

ROSA FishFORWRD v2.2.0 Update

Addition of Research Gaps Analysis

October 2025

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October 2025 Update

This update incorporates

- New projects submitted through the form within FishFORWRD, shared through biannual ROSA Offshore Wind Fisheries Funder Coordination meetings or other coordination activities of ROSA. Additionally, ROSA incorporated any corrections to projects provided by the ROSA community.
- Addition of the Research Gaps Analysis Tab
- Simplification of the interactive webtool for increased utility for users.

Visit FishFORWRD Here: https://www.rosascience.org/fishforwrd/

New Projects

This update to the FishFORWRD database includes an additional 22 research and monitoring projects. A summary of the projects is provided below, with full details available within the FishFORWRD database.

We encourage submission of any missing or newly launched offshore fisheries research projects through the following link: https://forms.office.com/r/KK5wu41Z6u

Corrections and updates to existing projects can be submitted through the following link: https://forms.office.com/r/JfNNMKfmA4

Project #	Research Category	Project Title	Lead Entity	Funder
Ex-225	Sound/Vibration Impacts	Determining the dose- and range-dependent impacts of windfarm noise on stress in the American lobster	Woods Hole Oceanographic Institution	Sea Grant American Lobster Initiative
Ex-226	Fishery Access & Gear Modification	Synthesis of the Science II: Floating Offshore Wind	RODA	Undetermined
Ex-227	Species Distribution/Compo sition	Fish distribution in three dimensions around the Block Island Wind Farm as observed with conventional and volumetric echosounders	NOAA NEFSC	NOAA NEFSC
Ex-228	Fishery Access & Gear Modification	Understanding Fishing Interactions: Gulf of Maine Fisheries and Floating Offshore Wind	Gulf of Maine Research Institute	MassCEC
Ex-229	Habitat Fragmentation/Mo dification	Promoting Beneficial Colonization of Offshore Wind Infrastructure	INSPIRE Environmental Venterra Group	MassCEC

Project #	Research Category	Project Title	Lead Entity	Funder
Ex-230	Fishery Access & Gear Modification	Modeling Fishing and Fishing Vessel Behavior and Assessing Access in and Around Wind Energy Areas	New Bedford Port Authority	MassCEC
Ex-231	Fishery Access & Gear Modification	Uniting knowledge from fishing communities and offshore wind developers to improve boulder relocation practices	Commercial Fisheries Center of Rhode Island	Orsted
Ex-232	Socioeconomic & Sociocultural Impact	Advancing multi-use in offshore wind energy planning: Perceived opportunities and barriers in southern New England, U.S.	Rhode Island Sea Grant	National Science Foundation
Ex-233	Cumulative Impacts & Fisheries Management Implications	Connectivity and Dispersal of Black Sea Bass, Centropristis striata, within Southern New England	SMAST - UMass Dartmouth	ROSA
Ex-234	Resource Monitoring	An Analytical Framework to Assess the Regional Impacts of Offshore Wind Farms and Evaluate Fisheries Monitoring Plans	SMAST - UMass Dartmouth	ROSA
Ex-235	Cumulative Impacts & Fisheries Management Implications	Developing a species distribution model framework to disentangle the influence of environmental variability and offshore wind activity on pelagic fish presence in offshore wind lease areas	New England Aquarium	ROSA
Ex-236	Fishery Access & Gear Modification	Evaluation of Technologies for Trawl and Dredge Vessels to Safely Operate within Offshore Wind Farms	SMAST - UMass Dartmouth	ROSA
Ex-237	Fishery Access & Gear Modification	Supporting Fisheries Access in the Gulf of Maine through Scenario-testing and Visual Simulations of Floating Offshore Wind and Fishing Operations	Gulf of Maine Research Institute	ROSA
Ex-238	Socioeconomic & Sociocultural Impact	Baseline assessment of social, economic, and cultural impacts of FOW development on Maine's fishing industry	Gulf of Maine Research Institute	Maine Offshore Wind Research Consortium
Ex-239	Survey Adaptation	Pilot Regional Industry-Based Bottom Trawl Survey (RIBTS)	Virginia Institute of	NOAA NEFSC

			Marine Science	
Project #	Research Category	Project Title	Lead Entity	Funder
Ex-240	Data Management	Can observations of fishing vessels from wildlife surveys be used to improve estimates of fishing activity from AIS and VMS?	CSS, Inc.	BOEM Environmenta I Studies Program
Ex-241	Resource Monitoring	Regional Standards for Offshore Wind Project-Level Monitoring	NOAA NEFSC	NOAA NEFSC
Ex-242	Socioeconomic & Sociocultural Impact	Regional Fund Administrator	Brown&Greer	NYSERDA
Ex-243	Habitat Fragmentation/Mo dification	Assessing spatial overlaps between sand lance habitat and OSW lease areas	University of Connecticut	Orsted
Ex-244	Habitat Fragmentation/Mo dification	Cooling Water Use at Offshore Converter Stations	Tetra Tech	NYSERDA
Ex-245	Fishery Access & Gear Modification	Offshore Wind Submarine Cabling Overview	Tetra Tech	NYSERDA
Ex-246	Fishery Access & Gear Modification	Permitting and Regulatory Ecosystem for Shellfish Aquaculture and Enhancement Programs in Federal Waters	Virginia Institute of Marine Science	NOAA Sea Grant

Research Gaps Analysis Overview

In Summer 2024, ROSA and our partner, WSP, Inc., worked together to perform a "Research Gaps Analysis" using the research project and research needs data in FishFORWRD. This process included consolidating duplicative research needs in "Summarized Research Needs (SRN) and matching current and ongoing projects objectives to those SRNs, revealing how research needs and being addressed (Explored Research Needs) and highlighting which research gaps remain (Research Gaps).

Results of this Gaps Analysis were shared with the ROSA <u>Advisory Council</u> and used to inform topic area selection for ROSA's first Regional RFP titled "<u>Advancing Regional</u> <u>Solutions for Fisheries and Offshore Wind</u>" released in November 2024.

In Summer 2025, ROSA conducted a Peer Review of the Research Gaps Analysis. Reviewers included ROSA <u>Research Advisors</u> and other subject matter experts. The Peer Review assessed the methods and validated the results, specifically ensuring that SRNs accurately represented duplicative needs and that projects were correctly assigned. The final results are incorporated into the Research Gaps Analysis tab in FishFORWRD.

ROSA is preparing a final report with more in depth information, results, and discussions of peer reviewers that will become available on our website <u>here</u>.

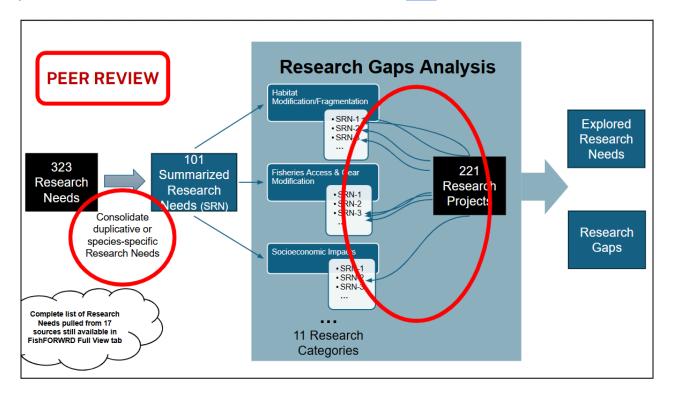


Figure 1. Visualization of methodology of the research gaps analysis and components assessed by Peer Reviewers

Using the Research Gaps Analysis Tool

The Research Gaps Analysis tab allows users to explore Summarized Research Needs by research category and filter by "Under Exploration" and "Not Addressed". Users can then view which projects are addressing a particular Summarized Research Need and how by receptor, methodology, and location.

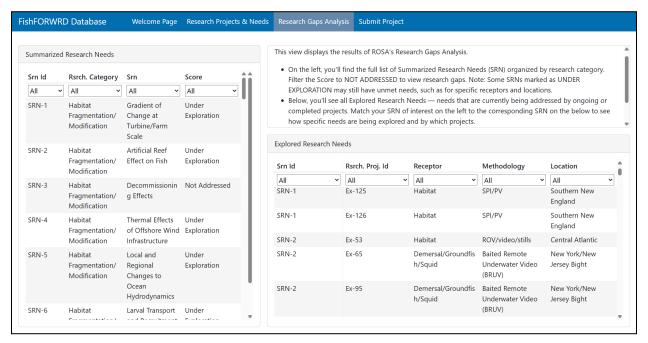


Figure 2. Screenshot of the Research Gaps Analysis Tab in FishFORWRD

- On the left, you'll find the full list of Summarized Research Needs (SRNs) organized by research category. Use the Score filter to select NOT ADDRESSED to view research gaps — SRNs with no associated projects. Filter to UNDER EXPLORATION to view SRNs with at least one project addressing them. Note: Some SRNs marked as UNDER EXPLORATION may still have unmet needs, such as for specific receptors, locations, or methods.
- 2. On the right, you'll see all Explored Research Needs individual needs that are currently being addressed by ongoing or completed projects. **Match your SRN of interest on the left to its corresponding section on the right to see how specific needs are being explored and by which projects.**
- 3. For more details on any listed project, visit the Research Projects & Needs tab.

A short video of this process can be found on our website here: https://www.rosascience.org/wp-content/uploads/2022/11/FishFORWRD-Gaps-Analysis-Tab -Overview-1.mp4

Updates to the Webtool

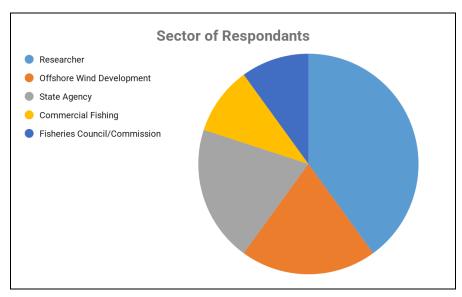
- Addition of Research Gaps Analysis Tab (see above)
- Removal of "Research Overview" to remove duplication
- Renaming of FishFORWRD Full View Tab
- Updates to Welcome Page around Research Gaps Analysis

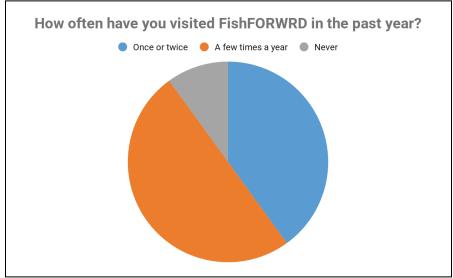
FishFORWRD now includes four main tabs:

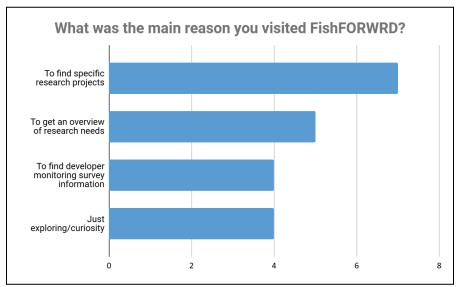
Tab	What it includes	Best for
Welcome Page	Description of FishFORWRD	
Research Projects & Needs	Full list of research projects and needs with searchable metadata	Exploring who is doing what, where, and how
Research Gaps Analysis	Summary of which SRNs are addressed vs. unaddressed, including partial gaps	Prioritization, planning, project selection, and identifying unmet needs
Submit Project	Links to submit information and additional resources	Contributing information to FishFORWRD to keep the tool up to date

Annual User Survey Results

In September 2025, ROSA released an Annual User Survey to all subscribers to ROSA's listserv and received the following feedback from. The purpose of this survey was to help ROSA understand how the offshore energy and fisheries communities use FishFORWRD and determine how we can continue to improve the tool. Responses were received across most sectors of the ROSA community (all but Federal Agency and Recreational Fishing) and respondents seem to appreciate the aggregation of information in the tool and the utility of search and filter functions. In the future, users would like to see the projects in the database connected to their results, either through expanded attributes or more detailed products like project fact sheets.







What features of FishFORWRD have been most useful to you?

"The sort/filter function and the research needs section."

"Seeing everything in one place is helping when putting all of this research/monitoring into context. This is helpful when having conversations with the public and pointing to all of the work we have done regionally. It also starts to shift the conversations about what other research needs are out there."

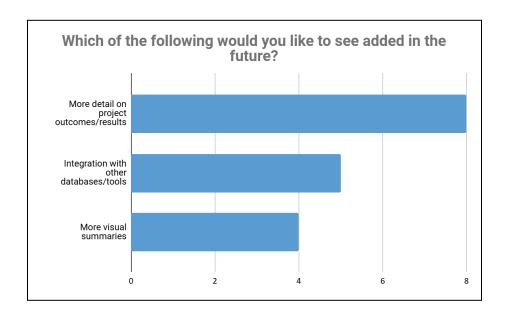
"Compiling research and monitoring efforts in one place to see what is/has been done and where there are still needs to address"

"Just being able to see research projects in one place"

"The full view and being able to sort through all the different projects."

"Browsing and familiarizing myself with everything it contains and how I can utilize it"

"The ability to sort both research projects and research needs by a variety of different fields, not just a topic area, as well as the direct links to references/proposals/reports. It is so nice to have everything in one place!"



Next Steps

ROSA will continue to update and develop the database in two ways:

- Biannual updates will occur to add new projects, research needs, and updates/corrections submitted through the forms within FishFORWRD, shared through biannual meetings of the <u>Offshore Wind Fisheries Funder Coordination</u>, or shared through other coordination activities of ROSA. New projects will be assigned to Summarized Research Needs and included in the Research Gaps Analysis.
- 2. ROSA is exploring ideas and additional funding to improve the FishFORWRD tool through integration with other databases, improving visualizations, connecting projects to data in repositories and more.

ROSA is looking for financial supporters for the continued improvement of FishFORWRD. Consider becoming a sponsor here: https://www.rosascience.org/rosa-sponsorship-sign-up/

Background

The Responsible Offshore Science Alliance (ROSA) in conjunction with WSP USA, Inc. (WSP) has developed the ROSA Fish and Fisheries OffshoRe Wind Research Database (FishFORWRD) to provide a platform for interested stakeholders to view and learn of new and existing funded research projects and stated research needs in the offshore wind fisheries space on the U.S. east coast. FishFORWRD catalogs all research, monitoring efforts, and stated research needs for offshore wind, fish, and fisheries. This database differentiates ongoing projects funded to examine offshore wind interactions from other programs that provide valuable data, but which haven't necessarily been designed to assess offshore wind impacts. The objective of FishFORWRD is to increase awareness of ongoing work, avoid duplication of efforts, and create a common understanding of research needs. This tool is meant for research funders, fisheries and offshore wind researchers, offshore wind developers, and the public.

FishFORWRD was first released on ROSA's website in 2022 as an excel sheet complete with tables of ongoing research and research needs, as well as a pivot table to provide a gaps analysis of which research needs were currently being addressed by funded projects and which research needs still remained. The associated report outlines how to use this first version of the databases and how the database was created. In an effort to make this information more accessible, ROSA and WSP have continued their partnership to 1. update the database with new research projects and research needs announced since 2022; 2. create an interactive webtool to view, filter, and download information held within FishFORWRD.

July 2024

Through mining of relevant sources, effective communication with the inaugural ROSA Offshore Wind Fisheries Funder Coordination Meeting held in May 2024, and one-on-one meetings held with each offshore wind developer, FishFORWRD v2.1.0 was released

featuring an updated list of funded research projects, each fisheries monitoring survey being conducted for each developers implemented Fisheries Monitoring Plan, and each relevant research need from 17 different published documents by federal agencies, states agencies, and public-private partnerships. Research projects are included within FishFORWRD if they are conducted within the U.S. East Coast and funded to investigate effects of offshore wind on fish and fisheries. FishFORWRD v2.1.0 shared this information on an interactive webtool that allows for filtering projects and research needs by location, receptor, methodology, funder, and more. Lastly, the webtool provides submission forms for new projects, new research needs, and any requested corrections. Please see the FishFORWRD v2.1.0 Executive Summary for information on database structure and suggested uses of FishFORWRD.

January 2025

FishFORWRD v2.1.1 release featured 54 new research projects and small updates to the webtool. Please see the <u>FishFORWRD v2.1.1 Executive Summary</u> for more information about the update.