*Last modified: June 13, 2025*

***Agenda Outline***

OOIFB Imaging FlowCytobot (IFCB) Focus Group
June 18-20, 2025
University of North Carolina-Wilmington
Center for Marine Science
Marbionic Building, Rooms 1001 B and C

***Zoom log-in will be provided to participants in advance**
**(virtual connectivity only available on 6/18 and 6/20/2025)**

***Focus Group Objectives:***

- **Highlight the capabilities of Imaging FlowCytobot**, its data interfaces, and research that has been completed using this tool.
- **Review OOI-IFCB data workflows.** Introduce participants to the "on ramp" for OOI-IFCB data processes (start to finish, how an individual can access, visualize, and download data).
- **Explore OOI-IFCB data** via use-case scenarios that show what does and does not work with OOI-IFCB data products.
- **Build a community of knowledge**. Facilitate roundtable discussions between participants and OOI program managers about (IFCB) community expectations for data and potential uses, as well as OOI expectations for the IFCB community.

**Day 1: Wednesday, June 18, 2025**

**0755** **Shuttle departs SpringHill Suites** for UNCW Center for Marine Science

0815 Coffee/Check In

0900 UNC-Wilmington Welcome (Christian Briseno-Avena)

0905 Introductions/Icebreakers (Dax Soule, OOIFB Chair)

0920 IFCB Technical Overview (Melissa Carter)

0950 IFCB Raw Data >> Data Products/Workflow (Stace Beaulieu)

1020 *BREAK*

1035 IFCB Dashboard Orientation and Demonstration (Heidi Sosik)

1115 IFCB Research Presentation I (Kasia Kenitz)
*An Early Warning System for Harmful Algal Bloom Events in California*
An overview of the CA IFCB Network, highlighting some research links to data generated

1140 IFCB Research Presentation II (Megan Ladds)
*Novel use of the IFCB to explore Dinophysis bloom dynamics*
Benchtop use of the IFCB for experiments and bloom monitoring and use of a feature to determine *Dinophysis* grazing

1205 *LUNCH (provided on site at the Center for Marine Science)*

1305 IFCB Research Presentation III (Antonietta Quigg)
*Galveston IFCB: A decade of service (from land to sea)*
Review of work with/for TX state agencies, the community, and students (training)

1330 OOI Program Introduction (Jim Edson, virtual)

1345 Pioneer MAB Array Overview (Al Plueddemann)
> IFCB deployment location, sampling configuration, other available data

1405 *BREAK*

1415 NSF OOI Data Delivery Primer and QA/QC Overview (Stace Beaulieu)
> Introduction and high level overview of NSF OOI data delivery methods
> How does the NSF OOI Program handle data QA/QC?
> Overview of all the entry points for OOI's IFCB data

1450 NSF OOI Data Access Demonstrations [hands-on working session] (Stace Beaulieu)

1545 Day 2 Primer/Preview (Heidi Sosik/Stace Beaulieu)

1555 Questions/Open Discussion

1610 Closing Remarks- Dax Soule, OOIFB Chair

1615 UNC Center for Marine Science Facility Tours (two groups)

**1715 Shuttle departs UNC Center for Marine Science**- to Springhill Suites

**1755 Shuttle departs Springhill Suites** for Front Street Brewery (downtown Wilmington)

1830 Group Dinner at the Taproom at the Front Street Brewery (shuttle available for group return to hotel, ~9:30pm)

**<u>Thursday, June 19, 2025</u>**

**0800 Shuttle departs SpringHill Suites** for UNCW Center for Marine Science

0830 Coffee and Refreshments

0900 Welcome and Day 2 Overview (Dax Soule)

0910 IFCB Research Presentation IV (Patrick Daniel)
*Two Perspectives on Phytoplankton Dynamics in Monterey Bay*
A description of observed phytoplankton community response to a collection of upwelling events, and preliminary results estimating growth and division rates in *Prorocentrum gracile* using a size-structured Matrix Population Model and a trained binary classifier that looks for cells in mid division.

0930 JupyterHub Demonstration (Patrick Daniel and Stace Beaulieu)
>> How to train a model, run inference on data, and run clustering on data using the OOI JupyterHub. Git Hub:
https://github.com/oceanobservatories-community/2025-Imaging-FlowCytobot-Workshop

0945 Introduction to Hands-On Data Exercises (Heidi Sosik and Stace Beaulieu)
>> Overview and motivation for today's data exercises

1000 BREAK

1015 OOI-IFCB Hands-on Data Exercise I: Image Level

1200 *LUNCH (provided on site at the Center for Marine Science)*

1300 Group Photo

1310 OOI-IFCB Hands-on Data Exercise II: Sample Level

1430 *BREAK*

1445 OOI-IFCB Hands-on Data Exercise III: Time-Series Level

1600 Group Discussions (related to data exercises)

1620 Brainstorming Session/Networking

1640 Closing Remarks/Adjourn (Dax Soule)

**1700** **Shuttle departs UNC Center for Marine Science**- to Springhill Suites

1815 Dinner: True Blue Butcher and Table (right next to the hotel)
>> no group reservation; individuals to pay on their own (or can opt to grab dinner elsewhere if they'd like)

**Friday, June 20, 2025**

**0800** **Shuttle departs SpringHill Suites** for UNCW Center for Marine Science

0830 Coffee and Refreshments

0900 Day 3 Intro and Overview (Dax Soule, OOIFB Chair)

0910 IFCB Community x NSF OOI Roundtable I: OOI Expectations (Al Plueddemann, Dax Soule)

0930 IFCB Community x NSF OOI Roundtable II: Community Expectations (Janet Nye, Christian Briseno-Avena, Maria Kavanaugh, Melissa Carter)

1030 *BREAK*

1045 Brainstorming Session/Networking
Goal: Define next steps (what happens next scientifically, etc.)

1130 Concluding Remarks and Wrap-Up
Exit Survey

1145 Event Adjourn

**1215** **Shuttle departs UNC Center for Marine Science**- to Springhill Suites