Updated: May 26, 2022



Funding for this workshop is provided by the National Science Foundation.

Monday, June 6, 2022, 5:00 - 7:00 pm PT - Workshop Check-in: Participants who are arriving on Monday can check in for the workshop from 5-7 pm. A check-in table will be in the Crystal Ballroom Foyer (adjacent to the hotel front desk)

## **Workshop Goals:**

- Enhance access to and use of ocean observatory systems in advancing our knowledge and understanding of marine systems.
- Collect feedback on user experiences with OOI, data access, data quality, etc.
- Identify users and interest groups in the ocean observing research community.

## Day 1 – Tuesday, June 7, 2022 – OSU Portland Campus Center

All plenary sessions will be held in Room 2047. Breakout rooms are as noted below.

## Goal of Day One:

- Learn about the latest status of the OOI Program, OOI assets in the NE Pacific, and OOI data access tools.
- Gain hands-on experience accessing OOI data.
- 0800 Workshop Check-in & Coffee
- 0900 Welcome and Introductions Kendra Daly, OOIFB Chair

## 0915 NSF and OOI Program Management Office (PMO) Reports

- NSF Report (15 min) Team NSF (Lisa Clough, Bob Houtman, Lindsay Martin, Arnoldo Valle-Levinson)
- OOI PMO Report (15 min) Jim Edson (OOI/WHOI)

#### 0945 **The OOI Northeast Pacific Arrays Session**

- 0945 Regional Cabled Array (20 min) Deb Kelley (UW)
- 1005 Coastal Endurance Array (20 min) Ed Dever (OSU)
- 1025 Break (20 min)
- 1045 Global Station Papa Array (20 min) Al Plueddemann (WHOI)

- **OOI Data Delivery and the Cyberinfrastructure Session** -- Jeff Glatstein (WHOI) and Anthony Koppers (OSU)
- 1145 Lunch Break
- **Science Plenary** *The Warm Blob* Andrew Leising (National Oceanic and Atmospheric Administration)
- **QA/QC Efforts focusing on pCO2, pH, Oxygen, CTD, and Acoustic Data** Chris Wingard (OSU), Wendi Ruef (UW, virtual participant), and Andrew Reed (WHOI)

#### 1405 Breakout Session #1: Demonstrations – Accessing OOI Data

Breakout Group	Room	Group Leaders
Thredds and ERDDAP	2047	Chris Wingard (OSU)
Data Explorer	2039	Craig Risien (OSU) and Stace Beaulieu (WHOI, virtual participant)
M2M	2035	Andrew Reed (WHOI) and Sage Lichtenwalner (Rutgers, virtual participant)
Raw Data Server, Camera Data, Hydrophone Data	2002	Mike Vardaro (UW) and Wendi Ruef (UW, virtual participant)

#### 1505 Break

**Breakout Session #1: Demonstrations - Accessing OOI Data** – Please note, these breakout groups are a repeat of the groups offered before the break. This will offer an opportunity to participate in two different demonstrations.

Breakout Group	Room	Group Leaders
Thredds and ERDDAP	2047	Chris Wingard (OSU)
Data Explorer	2039	Craig Risien (OSU) and Stace Beaulieu (WHOI,
		virtual participant)
M2M	2035	Andrew Reed (WHOI) and Sage Lichtenwalner
		(Rutgers, virtual participant)
Raw Data Server, Camera	2002	Mike Vardaro (UW) and Wendi Ruef (UW,
Data, Hydrophone Data		virtual participant)

- 1620 Feedback from Breakout Session #1 Discussion and feedback
- **Science Plenary** *Preparing for the next eruption of Axial Seamount* William Wilcock (University of Washington)
- **Day 1 Closing Remarks** Tommy Moore, Northwest Indian Fisheries Commission (NWIFC)

- 1740 **Poster Session, OOI Data Help Desk, and Evening Reception** The Benson Hotel, Mayfair Ballroom
- 1900 Adjourn Day 1

#### Day 2 – Wednesday, June 8, 2022 - OSU Portland Campus Center

All plenary sessions will be held in Room 2047. Breakout rooms are as noted below.

## **Goal of Day Two:**

- Learn about the full scope of NE Pacific Ocean observing assets available to researchers and educators.
- Identify what science questions can be addressed using OOI and other observatory data from NE Pacific assets and how those questions can be addressed.
- Gain insight into how ocean-observing assets in the NE Pacific region can help you answer critical science questions.
- 0830 *Coffee*
- 0900 Overview of Day 2 agenda Annette DeSilva, OOIFB Executive Secretary
- 0910 Science Plenary *Modeling with OOI Data* Chris Edwards (University of California, Santa Cruz)

#### 0940 NE Pacific Ocean Observing Assets (Non-OOI) Session

<u>Goal of this session</u> – Inform researchers about the full scope of NE Pacific Ocean observing assets available to address science questions.

- 0940 Ocean Networks Canada (ONC) Richard Dewey ONC Associate Director, Science
- 0950 NOAA Station Papa Meghan Cronin, NOAA, Pacific Marine Environmental Laboratory (virtual speaker)
- 1000 NANOOS Jan Newton, NANOOS Executive Director
- 1010 NOAA Fisheries Surveys -Andrew Leising, NOAA
- 1020 Institute of Ocean Science (IOS)/DFO & Argo Tetjana Ross, IOS (virtual speaker)
- 1030 Session Wrap-up Kendra Daly, OOIFB Chair

1035 **Break** 

## 1055 Breakout Session #2: Major Science Questions

Goal of Session:

Identify what science questions can be investigated using OOI and other observatory data from NE Pacific assets and how those questions can be addressed.

Breakout Groups.	Room	Group Leaders
Seafloor/Geophysics	2044	William Wilcock (UW) and Diana
		Garcia Silva (Queens College)
Biogeochemical fluxes (ocean	2047	Ed Dever (OSU) and Kate Hewett
acidification, nutrient cycling)		(UW)
Physical-biological interactions	2035	Maria Kavanaugh (OSU) and Melanie
(turbulence, cross-shelf exchanges,		Fewings (OSU)
optical attenuation, populations)		
Large scale climate patterns and	2002	Andrew Leising (NOAA) and Albert
processes, including the Warm Blob		Hermann (NOAA)
Ocean Acoustics	2039	Wu-Jung Lee (UW) and Benjamin
		Evans (MIT)

Breakout Groups:

## 1200 Lunch

1315 **Report out from Breakout Session #2** – A leader from each group will provide a summary report (about 5 minutes each).

## 1345 Instruments and Opportunities using the OOI infrastructure:

- Program technology developments: UV bio-fouling mitigation, Dissolved oxygen/gliders Chris Wingard (OSU)
- RCA Shallow Profilers Finding Singularities in the Upper Ocean Eric McRae (UW)
- A community test of distributed acoustic sensing on the OOI RCA William Wilcock (UW)
- 1420 Plenary A New Reign of Ocean Discovery: Cloud-Based Data Access and Exploration - Don Setiawan (University of Washington)
- 1450 **Break**

## 1510 Breakout Session #3: Geographic Region

<u>Goal of Session</u> – Gain insight into how ocean-observing assets in the NE Pacific region can help you answer critical science questions.

Note - The region is trans-boundary and extends from Station Papa to British Columbia and southward in the California Current.

Breakout Groups:

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Breakout Group	Room	Group Leaders
Axial and Ridges	2002	Bill Chadwick (OSU) and Meethila Rahman
		(Queens College)
Shelf to Slope Base, including	2047	Jack Barth (OSU) and Thomas Connolly
hypoxia and fisheries		(MLML)
Open Ocean and Station Papa	2039	Tetjana Ross (IOS/Fisheries and Oceans
-		Canada) and Jim Edson (OOI PMO/WHOI)

- 1615 **Report out from Breakout Session #3 -** A leader from each group will provide a summary report (about 10 minutes each).
- 1645 Day 2 Closing Remarks Dax Soule, Queens College City University of New York
- 1730 **Poster Session, OOI Data Help Desk, and Evening Reception** The Benson Hotel, Mayfair Ballroom
- 1900 Workshop Dinner The Benson Hotel, Mayfair Ballroom

## Day 3 – Thursday, June 9, 2022 – OSU Portland Campus Center

All plenary sessions will be held in Room 2047. Breakout rooms are as noted below.

## Goals of Day Three:

- Identify ways to better serve data to OOI modeling applications.
- Expand broader impacts using OOI data.
- Collect community feedback on the OOI program.
- Leave with everyone seeing a path forward to use the long-term sustained NE Pacific Ocean observing assets to answer critical science questions.

## 0830 Coffee

- 0900 Overview of the Day 3 Agenda Kendra Daly, OOIFB Chair
- 0915 Plenary Session OOI Modeling Applications, a panel discussion Panelists will include:
  - Albert Hermann (NOAA)
  - Alexander Kurapov (NOAA)
  - Guangyu Xu (UW)

#### 1015 Break

1030 Plenary - *Developing Undergraduates' Scientific Reasoning with OOI Data Visualizations* – Kathy Browne (Rider University)

#### 1100 Community Building and Broadening Your Impact using OOI Data

**Introduction** – Session Goals and Objectives (5 min) - Annette DeSilva, OOIFB Executive Secretary

#### Goals of Session:

- Learn how to identify and build meaningful partnerships
- Inspire ways of engaging undergraduate and graduate students

**Building Effective Partnerships -** Janice McDonnell, Rutgers University (virtual speaker) (10 min)

**Perspectives on using Observatory Data in Education and Partnership Programs -**Lightning Talks of 2-3 minutes each:

- High School Student Artash Nath
- Graduate Student Lottie Gonzalez (UW Alumnus)
- Educator Cheryl Greengrove (UW Tacoma)
- ONC Community Science Richard Dewey (ONC)

**Breakout Session #4:** Apply what we have learned and brainstorm ideas that will drive innovative broader impacts work that benefits society (60 min)

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Breakout Group	Room	Group Leaders
Education	2047	Dwight Owens (ONC) and Dax Soule
		(CUNY - Queens College)
Education	2002	Tamara Barriquand (Cal Poly Humboldt)
		and Meng Xia (University of Maryland
		Eastern Shore)
Community Science	2044	Jesse Hutchinson (ONC) and Valentina
-		Staneva (UW)
Partnerships	2039	Tommy Moore (NWIFC) and Darlene Trew
		Crist (OOI/WHOI)

# Breakout Groups:

#### 1230 *Lunch*

- 1330 **Report out from Breakout Session #4 -** A leader from each group will provide a summary report (about 7 minutes each).
- 1400 **Plenary OOI Feedback Session** Workshop participants will have an opportunity to share their feedback and suggestions about the OOI System and Program. Session leaders Ed Dever (OSU), Deb Kelley (UW), and Al Plueddemann (WHOI)
- 1430 **Break**
- 1445 **Plenary Looking Forward -** Session Leaders: Jim Edson (OOI PMO/WHOI) and Darlene Trew Crist (OOI/WHOI)
- 1515 Concluding Remarks and Wrap-Up Kendra Daly, OOIFB Chair
- 1530 Adjourn

#### June 10, 2022: Friday, 0830 to 1230 OSU Portland Center, Pioneer Event Room (2002)

- 0800 *Coffee*
- 0830 **Q&A Session on OOI Data Delivery with focus on the Data Explorer System -**Session leaders - Stace Beaulieu (WHOI, virtual participant), Andrew Reed (WHOI), Wendi Ruef (UW, virtual participant), Mike Vardaro (UW), and Chris Wingard (OSU)