 (Funded; Spring 2027)

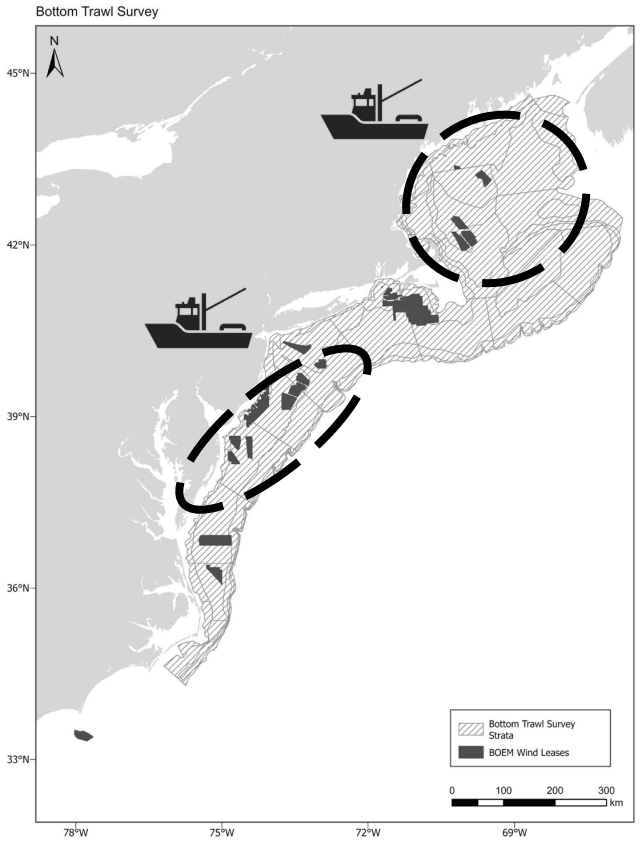
Goal: Inform the development of a full-scale survey, with focus on operational feasibility on multiple vessels and across a wider geographic area

Objectives:

- Pilot survey in GOM and SNE/Mid-Atlantic in partnership with 2 F/Vs
- Use NEFSC data acquisition system: FSCS
- Purchase some survey gear, equipment, and supplies

Products:

- Establish vessel staging SOPs: Consider differences among ports/vessels
- Define staffing needs: Number/expertise needed for staging and sea-going on multiple vessels
- Establish gear and instrumentation SOPs
- Define efficiency with proposed survey density/design
- Define long-term vessel requirements to support scientific operations



RIBTS Planning - NTAP Working Group

Meetings: ~ every 3 weeks since August 2025 (Aug 22, Oct 11, Oct 31, Nov 21, Dec 12, Jan 23, Feb 13, Mar 6, Mar 27, Apr 24, May 8, May 29, June 16, Aug 4, Aug 21, Sept 18, Oct 2, Dec 11, Jan 15, Jan 22, Feb 12 (NTAP), Apr 13)

Participants: Anna Mercer, Kathryn Ford, Jessica Blaylock, Emerson Hasbrouck, Jim Gartland, Vito Giacalone, Dave Goethel, Jameson Gregg, Robert Ruhle, Terry Alexander, Dan Salerno, Eric Reid, Madison Hall, Jason Morson, Catherine Foley, Paula Fratantoni, Chris Melrose, Harvey Walsh, Chris Rillahan

NEFSC Team: Anna Mercer, Jason Morson, Catherine Foley, Jessica Blaylock, Larry Alade, Madison Hall, Chris Melrose, Audy Peoples, Harvey Walsh, Paula Fratantoni, Kathryn Ford, Andy Jones

As part of Phase 2, planning regional presentations for feedback and awareness

Date	Topic
✓ 9/18/2025	Review Phase 2 Meeting Schedule
✓ 10/2/2025	Discuss Phase 1 Plan With Science-Industry Team
Missed 2 Planning Meetings During Shutdown	
✓ 12/11/2025	Phase 2 Program Management
✓ 1/15/2026	Survey Design (**1 of 2**)
✓ 1/22/2026	Wrap-up Survey Design Discussion From Previous WG Meeting
✓ 2/12/2026	Full NTAP Meeting
4/13/2026	Gear (**1 of 2**)
5/15/2026	Survey Design (**2 of 2**)
5/28/2026	Gear (**2 of 2**)
6/11/2026	Phase 2 Survey Components
7/9/2026	Finalize Plans and Draft RFP
July 2026 - TBD	Full NTAP Meeting
FY27	Long-Term RIBTS Plan Peer Review

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Other survey-related updates

- EcoMon spring 2026 - spring EcoMon will prioritize sampling Atlantic mackerel eggs in southern New England and the western Gulf of Maine to inform the egg index used in assessment
- Bluefin tuna slope sea larval fish survey helping to redefine stock units
- Ramping up Atlantic Mackerel Cooperative Research initiative, which includes acoustic surveys, egg surveys, biological sampling, and tagging
- Currently planning workshop to scope out herring study
- Currently planning for Gloria Michelle replacement (shrimp, Mass NEAMAP)
- Have plans, seeking opportunities to bring clam and shrimp back
- Maintaining efforts to operationalize eDNA sampling and have it as a regular component of fish and plankton surveys
- Did initial work using hook and line gear to sample hard bottoms in wind energy areas; will continue to assess need and intersection with RIBTS as wind areas develop
- We are planning for continued use of uncrewed surface vehicles starting at the end of April through May to monitor fish and plankton biomass using active acoustics.