**Kelly Bonnville-Sexton**

Department of Geography

University of Oregon

[kbonnvil@uoregon.edu](mailto:kbonnvil@uoregon.edu)

**Education**

**MSc in Geography, University of Oregon**

Advisor: Sarah Cooley. Thesis: *Evaluating the Capabilities of ICEYE and Capella Space X-band Satellites for High Resolution Wetland Observations Across Diverse Climate Zones*

Expected 2025

**BSc in Marine Biology and Spatial Data Science and Technology, University of Oregon**

Magna cum Laudeand Departmental Honors. Dean’s List Spring 2021- Spring 2023

2023

**Associate of Science, Associate of General Studies, and Associate of Arts Oregon Transfer, Lane Community College**

Awarded with Honors. President’s List Spring 2020, Summer 2020, and Fall 2020

2020

**Awards and Honors**

2022 **OIMB Alumni Association Scholarship** (three-time recipient)

2022 **Laura Bickerstaff Scholarship** (two-time recipient)

2022 **Robert Terwilliger Scholarship**

**Research Experience**

**Cryo-Hydro Lab of Earth Observation, University of Oregon**

X-band SAR data utility for wetland observation. River discharge effects on landfast sea ice.

2023

**Deep-Sea Research Expedition on R/V** **Atlantis**.

Deployment and recovery of CTD and Multiple Opening and Closing Net Environmental Sampling System (MOCNESS). Identification and sorting of larvae morphologically. Analysis of high-resolution video recorded from HOV Alvin dives.

2022

2022

**Maslakova Lab, Oregon Institute of Marine Biology**

Performed DNA extractions, gel electrophoresis, and PCR. Analyzed DNA sequencing data using Geneious Prime.

2022

**Von Dassow Lab, Oregon Institute of Marine Biology**

Utilized high-speed video microscopy to capture larval motion. Collected, sorted, and identified planktonic larvae.

**Galloway Lab, Oregon Institute of Marine Biology**

Led the creation of a species distribution model for Red Abalone along the Oregon coast. Compiled biological and location data, utilizing ArcGIS Pro and MaxEnt for model creation.

2022

**Young Lab, Oregon Institute of Marine Biology**

Dissected pyrosomes to count individual zooids. Sorted and identified deep-sea plankton samples. Maintained live and dead larval samples. Analyzed ROV video for methane seep size quantification.

2022

**Fieldwork**

**Petersville, Alaska** – Performed UAV, WSE, and PT surveys of multiple lakes and rivers in Petersville, Talkeetna, and Palmer to validate Capella Space and ICEYE X-band analyses. Funded by NASA CSDA Grant.

August 2023

**Willamette River, Oregon** – Performed UAV survey of the Willamette River to validate Capella Space and ICEYE X-band analyses. Funded by NASA CSDA Grant.

July 2023

April 2023

**Willamette River, Oregon** – Participant in NASA SWOT calibration and validation test campaign measuring water survey elevation, slope and discharge on the Willamette River. Funded by NASA.

**Selected Presentations**

**Bonnville-Sexton, K**., Cooley, S.W. and Fayne,J., Wetland Delineation using X-Band SAR Data, University of Oregon Graduate Research Forum, Eugene, OR.

2023

**Bonnville-Sexton, K**., Cooley, S.W. and Fayne,J., Evaluating the Capabilities of ICEYE and Capella Space X-band Satellites for High Resolution Wetland Observations, American Geophysical Union 2025 Annual Meeting, Washington D.C.

2024

**Publications**

**Bonnville-Sexton, K**. (In Press). Heteropolypus ritteri In: Oregon Shelf Invertebrates. C.Q. Plowman and C.M. Young (eds.). Oregon Institute of Marine Biology, Charleston, OR.

In Press