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# Regional Industry-Based Bottom Trawl Survey (RIBTS) - Phase II Update

*07/09/26*

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# RIBTS Motivation and Goal

**Motivation:** The development of a Regional Industry-based Trawl Survey (RIBTS) was motivated by needing a better understanding of potential mitigation actions for offshore wind and contingency options for the NEFSC bottom trawl survey (BTS).

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



# RIBTS - Phase I

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

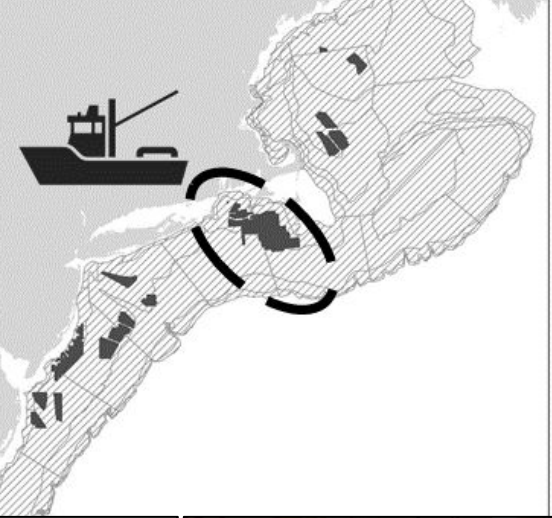
**Goal:** Define the operational requirements of a long term, region wide industry-based bottom trawl survey, including but not limited to logistics for oceanographic and biological sampling, efficiency of sampling, feasibility of towing in close proximity to offshore infrastructure, performance of trawl gear across survey depth range, and vessel and staffing requirements.

## **Objectives:**

- Define vessel requirements/characteristics
- Evaluate survey trawl performance (*esp. as  $f(\text{depth})$* )
- 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

**Phase I Fieldwork Complete!**

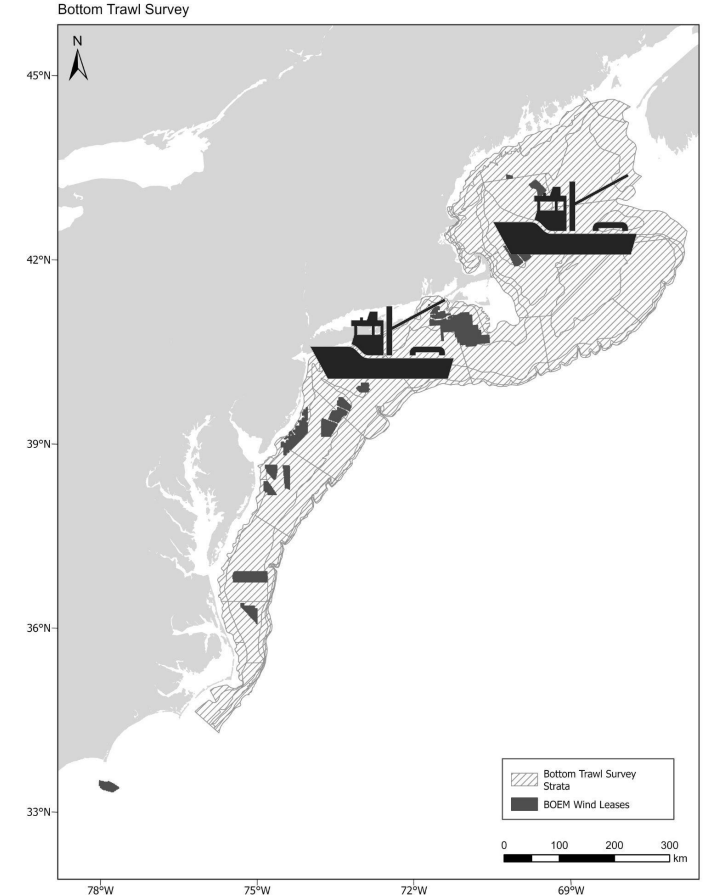


# RIBTS - Phase II

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

**Objectives:**

- Pilot survey aboard 2 F/Vs
  - Trawl, oceanography, biological sampling operations
- Pilot long-term data acquisition system
- 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

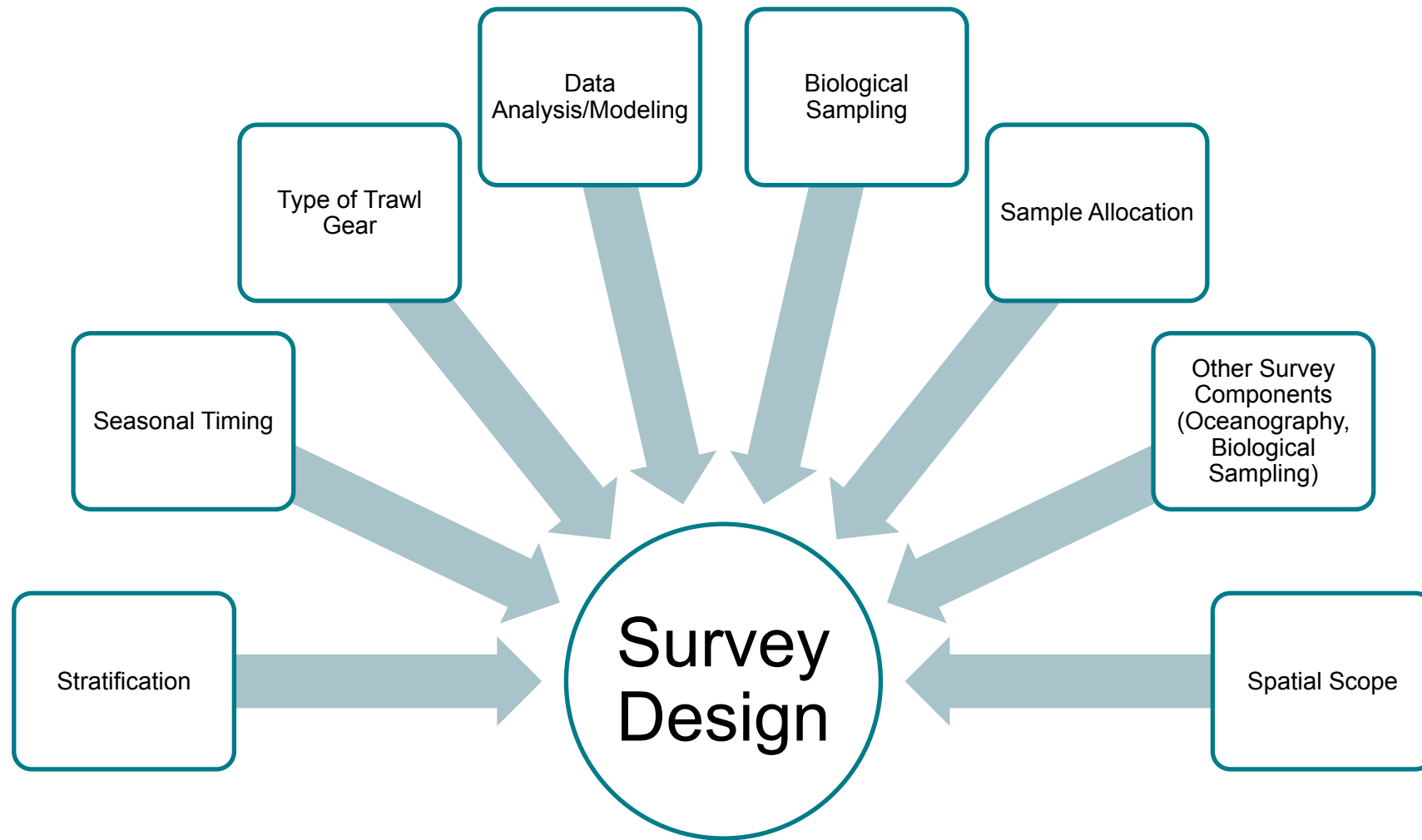


# RIBTS - Phase II Meeting Calendar

| Date                                         | Topic                                                                           |
|----------------------------------------------|---------------------------------------------------------------------------------|
| 9/18/2025                                    | Review Phase II Meeting Schedule                                                |
| 10/2/2025                                    | Discuss Phase I Plan With Science-Industry Team                                 |
| Missed Two Planning Meetings During Shutdown |                                                                                 |
| 12/11/2025                                   | Phase II Program Management                                                     |
| 1/15/2026                                    | Survey Design (1 of 2)                                                          |
| 1/22/2026                                    | Continue Survey Design Discussion                                               |
| 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 II Survey Components                                                      |
| 7/2/2026                                     | WG Finalize Recommendations On Spatial Scope and Overall Plan for Phase 2 RIBTS |
| 7/9/2026                                     | Full NTAP Meeting - Present Phase I Results and Phase II RFP                    |



# Trawl Survey Design Elements



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# RIBTS Phase II - NTAP WG Recommendations

## *Nets, Doors, Cables, and Floats*

**Goal For Nets, Doors, Cables, and Floats:** Achieve standardized net geometry and performance, and consistency with existing long-term trawl surveys in the region.



**Recommendation:** Use NEAMAP net, doors, cables, and floats.

**Justification:** Maintains consistency with NEAMAP and other trawl surveys in the region; good performance of this gear package during RIBTS Phase I across depth range.

**Challenges:** Procurement timeline; maintenance and replacement costs; vessel and deployment compatibility

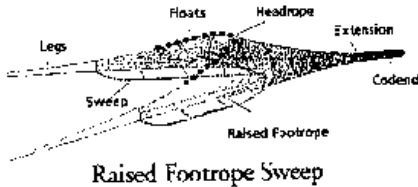
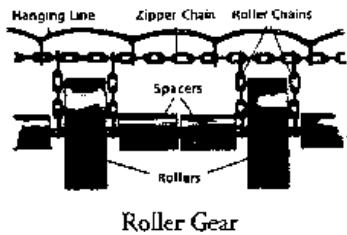


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# RIBTS Phase II - NTAP WG Recommendations

## *Gear - Sweep*

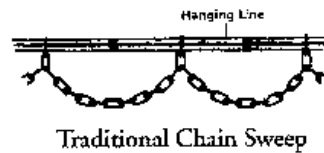
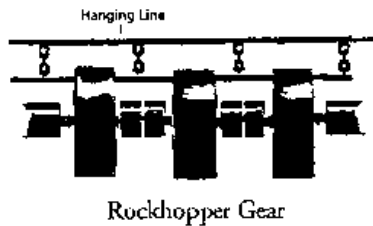
**Goal For Alternative Sweep Designs:** Maximize catch efficiency across different habitat types from Gulf of Maine to Mid-Atlantic.



**Recommendation:** Two sweep design (rockhopper and cookie sweep).

**Justification:** Optimizes gear performance across different habitat types.

**Challenges:** Logistical, operational, and analytical challenges with using two sweeps.

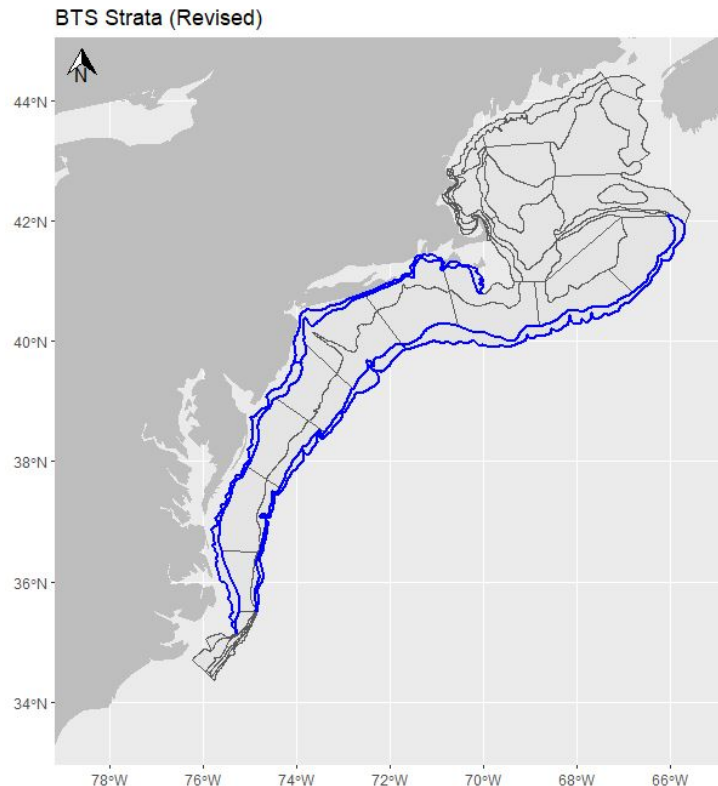


Pol & Carr 2000

# RIBTS Phase II - NTAP WG Recommendations

## *Stratification*

**Goal For Stratification:** Divide the survey area into meaningful (i.e., depth, habitat type) regions so sampling is representative, variance is reduced, and accuracy of survey indices is maximized.



**Recommendation:** Use consolidated NEFSC Bottom Trawl Survey strata.

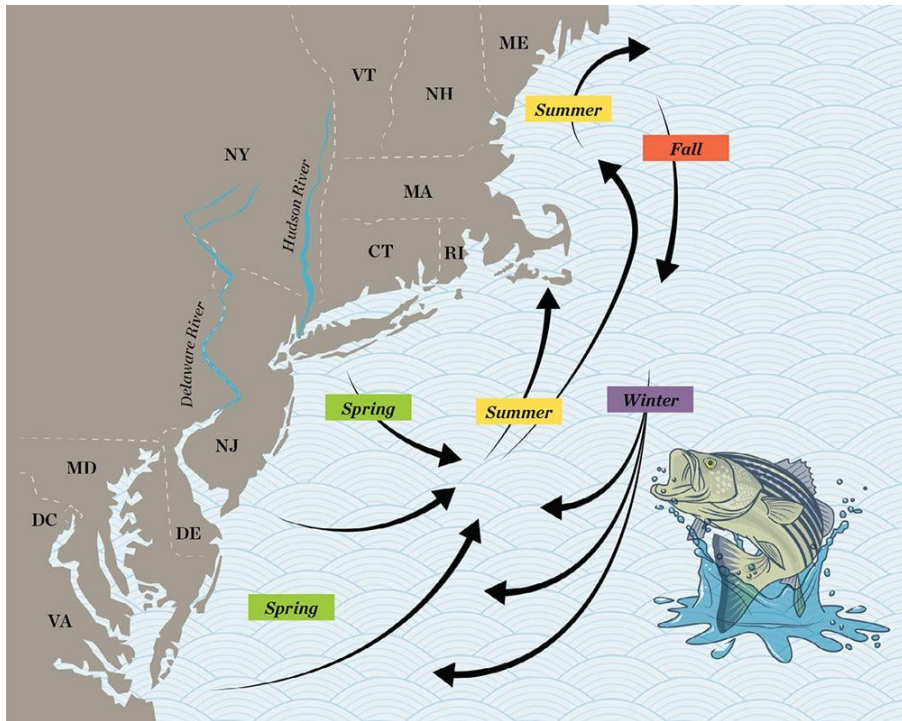
**Justification:** Allows for increased sample density in larger, undersampled strata.

**Challenges:** Short-term integration with NEFSC Bottom Trawl Survey data (currently uses “unconsolidated” strata).

# RIBTS Phase II - NTAP WG Recommendations

## *Seasonal Timing*

**Goal For Seasonal Timing:** Collect data during a consistent season that best reflects stock availability and biology, while maintaining compatibility with existing surveys and long-term assessment needs.



**Recommendation:** Target spring 2027, but allow flexibility to pivot to fall 2027 if contracting and procurement of equipment is slow.

**Justification:** Achieves overlap with other surveys; weather is more favorable in spring than fall.

**Challenges:** Sufficient lead time to secure all necessary fishing and science equipment.

Image Credit: Saltwater Sportsman

# RIBTS Phase II - NTAP WG Recommendations

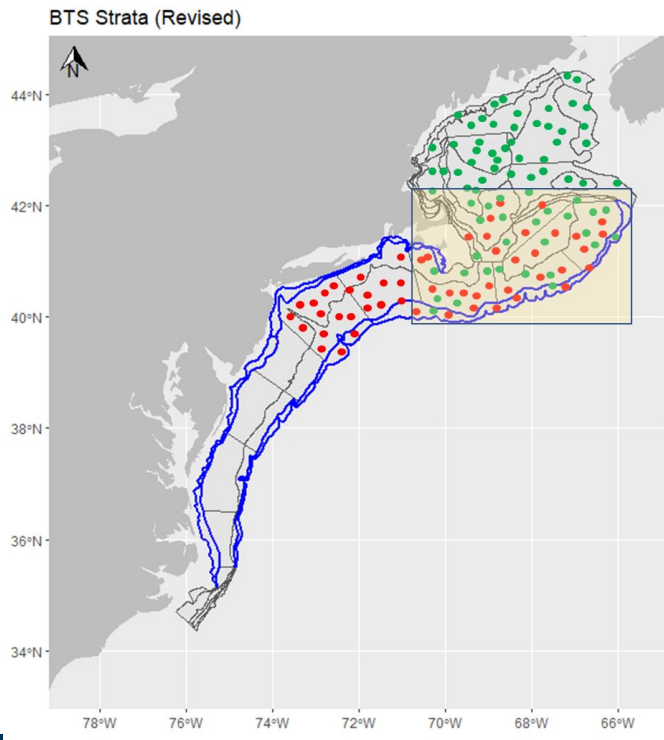
## *Spatial Scope*

**Goal For Spatial Scope:** Design a survey spatial scope that maximizes the utility of survey data for stock assessment, by ensuring consistent, representative sampling of the population(s) of interest over time and fully encompassing the stock(s) area. For Phase II, achieve sufficient spatial overlap between sweep types to enable quantitative comparison.

**Recommendation:** Target Southern New England, Georges Bank, and Gulf of Maine; select strata to maximize stock-specific spatial coverage; target spatial and temporal overlap between sweeps.

**Justification:** Expands spatial scope from Phase I; enables data integration across sweep designs and comparison with existing surveys.

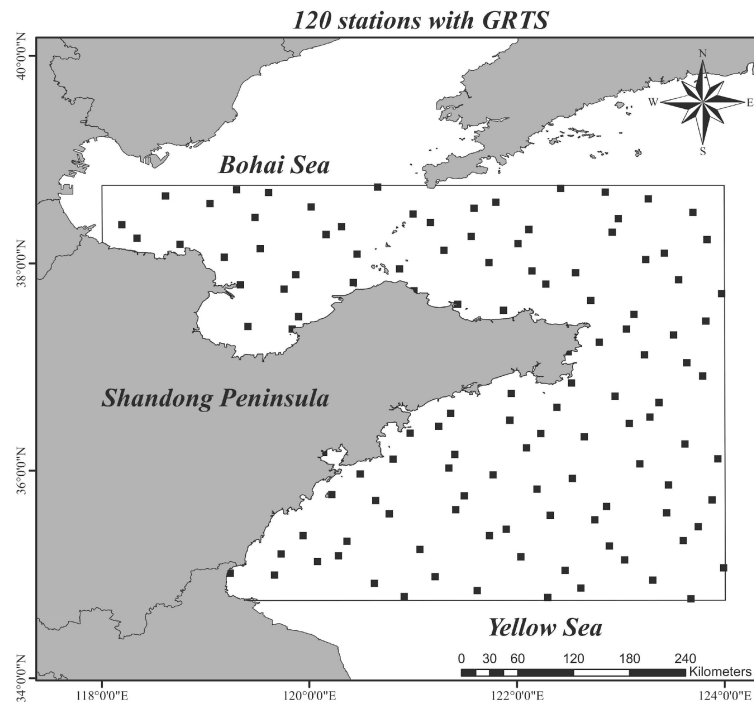
**Challenges:** Logistical challenges with achieving necessary overlap between sweeps and achieving full coverage for some stocks.



# RIBTS Phase II - NTAP WG Recommendations

## *Sample Allocation*

**Goal For Sample Allocation:** Distribute sampling effort across and within strata in a way that will collect data that is representative of the population(s)/stock(s)



Adapted from Cheng et al. 2024.  
Fisheries Research 270, 106879

**Recommendation:** Use a spatially-balanced approach to allocate samples across and within strata.

**Justification:** Maximizes spatial coverage within a stratum; pilots a new approach for sample allocation that is being considered for other trawl surveys.

**Challenges:** Existing personnel have limited expertise in applying this method; requires training and time

# RIBTS Phase II - NTAP WG Recommendations

## *Net Mensuration*

**Goal For Net Mensuration:** Ensure net geometry is standardized across tows and vessels; provide data for calculation of swept area biomass.



**Recommendation:** Use Simrad PX system.

**Justification:** Consistent with other long-term surveys and good performance during RIBTS Phase I.

**Challenges:** System startup, maintenance, and replacement costs.

# RIBTS Phase II - NTAP WG Recommendations

## *Catch Data Collection*

**Goal For Catch Data Collection:** Track fish biomass, abundance, and demographics.



**Recommendation:** Collect aggregate catch weights for each species and a sub-sample of individual fish lengths and weights.

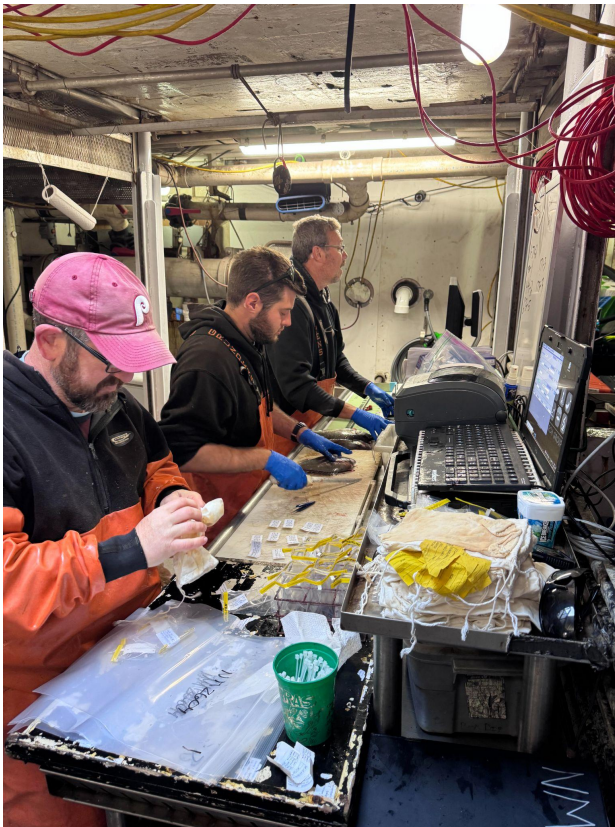
**Justification:** Required for stock assessment.

**Challenges:** Cost and maintenance of electronic data collection systems

# RIBTS Phase II - NTAP WG Recommendations

## *Biological Sampling*

**Goal For Biological Sampling:** Support analytical stock assessments and future ecosystem-based considerations in stock assessments



**Recommendation:** Collect otoliths, maturity samples and maturity stage, and stomachs

**Justification:** Otoliths (ages) required for many stock assessments; maturity information used in many stock assessments; diet information helpful for developing ecosystem-based considerations

**Challenges:** Lab space on the vessels; time, resources and trained staff to process samples in the lab.

# RIBTS Phase II - NTAP WG Recommendations

## *Oceanographic Sampling*

**Goal For Oceanographic Sampling:** Collect environmental and oceanographic data to monitor early life stages of resource species and ecosystem productivity, and develop ecosystem indicators for fish stocks.

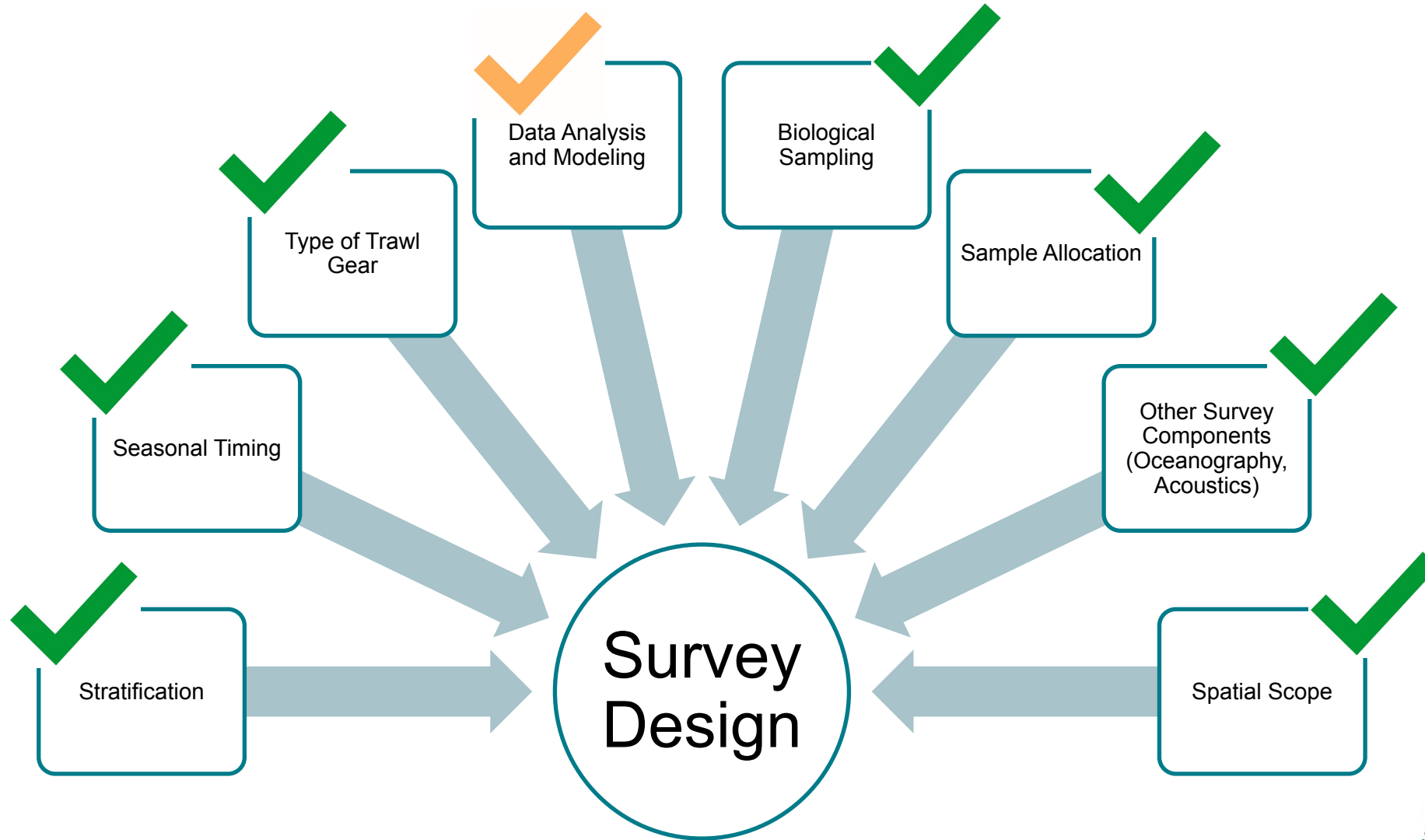


**Recommendation:** Deploy CTD at every station, collect Niskin once per day, and deploy Bongo nets at a subset of stations each day.

**Justification:** Consistent with other long-term surveys and provides flexibility to fill data gaps; immediate data applications; and important for future applications of ecosystem data in stock assessments.

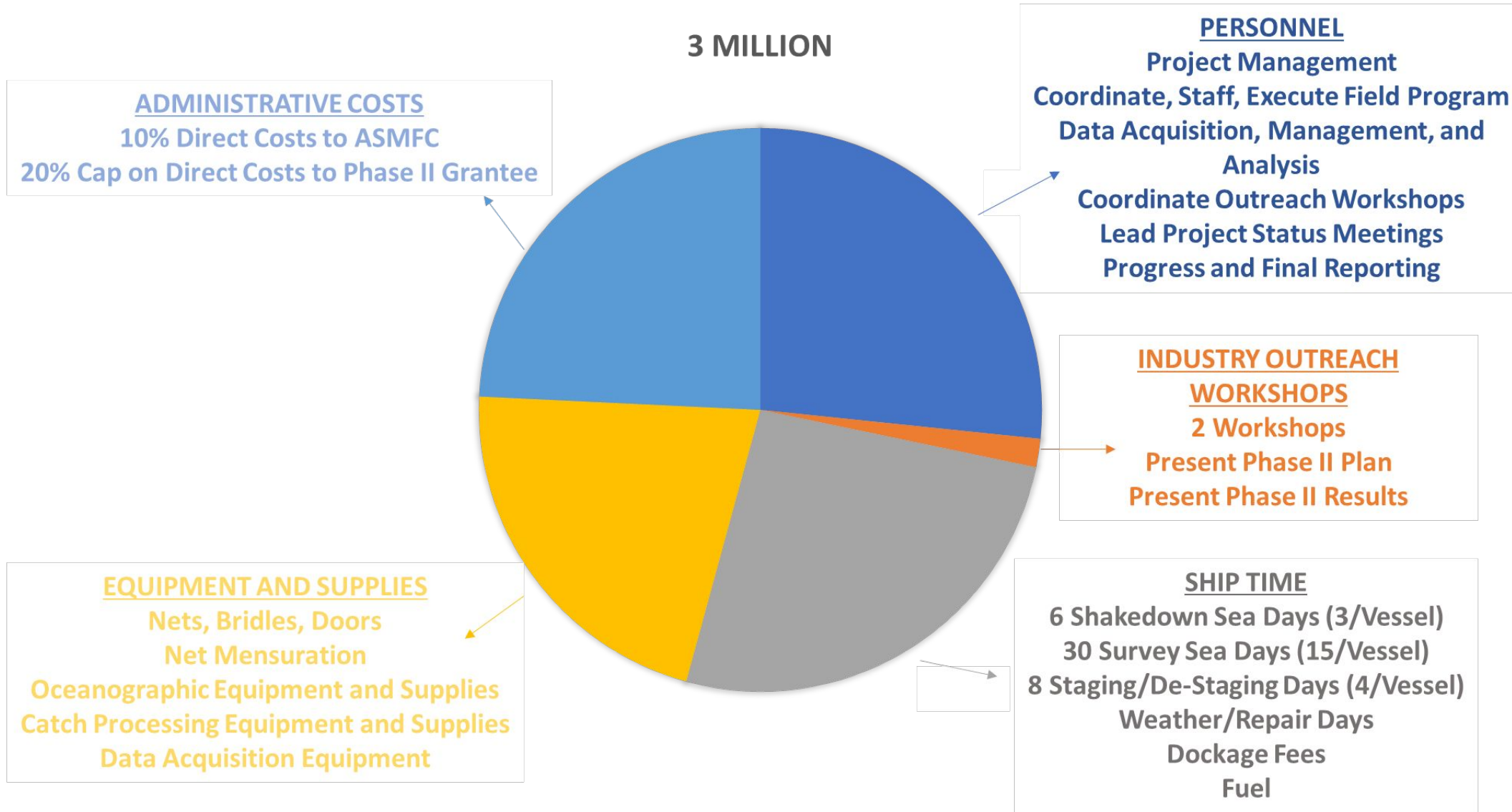
**Challenges:** Time at sea, staff training, supplies and equipment.

# Trawl Survey Design - Elements



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# RIBTS Phase II – Estimated Phase II Costs



*Budget includes sufficient fishing and scientific equipment for concurrent sampling, with the exception of oceanography*



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# Phase II - Timeline

**July 2026** - Draft RFP July 2026

**August 2026**- Issue RFP

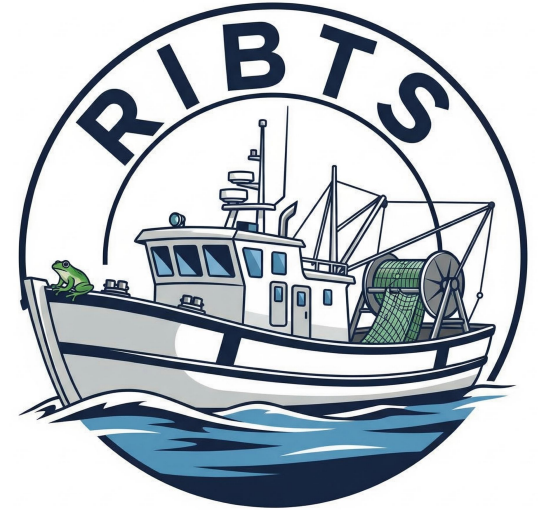
**September 2026** - Review Proposals and Select Phase II Team

**Begin October 2026** - Contracting, Phase II Team Meetings,  
Purchasing and Fabrication

**January 2027** - Workshop #1 (Phase II Plan)

**Spring 2027** - Shakedown and Field Program

**Fall 2027** - SOPs, Workshop #2 (Phase II Results), Final Reporting



***Contracting, fabrication, purchasing timelines may impact  
feasibility of spring 2027 field work***

# Questions?



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