



# ROSA

Responsible Offshore  
Science Alliance

## **ROSA Advisory Council**

March 19, 2026



Zoom Poll - Who is in the room?

# Agenda

- 1:00pm**      **Welcome, Introductions, Agenda Review**
- 1:10pm**      **ROSA Updates**
- 2:00pm**      **Research Highlights**
- 2:30pm**      **Fishing Industry Insights (FINsights)**
- 2:55pm**      **Action Items, Next Steps, and Other Business**
- 3:00pm**      **Adjourn**

A large, powerful ocean wave is shown in the process of crashing, with white foam and spray visible at the crest. The water is a deep, dark blue-green color. The background shows the horizon line under a clear, light blue sky. A semi-transparent teal banner is overlaid across the bottom portion of the image, containing the text 'ROSA Updates' in white, bold, sans-serif font.

# ROSA Updates



# **Regional Research & Monitoring Program**

Tricia Perez

# RFP 01: Advancing Regional Solutions for Fisheries and Offshore Wind

| Topic Area                  | Lead Entity                       | Short Title  | Region Addressed |
|-----------------------------|-----------------------------------|--|------------------|
| Supporting Fisheries Access | UMaine                            | Co-Locating a Fixed Gear Fishery with a Demonstration Scale Floating Offshore Wind Turbine | GOM              |
|                             | SMAST                             | Gear Monitoring Technologies for Safe Fishing in OFW                                       | SNE              |
|                             | GMRI                              | Supporting Fisheries Access in the Gulf of Maine   | GOM              |
| Larval Impacts              | SMAST                             | Black Sea Bass Connectivity  | SNE              |
| Fisheries Monitoring        | NEAQ                              | Impact of wind development on pelagic fishes   | SNE              |
|                             | SMAST                             | OFW Regional Monitoring and Analysis   | SNE & Mid        |
|                             | ASA Analysis & Communication, Inc | Multi-frequency Acoustic Monitoring of Regional Offshore Wind Impacts                      | SNE              |
|                             | Smithsonian                       | Effective Acoustic Telemetry   | SNE & Mid        |
|                             | UMCES                             | Flyway Model   | SNE & Mid        |
|                             | Inspire Environmental             | Fisheries Monitoring Mapping Tool  | SNE & Mid        |

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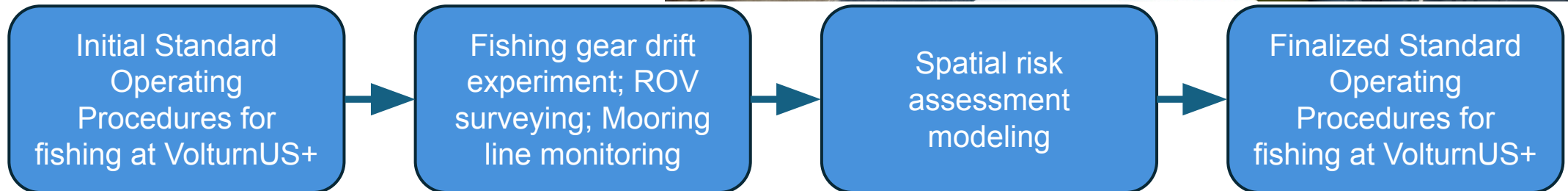
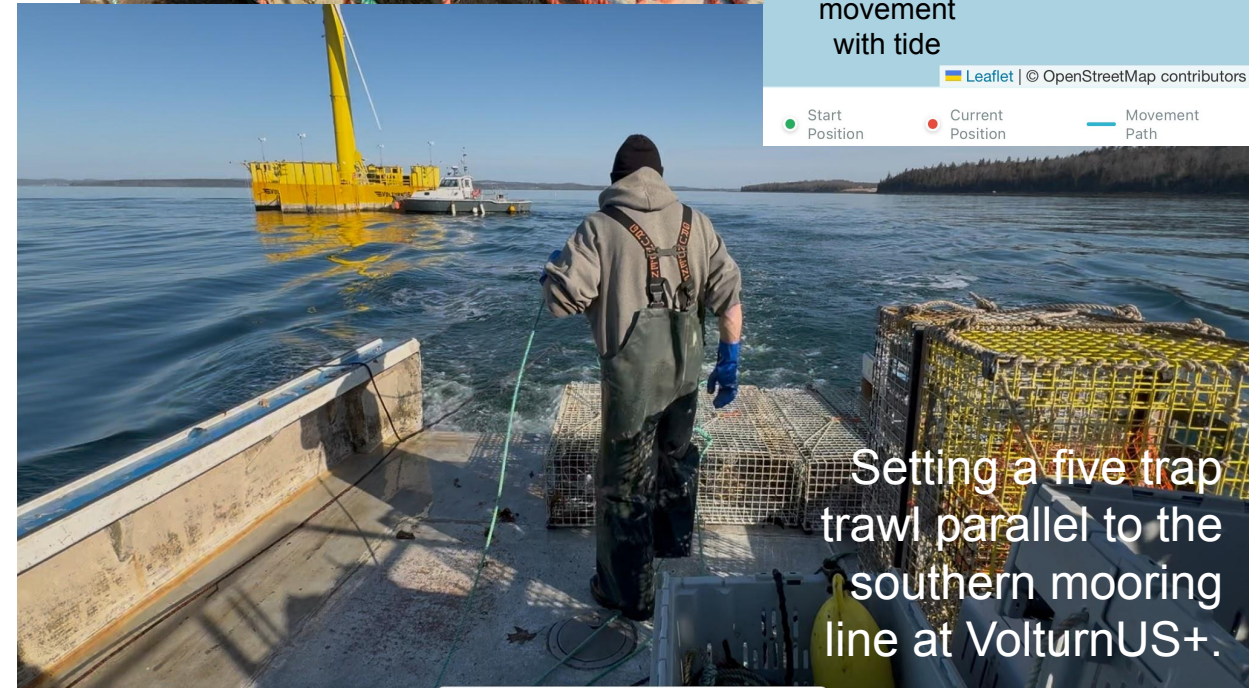
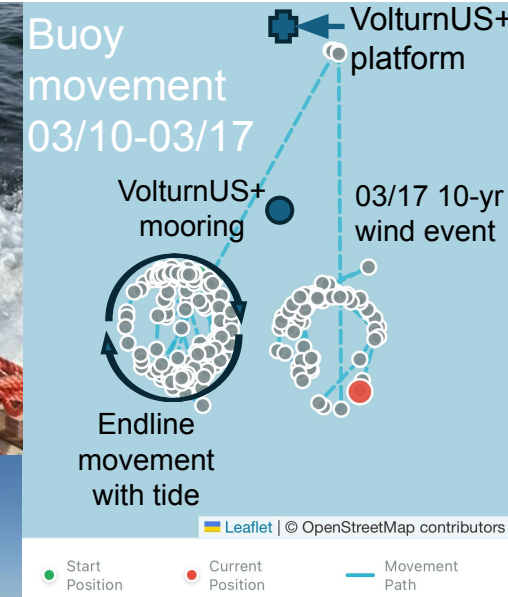
# Co-Locating Fixed Fishing Gear with a Demonstration Scale Floating Offshore Wind Turbine

Damian Brady, Everett Rzeszowski, University of Maine, School of Marine Sciences  
Anthony Viselli, Spencer Hallowell, UMaine Advanced Structures and Composites Center  
Chris Bates, F/V Azure Bailey

Goal: Develop **Standard Operating Procedures** for fixed gear fishery operation at UMaine's VoltturnUS+ informed by **fishing gear drift experiments** relating the probability of turbine-fishery interactions to **metocean conditions**.

Using this we will characterize how safe operational distances change during spring tides and extreme weather events.

These worst-case scenario conditions will govern the ability to deploy and leave fixed fishing gear at the site.



# Increasing the utility of acoustic telemetry data to inform decision making and assessments at the project and regional scale

Beth Bowers, Mike O'Brien, Matt Ogburn, Dave Secor

## OVERVIEW

- Determine most efficient acoustic receiver placement for regional monitoring
- Maximize coverage while minimizing equipment

## PLAN

- Help stakeholders choose focal species
- Randomize receivers, simulate tracks, derive detection data, reconstruct tracks, evaluate performance
- Cost/benefit analysis

## OUTCOMES

- Plan for cost-effective, regional coverage across US Atlantic Continental Shelf
- Initial setup costs
- Annual maintenance costs
- FAIR workflow



# Interactive Mapping of Developer OSW Fisheries Monitoring Studies

Objective: Develop a publicly accessible, interactive mapping tool that visualizes the geographic scope and key attributes of OSW developer-led fisheries monitoring.

Mapping tool will:

- Align with RWSC Planning Map and Northeast Ocean Data Portal,
- Be a primary component of ROSA's strategic actions for regional monitoring
- Support FAIR (Findable, Accessible, Interoperable, Reusable) data principles.
- Map OSW fisheries monitoring efforts by gear type and focal species.
- Initially map OSW fisheries monitoring efforts that involved INSPIRE, e.g., Empire, South Fork, and Block Island

Outcomes:

- Leverage studies compiled in FishFORWRD portal
- Provide a publicly available, online, interactive map
- Identify knowledge gaps
- Avoid redundancies



**INSPIRE**  
ENVIRONMENTAL

 venterra



# **Atlantic Offshore Research Funder Coordination**

| Stage                               | Entity  |
|-------------------------------------|---|
| Projects selected & Announced       | Massachusetts Clean Energy Center (MassCEC)   |
|                                     | NOAA Research Set Aside Program (NOAA RSA)* 2025  |
|                                     | Responsible Offshore Science Alliance (ROSA)  |
|                                     | Maine OSW Research Consortium (ME OSW RC) -1st Round  |
|                                     | National Fish & Wildlife Foundation Vessel Strike Risk Reduction (NFWF)*                        |
|                                     | National OSW Research & Development Consortium (NOWRDC)   |
|                                     | Marine Mammal Commission technology grants*   |
|                                     | Maine OSW Research Consortium (ME OSW RC) -2nd Round  |
|                                     | Massachusetts Division of Marine Fisheries Fisheries Innovation Fund                            |
|                                     | ME GEO BlueTech Innovation & Monitoring at the UMaine Demo Floating Turbine                     |
| Selection/<br>announcement underway | Northeast Sea Grant Consortium (NE SGC)   |
|                                     | New Jersey Research & Monitoring Initiative (NJ RMI)  |
|                                     | Regional Wildlife Science Collaborative (RWSC)  |
|                                     | New York State Energy Research & Development Authority Sturgeon Request for Proposals (NYSERDA) |
| <b>Open Funding Solicitations</b>   | <b>NOAA Research Set Aside Program (NOAA RSA)* 2026</b>   |
|                                     | <b>Massachusetts Clean Energy Center (MassCEC)</b>  |
| Upcoming Solicitations (TBD)        | Maine OSW Research Consortium (ME OSW RC) -3rd Round  |
|                                     | Sunrise Regional Research Funds (ROSA & RWSC)   |
|                                     | National Fish & Wildlife Foundation (NFWF)  |



## Request for Proposals: Offshore Wind Science, Research, and Analysis

OSW-2026-03

Date of Issue: March 18, 2026

Proposals Due: April 28, 2026 at 11:59 PM

Total Funding Available: **\$2.5 Million**

All proposals must be submitted to:

[Offshorewind@masscec.com](mailto:Offshorewind@masscec.com)

“MassCEC will review and consider all eligible project proposals that address one or more of the Solicitation Objectives and Challenges established above; however, MassCEC also specifically seeks applications to address one or more of the Topic Areas described below”

1. Fisheries: Understanding Effects in Southern New England Lease Areas
  - a. Commercial Fishing Vessel Use Patterns
  - b. Recreational and For-Hire Fishing Activity
2. Wildlife & Habitat
  - a. Modeling Gulf of Maine Ocean Processes
  - b. Habitat Enhancement Opportunities
  - c. Analysis of Wildlife Protection Measures
3. Regional Transmission Planning
4. Gulf of Maine Regional Planning
5. Communicating Existing Science and Research

# New Projects Webinar - Part II

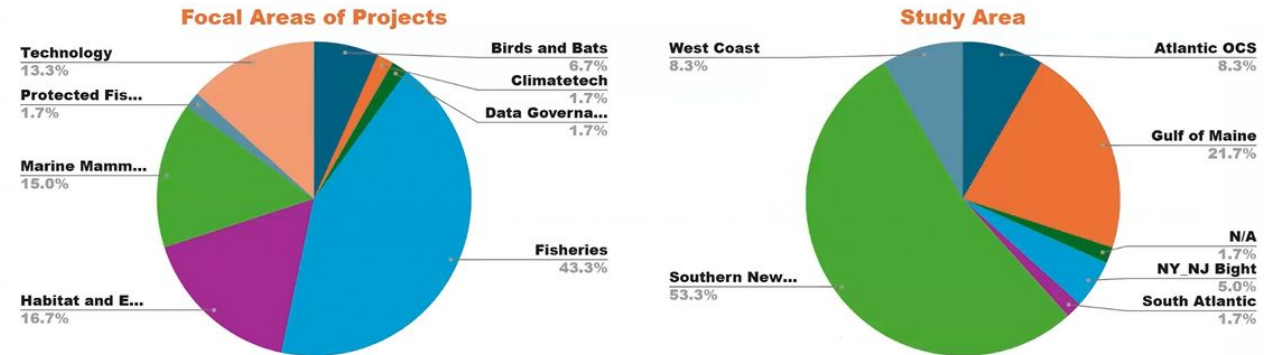
- Feb 23rd, >100 registrants
- Brief overview of current RFPs/award status
- 3 Curated Themes:
  - eDNA
  - Whales & Oceanography
  - Fisheries Engagement

Watch the  
playback



## Summary of New projects

*Caveats: some projects span focal areas and study areas*



*Since the last public webinar (September),  
10 new fisheries projects and 3 new technology projects have been funded*

A large, powerful ocean wave is shown in the process of crashing, with white foam and spray visible at the crest. The water is a deep blue-green color. The background shows the horizon line under a clear sky. A teal-colored horizontal band is overlaid on the bottom portion of the image, containing the text 'DMSP Template' in white, bold, sans-serif font.

# DMSP Template

# Data Management & Sharing Plan (DMSP)



A formal document that outlines **how research data will be handled, stored, shared, and preserved** throughout the lifecycle of a project.

The plan should demonstrate the researcher's commitment to good data management practices (e.g., FAIR: Findable, Accessible, Interoperable, Reusable) and **ensure that data are available for future research.**

# Data Management & Sharing Plan (DMSP) Template

## TEMPLATE HIGHLIGHTS

- Roles & responsibilities around data
- Research Inputs (third party data)
- All data, metadata, and data products to be produced/created
  - Data standards used
  - Data licenses and access restrictions
  - Timeline and plan for sharing the data
  - Plans for stewardship & preservation

## Atlantic Offshore Research (RWSC & ROSA)

available at [dmptool.org](http://dmptool.org)

## 16 Types of Research Outputs

### Most Relevant to Fisheries Research

- Fishing Gear & Biological Sampling Data
- Fisheries Socioeconomic & Human Dimensions Data
- eDNA
- Acoustic Telemetry
- Biological Oceanography
- Data Products



**Fish, Fisheries, and Offshore Wind  
Research Gaps Analysis Final Report**  
Tricia Perez

# FishFORWRD | Fish and Fisheries OffshoRe Wind Research Database

## OBJECTIVE

Increase awareness of ongoing and completed offshore wind fisheries research and monitoring

Avoid duplication of efforts

Create a common understanding of progress made and research needs remaining

## COMPONENTS

### Research Projects

- Projects funded by federal agencies, state agencies, non-profits, etc.
- Individual Surveys of Offshore Wind Project-Level Fisheries & Benthic Monitoring Plans












### Research Needs

- Individual Research Needs compiled from 17 research prioritization documents

### Research Gaps Analysis

- 70 Summarized Research Needs structuring the offshore wind fisheries science space
- Assessment of coverage and gaps across all 70 Summarized Research Needs

## RESEARCH CATEGORIES

-  Habitat Fragmentation/Modification
-  Socioeconomic & Sociocultural Impacts
-  Cumulative Impacts & Fisheries Mgmt
-  Sound/Vibration Impacts
-  Species Distribution/Composition
-  EMF
-  Fishing Access
-  Fisheries Engagement & Capacity Building
-  Survey Adaptation
-  Data Management
-  Regional Resource Monitoring

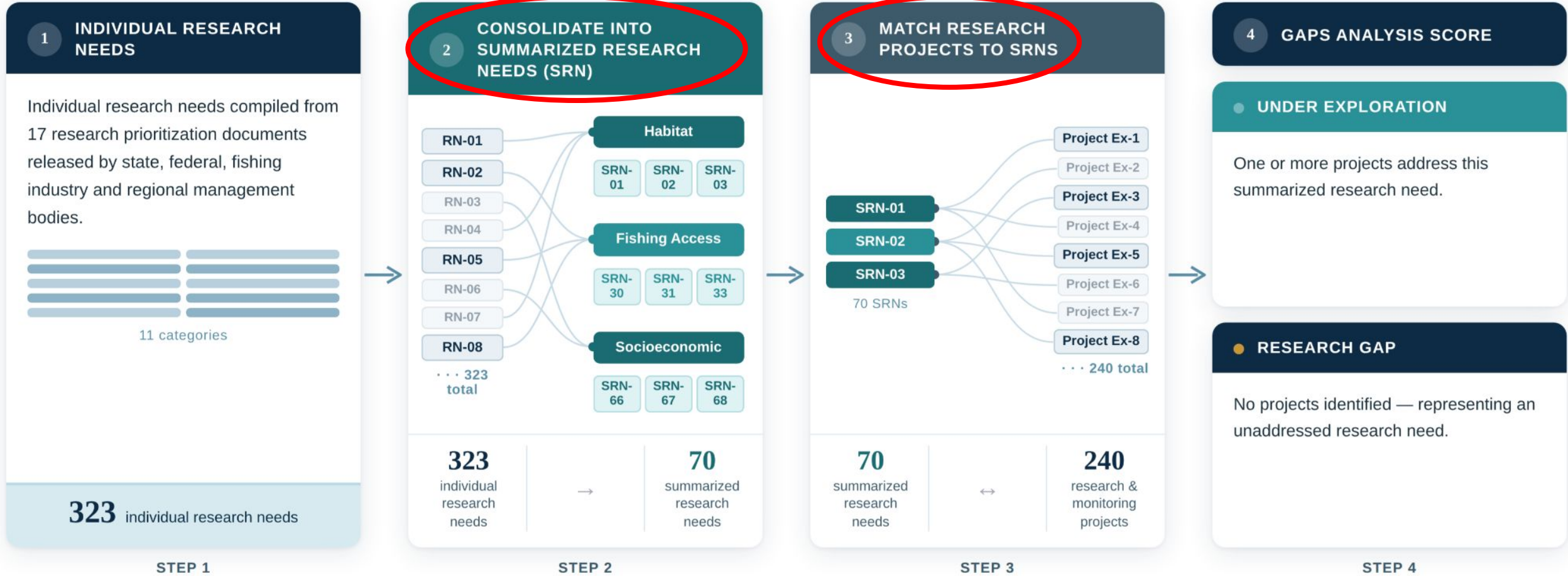




# PEER REVIEW

Summer 2025

## Research Gaps Analysis Process



# Contents

- How To
- Executive Summary
- Background
- Characterization of the Current Research and Monitoring Portfolio
- Research Gaps Analysis
  - Methodology
  - Gaps Analysis Peer Review
  - Interpretation of Results
  - Recommended Uses of Results
  - Research Need Coverage Across Categories
- Results By Research Category
  - Explanation/context of research needs
  - Assessment of coverage of research needs
  - Peer reviewer discussion highlights



## **FISH AND FISHERIES OFFSHORE WIND RESEARCH GAPS ANALYSIS**

*U.S. ATLANTIC COAST*

FINAL REPORT

MARCH 2026

**ROSA**  
Responsible Offshore  
Science Alliance

| Research Category                                      | SRNs           | Unaddressed Needs | Indiv. Projects Addressing SRNs |
|--|----------------|-------------------|---------------------------------|
| Cumulative Impacts & Fisheries Management Implications | 5              | 3                 | 15                              |
| Data Management  | 4              | 0                 | 10                              |
| Regional Resource Monitoring                           | 5              | 2                 | 18                              |
| Species Distribution/Composition                       | 3              | 0                 | 68                              |
| Habitat Fragmentation/Modification                     | 18             | 2                 | 59                              |
| Electromagnetic Fields (EMF)                           | 4              | 0                 | 11                              |
| Sound/Vibration Impacts                                | 5              | 0                 | 15                              |
| Fisheries Engagement & Capacity Building               | 4              | 0                 | 3                               |
| Fishing Access   | 6              | 0                 | 38                              |
| Socioeconomic & Sociocultural Impact                   | 11             | 0                 | 26                              |
| Survey Adaptation                                      | 5              | 1                 | 16                              |
| <b>TOTAL</b>   | <b>70 SRNs</b> | <b>8 Gaps</b>     |                                 |

## RESEARCH GAPS

1. Cumulative Impact Assessment Framework/Guidance
2. Policy Alignment Across Ocean Sectors Relative to Offshore Wind Fisheries Science Objectives
3. Risk and Mitigation for Councils/Commissions
4. Use of Monitoring to Evaluate Effectiveness of Mitigation Strategies
5. Decommissioning Effects
6. Changes to Light Conditions
7. Development of Interim Provisional Survey Indices
8. New Fishery Observer Protocols to Address Questions

*\*\*based on projects included in FishFORWRD*

## 4 GAPS ANALYSIS SCORE

### ● UNDER EXPLORATION

One or more projects address this summarized research need.

**No Research Needs are Considered Addressed**

### **Under Exploration ≠ Solved**

- Species-limited
- Region-limited
- Method-limited

### ● RESEARCH GAP

No projects identified — representing an unaddressed research need.

**Gap ≠ No knowledge exists**

**Gap ≠ Priority**

# FINAL REPORT WEBINAR

## *Progress and Gaps in Offshore Wind Fisheries Research*

**April 8 @ 10 AM**

Register Here

A collage of three images: on the left, a close-up of several clams; in the center, an offshore wind turbine on the ocean; on the right, a school of fish swimming underwater.

**FISH AND FISHERIES  
OFFSHORE WIND  
RESEARCH GAPS  
ANALYSIS**

*U.S. ATLANTIC COAST*

FINAL REPORT

MARCH 2026

**ROSA**  
Responsible Offshore  
Science Alliance

# DIVING DEEPER INTO RESULTS

## ***The State of Offshore Wind Fisheries Science on the U.S. Atlantic Coast***

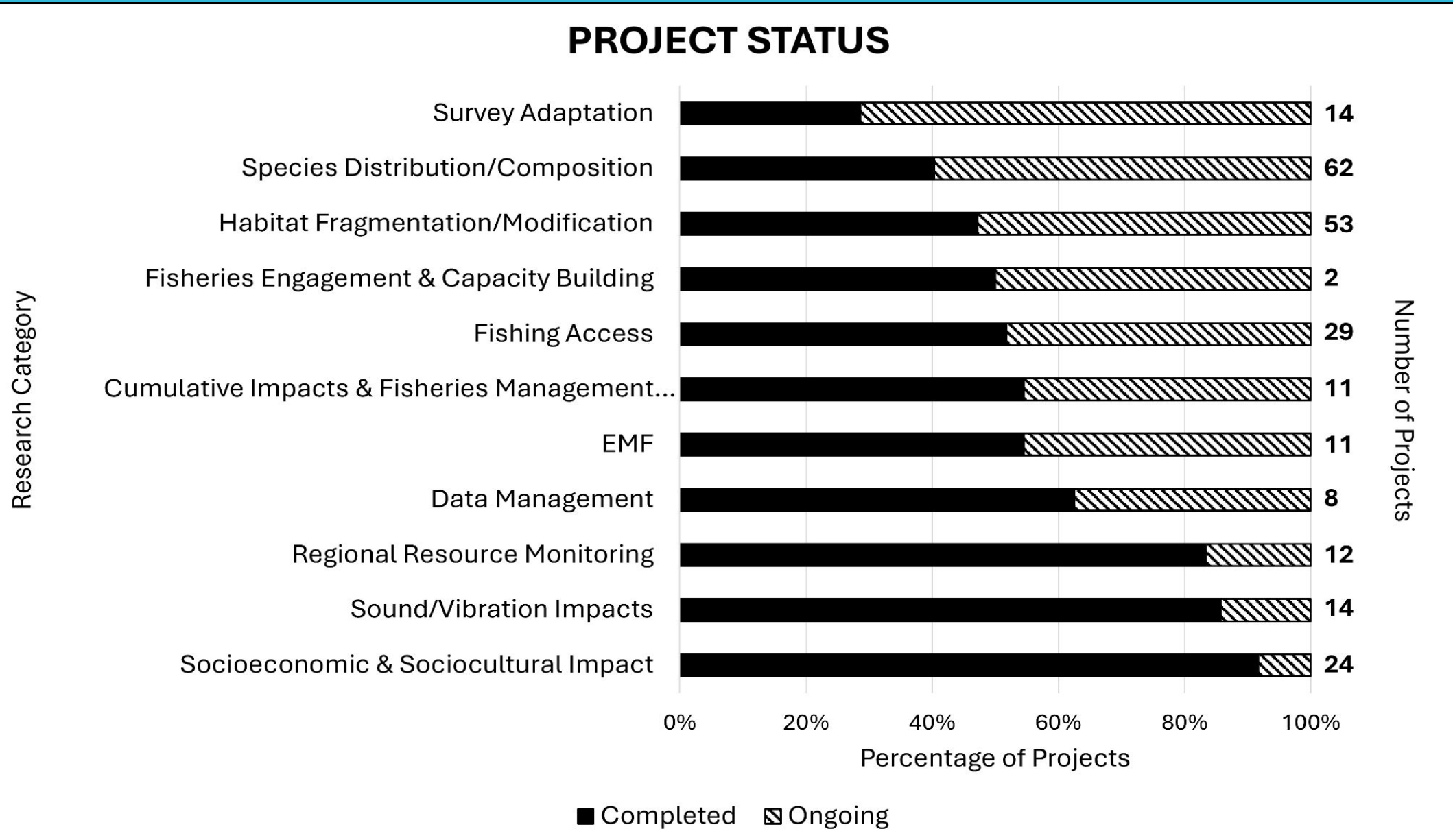
***webinar series  
launching this year***

The Gaps Analysis assesses research coverage, but does not capture what that research has found to date.

Webinar series will **synthesize and share findings** from completed and mature projects mapped to research needs important to the ROSA Community.


- inform funder coordination and future research proposals
- inform all on key findings, what we have learned, and the limitations and remaining uncertainties

# POLL: WHAT RESEARCH CATEGORY SHOULD WE DIVE INTO FIRST?



A large, powerful ocean wave is shown crashing, with a significant amount of white foam and spray. The water is a deep blue-green color. The sky is a pale, clear blue. A teal gradient overlay covers the bottom portion of the image, where the text is located.

# Research Highlights



# VINEYARD WIND 1 MONITORING OF DEMERSAL FISH COMMUNITIES DURING CONSTRUCTION

Chris Rillahan, Keith  
Hankowsky & Pingguo He  
University of Massachusetts Dartmouth –  
School for Marine Science and  
Technology (SMAST)

# VINEYARD WIND 1 PROJECT

## Project Details:

- 15 miles (~25 km) south of Martha's Vineyard, MA
- 62 GE Haliade-X Turbines (13 MW)
  - 1 nm. grid spacing
- 1 Electric Service Station
- 806 MW Capacity
- Project Area = 265 sq. km.

## Project Highlights:

- OCS-A 0501 Leased in 2015
- Offshore Construction started in Spring 2023
- First power: January 2, 2024
- Fully Operational: Spring 2026



# DEMERSAL TRAWL SURVEY

The demersal trawl survey is one of the multiple ongoing monitoring surveys specified in the Fisheries Monitoring Plan.

## Experimental Design

- Beyond-BACI Design (Underwood, 1991)
- 3-1-3 years (pre-, during-, and post-construction)

## Four seasons

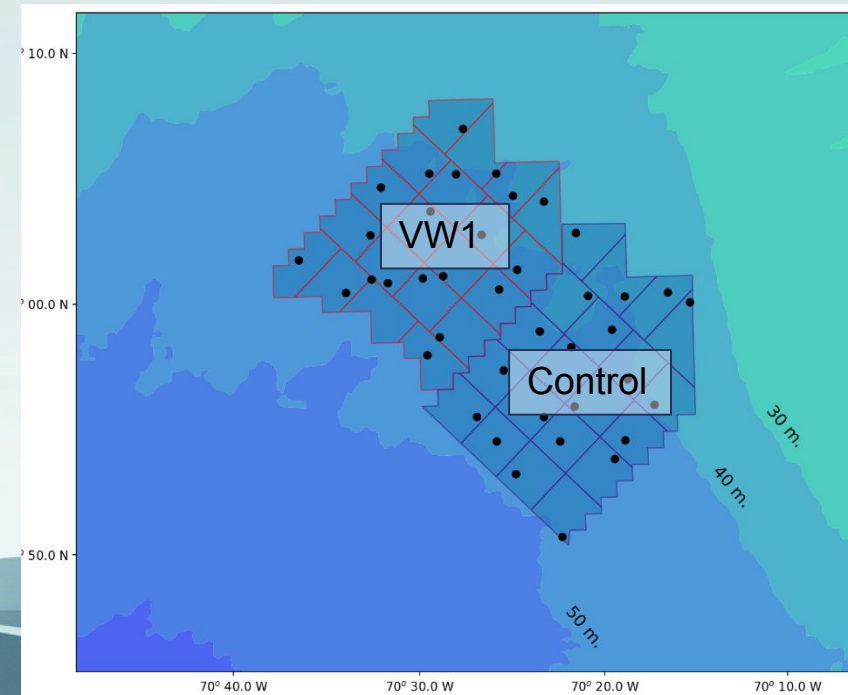
- Winter: January – March
- Spring: April – June
- Summer: July – September
- Fall: October – December

## Number of tows

- 20 tows each in VW1 Study Area and Control Area.

## Tow locations

- Selected using a spatially balanced sampling design.
- Sampling resolution: 1 station every 3.6 – 4.5 sq. nautical miles (in Development and Control Areas)



# NEAMAP DEMERSAL TRAWL AND SURVEY PROTOCOL

## NEAMAP trawl

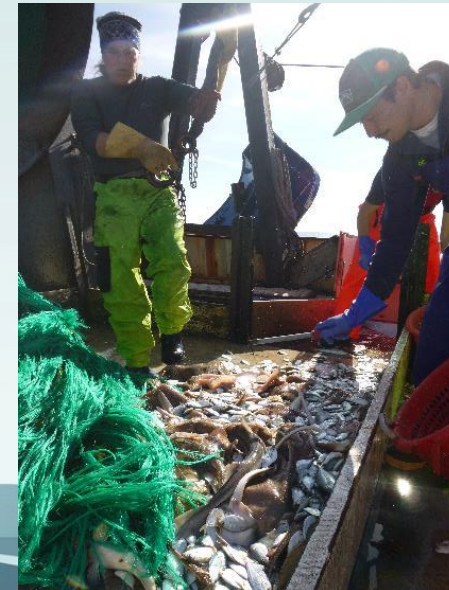
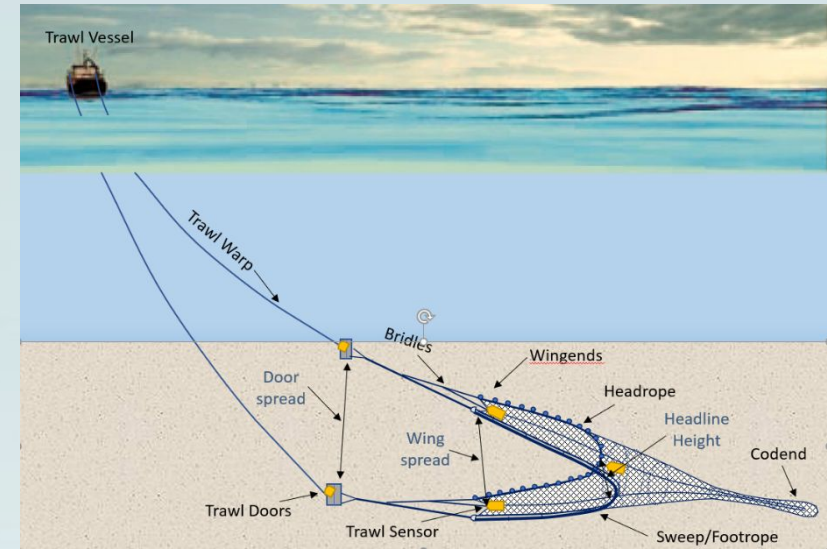
- Three-bridle, four-seam bottom trawl developed by Northeast Trawl Advisory Panel
- Uses a “flat-sweep” to reduce escape of fish under the net
- The use of 1” knotless liner in the codend to retain juvenile fish

## NEAMAP survey protocol (Bonzek et al., 2008 )

- Commercial fishing vessel
- Tow duration: 20 min
- Tow speed: 3.0 knots
- Daytime only: 30 min after sunrise – 30 min before sunset

## Data Collected

- Trawl geometry & performance
- Biological: Catch, individual length & weight
- Environmental: CTD, Bottom temp, weather, etc.



# MONITORING EFFORT (2019 – 2024)

## Pre-construction surveys and tows:

- 11 seasonal surveys completed (June 2019 – August 2022)
- 3 surveys in the winter, summer, and fall
- 2 surveys in the spring
- 440 tows

## During-construction surveys:

- First demersal trawl survey conducted during active construction.
- 4 seasonal surveys completed (May 2023 – February 2024)
- 1 survey in each season
- 160 tows

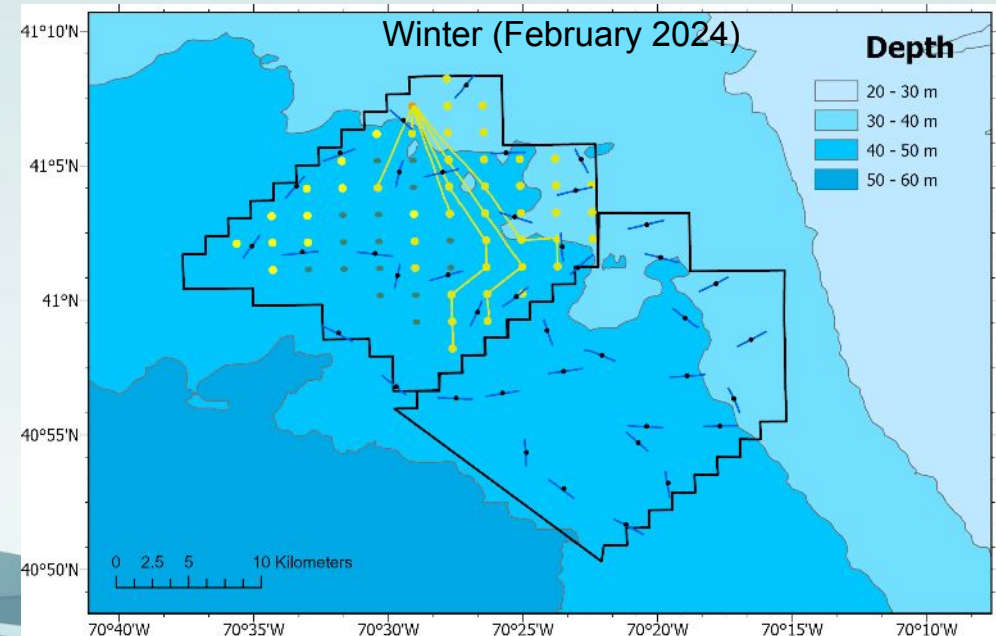
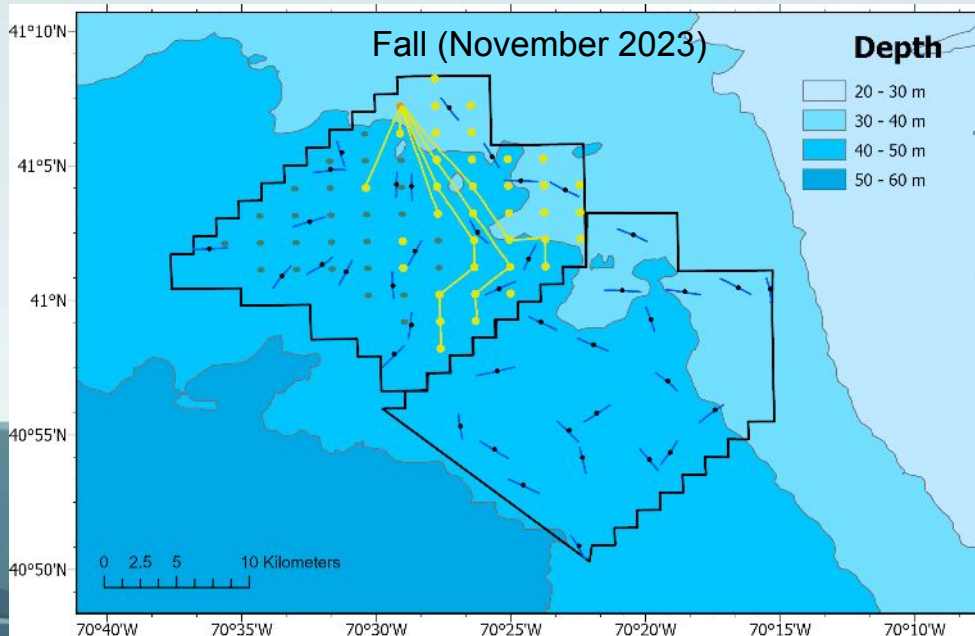
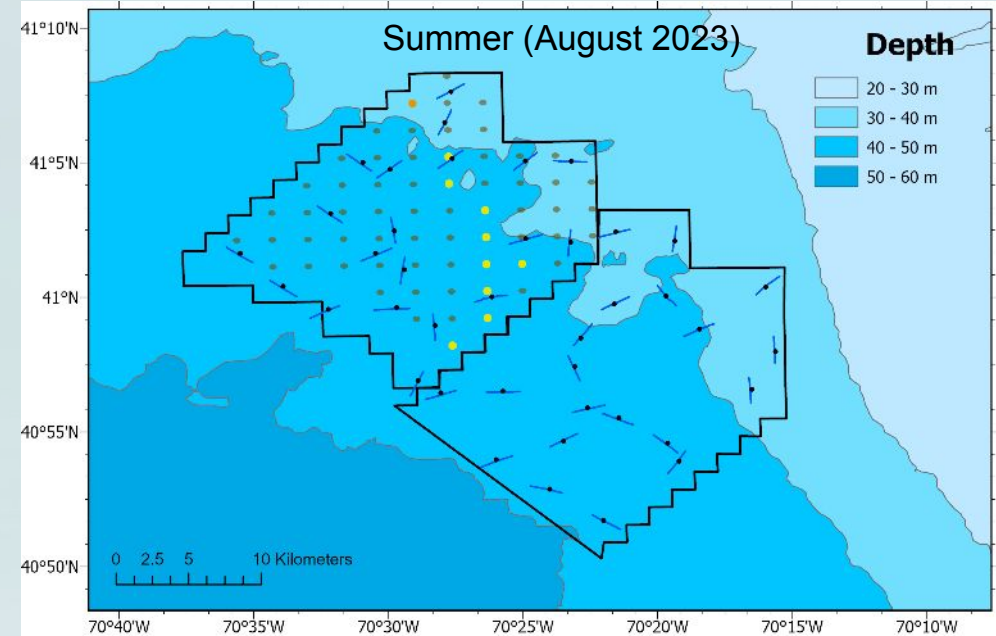
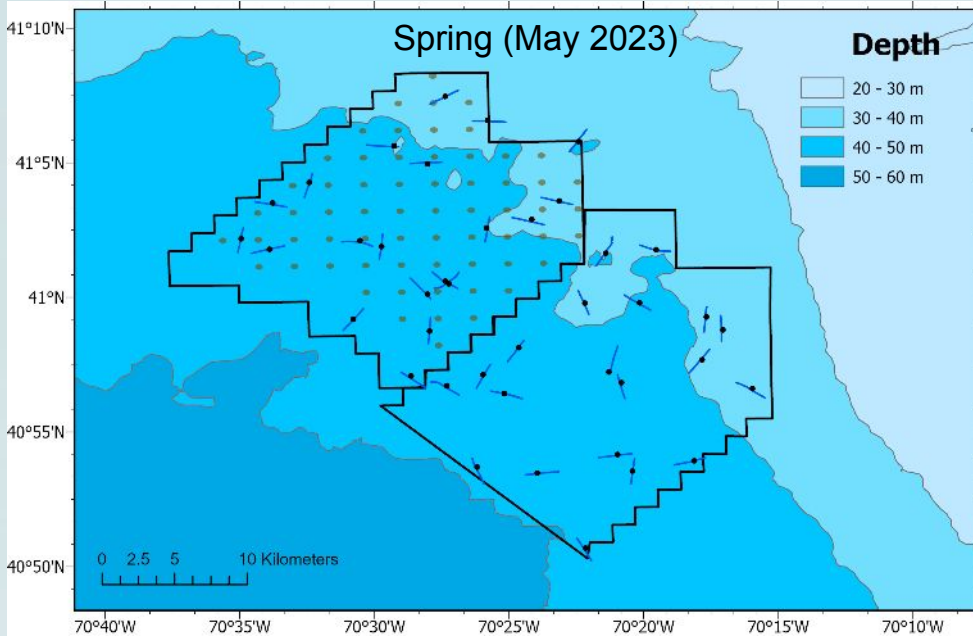


# CONSTRUCTION MONITORING (2023 – 2024)

| Construction & Survey Activity |           | Survey Periods | Scour Protection - Filter Layer | Scour Protection - Armour Layer | Foundation Installation | IAC Laying | IAC Burial |
|--------------------------------|-----------|----------------|---------------------------------|---------------------------------|-------------------------|------------|------------|
| 2023                           | March     |                | █                               | █                               |                         |            |            |
|                                | April     |                | █                               | █                               |                         |            |            |
|                                | May       | █              | █                               | █                               |                         |            |            |
|                                | June      |                |                                 |                                 | ***                     |            |            |
|                                | July      |                |                                 |                                 | ***                     |            |            |
|                                | August    | █              |                                 |                                 | **                      |            |            |
|                                | September |                |                                 |                                 | ***                     |            |            |
|                                | October   |                |                                 |                                 | ***                     | █          | █          |
|                                | November  | █              |                                 |                                 | ***                     |            | █          |
|                                | December  |                |                                 |                                 | ***                     |            |            |
| 2024                           | January   |                |                                 |                                 |                         |            |            |
|                                | February  | █              |                                 |                                 |                         |            |            |



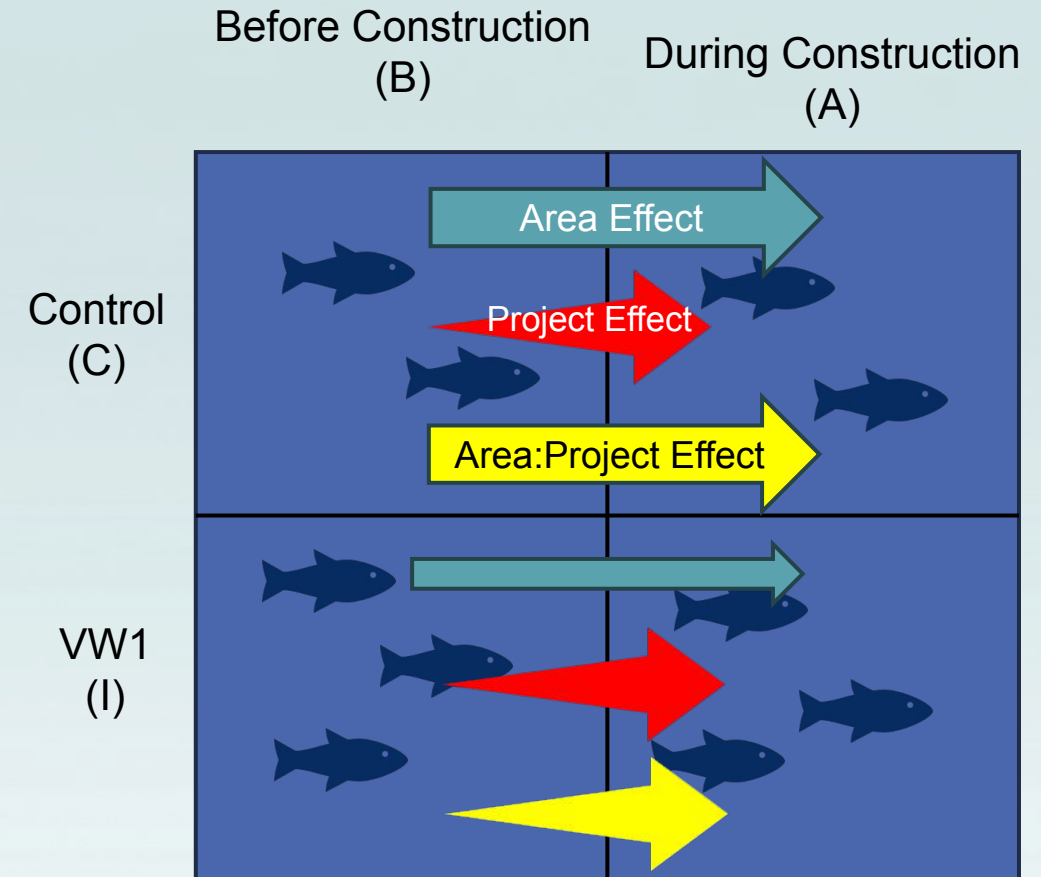
# CONSTRUCTION MONITORING (2023 – 2024)



# IMPACT ANALYSIS

## A suite of seasonal impact analyses were conducted:

- **Community Structure Analysis**
  - Assess changes in the fish communities
  - Tow-by-tow comparison using Bray-Curtis Dissimilarity coefficient
  - Analysis of Similarity (ANOSIM)
    - $R = 1$ : All tows within a group are more similar to each other than any from a different group.
    - $R = 0$ : Similarities between groups and within groups are the same.
  - nMDS Ordination Plots
- **Catch Per Unit Effort Analysis (CPUE)**
  - Assessed changing catch rates of individual species
  - Generalized Linear Modeling (GLM) Framework
  - Two explanatory variables: study area and project phase
  - One interaction term
  - $CPUE_i = \beta_0 + Area_i + Project_i + Area:Project_1 + \varepsilon_i$
- **Population Structure Analysis**
  - Assess changes in fish lengths
- **Fish Condition Analysis**
  - Assess changes in fish condition
  - Weight-length relationship



# SEASONAL CHANGES IN COMMUNITY COMPOSITION

Spring

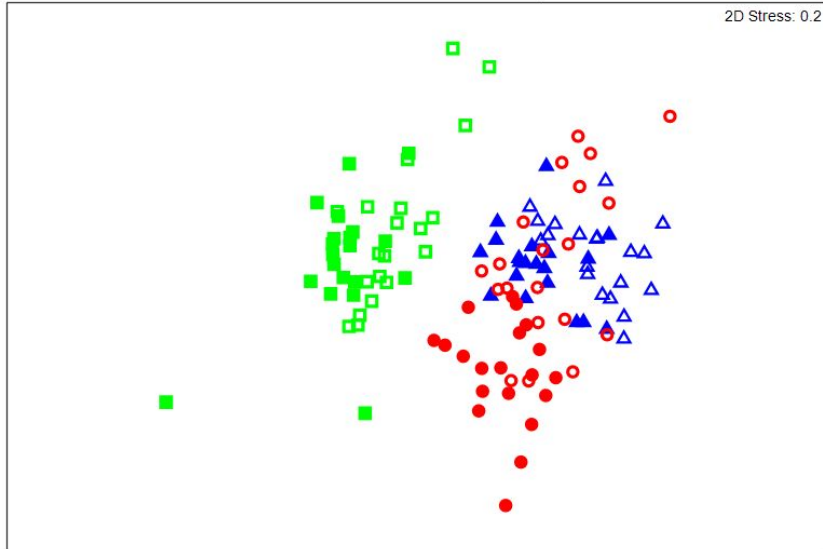
Non-metric MDS

Standardise Samples by Total  
Transform: Square root  
Resemblance: S17 Bray-Curtis similarity

2D Stress: 0.2

SurveyTowArea

- ▲ 2019 Spring-VW1
- △ 2019 Spring-Control
- 2021 Spring-VW1
- 2021 Spring-Control
- 2023 Spring-VW1
- 2023 Spring-Control



Summer

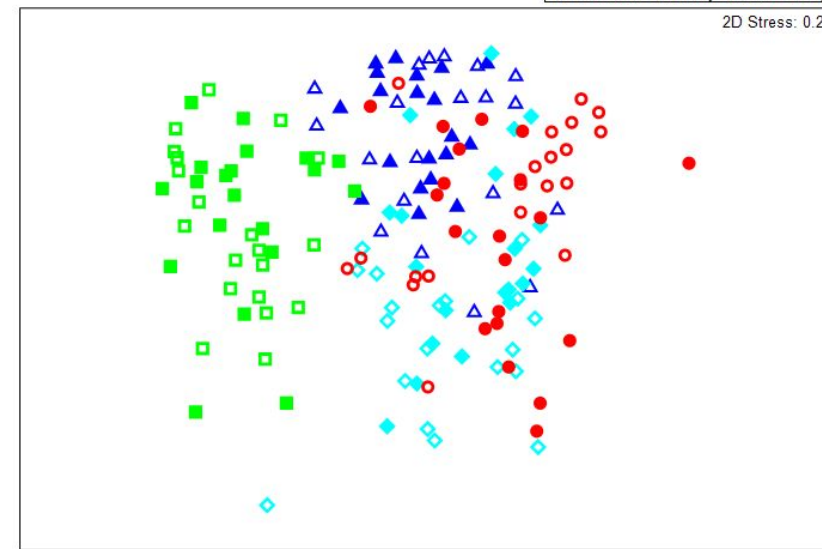
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Standardise Samples by Total  
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SurveyTowArea

- ▲ 2019 Summer - VW1
- △ 2019 Summer - Control
- 2020 Summer - VW1
- 2020 Summer - Control
- ◆ 2022 Summer - VW1
- ◇ 2022 Summer - Control
- 2023 Summer - VW1
- 2023 Summer - Control

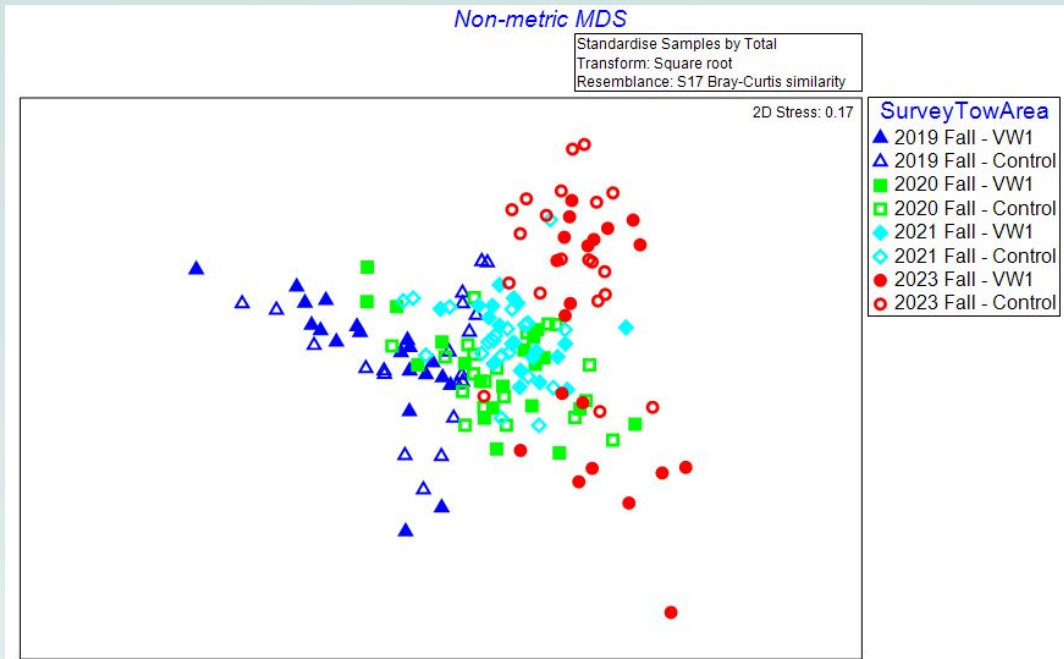


- 2023 similar to 2019 ( $R = 0.419$ )
  - Both are different from 2021 ( $R = 0.806$ )
  - Maybe due to survey timing and bottom temperature.
  - Highlights the dynamic nature of this area.
  - Moderate increase in dissimilarity between the project areas during construction ( $R = 0.309$ ), compared to pre-construction ( $R = 0.053$ ).
- VW1 – 29 Species
- Control Area – 31 Species

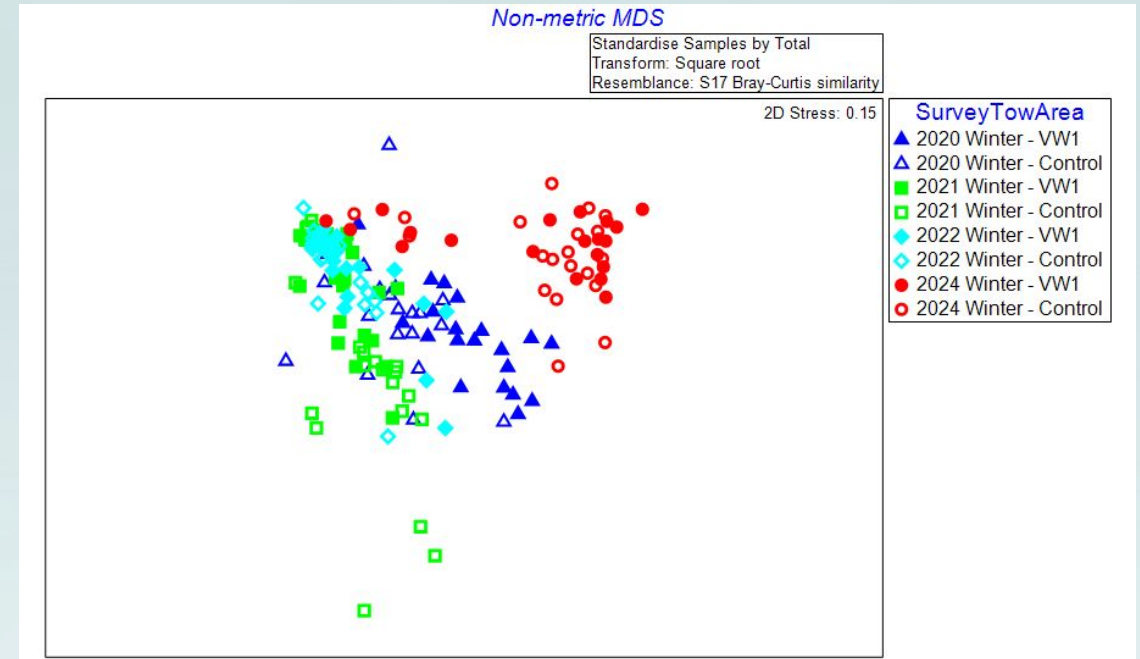
- Strong similarities between 2023, 2022, and 2019
  - All different from 2020 ( $R = 0.727 - 0.779$ )
  - 2020 displayed high bottom water temperature.
  - Slight increase in dissimilarity between the project areas during construction ( $R = 0.19$ ), compared to pre-construction ( $R = 0.023$ ).
- VW1 – 26 Species
- Control Area – 23 Species

# SEASONAL CHANGES IN COMMUNITY COMPOSITION

## Fall



## Winter



- Traditionally been the most consistent survey (R = 0.378).
- More disparity in 2023 (R = 0.415 – 0.61) than between pre-construction surveys (R = 0.161 – 0.401).
- Strong similarity within survey areas (R = 0.072 – 0.119).
- VW1 – 33 Species
- Control Area – 28 Species

- Moderate seasonal clustering (R = 0.468)
- Traditionally been a consistent survey.
  - Pre-construction (R: 0.184 – 0.469)
- More disparity in 2023 than between pre-construction surveys. (R: 0.594 – 0.711)
- Strong similarity within survey areas.
  - Pre-construction: R = 0.038
  - During Construction: R = 0.033
- VW1 – 26 Species
- Control Area – 22 Species

# SPRING SURVEY RESULTS

- 7 Species – ~90% of catch weight

- Alewife
- Butterfish
- Silver Hake
- Red Hake
- Little Skate
- Winter Skate
- Spiny Dogfish

- Area Effects

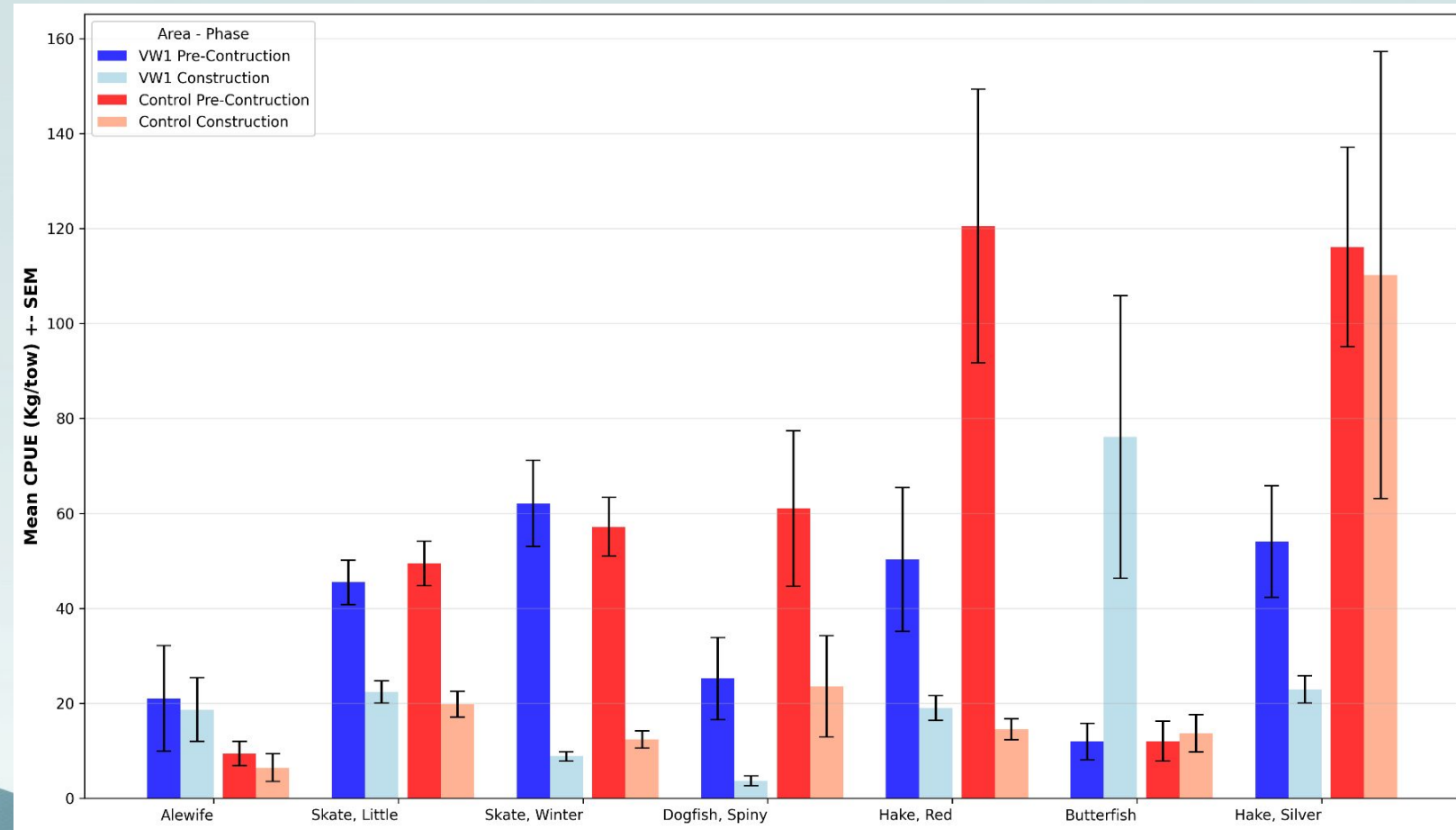
- Alewife ↑
- Longfin Squid ↑
- Black Sea Bass ↑
- Monkfish ↓
- Spiny Dogfish ↓
- Red Hake ↓
- Silver Hake ↓

- Project Effect

- Little Skate ↓
- Winter Skate ↓
- Red Hake ↓
- Spiny Dogfish ↓
- Summer Flounder ↑

- Interaction Effects

- Butterfish ↑
- Silver Hake ↓



# SUMMER SURVEY RESULTS

- 6 Species – 96-98% of catch weight

- Atlantic Longfin Squid
- Scup
- Butterfish
- Little Skate
- Red Hake
- Silver Hake

- Area Effects

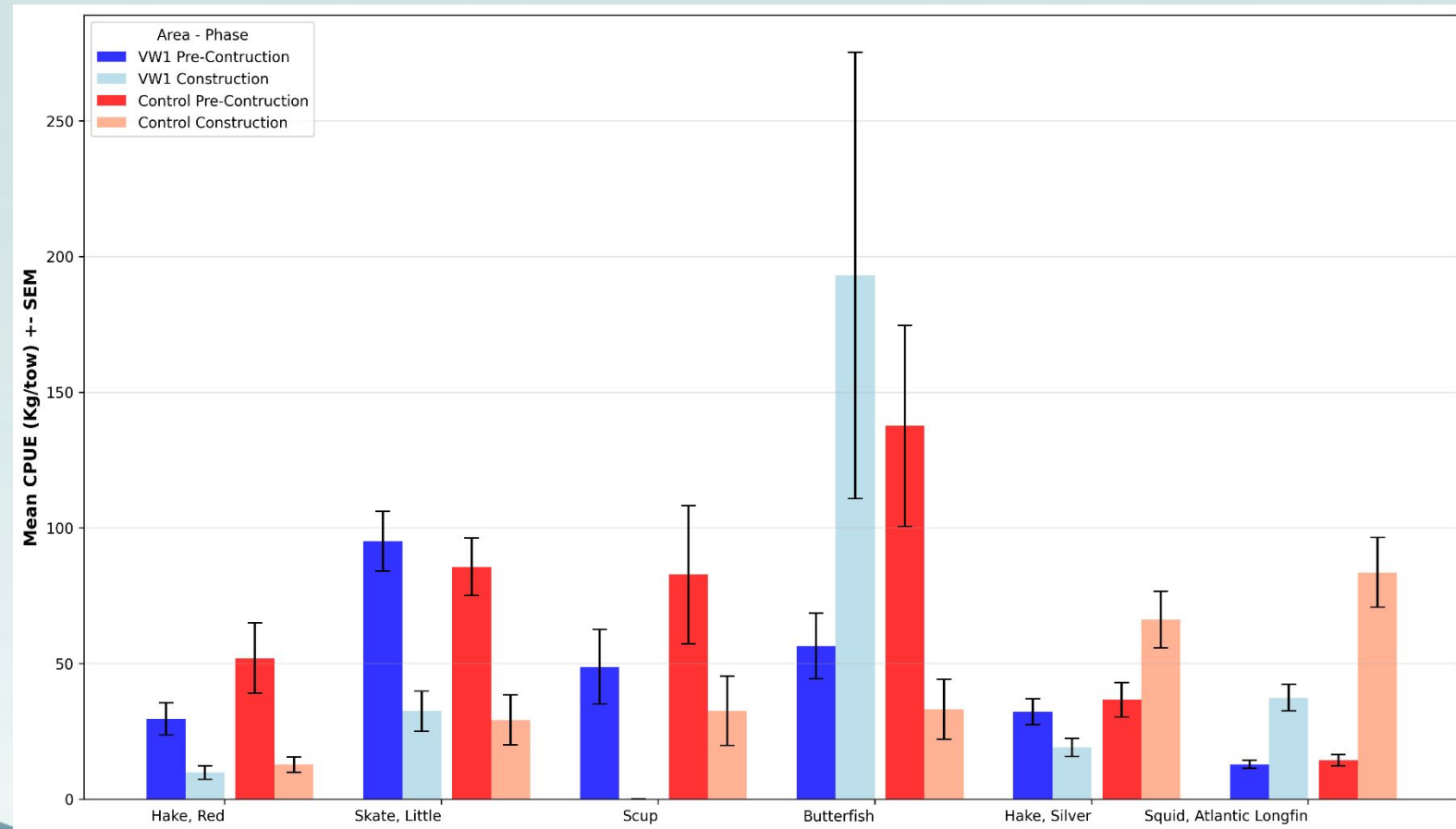
- Red Hake ↓
- Scup ↓
- Winter Flounder ↓
- Summer Flounder ↓

- Project Effect

- Little Skate ↓
- Scup ↓
- Red Hake ↓
- Fourspot Flounder ↓

- Interaction Effects

- Butterfish ↑
- Silver Hake ↓
- Atlantic Longfin Squid ↑↓



# FALL SURVEY RESULTS

- 5 Species – 93-94% of catch weight

- Scup
- Butterfish
- Little Skate
- Silver Hake
- Atlantic Longfin Squid

- Area Effects

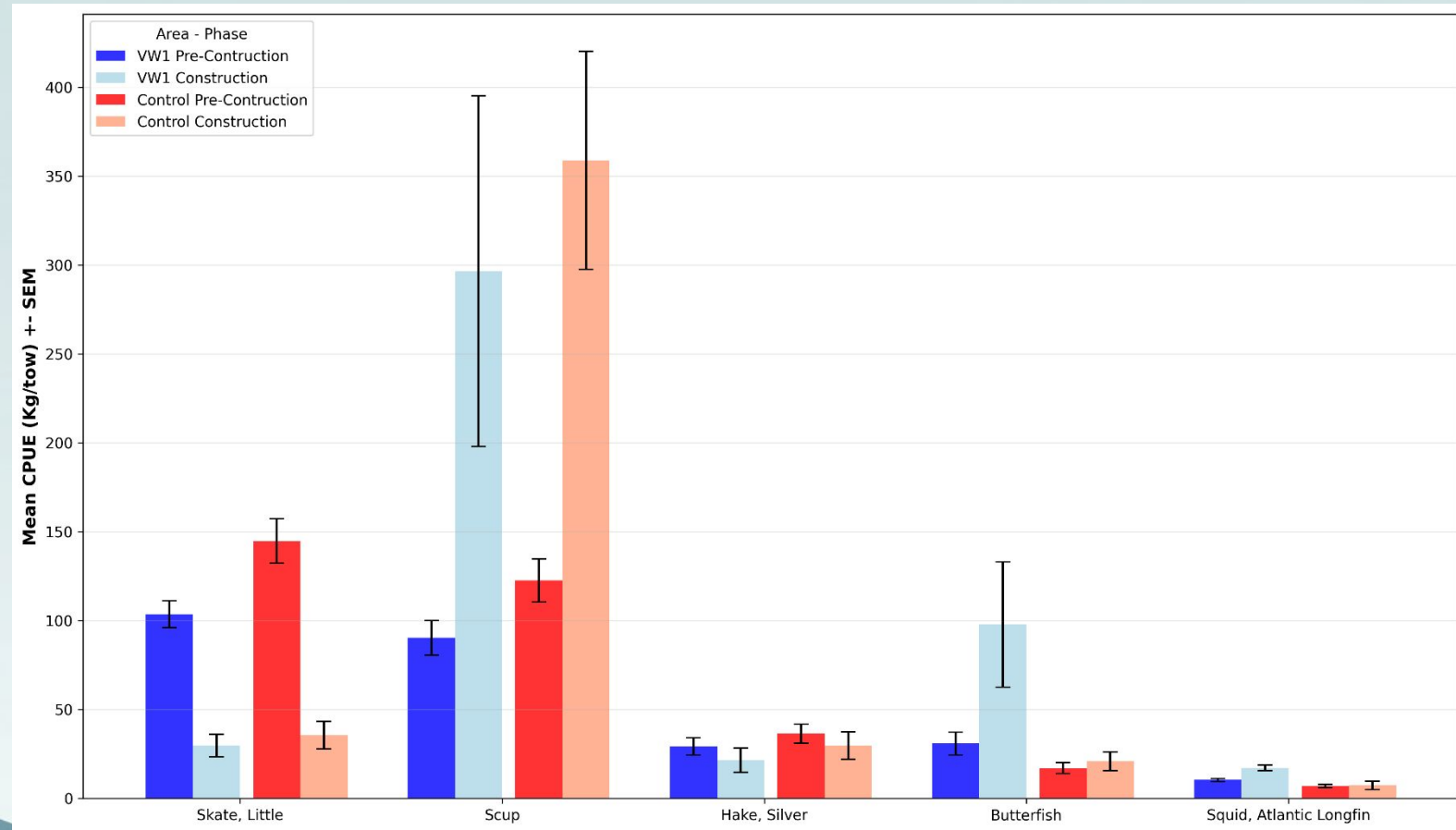
- Little Skate ↓
- Silver Hake ↓

- Project Effect

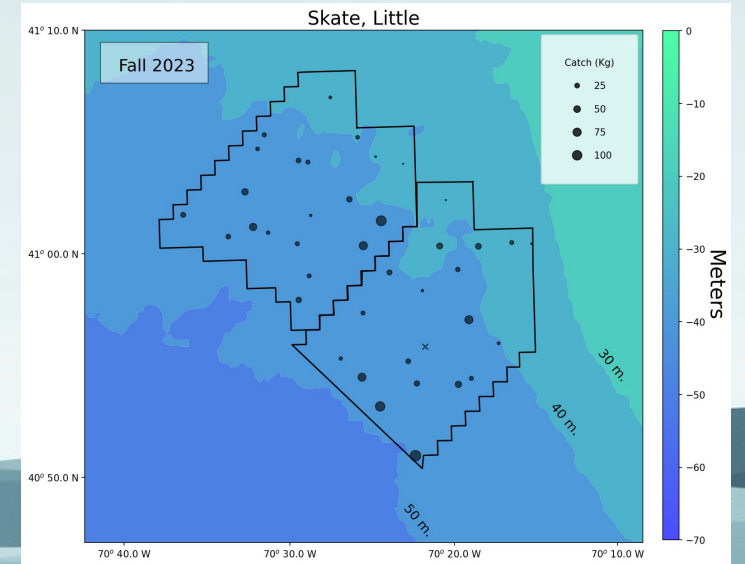
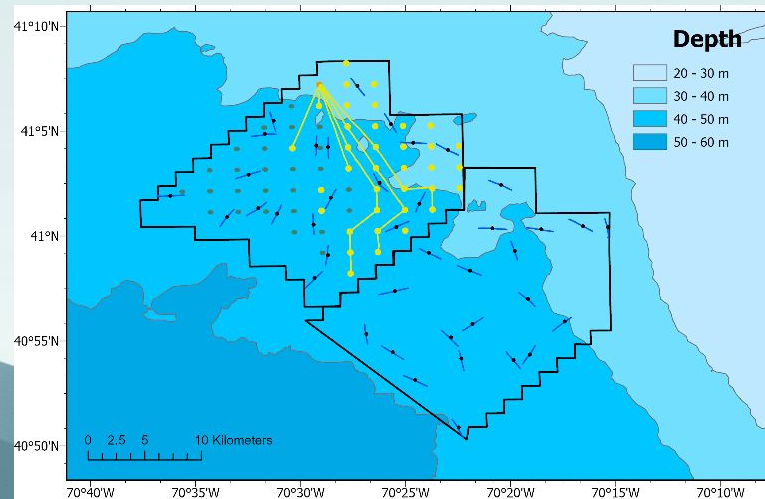
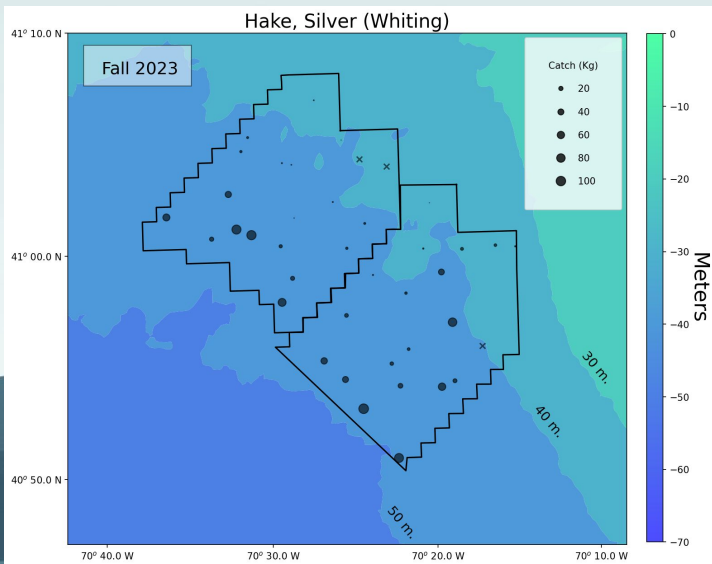
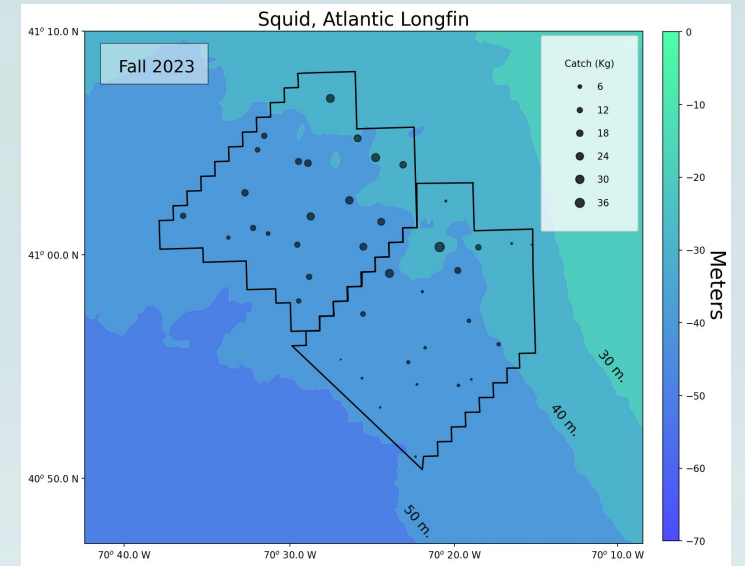
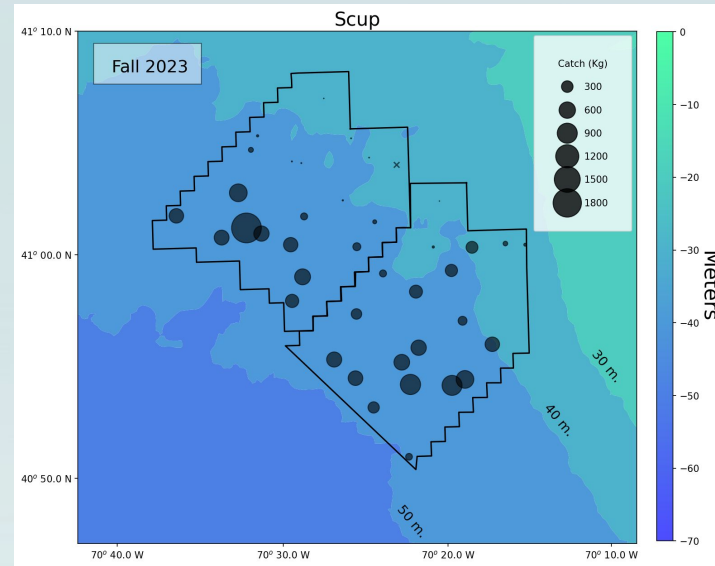
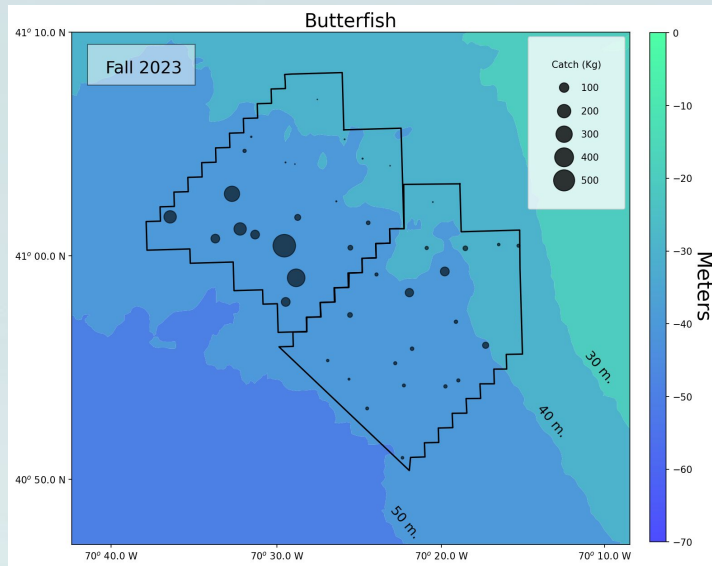
- Little Skate ↓
- Spiny Dogfish ↓
- Scup ↑

- Interaction Effects

- Butterfish ↑
- Atlantic Longfin Squid ↑
- Black Sea Bass ↑↓



# FALL SURVEY RESULTS



# WINTER SURVEY RESULTS

- 4 Species – 94-97% of catch weight

- Silver Hake
- Atlantic Herring
- Longhorn Sculpin
- Little Skate

- Area Effects

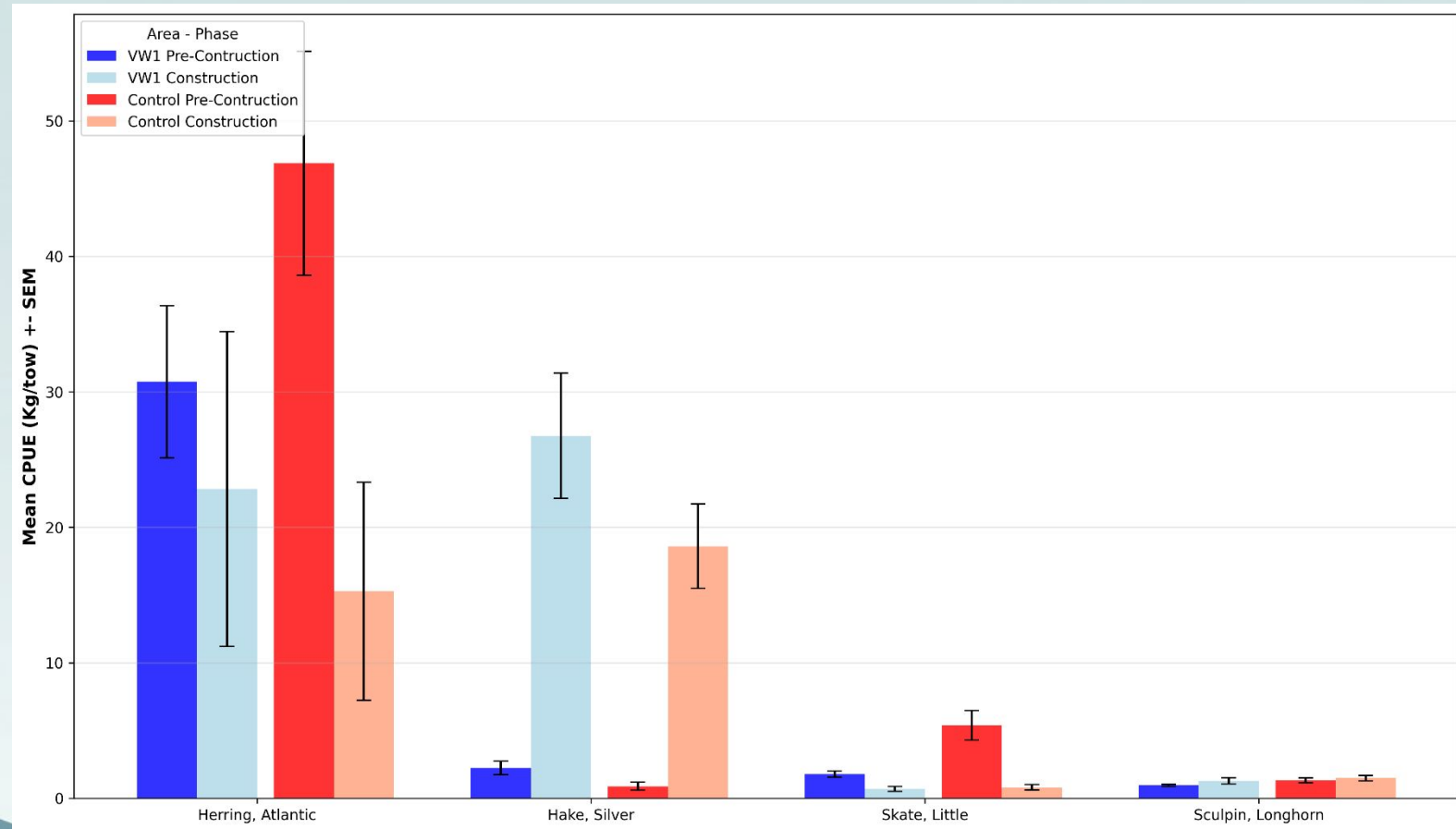
- Atlantic Herring ↓
- Little Skate ↓

- Project Effect

- Silver Hake ↑
- Atlantic Herring ↓
- Little Skate ↓

- Interaction Effects

- None



# TAKE-AWAY LESSONS

**These offshore areas are highly dynamic with strong seasonal and inter-annual variability in fish communities.**

- Difficult to study changes. The signal can get lost in the noise.
- Maybe more resilient to temporary impacts from construction.

**Construction stressors (i.e., “impacts”) are not consistent in space and time.**

- Different construction activities will express different stressors.
- Scour protection footprint (2,100 m<sup>2</sup> or 0.5 acres)
- Total project footprint 1/8 km<sup>2</sup>

**Fish behavior, physiology, morphology, and sensory biology vary.**

- 47 species observed in 2023-2024.
- Finfish (scup, whiting), elasmobranch (dogfish, skates), flatfish (fluke), hearing specialist (herring), invertebrates (squid)
- Responses to stressors are presumed to differ.



# WHAT CAN WE SAY?

**No large-scale homogenous avoidance or attraction responses.**

## **Several limited/anecdotal observations**

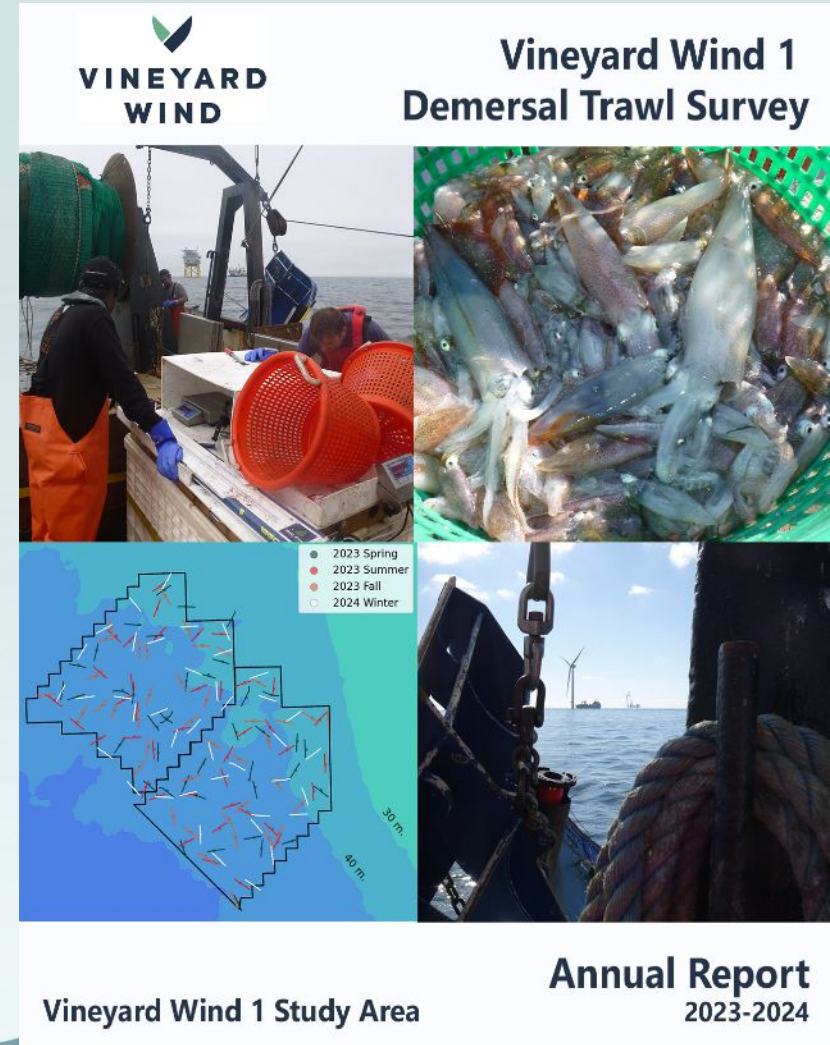
- More butterfish in VW1
- Less silver hake in VW1
- Localized avoidance in scup, butterfish, and silver hake to areas of VW1 in the fall.

## **Moving Forward**

- Examine data from other wind farms to look for patterns of observations.
  - Allows us to ask more directed questions or conduct more directed research.
  - Scientific method: observe, question, hypothesize, test, conclude, repeat.
- Look at regional data to corroborate “project phase” effects.
- Start conducting operational monitoring.

This report can be found at:

<https://www.vineyardwind.com/fisheries-science>



A large, powerful wave is shown crashing over a reef. The water is a deep, dark blue-green color, and the wave's crest is breaking into white foam. The background shows the ocean extending to the horizon under a clear, light blue sky. A semi-transparent teal banner is overlaid at the bottom of the image, containing the title text.

# One Year of South Fork Wind



Ørsted



ROSA-Responsible Offshore Science  
Alliance Advisory Council

March 2026

Photo: South Fork Wind

# Agenda

- 1 Introduction to Ørsted
- 2 Overview of South Fork Wind
  - a Development and construction
  - b Operations performance data
  - c Benthic monitoring results



# Ørsted is a world leader in sustainable, renewable energy



## A world leader in offshore wind

We're a leading developer, constructor, and generator of offshore wind.



## One of the world's leading energy companies

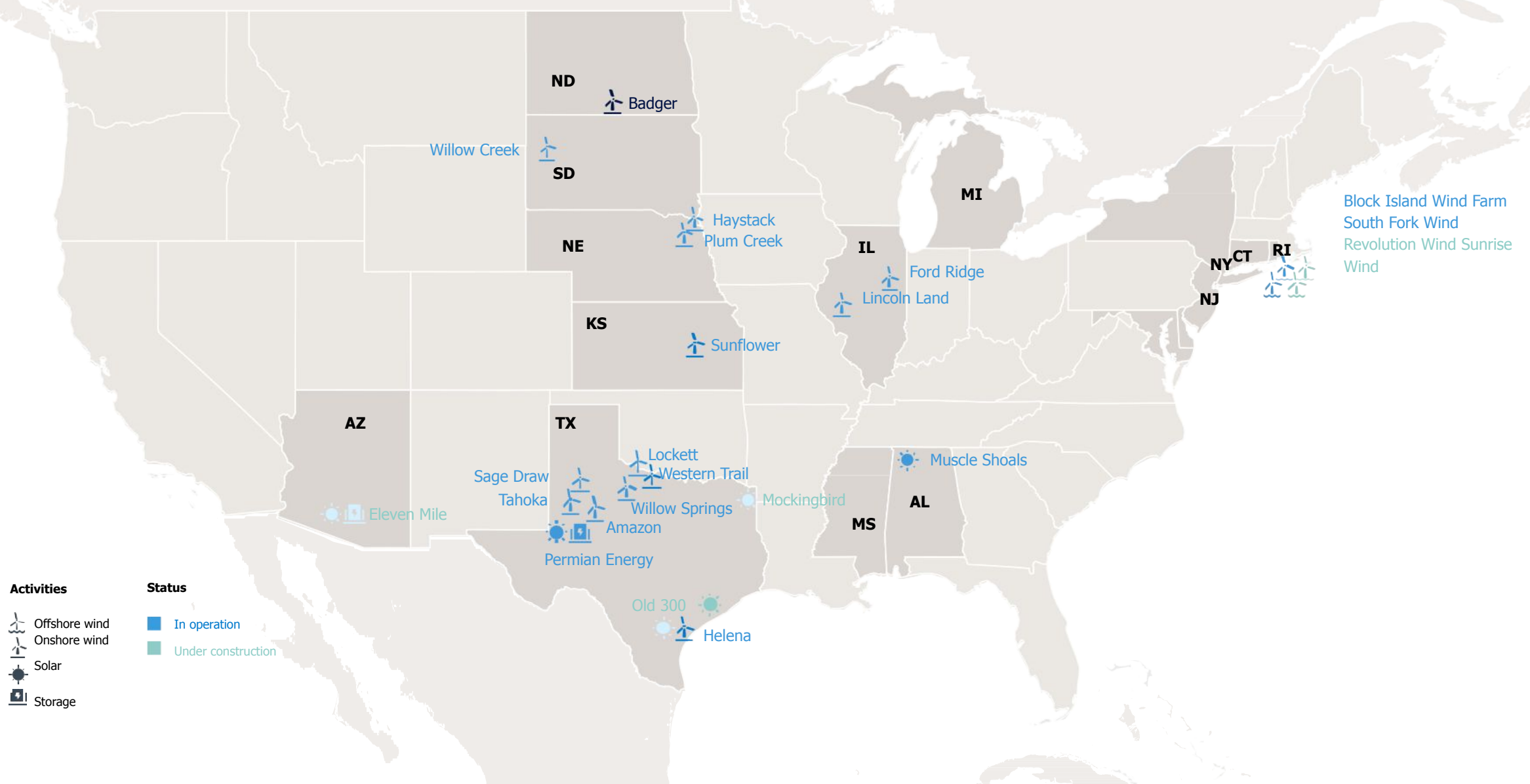
We operate across four continents, with activities spanning development, construction, and operation of offshore and onshore wind farms, solar farms, energy storage and bioenergy plants.



## A globally recognized sustainability leader

We are ranked by organizations like Corporate Knights, CDP, the Science-based Targets initiative and MSCI as a leading example of corporate sustainability.

# Map of U.S. projects



## New York's first offshore wind farm

New York

Massachusetts

Connecticut

Rhode  
Island

South  
Fork  
Wind

## South Fork Wind

- New York's first offshore wind farm
- Interconnection in East Hampton
- 132 MW (~70,000 homes annually)
- Completed in March 2024;  
Full Commissioning in July 2024
- Contract with LIPA

# Agenda

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# South Fork Wind project timeline

2017 — January 2022 — February 2022 — 2022–2024 — November 2023 — December 2023 — March 2024 — July 2024

South Fork Wind is selected in LIPA's technology-neutral solicitation for new generation resources. The 20-year power purchase agreement for 90 MW is approved and later expanded to 132 MW.

South Fork receives federal COP approval after nearly six years of multi-agency review.

Onshore construction begins in East Hampton with underground cable installation.

Over 1,000 workers across the nation contributed to building the project — from component manufacturing and assembly to construction at ports and offshore.

First offshore turbine installed.

"First power" achieved with initial electricity delivered to shore.

All 12 turbines installed, marking the completion of the first commercial-scale offshore wind farm in the U.S.

Project completes all required testing and achieves full commissioning.



# Built with union labor under landmark “National Offshore Wind Agreement”



Sets the bar for working conditions and equity



Injects hundreds of millions of dollars in middle-class wages into the American economy



Creates apprenticeship and career opportunities for a wide range of communities

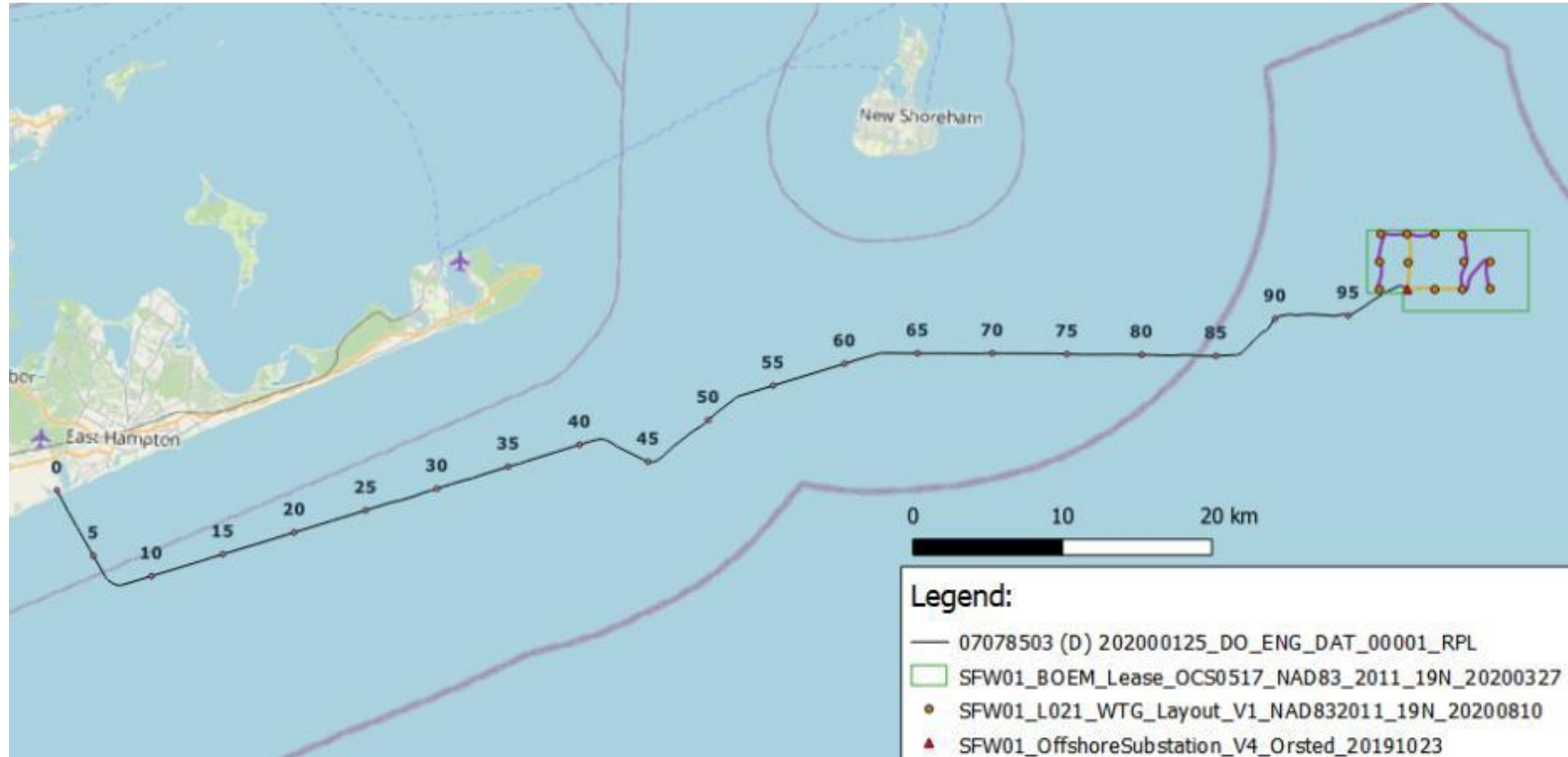


Ensures projects will be built with the safest and best-trained workers in America



# Offshore export cable

60 mile cable route



# South Fork Wind construction phase



# In March 2024, Ørsted completed installation of South Fork Wind, the first commercial-scale offshore wind farm in the United States



South Fork Wind generated 1.5 million+ American union labor hours and created over 1,000 jobs spanning 173 contracts



1.5M+ union labor hours supported South Fork's construction

1,000+ full-time equivalent union jobs for tradespeople

173 U.S. supplier contracts from construction to shipbuilding

*New York Supply Chain Examples:*



↑ Hear from Aleshandra Fernandes.



← Hear from Matt Laub.



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In July 2025, POWER Magazine named South Fork Wind its global “Power Plant of the Year,” achieving a 46% annual capacity factor

# POWER

PLANT OF THE YEAR

## A Transformative Dawn: South Fork Wind Leads America’s Offshore Reboot

By Sonal Patel

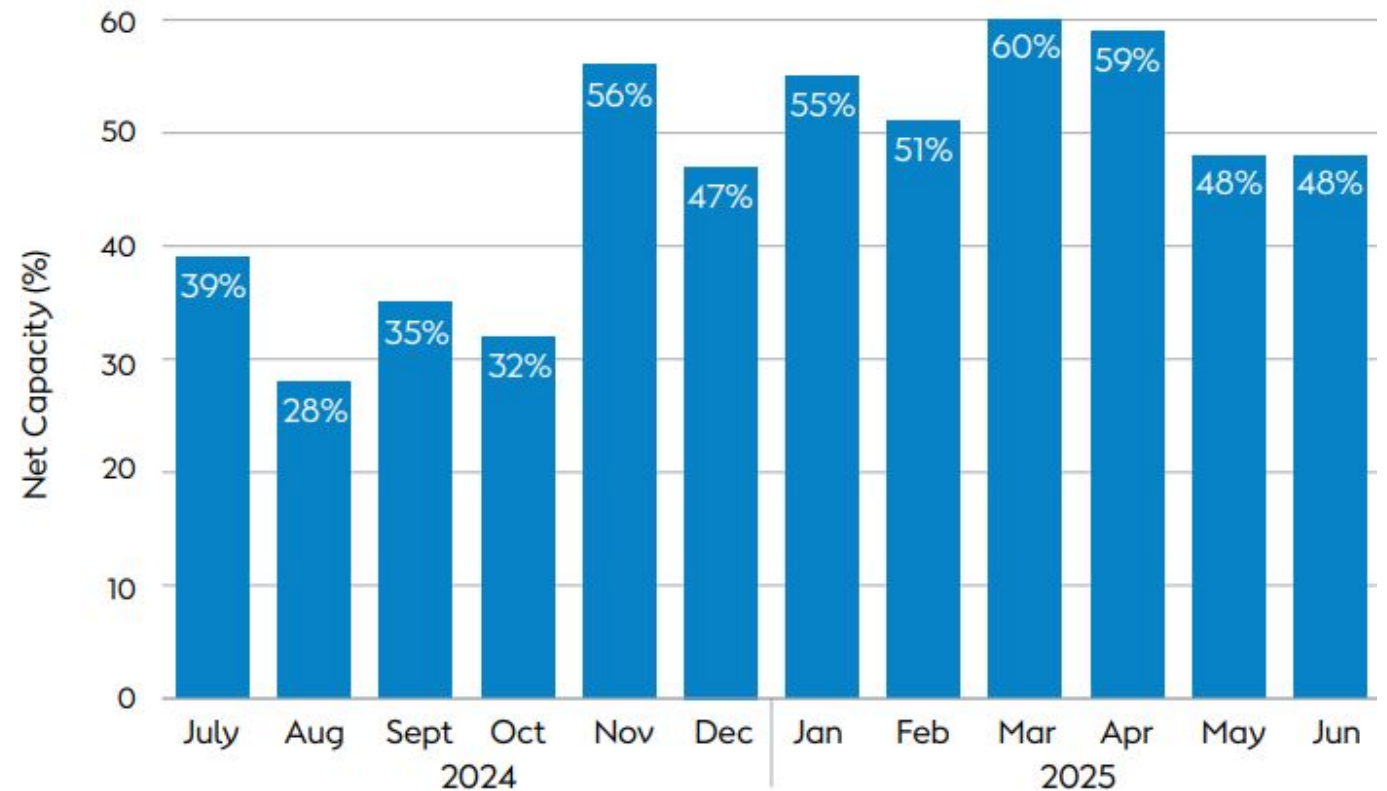
Tuesday, July 1, 2025

SHARE:



Winning POWER’s highest honor, South Fork Wind—the first commercial-scale offshore wind farm in U.S. federal waters—stands as a beacon for the power sector’s ambition to forge new industries in the face of adversity. Commissioned in July 2024 as offshore wind projects faltered nationwide, South Fork proved that labor, permitting, engineering, and grid integration can align to deliver complex infrastructure at scale. While the project lays out new bedrock for the nation’s carbon-free prospects, it offers the entire industry a proof point for resilience, technical rigor, and what it takes to build the next generation of power.

## South Fork Wind Net Capacity Factor by Month<sup>1</sup>



Source: POWER Magazine: <https://www.powermag.com/a-transformative-dawn-south-fork-wind-leads-americas-offshore-reboot/>.  
U.S. EIA data: <https://www.eia.gov/beta/electricity/data/browser/>

# In Sept. 2025, Ørsted released a report with additional data on South Fork's generation and economic and environmental benefits



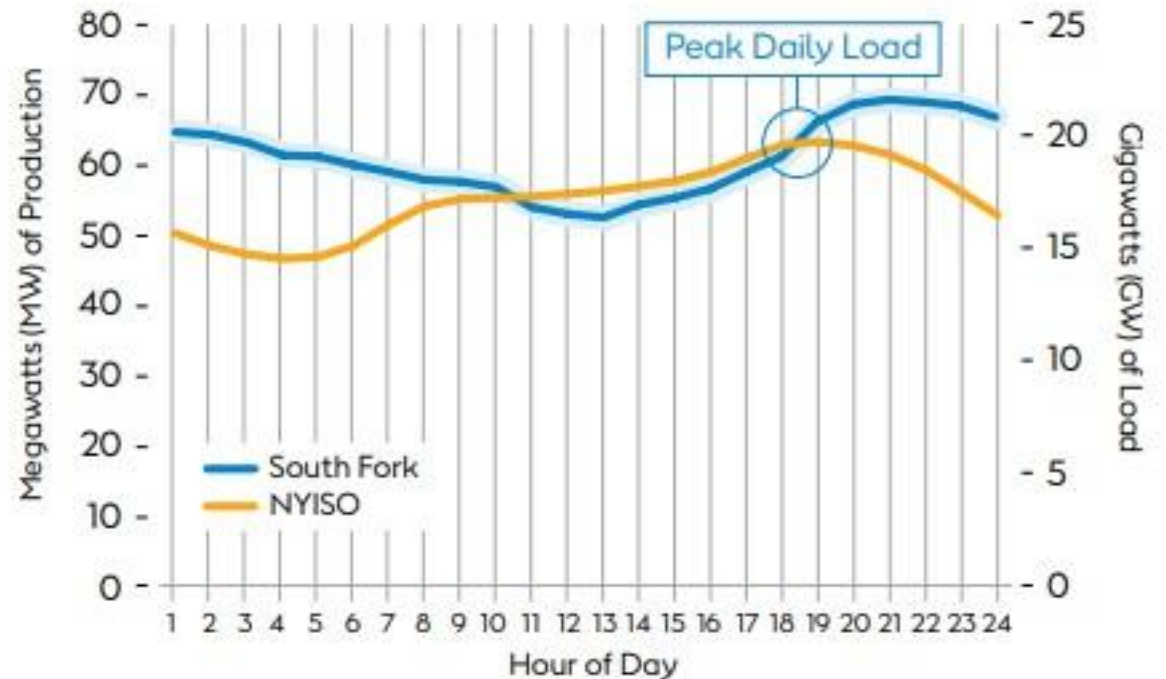
~70K

NY homes  
powered

>92%

time  
generating  
electricity in  
H1 2025

Average hourly net generation,  
South Fork Wind vs. Average daily load, NYISO<sup>1</sup>



<sup>1</sup> Note: Hour 1 = 12:00am–1:00am. South Fork Wind data (July 2024–June 2025) and NYISO (2024) data.

Source: <https://www.nyiso.com/documents/20142/35490978/nyiso-loads-2024.csv/237b1228-6478-75e5-0552-ef84388d74a5>

# South Fork is diversifying the energy mix and improving reliability

- Today, Long Island relies on a single source (natural gas) for most electricity.
- South Fork adds domestic energy and diversifies the region's energy mix, strengthening grid stability.
- Example – June 24, 2025, Heat Wave:
  - From ~6-9pm on June 24, 2025, NYISO declared a “Major Emergency” as record-breaking temperatures pushed electricity demand to critical levels
  - South Fork Wind generated power at nearly full production (87.4% capacity factor), bolstering the power supply when the grid needed it most.



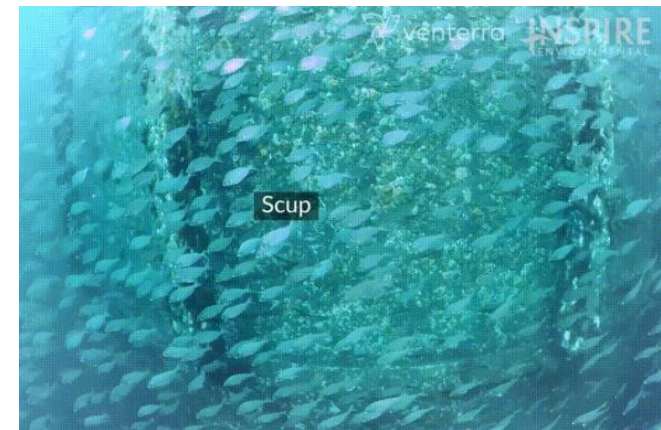
# Agenda

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# South Fork Wind is coexisting with the marine environment

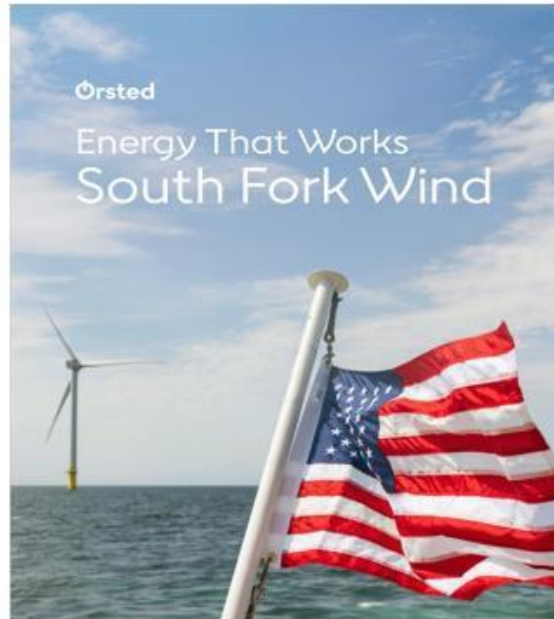
- The SFW benthic surveys have not detected demonstrable changes in the biological communities or benthic functions associated with a) soft sediments surrounding offshore wind structures, b) soft sediments along the export cable, or c) boulders relocated during seafloor preparation.
- Confirmed reef effect at foundations and scour protection layers.
- 1x1 nautical mile spacing allows for safe transit and operations, and we have observed a variety of vessels in the wind farm.



Source: "South Fork Wind Benthic Monitoring Program," Accessed at:  
<https://storymaps.arcgis.com/stories/43138bdb3826449bbc4ce2b3eba49bb0>

# Additional resources

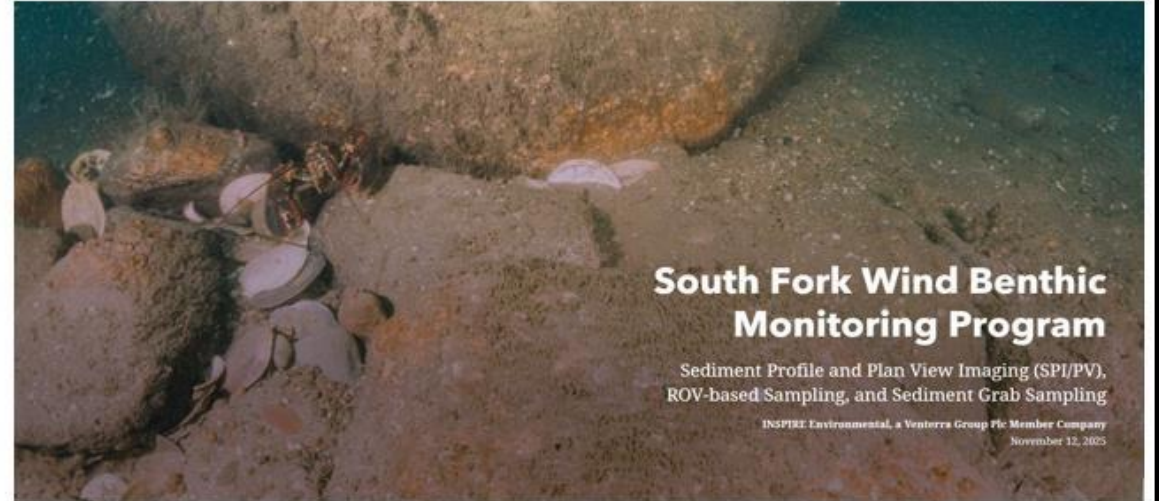
## South Fork Wind One-Year Report



[sfwreport\\_web\\_vf.pdf](#)



## South Fork Wind Benthic Monitoring Report



[South Fork Wind Farm Storymap - Inspire Environmental](#)





# **Fishing Industry Insights (FINsights)**

# FINsights: Fishing Industry Insights



**You're on the water. You see things researchers don't.**

ROSA's FINsights form is an open channel for fishers, captains, and industry members to share observations, concerns, and on-the-ground knowledge about offshore development and its interactions with fisheries. Whether you've noticed changes in fish behavior, encountered new challenges near new infrastructure, or have ideas about what research questions most need answering, we want to hear from you.

Your input shapes our research priorities, helps identify knowledge gaps, and supports science that reflects the realities of working on the water.

Submissions are welcomed on a rolling basis, and your contact information will only be used to follow up if you'd like us to. Send any relevant documents, photos, or other relevant attachments to [info@rosascience.org](mailto:info@rosascience.org).



# Objectives



1. Invite observations, questions, and insights from those on the water
2. Test to see if others are seeing similar things
3. Frame research questions that are testable around the observation or insight

# Why FINsights exists



- **Gaps Analysis confirmed:** fisheries engagement & local ecological knowledge (LEK) are among the least-explored research areas.
- **FINsights is a direct response to that gap.**
- Fishing industry sees things most researchers don't:
  - Changes in fish behavior
  - New interactions with infrastructure
  - Emerging gear conflicts
- No systematic mechanism to capture that knowledge. FINsights creates one.

# What it is and what it isn't

## IS

- Rolling submission channel
- **NEW** platform, infrastructure is still maturing

## IS NOT

- One-time survey/data collection effort
- Established mechanism for formal comments

Submissions can include observations, concerns, research questions the industry thinks are underprioritized, and supporting documents or photos.

# Submission



## Share your insights here.

renee@rosascience.org [Switch account](#)



Not shared

\* Indicates required question

What are you experiencing or what insight do you want to share? (e.g., a certain species is showing up in a new area)

Your answer

When are you seeing it?

- Seasonally (e.g., in fall or spring)
- While actively fishing
- While en route to fishing grounds
- Other: \_\_\_\_\_

Where are you seeing it?

- Open water
- Near offshore turbine foundations
- Along cable routes
- Other: \_\_\_\_\_

What question(s) do you have about what you're seeing? (e.g., is there published research about the potential causes for what I am seeing? Is anyone currently studying this phenomenon? Is this pattern happening across the region or is this an isolated observation?)

Your answer

Name \*

Your answer

Email address (your email will be used only to contact you to learn more or to provide answers. We will not share your email with anyone beyond ROSA without your permission.) \*

Your answer

I would like to schedule a follow-up meeting with ROSA staff regarding this insight/observation.

- Yes
- No

Submit

Clear form

# What will ROSA do with the information?



- Collect ongoing submissions
- A month before the AC, email Research Advisors asking if they:
  - Want to be connected?
  - Have resources?
- Present latest observations & resources each quarter
- ROSA website updates after each AC meeting

# Distribution of results (mockup)

Survey Results · Responsible Offshore Science Alliance · Sample data (n = 47)

TOTAL RESPONSES

**47**

Rolling submissions

REQUESTED FOLLOW-UP

**62%**

29 of 47 respondents

TOP LOCATION

**Turbine foundations**

41% of sightings

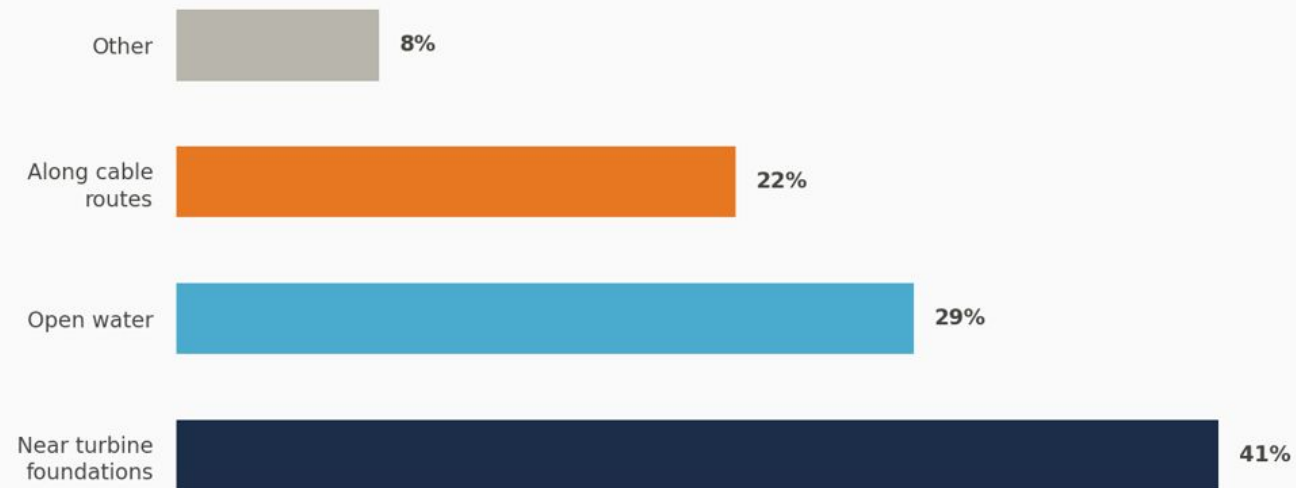
Q2 · When are you seeing it?



Seasonally 38%  
Actively fishing 34%

En route 18%  
Other 10%

Q3 · Where are you seeing it?



# Distribution of results (mockup)

## Q1 • What are you experiencing?

*“Black sea bass showing up 15-20 miles north of where we’d normally find them in October.”*

— Commercial fisherman, Southern New England

*“Lobster traps near foundation structures are pulling more than usual — seems like they’re aggregating.”*

— Lobsterman, Mid-Atlantic

*“More baitfish near cable corridors on the sounder. Not sure what to make of it.”*

— Party boat captain, New Jersey

## Q4 • What questions do you have?

*“Is anyone tracking whether species aggregation near foundations is changing seasonal catch rates?”*

— Gillnet operator, Massachusetts

*“Is there published research on EMF from cables and whether it affects lobster navigation?”*

— Lobsterman, Rhode Island

*“Are other fishers in the region seeing the same shifts, or is this isolated to my area?”*

— Charter captain, Virginia



Action Items, Next Steps, and Other Business

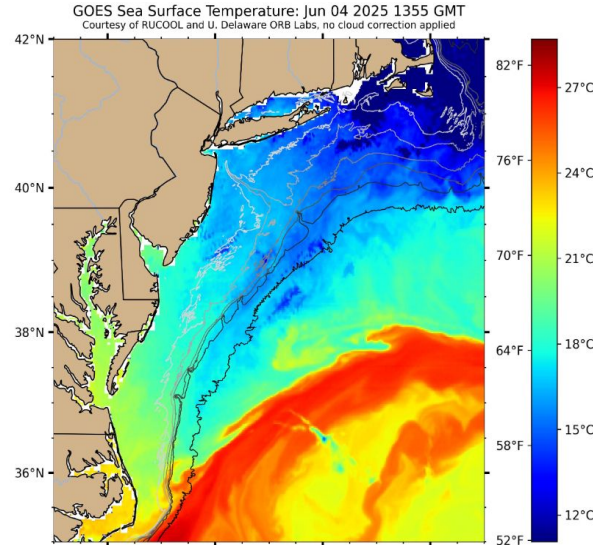
# MARACOOS

Mid-Atlantic Regional Association Coastal Ocean Observing System

**We need your help to sustain 20+ Years of Satellite Data Products**

## Key Regional Products Include:

- Sea Surface Temperature
- Ocean Color (e.g. chlorophyll-a)
- SST Anomalies
- Atlantic Sturgeon Risk Encounter
- Water Mass Mapping Tool



## Data Access Points:

- MARACOOS OceansMap
- UDel Data Pages
- Rutgers Satellite Pages
- ERDDAP Server
- THREDDS Server

## How can you help?

Provide a **letter of support** highlighting how you use MARACOOS data.

We have an [easy-to-use template](#) for anyone willing to help.

Please email [jana@maracoos.org](mailto:jana@maracoos.org)

# Marine Carbon Dioxide Removal Education Project

## **Engaging the U.S. Commercial Fishing Community to Develop Recommendations for Fishery-Sensitive Marine Carbon Dioxide Removal Governance, Collaborative Research and Monitoring, and Outreach to Fishing Communities**

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With funding from the U.S. Navy and Climateworks, RODA has partnered with the Fishery Friendly Climate Action Campaign and three regional Coastal Acidification Networks on a project to increase the knowledge regarding marine carbon dioxide removal (mCDR) amongst the fishing industry while providing them a voice in this emerging field. mCDR is a set of experimental techniques that aim to accelerate the ocean's uptake and storage of heat-trapping carbon dioxide from the atmosphere with the goal of mitigating climate change.

The guidance memorandums developed as part of this project outline the essential components of effective engagement of the fishing industry, governance of fishery-sensitive mCDR development, and the co-production of information. The principles and recommendations at the heart of these memorandums were generated by a group of commercial fishermen and fisheries leaders from across Alaska, the West Coast, and New England. Brainstorming took place through a series of virtual roundtables led through the Fishery Friendly Climate Action Campaign and facilitated by campaign director Sarah Schumann.

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[Co-Production Memo](#)

[Engagement Memo](#)

[Governance Memo](#)

# Action Items, Next Steps, and Other Business



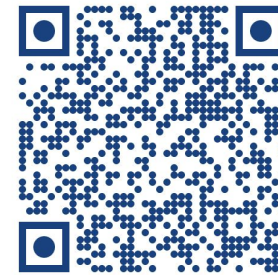
## CALL FOR ABSTRACTS FOR 2026 ANNUAL MEETING

*The heart of sustainability:  
Habitat as the foundation of productive fisheries*

Deadline: **WEDNESDAY, APRIL 22**

We will host our 156th Annual Meeting in Columbus, Ohio, August 30–September 3, 2026. This meeting will bring together a diverse group of academics, researchers, students, private-industry professionals, non-governmental organization staff, management agency personnel, and fisheries management & science vendors. The Columbus Program Committee invites submissions of abstracts for oral and poster presentations that support the theme and look to advance the fisheries profession. The theme for 2026 is: *The heart of sustainability: Habitat as the foundation of productive fisheries*.

- *The Blue Economy, Fish, & Fisheries*
- Abstracts due **April 22nd**



# Action Items, Next Steps, and Other Business

- Register for the Research Gaps Analysis Final Report webinar (*April 8 @ 10am*)



- Share FINsights with your networks





**ROSA**  
Responsible Offshore  
Science Alliance

**Thank you!**

**Next ROSA Advisory Council Meeting**  
June 18, 2026 - 1pm ET