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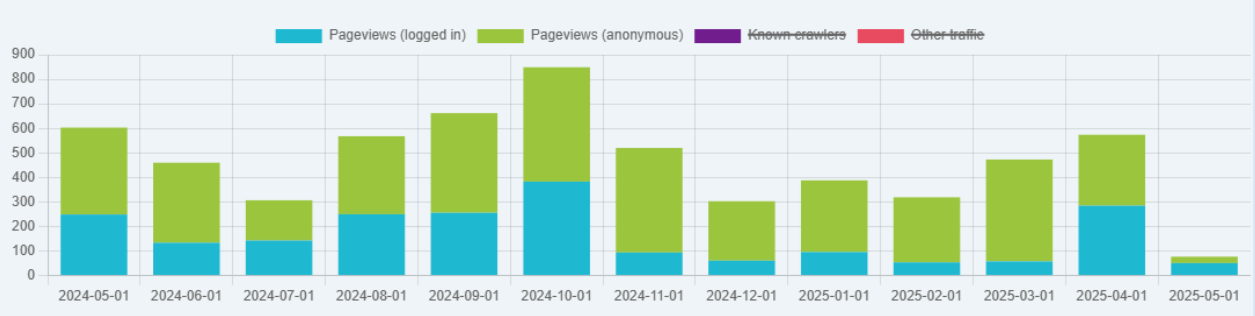
# Community Engagement Report
# OOIFB Spring Meeting

Jim Edson & Amber Coogan

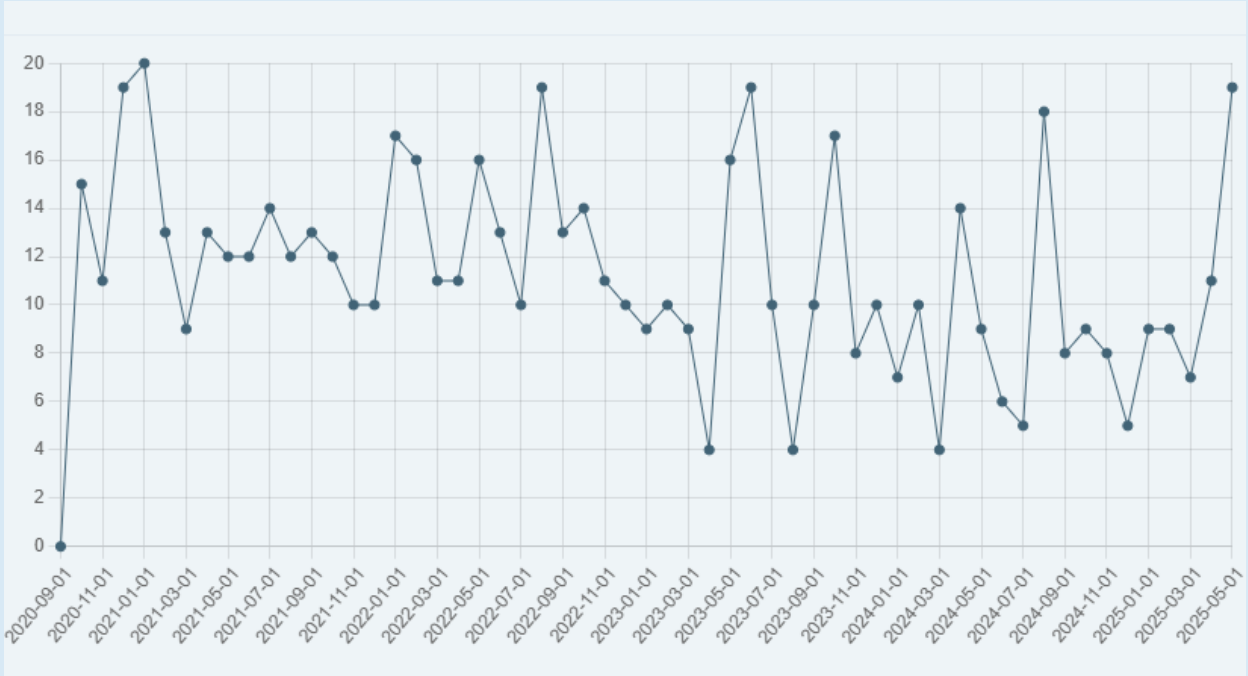
May 7, 2025

# Discourse

## Site Traffic (May 2024 – May 2025):




## DAU/MAU (Sep 2020 – May 2025):

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# Discourse

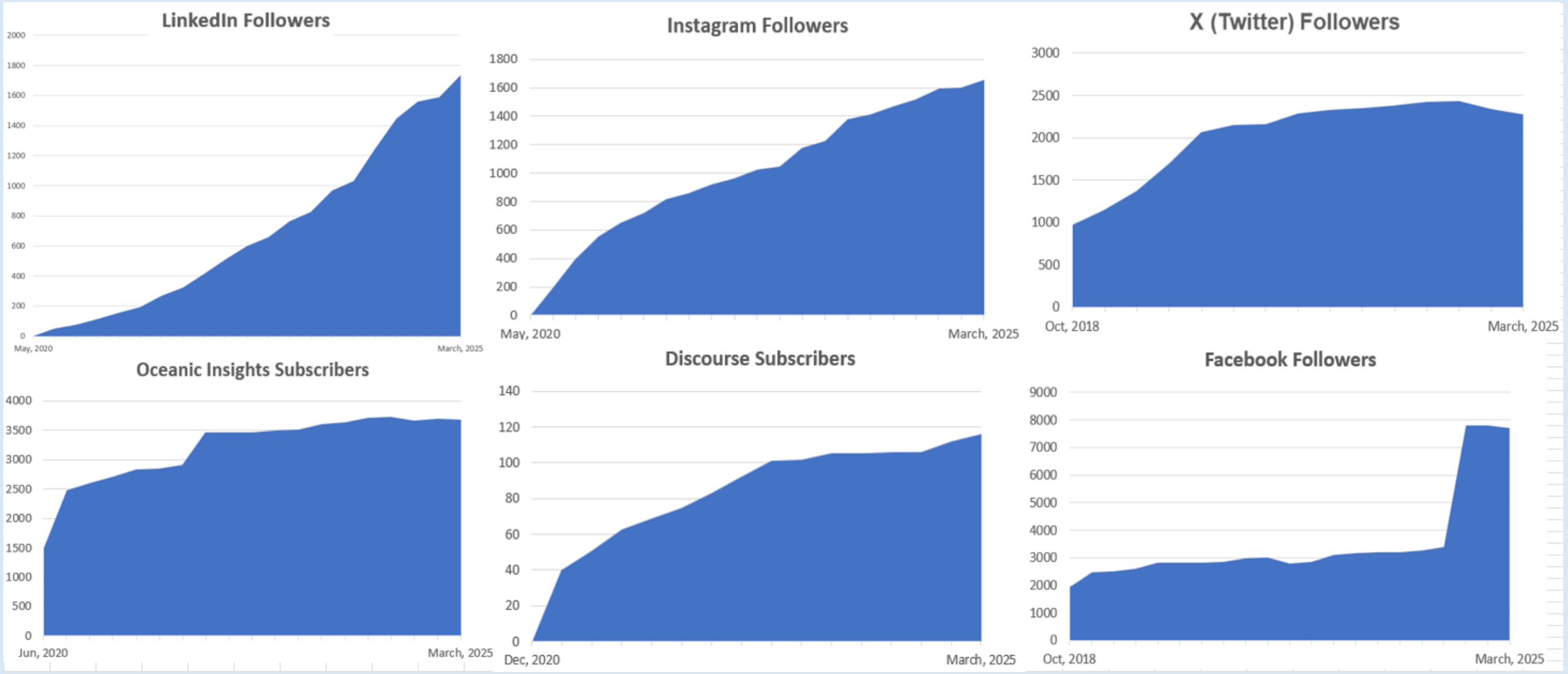
## Top Referred Topics (May 2024 – May 2025):

| Topic | Clicks |
|---|---|
| Accessing data on THREDDS OpenDAP via python (netcdf4 or xarray): Dealing with _FillV… | 140 |
| Surface Buoy - Surface Wave Spectra Information | 55 |
| Change of CSPP NUTNR CTD Variables | 38 |
| About the HelpDesk category | 34 |
| Net Momentum Flux | 30 |
| Difficulty downloading data from ERDDAP Tabledap | 29 |
| Question about IRIS pressure gauge data inconsistencies | 28 |
| Ugh miniseed format for passive acoustic data | 24 |
| How to download full Velocity profiler (ADCP) data | 24 |
| Glider data missing from IOOS Glider Dac? | 22 |

## Trending Search Terms (Sep 2020 – May 2025):

| |
|---|
| ifcb |
| cruise |
| ltfgt |
| adcp |
| imaging flowcytobot (ifcb) community foc.. |
| missing |
| array data |
| array data download |
| code examples |
| connecttimeouterror #help-desk |
| hydrophone |
| imenco |
| jupyter |
| live feed |
| quality |
| species |

# Digital Presence & Audience Reach

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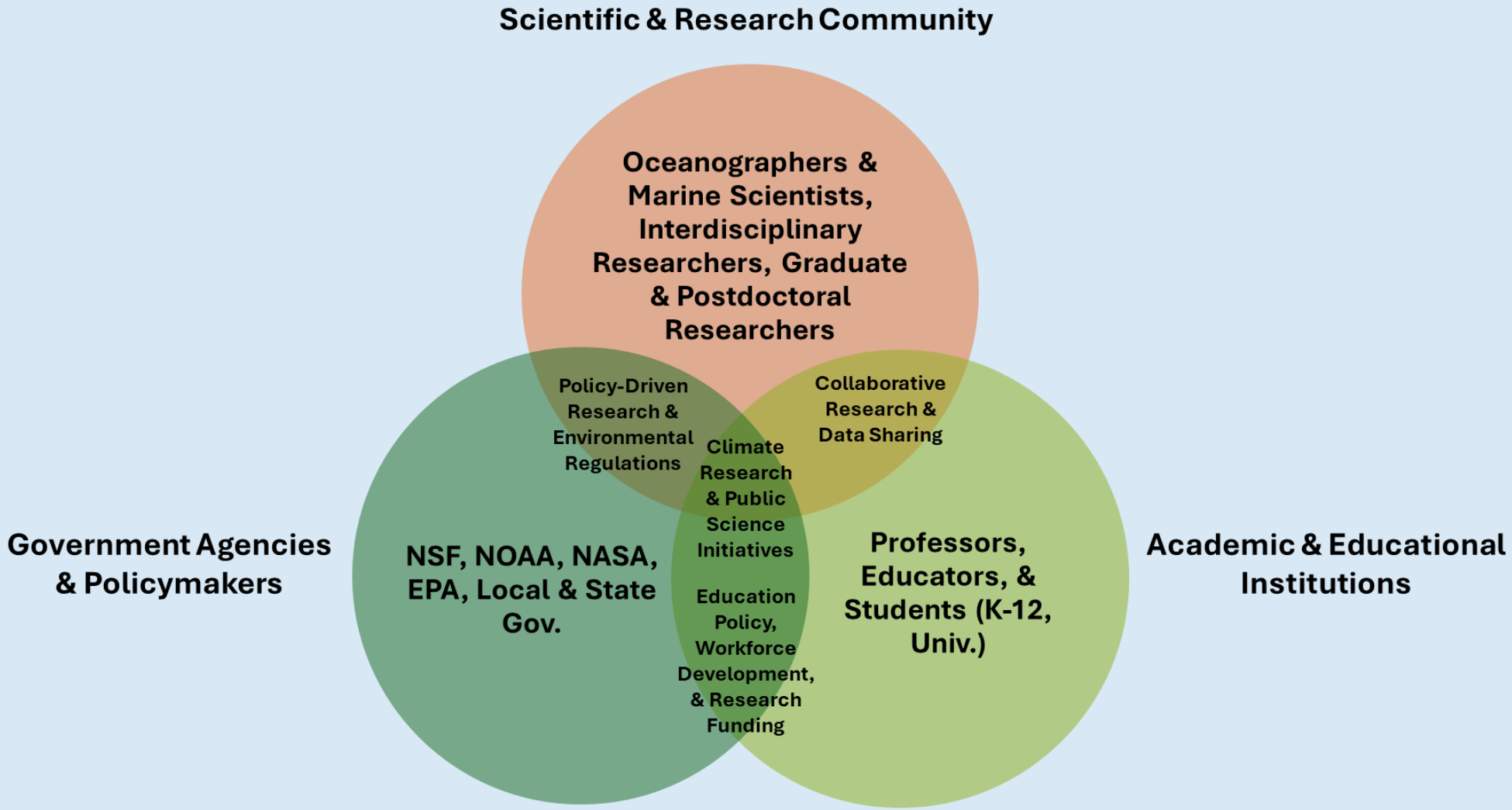
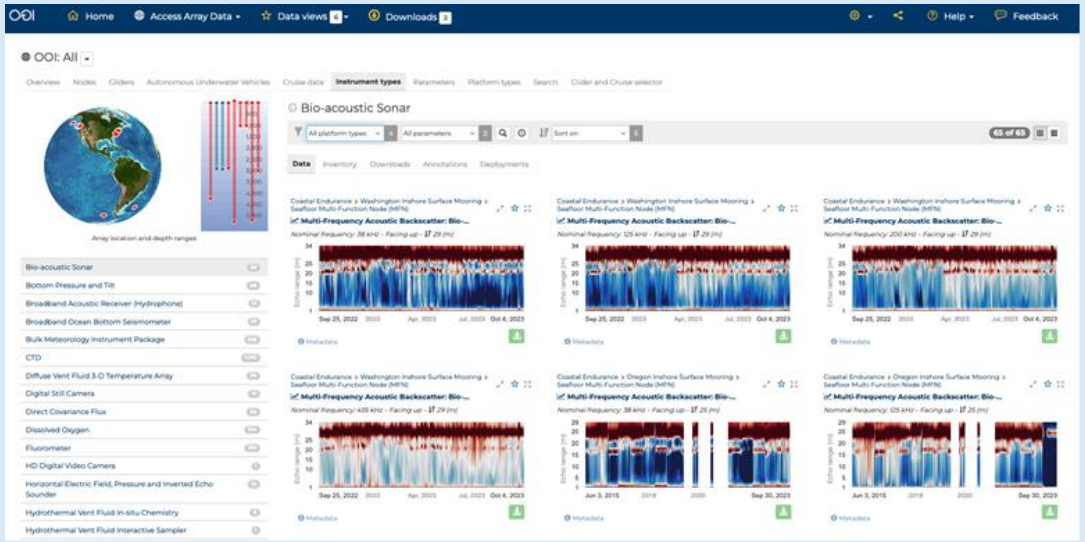
# Who is Our Audience?



# OOI Ambassador Program

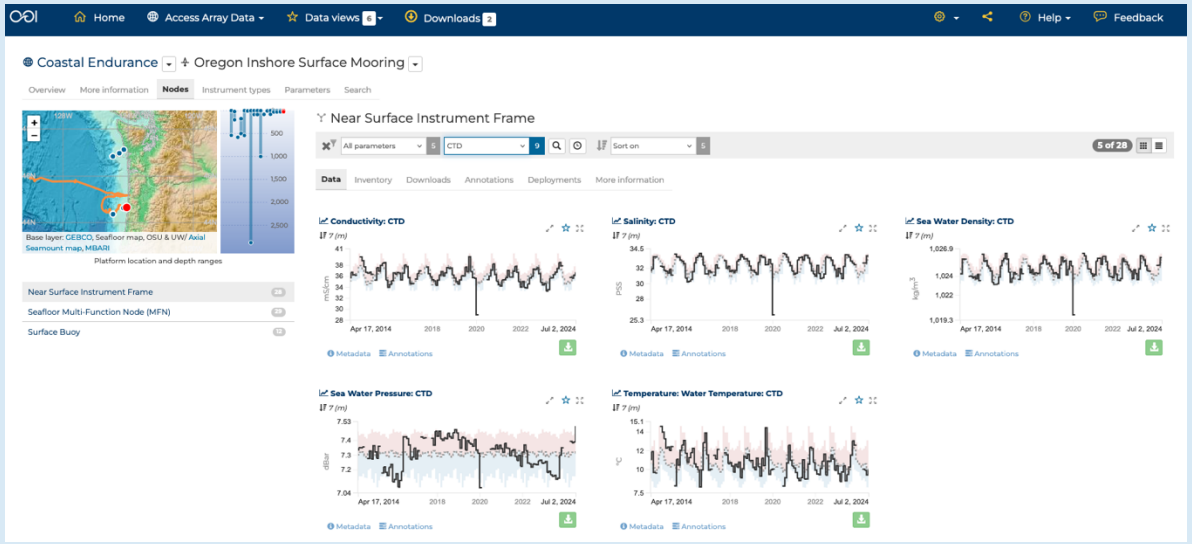
## OOI Data Ambassadors (DA's)

**OOI Data Ambassadors** are OOI-led teams connecting experienced ocean data users with the broader community to improve data accessibility and usability.




## OOI Community Ambassadors (CA's)

**OOI Community Ambassadors** are heavy OOI data users who represent the user community providing valuable insights and fostering support within their local networks.

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# OOI Data Ambassadors

## Dr. Jack Barth

**Expertise**: Dr. Jack Barth is an expert in coastal ocean dynamics, with a research focus on the spatial and temporal variability of circulation and water properties in upwelling systems. His work explores how physical processes shape marine ecosystems, particularly the formation of hypoxic (low-oxygen) zones on continental shelves. He is a recognized leader in high-resolution ocean observations, employing advanced platforms like gliders and moorings to monitor fine-scale changes in coastal environments. Dr. Barth has also played a pivotal role in the development of ocean observing systems, contributing to both their technical implementation and the dissemination of the data they produce. With a strong commitment to teaching and mentorship, he has helped shape the next generation of ocean scientists while advancing long-term monitoring strategies.

**Core Areas of Data Application:**

- Upwelling and cross-shelf transport
- Hypoxia and ecosystem impacts
- Physical-biological interactions
- Real-time monitoring and research

## Dr. Edward Dever

**Expertise**: Dr. Edward Dever brings deep expertise in coastal ocean observing systems, cross-shelf exchange, and air-sea interaction. A key contributor to the Ocean Observatories Initiative (OOI) from its inception, Dr. Dever played a central leadership role in the design, construction, and ongoing operation of the OOI infrastructure. He currently leads the Northeast Pacific Endurance Array, setting scientific priorities and overseeing deployment and recovery efforts. His research focuses on understanding physical transport processes across the continental shelf and how these processes influence ocean conditions and ecosystem dynamics.

**Core Areas of Data Application:**

- Cross-shelf exchange and transport
- Air-sea interaction
- Marine carbonate system variability
- Long-term coastal monitoring

## Dr. James Edson

**Expertise**: Dr. Edson is a marine meteorologist who studies the interaction between the ocean and atmosphere to improve marine weather forecasts. His expertise lies in boundary layer meteorology with a focus on surface layer turbulence and air-sea interaction. He has been actively involved in developing ocean observing systems such as the Martha's Vineyard Coastal Observatory (MVCO), its Air-Sea Interaction Tower (ASIT), and sensor packages for the NSF Ocean Observatories Initiative (OOI) and Tropical Pacific Observing System (TPOS). He brings extensive experience managing large-scale research programs including the Coupled Boundary Layers and Air-Sea Transfer (CBLAST) program for the Office of Naval Research. A long-time contributor to OOI, Edson served on the ORION Science & Technology Advisory Committee and chaired the OOI Program Advisory Committee from 2008 to 2013. He accepted the position of Lead PI of OOI's Program Management Office (PMO) in 2022.

**Core Areas of Data Application:**

- Air-Sea Interaction and marine atmospheric surface layer turbulence
- Parameterization of momentum, heat and mass fluxes
- Gas Exchange
- Sensor development and motion correction

## Dr. Deborah Kelley

**Expertise**: Dr. Deb Kelley is an expert in underwater cabled observatories, seafloor volcanic systems, and hydrothermal vent ecosystems. As the Director of the Regional Cabled Array (RCA)—the cabled component of the Ocean Observatories Initiative—she has led the development, deployment, and ongoing operation of nearly 900 km of high-power, high-bandwidth fiber optic cables on the Juan de Fuca tectonic plate. This infrastructure enables real-time, two-way communication with over 140 seafloor and water column instruments, supporting high-resolution studies of dynamic ocean processes. Her research explores the physical, chemical, and biological interactions among active submarine volcanoes, hydrothermal systems, and the unique ecosystems they support. She is also deeply involved in education through the VISIONS at-sea program, where she has brought more than 150 undergraduate students to sea for hands-on oceanographic research.

**Core Areas of Data Application:**

- Submarine volcanism and hydrothermal activity
- Geologic-biologic seafloor interactions
- Continuous deep-ocean observations
- Extreme environment ecosystem studies

## Dr. Albert Plueddemann

**Expertise**: Dr. Albert Plueddemann brings expertise in upper ocean physics, surface forcing, and the design and operation of ocean observing systems. He leads the Coastal Global Scale Nodes (CGSN) component of the OOI, overseeing the Global Arrays in the Irminger Sea and Station Papa, as well as the Coastal Pioneer Array at the shelf break front in the North Atlantic. Plueddemann played a key role in the design and implementation of the Pioneer Array, as well as its relocation from the New England Shelf to the Middle Atlantic Bight. His research focuses on interaction between air-sea fluxes and the ocean surface boundary layer, including both deep-water and continental shelf environments.

**Core Areas of Data Application:**

- Air-sea interaction
- Upper ocean response to surface forcing
- Surface boundary layer dynamics

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[oceanobservatories.org/ooi-data-ambassador-program/](oceanobservatories.org/ooi-data-ambassador-program/)

# OOI Community Ambassadors

## Experienced User

User of OOI's data with knowledge of datasets and tools.

## Mentor

Shares expertise to teach others to how to effectively access and utilize OOI data.

## Engage Local Community

Present seminars, make site visits, and/or organize meetings describing research and use of OOI data. Include information on data access.

## Represent OOI

Attend scientific meetings and workshops; promote OOI data use as appropriate for the venue.

# Advancing Ocean Carbon Science: OOI SUGR Meeting on Data Quality and Best Practices

**Presentations:**

- Introduction – Jim Edson, OOI/WHOI
- Ten Years of $pCO_2$ and pH Measurements on the NSF OOI Regional Cabled and Endurance Arrays: Techniques, Validation, and Science Opportunities – Ed Dever, OOI/OSU, Wendi Ruef, OOI/OSU and Chris Wingard, OOI/OSU
- Using OOI Data to Investigate Carbon Cycling in the Irminger Sea – Meg Yoder, Boston College
- OOI Biogeochemical Working Group & Data User Guide and 7 Reasons Why You Need It! – Merrie Beth Neely, Global Science & Technology
- The Pioneer MAB Array: Location and Sensors – Al Plueddemann, OOI/WHOI
- RCA Instrument Refresh – Mike Vardaro, OOI/UW
- NOAA Ocean Acidification and OOI Data – Liza Wright-Fairbanks, NOAA OAP

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# Stay Connected with the Ocean Observatories Initiative

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## 📪 Subscribe to the OOI Monthly Newsletter

- Get the latest updates, ocean data stories, and upcoming events.
- oceanobservatories.org/subscribe/

*Oceanic Insights:*

## 💬 Join the OOI Virtual Community on Discourse

- Ask questions, share insights, and explore OOI data together.
- discourse.oceanobservatories.org/

OOI Discourse:

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# Questions?

Contact me to get involved:

amber.coogan@whoi.edu